

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Form C-104
Revised August 1, 2011

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address Enduring Resources IV LLC. 200 Energy Court Farmington NM 87401		² OGRID Number 372286	
		³ Reason for Filing Code/ Effective Date NW	
⁴ API Number 30-045-38284	⁵ Pool Name LYBROOK MANCOS W		⁶ Pool Code 98157
⁷ Property Code 332891	⁸ Property Name GREATER LYBROOK UNIT		⁹ Well Number #049H

II. ¹⁰ Surface Location

Ul or lot no. M	Section 23	Township 23N	Range 9W	Lot Idn	Feet from the 404'	North/South Line SOUTH	Feet from the 670'	East/West line WEST	County SAN JUAN
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¹¹ Bottom Hole Location

UL or lot no. P	Section 26	Township 23N	Range 9W	Lot Idn	Feet from the 192'	North/South line South	Feet from the 95'	East/West line EAST	County SAN JUAN
¹² Lse Code F	¹³ Producing Method Code		¹⁴ Gas Connection Date 7/23/2023		¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date		¹⁷ C-129 Expiration Date	

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
248440	WESTERN REFINING COMPANY, LLC165	O
373888	HARVEST FOUR CORNERS. LLC	G

IV. Well Completion Data

²¹ Spud Date 3/3/2023	²² Ready Date 7/23/2023	²³ TD 11165' MD 4215' TVD	²⁴ PBTD 11,104.9' MD 4219' TVD	²⁵ Perforations ~ 4560' - 11105' MD ~ 4209' -4219' TVD	²⁶ DHC, MC R-22081
²⁷ Hole Size		²⁸ Casing & Tubing Size		²⁹ Depth Set	³⁰ Sacks Cement
17-1/2"		13-3/8",54.5#, J-55		364.71' MD	352 sx - surface
12-1/4"		9-5/8",36#, J-55		2,647.80' MD	656 sx- surface
8-1/2"		5-1/2",17#, P-110		11,165' MD	2,055 sx- surface
8-1/2"		2-7/8",6.5#, J-55		4,692.4'	NA

V. Well Test Data

³¹ Date New Oil 7/23/23	³² Gas Delivery Date 7/23/23	³³ Test Date 7/23/23	³⁴ Test Length 24 hr	³⁵ Tbg. Pressure 227	³⁶ Csg. Pressure 797
³⁷ Choke Size 64/64"	³⁸ Oil 20	³⁹ Water 0	⁴⁰ Gas 758		⁴¹ Test Method F

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: 	OIL CONSERVATION DIVISION Approved by: <i>PATRICIA MARTINEZ</i>
Printed name: Kayla White	Title: <i>PETROLEUM SPECIALIST</i>
Title: Environmental Engineer	Approval Date: <i>10/12/2023</i>
E-mail Address: kwhite@enduringresources.com	
Date: 8/19/2023	Phone: 720-768-3575



ENDURING RESOURCES IV LLC

September 6, 2023

Re: GREATER LYBROOK UNIT 049H-30-045-38284

Pursuant to NMOCD rule 19.15.7.16(C) request is herein made to keep all data and accompanying attachments contained in form C-105 confidential.

Sincerely,

A handwritten signature in blue ink, appearing to read "Heather Huntington".

Heather Huntington
Permitting Technician
Enduring Resources, LLC.
hhuntington@enduringresources.com

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION 1220 South St. Francis Drive Santa Fe, NM 87505

☐ AMENDED REPORT

AS-DRILLED WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-38284	² Pool Code 98157	³ Pool Name LYBROOK MANCOS W
⁴ Property Code 332891	⁵ Property Name GREATER LYBROOK UNIT	⁶ Well Number 049H
⁷ GRID No. 372286	⁸ Operator Name ENDURING RESOURCES, LLC	⁹ Elevation 6747'

¹⁰ Surface Location

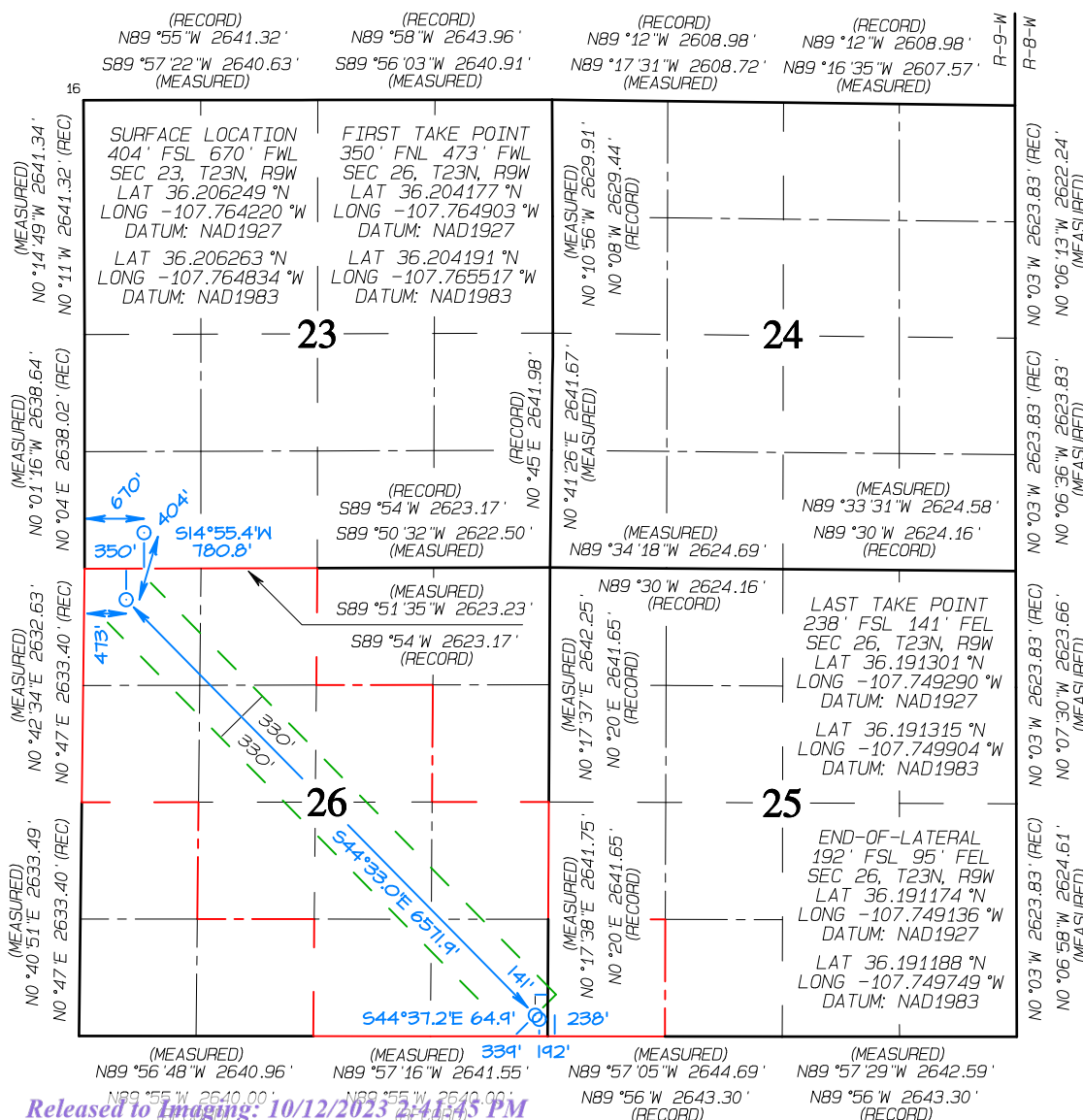
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	23	23N	9W		404	SOUTH	670	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	26	23N	9W		192	SOUTH	95	EAST	SAN JUAN

¹² Dedicated Acres 440.0	SW/4 SW/4 - Section 25 NW/4, SW/4 NE/4 NE/4 SW/4, SE/4- Section 26	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-22081
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION
UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A
NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

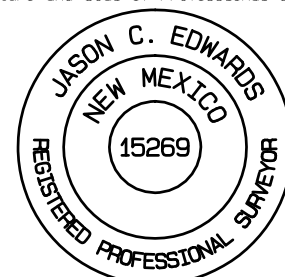
Signature: Heather Huntington Date: 5/31/23
 Printed Name: Heather Huntington
 E-mail Address: hhuntington@enduringresources.com

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Revised: MAY 30, 2023
 Date of Survey: MAY 20, 2021

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
 Certificate Number 15269



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Reference	Surveys Original Hole		
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
Interpolation Method:	MD Interval 100.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,317.50ft	Error Surface:	Ellipsoid Separation
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Program	Date	5/13/2023		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
416.00	2,595.00	MWD int (Original Hole)	MWD	OWSG MWD - Standard
2,694.00	11,086.00	MWD (Original Hole)	MWD	OWSG MWD - Standard
11,175.00	11,175.00	Projection (Original Hole)	MWD	OWSG 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						
Greater Lybrook Pad (48,49,50,51 & 52)						
Greater Lybrook Unit No. 048H - Original Hole - MWD su	550.48	550.46	19.71	17.35	8.336	CC
Greater Lybrook Unit No. 048H - Original Hole - MWD su	800.00	799.87	20.65	16.50	4.979	ES
Greater Lybrook Unit No. 048H - Original Hole - MWD su	900.00	899.56	21.39	16.54	4.405	SF
Greater Lybrook Unit No. 048H - Original Hole - rev2	1,000.57	1,000.53	19.23	13.09	3.130	CC, ES
Greater Lybrook Unit No. 048H - Original Hole - rev2	11,175.00	11,736.37	729.01	474.90	2.869	SF
Greater Lybrook Unit No. 049H - Original Hole - rev4	2,900.00	2,899.95	1.18	-0.07	0.947	Level 1<1.00, CC
Greater Lybrook Unit No. 049H - Original Hole - rev4	6,800.00	6,863.47	4.43	-9.03	0.329	Level 1<1.00, ES
Greater Lybrook Unit No. 049H - Original Hole - rev4	6,886.78	6,950.23	3.84	-8.95	0.300	Level 1<1.00, SF
Greater Lybrook Unit No. 050H - Original Hole - Surveys	0.00	0.00	19.95			
Greater Lybrook Unit No. 050H - Original Hole - Surveys	200.00	199.93	20.37	19.72	31.305	ES
Greater Lybrook Unit No. 050H - Original Hole - Surveys	11,000.00	11,357.89	725.95	482.89	2.987	SF
Greater Lybrook Unit No. 051H - Original Hole - Surveys	0.00	0.00	60.12			
Greater Lybrook Unit No. 051H - Original Hole - Surveys	100.00	99.87	60.25	59.95	198.916	ES
Greater Lybrook Unit No. 051H - Original Hole - Surveys	11,175.00	11,246.07	1,231.73	910.87	3.839	SF
Greater Lybrook Unit No. 052H - Original Hole - Surveys	1,000.00	1,000.16	79.39	73.82	14.254	CC
Greater Lybrook Unit No. 052H - Original Hole - Surveys	1,300.00	1,300.14	79.61	71.97	10.421	ES
Greater Lybrook Unit No. 052H - Original Hole - Surveys	1,500.00	1,497.31	84.68	75.66	9.385	SF
Rodeo Unit 511 pad (511, 512 & 513)						
Rodeo Unit #512H - Original Hole - Surveys Original Hole	11,175.00	4,143.00	1,212.17	1,102.06	11.008	CC, ES, SF
Rodeo Unit #513H - Original Hole - Surveys Original Hole	11,175.00	4,375.00	538.19	458.26	6.733	CC, ES, SF

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

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						
W Lybrook 726 Pad (726, 728, 729, 760 & 761)						
W Lybrook Unit No. 726H - Original Hole - Surveys Origin	870.60	873.45	160.81	156.23	35.124	CC
W Lybrook Unit No. 726H - Original Hole - Surveys Origin	1,100.00	1,102.45	161.55	155.36	26.079	ES
W Lybrook Unit No. 726H - Original Hole - Surveys Origin	1,500.00	1,488.29	180.33	171.26	19.892	SF
W Lybrook Unit No. 726H - Sidetrack 01 - Surveys Sidetr	870.60	873.45	160.81	156.23	35.124	CC
W Lybrook Unit No. 726H - Sidetrack 01 - Surveys Sidetr	1,100.00	1,102.45	161.55	155.36	26.079	ES
W Lybrook Unit No. 726H - Sidetrack 01 - Surveys Sidetr	1,500.00	1,488.29	180.33	171.26	19.892	SF
W Lybrook Unit No. 728H - Original Hole - Surveys Origin	1,508.71	1,515.61	141.84	132.74	15.588	CC, ES
W Lybrook Unit No. 728H - Original Hole - Surveys Origin	1,700.00	1,701.74	151.99	141.49	14.463	SF
W Lybrook Unit No. 729H - Original Hole - Surveys Origin	1,770.95	1,778.58	31.68	20.38	2.802	CC, ES, SF
W Lybrook Unit No. 760H - Original Hole - Surveys Origin	1,768.09	1,785.60	112.65	101.61	10.206	CC, ES
W Lybrook Unit No. 760H - Original Hole - Surveys Origin	1,800.00	1,815.91	113.32	102.02	10.029	SF
W Lybrook Unit No. 761H - Original Hole - Surveys Origin	1,812.68	1,810.82	113.35	101.92	9.917	CC, ES
W Lybrook Unit No. 761H - Original Hole - Surveys Origin	4,700.00	4,351.48	234.28	199.59	6.753	SF

Offset Design: Greater Lybrook Pad (48,49,50,51 & 52) - Greater Lybrook Unit No. 048H - Original Hole - MWD surveys Original Hole												Offset Site Error: 0.00 ft	
Survey Program: 416-MWD				Rule Assigned:								Offset Well Error: 0.00 ft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			Minimum Separation (ft)
0.00	0.00	0.00	0.00	0.00	0.00	-132.44	-13.48	-14.74	19.97				
100.00	100.00	99.99	99.99	0.13	0.17	-69.59	-13.43	-14.80	19.96	19.66	0.30	65.911	
200.00	200.00	199.99	199.99	0.31	0.34	-69.49	-13.29	-14.98	19.93	19.28	0.65	30.636	
300.00	300.00	299.98	299.98	0.49	0.51	-69.32	-13.06	-15.28	19.88	18.88	1.00	19.912	
400.00	400.00	399.98	399.98	0.67	0.67	-69.09	-12.74	-15.69	19.80	18.46	1.35	14.712	
500.00	500.00	500.01	500.00	1.00	1.00	-89.21	-12.22	-16.21	19.73	17.73	2.00	9.850	
550.48	550.47	550.46	550.45	1.18	1.18	-76.28	-11.89	-16.52	19.71	17.35	2.36	8.336 CC	
600.00	600.00	599.94	599.93	1.36	1.36	-61.83	-11.61	-16.90	19.74	17.03	2.72	7.262	
700.00	699.99	699.89	699.87	1.72	1.72	-79.08	-11.30	-17.78	20.05	16.61	3.43	5.838	
800.00	799.99	799.87	799.85	2.08	2.07	-81.11	-11.26	-18.66	20.65	16.50	4.15	4.979 ES	
900.00	899.99	899.56	899.54	2.43	2.43	-45.26	-11.53	-19.60	21.39	16.54	4.86	4.405 SF	
1,000.00	999.99	998.29	998.15	2.78	2.78	-5.59	-13.25	-23.85	25.70	20.15	5.55	4.629	
1,100.00	1,099.99	1,096.24	1,095.58	3.13	3.14	-30.21	-17.09	-33.04	35.44	29.20	6.24	5.683	
1,200.00	1,199.99	1,193.28	1,191.55	3.49	3.51	-61.09	-23.60	-45.78	49.92	43.00	6.91	7.223	
1,300.00	1,299.99	1,288.88	1,285.39	3.85	3.90	-63.99	-33.76	-60.94	68.85	61.28	7.57	9.096	
1,400.00	1,399.99	1,382.71	1,376.57	4.21	4.32	-22.78	-48.06	-77.72	91.96	83.75	8.21	11.205	
1,500.00	1,499.97	1,474.58	1,464.80	4.56	4.75	-6.13	-65.71	-96.26	117.94	109.13	8.81	13.389	
1,600.00	1,599.73	1,565.77	1,551.18	4.92	5.23	-7.75	-85.25	-117.96	143.51	134.11	9.40	15.275	
1,700.00	1,698.94	1,659.59	1,638.96	5.29	5.77	-9.64	-106.14	-143.65	166.99	156.96	10.03	16.643	
1,800.00	1,797.33	1,757.78	1,730.57	5.67	6.37	-11.54	-127.78	-171.58	186.11	175.35	10.76	17.295	
1,900.00	1,894.70	1,857.37	1,823.58	6.08	6.99	-11.01	-149.36	-199.88	200.07	188.55	11.52	17.369	
2,000.00	1,991.28	1,957.49	1,917.19	6.51	7.63	-11.37	-170.70	-228.27	210.54	198.24	12.30	17.122	
2,100.00	2,087.79	2,059.82	2,013.10	6.97	8.29	-12.56	-191.84	-257.01	220.07	206.95	13.12	16.770	
2,200.00	2,184.34	2,161.33	2,108.72	7.44	8.93	-13.62	-212.01	-284.46	228.50	214.56	13.94	16.389	
2,300.00	2,280.85	2,260.39	2,202.15	7.92	9.57	-15.00	-232.19	-310.49	236.58	221.84	14.73	16.056	
2,400.00	2,377.21	2,359.85	2,295.87	8.42	10.21	-16.67	-252.66	-336.77	244.54	229.00	15.54	15.732	
2,500.00	2,473.49	2,461.20	2,391.48	8.93	10.86	-17.68	-273.35	-363.28	252.01	235.62	16.39	15.373	
2,600.00	2,569.80	2,565.87	2,490.68	9.44	11.52	-18.76	-294.00	-389.48	258.34	241.05	17.28	14.947	
2,700.00	2,666.14	2,646.00	2,566.92	9.78	12.02	-17.35	-309.24	-408.87	264.22	246.62	17.60	15.011	
2,800.00	2,762.55	2,646.00	2,566.92	9.97	12.02	-26.84	-309.24	-408.87	295.16	279.48	15.68	18.822	

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Pad (48,49,50,51 & 52) - Greater Lybrook Unit No. 048H - Original Hole - MWD surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 416-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
2,900.00	2,859.09	2,646.00	2,566.92	10.18	12.02	-27.64	-309.24	-408.87	353.83	340.24	13.59	26.038	
3,000.00	2,955.88	2,646.00	2,566.92	10.42	12.02	-27.00	-309.24	-408.87	428.58	416.52	12.05	35.552	
3,100.00	3,052.13	2,646.00	2,566.92	10.69	12.02	-25.75	-309.24	-408.87	511.02	499.98	11.04	46.290	
3,200.00	3,148.25	2,646.00	2,566.92	10.99	12.02	-25.34	-309.24	-408.87	598.55	588.14	10.41	57.498	
3,300.00	3,244.63	2,646.00	2,566.92	11.31	12.02	-25.21	-309.24	-408.87	689.67	679.63	10.04	68.692	
3,400.00	3,341.36	2,646.00	2,566.92	11.63	12.02	-25.58	-309.24	-408.87	783.26	773.43	9.83	79.664	
3,500.00	3,438.41	2,646.00	2,566.92	11.96	12.02	-24.60	-309.24	-408.87	878.51	868.79	9.73	90.329	
3,600.00	3,534.80	2,646.00	2,566.92	12.30	12.02	-11.68	-309.24	-408.87	972.87	963.28	9.60	101.389	
3,700.00	3,628.36	2,646.00	2,566.92	12.61	12.02	-6.54	-309.24	-408.87	1,064.00	1,054.53	9.47	112.349	
3,800.00	3,717.75	2,646.00	2,566.92	12.91	12.02	-4.64	-309.24	-408.87	1,151.88	1,142.46	9.42	122.257	
3,900.00	3,803.80	2,646.00	2,566.92	13.20	12.02	-4.30	-309.24	-408.87	1,238.16	1,228.66	9.50	130.304	



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
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Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Pad (48,49,50,51 & 52) - Greater Lybrook Unit No. 048H - Original Hole - rev2												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis	Highside	Rule Assigned:				Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-132.44	-13.48	-14.74	19.97				
100.00	100.00	100.00	100.00	0.13	0.13	-69.80	-13.48	-14.74	19.95	19.68	0.27	74.209	
200.00	200.00	200.00	200.00	0.31	0.49	-70.34	-13.48	-14.74	19.88	19.08	0.81	24.651	
300.00	300.00	300.00	300.00	0.49	0.85	-71.26	-13.48	-14.74	19.77	18.43	1.34	14.709	
400.00	400.00	400.00	400.00	0.67	1.21	-72.56	-13.48	-14.74	19.63	17.74	1.88	10.429	
484.58	484.57	484.57	484.57	0.95	1.51	-91.50	-13.48	-14.74	19.56	17.10	2.46	7.941	
500.00	500.00	500.00	500.00	1.00	1.57	-94.83	-13.48	-14.74	19.55	16.98	2.57	7.608	
600.00	600.00	600.00	600.00	1.36	1.93	-70.13	-13.48	-14.74	19.50	16.22	3.29	5.935	
700.00	699.99	699.99	699.99	1.72	2.29	-89.79	-13.48	-14.74	19.42	15.42	4.00	4.853	
706.10	706.09	706.09	706.09	1.74	2.31	-90.00	-13.48	-14.74	19.42	15.38	4.05	4.800	
800.00	799.99	799.99	799.99	2.08	2.64	-93.54	-13.48	-14.74	19.47	14.75	4.72	4.126	
900.00	899.99	899.99	899.99	2.43	3.00	-58.90	-13.48	-14.74	19.39	13.95	5.43	3.568	
1,000.00	999.99	999.96	999.96	2.78	3.36	-22.39	-13.48	-14.74	19.23	13.09	6.14	3.132	
1,000.57	1,000.56	1,000.53	1,000.53	2.78	3.36	-22.39	-13.48	-14.74	19.23	13.09	6.14	3.130 CC, ES	
1,100.00	1,099.99	1,098.91	1,098.86	3.13	3.69	-49.27	-15.18	-16.86	21.71	14.89	6.82	3.185	
1,200.00	1,199.99	1,197.33	1,196.97	3.49	4.02	-78.65	-20.05	-22.93	29.32	21.83	7.48	3.918	
1,300.00	1,299.99	1,294.71	1,293.50	3.85	4.37	-78.03	-27.96	-32.81	42.13	34.00	8.13	5.181	
1,400.00	1,399.99	1,390.58	1,387.80	4.21	4.72	-32.69	-38.76	-46.27	59.85	51.09	8.76	6.834	
1,500.00	1,499.97	1,484.84	1,479.55	4.56	5.10	-12.63	-52.24	-63.09	81.03	71.68	9.36	8.662	
1,600.00	1,599.73	1,578.09	1,569.17	4.92	5.51	-12.44	-68.35	-83.18	102.26	92.34	9.92	10.306	
1,700.00	1,698.94	1,670.54	1,656.67	5.29	5.97	-13.72	-87.00	-106.45	122.71	112.24	10.47	11.716	
1,800.00	1,797.33	1,766.88	1,746.66	5.67	6.48	-15.53	-108.52	-133.29	141.70	130.56	11.13	12.726	
1,900.00	1,894.70	1,865.80	1,838.98	6.08	7.04	-15.16	-130.72	-160.99	156.08	144.22	11.87	13.153	
2,000.00	1,991.28	1,965.12	1,931.68	6.51	7.63	-15.80	-153.02	-188.80	167.32	154.69	12.62	13.255	
2,100.00	2,087.79	2,064.47	2,024.41	6.97	8.24	-17.31	-175.33	-216.63	178.32	164.92	13.40	13.310	
2,200.00	2,184.34	2,163.78	2,117.11	7.44	8.86	-18.59	-197.63	-244.44	189.62	175.44	14.19	13.365	
2,300.00	2,280.85	2,263.11	2,209.81	7.92	9.50	-19.95	-219.93	-272.26	200.84	185.85	14.99	13.396	
2,400.00	2,377.21	2,362.46	2,302.54	8.42	10.14	-21.58	-242.23	-300.08	211.73	195.92	15.81	13.390	
2,500.00	2,473.49	2,461.83	2,395.29	8.93	10.79	-22.50	-264.54	-327.91	222.42	205.78	16.65	13.362	
2,600.00	2,569.80	2,561.18	2,488.02	9.44	11.45	-23.37	-286.85	-355.74	233.32	215.84	17.48	13.347	
2,700.00	2,666.14	2,660.57	2,580.79	9.78	12.12	-21.89	-309.17	-383.57	244.06	225.94	18.12	13.472	
2,800.00	2,762.55	2,759.74	2,673.35	9.97	12.79	-32.86	-331.43	-411.35	256.12	237.48	18.64	13.738	
2,900.00	2,859.09	2,858.60	2,765.62	10.18	13.46	-34.92	-353.63	-439.03	269.94	250.71	19.23	14.040	
3,000.00	2,955.88	2,957.40	2,857.84	10.42	14.13	-35.13	-375.81	-466.70	284.58	264.74	19.83	14.349	
3,100.00	3,052.13	3,056.40	2,950.24	10.69	14.81	-35.58	-398.04	-494.43	297.51	277.02	20.48	14.524	
3,200.00	3,148.25	3,155.49	3,042.73	10.99	15.49	-35.25	-420.29	-522.18	309.84	288.67	21.17	14.637	
3,300.00	3,244.63	3,254.60	3,135.23	11.31	16.17	-34.31	-442.54	-549.94	322.57	300.71	21.86	14.757	
3,400.00	3,341.36	3,353.67	3,227.70	11.63	16.85	-33.40	-464.78	-577.68	335.97	313.43	22.54	14.904	
3,500.00	3,438.41	3,452.66	3,320.09	11.96	17.54	-27.70	-487.01	-605.41	350.08	326.87	23.21	15.083	
3,600.00	3,534.80	3,551.75	3,412.58	12.30	18.23	10.73	-509.25	-633.16	358.64	334.96	23.68	15.146	
3,700.00	3,628.36	3,648.42	3,502.81	12.61	18.90	31.69	-530.96	-660.23	360.94	337.13	23.81	15.156	
3,800.00	3,717.75	3,740.80	3,589.03	12.91	19.54	47.58	-551.70	-686.10	362.38	338.53	23.85	15.191	
3,900.00	3,803.80	3,829.12	3,671.46	13.20	20.16	58.83	-571.53	-710.84	368.75	344.59	24.15	15.267	
4,000.00	3,885.98	3,912.93	3,749.69	13.51	20.75	69.54	-590.35	-734.31	382.61	357.61	25.00	15.304	
4,100.00	3,962.27	3,989.39	3,821.06	13.83	21.28	80.76	-607.51	-755.72	408.47	381.92	26.55	15.383	
4,200.00	4,031.66	4,057.22	3,884.36	14.17	21.75	87.59	-622.74	-774.72	448.62	419.97	28.65	15.659	
4,300.00	4,091.96	4,115.96	3,939.19	14.63	22.17	89.91	-635.93	-791.17	499.11	468.11	31.00	16.100	
4,400.00	4,146.16	4,169.00	3,988.69	15.25	22.54	93.82	-647.84	-806.03	557.75	524.46	33.29	16.756	
4,500.00	4,191.72	4,212.98	4,029.74	16.08	22.85	92.38	-657.71	-818.34	625.59	590.26	35.33	17.707	
4,600.00	4,223.73	4,242.51	4,092.98	17.14	24.66	111.27	-764.65	-855.69	702.55	664.91	37.63	18.668	
4,700.00	4,240.94	4,264.00	4,134.66	18.42	27.75	122.88	-1,301.49	-520.28	721.07	691.89	29.18	24.712	
4,800.00	4,246.89	4,264.00	4,134.66	19.92	28.35	122.73	-1,372.61	-450.33	715.20	683.28	31.92	22.406	

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Pad (48,49,50,51 & 52) - Greater Lybrook Unit No. 048H - Original Hole - rev2												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Rule Assigned:												Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
4,900.00	4,250.15	5,463.65	4,633.83	21.59	29.14	122.63	-1,443.83	-380.28	711.21	676.37	34.84	20.413	
5,000.00	4,251.53	5,563.61	4,633.41	23.37	30.13	122.60	-1,515.10	-310.18	708.77	670.81	37.96	18.670	
5,031.25	4,251.54	5,594.86	4,633.28	23.94	30.48	122.60	-1,537.38	-288.26	708.63	669.78	38.85	18.238	
5,100.00	4,250.78	5,663.60	4,633.00	25.23	31.30	122.58	-1,586.39	-240.06	709.58	668.76	40.82	17.385	
5,200.00	4,248.42	5,763.56	4,632.58	27.16	32.67	122.59	-1,657.65	-169.97	712.45	668.17	44.28	16.089	
5,300.00	4,245.60	5,863.50	4,632.17	29.15	34.17	122.69	-1,728.90	-99.89	715.63	668.00	47.63	15.025	
5,400.00	4,245.75	5,963.50	4,631.75	31.18	35.79	122.66	-1,800.20	-29.77	715.26	664.18	51.08	14.003	
5,432.80	4,245.62	5,996.30	4,631.61	31.86	36.35	122.66	-1,823.58	-6.77	715.20	662.98	52.22	13.696	
5,500.00	4,244.80	6,063.50	4,631.33	33.25	37.51	122.70	-1,871.49	40.35	715.40	660.87	54.53	13.119	
5,600.00	4,241.48	6,163.45	4,630.92	35.35	39.31	122.88	-1,942.75	110.44	716.91	658.99	57.92	12.378	
5,700.00	4,238.97	6,263.41	4,630.50	37.47	41.16	123.05	-2,014.01	180.53	717.79	656.44	61.35	11.701	
5,800.00	4,240.06	6,363.40	4,630.09	39.61	43.07	122.99	-2,085.30	250.64	716.35	651.40	64.95	11.029	
5,863.58	4,239.98	6,426.97	4,629.82	40.98	44.31	122.98	-2,130.62	295.23	716.10	648.87	67.23	10.651	
5,900.00	4,239.56	6,463.39	4,629.67	41.77	45.02	123.00	-2,156.59	320.76	716.18	647.66	68.52	10.452	
6,000.00	4,240.41	6,563.38	4,629.26	43.93	47.01	122.91	-2,227.87	390.87	715.29	643.11	72.17	9.911	
6,100.00	4,242.49	6,663.34	4,628.84	46.12	49.03	122.76	-2,299.14	460.97	713.91	637.99	75.93	9.403	
6,200.00	4,242.63	6,763.34	4,628.43	48.31	51.07	122.74	-2,370.43	531.09	713.45	633.88	79.58	8.966	
6,213.42	4,242.50	6,776.76	4,628.37	48.60	51.35	122.74	-2,380.00	540.50	713.45	633.39	80.06	8.912	
6,300.00	4,240.87	6,863.33	4,628.01	50.50	53.14	122.84	-2,441.72	601.21	713.93	630.81	83.12	8.590	
6,400.00	4,242.21	6,963.30	4,627.59	52.71	55.22	122.72	-2,512.99	671.31	712.83	625.97	86.86	8.207	
6,500.00	4,244.26	7,063.27	4,627.18	54.93	57.33	122.54	-2,584.26	741.41	711.92	621.23	90.69	7.850	
6,516.05	4,244.44	7,079.32	4,627.11	55.28	57.66	122.52	-2,595.71	752.66	711.90	620.60	91.30	7.797	
6,600.00	4,244.57	7,163.26	4,626.76	57.15	59.44	122.44	-2,655.55	811.52	712.43	617.97	94.46	7.542	
6,700.00	4,243.10	7,263.25	4,626.35	59.38	61.57	122.44	-2,726.83	881.64	714.03	615.93	98.11	7.278	
6,800.00	4,241.04	7,363.22	4,625.93	61.61	63.71	122.51	-2,798.10	951.74	716.22	614.49	101.73	7.040	
6,900.00	4,243.59	7,463.17	4,625.52	63.85	65.87	122.29	-2,869.36	1,021.82	714.79	609.16	105.63	6.767	
7,000.00	4,246.02	7,563.12	4,625.10	66.09	68.03	122.08	-2,940.62	1,091.91	713.87	604.30	109.57	6.515	
7,016.95	4,246.27	7,580.07	4,625.03	66.47	68.39	122.05	-2,952.70	1,103.79	713.85	603.63	110.22	6.476	
7,100.00	4,246.58	7,663.11	4,624.68	68.33	70.20	121.96	-3,011.91	1,162.03	714.33	600.94	113.39	6.300	
7,200.00	4,244.94	7,763.09	4,624.27	70.58	72.37	121.97	-3,083.19	1,232.14	716.03	598.99	117.04	6.118	
7,300.00	4,243.98	7,863.07	4,623.85	72.84	74.56	121.97	-3,154.47	1,302.24	717.58	596.82	120.76	5.942	
7,400.00	4,245.93	7,963.03	4,623.44	75.09	76.75	121.74	-3,225.73	1,372.33	717.88	593.12	124.76	5.754	
7,500.00	4,246.86	8,062.98	4,623.02	77.36	78.95	121.53	-3,296.99	1,442.42	719.57	590.81	128.76	5.589	
7,600.00	4,246.20	8,162.89	4,622.61	79.63	81.15	121.36	-3,368.22	1,512.48	723.14	590.44	132.70	5.449	
7,700.00	4,245.10	8,262.87	4,622.19	81.89	83.35	121.38	-3,439.50	1,582.59	724.32	587.94	136.38	5.311	
7,800.00	4,243.72	8,362.85	4,621.78	84.14	85.56	121.50	-3,510.78	1,652.70	723.66	583.81	139.85	5.175	
7,805.65	4,243.61	8,368.51	4,621.75	84.27	85.69	121.51	-3,514.81	1,656.66	723.66	583.61	140.04	5.167	
7,900.00	4,241.06	8,462.83	4,621.36	86.40	87.78	121.66	-3,582.05	1,722.80	724.40	581.17	143.23	5.058	
8,000.00	4,237.14	8,562.76	4,620.94	88.66	89.99	121.88	-3,653.30	1,792.88	726.58	580.06	146.53	4.959	
8,100.00	4,236.38	8,662.74	4,620.53	90.91	92.22	122.00	-3,724.58	1,862.98	725.15	575.20	149.95	4.836	
8,200.00	4,236.31	8,762.70	4,620.11	93.15	94.44	122.07	-3,795.85	1,933.08	722.81	569.44	153.37	4.713	
8,300.00	4,238.50	8,862.61	4,619.70	95.40	96.67	122.01	-3,867.07	2,003.14	718.63	561.66	156.97	4.578	
8,400.00	4,240.79	8,962.54	4,619.28	97.65	98.90	121.94	-3,938.32	2,073.21	715.10	554.45	160.65	4.451	
8,500.00	4,242.69	9,062.51	4,618.87	99.90	101.13	121.84	-4,009.59	2,143.31	712.89	548.48	164.41	4.336	
8,599.95	4,243.76	9,162.45	4,618.45	102.17	103.36	121.75	-4,080.84	2,213.39	712.11	543.93	168.18	4.234	
8,600.00	4,243.79	9,162.50	4,618.45	102.17	103.37	121.75	-4,080.87	2,213.42	712.06	543.89	168.18	4.234	
8,700.00	4,243.92	9,262.49	4,618.04	104.44	105.60	121.67	-4,152.16	2,283.54	712.60	540.68	171.92	4.145	
8,800.00	4,243.06	9,362.48	4,617.62	106.72	107.84	121.65	-4,223.45	2,353.66	713.65	538.11	175.54	4.066	
8,900.00	4,240.89	9,462.46	4,617.20	108.99	110.09	121.69	-4,294.73	2,423.76	715.76	536.75	179.01	3.998	
9,000.00	4,239.47	9,562.43	4,616.79	111.27	112.33	121.76	-4,366.00	2,493.87	716.85	534.36	182.49	3.928	
9,100.00	4,240.57	9,662.40	4,616.37	113.52	114.58	121.74	-4,437.27	2,563.96	714.32	528.30	186.02	3.840	
9,200.00	4,240.85	9,762.39	4,615.96	115.79	116.82	121.76	-4,508.56	2,634.08	712.68	523.21	189.47	3.761	

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Pad (48,49,50,51 & 52) - Greater Lybrook Unit No. 048H - Original Hole - rev2											Offset Site Error:	0.00 ft
Survey Program: 0-MWD											Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
9,290.30	4,240.00	9,852.68	4,615.58	117.83	118.85	121.82	-4,572.93	2,697.39	712.32	519.83	192.49	3.701
9,300.00	4,239.87	9,862.38	4,615.54	118.05	119.07	121.83	-4,579.85	2,704.19	712.33	519.51	192.81	3.694
9,400.00	4,237.85	9,962.37	4,615.13	120.32	121.32	121.96	-4,651.13	2,774.31	712.79	516.78	196.01	3.636
9,500.00	4,239.18	10,062.34	4,614.71	122.59	123.57	121.83	-4,722.40	2,844.41	711.58	511.86	199.73	3.563
9,600.00	4,242.35	10,162.27	4,614.30	124.86	125.82	121.60	-4,793.65	2,914.48	709.79	505.99	203.79	3.483
9,694.20	4,244.38	10,256.44	4,613.90	127.01	127.95	121.41	-4,860.78	2,980.51	709.19	501.62	207.57	3.417
9,700.00	4,244.45	10,262.24	4,613.88	127.14	128.08	121.40	-4,864.92	2,984.58	709.19	501.40	207.80	3.413
9,800.00	4,245.35	10,362.21	4,613.46	129.43	130.33	121.24	-4,936.19	3,054.68	709.91	498.20	211.71	3.353
9,900.00	4,244.68	10,462.19	4,613.05	131.71	132.59	121.16	-5,007.47	3,124.79	711.77	496.34	215.43	3.304
10,000.00	4,242.11	10,562.13	4,612.63	134.00	134.85	121.15	-5,078.72	3,194.87	715.34	496.42	218.92	3.268
10,100.00	4,238.56	10,662.01	4,612.22	136.29	137.10	121.25	-5,149.93	3,264.91	719.89	497.58	222.31	3.238
10,200.00	4,237.62	10,762.01	4,611.80	138.58	139.36	121.29	-5,221.22	3,335.03	720.46	494.73	225.72	3.192
10,300.00	4,235.83	10,861.99	4,611.39	140.86	141.62	121.32	-5,292.50	3,405.14	722.03	492.97	229.06	3.152
10,400.00	4,233.93	10,961.97	4,610.97	143.14	143.88	121.39	-5,363.78	3,475.24	723.81	491.42	232.39	3.115
10,500.00	4,235.79	11,061.94	4,610.56	145.42	146.14	121.23	-5,435.05	3,545.35	722.84	486.58	236.27	3.059
10,576.82	4,236.85	11,138.74	4,610.24	147.17	147.88	121.12	-5,489.81	3,599.20	722.52	483.31	239.22	3.020
10,600.00	4,237.14	11,161.92	4,610.14	147.70	148.41	121.08	-5,506.33	3,615.45	722.49	482.38	240.11	3.009
10,700.00	4,236.54	11,261.91	4,609.72	149.98	150.67	121.05	-5,577.62	3,685.57	723.43	479.80	243.64	2.969
10,800.00	4,234.34	11,361.88	4,609.31	152.25	152.93	121.27	-5,648.89	3,755.67	723.49	476.97	246.52	2.935
10,900.00	4,230.82	11,461.79	4,608.89	154.51	155.20	121.58	-5,720.12	3,825.73	722.59	473.81	248.78	2.905
10,900.11	4,230.82	11,461.90	4,608.89	154.51	155.20	121.58	-5,720.20	3,825.81	722.59	473.81	248.78	2.904
11,000.00	4,226.15	11,561.69	4,608.48	156.78	157.46	121.89	-5,791.34	3,895.78	723.52	472.53	250.99	2.883
11,100.00	4,219.99	11,661.52	4,608.06	158.96	159.72	122.24	-5,862.51	3,965.78	726.34	473.33	253.01	2.871
11,175.00	4,214.90	11,736.37	4,607.75	160.18	161.42	122.55	-5,915.88	4,018.26	729.01	474.90	254.10	2.869 SF

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Pad (48,49,50,51 & 52) - Greater Lybrook Unit No. 049H - Original Hole - rev4													Offset Site Error:	0.00 ft
Survey Program: 416-MWD, 2595-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Rule Assigned:		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
2,595.00	2,564.98	2,595.00	2,564.99	0.00	0.00	141.44	-114.01	-220.06	0.03					
2,600.00	2,569.80	2,600.00	2,569.80	0.03	0.03	87.98	-114.62	-221.25	0.00	0.00	0.01	0.338	Level 1<1.00	
2,700.00	2,666.14	2,699.99	2,666.13	0.38	0.57	90.04	-126.78	-245.16	0.79	-0.14	0.93	0.849	Level 1<1.00	
2,800.00	2,762.55	2,799.96	2,762.45	0.61	1.11	73.57	-136.80	-269.95	1.48	-0.15	1.62	0.910	Level 1<1.00	
2,871.21	2,831.29	2,871.16	2,831.06	0.80	1.49	40.45	-143.44	-287.81	1.14	-0.15	1.30	0.881	Level 1<1.00	
2,900.00	2,859.09	2,899.95	2,858.80	0.87	1.65	16.95	-146.13	-295.02	1.18	-0.07	1.25	0.947	Level 1<1.00, CC	
3,000.00	2,955.88	2,999.93	2,955.13	1.14	2.19	-11.61	-155.45	-320.10	2.85	1.03	1.82	1.568	Level 3<2.00	
3,100.00	3,052.13	3,099.92	3,051.48	1.44	2.74	-26.66	-164.78	-345.18	2.72	0.51	2.21	1.231	Level 2<1.50	
3,200.00	3,148.25	3,199.92	3,147.83	1.76	3.29	-39.91	-174.11	-370.26	2.08	-0.49	2.57	0.810	Level 1<1.00	
3,281.05	3,226.36	3,280.97	3,225.92	2.04	3.74	-27.66	-181.67	-390.58	1.86	-1.02	2.88	0.645	Level 1<1.00	
3,300.00	3,244.63	3,299.92	3,244.18	2.10	3.84	-21.50	-183.44	-395.33	1.84	-1.19	3.03	0.607	Level 1<1.00	
3,400.00	3,341.36	3,399.89	3,340.51	2.45	4.40	15.06	-192.76	-420.41	3.22	0.01	3.21	1.004	Level 2<1.50	
3,500.00	3,438.41	3,499.83	3,436.80	2.79	4.95	33.65	-202.09	-445.47	6.59	2.73	3.86	1.707	Level 3<2.00	
3,600.00	3,534.80	3,600.23	3,533.76	3.16	5.50	102.36	-213.69	-468.60	15.79	8.13	7.66	2.060		
3,700.00	3,628.36	3,702.24	3,632.35	3.56	6.01	133.37	-235.32	-482.76	30.96	21.81	9.14	3.385		
3,800.00	3,717.75	3,806.56	3,731.29	3.95	6.47	150.07	-267.88	-486.65	46.65	36.93	9.72	4.800		
3,900.00	3,803.80	3,913.73	3,828.76	4.32	6.89	158.26	-311.60	-479.39	57.44	47.59	9.84	5.834		
4,000.00	3,885.98	4,022.56	3,921.18	4.68	7.28	165.49	-365.66	-460.53	62.04	52.41	9.63	6.443		
4,100.00	3,962.27	4,131.92	4,005.28	5.01	7.64	171.75	-428.53	-430.34	62.98	53.82	9.16	6.875		
4,200.00	4,031.66	4,241.10	4,078.50	5.32	8.00	172.13	-498.39	-389.67	60.17	51.65	8.52	7.059		
4,300.00	4,091.96	4,349.32	4,138.84	5.72	8.44	171.41	-573.04	-339.91	54.65	46.81	7.85	6.965		
4,400.00	4,146.16	4,453.04	4,189.11	6.35	9.06	173.31	-646.89	-287.28	47.86	40.01	7.85	6.098		
4,500.00	4,191.72	4,559.95	4,226.42	7.28	9.98	178.86	-725.24	-225.10	35.98	28.89	7.09	5.075		
4,600.00	4,223.73	4,663.84	4,245.05	8.45	11.44	-174.06	-801.65	-157.43	21.53	14.79	6.73	3.197		
4,700.00	4,240.94	4,764.24	4,247.52	10.93	13.59	-146.67	-873.71	-87.65	7.87	3.13	4.74	1.661	Level 3<2.00	
4,753.08	4,245.13	4,817.12	4,247.39	12.15	14.72	-111.42	-911.41	-50.57	6.21	-2.97	9.18	0.676	Level 1<1.00	
4,800.00	4,246.89	4,864.00	4,247.26	13.26	15.69	-93.04	-944.83	-17.70	7.20	-2.38	9.58	0.752	Level 1<1.00	
4,900.00	4,250.15	4,963.90	4,247.00	15.52	17.77	-71.83	-1,016.06	52.35	10.07	2.38	7.69	1.309	Level 2<1.50	
5,000.00	4,251.53	5,063.87	4,246.74	17.73	19.85	-67.02	-1,087.34	122.45	12.27	4.31	7.96	1.542	Level 3<2.00	
5,100.00	4,250.78	5,163.86	4,246.48	19.92	21.93	-67.87	-1,158.63	192.57	11.40	3.21	8.19	1.392	Level 2<1.50	
5,200.00	4,248.42	5,263.82	4,246.22	22.10	24.02	-75.31	-1,229.89	262.65	8.67	-0.67	9.34	0.929	Level 1<1.00	
5,300.00	4,245.60	5,363.75	4,245.96	24.28	26.12	-93.28	-1,301.14	332.73	6.16	-4.74	10.90	0.565	Level 1<1.00	
5,382.73	4,245.12	5,446.48	4,245.74	26.08	27.86	-96.08	-1,360.12	390.73	5.83	-5.28	11.11	0.525	Level 1<1.00	
5,400.00	4,245.75	5,463.75	4,245.69	26.45	28.23	-89.45	-1,372.44	402.84	6.21	-5.40	11.62	0.535	Level 1<1.00	
5,500.00	4,244.80	5,563.75	4,245.43	28.63	30.35	-95.64	-1,443.73	472.96	6.43	-5.60	12.03	0.534	Level 1<1.00	
5,600.00	4,241.48	5,663.70	4,245.17	30.81	32.48	-119.70	-1,514.99	543.04	7.44	-2.79	10.23	0.728	Level 1<1.00	
5,700.00	4,238.97	5,763.66	4,244.91	32.99	34.63	-131.26	-1,586.26	613.13	9.01	-0.86	9.88	0.913	Level 1<1.00	
5,800.00	4,240.06	5,863.64	4,244.65	35.18	36.78	-121.44	-1,657.55	683.24	8.80	-2.29	11.10	0.793	Level 1<1.00	
5,818.07	4,240.13	5,881.71	4,244.60	35.57	37.17	-120.61	-1,670.43	695.91	8.78	-2.43	11.22	0.783	Level 1<1.00	
5,900.00	4,239.56	5,963.64	4,244.39	37.37	38.94	-121.88	-1,728.84	753.36	9.13	-2.12	11.25	0.811	Level 1<1.00	
6,000.00	4,240.41	6,063.62	4,244.12	39.57	41.11	-114.90	-1,800.13	823.47	8.82	-3.20	12.02	0.734	Level 1<1.00	
6,100.00	4,242.49	6,163.59	4,243.86	41.78	43.29	-99.70	-1,871.41	893.57	8.13	-6.36	14.49	0.561	Level 1<1.00	
6,136.35	4,242.78	6,199.94	4,243.77	42.58	44.08	-97.02	-1,897.32	919.05	8.08	-6.61	14.69	0.550	Level 1<1.00	
6,200.00	4,242.63	6,263.59	4,243.60	43.99	45.47	-96.75	-1,942.70	963.69	8.26	-6.23	14.49	0.570	Level 1<1.00	
6,300.00	4,240.87	6,363.58	4,243.34	46.21	47.66	-106.22	-2,013.99	1,033.80	8.85	-5.99	14.85	0.596	Level 1<1.00	
6,400.00	4,242.21	6,463.56	4,243.08	48.43	49.86	-95.69	-2,085.27	1,103.90	8.71	-6.79	15.50	0.562	Level 1<1.00	
6,500.00	4,244.26	6,563.53	4,242.82	50.65	52.06	-79.98	-2,156.55	1,174.00	8.30	-5.55	13.85	0.599	Level 1<1.00	
6,600.00	4,244.57	6,663.52	4,242.55	52.89	54.27	-74.20	-2,227.84	1,244.11	7.38	-6.24	13.63	0.542	Level 1<1.00	
6,700.00	4,243.10	6,763.50	4,242.29	55.13	56.48	-82.16	-2,299.12	1,314.22	5.92	-8.42	14.34	0.413	Level 1<1.00	
6,800.00	4,241.04	6,863.47	4,242.03	57.37	58.70	-102.95	-2,370.39	1,384.31	4.43	-9.03	13.46	0.329	Level 1<1.00, ES	
6,886.78	4,242.34	6,950.23	4,241.80	59.31	60.62	-81.93	-2,432.25	1,445.15	3.84	-8.95	12.79	0.300	Level 1<1.00, SF	
6,900.00	4,243.59	6,963.43	4,241.77	59.61	60.92	-66.11	-2,441.66	1,454.40	4.50	-6.77	11.28	0.399	Level 1<1.00	

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Pad (48,49,50,51 & 52) - Greater Lybrook Unit No. 049H - Original Hole - rev4												Offset Site Error:	0.00 ft
Survey Program: 416-MWD, 2595-MWD												Offset Well Error:	0.00 ft
Reference												Rule Assigned:	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
				Reference	Offset		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
7,000.00	4,246.02	7,063.39	4,241.51	61.85	63.14	-37.06	-2,512.93	1,524.49	5.66	-3.47	9.13	0.620 Level 1<1.00	
7,100.00	4,246.58	7,163.37	4,241.25	64.10	65.37	-23.02	-2,584.22	1,594.60	5.79	-3.51	9.30	0.622 Level 1<1.00	
7,200.00	4,244.94	7,263.33	4,240.79	66.35	67.59	-13.75	-2,655.48	1,664.69	4.28	-5.22	9.50	0.450 Level 1<1.00	
7,242.82	4,244.25	7,306.15	4,240.40	67.32	68.55	-5.98	-2,686.00	1,694.72	3.87	-5.68	9.55	0.405 Level 1<1.00	
7,300.00	4,243.98	7,363.31	4,239.90	68.61	69.83	6.57	-2,726.76	1,734.80	4.11	-5.38	9.49	0.433 Level 1<1.00	
7,400.00	4,245.93	7,463.25	4,239.01	70.86	72.06	18.31	-2,798.01	1,804.88	7.29	-1.16	8.45	0.862 Level 1<1.00	
7,500.00	4,246.86	7,563.19	4,238.12	73.13	74.30	30.30	-2,869.26	1,874.96	10.12	-0.36	10.48	0.966 Level 1<1.00	
7,600.00	4,246.20	7,663.11	4,237.23	75.40	76.54	45.52	-2,940.49	1,945.02	12.81	-0.85	13.66	0.938 Level 1<1.00	
7,700.00	4,245.10	7,763.09	4,236.34	77.66	78.78	49.10	-3,011.76	2,015.12	13.37	-0.81	14.18	0.943 Level 1<1.00	
7,800.00	4,243.72	7,863.08	4,235.45	79.91	81.03	46.62	-3,083.05	2,085.23	12.04	-1.46	13.50	0.892 Level 1<1.00	
7,900.00	4,241.06	7,963.06	4,234.56	82.16	83.27	51.74	-3,154.33	2,155.34	10.50	-2.97	13.46	0.780 Level 1<1.00	
8,000.00	4,237.14	8,063.01	4,233.67	84.42	85.52	68.14	-3,225.58	2,225.43	9.30	-5.92	15.22	0.611 Level 1<1.00	
8,100.00	4,236.38	8,162.98	4,232.79	86.67	87.77	61.87	-3,296.85	2,295.53	7.63	-6.40	14.03	0.544 Level 1<1.00	
8,200.00	4,236.31	8,262.95	4,231.90	88.91	90.02	43.48	-3,368.12	2,365.62	6.08	-4.79	10.87	0.560 Level 1<1.00	
8,223.24	4,236.55	8,286.17	4,231.69	89.43	90.54	35.84	-3,384.68	2,381.90	6.00	-4.31	10.31	0.582 Level 1<1.00	
8,300.00	4,238.50	8,362.84	4,231.01	91.15	92.27	6.71	-3,439.34	2,435.67	7.54	-4.03	11.57	0.652 Level 1<1.00	
8,400.00	4,240.79	8,462.76	4,230.12	93.40	94.52	-8.47	-3,510.57	2,505.73	10.79	-1.65	12.44	0.868 Level 1<1.00	
8,500.00	4,242.69	8,562.71	4,229.23	95.66	96.78	-11.58	-3,581.83	2,575.82	13.73	0.87	12.87	1.067 Level 2<1.50	
8,600.00	4,243.79	8,662.69	4,228.34	97.92	99.04	-10.23	-3,653.10	2,645.92	15.69	1.36	14.34	1.095 Level 2<1.50	
8,700.00	4,243.92	8,762.68	4,227.45	100.19	101.29	-6.29	-3,724.39	2,716.03	16.57	2.79	13.78	1.202 Level 2<1.50	
8,800.00	4,243.06	8,862.68	4,226.56	102.46	103.55	-2.98	-3,795.68	2,786.15	16.52	3.04	13.48	1.226 Level 2<1.50	
8,900.00	4,240.89	8,962.66	4,225.67	104.74	105.81	2.06	-3,866.95	2,856.26	15.23	2.13	13.10	1.162 Level 2<1.50	
8,967.71	4,239.81	9,030.36	4,225.07	106.28	107.34	4.36	-3,915.22	2,903.73	14.78	0.58	14.19	1.041 Level 2<1.50	
9,000.00	4,239.47	9,062.64	4,224.78	107.01	108.07	4.71	-3,938.23	2,926.36	14.74	0.13	14.61	1.009 Level 2<1.50	
9,100.00	4,240.57	9,162.60	4,223.90	109.26	110.33	-2.87	-4,009.49	2,996.45	16.69	1.55	15.14	1.102 Level 2<1.50	
9,200.00	4,240.85	9,262.58	4,223.01	111.52	112.60	-7.44	-4,080.77	3,066.56	17.99	2.23	15.76	1.142 Level 2<1.50	
9,300.00	4,239.87	9,362.58	4,222.12	113.79	114.86	-9.92	-4,152.06	3,136.68	18.02	3.02	15.00	1.201 Level 2<1.50	
9,400.00	4,237.85	9,462.57	4,221.23	116.06	117.13	-12.04	-4,223.35	3,206.79	17.00	1.19	15.81	1.075 Level 2<1.50	
9,415.76	4,237.64	9,478.33	4,221.09	116.41	117.48	-12.27	-4,234.58	3,217.84	16.94	0.77	16.16	1.048 Level 2<1.50	
9,500.00	4,239.18	9,562.53	4,220.34	118.32	119.39	-11.67	-4,294.61	3,276.88	19.23	3.14	16.09	1.195 Level 2<1.50	
9,600.00	4,242.35	9,662.45	4,219.45	120.59	121.65	-9.39	-4,365.84	3,346.94	23.21	5.93	17.28	1.344 Level 2<1.50	
9,700.00	4,244.45	9,762.40	4,218.56	122.87	123.92	-6.48	-4,437.10	3,417.03	26.05	8.77	17.28	1.508 Level 3<2.00	
9,800.00	4,245.35	9,862.37	4,217.67	125.15	126.19	-2.69	-4,508.37	3,487.13	27.71	8.06	19.64	1.411 Level 2<1.50	
9,900.00	4,244.68	9,962.34	4,216.78	127.44	128.46	1.46	-4,579.64	3,557.23	27.91	8.76	19.15	1.458 Level 2<1.50	
10,000.00	4,242.11	10,062.29	4,215.89	129.73	130.72	7.77	-4,650.89	3,627.31	26.46	6.51	19.95	1.326 Level 2<1.50	
10,100.00	4,238.56	10,162.19	4,215.01	132.02	132.99	16.56	-4,722.11	3,697.36	24.58	9.05	15.53	1.583 Level 3<2.00	
10,179.65	4,237.20	10,241.83	4,214.30	133.83	134.80	19.25	-4,778.89	3,753.21	24.26	9.17	15.09	1.607 Level 3<2.00	
10,200.00	4,237.62	10,262.19	4,214.12	134.30	135.26	17.38	-4,793.40	3,767.48	24.63	8.49	16.14	1.526 Level 3<2.00	
10,300.00	4,235.83	10,362.18	4,213.23	136.58	137.53	20.29	-4,864.69	3,837.59	24.10	7.93	16.17	1.491 Level 2<1.50	
10,372.48	4,234.72	10,434.64	4,212.58	138.23	139.17	22.41	-4,916.35	3,888.41	23.95	7.79	16.15	1.483 Level 2<1.50	
10,400.00	4,233.93	10,462.16	4,212.34	138.86	139.80	23.84	-4,935.96	3,907.70	23.61	7.58	16.03	1.473 Level 2<1.50	
10,500.00	4,235.79	10,562.12	4,211.45	141.13	142.07	21.92	-5,007.23	3,977.79	26.23	8.40	17.84	1.471 Level 2<1.50	
10,600.00	4,237.14	10,662.09	4,210.56	143.41	144.34	21.46	-5,078.50	4,047.89	28.56	10.85	17.71	1.613 Level 3<2.00	
10,700.00	4,236.54	10,762.08	4,209.67	145.69	146.61	23.06	-5,149.79	4,118.00	29.20	9.81	19.39	1.506 Level 3<2.00	
10,800.00	4,234.34	10,862.06	4,208.78	147.96	148.89	22.21	-5,221.06	4,188.11	27.60	9.41	18.19	1.517 Level 3<2.00	
10,900.00	4,230.82	10,961.98	4,207.89	150.22	151.16	18.09	-5,292.29	4,258.17	24.12	7.95	16.17	1.492 Level 2<1.50	
11,000.00	4,226.15	11,061.89	4,207.01	152.48	153.43	17.26	-5,363.52	4,328.23	20.04	4.08	15.97	1.255 Level 2<1.50	
11,100.00	4,219.99	11,161.75	4,206.12	154.66	155.70	22.25	-5,434.72	4,398.25	14.98	3.94	11.04	1.357 Level 2<1.50	
11,114.25	4,219.02	11,174.94	4,206.00	154.89	156.00	23.52	-5,444.12	4,407.50	14.25	-2.24	16.49	0.864 Level 1<1.00	
11,175.00	4,214.90	11,174.94	4,206.00	155.86	156.00	23.52	-5,444.12	4,407.50	62.66	58.16	4.51	13.908	

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Pad (48,49,50,51 & 52) - Greater Lybrook Unit No. 050H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 416-MWD, 2565-MWD, 12156-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Rule Assigned:		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	
0.00	0.00	0.00	0.00	0.00	0.00	48.90	13.12	15.04	19.95				
100.00	100.00	99.97	99.97	0.13	0.17	111.52	13.27	15.01	20.06	19.75	0.30	66.196	
200.00	200.00	199.93	199.93	0.31	0.34	110.90	13.73	14.92	20.37	19.72	0.65	31.305 ES	
300.00	300.00	299.90	299.89	0.49	0.51	109.92	14.51	14.78	20.91	19.91	1.00	20.934	
400.00	400.00	399.86	399.85	0.67	0.67	108.63	15.59	14.58	21.66	20.31	1.35	16.086	
500.00	500.00	499.76	499.73	1.00	1.00	86.21	17.08	14.36	22.65	20.65	2.00	11.307	
600.00	600.00	599.76	599.72	1.36	1.36	110.29	18.88	14.17	23.89	21.17	2.72	8.783	
700.00	699.99	699.88	699.83	1.72	1.72	91.36	20.16	14.05	24.85	21.42	3.44	7.230	
800.00	799.99	799.91	799.86	2.08	2.08	88.87	21.01	13.98	25.43	21.27	4.15	6.121	
900.00	899.99	899.97	899.91	2.43	2.44	124.31	21.66	13.89	25.95	21.09	4.87	5.332	
1,000.00	999.99	999.98	999.93	2.78	2.79	160.48	22.04	13.76	26.33	20.75	5.58	4.722	
1,100.00	1,099.99	1,099.95	1,099.90	3.13	3.15	131.78	22.52	13.70	26.86	20.57	6.29	4.272	
1,200.00	1,199.99	1,199.95	1,199.89	3.49	3.51	99.50	22.98	13.68	27.34	20.34	7.00	3.905	
1,300.00	1,299.99	1,299.90	1,299.84	3.85	3.87	98.09	23.44	13.81	27.80	20.09	7.72	3.603	
1,400.00	1,399.99	1,399.82	1,399.76	4.21	4.22	141.89	24.01	14.18	28.63	20.20	8.43	3.397	
1,500.00	1,499.97	1,499.72	1,499.66	4.56	4.58	161.59	24.77	14.68	31.14	22.00	9.14	3.408	
1,600.00	1,599.73	1,599.64	1,599.57	4.92	4.93	164.11	25.49	15.05	38.31	28.46	9.85	3.889	
1,700.00	1,698.94	1,698.86	1,698.79	5.29	5.29	166.48	25.92	15.05	50.68	40.12	10.56	4.798	
1,800.00	1,797.33	1,797.33	1,797.26	5.67	5.64	168.48	26.33	14.98	68.26	56.99	11.27	6.055	
1,900.00	1,894.70	1,894.68	1,894.61	6.08	5.99	172.22	26.73	14.78	90.81	78.83	11.98	7.581	
2,000.00	1,991.28	1,994.68	1,994.58	6.51	6.34	173.64	27.13	12.88	115.28	102.60	12.68	9.090	
2,100.00	2,087.79	2,096.36	2,096.07	6.97	6.69	172.66	27.74	6.75	136.89	123.51	13.38	10.230	
2,200.00	2,184.34	2,195.62	2,194.93	7.44	7.04	171.27	28.79	-2.01	156.36	142.27	14.09	11.097	
2,300.00	2,280.85	2,293.79	2,292.67	7.92	7.39	169.89	29.98	-11.25	175.67	160.86	14.81	11.863	
2,400.00	2,377.21	2,392.12	2,390.55	8.42	7.75	168.60	31.03	-20.54	195.33	179.80	15.53	12.576	
2,500.00	2,473.49	2,490.24	2,488.24	8.93	8.06	168.29	31.81	-29.72	215.19	198.98	16.22	13.270	
2,600.00	2,569.80	2,588.58	2,586.15	9.44	8.21	168.07	32.31	-38.81	234.82	218.09	16.73	14.034	
2,700.00	2,666.14	2,686.56	2,683.71	9.78	8.24	170.03	32.62	-47.88	254.37	237.39	16.98	14.982	
2,800.00	2,762.55	2,784.84	2,781.59	9.97	8.29	159.55	32.77	-56.72	273.20	256.15	17.05	16.024	
2,900.00	2,859.09	2,882.75	2,879.14	10.18	8.36	159.61	32.53	-65.19	290.89	273.74	17.15	16.961	
3,000.00	2,955.88	2,980.89	2,976.94	10.42	8.44	161.23	32.00	-73.28	307.93	290.64	17.28	17.816	
3,100.00	3,052.13	3,079.36	3,075.08	10.69	8.54	162.51	31.30	-81.29	326.97	309.53	17.45	18.739	
3,200.00	3,148.25	3,176.57	3,171.98	10.99	8.65	164.67	30.50	-89.03	346.76	329.11	17.65	19.652	
3,300.00	3,244.63	3,274.54	3,269.66	11.31	8.78	167.01	29.51	-96.58	365.98	348.11	17.87	20.482	
3,400.00	3,341.36	3,372.67	3,367.51	11.63	8.91	168.85	28.24	-103.81	384.21	366.10	18.12	21.207	
3,500.00	3,438.41	3,473.15	3,467.70	11.96	9.07	175.39	26.44	-111.24	401.00	382.61	18.39	21.804	
3,600.00	3,534.80	3,570.75	3,565.00	12.30	9.23	-146.04	24.45	-118.63	418.94	400.24	18.70	22.403	
3,700.00	3,628.36	3,664.77	3,658.77	12.61	9.40	-130.37	21.76	-124.76	438.17	419.14	19.03	23.022	
3,800.00	3,717.75	3,752.17	3,745.94	12.91	9.56	-122.64	18.50	-130.22	458.75	439.36	19.39	23.655	
3,900.00	3,803.80	3,825.00	3,818.71	13.20	9.69	-120.61	16.92	-132.44	484.10	464.35	19.75	24.511	
4,000.00	3,885.98	3,895.90	3,889.61	13.51	9.81	-118.13	16.35	-132.83	514.97	494.85	20.13	25.586	
4,100.00	3,962.27	3,971.58	3,965.29	13.83	9.95	-114.56	15.92	-132.95	549.08	528.52	20.56	26.706	
4,200.00	4,031.66	4,048.17	4,041.87	14.17	10.09	-114.12	15.22	-132.87	586.72	565.67	21.05	27.869	
4,300.00	4,091.96	4,170.82	4,163.35	14.63	10.29	-119.06	3.30	-123.00	629.44	607.83	21.61	29.127	
4,400.00	4,146.16	4,291.08	4,277.79	15.25	10.48	-123.36	-22.97	-97.81	673.62	651.57	22.04	30.561	
4,500.00	4,191.72	4,461.62	4,424.51	16.08	10.76	-124.16	-79.96	-33.45	716.97	694.50	22.47	31.904	
4,600.00	4,223.73	4,793.58	4,618.93	17.14	13.04	-126.17	-268.61	151.65	734.31	709.89	24.42	30.073	
4,700.00	4,240.94	5,036.70	4,668.44	18.42	16.53	-125.51	-434.21	320.26	739.93	711.06	28.87	25.632	
4,800.00	4,246.89	5,160.40	4,668.07	19.92	18.69	-124.72	-520.65	408.69	740.15	707.78	32.37	22.867	
4,900.00	4,250.15	5,248.26	4,665.33	21.59	20.33	-124.11	-580.85	472.61	741.66	706.33	35.34	20.988	
5,000.00	4,251.53	5,359.89	4,663.82	23.37	22.51	-123.67	-658.34	552.94	743.78	704.82	38.95	19.095	
5,100.00	4,250.78	5,465.38	4,661.82	25.23	24.63	-123.59	-732.91	627.53	743.20	700.76	42.44	17.510	

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Pad (48,49,50,51 & 52) - Greater Lybrook Unit No. 050H - Original Hole - Surveys Original Hole											Offset Site Error:	0.00 ft
Survey Program: 416-MWD, 2565-MWD, 12156-MWD											Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Rule Assigned:		Distance		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
5,136.06	4,250.10	5,496.64	4,661.06	25.92	25.27	-123.59	-754.80	649.83	743.08	699.53	43.55	17.063
5,200.00	4,248.42	5,557.95	4,659.83	27.16	26.53	-123.62	-797.49	693.81	743.26	697.60	45.66	16.279
5,300.00	4,245.60	5,658.26	4,660.60	29.15	28.63	-123.92	-868.83	764.32	743.60	694.62	48.99	15.179
5,400.00	4,245.75	5,762.08	4,661.50	31.18	30.82	-123.95	-942.59	837.39	744.37	691.81	52.56	14.162
5,500.00	4,244.80	5,864.51	4,659.98	33.25	33.01	-123.87	-1,015.07	909.74	744.83	688.64	56.19	13.255
5,600.00	4,241.48	5,974.75	4,657.27	35.35	35.39	-123.87	-1,092.75	987.89	746.34	686.32	60.02	12.434
5,700.00	4,238.97	6,084.25	4,656.21	37.47	37.76	-124.02	-1,172.34	1,063.10	745.80	682.08	63.71	11.705
5,800.00	4,240.06	6,182.00	4,654.02	39.61	39.88	-123.87	-1,243.47	1,130.11	742.77	675.45	67.33	11.033
5,861.68	4,240.00	6,230.51	4,653.35	40.94	40.94	-123.87	-1,278.55	1,163.60	741.77	672.56	69.21	10.717
5,900.00	4,239.56	6,257.77	4,653.67	41.77	41.54	-123.91	-1,298.11	1,182.58	742.11	671.86	70.25	10.564
6,000.00	4,240.41	6,350.40	4,656.32	43.93	43.58	-124.04	-1,364.02	1,247.62	743.55	669.98	73.58	10.106
6,100.00	4,242.49	6,449.25	4,658.19	46.12	45.77	-123.97	-1,433.79	1,317.61	744.28	667.07	77.20	9.641
6,200.00	4,242.63	6,555.06	4,658.84	48.31	48.13	-123.91	-1,508.05	1,392.98	746.01	664.97	81.04	9.205
6,300.00	4,240.87	6,661.78	4,657.43	50.50	50.52	-123.84	-1,582.78	1,469.16	747.99	663.06	84.93	8.807
6,400.00	4,242.21	6,765.62	4,653.87	52.71	52.85	-123.42	-1,655.30	1,543.38	747.14	658.08	89.05	8.390
6,483.68	4,243.91	6,841.00	4,652.76	54.56	54.54	-123.21	-1,708.08	1,597.19	746.48	654.39	92.09	8.106
6,500.00	4,244.26	6,850.36	4,652.80	54.93	54.75	-123.19	-1,714.63	1,603.87	746.41	653.90	92.50	8.069
6,600.00	4,244.57	6,936.00	4,653.64	57.15	56.68	-123.15	-1,773.97	1,665.62	748.23	652.48	95.75	7.814
6,700.00	4,243.10	7,039.21	4,654.16	59.38	59.02	-123.13	-1,844.62	1,740.86	751.59	652.05	99.55	7.550
6,800.00	4,241.04	7,137.26	4,656.52	61.61	61.24	-123.41	-1,912.69	1,811.37	754.93	652.02	102.91	7.336
6,900.00	4,243.59	7,240.95	4,660.25	63.85	63.59	-123.46	-1,985.46	1,885.13	756.59	649.92	106.67	7.093
7,000.00	4,246.02	7,354.52	4,662.85	66.09	66.15	-123.38	-2,064.93	1,966.23	757.54	646.75	110.80	6.837
7,100.00	4,246.58	7,471.11	4,664.74	68.33	68.77	-123.61	-2,149.41	2,046.56	755.66	641.05	114.61	6.593
7,200.00	4,244.94	7,581.71	4,665.03	70.58	71.25	-123.91	-2,229.67	2,122.64	754.17	636.03	118.14	6.384
7,300.00	4,243.98	7,686.92	4,662.89	72.84	73.61	-123.92	-2,306.09	2,194.93	750.72	628.98	121.73	6.167
7,400.00	4,245.93	7,775.18	4,659.96	75.09	75.60	-123.71	-2,369.29	2,256.46	745.85	620.52	125.33	5.951
7,500.00	4,246.86	7,879.89	4,655.82	77.36	77.97	-123.52	-2,443.43	2,330.28	741.32	611.96	129.36	5.731
7,600.00	4,246.20	7,984.63	4,653.26	79.63	80.33	-123.70	-2,519.08	2,402.66	735.82	602.96	132.86	5.538
7,700.00	4,245.10	8,083.28	4,652.79	81.89	82.54	-123.80	-2,591.34	2,469.81	733.00	596.94	136.07	5.387
7,800.00	4,243.72	8,185.67	4,652.39	84.14	84.83	-123.96	-2,666.56	2,539.29	732.08	592.66	139.41	5.251
7,900.00	4,241.06	8,285.77	4,650.97	86.40	87.08	-124.15	-2,739.64	2,607.67	731.13	588.47	142.66	5.125
8,000.00	4,237.14	8,380.05	4,648.73	88.66	89.20	-124.34	-2,808.13	2,672.43	730.07	584.39	145.68	5.011
8,008.25	4,236.90	8,386.63	4,648.61	88.84	89.35	-124.34	-2,812.88	2,676.98	730.06	584.15	145.91	5.003
8,100.00	4,236.38	8,463.66	4,648.18	90.91	91.10	-124.29	-2,868.03	2,730.75	731.24	582.38	148.86	4.912
8,200.00	4,236.31	8,562.00	4,648.55	93.15	93.33	-124.22	-2,938.20	2,799.65	733.52	581.05	152.47	4.811
8,300.00	4,238.50	8,657.32	4,648.69	95.40	95.50	-123.95	-3,005.73	2,866.92	735.65	579.24	156.40	4.704
8,400.00	4,240.79	8,753.07	4,648.05	97.65	97.68	-123.55	-3,072.69	2,935.36	737.66	577.15	160.51	4.596
8,500.00	4,242.69	8,854.49	4,646.46	99.90	100.00	-123.13	-3,142.86	3,008.57	739.20	574.32	164.88	4.483
8,600.00	4,243.79	8,958.59	4,647.24	102.17	102.37	-123.07	-3,216.78	3,081.85	739.35	570.73	168.62	4.385
8,611.77	4,243.85	8,969.70	4,647.39	102.44	102.63	-123.08	-3,224.69	3,089.65	739.35	570.34	169.00	4.375
8,700.00	4,243.92	9,056.80	4,648.16	104.44	104.61	-123.14	-3,286.38	3,151.14	739.48	567.51	171.96	4.300
8,800.00	4,243.06	9,159.25	4,646.91	106.72	106.95	-123.08	-3,358.14	3,224.25	739.95	564.26	175.70	4.212
8,900.00	4,240.89	9,262.17	4,644.72	108.99	109.30	-123.07	-3,430.05	3,297.82	740.44	561.07	179.37	4.128
9,000.00	4,239.47	9,358.92	4,645.22	111.27	111.51	-123.21	-3,498.99	3,365.72	741.01	558.56	182.46	4.061
9,100.00	4,240.57	9,458.98	4,647.22	113.52	113.78	-123.21	-3,570.53	3,435.64	742.96	556.98	185.98	3.995
9,200.00	4,240.85	9,548.94	4,650.22	115.79	115.82	-123.33	-3,635.15	3,498.16	745.21	556.40	188.82	3.947
9,300.00	4,239.87	9,673.15	4,655.04	118.05	118.63	-123.73	-3,724.71	3,584.07	747.67	555.62	192.05	3.893
9,400.00	4,237.85	9,771.07	4,658.24	120.32	120.83	-124.19	-3,796.75	3,650.32	748.20	553.90	194.30	3.851
9,500.00	4,239.18	9,880.25	4,658.93	122.59	123.29	-124.22	-3,876.75	3,724.58	745.65	548.03	197.62	3.773
9,600.00	4,242.35	9,958.11	4,657.50	124.86	125.07	-123.95	-3,931.94	3,779.48	743.21	542.05	201.16	3.695
9,700.00	4,244.45	10,064.14	4,654.64	127.14	127.50	-123.56	-4,005.66	3,855.63	741.88	536.16	205.73	3.606
9,800.00	4,245.35	10,171.56	4,653.82	129.43	129.94	-123.56	-4,082.69	3,930.48	739.06	529.77	209.29	3.531

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Pad (48,49,50,51 & 52) - Greater Lybrook Unit No. 050H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 416-MWD, 2565-MWD, 12156-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9,900.00	4,244.68	10,281.57	4,655.19	131.71	132.43	-123.89	-4,162.18	4,006.50	737.40	525.34	212.05	3.477		
10,000.00	4,242.11	10,401.19	4,652.18	134.00	135.12	-124.34	-4,250.77	4,086.82	731.46	516.85	214.61	3.408		
10,100.00	4,238.56	10,491.66	4,650.07	136.29	137.15	-124.62	-4,317.61	4,147.75	726.21	509.68	216.53	3.354		
10,200.00	4,237.62	10,578.40	4,649.95	138.58	139.10	-124.76	-4,381.50	4,206.41	723.55	504.65	218.90	3.305		
10,300.00	4,235.83	10,690.61	4,650.40	140.86	141.63	-125.15	-4,463.66	4,282.82	721.78	500.53	221.25	3.262		
10,400.00	4,233.93	10,789.95	4,647.62	143.14	143.88	-125.20	-4,536.37	4,350.45	718.02	494.09	223.93	3.206		
10,500.00	4,235.79	10,875.51	4,646.24	145.42	145.81	-125.07	-4,598.60	4,409.16	714.13	487.02	227.11	3.144		
10,600.00	4,237.14	10,960.64	4,646.01	147.70	147.75	-125.03	-4,659.52	4,468.61	712.34	482.32	230.02	3.097		
10,612.12	4,237.16	10,971.00	4,645.97	147.98	147.99	-125.02	-4,666.82	4,475.96	712.32	481.96	230.36	3.092		
10,700.00	4,236.54	11,045.55	4,645.93	149.98	149.70	-125.01	-4,718.85	4,529.35	713.47	480.80	232.67	3.066		
10,800.00	4,234.34	11,155.01	4,646.98	152.25	152.21	-125.02	-4,794.76	4,608.21	718.42	482.16	236.26	3.041		
10,900.00	4,230.82	11,278.08	4,644.15	154.51	155.03	-124.88	-4,881.49	4,695.46	722.43	481.77	240.66	3.002		
11,000.00	4,226.15	11,357.89	4,642.60	156.78	156.86	-124.93	-4,937.89	4,751.91	725.95	482.89	243.06	2.987 SF		
11,100.00	4,219.99	11,447.52	4,643.06	158.96	158.91	-125.22	-5,000.71	4,815.84	731.40	486.66	244.74	2.988		
11,175.00	4,214.90	11,515.22	4,643.96	160.18	160.47	-125.50	-5,047.80	4,864.47	736.32	490.77	245.55	2.999		

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Pad (48,49,50,51 & 52) - Greater Lybrook Unit No. 051H - Original Hole - Surveys Original Hole													Offset Site Error: 0.00 ft
Survey Program: 415-MWD, 2640-MWD, 12451-MWD													Offset Well Error: 0.00 ft
Reference	Offset	Semi Major Axis		Rule Assigned:		Distance		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	48.20	40.07	44.81	60.12				
100.00	100.00	99.87	99.87	0.13	0.17	110.93	40.27	44.79	60.25	59.95	0.30	198.916 ES	
200.00	200.00	199.73	199.73	0.31	0.34	110.66	40.84	44.72	60.66	60.01	0.65	93.235	
300.00	300.00	299.59	299.58	0.49	0.51	110.22	41.80	44.61	61.34	60.34	1.00	61.442	
400.00	400.00	399.44	399.42	0.67	0.67	109.61	43.14	44.46	62.30	60.96	1.35	46.280	
500.00	500.00	499.42	499.39	1.00	1.00	88.15	44.81	44.19	63.36	61.35	2.00	31.607	
600.00	600.00	599.40	599.36	1.36	1.36	113.40	46.60	43.80	64.41	61.69	2.72	23.669	
700.00	699.99	699.46	699.40	1.72	1.72	94.62	48.26	43.47	65.48	62.04	3.44	19.043	
800.00	799.99	799.57	799.49	2.08	2.08	91.58	49.83	43.03	66.30	62.14	4.16	15.954	
900.00	899.99	899.69	899.61	2.43	2.44	126.67	51.09	42.71	67.11	62.24	4.87	13.781	
1,000.00	999.99	999.91	999.82	2.78	2.80	162.63	52.06	42.25	67.68	62.10	5.58	12.133	
1,100.00	1,099.99	1,100.00	1,099.91	3.13	3.15	133.76	52.77	41.68	68.03	61.75	6.29	10.819	
1,200.00	1,199.99	1,200.00	1,199.91	3.49	3.51	101.16	53.34	41.23	68.32	61.32	7.00	9.756	
1,300.00	1,299.99	1,300.04	1,299.94	3.85	3.87	99.13	53.81	40.84	68.45	60.73	7.72	8.870	
1,400.00	1,399.99	1,400.20	1,400.10	4.21	4.22	142.32	54.16	40.42	68.60	60.17	8.43	8.138	
1,500.00	1,499.97	1,500.19	1,500.09	4.56	4.58	161.21	54.30	39.94	69.99	60.85	9.14	7.660	
1,600.00	1,599.73	1,597.21	1,597.09	4.92	4.92	162.10	55.46	40.43	77.58	67.75	9.83	7.890	
1,700.00	1,698.94	1,690.26	1,689.94	5.29	5.25	162.54	60.24	43.82	95.66	85.17	10.49	9.119	
1,800.00	1,797.33	1,780.76	1,779.78	5.67	5.57	162.77	68.99	50.35	124.32	113.20	11.12	11.180	
1,900.00	1,894.70	1,867.54	1,865.38	6.08	5.89	165.30	80.28	58.94	161.74	150.02	11.72	13.804	
2,000.00	1,991.28	1,950.06	1,946.18	6.51	6.21	166.58	93.37	69.36	205.83	193.56	12.27	16.771	
2,100.00	2,087.79	2,028.13	2,021.95	6.97	6.53	166.54	107.87	81.35	253.71	240.93	12.78	19.858	
2,200.00	2,184.34	2,101.89	2,092.68	7.44	6.84	166.49	123.63	95.09	305.25	292.02	13.23	23.077	
2,300.00	2,280.85	2,174.66	2,161.62	7.92	7.18	166.06	141.33	110.17	360.05	346.36	13.69	26.297	
2,400.00	2,377.21	2,251.25	2,233.55	8.42	7.55	165.26	161.61	126.94	417.23	402.99	14.24	29.308	
2,500.00	2,473.49	2,329.21	2,306.47	8.93	7.95	165.34	182.83	144.54	475.50	460.68	14.82	32.095	
2,600.00	2,569.80	2,413.19	2,384.93	9.44	8.40	165.39	205.88	163.64	533.89	518.42	15.48	34.493	
2,700.00	2,666.14	2,503.27	2,469.41	9.78	8.89	167.73	230.92	182.39	591.29	575.14	16.15	36.606	
2,800.00	2,762.55	2,592.92	2,553.82	9.97	9.33	155.76	255.49	199.93	646.84	630.32	16.53	39.137	
2,900.00	2,859.09	2,679.48	2,635.54	10.18	9.60	155.28	278.81	216.40	700.66	683.95	16.71	41.920	
3,000.00	2,955.88	2,765.01	2,716.34	10.42	9.81	156.50	301.52	232.88	753.73	736.90	16.83	44.788	
3,100.00	3,052.13	2,853.27	2,799.75	10.69	10.06	156.98	325.33	249.18	808.17	791.16	17.01	47.518	
3,200.00	3,148.25	2,967.15	2,907.86	10.99	10.40	158.82	355.66	268.07	861.84	844.48	17.36	49.646	
3,300.00	3,244.63	3,089.17	3,024.82	11.31	10.76	160.75	387.02	283.03	911.46	893.70	17.76	51.316	
3,400.00	3,341.36	3,246.93	3,178.05	11.63	11.20	162.08	422.23	295.57	955.28	936.96	18.32	52.155	
3,500.00	3,438.41	3,476.11	3,405.33	11.96	11.64	168.74	448.60	303.77	988.42	969.47	18.96	52.136	
3,600.00	3,534.80	3,611.11	3,540.29	12.30	11.79	-150.81	450.66	303.13	1,014.41	995.15	19.26	52.663	
3,700.00	3,628.36	3,703.91	3,633.09	12.61	11.89	-132.31	450.38	302.58	1,041.24	1,021.78	19.47	53.483	
3,800.00	3,717.75	3,780.67	3,709.69	12.91	11.96	-121.01	447.13	305.81	1,069.34	1,049.70	19.64	54.446	
3,900.00	3,803.80	3,859.20	3,787.29	13.20	12.05	-116.15	439.60	314.97	1,097.91	1,078.08	19.83	55.364	
4,000.00	3,885.98	3,949.94	3,875.30	13.51	12.15	-111.08	425.44	331.76	1,126.12	1,106.03	20.09	56.041	
4,100.00	3,962.27	4,048.60	3,967.47	13.83	12.28	-104.84	402.35	357.98	1,151.14	1,130.66	20.48	56.214	
4,200.00	4,031.66	4,155.90	4,059.64	14.17	12.45	-101.65	365.70	398.46	1,171.53	1,150.42	21.10	55.513	
4,300.00	4,091.96	4,294.45	4,161.16	14.63	12.76	-101.18	301.21	466.60	1,190.13	1,167.84	22.28	53.408	
4,400.00	4,146.16	4,384.96	4,214.54	15.25	13.10	-100.33	250.60	519.19	1,208.01	1,184.28	23.73	50.907	
4,500.00	4,191.72	4,538.25	4,275.37	16.08	14.24	-97.03	154.54	621.20	1,224.30	1,197.83	26.47	46.253	
4,600.00	4,223.73	4,695.08	4,291.95	17.14	16.20	-93.50	43.79	730.04	1,229.86	1,199.61	30.25	40.655	
4,700.00	4,240.94	4,786.04	4,287.67	18.42	17.60	-92.27	-21.55	793.18	1,230.78	1,197.47	33.31	36.944	
4,800.00	4,246.89	4,882.86	4,283.36	19.92	19.25	-91.74	-90.92	860.58	1,232.70	1,195.91	36.79	33.503	
4,900.00	4,250.15	4,974.60	4,279.32	21.59	20.91	-91.38	-156.30	924.80	1,234.81	1,194.44	40.37	30.586	
5,000.00	4,251.53	5,071.51	4,274.13	23.37	22.76	-91.05	-225.11	992.85	1,236.67	1,192.47	44.20	27.978	
5,100.00	4,250.78	5,161.10	4,271.50	25.23	24.53	-90.96	-288.42	1,056.18	1,236.73	1,188.74	47.99	25.769	

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Pad (48,49,50,51 & 52) - Greater Lybrook Unit No. 051H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 415-MWD, 2640-MWD, 12451-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	4,248.42	5,252.12	4,269.98	27.16	26.38	-91.01	-352.28	1,121.01	1,236.16	1,184.25	51.91	23.812	
5,224.39	4,247.72	5,273.94	4,269.60	27.64	26.83	-91.01	-367.53	1,136.63	1,236.08	1,183.21	52.87	23.378	
5,300.00	4,245.60	5,341.86	4,268.43	29.15	28.25	-91.05	-414.74	1,185.43	1,236.32	1,180.46	55.87	22.129	
5,400.00	4,245.75	5,462.20	4,266.64	31.18	30.79	-90.97	-498.10	1,272.20	1,239.38	1,178.77	60.60	20.451	
5,500.00	4,244.80	5,613.91	4,265.46	33.25	33.98	-90.99	-608.47	1,376.27	1,236.87	1,170.83	66.04	18.729	
5,600.00	4,241.48	5,718.30	4,264.95	35.35	36.19	-91.18	-685.21	1,447.03	1,233.77	1,163.33	70.43	17.516	
5,700.00	4,238.97	5,823.32	4,264.02	37.47	38.42	-91.15	-762.77	1,517.83	1,230.39	1,155.52	74.87	16.435	
5,800.00	4,240.06	5,912.64	4,262.72	39.61	40.34	-91.05	-828.58	1,578.21	1,227.62	1,148.63	78.99	15.542	
5,900.00	4,239.56	5,995.00	4,261.28	41.77	42.12	-91.03	-888.44	1,634.76	1,225.79	1,142.82	82.97	14.773	
6,000.00	4,240.41	6,079.34	4,259.28	43.93	43.97	-90.88	-948.92	1,693.50	1,225.31	1,138.29	87.02	14.081	
6,008.60	4,240.66	6,088.00	4,259.03	44.12	44.16	-90.86	-955.11	1,699.56	1,225.30	1,137.90	87.40	14.020	
6,100.00	4,242.49	6,163.25	4,256.33	46.12	45.83	-90.65	-1,008.47	1,752.55	1,225.68	1,134.62	91.06	13.460	
6,200.00	4,242.63	6,250.75	4,253.48	48.31	47.77	-90.49	-1,069.80	1,814.88	1,227.47	1,132.28	95.19	12.895	
6,300.00	4,240.87	6,344.40	4,252.69	50.50	49.87	-90.53	-1,134.97	1,882.14	1,230.17	1,130.68	99.49	12.365	
6,400.00	4,242.21	6,441.12	4,250.98	52.71	52.05	-90.45	-1,202.03	1,951.81	1,233.06	1,129.17	103.89	11.869	
6,500.00	4,244.26	6,583.09	4,250.57	54.93	55.23	-90.28	-1,302.10	2,052.46	1,233.65	1,124.21	109.44	11.272	
6,600.00	4,244.57	6,678.02	4,252.58	57.15	57.35	-90.38	-1,369.97	2,118.81	1,232.29	1,118.49	113.81	10.828	
6,700.00	4,243.10	6,777.97	4,253.77	59.38	59.58	-90.52	-1,441.33	2,188.77	1,230.92	1,112.61	118.30	10.405	
6,800.00	4,241.04	6,878.57	4,253.76	61.61	61.84	-90.59	-1,513.14	2,259.22	1,229.27	1,106.45	122.82	10.009	
6,900.00	4,243.59	6,986.42	4,253.41	63.85	64.25	-90.44	-1,590.34	2,334.54	1,228.65	1,101.14	127.51	9.636	
7,000.00	4,246.02	7,078.58	4,254.93	66.09	66.32	-90.40	-1,666.62	2,398.57	1,227.07	1,095.25	131.83	9.308	
7,084.08	4,246.58	7,145.83	4,256.12	67.98	67.84	-90.45	-1,704.31	2,445.96	1,226.61	1,091.41	135.21	9.072	
7,100.00	4,246.58	7,159.02	4,256.35	68.33	68.13	-90.46	-1,713.59	2,455.32	1,226.57	1,090.72	135.85	9.029	
7,200.00	4,244.94	7,240.28	4,257.81	70.58	69.98	-90.58	-1,770.31	2,513.50	1,227.46	1,087.58	139.88	8.775	
7,300.00	4,243.98	7,329.43	4,259.29	72.84	72.01	-90.73	-1,831.41	2,578.39	1,229.79	1,085.68	144.11	8.534	
7,400.00	4,245.93	7,468.22	4,257.89	75.09	75.16	-90.54	-1,929.09	2,677.00	1,228.89	1,079.17	149.72	8.208	
7,500.00	4,246.86	7,552.33	4,256.05	77.36	77.07	-90.43	-1,988.30	2,736.67	1,227.25	1,073.39	153.86	7.976	
7,600.00	4,246.20	7,715.92	4,252.89	79.63	80.77	-90.38	-2,104.85	2,851.37	1,223.66	1,063.76	159.90	7.653	
7,700.00	4,245.10	7,809.04	4,250.73	81.89	82.85	-90.27	-2,173.36	2,914.40	1,219.39	1,055.11	164.28	7.423	
7,755.14	4,244.44	7,847.22	4,250.36	83.13	83.70	-90.28	-2,201.11	2,940.63	1,219.09	1,052.69	166.40	7.326	
7,800.00	4,243.72	7,878.00	4,250.53	84.14	84.40	-90.31	-2,223.21	2,962.04	1,219.32	1,051.22	168.10	7.254	
7,900.00	4,241.06	7,972.00	4,251.48	86.40	86.52	-90.48	-2,290.26	3,027.91	1,219.81	1,047.33	172.48	7.072	
7,911.20	4,240.68	7,985.33	4,251.57	86.65	86.83	-90.51	-2,299.76	3,037.27	1,219.82	1,046.78	173.04	7.049	
8,000.00	4,237.14	8,066.00	4,251.46	88.66	88.66	-90.65	-2,357.00	3,094.11	1,219.89	1,043.03	176.86	6.898	
8,100.00	4,236.38	8,161.00	4,250.22	90.91	90.82	-90.65	-2,424.09	3,161.35	1,222.73	1,041.47	181.26	6.746	
8,200.00	4,236.31	8,258.95	4,247.91	93.15	93.05	-90.56	-2,492.99	3,230.94	1,226.57	1,040.83	185.74	6.604	
8,300.00	4,238.50	8,395.20	4,248.78	95.40	96.13	-90.50	-2,590.71	3,325.84	1,229.04	1,037.90	191.13	6.430	
8,400.00	4,240.79	8,489.41	4,250.45	97.65	98.26	-90.46	-2,658.79	3,390.94	1,230.10	1,034.58	195.52	6.292	
8,500.00	4,242.69	8,570.46	4,251.00	99.90	100.09	-90.40	-2,716.90	3,447.44	1,230.72	1,031.13	199.59	6.166	
8,600.00	4,243.79	8,632.00	4,251.22	102.17	101.50	-90.36	-2,760.11	3,491.26	1,232.46	1,029.42	203.04	6.070	
8,700.00	4,243.92	8,727.00	4,251.50	104.44	103.68	-90.35	-2,825.39	3,560.27	1,235.10	1,027.64	207.46	5.953	
8,800.00	4,243.06	8,841.62	4,252.82	106.72	106.32	-90.44	-2,904.28	3,643.40	1,237.62	1,025.12	212.50	5.824	
8,900.00	4,240.89	8,994.68	4,254.39	108.99	109.82	-90.68	-3,011.28	3,752.83	1,238.88	1,020.45	218.44	5.672	
8,994.89	4,239.83	9,086.32	4,255.25	111.15	111.89	-90.72	-3,077.81	3,815.82	1,236.81	1,014.13	222.67	5.554	
9,000.00	4,239.47	9,090.53	4,255.29	111.27	111.98	-90.74	-3,080.85	3,818.75	1,236.41	1,013.52	222.89	5.547	
9,100.00	4,240.57	9,183.61	4,256.30	113.52	114.09	-90.74	-3,147.74	3,883.46	1,237.63	1,010.37	227.26	5.446	
9,200.00	4,240.85	9,276.65	4,257.19	115.79	116.20	-90.75	-3,214.30	3,948.47	1,238.78	1,007.15	231.63	5.348	
9,300.00	4,239.87	9,389.15	4,257.93	118.05	118.76	-90.84	-3,294.83	4,027.01	1,239.17	1,002.71	236.46	5.241	
9,323.89	4,239.50	9,404.90	4,258.01	118.60	119.12	-90.85	-3,306.14	4,037.98	1,239.14	1,001.78	237.36	5.221	
9,400.00	4,237.85	9,455.26	4,258.26	120.32	120.27	-90.92	-3,341.82	4,073.52	1,239.97	999.82	240.14	5.163	
9,500.00	4,239.18	9,620.78	4,257.98	122.59	124.02	-90.80	-3,460.81	4,188.50	1,239.45	993.30	246.15	5.035	
9,600.00	4,242.35	9,716.61	4,256.72	124.86	126.17	-90.61	-3,531.35	4,253.35	1,235.90	985.29	250.62	4.931	

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Pad (48,49,50,51 & 52) - Greater Lybrook Unit No. 051H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program:		415-MWD, 2640-MWD, 12451-MWD				Rule Assigned:			Offset Well Error:				0.00 ft	
Reference	Offset	Semi Major Axis		Offset Wellbore Centre			Distance		Minimum Separation		Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation Factor			
9,700.00	4,244.45	9,807.41	4,254.36	127.14	128.21	-90.43	-3,597.97	4,315.00	1,231.99	976.98	255.00	4.831		
9,800.00	4,245.35	9,895.49	4,251.47	129.43	130.20	-90.28	-3,661.89	4,375.53	1,228.41	969.08	259.33	4.737		
9,900.00	4,244.68	9,990.56	4,250.99	131.71	132.35	-90.33	-3,730.59	4,441.25	1,225.01	961.23	263.78	4.644		
10,000.00	4,242.11	10,077.51	4,250.71	134.00	134.33	-90.48	-3,793.09	4,501.70	1,221.35	953.30	268.05	4.556		
10,099.95	4,239.30	10,154.79	4,250.14	136.29	136.09	-90.51	-3,847.69	4,556.37	1,219.60	947.59	272.01	4.484		
10,100.00	4,238.56	10,154.81	4,250.14	136.29	136.09	-90.54	-3,847.71	4,556.39	1,218.82	946.81	272.01	4.481		
10,200.00	4,237.62	10,245.62	4,248.60	138.58	138.18	-90.50	-3,910.94	4,621.55	1,220.78	944.48	276.30	4.418		
10,300.00	4,235.83	10,387.63	4,249.16	140.86	141.41	-90.66	-4,012.26	4,721.02	1,219.34	937.35	282.00	4.324		
10,400.00	4,233.93	10,472.98	4,249.58	143.14	143.35	-90.74	-4,073.40	4,780.56	1,217.71	931.51	286.20	4.255		
10,414.05	4,234.03	10,484.23	4,249.61	143.46	143.61	-90.73	-4,081.40	4,788.49	1,217.70	930.92	286.77	4.246		
10,500.00	4,235.79	10,555.42	4,249.62	145.42	145.24	-90.67	-4,131.57	4,838.98	1,218.47	928.18	290.29	4.197		
10,600.00	4,237.14	10,644.43	4,248.75	147.70	147.28	-90.55	-4,193.60	4,902.80	1,220.03	925.50	294.53	4.142		
10,700.00	4,236.54	10,763.26	4,246.74	149.98	150.01	-90.48	-4,276.32	4,988.10	1,221.50	921.80	299.69	4.076		
10,800.00	4,234.34	10,869.95	4,247.77	152.25	152.45	-90.56	-4,352.20	5,063.08	1,222.73	918.31	304.42	4.017		
10,900.00	4,230.82	10,960.22	4,247.85	154.51	154.51	-90.71	-4,415.98	5,126.97	1,226.64	917.96	308.68	3.974		
11,000.00	4,226.15	11,049.15	4,246.63	156.78	156.55	-90.86	-4,478.29	5,190.40	1,229.94	917.05	312.89	3.931		
11,100.00	4,219.99	11,186.77	4,245.34	158.96	159.70	-91.22	-4,575.14	5,288.14	1,231.84	913.49	318.34	3.870		
11,148.48	4,216.70	11,224.03	4,245.79	159.75	160.55	-91.36	-4,601.78	5,314.18	1,231.68	911.73	319.95	3.850		
11,175.00	4,214.90	11,246.07	4,246.03	160.18	161.06	-91.44	-4,617.47	5,329.66	1,231.73	910.87	320.85	3.839 SF		

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: Greater Lybrook Pad (48,49,50,51 & 52) - Greater Lybrook Unit No. 052H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 415-MWD, 2789-MWD, 13558-MWD												Offset Well Error:	0.00 ft
Rule Assigned:												Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	48.37	53.19	59.85	80.07				
100.00	100.00	100.06	100.06	0.13	0.17	111.18	53.23	59.77	80.06	79.76	0.30	264.236	
200.00	200.00	200.11	200.11	0.31	0.34	111.13	53.35	59.52	80.03	79.38	0.65	122.974	
300.00	300.00	300.17	300.16	0.49	0.51	111.04	53.56	59.10	79.98	78.98	1.00	80.092	
400.00	400.00	400.22	400.22	0.67	0.67	110.93	53.85	58.52	79.90	78.56	1.35	59.349	
500.00	500.00	500.21	500.20	1.00	1.01	89.95	54.36	57.69	79.75	77.74	2.01	39.754	
600.00	600.00	600.19	600.17	1.36	1.36	115.61	55.10	56.69	79.60	76.88	2.72	29.239	
700.00	699.99	700.12	700.09	1.72	1.72	97.02	55.97	55.64	79.56	76.12	3.44	23.136	
800.00	799.99	800.09	800.06	2.08	2.08	94.21	56.83	54.73	79.52	75.36	4.16	19.137	
900.00	899.99	900.23	900.19	2.43	2.44	129.39	57.49	53.80	79.44	74.57	4.87	16.315	
989.30	989.29	989.47	989.43	2.74	2.75	160.64	57.80	53.22	79.40	73.91	5.50	14.448	
1,000.00	999.99	1,000.16	1,000.12	2.78	2.79	165.76	57.76	53.23	79.39	73.82	5.57	14.254 CC	
1,100.00	1,099.99	1,100.09	1,100.02	3.13	3.13	138.94	56.37	54.45	79.52	73.26	6.26	12.709	
1,200.00	1,199.99	1,200.20	1,200.10	3.49	3.46	108.98	54.20	56.36	79.65	72.71	6.95	11.469	
1,280.62	1,280.61	1,280.81	1,280.67	3.78	3.73	109.48	52.23	57.84	79.62	72.12	7.50	10.609	
1,300.00	1,299.99	1,300.14	1,299.99	3.85	3.79	109.59	51.78	58.20	79.61	71.97	7.64	10.421 ES	
1,400.00	1,399.99	1,398.89	1,398.70	4.21	4.13	155.09	50.01	60.29	80.42	72.08	8.33	9.651	
1,500.00	1,499.97	1,497.31	1,497.07	4.56	4.47	175.22	50.07	63.36	84.68	75.66	9.02	9.385 SF	
1,600.00	1,599.73	1,595.05	1,594.71	4.92	4.81	175.32	52.36	66.89	95.63	85.92	9.71	9.845	
1,700.00	1,698.94	1,689.32	1,688.73	5.29	5.14	173.55	57.72	71.04	114.83	104.45	10.38	11.060	
1,800.00	1,797.33	1,778.73	1,777.51	5.67	5.46	171.60	66.18	77.36	143.45	132.44	11.01	13.032	
1,900.00	1,894.70	1,863.03	1,860.61	6.08	5.77	172.71	76.78	86.64	181.59	170.01	11.58	15.681	
2,000.00	1,991.28	1,943.39	1,939.11	6.51	6.08	172.93	89.33	98.37	227.03	214.91	12.11	18.739	
2,100.00	2,087.79	2,020.52	2,013.72	6.97	6.39	172.00	103.79	111.52	276.22	263.61	12.61	21.909	
2,200.00	2,184.34	2,087.00	2,077.29	7.44	6.68	171.19	118.36	124.36	328.79	315.82	12.97	25.352	
2,300.00	2,280.85	2,162.85	2,148.80	7.92	7.03	169.99	138.02	140.24	384.64	371.15	13.49	28.517	
2,400.00	2,377.21	2,234.30	2,215.17	8.42	7.39	168.42	159.34	155.88	443.59	429.62	13.97	31.758	
2,500.00	2,473.49	2,308.39	2,283.50	8.93	7.78	167.80	182.57	172.66	504.15	489.64	14.50	34.761	
2,600.00	2,569.80	2,386.22	2,355.10	9.44	8.21	167.29	207.16	190.70	565.11	550.01	15.10	37.430	
2,700.00	2,666.14	2,468.03	2,430.46	9.78	8.68	169.41	232.59	209.89	626.03	610.33	15.70	39.883	
2,800.00	2,762.55	2,555.10	2,510.93	9.97	9.20	157.09	258.99	230.07	685.64	669.50	16.14	42.487	
2,900.00	2,859.09	2,641.17	2,590.76	10.18	9.71	156.49	284.67	249.50	743.54	726.96	16.57	44.864	
3,000.00	2,955.88	2,728.43	2,671.87	10.42	10.09	157.59	310.41	268.78	800.23	783.37	16.87	47.448	
3,100.00	3,052.13	2,817.81	2,755.18	10.69	10.45	158.02	336.38	288.09	858.01	840.86	17.15	50.033	
3,200.00	3,148.25	2,914.24	2,845.49	10.99	10.74	159.85	363.99	307.66	915.18	897.80	17.38	52.656	
3,300.00	3,244.63	3,010.28	2,935.91	11.31	11.05	162.02	390.60	326.04	970.55	952.92	17.63	55.066	
3,400.00	3,341.36	3,094.45	3,015.33	11.63	11.34	163.66	414.06	341.10	1,024.30	1,006.47	17.83	57.459	
3,500.00	3,438.41	3,166.00	3,082.63	11.96	11.60	170.63	433.93	355.06	1,078.15	1,060.18	17.98	59.969	
3,600.00	3,534.80	3,245.00	3,156.80	12.30	11.91	-144.78	455.75	371.30	1,134.40	1,116.21	18.19	62.377	
3,700.00	3,628.36	3,332.04	3,238.66	12.61	12.26	-123.44	479.81	388.51	1,190.47	1,172.05	18.41	64.649	
3,800.00	3,717.75	3,409.27	3,311.45	12.91	12.59	-110.39	500.97	403.29	1,245.13	1,226.53	18.60	66.953	
3,900.00	3,803.80	3,499.40	3,396.66	13.20	12.97	-105.75	524.36	421.06	1,298.06	1,279.18	18.88	68.758	

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: Rodeo Unit 511 pad (511, 512 & 513) - Rodeo Unit #512H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 412-MWD, 2697-MWD, 13793-MWD													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
11,100.00	4,219.99	4,143.00	4,116.56	158.96	11.20	-84.42	-5,631.71	5,650.22	1,271.91	1,167.27	104.64	12.156		
11,175.00	4,214.90	4,143.00	4,116.56	160.18	11.20	-84.42	-5,631.71	5,650.22	1,212.17	1,102.06	110.11	11.008 CC, ES, SF		

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: Rodeo Unit 511 pad (511, 512 & 513) - Rodeo Unit #513H - Original Hole - Surveys Original Hole														Offset Site Error:	0.00 ft
Survey Program: 412-MWD, 2745-MWD, 15103-MWD														Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
10,400.00	4,233.93	4,344.87	4,028.99	143.14	24.89	43.39	-5,953.58	4,597.64	1,254.96	1,207.25	47.71	26.304			
10,500.00	4,235.79	4,348.13	4,031.89	145.42	24.91	41.81	-5,954.82	4,596.83	1,159.37	1,109.90	49.47	23.437			
10,600.00	4,237.14	4,351.61	4,034.98	147.70	24.93	45.01	-5,956.17	4,595.98	1,064.52	1,012.88	51.63	20.617			
10,700.00	4,236.54	4,363.00	4,045.09	149.98	25.00	49.04	-5,960.70	4,593.33	970.35	915.81	54.55	17.790			
10,800.00	4,234.34	4,363.00	4,045.09	152.25	25.00	46.11	-5,960.70	4,593.33	876.30	818.83	57.47	15.247			
10,900.00	4,230.82	4,363.00	4,045.09	154.51	25.00	48.53	-5,960.70	4,593.33	782.82	721.98	60.84	12.867			
11,000.00	4,226.15	4,363.00	4,045.09	156.78	25.00	50.94	-5,960.70	4,593.33	691.29	625.94	65.35	10.578			
11,100.00	4,219.99	4,371.50	4,052.61	158.96	25.05	54.52	-5,964.21	4,591.47	602.36	530.01	72.35	8.326			
11,175.00	4,214.90	4,375.00	4,055.70	160.18	25.07	55.19	-5,965.67	4,590.73	538.19	458.26	79.93	6.733 CC, ES, SF			

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: W Lybrook 726 Pad (726, 728, 729, 760 & 761) - W Lybrook Unit No. 726H - Original Hole - Surveys Original Hole													Offset Site Error:	0.00 ft
Survey Program: 432-MWD, 2692-MWD, 5231-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.00	0.00	3.00	3.00	0.00	0.01	-12.09	157.60	-33.74	161.17					
100.00	100.00	102.87	102.87	0.13	0.17	50.71	157.61	-33.88	161.17	160.86	0.31	524.572		
200.00	200.00	202.75	202.75	0.31	0.34	50.62	157.64	-34.29	161.16	160.50	0.65	246.322		
300.00	300.00	302.62	302.62	0.49	0.51	50.49	157.70	-34.96	161.14	160.14	1.00	160.936		
400.00	400.00	402.50	402.49	0.67	0.68	50.29	157.77	-35.90	161.12	159.77	1.35	119.498		
500.00	500.00	502.39	502.38	1.00	0.98	29.30	157.84	-37.17	161.06	159.08	1.98	81.400		
529.25	529.24	531.58	531.56	1.11	1.08	36.18	157.93	-37.34	161.04	158.86	2.18	73.756		
600.00	600.00	602.31	602.28	1.36	1.32	55.91	158.47	-36.42	161.12	158.44	2.68	60.158		
700.00	699.99	702.69	702.63	1.72	1.66	38.95	159.28	-33.97	161.01	157.63	3.38	47.686		
800.00	799.99	802.71	802.61	2.08	2.00	37.72	160.03	-31.45	160.86	156.78	4.08	39.423		
870.60	870.59	873.45	873.34	2.33	2.25	60.16	160.41	-29.98	160.81	156.23	4.58	35.124 CC		
900.00	899.99	902.79	902.67	2.43	2.35	74.29	160.56	-29.45	160.81	156.03	4.79	33.603		
1,000.00	999.99	1,002.57	1,002.44	2.78	2.71	111.70	161.09	-27.84	161.13	155.65	5.49	29.365		
1,100.00	1,099.99	1,102.45	1,102.28	3.13	3.06	84.36	161.81	-25.63	161.55	155.36	6.19	26.079 ES		
1,200.00	1,199.99	1,200.24	1,199.86	3.49	3.41	54.48	163.50	-19.43	162.42	155.52	6.90	23.527		
1,300.00	1,299.99	1,297.50	1,296.34	3.85	3.78	56.85	167.07	-7.85	165.14	157.52	7.62	21.670		
1,400.00	1,399.99	1,393.95	1,391.24	4.21	4.15	105.97	171.72	8.69	170.45	162.11	8.34	20.426		
1,500.00	1,499.97	1,488.29	1,483.02	4.56	4.55	131.63	177.01	29.79	180.33	171.26	9.07	19.892 SF		
1,600.00	1,599.73	1,578.85	1,569.93	4.92	4.98	139.07	182.54	54.60	198.79	189.03	9.76	20.364		
1,700.00	1,698.94	1,662.25	1,648.85	5.29	5.41	145.12	188.28	80.95	228.24	217.86	10.38	21.981		
1,800.00	1,797.33	1,740.09	1,721.37	5.67	5.85	150.06	194.81	108.43	269.05	258.11	10.94	24.599		
1,900.00	1,894.70	1,815.30	1,790.42	6.08	6.32	156.81	201.66	137.45	319.72	308.24	11.47	27.871		
2,000.00	1,991.28	1,892.46	1,860.88	6.51	6.83	162.11	208.56	168.13	376.21	364.16	12.05	31.228		
2,100.00	2,087.79	1,967.72	1,929.42	6.97	7.34	165.32	215.27	198.48	434.94	422.33	12.60	34.509		
2,200.00	2,184.34	2,045.47	2,000.11	7.44	7.90	167.93	222.17	230.11	494.80	481.60	13.20	37.485		
2,300.00	2,280.85	2,123.19	2,070.78	7.92	8.47	169.80	228.86	261.77	555.47	541.66	13.81	40.230		
2,400.00	2,377.21	2,200.28	2,140.88	8.42	9.04	170.94	235.46	293.14	617.05	602.63	14.42	42.796		
2,500.00	2,473.49	2,276.47	2,210.17	8.93	9.62	172.62	241.99	324.15	679.28	664.26	15.03	45.204		
2,600.00	2,569.80	2,350.55	2,277.43	9.44	10.19	173.99	248.22	354.55	741.92	726.31	15.62	47.509		
2,700.00	2,666.14	2,425.96	2,345.81	9.78	10.78	177.76	254.53	385.73	804.99	788.80	16.18	49.740		
2,800.00	2,762.55	2,506.00	2,418.41	9.97	11.40	166.52	261.25	418.76	867.80	851.22	16.58	52.344		
2,900.00	2,859.09	2,592.42	2,497.07	10.18	12.08	167.05	268.40	453.82	929.59	912.55	17.04	54.562		
3,000.00	2,955.88	2,680.69	2,577.88	10.42	12.67	169.21	275.79	488.54	989.95	972.53	17.42	56.822		
3,100.00	3,052.13	2,763.53	2,653.94	10.69	13.01	170.66	282.41	520.69	1,051.58	1,034.03	17.55	59.906		
3,200.00	3,148.25	2,848.32	2,732.03	10.99	13.36	173.23	289.54	552.96	1,113.38	1,095.68	17.70	62.916		
3,300.00	3,244.63	2,941.22	2,817.96	11.31	13.75	176.04	297.90	587.25	1,173.92	1,156.02	17.89	65.605		
3,400.00	3,341.36	3,016.81	2,888.22	11.63	14.09	178.14	305.08	614.20	1,232.68	1,214.64	18.04	68.345		
3,500.00	3,438.41	3,066.00	2,933.57	11.96	14.32	-174.46	309.98	632.61	1,291.97	1,273.89	18.08	71.454		

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



Anticollision Report



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Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: W Lybrook 726 Pad (726, 728, 729, 760 & 761) - W Lybrook Unit No. 726H - Sidetrack 01 - Surveys Sidetrack 01													Offset Site Error:	0.00 ft
Survey Program: 432-MWD, 2692-MWD, 4630-MWD, 14739-MWD													Offset Well Error:	0.00 ft
Reference													Rule Assigned:	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
							+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.00	0.00	3.00	3.00	0.00	0.01	-12.09	157.60	-33.74	161.17					
100.00	100.00	102.87	102.87	0.13	0.17	50.71	157.61	-33.88	161.17	160.86	0.31	524.572		
200.00	200.00	202.75	202.75	0.31	0.34	50.62	157.64	-34.29	161.16	160.50	0.65	246.322		
300.00	300.00	302.62	302.62	0.49	0.51	50.49	157.70	-34.96	161.14	160.14	1.00	160.936		
400.00	400.00	402.50	402.49	0.67	0.68	50.29	157.77	-35.90	161.12	159.77	1.35	119.498		
500.00	500.00	502.39	502.38	1.00	0.98	29.30	157.84	-37.17	161.06	159.08	1.98	81.400		
529.25	529.24	531.58	531.56	1.11	1.08	36.18	157.93	-37.34	161.04	158.86	2.18	73.756		
600.00	600.00	602.31	602.28	1.36	1.32	55.91	158.47	-36.42	161.12	158.44	2.68	60.158		
700.00	699.99	702.69	702.63	1.72	1.66	38.95	159.28	-33.97	161.01	157.63	3.38	47.686		
800.00	799.99	802.71	802.61	2.08	2.00	37.72	160.03	-31.45	160.86	156.78	4.08	39.423		
870.60	870.59	873.45	873.34	2.33	2.25	60.16	160.41	-29.98	160.81	156.23	4.58	35.124 CC		
900.00	899.99	902.79	902.67	2.43	2.35	74.29	160.56	-29.45	160.81	156.03	4.79	33.603		
1,000.00	999.99	1,002.57	1,002.44	2.78	2.71	111.70	161.09	-27.84	161.13	155.65	5.49	29.365		
1,100.00	1,099.99	1,102.45	1,102.28	3.13	3.06	84.36	161.81	-25.63	161.55	155.36	6.19	26.079 ES		
1,200.00	1,199.99	1,200.24	1,199.86	3.49	3.41	54.48	163.50	-19.43	162.42	155.52	6.90	23.527		
1,300.00	1,299.99	1,297.50	1,296.34	3.85	3.78	56.85	167.07	-7.85	165.14	157.52	7.62	21.670		
1,400.00	1,399.99	1,393.95	1,391.24	4.21	4.15	105.97	171.72	8.69	170.45	162.11	8.34	20.426		
1,500.00	1,499.97	1,488.29	1,483.02	4.56	4.55	131.63	177.01	29.79	180.33	171.26	9.07	19.892 SF		
1,600.00	1,599.73	1,578.85	1,569.93	4.92	4.98	139.07	182.54	54.60	198.79	189.03	9.76	20.364		
1,700.00	1,698.94	1,662.25	1,648.85	5.29	5.41	145.12	188.28	80.95	228.24	217.86	10.38	21.981		
1,800.00	1,797.33	1,740.09	1,721.37	5.67	5.85	150.06	194.81	108.43	269.05	258.11	10.94	24.599		
1,900.00	1,894.70	1,815.30	1,790.42	6.08	6.32	156.81	201.66	137.45	319.72	308.24	11.47	27.871		
2,000.00	1,991.28	1,892.46	1,860.88	6.51	6.83	162.11	208.56	168.13	376.21	364.16	12.05	31.228		
2,100.00	2,087.79	1,967.72	1,929.42	6.97	7.35	165.32	215.27	198.48	434.94	422.33	12.60	34.509		
2,200.00	2,184.34	2,045.47	2,000.11	7.44	7.90	167.93	222.17	230.11	494.80	481.60	13.20	37.485		
2,300.00	2,280.85	2,123.19	2,070.78	7.92	8.47	169.80	228.86	261.77	555.47	541.66	13.81	40.230		
2,400.00	2,377.21	2,200.28	2,140.88	8.42	9.04	170.94	235.46	293.14	617.05	602.63	14.42	42.796		
2,500.00	2,473.49	2,276.47	2,210.17	8.93	9.62	172.62	241.99	324.15	679.28	664.26	15.03	45.203		
2,600.00	2,569.80	2,350.55	2,277.43	9.44	10.19	173.99	248.22	354.55	741.92	726.31	15.62	47.509		
2,700.00	2,666.14	2,425.96	2,345.81	9.78	10.78	177.76	254.53	385.73	804.99	788.80	16.18	49.739		
2,800.00	2,762.55	2,506.00	2,418.41	9.97	11.40	166.52	261.25	418.76	867.80	851.22	16.58	52.344		
2,900.00	2,859.09	2,592.42	2,497.07	10.18	12.08	167.05	268.40	453.82	929.59	912.55	17.04	54.562		
3,000.00	2,955.88	2,680.69	2,577.88	10.42	12.67	169.21	275.79	488.54	989.95	972.53	17.42	56.822		
3,100.00	3,052.13	2,763.53	2,653.94	10.69	13.01	170.66	282.41	520.69	1,051.58	1,034.03	17.55	59.906		
3,200.00	3,148.25	2,848.32	2,732.03	10.99	13.36	173.23	289.54	552.96	1,113.38	1,095.68	17.70	62.916		
3,300.00	3,244.63	2,941.22	2,817.96	11.31	13.76	176.04	297.90	587.25	1,173.92	1,156.02	17.89	65.605		
3,400.00	3,341.36	3,016.81	2,888.22	11.63	14.09	178.14	305.08	614.20	1,232.68	1,214.64	18.04	68.345		
3,500.00	3,438.41	3,066.00	2,933.57	11.96	14.32	-174.46	309.98	632.61	1,291.97	1,273.89	18.08	71.454		

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Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: W Lybrook 726 Pad (726, 728, 729, 760 & 761) - W Lybrook Unit No. 728H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 431-MWD, 2695-MWD, 13517-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		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	
0.00	0.00	2.99	2.99	0.00	0.01	-18.59	144.12	-48.48	152.06				
100.00	100.00	102.79	102.79	0.13	0.18	44.44	144.35	-48.01	152.08	151.77	0.31	490.574	
200.00	200.00	202.57	202.56	0.31	0.35	45.06	145.02	-46.65	152.14	151.48	0.66	230.646	
300.00	300.00	302.30	302.26	0.49	0.52	46.08	146.12	-44.39	152.29	151.28	1.01	150.905	
400.00	400.00	401.97	401.86	0.67	0.69	47.50	147.65	-41.25	152.58	151.22	1.36	112.303	
500.00	500.00	500.53	500.35	1.00	0.99	28.28	149.65	-38.11	153.32	151.33	1.99	77.084	
600.00	600.00	600.52	600.30	1.36	1.34	55.44	152.06	-36.31	154.86	152.16	2.70	57.308	
700.00	699.99	703.61	703.37	1.72	1.69	37.69	152.71	-36.14	155.04	151.63	3.41	45.487	
800.00	799.99	804.45	804.18	2.08	2.03	34.65	151.64	-38.31	154.06	149.96	4.10	37.561	
900.00	899.99	904.69	904.38	2.43	2.37	69.43	150.10	-40.85	152.93	148.13	4.80	31.878	
1,000.00	999.99	1,005.02	1,004.67	2.78	2.71	105.23	148.48	-43.22	152.01	146.52	5.49	27.670	
1,100.00	1,099.99	1,105.21	1,104.82	3.13	3.06	76.12	146.62	-45.35	150.79	144.60	6.20	24.336	
1,200.00	1,199.99	1,205.23	1,204.82	3.49	3.41	43.25	144.90	-46.89	149.43	142.52	6.90	21.643	
1,300.00	1,299.99	1,307.67	1,307.22	3.85	3.77	41.84	143.30	-45.44	147.20	139.58	7.62	19.323	
1,400.00	1,399.99	1,408.25	1,407.56	4.21	4.12	87.77	141.84	-38.72	143.90	135.58	8.33	17.285	
1,500.00	1,499.97	1,506.76	1,505.33	4.56	4.47	111.89	141.63	-26.81	141.85	132.82	9.04	15.700	
1,508.71	1,508.67	1,515.61	1,514.08	4.59	4.51	112.51	141.68	-25.47	141.84	132.74	9.10	15.588 CC, ES	
1,600.00	1,599.73	1,606.79	1,603.81	4.92	4.85	120.88	141.37	-9.40	143.41	133.64	9.77	14.678	
1,700.00	1,698.94	1,701.74	1,696.44	5.29	5.23	131.18	139.93	11.39	151.99	141.49	10.51	14.463 SF	
1,800.00	1,797.33	1,789.86	1,781.45	5.67	5.62	141.38	138.34	34.55	172.13	160.93	11.20	15.372	
1,900.00	1,894.70	1,870.62	1,858.15	6.08	6.01	152.60	137.00	59.73	206.09	194.30	11.79	17.485	
2,000.00	1,991.28	1,949.30	1,931.73	6.51	6.43	161.36	135.62	87.56	251.19	238.85	12.33	20.364	
2,100.00	2,087.79	2,028.27	2,004.94	6.97	6.88	167.27	133.96	117.12	301.63	288.75	12.89	23.408	
2,200.00	2,184.34	2,110.32	2,080.90	7.44	7.37	171.80	132.29	148.11	354.62	341.13	13.49	26.280	
2,300.00	2,280.85	2,194.39	2,158.96	7.92	7.90	175.04	130.37	179.25	408.65	394.50	14.15	28.887	
2,400.00	2,377.21	2,276.11	2,234.90	8.42	8.42	177.13	128.30	209.35	463.86	449.08	14.78	31.378	
2,500.00	2,473.49	2,358.41	2,311.41	8.93	8.95	179.52	125.95	239.61	519.88	504.44	15.44	33.674	
2,600.00	2,569.80	2,440.64	2,387.88	9.44	9.50	-178.55	123.39	269.74	576.13	560.03	16.10	35.789	
2,700.00	2,666.14	2,531.71	2,472.84	9.78	10.10	-174.37	120.49	302.39	631.99	615.20	16.79	37.630	
2,800.00	2,762.55	2,624.49	2,560.00	9.97	10.65	175.11	117.63	334.03	686.57	669.35	17.22	39.862	
2,900.00	2,859.09	2,712.58	2,643.16	10.18	11.03	175.70	115.27	362.99	740.09	722.64	17.45	42.414	
3,000.00	2,955.88	2,797.43	2,723.44	10.42	11.27	177.84	113.27	390.42	792.70	775.16	17.54	45.192	
3,100.00	3,052.13	2,870.12	2,792.10	10.69	11.51	179.34	111.94	414.25	847.75	830.14	17.61	48.142	
3,200.00	3,148.25	2,963.09	2,879.91	10.99	11.83	-178.11	110.66	444.77	903.55	885.73	17.82	50.703	
3,300.00	3,244.63	3,035.50	2,948.51	11.31	12.10	-175.52	109.75	467.93	957.99	940.05	17.94	53.393	
3,400.00	3,341.36	3,093.00	3,002.51	11.63	12.32	-173.56	109.52	487.65	1,013.39	995.38	18.00	56.286	
3,500.00	3,438.41	3,196.13	3,099.31	11.96	12.76	-166.10	109.62	523.24	1,067.99	1,049.64	18.34	58.227	
3,600.00	3,534.80	3,291.49	3,189.36	12.30	13.17	-122.28	110.06	554.60	1,119.21	1,100.52	18.69	59.887	
3,700.00	3,628.36	3,375.06	3,268.41	12.61	13.54	-102.24	110.84	581.72	1,164.06	1,145.01	19.05	61.114	
3,800.00	3,717.75	3,494.98	3,382.76	12.91	14.06	-91.69	112.57	617.73	1,200.84	1,181.15	19.69	60.982	
3,900.00	3,803.80	3,546.11	3,431.41	13.20	14.29	-86.81	113.53	633.44	1,234.04	1,213.98	20.06	61.520	
4,000.00	3,885.98	3,603.86	3,485.87	13.51	14.56	-81.83	114.67	652.63	1,265.51	1,244.95	20.56	61.554	
4,100.00	3,962.27	3,668.79	3,546.71	13.83	14.90	-76.32	116.22	675.25	1,291.73	1,270.50	21.24	60.819	
4,200.00	4,031.66	3,801.62	3,673.16	14.17	15.42	-76.66	137.74	707.86	1,309.59	1,287.17	22.42	58.405	

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: W Lybrook 726 Pad (726, 728, 729, 760 & 761) - W Lybrook Unit No. 729H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 431-MWD, 2701-MWD, 12316-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		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	
0.00	0.00	3.04	3.04	0.00	0.01	-41.88	104.04	-93.30	139.75				
100.00	100.00	104.36	104.35	0.13	0.18	20.86	103.52	-93.12	139.18	138.87	0.31	446.632	
200.00	200.00	205.65	205.63	0.31	0.35	20.63	102.02	-92.60	137.55	136.89	0.66	207.545	
300.00	300.00	306.89	306.84	0.49	0.53	20.25	99.54	-91.74	134.85	133.84	1.01	132.914	
400.00	400.00	408.06	407.94	0.67	0.70	19.68	96.08	-90.54	131.10	129.73	1.37	95.832	
500.00	500.00	508.30	508.09	1.00	1.02	-1.80	91.89	-89.16	126.58	124.57	2.01	62.844	
600.00	600.00	607.95	607.64	1.36	1.39	23.58	87.79	-87.72	122.13	119.40	2.73	44.729	
700.00	699.99	707.30	706.91	1.72	1.75	4.60	83.81	-86.70	118.03	114.58	3.45	34.244	
800.00	799.99	806.63	806.17	2.08	2.11	1.36	80.27	-85.86	114.44	110.28	4.16	27.490	
900.00	899.99	905.99	905.48	2.43	2.47	36.17	77.18	-85.39	111.62	106.74	4.88	22.890	
1,000.00	999.99	1,005.24	1,004.70	2.78	2.83	72.10	74.59	-85.11	109.60	104.01	5.58	19.628	
1,100.00	1,099.99	1,106.69	1,106.11	3.13	3.20	42.88	71.80	-85.05	107.61	101.30	6.30	17.072	
1,200.00	1,199.99	1,211.01	1,210.23	3.49	3.59	8.69	65.72	-83.57	102.52	95.48	7.04	14.568	
1,300.00	1,299.99	1,313.79	1,312.42	3.85	3.98	3.12	55.33	-80.21	93.41	85.64	7.77	12.022	
1,400.00	1,399.99	1,414.83	1,412.43	4.21	4.39	40.53	41.67	-75.84	82.23	73.71	8.51	9.659	
1,500.00	1,499.97	1,514.96	1,511.05	4.56	4.82	50.70	25.10	-70.68	69.51	60.23	9.28	7.487	
1,600.00	1,599.73	1,614.15	1,607.95	4.92	5.26	37.93	4.86	-64.58	53.67	43.55	10.12	5.306	
1,700.00	1,698.94	1,710.93	1,701.45	5.29	5.73	11.74	-19.17	-58.00	37.20	26.20	11.00	3.381	
1,770.95	1,768.84	1,778.58	1,766.31	5.56	6.08	-21.70	-37.76	-53.17	31.68	20.38	11.31	2.802 CC, ES, SF	
1,800.00	1,797.33	1,806.14	1,792.66	5.67	6.22	-37.14	-45.60	-51.16	32.75	21.45	11.31	2.897	
1,900.00	1,894.70	1,900.84	1,883.16	6.08	6.72	-73.99	-72.65	-44.41	49.53	37.73	11.80	4.197	
2,000.00	1,991.28	1,995.53	1,973.74	6.51	7.24	-91.87	-99.48	-37.89	76.15	63.39	12.76	5.968	
2,100.00	2,087.79	2,090.37	2,064.58	6.97	7.76	-101.49	-125.97	-31.40	106.14	92.40	13.74	7.726	
2,200.00	2,184.34	2,185.90	2,156.34	7.44	8.28	-107.14	-151.69	-24.82	136.99	122.28	14.71	9.313	
2,300.00	2,280.85	2,280.41	2,247.29	7.92	8.80	-111.04	-176.61	-18.49	168.23	152.59	15.65	10.750	
2,400.00	2,377.21	2,372.58	2,335.66	8.42	9.31	-113.88	-202.01	-12.12	201.24	184.69	16.55	12.158	
2,500.00	2,473.49	2,468.23	2,427.28	8.93	9.85	-115.47	-228.72	-5.81	234.65	217.13	17.52	13.393	
2,600.00	2,569.80	2,564.12	2,519.45	9.44	10.39	-116.92	-254.39	0.63	267.60	249.12	18.48	14.479	
2,700.00	2,666.14	2,662.78	2,614.61	9.78	10.81	-116.03	-279.67	6.78	299.03	279.84	19.19	15.582	
2,800.00	2,762.55	2,755.82	2,704.65	9.97	11.08	-127.74	-302.49	12.32	331.60	312.08	19.53	16.980	
2,900.00	2,859.09	2,841.47	2,787.25	10.18	11.29	-129.03	-324.31	18.39	367.24	347.48	19.76	18.586	
3,000.00	2,955.88	2,924.36	2,866.58	10.42	11.53	-128.19	-347.20	25.63	404.64	384.65	19.99	20.241	
3,100.00	3,052.13	3,006.18	2,944.37	10.69	11.79	-127.30	-371.03	34.24	445.20	424.93	20.27	21.964	
3,200.00	3,148.25	3,100.47	3,033.92	10.99	12.12	-126.28	-398.55	44.97	486.38	465.65	20.72	23.468	
3,300.00	3,244.63	3,201.74	3,130.55	11.31	12.48	-124.98	-426.89	55.64	525.19	503.93	21.27	24.696	
3,400.00	3,341.36	3,288.59	3,213.26	11.63	12.81	-123.82	-451.98	64.09	562.48	540.79	21.70	25.925	
3,500.00	3,438.41	3,401.69	3,321.63	11.96	13.25	-117.77	-482.73	74.14	596.86	574.49	22.37	26.677	
3,600.00	3,534.80	3,487.53	3,403.83	12.30	13.59	-79.07	-506.28	81.49	622.01	599.14	22.87	27.196	
3,700.00	3,628.36	3,975.82	3,870.21	12.61	14.38	-71.52	-550.50	2.58	598.50	575.70	22.81	26.240	
3,800.00	3,717.75	4,378.85	4,160.30	12.91	13.67	-113.70	-394.96	-213.75	511.20	495.11	16.09	31.778	
3,900.00	3,803.80	4,385.10	4,163.36	13.20	13.66	-116.54	-391.44	-217.92	425.32	408.35	16.97	25.065	
4,000.00	3,885.98	4,383.06	4,162.36	13.51	13.66	-119.51	-392.59	-216.55	346.08	327.73	18.35	18.863	
4,100.00	3,962.27	4,369.27	4,155.63	13.83	13.68	-116.95	-400.37	-207.38	278.43	257.98	20.45	13.617	
4,200.00	4,031.66	4,342.59	4,142.55	14.17	13.72	-111.14	-415.40	-189.64	231.17	208.17	23.01	10.048	
4,276.76	4,079.02	4,316.59	4,129.26	14.51	13.77	-105.38	-429.68	-172.45	218.74	194.56	24.18	9.046	
4,300.00	4,091.96	4,308.23	4,124.78	14.63	13.79	-103.32	-434.13	-166.97	219.79	195.60	24.19	9.085	
4,400.00	4,146.16	4,277.20	4,107.16	15.25	13.85	-94.39	-449.96	-146.93	247.99	225.03	22.96	10.801	
4,500.00	4,191.72	4,247.29	4,088.73	16.08	13.91	-81.18	-464.24	-128.21	302.13	280.83	21.29	14.188	
4,600.00	4,223.73	4,215.33	4,067.49	17.14	13.97	-68.23	-478.37	-108.97	366.30	345.97	20.33	18.017	
4,700.00	4,240.94	4,180.91	4,042.97	18.42	14.04	-56.42	-492.30	-89.25	433.79	413.79	20.00	21.693	
4,800.00	4,246.89	4,147.73	4,017.86	19.92	14.10	-51.17	-504.52	-71.33	504.51	484.38	20.13	25.064	
4,900.00	4,250.15	4,116.90	3,993.28	21.59	14.16	-47.70	-514.79	-55.81	579.53	559.15	20.38	28.441	

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: W Lybrook 726 Pad (726, 728, 729, 760 & 761) - W Lybrook Unit No. 729H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 431-MWD, 2701-MWD, 12316-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		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	
5,000.00	4,251.53	4,089.73	3,970.83	23.37	14.21	-45.38	-523.08	-42.96	657.76	637.07	20.69	31.791	
5,100.00	4,250.78	4,065.03	3,949.79	25.23	14.25	-43.84	-529.93	-31.98	737.66	716.64	21.02	35.087	
5,200.00	4,248.42	4,044.00	3,931.47	27.16	14.28	-42.20	-535.31	-23.17	819.36	797.99	21.37	38.341	
5,300.00	4,245.60	4,013.00	3,903.91	29.15	14.33	-40.41	-542.61	-11.01	903.28	881.70	21.58	41.866	
5,400.00	4,245.75	3,995.92	3,888.51	31.18	14.35	-39.09	-546.36	-4.64	990.89	969.03	21.86	45.329	
5,500.00	4,244.80	3,981.00	3,874.96	33.25	14.37	-36.88	-549.49	0.77	1,079.54	1,057.42	22.12	48.807	
5,600.00	4,241.48	3,950.00	3,846.55	35.35	14.41	-34.10	-555.52	11.59	1,168.42	1,146.18	22.24	52.537	
5,700.00	4,238.97	3,938.53	3,835.94	37.47	14.42	-36.23	-557.56	15.46	1,258.69	1,236.22	22.47	56.011	

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: W Lybrook 726 Pad (726, 728, 729, 760 & 761) - W Lybrook Unit No. 760H - Original Hole - Surveys Original Hole													Offset Site Error: 0.00 ft
Survey Program: 431-MWD, 2696-MWD, 13379-MWD													Offset Well Error: 0.00 ft
Reference	Offset	Semi Major Axis		Rule Assigned:		Distance		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	2.98	2.98	0.00	0.01	-33.66	117.52	-78.26	141.20				
100.00	100.00	102.31	102.31	0.13	0.17	29.25	117.84	-78.24	141.39	141.08	0.31	461.176	
200.00	200.00	201.63	201.63	0.31	0.34	29.51	118.75	-78.17	141.94	141.29	0.65	217.435	
300.00	300.00	300.94	300.93	0.49	0.51	29.95	120.25	-78.07	142.86	141.86	1.00	142.994	
400.00	400.00	400.23	400.20	0.67	0.67	30.54	122.34	-77.92	144.15	142.80	1.35	107.129	
500.00	500.00	499.64	499.56	1.00	0.97	10.60	125.06	-77.64	145.82	143.84	1.97	73.893	
600.00	600.00	599.97	599.86	1.36	1.33	37.51	127.88	-77.38	147.62	144.93	2.69	54.844	
700.00	699.99	701.74	701.60	1.72	1.70	20.12	130.10	-77.11	148.86	145.44	3.41	43.618	
800.00	799.99	804.75	804.60	2.08	2.05	18.37	130.39	-75.89	148.02	143.90	4.13	35.860	
900.00	899.99	904.47	904.31	2.43	2.39	54.53	129.78	-74.54	146.51	141.69	4.82	30.374	
1,000.00	999.99	1,004.05	1,003.88	2.78	2.74	91.46	129.40	-74.01	145.91	140.40	5.52	26.454	
1,100.00	1,099.99	1,103.81	1,103.64	3.13	3.08	63.50	129.10	-73.29	145.24	139.02	6.22	23.363	
1,200.00	1,199.99	1,203.70	1,203.53	3.49	3.43	31.46	128.88	-72.93	144.66	137.74	6.92	20.899	
1,300.00	1,299.99	1,303.60	1,303.43	3.85	3.78	29.64	128.55	-72.81	143.94	136.32	7.62	18.878	
1,400.00	1,399.99	1,407.85	1,407.65	4.21	4.14	73.50	127.51	-71.25	142.15	133.81	8.34	17.041	
1,500.00	1,499.97	1,516.05	1,515.52	4.56	4.53	95.12	123.58	-64.03	135.94	126.89	9.06	15.011	
1,600.00	1,599.73	1,621.33	1,619.65	4.92	4.92	102.32	115.68	-50.84	125.20	115.45	9.76	12.834	
1,700.00	1,698.94	1,720.56	1,717.05	5.29	5.30	113.45	105.45	-34.90	115.26	104.76	10.49	10.983	
1,768.09	1,766.03	1,785.60	1,780.57	5.55	5.56	123.32	98.02	-23.04	112.65	101.61	11.04	10.206 CC, ES	
1,800.00	1,797.33	1,815.91	1,810.08	5.67	5.69	128.55	94.39	-17.15	113.32	102.02	11.30	10.029 SF	
1,900.00	1,894.70	1,909.04	1,900.34	6.08	6.10	147.22	82.08	2.22	125.01	112.91	12.11	10.325	
2,000.00	1,991.28	2,000.39	1,988.36	6.51	6.52	162.28	68.16	22.26	149.50	136.64	12.86	11.629	
2,100.00	2,087.79	2,090.61	2,075.28	6.97	6.94	172.16	54.13	41.96	181.31	167.76	13.55	13.376	
2,200.00	2,184.34	2,181.33	2,162.96	7.44	7.39	178.95	40.66	60.94	216.65	202.40	14.25	15.201	
2,300.00	2,280.85	2,267.82	2,246.32	7.92	7.82	-176.41	27.59	79.93	255.25	240.34	14.92	17.113	
2,400.00	2,377.21	2,357.66	2,332.63	8.42	8.28	-172.92	13.38	100.44	296.43	280.79	15.64	18.959	
2,500.00	2,473.49	2,450.06	2,421.52	8.93	8.76	-169.60	-1.30	120.95	338.42	322.03	16.40	20.639	
2,600.00	2,569.80	2,544.96	2,513.22	9.44	9.25	-167.17	-15.65	140.67	379.91	362.72	17.19	22.104	
2,700.00	2,666.14	2,639.23	2,604.75	9.78	9.65	-163.13	-28.95	158.91	420.50	402.72	17.78	23.652	
2,800.00	2,762.55	2,729.84	2,692.94	9.97	9.90	-173.09	-41.19	175.76	461.03	443.05	17.98	25.641	
2,900.00	2,859.09	2,813.19	2,773.69	10.18	10.06	-172.28	-53.70	192.17	502.59	484.53	18.06	27.823	
3,000.00	2,955.88	2,894.64	2,851.98	10.42	10.24	-169.69	-67.56	209.80	545.16	526.99	18.17	29.998	
3,100.00	3,052.13	2,990.32	2,944.00	10.69	10.49	-167.33	-83.71	230.48	589.85	571.43	18.42	32.014	
3,200.00	3,148.25	3,069.96	3,020.58	10.99	10.71	-164.70	-97.20	247.65	635.08	616.47	18.62	34.116	
3,300.00	3,244.63	3,158.15	3,104.90	11.31	10.99	-161.68	-113.46	267.72	680.48	661.59	18.89	36.018	
3,400.00	3,341.36	3,247.64	3,190.59	11.63	11.29	-159.27	-129.74	287.79	724.40	705.19	19.21	37.707	
3,500.00	3,438.41	3,368.33	3,306.72	11.96	11.70	-151.74	-150.41	313.24	766.08	746.34	19.74	38.810	
3,600.00	3,534.80	3,443.42	3,379.53	12.30	11.96	-110.42	-161.64	327.71	801.47	781.43	20.05	39.978	
3,700.00	3,628.36	3,519.18	3,452.43	12.61	12.24	-92.10	-173.81	344.37	829.47	809.02	20.45	40.563	
3,800.00	3,717.75	3,597.31	3,527.15	12.91	12.56	-82.01	-186.84	363.09	850.92	829.96	20.96	40.592	
3,900.00	3,803.80	3,704.22	3,628.92	13.20	13.01	-78.93	-205.34	390.07	867.45	845.66	21.79	39.817	
4,000.00	3,885.98	3,892.62	3,813.65	13.51	13.62	-79.65	-223.98	420.73	871.53	848.42	23.11	37.708	
4,100.00	3,962.27	4,019.09	3,939.75	13.83	13.88	-79.09	-227.81	429.02	862.75	838.71	24.04	35.888	
4,200.00	4,031.66	4,100.06	4,020.69	14.17	14.01	-80.72	-228.48	431.00	847.06	822.16	24.90	34.015	
4,300.00	4,091.96	4,179.61	4,100.21	14.63	14.10	-85.85	-227.23	430.92	832.69	806.82	25.87	32.182	
4,400.00	4,146.16	4,239.40	4,159.63	15.25	14.13	-89.26	-221.92	427.23	824.69	797.84	26.85	30.712	
4,481.02	4,184.06	4,273.31	4,193.04	15.91	14.12	-90.46	-217.33	423.62	822.73	795.05	27.68	29.722	
4,500.00	4,191.72	4,278.89	4,198.50	16.08	14.12	-90.60	-216.47	422.90	823.26	795.42	27.84	29.571	
4,600.00	4,223.73	4,292.02	4,211.33	17.14	14.12	-89.85	-214.34	421.08	826.85	797.96	28.89	28.625	
4,700.00	4,240.94	4,287.33	4,206.75	18.42	14.12	-88.29	-215.12	421.75	837.71	807.94	29.77	28.143	
4,800.00	4,246.89	4,273.98	4,193.68	19.92	14.12	-86.81	-217.23	423.54	859.75	829.18	30.56	28.130	
4,900.00	4,250.15	4,258.00	4,177.99	21.59	14.13	-85.32	-219.54	425.40	891.71	860.53	31.18	28.601	

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: W Lybrook 726 Pad (726, 728, 729, 760 & 761) - W Lybrook Unit No. 760H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 431-MWD, 2696-MWD, 13379-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:		Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,000.00	4,251.53	4,250.88	4,170.97	23.37	14.13	-84.36	-220.49	426.14	932.42	900.79	31.63	29.480	
5,100.00	4,250.78	4,240.87	4,161.08	25.23	14.13	-83.20	-221.74	427.10	979.22	947.31	31.92	30.681	
5,200.00	4,248.42	4,226.00	4,146.36	27.16	14.13	-81.73	-223.42	428.34	1,032.16	1,000.10	32.06	32.190	
5,300.00	4,245.60	4,226.00	4,146.36	29.15	14.13	-82.58	-223.42	428.34	1,091.44	1,059.29	32.15	33.948	
5,400.00	4,245.75	4,217.51	4,137.94	31.18	14.12	-82.35	-224.29	428.96	1,158.23	1,126.11	32.12	36.062	
5,500.00	4,244.80	4,211.97	4,132.44	33.25	14.12	-80.78	-224.81	429.33	1,229.45	1,197.42	32.04	38.374	
5,600.00	4,241.48	4,206.08	4,126.58	35.35	14.12	-78.91	-225.33	429.69	1,304.09	1,272.16	31.93	40.842	

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: W Lybrook 726 Pad (726, 728, 729, 760 & 761) - W Lybrook Unit No. 761H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 431-MWD, 2703-MWD, 12833-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Rule Assigned:		Distance		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	3.00	3.00	0.00	0.01	-49.91	90.93	-108.04	141.21				
100.00	100.00	102.93	102.92	0.13	0.17	13.08	91.26	-107.80	141.17	140.86	0.31	457.444	
200.00	200.00	202.84	202.83	0.31	0.34	13.57	92.20	-107.11	141.06	140.40	0.66	214.723	
300.00	300.00	302.73	302.70	0.49	0.51	14.38	93.75	-105.96	140.90	139.89	1.01	140.165	
400.00	400.00	402.58	402.52	0.67	0.68	15.52	95.92	-104.36	140.72	139.36	1.35	103.969	
500.00	500.00	502.61	502.49	1.00	0.99	-3.77	98.60	-102.35	140.55	138.56	1.99	70.645	
600.00	600.00	602.82	602.68	1.36	1.35	23.30	100.32	-101.06	140.33	137.62	2.71	51.837	
700.00	699.99	703.11	702.96	1.72	1.70	5.64	100.97	-100.65	139.95	136.53	3.42	40.890	
800.00	799.99	803.02	802.87	2.08	2.05	3.52	101.13	-100.31	139.32	135.19	4.13	33.740	
826.75	826.74	829.38	829.23	2.17	2.14	10.08	101.10	-100.42	139.28	134.96	4.31	32.285	
900.00	899.99	902.67	902.51	2.43	2.39	38.94	100.80	-101.25	139.40	134.58	4.82	28.926	
1,000.00	999.99	1,004.50	1,004.31	2.78	2.73	74.73	98.91	-102.88	139.17	133.66	5.51	25.268	
1,100.00	1,099.99	1,108.44	1,107.98	3.13	3.08	43.72	92.34	-105.92	136.88	130.67	6.21	22.042	
1,200.00	1,199.99	1,209.28	1,208.01	3.49	3.43	6.43	80.47	-110.38	132.61	125.69	6.92	19.169	
1,300.00	1,299.99	1,310.32	1,307.91	3.85	3.80	-1.89	66.11	-115.23	128.40	120.76	7.65	16.796	
1,400.00	1,399.99	1,412.02	1,407.92	4.21	4.20	33.37	48.16	-119.50	124.10	115.70	8.40	14.780	
1,500.00	1,499.97	1,510.24	1,503.70	4.56	4.61	42.62	26.86	-123.53	120.42	111.25	9.17	13.137	
1,600.00	1,599.73	1,607.40	1,597.28	4.92	5.05	31.64	1.22	-128.28	116.84	106.89	9.95	11.744	
1,700.00	1,698.94	1,702.12	1,686.94	5.29	5.53	18.20	-28.79	-133.85	114.27	103.59	10.68	10.698	
1,800.00	1,797.33	1,798.75	1,777.76	5.67	6.05	3.82	-61.23	-139.86	113.37	102.01	11.35	9.986	
1,812.68	1,809.74	1,810.82	1,789.11	5.72	6.12	2.40	-65.28	-140.61	113.35	101.92	11.43	9.917 CC, ES	
1,900.00	1,894.70	1,894.12	1,867.27	6.08	6.59	-7.71	-93.57	-146.02	114.14	102.23	11.91	9.582	
2,000.00	1,991.28	1,990.97	1,958.09	6.51	7.16	-19.97	-126.60	-152.33	118.02	105.54	12.48	9.459	
2,100.00	2,087.79	2,088.06	2,049.37	6.97	7.74	-31.86	-159.09	-158.74	126.70	113.58	13.12	9.658	
2,200.00	2,184.34	2,183.99	2,139.59	7.44	8.32	-41.77	-191.04	-165.11	139.97	126.13	13.85	10.109	
2,300.00	2,280.85	2,278.21	2,227.84	7.92	8.91	-50.02	-223.42	-171.42	157.66	143.01	14.65	10.763	
2,400.00	2,377.21	2,374.09	2,317.42	8.42	9.52	-57.24	-257.02	-177.75	178.48	162.90	15.59	11.450	
2,500.00	2,473.49	2,472.63	2,409.70	8.93	10.15	-62.66	-290.94	-184.29	200.47	183.83	16.65	12.043	
2,600.00	2,569.80	2,571.36	2,502.76	9.44	10.77	-67.23	-323.39	-190.27	222.37	204.64	17.73	12.544	
2,700.00	2,666.14	2,666.45	2,592.42	9.78	11.31	-68.72	-354.56	-195.77	244.66	226.15	18.51	13.220	
2,800.00	2,762.55	2,755.07	2,675.65	9.97	11.66	-81.70	-384.59	-200.64	271.24	252.38	18.86	14.380	
2,900.00	2,859.09	2,841.87	2,756.01	10.18	11.98	-84.61	-416.95	-206.17	303.80	284.63	19.17	15.845	
3,000.00	2,955.88	2,932.42	2,839.39	10.42	12.35	-85.36	-451.87	-211.33	338.08	318.50	19.58	17.265	
3,100.00	3,052.13	3,023.60	2,923.11	10.69	12.76	-85.83	-487.61	-216.65	372.77	352.69	20.07	18.569	
3,200.00	3,148.25	3,112.46	3,004.48	10.99	13.18	-86.00	-523.03	-221.08	408.06	387.47	20.60	19.813	
3,300.00	3,244.63	3,205.48	3,089.65	11.31	13.64	-85.74	-560.26	-224.70	443.38	422.18	21.20	20.917	
3,400.00	3,341.36	3,302.03	3,178.31	11.63	14.14	-85.63	-598.35	-227.87	477.86	456.00	21.85	21.867	
3,500.00	3,438.41	3,400.39	3,268.96	11.96	14.65	-80.58	-636.40	-230.79	511.21	488.68	22.53	22.691	
3,600.00	3,534.80	3,508.77	3,369.60	12.30	15.21	-43.67	-676.49	-233.97	532.37	509.08	23.29	22.860	
3,700.00	3,628.36	3,611.78	3,465.94	12.61	15.74	-26.71	-712.86	-236.71	534.21	510.29	23.92	22.333	
3,800.00	3,717.75	3,710.25	3,557.66	12.91	16.27	-15.60	-748.46	-240.82	522.63	498.20	24.43	21.397	
3,900.00	3,803.80	3,815.82	3,656.37	13.20	16.83	-9.19	-785.69	-244.76	501.88	476.95	24.94	20.127	
4,000.00	3,885.98	3,916.85	3,751.60	13.51	17.37	-2.29	-819.24	-248.12	471.88	446.58	25.31	18.646	
4,100.00	3,962.27	4,006.66	3,836.39	13.83	17.84	8.35	-848.66	-251.21	432.67	407.33	25.34	17.074	
4,200.00	4,031.66	4,094.34	3,919.12	14.17	18.31	18.16	-877.50	-254.53	386.70	361.67	25.03	15.450	
4,300.00	4,091.96	4,190.49	4,010.47	14.63	18.80	28.63	-906.68	-260.49	331.99	307.48	24.52	13.542	
4,400.00	4,146.16	4,288.36	4,102.98	15.25	19.23	47.20	-928.97	-282.63	272.69	249.14	23.55	11.578	
4,500.00	4,191.72	4,340.63	4,152.36	16.08	19.39	66.33	-934.50	-298.83	221.58	197.38	24.20	9.157	
4,584.70	4,219.85	4,354.51	4,165.37	16.96	19.42	73.01	-935.25	-303.57	204.42	176.01	28.41	7.196	
4,600.00	4,223.73	4,355.10	4,165.93	17.14	19.43	73.33	-935.27	-303.78	205.19	175.87	29.32	6.998	
4,700.00	4,240.94	4,351.48	4,162.54	18.42	19.42	69.78	-935.11	-302.52	234.28	199.59	34.69	6.753 SF	
4,800.00	4,246.89	4,341.22	4,152.91	19.92	19.39	65.28	-934.53	-299.03	293.13	256.30	36.84	7.958	

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Offset Design: W Lybrook 726 Pad (726, 728, 729, 760 & 761) - W Lybrook Unit No. 761H - Original Hole - Surveys Original Hole												Offset Site Error:	0.00 ft
Survey Program: 431-MWD, 2703-MWD, 12833-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
4,900.00	4,250.15	4,330.00	4,142.34	21.59	19.36	60.95	-933.71	-295.36	369.36	332.26	37.10	9.957	
5,000.00	4,251.53	4,322.23	4,135.00	23.37	19.34	56.56	-933.03	-292.90	454.43	417.53	36.90	12.314	
5,100.00	4,250.78	4,312.45	4,125.75	25.23	19.31	50.73	-932.05	-289.85	544.68	508.10	36.57	14.893	
5,200.00	4,248.42	4,298.00	4,112.10	27.16	19.27	44.72	-930.32	-285.47	637.68	601.53	36.15	17.639	
5,300.00	4,245.60	4,298.00	4,112.10	29.15	19.27	49.65	-930.32	-285.47	732.21	696.13	36.07	20.297	
5,400.00	4,245.75	4,298.00	4,112.10	31.18	19.27	52.11	-930.32	-285.47	828.08	792.16	35.92	23.055	
5,500.00	4,244.80	4,287.11	4,101.80	33.25	19.23	46.30	-928.78	-282.27	924.46	888.87	35.59	25.977	
5,600.00	4,241.48	4,282.80	4,097.74	35.35	19.21	41.33	-928.10	-281.03	1,021.19	985.77	35.42	28.832	
5,700.00	4,238.97	4,279.34	4,094.47	37.47	19.20	52.18	-927.53	-280.04	1,118.52	1,083.25	35.27	31.711	
5,800.00	4,240.06	4,267.00	4,082.82	39.61	19.15	47.44	-925.30	-276.62	1,216.83	1,181.85	34.98	34.784	
5,900.00	4,239.56	4,267.00	4,082.82	41.77	19.15	42.60	-925.30	-276.62	1,315.09	1,280.17	34.92	37.664	

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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=6747+25 @ 6772.00ft (Aztec 10

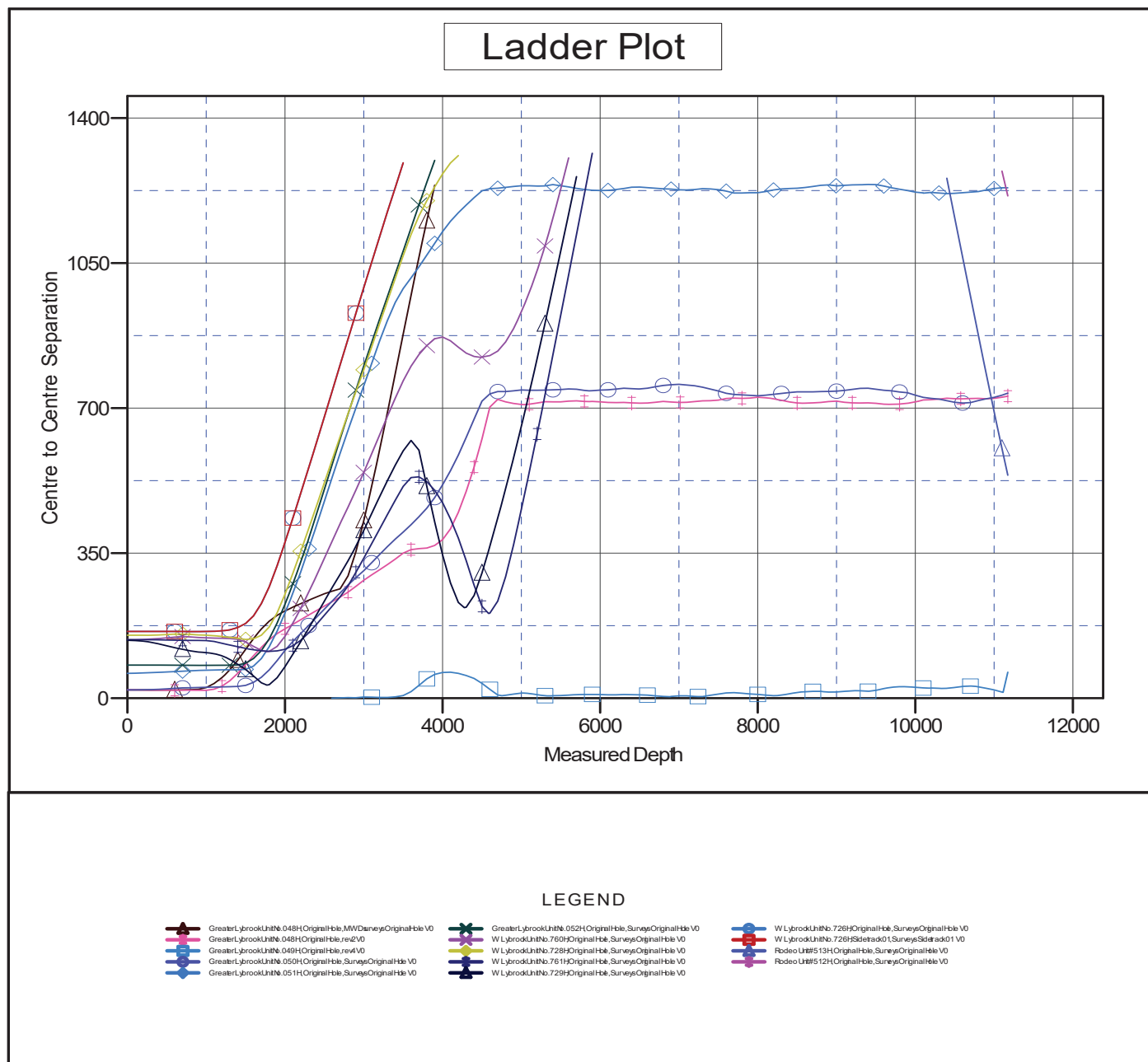
Offset Depths are relative to Offset Datum

Central Meridian is -107.833333333

Coordinates are relative to: Greater Lybrook Unit No. 049H

Coordinate System is US State Plane 1983, New Mexico Western Zone

Grid Convergence at Surface is: 0.04°



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



Anticollision Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Greater Lybrook Unit No. 049H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Reference Site:	Greater Lybrook Pad (48,49,50,51 & 52)	MD Reference:	RKB=6747+25 @ 6772.00ft (Aztec 1000)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Greater Lybrook Unit No. 049H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Original Hole	Database:	DB_Decv0422v16
Reference Design:	Surveys Original Hole	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=6747+25 @ 6772.00ft (Aztec 10

Offset Depths are relative to Offset Datum

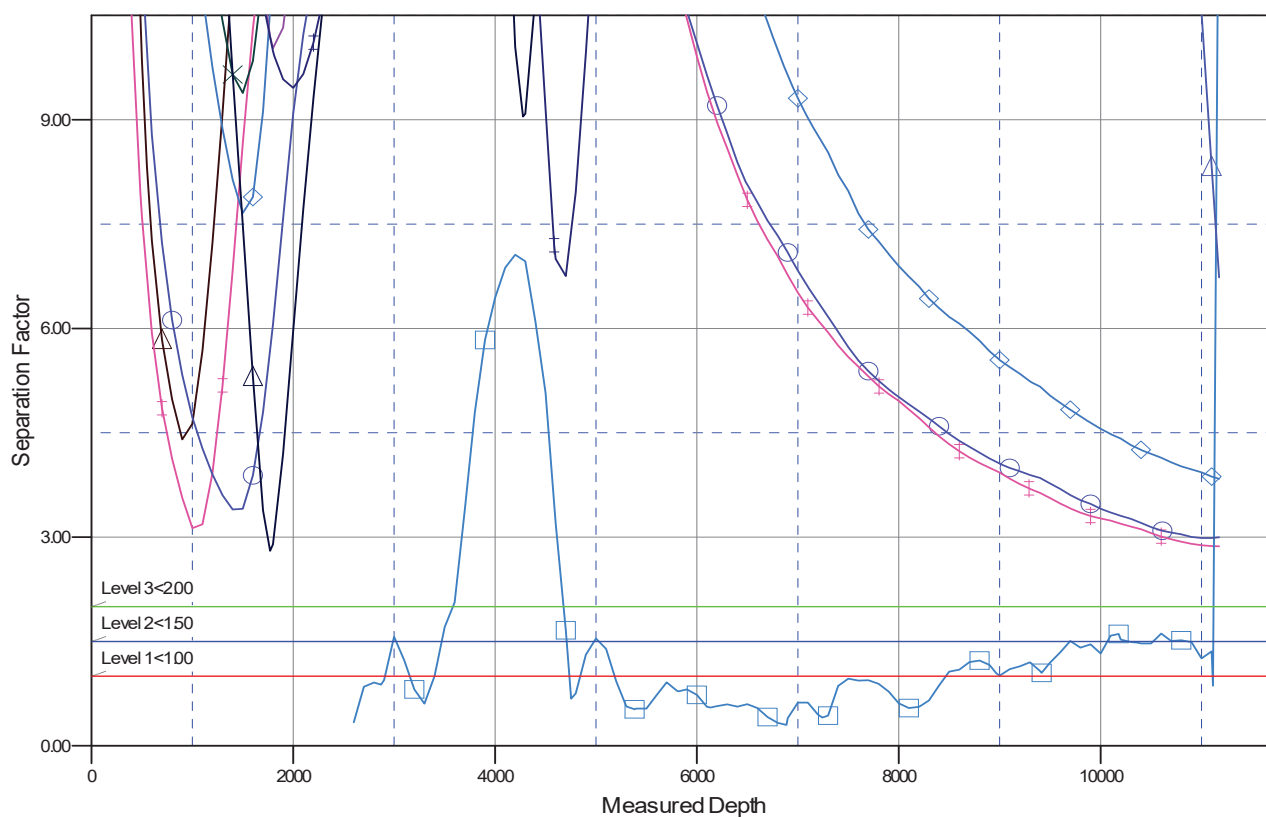
Central Meridian is -107.833333333

Coordinates are relative to: Greater Lybrook Unit No. 049H

Coordinate System is US State Plane 1983, New Mexico Western Zone

Grid Convergence at Surface is: 0.04°

Separation Factor Plot



LEGEND

GreaterLybrookUnitNo.048HOriginalHole,MWDsurveysOriginalHole V0	GreaterLybrookUnitNo.052HOriginalHole,SurveysOriginalHole V0	W LybrookUnitNo.726HOriginalHole,SurveysOriginalHole V0
GreaterLybrookUnitNo.048HOriginalHole,rev2V0	W LybrookUnitNo.760HOriginalHole,SurveysOriginalHole V0	W LybrookUnitNo.726HSideTrack01,SurveysSideTrack01 V0
GreaterLybrookUnitNo.049HOriginalHole,revV0	W LybrookUnitNo.726HOriginalHole,SurveysOriginalHole V0	Rodeo Unit#513HOriginalHole,SurveysOriginalHole V0
GreaterLybrookUnitNo.050HOriginalHole,SurveysOriginalHole V0	W LybrookUnitNo.761HOriginalHole,SurveysOriginalHole V0	Rodeo Unit#512HOriginalHole,SurveysOriginalHole V0
GreaterLybrookUnitNo.051HOriginalHole,SurveysOriginalHole V0	W LybrookUnitNo.726HOriginalHole,SurveysOriginalHole V0	

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

WELL NAME: GREATER LYBROOK UNIT 049H

OBJECTIVE: Drill, complete, and equip single lateral in the Mancos-Cms formation

API Number: 30-045-38284

AFE Number: DV03080

ER Well Number: NM08276.01

State: New Mexico

County: San Juan

Surface Elev.: 6,747 ft ASL (GL) 6,772 ft ASL (KB)

Surface Location: 23-23N-09W Sec-Twn- Rng 404 ft FSL 670 ft FWL

BH Location: 26-23N-09W Sec-Twn- Rng 232 ft FSL 143 FEL

Driving Directions: FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM:

South on US Hwy 550 for 38.3 miles to MM 113.4, Right (Southwest) on CR #7890 for 0.8 miles to fork, Left (South) remaining on CR #7890 for 1.3 miles to 4-way intersection, Left (Southeast) remaining on CR #7890 for 1.2 miles to 4-way intersection; Right (West) exiting CR #7890 along existing roadway for 0.6 mile to fork; Left (West) for 0.7 miles to fork in roadway; Right (Northwest) for 0.2 miles to W LYBROOK UNIT 726H PAD & 726H EXPANSION (777H, 778H, 779H, 780H, 781H).

QUICK REFERENCE

Sur TD (MD)	365 ft
Int TD (MD)	2,648 ft
KOP (MD)	4,374 ft
KOP (TVD)	4,161 ft
Target (TVD)	4,142 ft
Curve BUR	10 °/100 ft
POE (MD)	4,479 ft
TD (MD)	11,165 ft
Lat Len (ft)	6,664 ft

WELL CONSTRUCTION SUMMARY:

	Hole (in)	TD MD (ft)	Csg (in)	Csg (lb/ft)	Csg (grade)	Csg (conn)	Csg Top (ft)	Csg Bot (ft)
Surface	17.500	365	13.375	54.5	J-55	BTC	0	365
Intermediate	12.250	2,648	9.625	36.0	J-55	LTC	0	2,648
Production	8.500	11,165	5.50	17.0	P-110	BTC	0	11,165

CEMENT PROPERTIES SUMMARY:

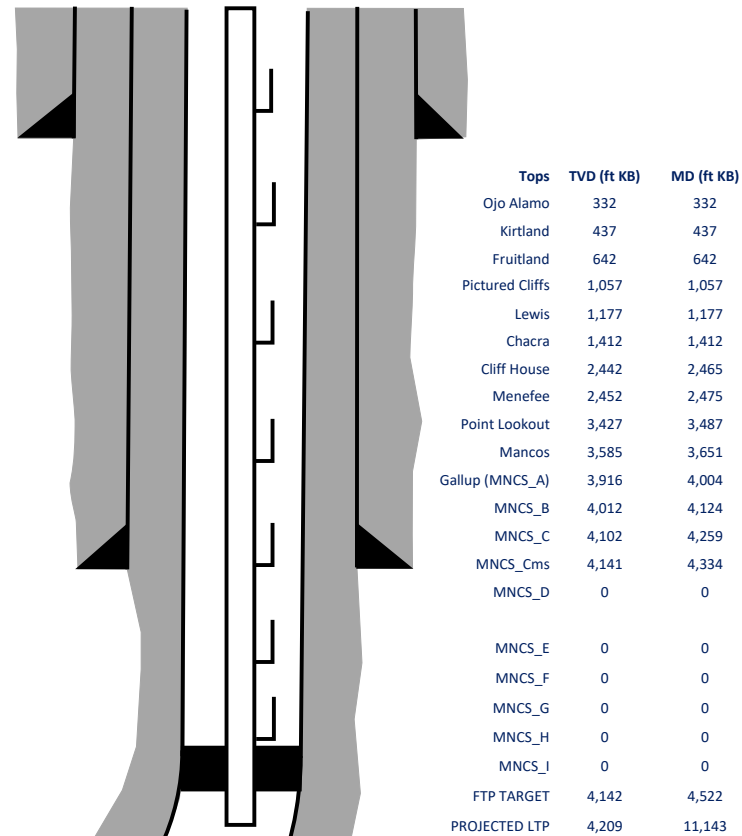
	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	% Excess	TOC (ft MD)	Total (sx)	
Surface	TYPE III	14.6	1.39	6.686	100%	0	352	
Inter. (Lead)	10 Type III:P	12.5	2.14	12.05	70%	0	519	
Inter. (Tail)	Type III	14.6	1.38	6.64	20%	2,102	137	
Prod. (Lead)	ASTM type I/I	12.4	2.370	13.4	50%	0	476	
Prod. (Tail)	TegraGuard S	13.3	1.570	7.7	10%	4004	1579	

COMPLETION / PRODUCTION SUMMARY:

Frac: Calculated cement volumes assume gauge hole and the excess noted in table

Flowback: American Cementing Liner & Production Blend

Production: LCM will be added to spacer. LCM may be added lead slurry and tail slurry depending on drilling observations



Well Name: GREATER LYBROOK UNIT	Well Location: T23N / R9W / SEC 23 / SWSW / 36.206263 / -107.764834	County or Parish/State: SAN JUAN / NM
Well Number: 049H	Type of Well: OIL WELL	Allottee or Tribe Name: NAVAJO NATION
Lease Number: NMNM057164	Unit or CA Name: WEST LYBROOK EXPLORATORY UNIT	Unit or CA Number: NMNM135216X
US Well Number: 3004538284	Well Status: Drilling Well	Operator: ENDURING RESOURCES LLC

Subsequent Report

Sundry ID: 2746922

Type of Submission: Subsequent Report

Date Sundry Submitted: 08/19/2023

Date Operation Actually Began: 06/05/2023

Type of Action: Hydraulic Fracturing

Time Sundry Submitted: 09:45

Actual Procedure: 6/5/2023 thru 6/8/2023- Pre frac site set up, MIRU, Pressure test 6/13/2023 thru 7/5/2023- 24 hour Frac Ops. 27 total stages, total holes 1134. Perfed interval 4560' - 11105' MD. Perfed w 0.31" holes with ProSurf 170, ProSlick 579, ProChek 172, ProSta 170, and 8,508,500 lbs total proppant 7/15/2023 thru 7/18/2023 – Drilling out operations 7/18/2023 - tubing landed at 4692.4' TVD

SR Attachments

Actual Procedure

5_completion_GLU_049H_20230819094453.pdf

Received by OCD: 9/6/2023 7:41:45 AM

Page 35 of 47

Well Name: GREATER LYBROOK UNIT	Well Location: T23N / R9W / SEC 23 / SWSW / 36.206263 / -107.764834	County or Parish/State: SAN JUAN / NM
Well Number: 049H	Type of Well: OIL WELL	Allottee or Tribe Name: NAVAJO NATION
Lease Number: NMNM057164	Unit or CA Name: WEST LYBROOK EXPLORATORY UNIT	Unit or CA Number: NMNM135216X
US Well Number: 3004538284	Well Status: Drilling Well	Operator: ENDURING RESOURCES LLC

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: KAYLA WHITE	Signed on: AUG 19, 2023 09:44 AM
Name: ENDURING RESOURCES LLC	
Title: Staff Engineer	
Street Address: PO BOX 4190	
City: PARKER	State: CO
Phone: (720) 768-3575	
Email address: KWHITE@CDHCONSULT.COM	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: MATTHEW H KADE	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5055647736	BLM POC Email Address: MKADE@BLM.GOV
Disposition: Accepted	Disposition Date: 08/21/2023
Signature: Matthew Kade	



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Well Completion Print

09/06/2023

Operator Name ENDURING RESOURCES LLC SHL SWSW Sec 23 23N 9W	Well Name GREATER LYBROOK UNIT	Well Number 049H	US Well Number 3004538284
	County SAN JUAN	State NM	Lease Number(s) NMNM057164
Well Type OIL WELL	Well Status Drilling Well	Agreement Name WEST LYBROOK EXPLORATORY UNIT	Agreement Number(s) NMNM135216X, NMNM105803962 ID 10400083120
Allottee/Tribe Name NAVAJO NATION	Well Pad Name W LYRBOOK UNIT	Well Pad Number 726	

Section 1 - General

Well Completion Report Id: 89026**Submission Date:** 08-22-2023**BLM Office:** Farmington Field Office**User:** KAYLA WHITE**Title:** Staff Engineer**Federal/Indian:** INDIAN**Lease Number:** NMNM057164**Lease Acres:****Agreement in place?:** YES**Federal or Indian Agreement:****Agreement Number:****Agreement Name:** WEST LYBROOK**Additional Information****Keep this Well Completion Report confidential?:****APD Operator:** ENDURING
RESOURCES LLC

Section 2 - Well

Field/Pool or Exploratory:**Pool Name:****Field Name:** LYBROOK MANCOS W**Well Type:** OIL WELL**Spud Date:** 03-03-2023**Date Total Measured Depth Reached:** 05-14-2023**Drill & Abandon or Ready To Produce:** READY TO**Well Class:** HORIZONTAL

Operator Name ENDURING RESOURCES LLC SHL SWSW Sec 23 23N 9W	Well Name GREATER LYBROOK UNIT	Well Number 049H	US Well Number 3004538284
	County SAN JUAN	State NM	Lease Number(s) NMNM057164
Well Type OIL WELL	Well Status Drilling Well	Agreement Name WEST LYBROOK EXPLORATORY UNIT	Agreement Number(s) NMNM135216X, NMNM105803962 ID 10400083120
Allottee/Tribe Name NAVAJO NATION	Well Pad Name W LYRBOOK UNIT	Well Pad Number 726	

Section 3 - Geologic

Formation Name	Lithology	Describe Lithology	Elevation	TVD	MD	Mineral Resources	Describe Mineral
NACIMIENTO	SANDSTONE, SHALE		6747	0	0	USEABLE WATER	
OJO ALAMO	SANDSTONE, SHALE		6412	335	335	USEABLE WATER	
KIRTLAND	COAL, SHALE		6307	440	440	COAL, NATURAL GAS	
FRUITLAND	COAL		6102	645	645	COAL	
PICTURED CLIFFS	SANDSTONE, SHALE		5712	1035	1035	NATURAL GAS	
LEWIS	SHALE		5592	1155	1155	NATURAL GAS	
CHACRA	SANDSTONE, SHALE		5332	1415	1415	NATURAL GAS	
CLIFFHOUSE	SANDSTONE		4292	2455	2489	NATURAL GAS	
MENEFEE	COAL, SANDSTONE, SHALE		4272	2475	2511	NATURAL GAS	
POINT LOOKOUT	SANDSTONE, SHALE		3310	3437	3539	NATURAL GAS	
MANCOS	SHALE		3162	3585	3697	NATURAL GAS, OIL	
GALLUP	SHALE		2812	3935	4071	NATURAL GAS, OIL	

Completion and Completed

Operator Name ENDURING RESOURCES LLC SHL SWSW Sec 23 23N 9W	Well Name GREATER LYBROOK UNIT	Well Number 049H	US Well Number 3004538284
	County SAN JUAN	State NM	Lease Number(s) NMNM057164
Well Type OIL WELL	Well Status Drilling Well	Agreement Name WEST LYBROOK EXPLORATORY UNIT	Agreement Number(s) NMNM135216X, NMNM105803962 ID 10400083120
Allottee/Tribe Name NAVAJO NATION	Well Pad Name W LYRBOOK UNIT	Well Pad Number 726	

Completion Data

Wellbore Code	Completion Code	Interval Number	Case Number	Lease Number	Well Completion Type	Describe Well Completion Type	Completion Status	Date Completed	Date First Produced	Formation	Interval Top (MD)	Interval Bottom (MD)	Interval Perforated?	Perforation Size	Number of Holes	Status of Interval
00	S1	1	NMNM105803962	NMNM057164	NEW		POW	07-23-2023	07-23-2023	GALLUP	4045	4549	Y	.31	1134	OPEN

Treatment Data

Wellbore Code	Completion Code	Interval Number	Interval Treated?	Treatment Type	Tottle Fluid (bbbls)	Total Proppant (lbs)	Treatment Remarks
00	S1	1	N				

Production Data

Wellbore Code	Completion Code	Interval Number	API Oil Gravity	Gas Gravity	Production Method	Describe Production	Disposition of Gas	Describe Disposition
00	S1	1			FLows FROM WELL		SOLD	

Test Data

Wellbore Code	Completion Code	Interval Number	Test Date	Hours Tested	24-Hour Rate Oil (bbbls)	24-Hour Rate Gas (MCF)	24-Hour Rate Water(BWPD)	Gas-Oil Ratio (SCF/Bbl)	Choke Size	Tubing Pressure	Tubing Pressure Shut-In (psi)	Casing Pressure (psi)

Operator Name ENDURING RESOURCES LLC SHL SWSW Sec 23 23N 9W	Well Name GREATER LYBROOK UNIT	Well Number 049H	US Well Number 3004538284
	County SAN JUAN	State NM	Lease Number(s) NMNM057164
Well Type OIL WELL	Well Status Drilling Well	Agreement Name WEST LYBROOK EXPLORATORY UNIT	Agreement Number(s) NMNM135216X, NMNM105803962 ID 10400083120
Allottee/Tribe Name NAVAJO NATION	Well Pad Name W LYRBOOK UNIT	Well Pad Number 726	

Test Data

Wellbore Code	Completion Code	Interval Number	Test Date	Hours Tested	24-Hour Rate Oil (bbls)	24-Hour Rate Gas (MCF)	24-Hour Rate Water(BWPD)	Gas-Oil Ratio (SCF/Bbl)	Choke Size	Tubing Pressure	Tubing Pressure Shut-In (psi)	Casing Pressure (psi)
00	S1	1	07/23/2023	24	20	758	0	37900	64/64	227		797

Well Location

Survey Type: RECTANGULAR

Survey Number: 15269

Datum: NAD83

Vertical Datum: NAVD88

Reference Datum: GL

Wellbore Code	State	Meridian	County	Latitude	Longitude	Elevation (MSL)	MD (ft)	TVD (ft)	Lease Type	Lease Number	Plug TVD (ft)	Plug MD (ft)	Plug Type	NS-Foot	NS-Indicator	EW-Foot	EW-Indicator	Township	Range	Section	Acquiduct/Contact
SHL	NEW MEXICO	NEW MEXICO PRINCIPAL	SAN JUAN	36.206263	-107.764834	6747	N/A	N/A	INDIAN	NOG13121863				404	FSL	670	FWL	23N	9W	23	SW
KOP Wellbore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	SAN JUAN	36.206263	-107.764834	6747	0	0	INDIAN	NOG13121863				404	FSL	670	FWL	23N	9W	23	SW
PPP Wellbore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	SAN JUAN	36.204191	-107.765517	2473	4739	4274	FEDERAL	NMNM057164				350	FNL	473	FWL	23N	9W	26	NW
EXIT Wellbore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	SAN JUAN	36.191315	-107.749904	2528	11104	4219	INDIAN	NMNM036949				238	FSL	141	FEL	23N	9W	26	SE

Operator Name ENDURING RESOURCES LLC SHL SWSW Sec 23 23N 9W	Well Name GREATER LYBROOK UNIT	Well Number 049H	US Well Number 3004538284
	County SAN JUAN	State NM	Lease Number(s) NMNM057164
Well Type OIL WELL	Well Status Drilling Well	Agreement Name WEST LYBROOK EXPLORATORY UNIT	Agreement Number(s) NMNM135216X, NMNM105803962 ID 10400083120
Allottee/Tribe Name NAVAJO NATION	Well Pad Name W LYRBOOK UNIT	Well Pad Number 726	

	State	Meridian	County	Latitude	Longitude	Elevation (MSL)	MD (ft)	TVD (ft)	Lease Type	Lease Number	Plug TVD (ft)	Plug MD (ft)	Plug Type	NS-Foot	NS-Indicator	EW-Foot	EW-Indicator	Township	Range	Section	Acquiduct
BHL Well bore 00	NEW MEXICO	NEW MEXICO PRINCIPAL	SAN JUAN	36.191 188	- 107.74 9749	2532	11165	4215	INDIAN	NMNM 03694 9				192	FSL	95	FEL	23N	9W	26	SE

Casing, Liner and Tubing

Casing and Liner

Wellbore Code	Casing String Type	Hole Size	Top Setting Depth (MD)	Bottom Setting Depth (MD)	Casing Size	Wt(lbs/ft)	Casing Grade	Describe Other Casing Grade	Joint	Other Joint	Amount Pulled (ft)
00	SURFACE	17.5	0	365	13.375	54.5	J-55		BUTT		
00	INTERME DIATE	12.25	0	2648	9.625	36	J-55		LT&C		
00	PRODUCT ION	8.5	0	11165	5.5	17	P-110		LT&C		

Operator Name ENDURING RESOURCES LLC SHL SWSW Sec 23 23N 9W	Well Name GREATER LYBROOK UNIT	Well Number 049H	US Well Number 3004538284
	County SAN JUAN	State NM	Lease Number(s) NMNM057164
Well Type OIL WELL	Well Status Drilling Well	Agreement Name WEST LYBROOK EXPLORATORY UNIT	Agreement Number(s) NMNM135216X, NMNM105803962 ID 10400083120
Allottee/Tribe Name NAVAJO NATION	Well Pad Name W LYRBOOK UNIT	Well Pad Number 726	

Cementing

Wellbore Code	Casing String Type	Stage Tool Depth	Cement Lead Type	Cement Lead Qty (sks)	Cement Lead Yield (cu.ft/sks)	Cement Lead Top (MD)	Cement Tail Type	Cement Tail Qty (sks)	Cement Tail Yield (cu.ft/sks)	Cement Tail Top (MD)	Total (Lead + Tail) Cement Slurry Volume
00	SURFACE	3647	Type III	352	1.38	0					86.5
00	INTERMEDIATE	26478	Type III: POZ Blend	519	2.14	0	Type III	137	1.38	2157	231.5
00	PRODUCTION	11165	Type I/II	476	2.26	0	Class G:POZ Blend	1579	1.57	2590	633.1

Tubing

Wellbore Code	Tubing Size	Describe Other	Tubing Setting Depth (MD/ft)	Packer Depth (MD/ft)	Tubing Weight	Tubing Grade	Describe Other	Tubing Coupling	Describe Other
00	2.875		4692		6	J-55		OTHER	EUE

Logs

Wellbore Code	Log Upload	Was Well Cored?	Was DST Run?	Directional Survey?	Geologic Report	Wellbore Diagram
00	NO	NO	NO	YES	NO	YES

Operator Name ENDURING RESOURCES LLC SHL SWSW Sec 23 23N 9W	Well Name GREATER LYBROOK UNIT	Well Number 049H	US Well Number 3004538284
	County SAN JUAN	State NM	Lease Number(s) NMNM057164
Well Type OIL WELL	Well Status Drilling Well	Agreement Name WEST LYBROOK EXPLORATORY UNIT	Agreement Number(s) NMNM135216X, NMNM105803962 ID 10400083120
Allottee/Tribe Name NAVAJO NATION	Well Pad Name W LYRBOOK UNIT	Well Pad Number 726	

Operator

I hereby certify that the foregoing and attached information is complete and correct as determined from all available records. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Well Completion Reports through this system satisfies regulations requiring a submission of Form 3160-4 or a Well Completion Report.

Name: ENDURING RESOURCES LLC

Signed By: KAYLA WHITE

Title: Staff Engineer

Signed on: 08/24/2023

Street Address: PO BOX 4190

City: PARKER

State: CO

Zip: 80134

Phone: (720)768-3575

Email address: KWHITE@CDHCONSULT.COM

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Extension:

Email address:

Attachments

Enduring_Greater_Lybrook_Unit_049H_AC_final_surveys_to_11175_MD_20230819093757.pdf

Greater_Lybrook_Unit_049H_As_Drilled_C_102_Plat___SIGNED_20230819093759.pdf

GLU_049H_WBD_06022023_20230819093804.pdf

List_of_Leases_GLU_049H_20230822082407.pdf

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

FORM APPROVED
OMB NO. 1004-
0137

Expires: January 31, 2018

5. Lease Serial No.

N0-G-1312-1863

1a. Type of Well ☒ Oil Well ☐ Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Zones ☐ Hydraulic Fracturing
☐ Other: _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.
NMNM144419A

2. Name of Operator

Enduring Resources IV LLC

8. Lease Name and Well No.

Greater Lybrook Unit 049H

3. Address

200 Energy Court Farmington NM 87402

3a. Phone No. (Include area code)

505-636-9743

9. API Well No.

30-045-38284

4. Location of Well (Report location clearly and in accordance with Federal requirements) *

At surface

SHL: 404' FSL & 670' FWL, Sec 23 T23N, R9W

BHL: 232' FSL & 143' FEL, Sec 26 T23N, R9W

At top prod. interval reported below At total depth

10. Field and Pool or Exploratory
Lybrook Mancos W

11. Sec., T., R., M., on Block and
Survey or Area
Sec 23 T23N R9W

12. County or Parish

San Juan

13. State

NM

14. Date Spudded
3/3/2023

15. Date T.D. Reached
5/14/2023

16. Date Completed 7/23/2023
☐ D & A ☒ Ready to Prod.

17. Elevations (DF, RKB, RT, GL)*
6772' KB

18. Total Depth: **11,165' MD**
4,215' TVD

19. Plug Back T.D.: **11,104.9' MD**
4,219' TVD

20. Depth Bridge Plug Set: MD
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit report)
Directional Survey? ☐ No ☒ Yes (Submit copy)

Form 3160-4
(June 2015)

UNITED STATES

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17-1/2"	13-3/8", J-55	54.5	0	364.71' MD		352	86.5	surface	
12-1/4"	9-5/8", J-55	36	0	2647.8' MD		656	227	surface	
8-1/2"	5-1/2", P-110	17	0	11165' MD		2055	632	surface	

24. Tubing Record

Size	Dept Set (MD)	Packer Dept (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8", 6.5#, L-80	4692.4'							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
MNCS_A	3916' TVD	4206' TVD	4560' - 11105' MD	.31	1134	

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, Post hydraulic fracturing chemical disclosures on FracFocus.org

Depth Interval	Amount, Type of Material and Date of Chemical Disclosure upload on FracFocus.org
4560' - 11105' MD	24 hour Frac Ops. 27 total stages, total holes 1134. Perfed interval 4560' - 11105' MD. Perfed w 0.31" holes with ProSurf 170, ProSlick 579, ProChek 172, ProSta 170, and 8,508,500 lbs total proppant

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API.	Gas Gravity	Production Method
7/23/2023	7/23/2023	24 hr	➡	20	758	0			Flowing
Choke Size	Tbg. Press.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
64/64"	227	797	➡					Producing	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API.	Gas Gravity	Production Method
			➡						

Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status
------------	-------------------	-------------	------------------	---------	---------	-----------	---------------	-------------

*(See instructions and spaces for additional data on page 2)

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API.	Gas Gravity	Production Method
---------------------	-----------	--------------	----------------------	---------	---------	-----------	------------------------	-------------	-------------------

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status
------------	----------------------	-------------	------------------	---------	---------	-----------	---------------	-------------

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API.	Gas Gravity	Production Method
---------------------	-----------	--------------	----------------------	---------	---------	-----------	------------------------	-------------	-------------------

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status
------------	----------------------	-------------	------------------	---------	---------	-----------	---------------	-------------

28. Disposition of Gas (Solid, used for fuel, vented, etc.) Sold

30. Summary of Porous Zones (Include Aquifers): Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, fl and shut-in pressures and recoveries.	31. Formation (Log) Markers
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Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
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OJAM 332
KRLD 437
FRLD 642
PCCF 1057
CLFH_BASAL 2442
MENF 2452
PNLK 3427
MNCS 3585
Gallup (MNCS_A) 3916

32. Additional remarks (include plugging procedure).

33. Indicate which items have been attached by placing a check in the appropriate boxes:

- ☐ Electrical/Mechanical Logs (1 full set req'd.)
 ☐ Geologic Report
 ☐ DST Report
 ☒ Directional Survey
- ☐ Sundry Notice for plugging and cement verification
 ☐ Core Analysis
 ☐ Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions) *

Name (please print) Kayla White Title Environmental Engineer

Signature Kayla White Date: 8/18/2023

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

ACKNOWLEDGMENTS

Action 262218

ACKNOWLEDGMENTS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way, Suite 525 Centennial, CO 80111	OGRID: 372286
	Action Number: 262218
	Action Type: [C-104] Tight Hole Completion Packet (C-104CT)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

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CONDITIONS

Action 262218

CONDITIONS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way, Suite 525 Centennial, CO 80111	OGRID: 372286
	Action Number: 262218
	Action Type: [C-104] Tight Hole Completion Packet (C-104CT)

CONDITIONS

Created By	Condition	Condition Date
plmartinez	Future Submittal regarding the AFMSS Completion Report -page 3 Completion Data See Highlighted - Perforations Top/Bottom are incorrect - should reflect what is on your Completion Sundry.	10/12/2023