

Santa Fe Main Office
Phone: (505) 476-3441
General Information
Phone: (505) 629-6116

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

Online Phone Directory Visit:
<https://www.emnrd.nm.gov/ocd/contact-us/>

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

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO.
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☒ FEE ☐
2. Name of Operator Marshall & Winston, Inc.		6. State Oil & Gas Lease No.
3. Address of Operator P. O. Box 50880, Midland, TX 79710-0880		7. Lease Name or Unit Agreement Name Lookin Good 34 St Com
4. Well Location Unit Letter <u>A</u> : <u>250</u> feet from the <u>North</u> line and <u>1110</u> feet from the <u>East</u> line Section <u>34</u> Township <u>20S</u> Range <u>35E</u> NMPM County <u>Lea</u>		8. Well Number <u>502H</u>
		9. OGRID Number <u>14187</u>
		10. Pool name or Wildcat
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3692.48' GR		

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☒	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: ☐		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Marshall & Winston, Inc. respectfully requests to submit a sundry to change SHL to redrill the Lookin Good 34 State Com #502H (API#30-025-53925), due to parted casing in the intermediate section in the current well (Sundry Submission ID 493727).

Original Location Lookin Good 34 State Com #502H:

SHL UL A, Sec. 34, T20S, R35E, 250' FNL & 1135' FEL, Lea Co., NM
BHL UL P, Sec. 34, T20S, R35E, 50' FSL & 400' FEL, Lea Co., NM

Redrill Location Lookin Good 34 State Com #502H:

SHL UL A, Sec. 34, T20S, R35E, 250' FNL & 1110' FEL, Lea Co., NM
BHL UL P, Sec. 34, T20S, R35E, 50' FSL & 400' FEL, Lea Co., NM

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE  TITLE Operations Manager DATE 08/08/2025

Type or print name Todd Passmore E-mail address: tpassmore@mar-win.com PHONE: 432-684-6373

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):

Santa Fe Main Office Phone: (505) 476-3441 General Information Phone: (505) 629-6116 Online Phone Directory Visit: https://www.emnrd.nm.gov/ocd/contact-us/	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	C-102 Revised July 9, 2024 Submit Electronically via OCD Permitting Submittal Type: ☐ Initial Submittal ☒ Amended Report ☐ As Drilled
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WELL LOCATION INFORMATION

API Number 30-025-54944 30-025-63926	Pool Code 28434	Pool Name GRAMA RIDGE, BONE SPRING, NORTH GAMMA RIDGE, BONE SPRING, RIDGE
Property Code 313600	Property Name LOOKIN GOOD 34 STATE COM	Well Number 502H
OGRID No. 14187	Operator Name MARSHALL & WINSTON, Inc.	Ground Level Elevation 3692.48'
Surface Owner: ☐ State ☒ Fee ☐ Tribal ☐ Federal		Mineral Owner: ☒ State ☐ Fee ☐ Tribal ☐ Federal

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	34	20S	35E		250' FNL	1110' FEL	32.536196	-103.440156	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	34	20S	35E		50' FSL	400' FEL	32.522491	-103.437860	LEA

Dedicated Acres 160.5	Infill or Defining Well Infill	Defining Well API	Overlapping Spacing Unit (Y/N) N	Consolidation Code N/A
Order Numbers: N/A			Well setbacks are under Common Ownership: ☒ Yes ☐ No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	34	20S	35E		48' FNL	372' FEL	32.536621	-103.437458	LEA

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	34	20S	35E		462' FNL	400' FEL	32.535613	-103.437853	LEA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	34	20S	35E		100' FSL	400' FEL	32.522629	-103.437860	LEA

Unitized Area or Area of Uniform Interest 160.5	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation: 3718'
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OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, 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 a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.


 Signature _____ Date 8/8/25

Printed Name
Todd Passmore

Email Address
tpassmore@mar-win.com

SURVEYOR CERTIFICATIONS

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.



Signature and Seal of Professional Surveyor

26407

Certificate Number

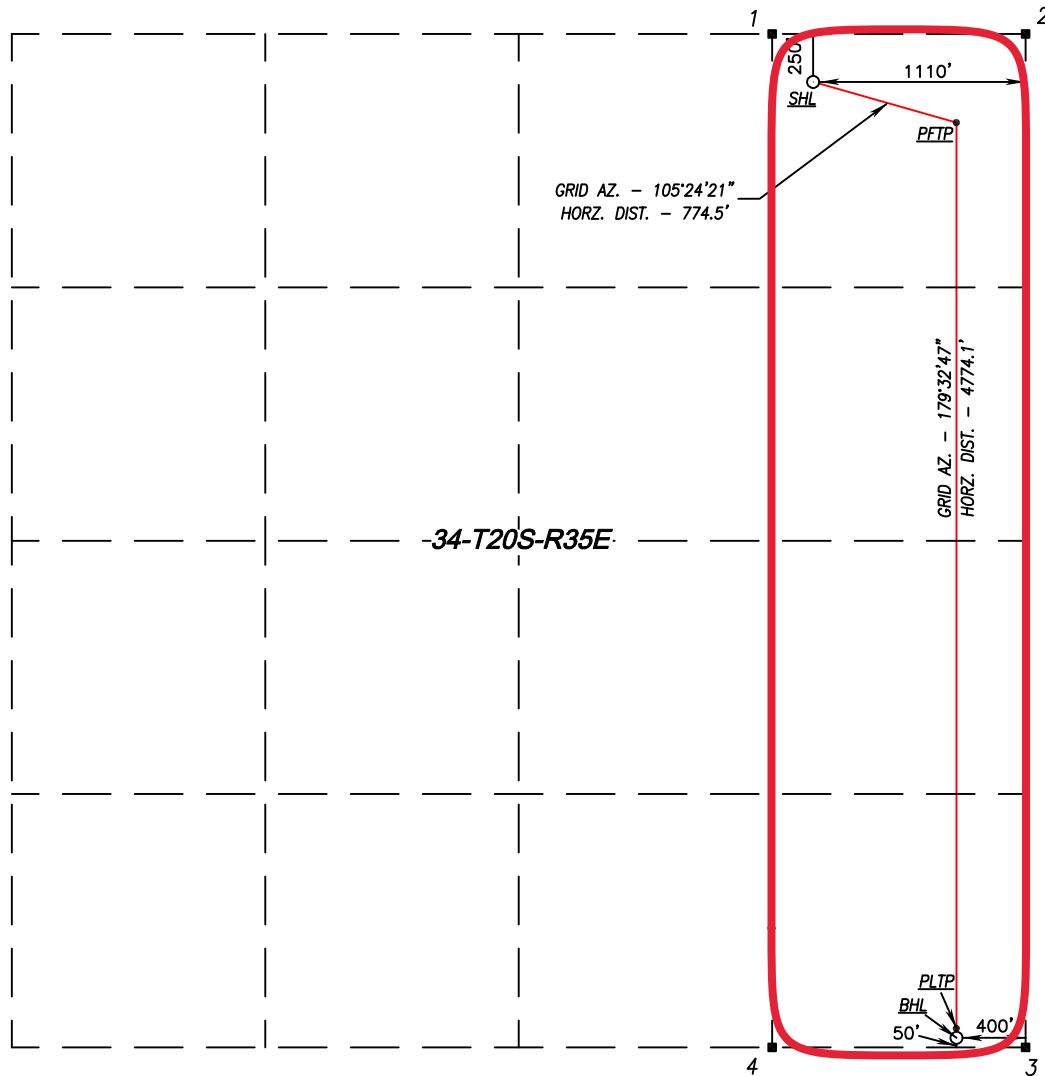
8/8/25

Date of Survey

Note: 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.

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in the red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and the Last Take Point, and the point within the Completed interval (other than the First Take Point and Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well Location will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. independent subdivision surveys will not be acceptable.



POINT LEGEND		
POINT	NORTHING	EASTING
1	560200.9	816378.8
2	560211.9	817700.9
3	554926.1	817742.9
4	554914.5	816420.9

NAD 83 NME
SURFACE LOCATION
Y=559952.6 N
X=816593.0 E
LAT.=32.536196° N
LONG.=103.440156° W

PFTP
462' FNL & 400' FEL
Y=559746.6 N
X=817304.7 E
LAT.=32.535613° N
LONG.=103.437853° W

PLTP
100' FSL & 400' FEL
Y=555022.6 N
X=817342.1 E
LAT.=32.522629° N
LONG.=103.437860° W

NAD 83 NME
PROPOSED BOTTOM
HOLE LOCATION
Y=554972.6 N
X=817342.5 E
LAT.=32.522491° N
LONG.=103.437860° W



Intent

As Drilled

API #		
Operator Name: MARSHALL & WINSTON, INC	Property Name: LOOKIN GOOD 34 STATE COM	Well Number 502H

Kick Off Point (KOP)

UL A	Section 34	Township 20-S	Range 35-E	Lot	Feet 48	From N/S NORTH	Feet 372	From E/W EAST	County LEA
Latitude 32.53662127					Longitude -103.43745786			NAD NAD 83 NME	

First Take Point (FTP)

UL A	Section 34	Township 20-S	Range 35-E	Lot	Feet 462	From N/S NORTH	Feet 400.00	From E/W EAST	County LEA
Latitude 32.535613					Longitude -103.43785			NAD NAD 83 NME	

Last Take Point (LTP)

UL P	Section 34	Township 20-S	Range 35-E	Lot	Feet 100	From N/S SOUTH	Feet 400.00	From E/W EAST	County
Latitude 32.522629					Longitude -103.437860			NAD NAD 83 NME	

Is this well the defining well for the Horizontal Spacing Unit? NO ☐Is this well an infill well? ☐ NO

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

[illegible]

2600.00	6.85	45.05	100.00	2598.07	1120.41	34.98	16.76	816609.76	55987.58	32.54	-103.44	2.00	-34.84
2700.00	7.45	60.45	100.00	2697.30	1021.18	42.39	26.62	816619.62	55994.99	32.54	-103.44	2.00	-42.18
2800.00	8.48	72.84	100.00	2796.34	922.14	47.76	39.31	816632.31	56000.36	32.54	-103.44	2.00	-47.45
2840.60	9.00	76.98	40.60	2836.47	882.01	49.36	45.26	816638.26	56001.96	32.54	-103.44	2.00	-49.00
2900.00	9.00	76.98	59.40	2895.14	823.34	51.45	54.31	816647.31	56004.05	32.54	-103.44	0.00	-51.02
3000.00	9.00	76.98	100.00	2993.91	724.57	54.97	69.55	816662.55	56007.57	32.54	-103.44	0.00	-54.43
3100.00	9.00	76.98	100.00	3092.68	625.80	58.50	84.78	816677.78	56011.10	32.54	-103.44	0.00	-57.83
3200.00	9.00	76.98	100.00	3191.45	527.03	62.02	100.02	816693.02	56014.62	32.54	-103.44	0.00	-61.23
3300.00	9.00	76.98	100.00	3290.22	428.26	65.55	115.26	816708.26	56018.15	32.54	-103.44	0.00	-64.64
3400.00	9.00	76.98	100.00	3388.99	329.49	69.07	130.50	816723.50	56021.67	32.54	-103.44	0.00	-68.04
3500.00	9.00	76.98	100.00	3487.76	230.72	72.59	145.73	816738.73	56025.19	32.54	-103.44	0.00	-71.45
3600.00	9.00	76.98	100.00	3586.53	131.95	76.12	160.97	816753.97	56028.72	32.54	-103.44	0.00	-74.85
3700.00	9.00	76.98	100.00	3685.30	33.18	79.64	176.21	816769.21	56032.24	32.54	-103.44	0.00	-78.25
3800.00	9.00	76.98	100.00	3784.07	-65.59	83.16	191.44	816784.44	56035.76	32.54	-103.44	0.00	-81.66
3900.00	9.00	76.98	100.00	3882.84	-164.36	86.69	206.68	816799.68	56039.29	32.54	-103.44	0.00	-85.06
4000.00	9.00	76.98	100.00	3981.61	-263.13	90.21	221.92	816814.92	56042.81	32.54	-103.44	0.00	-88.46
4100.00	9.00	76.98	100.00	4080.38	-361.90	93.73	237.15	816830.15	56046.33	32.54	-103.44	0.00	-91.87
4200.00	9.00	76.98	100.00	4179.14	-460.66	97.26	252.39	816845.39	56049.86	32.54	-103.44	0.00	-95.27
4300.00	9.00	76.98	100.00	4277.91	-559.43	100.78	267.63	816860.63	56053.38	32.54	-103.44	0.00	-98.68
4400.00	9.00	76.98	100.00	4376.68	-658.20	104.30	282.86	816875.86	56056.90	32.54	-103.44	0.00	-102.08
4500.00	9.00	76.98	100.00	4475.45	-756.97	107.83	298.10	816891.10	56060.43	32.54	-103.44	0.00	-105.48
4600.00	9.00	76.98	100.00	4574.22	-855.74	111.35	313.34	816906.34	56063.95	32.54	-103.44	0.00	-108.89
4700.00	9.00	76.98	100.00	4672.99	-954.51	114.87	328.57	816921.57	56067.47	32.54	-103.44	0.00	-112.29
4800.00	9.00	76.98	100.00	4771.76	-1053.28	118.40	343.81	816936.81	56071.00	32.54	-103.44	0.00	-115.69
4900.00	9.00	76.98	100.00	4870.53	-1152.05	121.92	359.05	816952.05	56074.52	32.54	-103.44	0.00	-119.10
5000.00	9.00	76.98	100.00	4969.30	-1250.82	125.45	374.28	816967.28	56078.05	32.54	-103.44	0.00	-122.50
5100.00	9.00	76.98	100.00	5068.07	-1349.59	128.97	389.52	816982.52	56081.57	32.54	-103.44	0.00	-125.91
5200.00	9.00	76.98	100.00	5166.84	-1448.36	132.49	404.76	816997.76	56085.09	32.54	-103.44	0.00	-129.31
5300.00	9.00	76.98	100.00	5265.61	-1547.13	136.02	419.99	817012.99	56088.62	32.54	-103.44	0.00	-132.71
5400.00	9.00	76.98	100.00	5364.38	-1645.90	139.54	435.23	817028.23	56092.14	32.54	-103.44	0.00	-136.12
5500.00	9.00	76.98	100.00	5463.15	-1744.67	143.06	450.47	817043.47	56095.66	32.54	-103.44	0.00	-139.52
5600.00	9.00	76.98	100.00	5561.92	-1843.44	146.59	465.70	817058.70	56099.19	32.54	-103.44	0.00	-142.92
5700.00	9.00	76.98	100.00	5660.69	-1942.21	150.11	480.94	817073.94	56102.71	32.54	-103.44	0.00	-146.33
5800.00	9.00	76.98	100.00	5759.46	-2040.98	153.63	496.18	817089.18	56106.23	32.54	-103.44	0.00	-149.73
5900.00	9.00	76.98	100.00	5858.23	-2139.75	157.16	511.42	817104.42	56109.76	32.54	-103.44	0.00	-153.14
6000.00	9.00	76.98	100.00	5957.00	-2238.52	160.68	526.65	817119.65	56113.28	32.54	-103.44	0.00	-156.54

6100.00	9.00	76.98	100.00	6055.77	-2337.29	164.20	541.89	817134.89	560116.80	32.54	-103.44	0.00	-159.94
6200.00	9.00	76.98	100.00	6154.54	-2436.06	167.73	557.13	817150.13	560120.33	32.54	-103.44	0.00	-163.35
6300.00	9.00	76.98	100.00	6253.31	-2534.83	171.25	572.36	817165.36	560123.85	32.54	-103.44	0.00	-166.75
6400.00	9.00	76.98	100.00	6352.07	-2633.59	174.77	587.60	817180.60	560127.37	32.54	-103.44	0.00	-170.15
6500.00	9.00	76.98	100.00	6450.84	-2732.36	178.30	602.84	817195.84	560130.90	32.54	-103.44	0.00	-173.56
6600.00	9.00	76.98	100.00	6549.61	-2831.13	181.82	618.07	817211.07	560134.42	32.54	-103.44	0.00	-176.96
6700.00	9.00	76.98	100.00	6648.38	-2929.90	185.35	633.31	817226.31	560137.95	32.54	-103.44	0.00	-180.37
6800.00	9.00	76.98	100.00	6747.15	-3028.67	188.87	648.55	817241.55	560141.47	32.54	-103.44	0.00	-183.77
6900.00	9.00	76.98	100.00	6845.92	-3127.44	192.39	663.78	817256.78	560144.99	32.54	-103.44	0.00	-187.17
6969.96	9.00	76.98	69.96	6915.02	-3196.54	194.86	674.44	817267.44	560147.46	32.54	-103.44	0.00	-189.55
7000.00	8.40	76.98	30.04	6944.72	-3226.24	195.88	678.87	817271.87	560148.48	32.54	-103.44	2.00	-190.54
7100.00	6.40	76.98	100.00	7043.88	-3325.40	198.78	691.41	817284.41	560151.38	32.54	-103.44	2.00	-193.34
7200.00	4.40	76.98	100.00	7143.43	-3424.95	200.90	700.57	817293.57	560153.50	32.54	-103.44	2.00	-195.39
7300.00	2.40	76.98	100.00	7243.25	-3524.77	202.23	706.35	817299.35	560154.83	32.54	-103.44	2.00	-196.68
7400.00	0.40	76.98	100.00	7343.22	-3624.74	202.78	708.72	817301.72	560155.38	32.54	-103.44	2.00	-197.21
7419.83	0.00	179.55	19.83	7363.04	-3644.56	202.80	708.79	817301.79	560155.40	32.54	-103.44	2.00	-197.23
7500.00	0.00	0.00	80.17	7443.22	-3724.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
7600.00	0.00	0.00	100.00	7543.22	-3824.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
7700.00	0.00	0.00	100.00	7643.22	-3924.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
7800.00	0.00	0.00	100.00	7743.22	-4024.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
7900.00	0.00	0.00	100.00	7843.22	-4124.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
8000.00	0.00	0.00	100.00	7943.22	-4224.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
8100.00	0.00	0.00	100.00	8043.22	-4324.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
8200.00	0.00	0.00	100.00	8143.22	-4424.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
8300.00	0.00	0.00	100.00	8243.22	-4524.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
8400.00	0.00	0.00	100.00	8343.22	-4624.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
8500.00	0.00	0.00	100.00	8443.22	-4724.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
8600.00	0.00	0.00	100.00	8543.22	-4824.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
8700.00	0.00	0.00	100.00	8643.22	-4924.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
8800.00	0.00	0.00	100.00	8743.22	-5024.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
8900.00	0.00	0.00	100.00	8843.22	-5124.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
9000.00	0.00	0.00	100.00	8943.22	-5224.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
9100.00	0.00	0.00	100.00	9043.22	-5324.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
9200.00	0.00	0.00	100.00	9143.22	-5424.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
9300.00	0.00	0.00	100.00	9243.22	-5524.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
9400.00	0.00	0.00	100.00	9343.22	-5624.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23

9500.00	0.00	0.00	100.00	9443.22	-5724.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
9600.00	0.00	0.00	100.00	9543.22	-5824.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
9700.00	0.00	0.00	100.00	9643.22	-5924.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
9800.00	0.00	0.00	100.00	9743.22	-6024.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
9900.00	0.00	0.00	100.00	9843.22	-6124.74	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
9934.83	0.00	179.55	34.83	9878.04	-6159.56	202.80	708.79	817301.79	560155.40	32.54	-103.44	0.00	-197.23
9950.00	1.52	179.55	15.17	9893.21	-6174.73	202.60	708.79	817301.79	560155.20	32.54	-103.44	10.00	-197.03
10000.00	6.52	179.55	50.00	9943.07	-6224.59	199.10	708.82	817301.82	560151.70	32.54	-103.44	10.00	-193.52
10050.00	11.52	179.55	50.00	9992.44	-6273.96	191.26	708.88	817301.88	560143.86	32.54	-103.44	10.00	-185.69
10100.00	16.52	179.55	50.00	10040.94	-6322.46	179.16	708.97	817301.97	560131.76	32.54	-103.44	10.00	-173.58
10150.00	21.52	179.55	50.00	10088.19	-6369.71	162.87	709.10	817302.10	560115.47	32.54	-103.44	10.00	-157.30
10200.00	26.52	179.55	50.00	10133.85	-6415.37	142.53	709.26	817302.26	560095.13	32.54	-103.44	10.00	-136.95
10250.00	31.52	179.55	50.00	10177.56	-6459.08	118.28	709.45	817302.45	560070.88	32.54	-103.44	10.00	-112.71
10300.00	36.52	179.55	50.00	10218.99	-6500.51	90.32	709.67	817302.67	560042.92	32.54	-103.44	10.00	-84.74
10350.00	41.52	179.55	50.00	10257.82	-6539.34	58.85	709.92	817302.92	560011.45	32.54	-103.44	10.00	-53.27
10400.00	46.52	179.55	50.00	10293.77	-6575.29	24.12	710.19	817303.19	559976.72	32.54	-103.44	10.00	-18.54
10450.00	51.52	179.55	50.00	10326.55	-6608.07	-13.61	710.49	817303.49	559938.99	32.54	-103.44	10.00	19.19
10500.00	56.52	179.55	50.00	10355.92	-6637.44	-54.06	710.80	817303.80	559898.54	32.54	-103.44	10.00	59.64
10550.00	61.52	179.55	50.00	10381.65	-6663.17	-96.91	711.14	817304.14	559855.69	32.54	-103.44	10.00	102.49
10600.00	66.52	179.55	50.00	10403.55	-6685.07	-141.84	711.49	817304.49	559810.76	32.54	-103.44	10.00	147.42
10650.00	71.52	179.55	50.00	10421.45	-6702.97	-188.51	711.86	817304.86	559764.09	32.54	-103.44	10.00	194.09
10700.00	76.52	179.55	50.00	10435.21	-6716.73	-236.56	712.24	817305.24	559716.04	32.54	-103.44	10.00	242.15
10750.00	81.52	179.55	50.00	10444.73	-6726.25	-285.63	712.62	817305.62	559666.97	32.54	-103.44	10.00	291.21
10800.00	86.52	179.55	50.00	10449.94	-6731.46	-335.34	713.01	817306.01	559617.26	32.54	-103.44	10.00	340.93
10834.83	90.00	179.55	34.83	10451.00	-6732.52	-370.14	713.29	817306.29	559582.46	32.54	-103.44	10.00	375.73
10900.00	90.00	179.55	65.17	10451.00	-6732.52	-435.31	713.80	817306.80	559517.29	32.54	-103.44	0.00	440.90
11000.00	90.00	179.55	100.00	10451.00	-6732.52	-535.31	714.58	817307.58	559417.29	32.53	-103.44	0.00	540.90
11100.00	90.00	179.55	100.00	10451.00	-6732.52	-635.31	715.37	817308.37	559317.29	32.53	-103.44	0.00	640.90
11200.00	90.00	179.55	100.00	10451.00	-6732.52	-735.30	716.15	817309.15	559217.30	32.53	-103.44	0.00	740.90
11300.00	90.00	179.55	100.00	10451.00	-6732.52	-835.30	716.94	817309.94	559117.30	32.53	-103.44	0.00	840.90
11400.00	90.00	179.55	100.00	10451.00	-6732.52	-935.30	717.73	817310.73	559017.30	32.53	-103.44	0.00	940.90
11500.00	90.00	179.55	100.00	10451.00	-6732.52	-1035.29	718.51	817311.51	558917.31	32.53	-103.44	0.00	1040.90
11600.00	90.00	179.55	100.00	10451.00	-6732.52	-1135.29	719.30	817312.30	558817.31	32.53	-103.44	0.00	1140.90
11700.00	90.00	179.55	100.00	10451.00	-6732.52	-1235.29	720.08	817313.08	558717.31	32.53	-103.44	0.00	1240.90
11800.00	90.00	179.55	100.00	10451.00	-6732.52	-1335.28	720.87	817313.87	558617.32	32.53	-103.44	0.00	1340.90
11900.00	90.00	179.55	100.00	10451.00	-6732.52	-1435.28	721.65	817314.65	558517.32	32.53	-103.44	0.00	1440.90

12000.00	90.00	179.55	100.00	10451.00	-6732.52	-1535.28	722.44	817315.44	558417.32	32.53	-103.44	0.00	1540.90
12100.00	90.00	179.55	100.00	10451.00	-6732.52	-1635.27	723.22	817316.22	558317.33	32.53	-103.44	0.00	1640.90
12200.00	90.00	179.55	100.00	10451.00	-6732.52	-1735.27	724.01	817317.01	558217.33	32.53	-103.44	0.00	1740.90
12300.00	90.00	179.55	100.00	10451.00	-6732.52	-1835.27	724.79	817317.79	558117.33	32.53	-103.44	0.00	1840.90
12400.00	90.00	179.55	100.00	10451.00	-6732.52	-1935.27	725.58	817318.58	558017.33	32.53	-103.44	0.00	1940.90
12500.00	90.00	179.55	100.00	10451.00	-6732.52	-2035.26	726.36	817319.36	557917.34	32.53	-103.44	0.00	2040.90
12600.00	90.00	179.55	100.00	10451.00	-6732.52	-2135.26	727.15	817320.15	557817.34	32.53	-103.44	0.00	2140.90
12700.00	90.00	179.55	100.00	10451.00	-6732.52	-2235.26	727.94	817320.94	557717.34	32.53	-103.44	0.00	2240.90
12800.00	90.00	179.55	100.00	10451.00	-6732.52	-2335.25	728.72	817321.72	557617.35	32.53	-103.44	0.00	2340.90
12900.00	90.00	179.55	100.00	10451.00	-6732.52	-2435.25	729.51	817322.51	557517.35	32.53	-103.44	0.00	2440.90
13000.00	90.00	179.55	100.00	10451.00	-6732.52	-2535.25	730.29	817323.29	557417.35	32.53	-103.44	0.00	2540.90
13100.00	90.00	179.55	100.00	10451.00	-6732.52	-2635.24	731.08	817324.08	557317.36	32.53	-103.44	0.00	2640.90
13200.00	90.00	179.55	100.00	10451.00	-6732.52	-2735.24	731.86	817324.86	557217.36	32.53	-103.44	0.00	2740.90
13300.00	90.00	179.55	100.00	10451.00	-6732.52	-2835.24	732.65	817325.65	557117.36	32.53	-103.44	0.00	2840.90
13400.00	90.00	179.55	100.00	10451.00	-6732.52	-2935.23	733.43	817326.43	557017.37	32.53	-103.44	0.00	2940.90
13500.00	90.00	179.55	100.00	10451.00	-6732.52	-3035.23	734.22	817327.22	556917.37	32.53	-103.44	0.00	3040.90
13600.00	90.00	179.55	100.00	10451.00	-6732.52	-3135.23	735.00	817328.00	556817.37	32.53	-103.44	0.00	3140.90
13700.00	90.00	179.55	100.00	10451.00	-6732.52	-3235.23	735.79	817328.79	556717.37	32.53	-103.44	0.00	3240.90
13800.00	90.00	179.55	100.00	10451.00	-6732.52	-3335.22	736.57	817329.57	556617.38	32.53	-103.44	0.00	3340.90
13900.00	90.00	179.55	100.00	10451.00	-6732.52	-3435.22	737.36	817330.36	556517.38	32.53	-103.44	0.00	3440.90
14000.00	90.00	179.55	100.00	10451.00	-6732.52	-3535.22	738.15	817331.15	556417.38	32.53	-103.44	0.00	3540.90
14100.00	90.00	179.55	100.00	10451.00	-6732.52	-3635.21	738.93	817331.93	556317.39	32.53	-103.44	0.00	3640.90
14200.00	90.00	179.55	100.00	10451.00	-6732.52	-3735.21	739.72	817332.72	556217.39	32.53	-103.44	0.00	3740.90
14300.00	90.00	179.55	100.00	10451.00	-6732.52	-3835.21	740.50	817333.50	556117.39	32.53	-103.44	0.00	3840.90
14400.00	90.00	179.55	100.00	10451.00	-6732.52	-3935.20	741.29	817334.29	556017.40	32.53	-103.44	0.00	3940.90
14500.00	90.00	179.55	100.00	10451.00	-6732.52	-4035.20	742.07	817335.07	555917.40	32.53	-103.44	0.00	4040.90
14600.00	90.00	179.55	100.00	10451.00	-6732.52	-4135.20	742.86	817335.86	555817.40	32.52	-103.44	0.00	4140.90
14700.00	90.00	179.55	100.00	10451.00	-6732.52	-4235.19	743.64	817336.64	555717.41	32.52	-103.44	0.00	4240.90
14800.00	90.00	179.55	100.00	10451.00	-6732.52	-4335.19	744.43	817337.43	555617.41	32.52	-103.44	0.00	4340.90
14900.00	90.00	179.55	100.00	10451.00	-6732.52	-4435.19	745.21	817338.21	555517.41	32.52	-103.44	0.00	4440.90
15000.00	90.00	179.55	100.00	10451.00	-6732.52	-4535.19	746.00	817339.00	555417.42	32.52	-103.44	0.00	4540.90
15100.00	90.00	179.55	100.00	10451.00	-6732.52	-4635.18	746.78	817339.78	555317.42	32.52	-103.44	0.00	4640.90
15200.00	90.00	179.55	100.00	10451.00	-6732.52	-4735.18	747.57	817340.57	555217.42	32.52	-103.44	0.00	4740.90
15300.00	90.00	179.55	100.00	10451.00	-6732.52	-4835.18	748.36	817341.36	555117.42	32.52	-103.44	0.00	4840.90
15394.83	90.00	179.55	94.83	10451.00	-6732.52	-4930.00	749.10	817342.10	555022.60	32.52	-103.44	0.00	4935.73
15400.00	90.00	179.55	5.17	10451.00	-6732.52	-4935.17	749.14	817342.14	555017.43	32.52	-103.44	0.00	4940.90

15444.83	90.00	179.55	44.83	10451.00	-6732.52	-4980.00	749.49	817342.49	554972.60	32.52	-103.44	0.00	4985.73
All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.													
Vertical depths are relative to GL 2692.48 + 26' KB. Northings and Eastings are relative to Well.													
The Dogleg Severity is in Degrees per 100 feet.													
Vertical Section is from Slot and calculated along an Azimuth of 179.550° (Grid).													
Coordinate System is North American Datum 1983 US State Plane 1983, New Mexico Eastern Zone.													
Central meridian is -104.333°.													
Grid Convergence at Surface is 0.480°.													
Based upon Minimum Curvature type calculations, at a Measured Depth of 15444.83ft.,													
the Bottom Hole Displacement is 5036.08ft., in the Direction of 179.550° (Grid).													

11/11/2025 11:11:11 AM

Marshall & Winston

Lea County, NM

Lookin Good 34 State Com

Lookin Good 34 State Com 502H

OH

Plan: Plan 1

Standard Planning Report

08 August, 2025

Legacy Directional Drilling Planning Report

Database:	EDM_WA	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Company:	Marshall & Winston	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Project:	Lea County, NM	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site:	Lookin Good 34 State Com	North Reference:	Grid
Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Project	Lea County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Lookin Good 34 State Com				
Site Position:		Northing:	559,952.00 usft	Latitude:	32.536195
From:	Map	Easting:	816,538.20 usft	Longitude:	-103.440335
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "		

Well	Lookin Good 34 State Com 502H					
Well Position	+N/-S	0.00 usft	Northing:	559,952.60 usft	Latitude:	32.536196
	+E/-W	0.00 usft	Easting:	816,593.00 usft	Longitude:	-103.440157
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,692.48 usft
Grid Convergence:		0.48 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2025	8/8/2025	6.20	60.05	47,202.05875673

Design	Plan 1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
	0.00	0.00	0.00	179.55

Plan Survey Tool Program		Date	8/8/2025		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	15,444.40 Plan 1 (OH)	MWD		
			OWSG MWD - Standard		

Legacy Directional Drilling Planning Report

Database:	EDM_WA	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Company:	Marshall & Winston	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Project:	Lea County, NM	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site:	Lookin Good 34 State Com	North Reference:	Grid
Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,450.00	7.00	20.00	2,449.13	20.07	7.30	2.00	2.00	0.00	20.00	
2,840.60	9.00	76.98	2,836.47	49.36	45.26	2.00	0.51	14.59	105.26	
6,969.96	9.00	76.98	6,915.02	194.86	674.44	0.00	0.00	0.00	0.00	
7,419.83	0.00	179.55	7,363.04	202.80	708.79	2.00	-2.00	0.00	180.00	
9,934.83	0.00	179.55	9,878.04	202.80	708.79	0.00	0.00	0.00	0.00	
10,834.83	90.00	179.55	10,451.00	-370.14	713.29	10.00	10.00	0.00	0.00	
15,394.83	90.00	179.55	10,451.00	-4,930.00	749.10	0.00	0.00	0.00	0.00	PLTP - Lookin Good 5
15,444.83	90.00	179.55	10,451.00	-4,980.00	749.49	0.00	0.00	0.00	0.00	PBHL - Lookin Good 5

Legacy Directional Drilling Planning Report

Database:	EDM_WA	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Company:	Marshall & Winston	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Project:	Lea County, NM	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site:	Lookin Good 34 State Com	North Reference:	Grid
Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,930.00	0.00	0.00	1,930.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,955.00	0.00	0.00	1,955.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Csg - 13-3/8" Surface Casing									
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Nudge Build 2.00									
2,200.00	2.00	20.00	2,199.98	1.64	0.60	-1.64	2.00	2.00	0.00
2,300.00	4.00	20.00	2,299.84	6.56	2.39	-6.54	2.00	2.00	0.00
2,345.30	4.91	20.00	2,345.00	9.86	3.59	-9.83	2.00	2.00	0.00
Top of Salt									
2,400.00	6.00	20.00	2,399.45	14.75	5.37	-14.70	2.00	2.00	0.00
2,450.00	7.00	20.00	2,449.13	20.07	7.30	-20.01	2.00	2.00	0.00
Start DLS 2.00 TFO 105.26									
2,500.00	6.81	28.17	2,498.77	25.54	9.74	-25.46	2.00	-0.39	16.34
2,600.00	6.85	45.05	2,598.07	34.98	16.76	-34.84	2.00	0.04	16.88
2,700.00	7.45	60.45	2,697.30	42.39	26.62	-42.18	2.00	0.60	15.40
2,800.00	8.48	72.84	2,796.34	47.76	39.31	-47.45	2.00	1.04	12.39
2,840.60	9.00	76.98	2,836.47	49.36	45.26	-49.00	2.00	1.27	10.20
9° at 2840.60 MD									
2,900.00	9.00	76.98	2,895.14	51.45	54.31	-51.02	0.00	0.00	0.00
3,000.00	9.00	76.98	2,993.91	54.97	69.55	-54.43	0.00	0.00	0.00
3,100.00	9.00	76.98	3,092.68	58.50	84.78	-57.83	0.00	0.00	0.00
3,200.00	9.00	76.98	3,191.45	62.02	100.02	-61.23	0.00	0.00	0.00
3,300.00	9.00	76.98	3,290.22	65.55	115.26	-64.64	0.00	0.00	0.00
3,400.00	9.00	76.98	3,388.99	69.07	130.49	-68.04	0.00	0.00	0.00
3,500.00	9.00	76.98	3,487.76	72.59	145.73	-71.45	0.00	0.00	0.00
3,600.00	9.00	76.98	3,586.53	76.12	160.97	-74.85	0.00	0.00	0.00
3,700.00	9.00	76.98	3,685.30	79.64	176.21	-78.25	0.00	0.00	0.00
3,800.00	9.00	76.98	3,784.07	83.16	191.44	-81.66	0.00	0.00	0.00
3,822.21	9.00	76.98	3,806.00	83.95	194.83	-82.41	0.00	0.00	0.00
Base of Salt									

Legacy Directional Drilling Planning Report

Database:	EDM_WA	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Company:	Marshall & Winston	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Project:	Lea County, NM	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site:	Lookin Good 34 State Com	North Reference:	Grid
Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,883.97	9.00	76.98	3,867.00	86.12	204.24	-84.52	0.00	0.00	0.00
Yates									
3,900.00	9.00	76.98	3,882.84	86.69	206.68	-85.06	0.00	0.00	0.00
4,000.00	9.00	76.98	3,981.61	90.21	221.92	-88.46	0.00	0.00	0.00
4,100.00	9.00	76.98	4,080.38	93.73	237.15	-91.87	0.00	0.00	0.00
4,149.23	9.00	76.98	4,129.00	95.47	244.65	-93.54	0.00	0.00	0.00
7 Rivers									
4,200.00	9.00	76.98	4,179.14	97.26	252.39	-95.27	0.00	0.00	0.00
4,300.00	9.00	76.98	4,277.91	100.78	267.63	-98.68	0.00	0.00	0.00
4,332.49	9.00	76.98	4,310.00	101.93	272.58	-99.78	0.00	0.00	0.00
Capitan Reef									
4,400.00	9.00	76.98	4,376.68	104.30	282.86	-102.08	0.00	0.00	0.00
4,500.00	9.00	76.98	4,475.45	107.83	298.10	-105.48	0.00	0.00	0.00
4,600.00	9.00	76.98	4,574.22	111.35	313.34	-108.89	0.00	0.00	0.00
4,700.00	9.00	76.98	4,672.99	114.87	328.57	-112.29	0.00	0.00	0.00
4,800.00	9.00	76.98	4,771.76	118.40	343.81	-115.69	0.00	0.00	0.00
4,900.00	9.00	76.98	4,870.53	121.92	359.05	-119.10	0.00	0.00	0.00
5,000.00	9.00	76.98	4,969.30	125.45	374.28	-122.50	0.00	0.00	0.00
5,100.00	9.00	76.98	5,068.07	128.97	389.52	-125.91	0.00	0.00	0.00
5,200.00	9.00	76.98	5,166.84	132.49	404.76	-129.31	0.00	0.00	0.00
5,300.00	9.00	76.98	5,265.61	136.02	419.99	-132.71	0.00	0.00	0.00
5,400.00	9.00	76.98	5,364.38	139.54	435.23	-136.12	0.00	0.00	0.00
5,500.00	9.00	76.98	5,463.15	143.06	450.47	-139.52	0.00	0.00	0.00
5,600.00	9.00	76.98	5,561.92	146.59	465.70	-142.92	0.00	0.00	0.00
5,700.00	9.00	76.98	5,660.69	150.11	480.94	-146.33	0.00	0.00	0.00
5,800.00	9.00	76.98	5,759.46	153.63	496.18	-149.73	0.00	0.00	0.00
5,900.00	9.00	76.98	5,858.23	157.16	511.42	-153.14	0.00	0.00	0.00
5,952.42	9.00	76.98	5,910.00	159.00	519.40	-154.92	0.00	0.00	0.00
Delaware									
6,000.00	9.00	76.98	5,957.00	160.68	526.65	-156.54	0.00	0.00	0.00
6,053.66	9.00	76.98	6,010.00	162.57	534.83	-158.37	0.00	0.00	0.00
Intermediate Csg - 9-5/8" Intermediate Casing									
6,100.00	9.00	76.98	6,055.77	164.20	541.89	-159.94	0.00	0.00	0.00
6,200.00	9.00	76.98	6,154.54	167.73	557.13	-163.35	0.00	0.00	0.00
6,300.00	9.00	76.98	6,253.31	171.25	572.36	-166.75	0.00	0.00	0.00
6,400.00	9.00	76.98	6,352.07	174.77	587.60	-170.15	0.00	0.00	0.00
6,500.00	9.00	76.98	6,450.84	178.30	602.84	-173.56	0.00	0.00	0.00
6,600.00	9.00	76.98	6,549.61	181.82	618.07	-176.96	0.00	0.00	0.00
6,700.00	9.00	76.98	6,648.38	185.35	633.31	-180.37	0.00	0.00	0.00
6,800.00	9.00	76.98	6,747.15	188.87	648.55	-183.77	0.00	0.00	0.00
6,900.00	9.00	76.98	6,845.92	192.39	663.78	-187.17	0.00	0.00	0.00
6,969.96	9.00	76.98	6,915.02	194.86	674.44	-189.55	0.00	0.00	0.00
Start Drop -2.00									
7,000.00	8.40	76.98	6,944.72	195.88	678.87	-190.54	2.00	-2.00	0.00
7,100.00	6.40	76.98	7,043.88	198.78	691.41	-193.34	2.00	-2.00	0.00
7,200.00	4.40	76.98	7,143.43	200.90	700.57	-195.39	2.00	-2.00	0.00
7,300.00	2.40	76.98	7,243.25	202.23	706.35	-196.68	2.00	-2.00	0.00
7,400.00	0.40	76.98	7,343.22	202.78	708.72	-197.21	2.00	-2.00	0.00
7,419.83	0.00	179.55	7,363.04	202.80	708.79	-197.23	2.00	-2.00	0.00
Vertical at 7419.83 MD									
7,500.00	0.00	0.00	7,443.22	202.80	708.79	-197.23	0.00	0.00	0.00

Legacy Directional Drilling Planning Report

Database:	EDM_WA	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Company:	Marshall & Winston	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Project:	Lea County, NM	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site:	Lookin Good 34 State Com	North Reference:	Grid
Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,600.00	0.00	0.00	7,543.22	202.80	708.79	-197.23	0.00	0.00	0.00
7,700.00	0.00	0.00	7,643.22	202.80	708.79	-197.23	0.00	0.00	0.00
7,800.00	0.00	0.00	7,743.22	202.80	708.79	-197.23	0.00	0.00	0.00
7,900.00	0.00	0.00	7,843.22	202.80	708.79	-197.23	0.00	0.00	0.00
8,000.00	0.00	0.00	7,943.22	202.80	708.79	-197.23	0.00	0.00	0.00
8,100.00	0.00	0.00	8,043.22	202.80	708.79	-197.23	0.00	0.00	0.00
8,167.79	0.00	0.00	8,111.00	202.80	708.79	-197.23	0.00	0.00	0.00
Bone Spring Lime									
8,200.00	0.00	0.00	8,143.22	202.80	708.79	-197.23	0.00	0.00	0.00
8,300.00	0.00	0.00	8,243.22	202.80	708.79	-197.23	0.00	0.00	0.00
8,400.00	0.00	0.00	8,343.22	202.80	708.79	-197.23	0.00	0.00	0.00
8,500.00	0.00	0.00	8,443.22	202.80	708.79	-197.23	0.00	0.00	0.00
8,600.00	0.00	0.00	8,543.22	202.80	708.79	-197.23	0.00	0.00	0.00
8,700.00	0.00	0.00	8,643.22	202.80	708.79	-197.23	0.00	0.00	0.00
8,800.00	0.00	0.00	8,743.22	202.80	708.79	-197.23	0.00	0.00	0.00
8,900.00	0.00	0.00	8,843.22	202.80	708.79	-197.23	0.00	0.00	0.00
9,000.00	0.00	0.00	8,943.22	202.80	708.79	-197.23	0.00	0.00	0.00
9,100.00	0.00	0.00	9,043.22	202.80	708.79	-197.23	0.00	0.00	0.00
9,200.00	0.00	0.00	9,143.22	202.80	708.79	-197.23	0.00	0.00	0.00
9,300.00	0.00	0.00	9,243.22	202.80	708.79	-197.23	0.00	0.00	0.00
9,400.00	0.00	0.00	9,343.22	202.80	708.79	-197.23	0.00	0.00	0.00
9,500.00	0.00	0.00	9,443.22	202.80	708.79	-197.23	0.00	0.00	0.00
9,574.79	0.00	0.00	9,518.00	202.80	708.79	-197.23	0.00	0.00	0.00
1st BS Sand									
9,600.00	0.00	0.00	9,543.22	202.80	708.79	-197.23	0.00	0.00	0.00
9,700.00	0.00	0.00	9,643.22	202.80	708.79	-197.23	0.00	0.00	0.00
9,800.00	0.00	0.00	9,743.22	202.80	708.79	-197.23	0.00	0.00	0.00
9,900.00	0.00	0.00	9,843.22	202.80	708.79	-197.23	0.00	0.00	0.00
9,934.83	0.00	0.00	9,878.04	202.80	708.79	-197.23	0.00	0.00	0.00
KOP Start Build 10.00									
9,950.00	1.52	179.55	9,893.21	202.60	708.79	-197.03	10.00	10.00	0.00
10,000.00	6.52	179.55	9,943.07	199.10	708.82	-193.52	10.00	10.00	0.00
10,050.00	11.52	179.55	9,992.44	191.26	708.88	-185.69	10.00	10.00	0.00
10,100.00	16.52	179.55	10,040.94	179.16	708.97	-173.58	10.00	10.00	0.00
10,150.00	21.52	179.55	10,088.19	162.87	709.10	-157.30	10.00	10.00	0.00
10,200.00	26.52	179.55	10,133.85	142.53	709.26	-136.95	10.00	10.00	0.00
10,250.00	31.52	179.55	10,177.56	118.28	709.45	-112.71	10.00	10.00	0.00
10,300.00	36.52	179.55	10,218.99	90.32	709.67	-84.74	10.00	10.00	0.00
10,350.00	41.52	179.55	10,257.83	58.85	709.92	-53.27	10.00	10.00	0.00
10,381.75	44.69	179.55	10,281.00	37.16	710.09	-31.58	10.00	10.00	0.00
2nd BS Sand									
10,400.00	46.52	179.55	10,293.77	24.12	710.19	-18.54	10.00	10.00	0.00
10,450.00	51.52	179.55	10,326.55	-13.61	710.49	19.19	10.00	10.00	0.00
10,500.00	56.52	179.55	10,355.92	-54.06	710.80	59.64	10.00	10.00	0.00
10,550.00	61.52	179.55	10,381.65	-96.91	711.14	102.49	10.00	10.00	0.00
10,600.00	66.52	179.55	10,403.55	-141.84	711.49	147.42	10.00	10.00	0.00
10,650.00	71.52	179.55	10,421.45	-188.51	711.86	194.09	10.00	10.00	0.00
10,700.00	76.52	179.55	10,435.21	-236.56	712.24	242.15	10.00	10.00	0.00
10,750.00	81.52	179.55	10,444.73	-285.63	712.62	291.21	10.00	10.00	0.00
10,800.00	86.52	179.55	10,449.94	-335.34	713.01	340.93	10.00	10.00	0.00
10,834.83	90.00	179.55	10,451.00	-370.14	713.29	375.73	10.00	10.00	0.00

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Project:	Lea County, NM	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site:	Lookin Good 34 State Com	North Reference:	Grid
Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
LP 90° at 10834.83 MD - 2nd BS Shale Target									
10,900.00	90.00	179.55	10,451.00	-435.31	713.80	440.90	0.00	0.00	0.00
11,000.00	90.00	179.55	10,451.00	-535.31	714.58	540.90	0.00	0.00	0.00
11,100.00	90.00	179.55	10,451.00	-635.31	715.37	640.90	0.00	0.00	0.00
11,200.00	90.00	179.55	10,451.00	-735.30	716.15	740.90	0.00	0.00	0.00
11,300.00	90.00	179.55	10,451.00	-835.30	716.94	840.90	0.00	0.00	0.00
11,400.00	90.00	179.55	10,451.00	-935.30	717.73	940.90	0.00	0.00	0.00
11,500.00	90.00	179.55	10,451.00	-1,035.29	718.51	1,040.90	0.00	0.00	0.00
11,600.00	90.00	179.55	10,451.00	-1,135.29	719.30	1,140.90	0.00	0.00	0.00
11,700.00	90.00	179.55	10,451.00	-1,235.29	720.08	1,240.90	0.00	0.00	0.00
11,800.00	90.00	179.55	10,451.00	-1,335.28	720.87	1,340.90	0.00	0.00	0.00
11,900.00	90.00	179.55	10,451.00	-1,435.28	721.65	1,440.90	0.00	0.00	0.00
12,000.00	90.00	179.55	10,451.00	-1,535.28	722.44	1,540.90	0.00	0.00	0.00
12,100.00	90.00	179.55	10,451.00	-1,635.27	723.22	1,640.90	0.00	0.00	0.00
12,200.00	90.00	179.55	10,451.00	-1,735.27	724.01	1,740.90	0.00	0.00	0.00
12,300.00	90.00	179.55	10,451.00	-1,835.27	724.79	1,840.90	0.00	0.00	0.00
12,400.00	90.00	179.55	10,451.00	-1,935.27	725.58	1,940.90	0.00	0.00	0.00
12,500.00	90.00	179.55	10,451.00	-2,035.26	726.36	2,040.90	0.00	0.00	0.00
12,600.00	90.00	179.55	10,451.00	-2,135.26	727.15	2,140.90	0.00	0.00	0.00
12,700.00	90.00	179.55	10,451.00	-2,235.26	727.94	2,240.90	0.00	0.00	0.00
12,800.00	90.00	179.55	10,451.00	-2,335.25	728.72	2,340.90	0.00	0.00	0.00
12,900.00	90.00	179.55	10,451.00	-2,435.25	729.51	2,440.90	0.00	0.00	0.00
13,000.00	90.00	179.55	10,451.00	-2,535.25	730.29	2,540.90	0.00	0.00	0.00
13,100.00	90.00	179.55	10,451.00	-2,635.24	731.08	2,640.90	0.00	0.00	0.00
13,200.00	90.00	179.55	10,451.00	-2,735.24	731.86	2,740.90	0.00	0.00	0.00
13,300.00	90.00	179.55	10,451.00	-2,835.24	732.65	2,840.90	0.00	0.00	0.00
13,400.00	90.00	179.55	10,451.00	-2,935.23	733.43	2,940.90	0.00	0.00	0.00
13,500.00	90.00	179.55	10,451.00	-3,035.23	734.22	3,040.90	0.00	0.00	0.00
13,600.00	90.00	179.55	10,451.00	-3,135.23	735.00	3,140.90	0.00	0.00	0.00
13,700.00	90.00	179.55	10,451.00	-3,235.23	735.79	3,240.90	0.00	0.00	0.00
13,800.00	90.00	179.55	10,451.00	-3,335.22	736.57	3,340.90	0.00	0.00	0.00
13,900.00	90.00	179.55	10,451.00	-3,435.22	737.36	3,440.90	0.00	0.00	0.00
14,000.00	90.00	179.55	10,451.00	-3,535.22	738.15	3,540.90	0.00	0.00	0.00
14,100.00	90.00	179.55	10,451.00	-3,635.21	738.93	3,640.90	0.00	0.00	0.00
14,200.00	90.00	179.55	10,451.00	-3,735.21	739.72	3,740.90	0.00	0.00	0.00
14,300.00	90.00	179.55	10,451.00	-3,835.21	740.50	3,840.90	0.00	0.00	0.00
14,400.00	90.00	179.55	10,451.00	-3,935.20	741.29	3,940.90	0.00	0.00	0.00
14,500.00	90.00	179.55	10,451.00	-4,035.20	742.07	4,040.90	0.00	0.00	0.00
14,600.00	90.00	179.55	10,451.00	-4,135.20	742.86	4,140.90	0.00	0.00	0.00
14,700.00	90.00	179.55	10,451.00	-4,235.19	743.64	4,240.90	0.00	0.00	0.00
14,800.00	90.00	179.55	10,451.00	-4,335.19	744.43	4,340.90	0.00	0.00	0.00
14,900.00	90.00	179.55	10,451.00	-4,435.19	745.21	4,440.90	0.00	0.00	0.00
15,000.00	90.00	179.55	10,451.00	-4,535.19	746.00	4,540.90	0.00	0.00	0.00
15,100.00	90.00	179.55	10,451.00	-4,635.18	746.78	4,640.90	0.00	0.00	0.00
15,200.00	90.00	179.55	10,451.00	-4,735.18	747.57	4,740.90	0.00	0.00	0.00
15,300.00	90.00	179.55	10,451.00	-4,835.18	748.36	4,840.90	0.00	0.00	0.00
15,394.83	90.00	179.55	10,451.00	-4,930.00	749.10	4,935.73	0.00	0.00	0.00
LTP at 15394.83 MD									
15,400.00	90.00	179.55	10,451.00	-4,935.17	749.14	4,940.90	0.00	0.00	0.00
15,443.83	90.00	179.55	10,451.00	-4,979.00	749.48	4,984.73	0.00	0.00	0.00
TD at 15444.83									
15,444.83	90.00	179.55	10,451.00	-4,980.00	749.49	4,985.73	0.00	0.00	0.00

Legacy Directional Drilling Planning Report

Database:	EDM_WA	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Company:	Marshall & Winston	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Project:	Lea County, NM	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site:	Lookin Good 34 State Com	North Reference:	Grid
Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PLTP - Lookin Good 502 - hit/miss target - Shape - Point	0.00	0.00	10,451.00	-4,930.00	749.10	555,022.80	817,342.10	32 522629	-103 437861
PBHL - Lookin Good 502 - plan hits target center by 0.01usft at 15444.83usft MD (10451.00 TVD, -4980.00 N, 749.49 E) - Point	0.00	0.00	10,451.00	-4,980.00	749.50	554,972.60	817,342.50	32 522491	-103 437861
PFTP - Lookin Good 502 - plan misses target center by 23.05usft at 10674.96usft MD (10428.84 TVD, -212.34 N, 712.05 E) - Point	0.00	0.00	10,451.00	-206.00	711.70	559,746.60	817,304.70	32 535613	-103 437853

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,955.00	1,955.00	13-3/8" Surface Casing	13-3/8	17-1/4	
6,053.66	6,010.00	9-5/8" Intermediate Casing	9-5/8	12-1/4	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,930.00	1,930.00	Rustler				
1,955.00	1,955.00	Surface Csg				
2,345.30	2,345.00	Top of Salt				
3,822.21	3,806.00	Base of Salt				
3,883.97	3,867.00	Yates				
4,149.23	4,129.00	7 Rivers				
4,332.49	4,310.00	Capitan Reef				
5,952.42	5,910.00	Delaware				
6,053.66	6,010.00	Intermediate Csg				
8,167.79	8,111.00	Bone Spring Lime				
9,574.79	9,518.00	1st BS Sand				
10,381.75	10,281.00	2nd BS Sand				
10,834.83	10,451.00	2nd BS Shale Target				

Legacy Directional Drilling Planning Report

Database:	EDM_WA	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Company:	Marshall & Winston	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Project:	Lea County, NM	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site:	Lookin Good 34 State Com	North Reference:	Grid
Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,100.00	2,100.00	0.00	0.00	Start Nudge Build 2.00
2,450.00	2,449.13	20.07	7.30	Start DLS 2.00 TFO 105.26
2,840.60	2,836.47	49.36	45.26	9° at 2840.60 MD
6,969.96	6,915.02	194.86	674.44	Start Drop -2.00
7,419.83	7,363.04	202.80	708.79	Vertical at 7419.83 MD
9,934.83	9,878.04	202.80	708.79	KOP Start Build 10.00
10,834.83	10,451.00	-370.14	713.29	LP 90° at 10834.83 MD
15,394.83	10,451.00	-4,930.00	749.10	LTP at 15394.83 MD
15,443.83	10,451.00	-4,979.00	749.48	TD at 15444.83

Marshall & Winston

Lea County, NM

Lookin Good 34 State Com

Lookin Good 34 State Com 502H

OH

Plan 1

Anticollision Report

08 August, 2025

Legacy Directional Drilling Anticollision Report

Company:	Marshall & Winston	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Project:	Lea County, NM	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Reference Site:	Lookin Good 34 State Com	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Reference	Plan 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 2,362.30usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	8/8/2025		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	15,444.40	Plan 1 (OH)	MWD	OWSG MWD - Standard	

Site Name	Reference Measured Depth (usft)	Offset Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Lookin Good 34 State Com						
Big Jake No 1 - OH - OH	14,497.43	10,432.63	39.84	-219.20	0.154	Collision Risk Procedures R
Big Jake No 1 - OH - OH	14,500.00	10,432.63	39.92	-219.55	0.154	Collision Risk Procedures R
Hot Tamale No 1 - OH - OH	10,868.85	10,414.21	260.24	40.81	1.186	Collision Risk Procedures R
Lookin Good 34 State Com 501H - OH - OH	1,947.69	1,946.80	50.79	37.43	3.803	CC
Lookin Good 34 State Com 501H - OH - OH	2,100.00	2,098.95	51.03	36.99	3.635	ES, SF
Lookin Good 34 State Com 501H - OH - Plan 2	2,100.00	2,099.02	54.80	39.94	3.687	CC, ES
Lookin Good 34 State Com 501H - OH - Plan 2	2,200.00	2,197.16	57.05	41.49	3.666	SF
Lookin Good 34 State Com 502H - OH - OH	2,286.66	2,287.18	11.59	-3.35	0.776	Collision Risk Procedures R
Lookin Good 34 State Com 502H - OH - OH	2,300.00	2,300.52	11.64	-3.35	0.776	Collision Risk Procedures R

Offset Design: Lookin Good 34 State Com - Big Jake No 1 - OH - OH													Offset Site Error:	0.00 usft	
Survey Program:		180-2° Cone of Uncertainty				Semi Major Axis			Offset Wellbore Centre			Rule Assigned:		Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
12,200.00	10,451.00	10,431.77	10,448.22	48.09	182.04	-86.01	-4.032.32	781.80	2,297.78	2,077.24	220.54	10.419			
12,300.00	10,451.00	10,431.80	10,448.26	49.12	182.04	-86.06	-4.032.32	781.81	2,197.79	1,977.25	220.55	9.965			
12,400.00	10,451.00	10,431.84	10,448.30	50.18	182.04	-86.11	-4.032.32	781.81	2,097.81	1,877.26	220.55	9.512			
12,500.00	10,451.00	10,431.88	10,448.34	51.27	182.04	-86.17	-4.032.32	781.81	1,997.83	1,777.27	220.56	9.058			
12,600.00	10,451.00	10,431.92	10,448.37	52.40	182.04	-86.22	-4.032.32	781.81	1,897.85	1,677.28	220.57	8.604			
12,700.00	10,451.00	10,431.95	10,448.41	53.55	182.04	-86.28	-4.032.32	781.81	1,797.87	1,577.30	220.58	8.151			
12,800.00	10,451.00	10,431.99	10,448.45	54.73	182.04	-86.33	-4.032.32	781.82	1,697.90	1,477.32	220.58	7.697			
12,900.00	10,451.00	10,432.03	10,448.49	55.93	182.04	-86.38	-4.032.32	781.82	1,597.93	1,377.34	220.59	7.244			
13,000.00	10,451.00	10,432.07	10,448.53	57.16	182.04	-86.44	-4.032.32	781.82	1,497.96	1,277.37	220.59	6.791			
13,100.00	10,451.00	10,432.10	10,448.56	58.41	182.04	-86.49	-4.032.32	781.82	1,398.00	1,177.41	220.59	6.337			
13,200.00	10,451.00	10,432.14	10,448.60	59.67	182.04	-86.55	-4.032.32	781.82	1,298.04	1,077.45	220.59	5.884			
13,300.00	10,451.00	10,432.18	10,448.64	60.96	182.04	-86.60	-4.032.32	781.82	1,198.09	977.51	220.59	5.431			
13,400.00	10,451.00	10,432.22	10,448.68	62.26	182.04	-86.66	-4.032.32	781.83	1,098.16	877.58	220.58	4.979			
13,500.00	10,451.00	10,432.25	10,448.71	63.58	182.05	-86.71	-4.032.32	781.83	998.23	777.67	220.56	4.526			
13,600.00	10,451.00	10,432.29	10,448.75	64.92	182.05	-86.76	-4.032.32	781.83	898.32	677.78	220.54	4.073			
13,700.00	10,451.00	10,432.33	10,448.79	66.27	182.05	-86.82	-4.032.32	781.83	798.43	577.92	220.51	3.621			

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

Legacy Directional Drilling Anticollision Report

Company:	Marshall & Winston	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Project:	Lea County, NM	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Reference Site:	Lookin Good 34 State Com	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Lookin Good 34 State Com - Big Jake No 1 - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 180-2° Cone of Uncertainty													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
13,800.00	10,451.00	10,432.37	10,448.83	67.63	182.05	-86.87	-4,032.32	781.83	698.57	478.11	220.46	3.169		
13,900.00	10,451.00	10,432.41	10,448.86	69.01	182.05	-86.93	-4,032.32	781.84	598.76	378.36	220.40	2.717		
14,000.00	10,451.00	10,432.44	10,448.90	70.39	182.05	-86.98	-4,032.32	781.84	499.03	278.71	220.32	2.265		
14,100.00	10,451.00	10,432.48	10,448.94	71.79	182.05	-87.03	-4,032.32	781.84	399.42	179.21	220.22	1.814	Collision Risk Procedures Req.	
14,200.00	10,451.00	10,432.52	10,448.98	73.20	182.05	-87.09	-4,032.32	781.84	300.09	79.96	220.13	1.383	Collision Risk Procedures Req.	
14,300.00	10,451.00	10,432.56	10,449.01	74.63	182.05	-87.14	-4,032.32	781.84	201.41	-18.90	220.31	0.914	Collision Risk Procedures Req.	
14,400.00	10,451.00	10,432.59	10,449.05	76.06	182.05	-87.20	-4,032.32	781.84	105.26	-118.17	223.44	0.471	Collision Risk Procedures Req.	
14,497.43	10,451.00	10,432.63	10,449.09	77.46	182.05	-87.25	-4,032.32	781.85	39.84	-219.20	259.04	0.154	Collision Risk Procedures Req., CC, SF	
14,500.00	10,451.00	10,432.63	10,449.09	77.49	182.05	-87.25	-4,032.32	781.85	39.92	-219.55	259.48	0.154	Collision Risk Procedures Req., ES	
14,600.00	10,451.00	10,432.67	10,449.13	78.94	182.05	-87.31	-4,032.32	781.85	110.03	-122.86	232.90	0.472	Collision Risk Procedures Req.	
14,700.00	10,451.00	10,432.71	10,449.17	80.40	182.05	-87.36	-4,032.32	781.85	206.45	-20.11	226.56	0.911	Collision Risk Procedures Req.	
14,800.00	10,451.00	10,432.74	10,449.20	81.86	182.05	-87.41	-4,032.32	781.85	305.18	80.52	224.66	1.358	Collision Risk Procedures Req.	
14,900.00	10,451.00	10,432.78	10,449.24	83.33	182.05	-87.47	-4,032.32	781.85	404.53	180.71	223.83	1.807	Collision Risk Procedures Req.	
15,000.00	10,451.00	10,432.82	10,449.28	84.81	182.06	-87.52	-4,032.32	781.86	504.14	280.76	223.38	2.257		
15,100.00	10,451.00	10,432.86	10,449.32	86.30	182.06	-87.58	-4,032.32	781.86	603.88	380.77	223.12	2.707		
15,200.00	10,451.00	10,432.90	10,449.35	87.79	182.06	-87.63	-4,032.32	781.86	703.70	480.75	222.95	3.156		
15,300.00	10,451.00	10,432.93	10,449.39	89.28	182.06	-87.68	-4,032.32	781.86	803.56	580.72	222.84	3.606		
15,400.00	10,451.00	10,432.97	10,449.43	90.78	182.06	-87.74	-4,032.32	781.86	903.45	680.67	222.77	4.055		
15,445.39	10,451.00	10,432.99	10,449.45	91.47	182.06	-87.76	-4,032.32	781.86	948.79	726.04	222.75	4.259		

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

Legacy Directional Drilling Anticollision Report

Company:	Marshall & Winston	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Project:	Lea County, NM	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Reference Site:	Lookin Good 34 State Com	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Lookin Good 34 State Com - Hot Tamale No 1 - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 12600-2" Cone of Uncertainty													Offset Well Error:	0.00 usft
Reference	Vertical	Measured	Vertical	Semi Major Axis	Offset	Highslide	Offset Wellbore Centre		Distance			Separation Factor	Warning	
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)			
0.00	0.00	0.00	38.48	0.00	0.00	131.86	-406.17	453.32	609.88					
100.00	100.00	61.52	100.00	0.27	1.07	131.86	-406.17	453.32	608.66	607.32	1.34	454.567		
200.00	200.00	161.52	200.00	0.62	2.82	131.86	-406.17	453.32	608.66	605.22	3.44	176.810		
300.00	300.00	261.52	300.00	0.98	4.56	131.86	-406.17	453.32	608.66	603.12	5.55	109.749		
400.00	400.00	361.52	400.00	1.34	6.31	131.86	-406.17	453.32	608.66	601.01	7.65	79.570		
500.00	500.00	461.52	500.00	1.70	8.05	131.86	-406.17	453.32	608.66	598.91	9.75	62.409		
600.00	600.00	561.52	600.00	2.06	9.80	131.86	-406.17	453.32	608.66	596.81	11.86	51.336		
700.00	700.00	661.52	700.00	2.42	11.54	131.86	-406.17	453.32	608.66	594.70	13.96	43.601		
800.00	800.00	761.52	800.00	2.77	13.29	131.86	-406.17	453.32	608.66	592.60	16.06	37.892		
900.00	900.00	861.52	900.00	3.13	15.03	131.86	-406.17	453.32	608.66	590.50	18.17	33.504		
1,000.00	1,000.00	961.52	1,000.00	3.49	16.78	131.86	-406.17	453.32	608.66	588.39	20.27	30.027		
1,100.00	1,100.00	1,061.52	1,100.00	3.85	18.52	131.86	-406.17	453.32	608.66	586.29	22.37	27.204		
1,200.00	1,200.00	1,161.52	1,200.00	4.21	20.27	131.86	-406.17	453.32	608.66	584.19	24.48	24.887		
1,300.00	1,300.00	1,261.52	1,300.00	4.57	22.01	131.86	-406.17	453.32	608.66	582.08	26.58	22.899		
1,400.00	1,400.00	1,361.52	1,400.00	4.93	23.76	131.86	-406.17	453.32	608.66	579.98	28.68	21.220		
1,500.00	1,500.00	1,461.52	1,500.00	5.28	25.50	131.86	-406.17	453.32	608.66	577.87	30.79	19.770		
1,600.00	1,600.00	1,561.52	1,600.00	5.64	27.25	131.86	-406.17	453.32	608.66	575.77	32.89	18.505		
1,700.00	1,700.00	1,661.52	1,700.00	6.00	28.99	131.86	-406.17	453.32	608.66	573.67	34.99	17.393		
1,800.00	1,800.00	1,761.52	1,800.00	6.36	30.74	131.86	-406.17	453.32	608.66	571.56	37.10	16.407		
1,900.00	1,900.00	1,861.52	1,900.00	6.72	32.48	131.86	-406.17	453.32	608.66	569.46	39.20	15.527		
2,000.00	2,000.00	1,961.52	2,000.00	7.08	34.23	131.86	-406.17	453.32	608.66	567.36	41.30	14.736		
2,100.00	2,100.00	2,061.52	2,100.00	7.43	35.97	131.86	-406.17	453.32	608.66	565.25	43.41	14.022		
2,200.00	2,199.98	2,161.50	2,199.98	7.79	37.72	112.00	-406.17	453.32	609.31	563.80	45.51	13.388		
2,300.00	2,299.84	2,261.36	2,299.84	8.15	39.46	112.42	-406.17	453.32	611.30	563.69	47.61	12.840		
2,400.00	2,399.45	2,360.97	2,399.45	8.51	41.20	113.10	-406.17	453.32	614.68	564.97	49.71	12.366		
2,500.00	2,498.77	2,460.29	2,498.77	8.87	42.93	105.95	-406.17	453.32	618.98	567.18	51.80	11.950		
2,600.00	2,598.07	2,559.59	2,598.07	9.23	44.67	90.25	-406.17	453.32	620.64	566.74	53.89	11.516		
2,700.00	2,697.30	2,658.82	2,697.30	9.59	46.40	76.10	-406.17	453.32	619.09	563.10	55.99	11.058		
2,800.00	2,796.34	2,757.86	2,796.34	9.95	48.12	65.04	-406.17	453.32	614.38	556.30	58.08	10.578		
2,900.00	2,895.14	2,856.66	2,895.14	10.32	49.85	62.23	-406.17	453.32	607.14	546.97	60.17	10.091		
3,000.00	2,893.91	2,955.43	2,993.91	10.69	51.57	63.54	-406.17	453.32	599.94	537.68	62.26	9.636		
3,100.00	3,092.68	3,054.20	3,092.68	11.07	53.30	64.88	-406.17	453.32	593.07	528.71	64.36	9.215		
3,200.00	3,191.45	3,152.97	3,191.45	11.45	55.02	66.25	-406.17	453.32	586.53	520.07	66.46	8.825		
3,300.00	3,290.22	3,251.74	3,290.22	11.84	56.74	67.64	-406.17	453.32	580.34	511.77	68.57	8.463		
3,400.00	3,388.99	3,350.51	3,388.99	12.23	58.47	69.07	-406.17	453.32	574.51	503.83	70.68	8.128		
3,500.00	3,487.76	3,449.28	3,487.76	12.62	60.19	70.53	-406.17	453.32	569.05	496.26	72.80	7.817		
3,600.00	3,586.53	3,548.05	3,586.53	13.01	61.91	72.01	-406.17	453.32	563.97	489.06	74.91	7.528		
3,700.00	3,685.30	3,646.82	3,685.30	13.41	63.64	73.51	-406.17	453.32	559.29	482.25	77.03	7.260		
3,800.00	3,784.07	3,745.59	3,784.07	13.81	65.36	75.04	-406.17	453.32	555.00	475.84	79.16	7.011		
3,900.00	3,882.84	3,844.36	3,882.84	14.21	67.08	76.60	-406.17	453.32	551.12	469.84	81.29	6.780		
4,000.00	3,981.61	3,943.13	3,981.61	14.62	68.81	78.17	-406.17	453.32	547.67	464.25	83.42	6.566		
4,100.00	4,080.38	4,041.90	4,080.38	15.02	70.53	79.76	-406.17	453.32	544.84	459.09	85.55	6.367		
4,200.00	4,179.14	4,140.66	4,179.14	15.43	72.25	81.37	-406.17	453.32	542.04	454.36	87.68	6.182		
4,300.00	4,277.91	4,239.43	4,277.91	15.84	73.98	82.99	-406.17	453.32	539.89	450.07	89.81	6.011		
4,400.00	4,376.68	4,338.20	4,376.68	16.25	75.70	84.62	-406.17	453.32	538.18	446.23	91.95	5.853		
4,500.00	4,475.45	4,436.97	4,475.45	16.66	77.43	86.26	-406.17	453.32	536.92	442.84	94.09	5.707		
4,600.00	4,574.22	4,535.74	4,574.22	17.07	79.15	87.91	-406.17	453.32	536.12	439.89	96.22	5.572		
4,700.00	4,672.99	4,634.51	4,672.99	17.49	80.87	89.56	-406.17	453.32	535.77	437.41	98.36	5.447		
4,726.50	4,699.17	4,660.69	4,699.17	17.60	81.33	90.00	-406.17	453.32	535.75	436.83	98.93	5.416		
4,800.00	4,771.76	4,733.28	4,771.76	17.90	82.80	91.21	-406.17	453.32	535.88	435.38	100.50	5.332		

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

Legacy Directional Drilling Anticollision Report

Company:	Marshall & Winston	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Project:	Lea County, NM	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Reference Site:	Lookin Good 34 State Com	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Lookin Good 34 State Com - Hot Tamale No 1 - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 12600-2° Cone of Uncertainty													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
4,900.00	4,870.53	4,832.05	4,870.53	18.32	84.32	92.86	-406.17	453.32	536.44	433.81	102.63	5.227		
5,000.00	4,969.30	4,930.82	4,969.30	18.74	86.04	94.51	-406.17	453.32	537.46	432.69	104.77	5.130		
5,100.00	5,068.07	5,029.59	5,068.07	19.16	87.77	96.15	-406.17	453.32	538.93	432.02	106.90	5.041		
5,200.00	5,166.84	5,128.36	5,166.84	19.58	89.49	97.77	-406.17	453.32	540.85	431.81	109.04	4.960		
5,300.00	5,265.61	5,227.13	5,265.61	20.00	91.21	99.39	-406.17	453.32	543.21	432.04	111.17	4.886		
5,400.00	5,364.38	5,325.90	5,364.38	20.42	92.94	100.99	-406.17	453.32	546.01	432.71	113.30	4.819		
5,500.00	5,463.15	5,424.67	5,463.15	20.84	94.66	102.57	-406.17	453.32	549.24	433.81	115.43	4.758		
5,600.00	5,561.92	5,523.44	5,561.92	21.26	96.38	104.14	-406.17	453.32	552.89	435.34	117.55	4.703		
5,700.00	5,660.69	5,622.21	5,660.69	21.68	98.11	105.68	-406.17	453.32	556.96	437.29	119.68	4.654		
5,800.00	5,759.46	5,720.98	5,759.46	22.11	99.83	107.20	-406.17	453.32	561.44	439.64	121.80	4.610		
5,900.00	5,858.23	5,819.75	5,858.23	22.53	101.55	108.69	-406.17	453.32	566.31	442.40	123.92	4.570		
6,000.00	5,957.00	5,918.52	5,957.00	22.95	103.28	110.16	-406.17	453.32	571.57	445.54	126.03	4.535		
6,100.00	6,055.77	6,017.29	6,055.77	23.38	105.00	111.60	-406.17	453.32	577.21	449.06	128.15	4.504		
6,200.00	6,154.54	6,116.06	6,154.54	23.80	106.73	113.02	-406.17	453.32	583.21	452.95	130.26	4.477		
6,300.00	6,253.31	6,214.83	6,253.31	24.23	108.45	114.40	-406.17	453.32	589.58	457.20	132.37	4.454		
6,400.00	6,352.07	6,313.59	6,352.07	24.66	110.17	115.76	-406.17	453.32	596.26	461.78	134.48	4.434		
6,500.00	6,450.84	6,412.36	6,450.84	25.08	111.90	117.08	-406.17	453.32	603.29	466.71	136.58	4.417		
6,600.00	6,549.61	6,511.13	6,549.61	25.51	113.62	118.38	-406.17	453.32	610.64	471.95	138.69	4.403		
6,700.00	6,648.38	6,609.90	6,648.38	25.94	115.34	119.64	-406.17	453.32	618.29	477.51	140.79	4.392		
6,800.00	6,747.15	6,708.67	6,747.15	26.36	117.07	120.87	-406.17	453.32	626.25	483.36	142.89	4.383		
6,900.00	6,845.92	6,807.44	6,845.92	26.79	118.79	122.07	-406.17	453.32	634.49	489.50	144.98	4.376		
7,000.00	6,944.72	6,906.24	6,944.72	27.22	120.51	123.27	-406.17	453.32	642.91	495.83	147.08	4.371		
7,100.00	7,043.88	7,005.40	7,043.88	27.63	122.24	124.34	-406.17	453.32	650.12	500.94	149.18	4.358		
7,200.00	7,143.43	7,104.95	7,143.43	28.01	123.98	125.10	-406.17	453.32	655.49	504.22	151.27	4.333		
7,300.00	7,243.25	7,204.77	7,243.25	28.37	125.72	125.58	-406.17	453.32	658.92	505.57	153.36	4.297		
7,400.00	7,343.22	7,304.74	7,343.22	28.71	127.47	125.77	-406.17	453.32	660.34	504.91	155.44	4.248		
7,500.00	7,443.22	7,404.74	7,443.22	29.02	129.21	-157.24	-406.17	453.32	660.38	502.88	157.50	4.193		
7,600.00	7,543.22	7,504.74	7,543.22	29.35	130.96	-157.24	-406.17	453.32	660.38	500.81	159.58	4.138		
7,700.00	7,643.22	7,604.74	7,643.22	29.67	132.70	-157.24	-406.17	453.32	660.38	498.73	161.65	4.085		
7,800.00	7,743.22	7,704.74	7,743.22	29.99	134.45	-157.24	-406.17	453.32	660.38	496.68	163.73	4.033		
7,900.00	7,843.22	7,804.74	7,843.22	30.32	136.19	-157.24	-406.17	453.32	660.38	494.58	165.80	3.983		
8,000.00	7,943.22	7,904.74	7,943.22	30.64	137.94	-157.24	-406.17	453.32	660.38	492.50	167.88	3.934		
8,100.00	8,043.22	8,004.74	8,043.22	30.97	139.68	-157.24	-406.17	453.32	660.38	490.42	169.96	3.886		
8,200.00	8,143.22	8,104.74	8,143.22	31.30	141.43	-157.24	-406.17	453.32	660.38	488.35	172.04	3.839		
8,300.00	8,243.22	8,204.74	8,243.22	31.63	143.17	-157.24	-406.17	453.32	660.38	486.27	174.12	3.793		
8,400.00	8,343.22	8,304.74	8,343.22	31.95	144.92	-157.24	-406.17	453.32	660.38	484.19	176.20	3.748		
8,500.00	8,443.22	8,404.74	8,443.22	32.28	146.66	-157.24	-406.17	453.32	660.38	482.11	178.28	3.704		
8,600.00	8,543.22	8,504.74	8,543.22	32.61	148.41	-157.24	-406.17	453.32	660.38	480.03	180.36	3.662		
8,700.00	8,643.22	8,604.74	8,643.22	32.94	150.15	-157.24	-406.17	453.32	660.38	477.95	182.44	3.620		
8,800.00	8,743.22	8,704.74	8,743.22	33.27	151.90	-157.24	-406.17	453.32	660.38	475.86	184.52	3.579		
8,900.00	8,843.22	8,804.74	8,843.22	33.61	153.64	-157.24	-406.17	453.32	660.38	473.78	186.60	3.539		
9,000.00	8,943.22	8,904.74	8,943.22	33.94	155.39	-157.24	-406.17	453.32	660.38	471.70	188.68	3.500		
9,100.00	9,043.22	9,004.74	9,043.22	34.27	157.13	-157.24	-406.17	453.32	660.38	469.62	190.77	3.462		
9,200.00	9,143.22	9,104.74	9,143.22	34.60	158.88	-157.24	-406.17	453.32	660.38	467.53	192.85	3.424		
9,300.00	9,243.22	9,204.74	9,243.22	34.94	160.62	-157.24	-406.17	453.32	660.38	465.45	194.93	3.388		
9,400.00	9,343.22	9,304.74	9,343.22	35.27	162.37	-157.24	-406.17	453.32	660.38	463.36	197.02	3.352		
9,500.00	9,443.22	9,404.74	9,443.22	35.60	164.11	-157.24	-406.17	453.32	660.38	461.28	199.10	3.317		
9,600.00	9,543.22	9,504.74	9,543.22	35.94	165.86	-157.24	-406.17	453.32	660.38	459.20	201.19	3.282		
9,700.00	9,643.22	9,604.74	9,643.22	36.28	167.60	-157.24	-406.17	453.32	660.38	457.11	203.27	3.249		
9,800.00	9,743.22	9,704.74	9,743.22	36.61	169.35	-157.24	-406.17	453.32	660.38	455.02	205.36	3.216		

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

Legacy Directional Drilling Anticollision Report

Company:	Marshall & Winston	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Project:	Lea County, NM	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Reference Site:	Lookin Good 34 State Com	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Lookin Good 34 State Com - Hot Tamale No 1 - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 12600-2" Cone of Uncertainty													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,900.00	9,843.22	9,804.74	9,843.22	36.95	171.09	-157.24	-406.17	453.32	660.38	452.94	207.45	3.183		
10,000.00	9,943.07	9,904.59	9,943.07	37.25	172.84	23.47	-406.17	453.32	656.98	447.50	209.48	3.136		
10,100.00	10,040.94	10,002.46	10,040.94	37.54	174.54	24.96	-406.17	453.32	638.72	427.23	211.49	3.020		
10,200.00	10,133.85	10,095.37	10,133.85	37.79	176.16	28.01	-406.17	453.32	605.45	392.07	213.38	2.837		
10,300.00	10,218.99	10,180.51	10,218.99	37.99	177.65	33.22	-406.17	453.32	558.76	343.66	215.10	2.598		
10,400.00	10,293.77	10,255.29	10,293.77	38.16	178.95	41.45	-406.17	453.32	501.13	284.53	216.60	2.314		
10,500.00	10,355.92	10,317.44	10,355.92	38.29	180.04	53.42	-406.17	453.32	436.21	218.38	217.83	2.003		
10,600.00	10,403.55	10,365.07	10,403.55	38.41	180.87	68.12	-406.17	453.32	369.49	150.73	218.76	1.689	Collision Risk Procedures Req.	
10,700.00	10,435.21	10,396.73	10,435.21	38.54	181.42	81.46	-406.17	453.32	309.53	90.17	219.35	1.411	Collision Risk Procedures Req.	
10,800.00	10,449.94	10,411.46	10,449.94	38.72	181.68	89.08	-406.17	453.32	269.18	49.65	219.53	1.226	Collision Risk Procedures Req.	
10,868.85	10,452.69	10,414.21	10,452.69	38.88	181.73	90.00	-406.17	453.32	260.24	40.81	219.43	1.186	Collision Risk Procedures Req. CC, ES	
10,900.00	10,451.00	10,412.52	10,451.00	38.97	181.70	90.00	-406.17	453.32	262.11	42.78	219.32	1.195	Collision Risk Procedures Req.	
11,000.00	10,451.00	10,412.52	10,451.00	39.30	181.70	90.00	-406.17	453.32	291.44	72.31	219.13	1.330	Collision Risk Procedures Req.	
11,100.00	10,451.00	10,412.52	10,451.00	39.71	181.70	90.00	-406.17	453.32	348.10	129.04	219.06	1.589	Collision Risk Procedures Req.	
11,200.00	10,451.00	10,412.52	10,451.00	40.19	181.70	90.00	-406.17	453.32	421.20	202.14	219.07	1.923	Collision Risk Procedures Req.	
11,300.00	10,451.00	10,412.52	10,451.00	40.74	181.70	90.00	-406.17	453.32	503.64	284.54	219.10	2.289		
11,400.00	10,451.00	10,412.52	10,451.00	41.35	181.70	90.00	-406.17	453.32	591.51	372.38	219.13	2.699		
11,500.00	10,451.00	10,412.52	10,451.00	42.02	181.70	90.00	-406.17	453.32	682.73	463.56	219.17	3.115		
11,600.00	10,451.00	10,412.52	10,451.00	42.74	181.70	90.00	-406.17	453.32	776.12	556.91	219.21	3.541		
11,700.00	10,451.00	10,412.52	10,451.00	43.52	181.70	90.00	-406.17	453.32	870.98	651.74	219.24	3.973		
11,800.00	10,451.00	10,412.52	10,451.00	44.35	181.70	90.00	-406.17	453.32	966.87	747.60	219.27	4.410		
11,900.00	10,451.00	10,412.52	10,451.00	45.22	181.70	90.00	-406.17	453.32	1,063.52	844.22	219.30	4.850		
12,000.00	10,451.00	10,412.52	10,451.00	46.13	181.70	90.00	-406.17	453.32	1,160.74	941.41	219.33	5.292		
12,100.00	10,451.00	10,412.52	10,451.00	47.09	181.70	90.00	-406.17	453.32	1,258.39	1,039.04	219.36	5.737		
12,200.00	10,451.00	10,412.52	10,451.00	48.09	181.70	90.00	-406.17	453.32	1,356.39	1,137.00	219.38	6.183		
12,300.00	10,451.00	10,412.52	10,451.00	49.12	181.70	90.00	-406.17	453.32	1,454.66	1,235.25	219.41	6.630		
12,400.00	10,451.00	10,412.52	10,451.00	50.18	181.70	90.00	-406.17	453.32	1,553.15	1,333.71	219.44	7.078		
12,500.00	10,451.00	10,412.52	10,451.00	51.27	181.70	90.00	-406.17	453.32	1,651.82	1,432.35	219.47	7.527		
12,600.00	10,451.00	10,412.52	10,451.00	52.40	181.70	90.00	-406.17	453.32	1,750.64	1,531.14	219.49	7.976		
12,700.00	10,451.00	10,412.52	10,451.00	53.55	181.70	90.00	-406.17	453.32	1,849.59	1,630.06	219.52	8.425		
12,800.00	10,451.00	10,412.52	10,451.00	54.73	181.70	90.00	-406.17	453.32	1,948.64	1,729.09	219.55	8.875		
12,900.00	10,451.00	10,412.52	10,451.00	55.93	181.70	90.00	-406.17	453.32	2,047.79	1,828.21	219.58	9.326		
13,000.00	10,451.00	10,412.52	10,451.00	57.16	181.70	90.00	-406.17	453.32	2,147.02	1,927.40	219.61	9.776		
13,100.00	10,451.00	10,412.52	10,451.00	58.41	181.70	90.00	-406.17	453.32	2,246.31	2,026.67	219.64	10.227		
13,200.00	10,451.00	10,412.52	10,451.00	59.67	181.70	90.00	-406.17	453.32	2,345.67	2,125.99	219.68	10.678		

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

Legacy Directional Drilling Anticollision Report

Company:	Marshall & Winston	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Project:	Lea County, NM	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Reference Site:	Lookin Good 34 State Com	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Lookin Good 34 State Com - Lookin Good 34 State Com 501H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 181-MWD, 1918-MWD													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.98	0.00	0.00	-90.63	-0.60	-54.80	54.81					
100.00	100.00	99.92	100.00	0.27	0.15	-90.38	-0.35	-54.80	54.80	54.39	0.42	131.337		
200.00	200.00	199.04	200.01	0.62	0.34	-89.64	0.35	-54.80	54.80	53.84	0.97	56.720		
300.00	300.00	299.14	300.12	0.98	0.70	-88.67	1.27	-54.67	54.68	53.00	1.68	32.486		
400.00	400.00	399.17	400.14	1.34	1.06	-87.62	2.26	-54.37	54.41	52.01	2.40	22.671		
500.00	500.00	499.12	500.08	1.70	1.42	-86.54	3.27	-54.11	54.21	51.09	3.12	17.394		
600.00	600.00	599.08	600.04	2.06	1.78	-85.40	4.34	-53.93	54.10	50.27	3.83	14.113		
700.00	700.00	699.13	700.08	2.42	2.13	-84.09	5.56	-53.75	54.03	49.48	4.55	11.874		
800.00	800.00	799.27	800.20	2.77	2.49	-82.53	6.99	-53.31	53.76	48.49	5.27	10.206		
900.00	900.00	899.39	900.32	3.13	2.85	-81.20	8.15	-52.65	53.28	47.29	5.98	8.903		
1,000.00	1,000.00	999.35	1,000.27	3.49	3.21	-80.08	9.08	-51.89	52.68	45.98	6.70	7.882		
1,100.00	1,100.00	1,099.26	1,100.17	3.85	3.57	-78.97	9.99	-51.29	52.25	44.83	7.42	7.046		
1,200.00	1,200.00	1,199.29	1,200.19	4.21	3.92	-77.84	10.94	-50.74	51.91	43.77	8.13	6.383		
1,300.00	1,300.00	1,299.30	1,300.20	4.57	4.28	-76.61	11.93	-50.10	51.50	42.66	8.85	5.821		
1,400.00	1,400.00	1,399.11	1,400.01	4.93	4.64	-75.56	12.80	-49.68	51.30	41.74	9.56	5.364		
1,404.45	1,404.45	1,403.55	1,404.45	4.94	4.66	-75.52	12.83	-49.67	51.30	41.71	9.60	5.346		
1,500.00	1,500.00	1,499.12	1,500.01	5.28	4.99	-74.89	13.38	-49.55	51.33	41.05	10.28	4.995		
1,600.00	1,600.00	1,599.19	1,600.08	5.64	5.35	-74.82	13.59	-49.40	51.23	40.25	10.99	4.663		
1,700.00	1,700.00	1,699.19	1,700.08	6.00	5.69	-74.66	13.51	-49.25	51.07	39.39	11.69	4.370		
1,800.00	1,800.00	1,799.18	1,800.07	6.36	6.02	-74.93	13.24	-49.17	50.92	38.53	12.38	4.112		
1,900.00	1,900.00	1,899.14	1,900.04	6.72	6.36	-75.20	12.98	-49.13	50.81	37.74	13.07	3.886		
1,947.69	1,947.69	1,946.80	1,947.69	6.89	6.47	-75.33	12.86	-49.14	50.79	37.43	13.36	3.803 CC		
2,000.00	2,000.00	1,999.05	1,999.94	7.08	6.56	-75.71	12.54	-49.25	50.82	37.19	13.63	3.728		
2,100.00	2,100.00	2,098.95	2,099.84	7.43	6.60	-76.37	12.02	-49.59	51.03	36.99	14.04	3.635 ES, SF		
2,200.00	2,199.98	2,197.00	2,197.87	7.79	6.64	-97.80	12.78	-51.33	53.15	38.73	14.42	3.686		
2,300.00	2,299.84	2,294.66	2,295.35	8.15	6.69	-101.62	14.92	-56.68	59.83	45.03	14.80	4.042		
2,400.00	2,399.45	2,392.41	2,392.71	8.51	6.76	-106.66	18.06	-64.81	70.58	55.37	15.21	4.642		
2,500.00	2,498.77	2,490.00	2,489.71	8.87	6.86	-120.12	21.45	-74.94	85.26	69.62	15.64	5.452		
2,600.00	2,598.07	2,586.21	2,585.18	9.23	6.97	-140.21	24.30	-86.50	104.61	88.53	16.07	6.508		
2,700.00	2,697.30	2,684.24	2,682.43	9.59	7.11	-157.07	26.71	-98.62	127.09	110.53	16.56	7.675		
2,800.00	2,796.34	2,781.88	2,779.35	9.95	7.26	-169.69	29.05	-110.19	151.61	134.56	17.05	8.890		
2,900.00	2,895.14	2,879.37	2,876.20	10.32	7.44	-173.27	31.50	-121.14	177.60	160.04	17.56	10.114		
3,000.00	2,993.91	2,974.58	2,970.76	10.69	7.62	-172.75	33.86	-131.87	203.84	185.78	18.05	11.291		
3,100.00	3,092.68	3,067.95	3,063.38	11.07	7.82	-172.34	36.08	-143.51	231.26	212.71	18.54	12.472		
3,200.00	3,191.45	3,166.94	3,161.58	11.45	8.04	-172.05	38.23	-155.77	258.63	239.52	19.10	13.538		
3,300.00	3,290.22	3,265.43	3,259.44	11.84	8.27	-171.84	40.39	-166.79	284.84	265.17	19.67	14.481		
3,400.00	3,388.99	3,357.49	3,350.84	12.23	8.50	-171.65	42.50	-177.52	311.51	291.32	20.19	15.429		
3,500.00	3,487.76	3,446.48	3,438.96	12.62	8.74	-171.38	45.00	-189.69	340.08	319.38	20.69	16.436		
3,600.00	3,586.53	3,539.63	3,530.98	13.01	9.01	-171.01	48.34	-203.76	369.98	348.74	21.25	17.414		
3,700.00	3,685.30	3,639.36	3,629.54	13.41	9.30	-170.64	52.18	-218.52	399.59	377.71	21.87	18.268		
3,800.00	3,784.07	3,739.53	3,728.69	13.81	9.61	-170.35	55.91	-232.20	428.11	405.60	22.51	19.018		
3,900.00	3,882.84	3,839.24	3,827.52	14.21	9.91	-170.12	59.48	-244.99	455.86	432.72	23.15	19.695		
4,000.00	3,981.61	3,937.50	3,925.04	14.62	10.22	-169.99	62.46	-256.65	482.69	458.92	23.78	20.302		
4,100.00	4,080.38	4,028.51	4,015.30	15.02	10.51	-169.87	65.33	-267.94	510.06	485.71	24.35	20.944		
4,200.00	4,179.14	4,121.31	4,107.21	15.43	10.81	-169.76	68.23	-280.41	538.42	513.47	24.95	21.578		
4,300.00	4,277.91	4,220.89	4,205.87	15.84	11.14	-169.67	71.19	-293.55	566.56	540.95	25.61	22.120		
4,400.00	4,376.68	4,319.04	4,303.19	16.25	11.47	-169.59	74.08	-305.96	594.16	567.89	26.27	22.621		
4,500.00	4,475.45	4,415.29	4,398.65	16.66	11.80	-169.53	76.83	-318.01	621.65	594.74	26.91	23.103		
4,600.00	4,574.22	4,512.25	4,494.81	17.07	12.13	-169.49	79.40	-330.09	649.09	621.54	27.56	23.553		
4,700.00	4,672.99	4,609.14	4,590.93	17.49	12.47	-169.45	82.08	-342.00	676.37	648.16	28.21	23.973		

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

Legacy Directional Drilling Anticollision Report

Company:	Marshall & Winston	Local Co-ordinate Reference:	Well Lookin Good 34 State Corn 502H
Project:	Lea County, NM	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Reference Site:	Lookin Good 34 State Corn	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lookin Good 34 State Corn 502H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Lookin Good 34 State Corn - Lookin Good 34 State Corn 501H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 181-MWD, 1918-MWD													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
4,800.00	4,771.76	4,705.10	4,686.13	17.90	12.81	-169.41	84.76	-353.80	703.65	674.79	28.87	24.377		
4,900.00	4,870.53	4,802.28	4,782.54	18.32	13.15	-169.38	87.37	-365.73	730.92	701.39	29.53	24.751		
5,000.00	4,969.30	4,900.52	4,880.03	18.74	13.50	-169.35	90.05	-377.56	757.95	727.75	30.21	25.093		
5,100.00	5,068.07	4,997.43	4,976.21	19.16	13.84	-169.31	92.91	-389.05	784.80	753.92	30.87	25.419		
5,200.00	5,166.84	5,094.23	5,072.29	19.58	14.19	-169.26	95.88	-400.51	811.63	780.08	31.55	25.729		
5,300.00	5,265.61	5,192.68	5,170.00	20.00	14.55	-169.20	99.00	-412.02	838.31	806.08	32.23	26.009		
5,400.00	5,364.38	5,288.63	5,265.27	20.42	14.90	-169.16	102.85	-423.07	864.82	831.92	32.90	26.286		
5,500.00	5,463.15	5,382.30	5,358.24	20.84	15.24	-169.11	104.98	-434.07	891.55	857.99	33.56	26.568		
5,600.00	5,561.92	5,478.98	5,454.19	21.26	15.60	-169.07	108.10	-445.62	918.48	884.24	34.24	26.827		
5,700.00	5,660.69	5,576.64	5,551.11	21.68	15.96	-169.03	111.15	-457.13	945.25	910.33	34.93	27.064		
5,800.00	5,759.46	5,678.09	5,651.84	22.11	16.34	-168.99	114.33	-468.81	971.77	936.12	35.64	27.263		
5,900.00	5,858.23	5,776.22	5,749.31	22.53	16.70	-168.95	117.53	-479.69	997.86	961.52	36.34	27.460		
6,000.00	5,957.00	5,876.17	5,848.61	22.95	17.07	-168.90	120.93	-490.59	1,023.77	986.72	37.05	27.633		
6,100.00	6,055.77	5,975.72	5,947.54	23.38	17.44	-168.86	124.24	-501.12	1,049.37	1,011.61	37.76	27.794		
6,200.00	6,154.54	6,081.27	6,052.51	23.80	17.82	-168.83	127.58	-511.63	1,074.37	1,035.86	38.50	27.904		
6,300.00	6,253.31	6,180.28	6,151.04	24.23	18.18	-168.82	130.41	-521.02	1,098.91	1,059.70	39.21	28.029		
6,400.00	6,352.07	6,260.41	6,230.74	24.66	18.48	-168.82	132.67	-529.00	1,123.96	1,084.18	39.79	28.250		
6,500.00	6,450.84	6,337.79	6,307.54	25.08	18.77	-168.80	135.00	-538.13	1,150.75	1,110.40	40.34	28.523		
6,600.00	6,549.61	6,421.31	6,390.28	25.51	19.10	-168.77	137.75	-549.21	1,178.93	1,137.98	40.95	28.793		
6,700.00	6,648.38	6,515.17	6,483.19	25.94	19.47	-168.74	140.76	-562.13	1,207.62	1,165.99	41.63	29.012		
6,800.00	6,747.15	6,614.03	6,581.08	26.36	19.86	-168.72	143.71	-575.68	1,236.26	1,193.92	42.34	29.196		
6,900.00	6,845.92	6,712.68	6,678.81	26.79	20.26	-168.72	146.31	-588.85	1,264.57	1,221.51	43.06	29.367		
7,000.00	6,944.72	6,809.60	6,774.83	27.22	20.64	-168.75	148.76	-601.77	1,292.72	1,248.95	43.76	29.538		
7,100.00	7,043.88	6,919.65	6,883.93	27.63	21.07	-168.83	151.44	-615.94	1,317.95	1,273.39	44.56	29.579		
7,200.00	7,143.43	7,031.98	6,995.46	28.01	21.51	-168.86	154.40	-628.99	1,338.58	1,293.22	45.36	29.513		
7,300.00	7,243.25	7,132.28	7,095.11	28.37	21.89	-168.83	157.20	-640.06	1,355.27	1,309.21	46.06	29.421		
7,400.00	7,343.22	7,235.54	7,197.72	28.71	22.28	-168.77	160.01	-651.30	1,368.45	1,321.66	46.79	29.249		
7,500.00	7,443.22	7,335.91	7,297.48	29.02	22.67	-91.68	162.53	-662.02	1,379.12	1,331.64	47.47	29.051		
7,600.00	7,543.22	7,440.95	7,401.92	29.35	23.07	-91.57	165.00	-672.96	1,389.46	1,341.26	48.20	28.828		
7,700.00	7,643.22	7,542.20	7,502.62	29.67	23.45	-91.46	167.26	-683.27	1,399.59	1,350.69	48.90	28.622		
7,800.00	7,743.22	7,645.16	7,605.05	29.99	23.84	-91.37	169.26	-693.51	1,409.49	1,359.88	49.61	28.411		
7,900.00	7,843.22	7,748.06	7,707.44	30.32	24.22	-91.29	170.92	-703.56	1,419.22	1,368.89	50.32	28.202		
8,000.00	7,943.22	7,852.77	7,811.68	30.64	24.61	-91.23	172.30	-713.39	1,428.58	1,377.53	51.04	27.987		
8,100.00	8,043.22	7,954.59	7,913.07	30.97	24.99	-91.17	173.48	-722.70	1,437.69	1,385.94	51.75	27.782		
8,200.00	8,143.22	8,046.40	8,004.48	31.30	25.34	-91.10	175.05	-731.17	1,446.89	1,394.50	52.39	27.616		
8,300.00	8,243.22	8,141.96	8,099.52	31.63	25.70	-90.98	177.95	-740.66	1,456.77	1,403.70	53.06	27.454		
8,400.00	8,343.22	8,251.48	8,208.47	31.95	26.11	-90.84	181.28	-751.21	1,466.36	1,412.54	53.82	27.245		
8,500.00	8,443.22	8,368.64	8,325.16	32.28	26.55	-90.72	184.21	-761.35	1,474.99	1,420.37	54.62	27.004		
8,600.00	8,543.22	8,484.76	8,440.92	32.61	26.97	-90.63	186.41	-770.15	1,482.58	1,427.18	55.41	26.758		
8,700.00	8,643.22	8,615.27	8,571.21	32.94	27.43	-90.58	187.88	-777.61	1,488.21	1,431.96	56.26	26.454		
8,800.00	8,743.22	8,719.75	8,675.58	33.27	27.78	-90.54	188.66	-782.37	1,492.76	1,435.79	56.97	26.204		
8,900.00	8,843.22	8,818.85	8,772.57	33.61	28.12	-90.52	189.13	-786.86	1,497.37	1,439.73	57.64	25.977		
9,000.00	8,943.22	8,930.79	8,886.40	33.94	28.50	-90.53	188.92	-791.85	1,501.78	1,443.38	58.40	25.717		
9,100.00	9,043.22	9,046.54	9,002.08	34.27	28.88	-90.58	187.66	-795.60	1,505.02	1,445.87	59.15	25.445		
9,200.00	9,143.22	9,173.34	9,128.84	34.60	29.28	-90.65	185.71	-798.20	1,507.16	1,447.23	59.93	25.149		
9,300.00	9,243.22	9,302.56	9,258.05	34.94	29.65	-90.69	184.58	-797.90	1,506.87	1,446.19	60.68	24.832		
9,400.00	9,343.22	9,409.85	9,365.33	35.27	29.95	-90.73	183.63	-796.54	1,505.61	1,444.25	61.35	24.540		
9,500.00	9,443.22	9,536.14	9,491.57	35.60	30.30	-90.74	183.34	-793.32	1,503.01	1,440.94	62.07	24.214		
9,600.00	9,543.22	9,637.51	9,592.88	35.94	30.58	-90.69	184.64	-790.01	1,499.73	1,437.01	62.73	23.909		
9,700.00	9,643.22	9,693.00	9,648.33	36.28	30.74	-90.66	185.54	-788.18	1,497.08	1,433.81	63.26	23.664		

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

Legacy Directional Drilling Anticollision Report

Company:	Marshall & Winston	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Project:	Lea County, NM	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Reference Site:	Lookin Good 34 State Com	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Lookin Good 34 State Com - Lookin Good 34 State Com 501H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 181-MWD, 1918-MWD													Offset Well Error:	0.00 usft
Rule Assigned:													Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor		
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
9,705.12	9,648.34	9,693.00	9,648.33	36.29	30.74	-90.66	185.54	-788.18	1,497.07	1,433.79	63.28	23.657		
9,800.00	9,743.22	9,693.00	9,648.33	36.61	30.74	-90.66	185.54	-788.18	1,500.07	1,436.56	63.52	23.617		
9,900.00	9,843.22	9,693.00	9,648.33	36.95	30.74	-90.66	185.54	-788.18	1,509.70	1,446.12	63.58	23.743		
10,000.00	9,943.07	9,693.00	9,648.33	37.25	30.74	88.65	185.54	-788.18	1,525.80	1,462.46	63.34	24.091		
10,100.00	10,040.94	9,693.00	9,648.33	37.54	30.74	86.40	185.54	-788.18	1,547.79	1,484.75	63.04	24.554		
10,200.00	10,133.85	9,693.00	9,648.33	37.79	30.74	83.61	185.54	-788.18	1,574.77	1,512.16	62.62	25.149		
10,300.00	10,218.99	9,693.00	9,648.33	37.99	30.74	80.39	185.54	-788.18	1,605.70	1,543.55	62.15	25.835		
10,400.00	10,293.77	9,693.00	9,648.33	38.16	30.74	76.87	185.54	-788.18	1,639.44	1,577.73	61.71	26.568		
10,500.00	10,355.92	9,693.00	9,648.33	38.29	30.74	73.22	185.54	-788.18	1,674.83	1,613.48	61.35	27.298		
10,600.00	10,403.55	9,693.00	9,648.33	38.41	30.74	69.57	185.54	-788.18	1,710.72	1,649.58	61.14	27.981		
10,700.00	10,435.21	9,693.00	9,648.33	38.54	30.74	66.08	185.54	-788.18	1,746.03	1,684.93	61.10	28.579		
10,800.00	10,449.94	9,693.00	9,648.33	38.72	30.74	62.85	185.54	-788.18	1,779.74	1,718.51	61.24	29.063		
10,900.00	10,451.00	9,693.00	9,648.33	38.97	30.74	61.80	185.54	-788.18	1,812.65	1,751.11	61.53	29.459		
11,000.00	10,451.00	9,693.00	9,648.33	39.30	30.74	61.80	185.54	-788.18	1,849.92	1,788.04	61.88	29.894		
11,100.00	10,451.00	9,693.00	9,648.33	39.71	30.74	61.80	185.54	-788.18	1,891.75	1,829.49	62.26	30.382		
11,200.00	10,451.00	9,693.00	9,648.33	40.19	30.74	61.80	185.54	-788.18	1,937.85	1,875.18	62.67	30.922		
11,300.00	10,451.00	9,693.00	9,648.33	40.74	30.74	61.80	185.54	-788.18	1,987.91	1,924.82	63.09	31.511		
11,400.00	10,451.00	9,693.00	9,648.33	41.35	30.74	61.80	185.54	-788.18	2,041.65	1,978.14	63.51	32.148		
11,500.00	10,451.00	9,693.00	9,648.33	42.02	30.74	61.80	185.54	-788.18	2,098.77	2,034.84	63.93	32.830		
11,600.00	10,451.00	9,693.00	9,648.33	42.74	30.74	61.80	185.54	-788.18	2,159.02	2,094.68	64.34	33.557		
11,700.00	10,451.00	9,693.00	9,648.33	43.52	30.74	61.80	185.54	-788.18	2,222.14	2,157.40	64.74	34.324		
11,800.00	10,451.00	9,693.00	9,648.33	44.35	30.74	61.80	185.54	-788.18	2,287.89	2,222.76	65.13	35.129		
11,900.00	10,451.00	9,693.00	9,648.33	45.22	30.74	61.80	185.54	-788.18	2,356.04	2,290.55	65.50	35.971		

Legacy Directional Drilling Anticollision Report

Company:	Marshall & Winston	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Project:	Lea County, NM	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Reference Site:	Lookin Good 34 State Com	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Lookin Good 34 State Com - Lookin Good 34 State Com 501H - OH - Plan 2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.98	0.00	0.00	-90.63	-0.60	-54.80	54.81					
100.00	100.00	99.02	100.00	0.27	0.26	-90.63	-0.60	-54.80	54.80	54.28	0.53	103.806		
200.00	200.00	199.02	200.00	0.62	0.62	-90.63	-0.60	-54.80	54.80	53.56	1.24	44.055		
300.00	300.00	299.02	300.00	0.98	0.98	-90.63	-0.60	-54.80	54.80	52.84	1.96	27.948		
400.00	400.00	399.02	400.00	1.34	1.34	-90.63	-0.60	-54.80	54.80	52.13	2.68	20.465		
500.00	500.00	499.02	500.00	1.70	1.70	-90.63	-0.60	-54.80	54.80	51.41	3.39	16.143		
600.00	600.00	599.02	600.00	2.06	2.05	-90.63	-0.60	-54.80	54.80	50.69	4.11	13.328		
700.00	700.00	699.02	700.00	2.42	2.41	-90.63	-0.60	-54.80	54.80	49.97	4.83	11.350		
800.00	800.00	799.02	800.00	2.77	2.77	-90.63	-0.60	-54.80	54.80	49.26	5.55	9.882		
900.00	900.00	899.02	900.00	3.13	3.13	-90.63	-0.60	-54.80	54.80	48.54	6.26	8.751		
1,000.00	1,000.00	999.02	1,000.00	3.49	3.49	-90.63	-0.60	-54.80	54.80	47.82	6.98	7.852		
1,100.00	1,100.00	1,099.02	1,100.00	3.85	3.85	-90.63	-0.60	-54.80	54.80	47.11	7.70	7.121		
1,200.00	1,200.00	1,199.02	1,200.00	4.21	4.20	-90.63	-0.60	-54.80	54.80	46.39	8.41	6.514		
1,300.00	1,300.00	1,299.02	1,300.00	4.57	4.56	-90.63	-0.60	-54.80	54.80	45.67	9.13	6.002		
1,400.00	1,400.00	1,399.02	1,400.00	4.93	4.92	-90.63	-0.60	-54.80	54.80	44.96	9.85	5.565		
1,500.00	1,500.00	1,499.02	1,500.00	5.28	5.28	-90.63	-0.60	-54.80	54.80	44.24	10.56	5.188		
1,600.00	1,600.00	1,599.02	1,600.00	5.64	5.64	-90.63	-0.60	-54.80	54.80	43.52	11.28	4.858		
1,700.00	1,700.00	1,699.02	1,700.00	6.00	6.00	-90.63	-0.60	-54.80	54.80	42.81	12.00	4.568		
1,800.00	1,800.00	1,799.02	1,800.00	6.36	6.36	-90.63	-0.60	-54.80	54.80	42.09	12.72	4.310		
1,900.00	1,900.00	1,899.02	1,900.00	6.72	6.71	-90.63	-0.60	-54.80	54.80	41.37	13.43	4.080		
2,000.00	2,000.00	1,999.02	2,000.00	7.08	7.07	-90.63	-0.60	-54.80	54.80	40.65	14.15	3.873		
2,100.00	2,100.00	2,099.02	2,100.00	7.43	7.43	-90.63	-0.60	-54.80	54.80	39.94	14.87	3.687 CC ES		
2,200.00	2,199.98	2,197.16	2,198.13	7.79	7.78	-111.76	-0.18	-56.39	57.05	41.49	15.56	3.666 SF		
2,300.00	2,299.84	2,294.91	2,295.74	8.15	8.12	-114.63	1.09	-61.21	63.96	47.73	16.24	3.940		
2,400.00	2,399.45	2,391.91	2,392.38	8.51	8.46	-118.19	3.19	-69.17	75.76	58.86	16.90	4.484		
2,500.00	2,498.77	2,490.50	2,490.45	8.87	8.81	-130.06	5.77	-78.94	91.24	73.64	17.60	5.185		
2,600.00	2,598.07	2,588.83	2,588.26	9.23	9.16	-148.73	8.34	-88.68	109.20	90.90	18.30	5.968		
2,700.00	2,697.30	2,686.75	2,685.67	9.59	9.51	-164.28	10.90	-98.39	129.44	110.45	18.99	6.816		
2,800.00	2,796.34	2,784.15	2,782.56	9.95	9.86	-175.85	13.44	-108.04	151.92	132.24	19.68	7.720		
2,900.00	2,895.14	2,881.04	2,878.94	10.32	10.22	-178.60	15.97	-117.64	176.32	155.96	20.36	8.660		
3,000.00	2,893.91	2,877.87	2,875.26	10.69	10.57	-177.41	18.51	-127.24	201.01	179.96	21.04	9.553		
3,100.00	3,092.68	3,074.70	3,071.58	11.07	10.93	-176.48	21.04	-136.84	225.75	204.03	21.73	10.391		
3,200.00	3,191.45	3,171.54	3,167.80	11.45	11.29	-175.73	23.57	-146.43	250.55	228.13	22.41	11.178		
3,300.00	3,290.22	3,268.37	3,264.23	11.84	11.65	-175.12	26.10	-156.03	275.37	252.27	23.10	11.919		
3,400.00	3,388.99	3,365.20	3,360.55	12.23	12.01	-174.61	28.63	-165.63	300.22	276.43	23.79	12.617		
3,500.00	3,487.76	3,462.03	3,456.87	12.62	12.38	-174.18	31.16	-175.22	325.08	300.60	24.49	13.275		
3,600.00	3,586.53	3,558.86	3,553.19	13.01	12.74	-173.81	33.69	-184.82	349.97	324.79	25.18	13.897		
3,700.00	3,685.30	3,655.69	3,649.51	13.41	13.10	-173.48	36.22	-194.42	374.87	348.99	25.88	14.485		
3,800.00	3,784.07	3,752.52	3,745.83	13.81	13.47	-173.20	38.75	-204.01	399.77	373.20	26.58	15.042		
3,900.00	3,882.84	3,849.36	3,842.15	14.21	13.84	-172.95	41.28	-213.61	424.69	397.41	27.28	15.569		
4,000.00	3,981.61	3,946.19	3,938.48	14.62	14.20	-172.73	43.81	-223.21	449.61	421.63	27.98	16.070		
4,100.00	4,080.38	4,043.02	4,034.80	15.02	14.57	-172.53	46.35	-232.80	474.53	445.85	28.68	16.546		
4,200.00	4,179.14	4,139.85	4,131.12	15.43	14.94	-172.36	48.88	-242.40	499.46	470.08	29.38	16.999		
4,300.00	4,277.91	4,236.68	4,227.44	15.84	15.31	-172.19	51.41	-252.00	524.40	494.31	30.09	17.430		
4,400.00	4,376.68	4,333.51	4,323.76	16.25	15.68	-172.05	53.94	-261.59	549.34	518.55	30.79	17.841		
4,500.00	4,475.45	4,430.34	4,420.08	16.66	16.05	-171.91	56.47	-271.19	574.28	542.78	31.50	18.233		
4,600.00	4,574.22	4,527.18	4,516.40	17.07	16.42	-171.79	59.00	-280.79	599.22	567.02	32.20	18.607		
4,700.00	4,672.99	4,624.01	4,612.73	17.49	16.79	-171.68	61.53	-290.38	624.17	591.26	32.91	18.966		
4,800.00	4,771.76	4,720.84	4,709.05	17.90	17.16	-171.57	64.06	-299.98	649.12	615.50	33.62	19.308		
4,900.00	4,870.53	4,817.67	4,805.37	18.32	17.54	-171.48	66.59	-309.58	674.07	639.74	34.33	19.637		

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

Legacy Directional Drilling Anticollision Report

Company:	Marshall & Winston	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Project:	Lea County, NM	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Reference Site:	Lookin Good 34 State Com	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Lookin Good 34 State Com - Lookin Good 34 State Com 501H - OH - Plan 2														Offset Site Error:	0.00 usft
Survey Program: 0-MWD														Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
5,000.00	4,969.30	4,914.50	4,901.69	18.74	17.91	-171.39	69.12	-319.17	699.02	663.98	35.04	19.951			
5,100.00	5,068.07	5,011.33	4,998.01	19.16	18.28	-171.30	71.66	-328.77	723.97	688.23	35.75	20.253			
5,200.00	5,166.84	5,108.16	5,094.33	19.58	18.66	-171.23	74.19	-338.37	748.93	712.47	36.46	20.543			
5,300.00	5,265.61	5,204.99	5,190.65	20.00	19.03	-171.15	76.72	-347.96	773.88	736.72	37.17	20.821			
5,400.00	5,364.38	5,301.83	5,286.98	20.42	19.40	-171.08	79.25	-357.56	798.84	760.96	37.88	21.089			
5,500.00	5,463.15	5,398.66	5,383.30	20.84	19.78	-171.02	81.78	-367.16	823.80	785.21	38.59	21.347			
5,600.00	5,561.92	5,495.49	5,479.62	21.26	20.15	-170.96	84.31	-376.75	848.76	809.45	39.30	21.595			
5,700.00	5,660.69	5,592.32	5,575.94	21.68	20.53	-170.90	86.84	-386.35	873.72	833.70	40.02	21.834			
5,800.00	5,759.46	5,689.15	5,672.26	22.11	20.90	-170.85	89.37	-395.95	898.68	857.95	40.73	22.064			
5,900.00	5,858.23	5,785.98	5,768.58	22.53	21.28	-170.80	91.90	-405.55	923.64	882.20	41.44	22.286			
6,000.00	5,957.00	5,882.81	5,864.90	22.95	21.65	-170.75	94.43	-415.14	948.60	906.44	42.16	22.501			
6,100.00	6,055.77	5,979.65	5,961.23	23.38	22.03	-170.70	96.97	-424.74	973.56	930.69	42.87	22.708			
6,200.00	6,154.54	6,076.48	6,057.55	23.80	22.40	-170.66	99.50	-434.34	998.53	954.94	43.59	22.908			
6,300.00	6,253.31	6,173.31	6,153.87	24.23	22.78	-170.62	102.03	-443.93	1,023.49	979.19	44.30	23.102			
6,400.00	6,352.07	6,270.14	6,250.19	24.66	23.16	-170.58	104.56	-453.53	1,048.46	1,003.44	45.02	23.289			
6,500.00	6,450.84	6,366.97	6,346.51	25.08	23.53	-170.54	107.09	-463.13	1,073.42	1,027.68	45.74	23.470			
6,600.00	6,549.61	6,463.80	6,442.83	25.51	23.91	-170.51	109.62	-472.72	1,098.38	1,051.93	46.45	23.646			
6,700.00	6,648.38	6,560.63	6,539.15	25.94	24.29	-170.47	112.15	-482.32	1,123.35	1,076.18	47.17	23.816			
6,800.00	6,747.15	6,657.47	6,635.48	26.36	24.66	-170.44	114.68	-491.92	1,148.32	1,100.43	47.89	23.981			
6,900.00	6,845.92	6,754.30	6,731.80	26.79	25.04	-170.41	117.21	-501.51	1,173.28	1,124.68	48.60	24.140			
7,000.00	6,944.72	6,851.17	6,828.16	27.22	25.42	-170.40	119.75	-511.11	1,198.10	1,148.78	49.32	24.292			
7,100.00	7,043.88	6,948.64	6,925.12	27.63	25.80	-170.43	122.29	-520.77	1,220.39	1,170.35	50.04	24.390			
7,200.00	7,143.43	7,046.81	7,022.77	28.01	26.18	-170.41	124.86	-530.50	1,239.31	1,188.56	50.75	24.418			
7,300.00	7,243.25	7,145.57	7,121.01	28.37	26.56	-170.37	127.44	-540.29	1,254.85	1,203.38	51.47	24.381			
7,400.00	7,343.22	7,244.79	7,219.71	28.71	26.95	-170.28	130.03	-550.12	1,266.98	1,214.80	52.18	24.281			
7,500.00	7,443.22	7,344.26	7,318.65	29.02	27.34	-93.17	132.63	-559.98	1,276.80	1,223.92	52.88	24.147			
7,600.00	7,543.22	7,443.73	7,417.80	29.35	27.73	-93.02	135.23	-569.84	1,286.56	1,232.97	53.58	24.011			
7,700.00	7,643.22	7,543.20	7,516.55	29.67	28.12	-92.89	137.83	-579.70	1,296.33	1,242.04	54.29	23.878			
7,800.00	7,743.22	7,642.68	7,615.50	29.99	28.50	-92.75	140.43	-589.56	1,306.10	1,251.10	55.00	23.749			
7,900.00	7,843.22	7,742.15	7,714.45	30.32	28.89	-92.62	143.03	-599.42	1,315.88	1,260.18	55.70	23.623			
8,000.00	7,943.22	7,841.62	7,813.40	30.64	29.28	-92.48	145.63	-609.27	1,325.67	1,269.26	56.41	23.500			
8,100.00	8,043.22	7,941.10	7,912.35	30.97	29.67	-92.35	148.23	-619.13	1,335.47	1,278.35	57.12	23.380			
8,200.00	8,143.22	8,040.57	8,011.29	31.30	30.06	-92.22	150.83	-628.99	1,345.27	1,287.44	57.83	23.264			
8,300.00	8,243.22	8,140.04	8,110.24	31.63	30.45	-92.10	153.43	-638.85	1,355.08	1,296.54	58.54	23.150			
8,400.00	8,343.22	8,239.52	8,209.19	31.95	30.83	-91.97	156.03	-648.71	1,364.90	1,305.65	59.24	23.038			
8,500.00	8,443.22	8,338.99	8,308.14	32.28	31.22	-91.85	158.63	-658.57	1,374.72	1,314.76	59.95	22.930			
8,600.00	8,543.22	8,438.46	8,407.09	32.61	31.61	-91.73	161.23	-668.43	1,384.55	1,323.88	60.66	22.823			
8,700.00	8,643.22	8,537.94	8,506.04	32.94	32.00	-91.61	163.83	-678.28	1,394.38	1,333.01	61.37	22.720			
8,800.00	8,743.22	8,637.41	8,604.99	33.27	32.39	-91.49	166.43	-688.14	1,404.22	1,342.14	62.08	22.618			
8,900.00	8,843.22	8,736.88	8,703.94	33.61	32.78	-91.37	169.03	-698.00	1,414.07	1,351.27	62.79	22.519			
9,000.00	8,943.22	8,836.36	8,802.89	33.94	33.17	-91.26	171.63	-707.86	1,423.92	1,360.42	63.50	22.422			
9,100.00	9,043.22	8,935.83	8,901.84	34.27	33.58	-91.15	174.23	-717.72	1,433.78	1,369.56	64.22	22.328			
9,200.00	9,143.22	9,035.30	9,000.79	34.60	33.95	-91.04	176.83	-727.58	1,443.64	1,378.71	64.93	22.235			
9,300.00	9,243.22	9,134.78	9,099.74	34.94	34.34	-90.93	179.43	-737.44	1,453.51	1,387.87	65.64	22.145			
9,400.00	9,343.22	9,234.25	9,198.69	35.27	34.73	-90.82	182.03	-747.29	1,463.38	1,397.03	66.35	22.056			
9,500.00	9,443.22	9,333.72	9,297.64	35.60	35.12	-90.71	184.63	-757.15	1,473.26	1,406.20	67.06	21.969			
9,600.00	9,543.22	9,433.20	9,396.59	35.94	35.51	-90.60	187.23	-767.01	1,483.15	1,415.37	67.77	21.884			
9,700.00	9,643.22	9,535.87	9,498.72	36.28	35.91	-90.50	189.82	-777.18	1,493.03	1,424.52	68.51	21.794			
9,800.00	9,743.22	9,637.12	9,600.50	36.61	36.35	-90.36	193.27	-789.88	1,499.34	1,429.54	69.80	21.480			
9,900.00	9,843.22	9,738.85	9,703.22	36.95	37.13	-90.35	193.60	-791.15	1,499.98	1,429.29	70.67	21.226			

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

Legacy Directional Drilling Anticollision Report

Company:	Marshall & Winston	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Project:	Lea County, NM	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Reference Site:	Lookin Good 34 State Com	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Lookin Good 34 State Com - Lookin Good 34 State Com 501H - OH - Plan 2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
							+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
9,904.45	9,847.67	9,885.30	9,847.67	36.96	37.15	90.10	193.60	-791.15	1,499.96	1,429.27	70.69	21.218		
10,000.00	9,943.07	9,980.71	9,943.07	37.25	37.46	90.24	193.60	-791.15	1,499.97	1,428.76	71.21	21.063		
10,100.00	10,040.94	10,081.01	10,043.28	37.54	37.77	90.88	190.73	-791.12	1,500.14	1,428.38	71.76	20.906		
10,200.00	10,133.85	10,185.27	10,145.50	37.79	38.08	91.57	170.96	-790.97	1,500.54	1,428.20	72.34	20.744		
10,300.00	10,218.99	10,293.32	10,245.84	37.99	38.35	92.23	131.31	-790.66	1,501.13	1,428.26	72.87	20.600		
10,400.00	10,293.77	10,405.22	10,340.00	38.16	38.58	92.83	71.18	-790.18	1,501.82	1,428.46	73.36	20.471		
10,500.00	10,355.92	10,520.82	10,423.11	38.29	38.76	93.34	-8.89	-789.55	1,502.54	1,428.70	73.84	20.348		
10,600.00	10,403.55	10,639.68	10,490.04	38.41	38.91	93.74	-106.86	-788.79	1,503.18	1,428.84	74.33	20.222		
10,700.00	10,435.21	10,761.06	10,536.06	38.54	39.07	94.00	-218.93	-787.91	1,503.63	1,428.76	74.87	20.083		
10,800.00	10,449.84	10,883.92	10,557.60	38.72	39.29	94.12	-339.64	-786.96	1,503.83	1,428.37	75.47	19.926		
10,900.00	10,451.00	10,991.41	10,558.98	38.97	39.57	94.12	-447.09	-786.11	1,503.84	1,427.73	76.10	19.760		
11,000.00	10,451.00	11,091.41	10,558.98	39.30	39.92	94.12	-547.09	-785.33	1,503.84	1,426.99	76.85	19.588		
11,100.00	10,451.00	11,191.41	10,558.98	39.71	40.34	94.12	-647.09	-784.54	1,503.84	1,426.11	77.73	19.346		
11,200.00	10,451.00	11,291.41	10,558.98	40.19	40.82	94.12	-747.08	-783.76	1,503.84	1,425.10	78.74	19.088		
11,300.00	10,451.00	11,391.41	10,558.98	40.74	41.38	94.12	-847.08	-782.97	1,503.84	1,423.96	79.88	18.827		
11,400.00	10,451.00	11,491.41	10,558.98	41.35	41.99	94.12	-947.08	-782.19	1,503.84	1,422.71	81.13	18.536		
11,500.00	10,451.00	11,591.41	10,558.98	42.02	42.65	94.12	-1,047.07	-781.40	1,503.84	1,421.34	82.50	18.229		
11,600.00	10,451.00	11,691.41	10,558.98	42.74	43.38	94.12	-1,147.07	-780.62	1,503.84	1,419.86	83.97	17.908		
11,700.00	10,451.00	11,791.41	10,558.98	43.52	44.15	94.12	-1,247.07	-779.83	1,503.84	1,418.29	85.55	17.578		
11,800.00	10,451.00	11,891.41	10,558.98	44.35	44.97	94.12	-1,347.06	-779.04	1,503.84	1,416.61	87.23	17.240		
11,900.00	10,451.00	11,991.41	10,558.98	45.22	45.83	94.12	-1,447.06	-778.26	1,503.84	1,414.84	88.99	16.898		
12,000.00	10,451.00	12,091.41	10,558.98	46.13	46.74	94.12	-1,547.06	-777.47	1,503.84	1,412.99	90.85	16.554		
12,100.00	10,451.00	12,191.41	10,558.98	47.09	47.69	94.12	-1,647.05	-776.69	1,503.84	1,411.06	92.78	16.209		
12,200.00	10,451.00	12,291.41	10,558.98	48.09	48.67	94.12	-1,747.05	-775.90	1,503.84	1,409.05	94.79	15.865		
12,300.00	10,451.00	12,391.41	10,558.98	49.12	49.69	94.12	-1,847.05	-775.12	1,503.84	1,406.97	96.87	15.524		
12,400.00	10,451.00	12,491.41	10,558.98	50.18	50.75	94.12	-1,947.05	-774.33	1,503.84	1,404.82	99.02	15.187		
12,500.00	10,451.00	12,591.41	10,558.98	51.27	51.84	94.12	-2,047.04	-773.55	1,503.84	1,402.61	101.23	14.856		
12,600.00	10,451.00	12,691.41	10,558.98	52.40	52.95	94.12	-2,147.04	-772.76	1,503.84	1,400.34	103.50	14.530		
12,700.00	10,451.00	12,791.41	10,558.98	53.55	54.09	94.12	-2,247.04	-771.98	1,503.84	1,398.02	105.82	14.211		
12,800.00	10,451.00	12,891.41	10,558.98	54.73	55.26	94.12	-2,347.03	-771.19	1,503.84	1,395.64	108.20	13.899		
12,900.00	10,451.00	12,991.41	10,558.98	55.93	56.46	94.12	-2,447.03	-770.41	1,503.84	1,393.22	110.62	13.595		
13,000.00	10,451.00	13,091.41	10,558.98	57.16	57.67	94.12	-2,547.03	-769.62	1,503.84	1,390.75	113.09	13.298		
13,100.00	10,451.00	13,191.41	10,558.98	58.41	58.91	94.12	-2,647.02	-768.83	1,503.84	1,388.24	115.60	13.009		
13,200.00	10,451.00	13,291.41	10,558.98	59.67	60.17	94.12	-2,747.02	-768.05	1,503.84	1,385.69	118.15	12.729		
13,300.00	10,451.00	13,391.41	10,558.98	60.96	61.44	94.12	-2,847.02	-767.26	1,503.84	1,383.11	120.73	12.456		
13,400.00	10,451.00	13,491.41	10,558.98	62.26	62.74	94.12	-2,947.01	-766.48	1,503.84	1,380.49	123.35	12.192		
13,500.00	10,451.00	13,591.41	10,558.98	63.58	64.05	94.12	-3,047.01	-765.69	1,503.84	1,377.84	126.00	11.935		
13,600.00	10,451.00	13,691.41	10,558.98	64.92	65.38	94.12	-3,147.01	-764.91	1,503.84	1,375.15	128.69	11.686		
13,700.00	10,451.00	13,791.41	10,558.98	66.27	66.72	94.12	-3,247.01	-764.12	1,503.84	1,372.44	131.40	11.445		
13,800.00	10,451.00	13,891.41	10,558.98	67.63	68.07	94.12	-3,347.00	-763.34	1,503.84	1,369.70	134.14	11.211		
13,900.00	10,451.00	13,991.41	10,558.98	69.01	69.44	94.12	-3,447.00	-762.55	1,503.84	1,366.94	136.90	10.985		
14,000.00	10,451.00	14,091.41	10,558.98	70.39	70.82	94.12	-3,547.00	-761.77	1,503.84	1,364.15	139.69	10.766		
14,100.00	10,451.00	14,191.41	10,558.98	71.79	72.21	94.12	-3,646.99	-760.98	1,503.84	1,361.34	142.50	10.553		
14,200.00	10,451.00	14,291.41	10,558.98	73.20	73.62	94.12	-3,746.99	-760.20	1,503.84	1,358.51	145.33	10.348		
14,300.00	10,451.00	14,391.41	10,558.98	74.63	75.03	94.12	-3,846.99	-759.41	1,503.84	1,355.66	148.18	10.149		
14,400.00	10,451.00	14,491.41	10,558.98	76.06	76.45	94.12	-3,946.98	-758.62	1,503.84	1,352.79	151.05	9.956		
14,500.00	10,451.00	14,591.41	10,558.98	77.49	77.88	94.12	-4,046.98	-757.84	1,503.84	1,349.91	153.93	9.769		
14,600.00	10,451.00	14,691.41	10,558.98	78.94	79.33	94.12	-4,146.98	-757.05	1,503.84	1,347.00	156.84	9.589		
14,700.00	10,451.00	14,791.41	10,558.98	80.40	80.78	94.12	-4,246.97	-756.27	1,503.84	1,344.08	159.76	9.413		
14,800.00	10,451.00	14,891.41	10,558.98	81.86	82.23	94.12	-4,346.97	-755.48	1,503.84	1,341.15	162.69	9.244		

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

Legacy Directional Drilling Anticollision Report

Company:	Marshall & Winston	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Project:	Lea County, NM	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Reference Site:	Lookin Good 34 State Com	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Lookin Good 34 State Com - Lookin Good 34 State Com 501H - OH - Plan 2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,900.00	10,451.00	14,991.41	10,558.98	83.33	83.70	94.12	-4,446.97	-754.70	1,503.84	1,338.20	165.64	9.079		
15,000.00	10,451.00	15,091.41	10,558.98	84.81	85.17	94.12	-4,546.97	-753.91	1,503.84	1,335.24	168.60	8.920		
15,100.00	10,451.00	15,191.41	10,558.98	86.30	86.65	94.12	-4,646.96	-753.13	1,503.84	1,332.27	171.57	8.765		
15,200.00	10,451.00	15,291.41	10,558.98	87.79	88.13	94.12	-4,746.96	-752.34	1,503.84	1,329.28	174.56	8.615		
15,300.00	10,451.00	15,391.41	10,558.98	89.28	89.62	94.12	-4,846.96	-751.56	1,503.84	1,326.28	177.56	8.470		
15,400.00	10,451.00	15,491.41	10,558.98	90.78	91.12	94.12	-4,946.95	-750.77	1,503.84	1,323.28	180.56	8.329		
15,445.39	10,451.00	15,536.80	10,558.98	91.47	91.80	94.12	-4,992.34	-750.41	1,503.84	1,321.91	181.93	8.266		

Legacy Directional Drilling Anticollision Report

Company:	Marshall & Winston	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Project:	Lea County, NM	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Reference Site:	Lookin Good 34 State Com	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Lookin Good 34 State Com - Lookin Good 34 State Com 502H - OH - OH														Offset Site Error:	0.00 usft
Survey Program: 155-MWD, 2018-MWD														Offset Well Error:	0.00 usft
Reference	Vertical	Offset	Vertical	Semi Major Axis	Offset	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning		
Measured Depth (usft)	Depth (usft)	Measured Depth (usft)	Depth (usft)	Reference (usft)	Offset (usft)	Tooface (")	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor			
0.00	0.00	0.00	0.68	0.00	0.00	-90.92	-0.40	-24.80	24.81						
100.00	100.00	99.23	99.91	0.27	0.15	-90.63	-0.27	-24.98	24.98	24.57	0.41	60.430			
200.00	200.00	199.31	199.99	0.62	0.39	-89.84	0.07	-25.38	25.38	24.37	1.01	25.133			
300.00	300.00	299.46	300.14	0.98	0.74	-89.24	0.33	-24.99	24.99	23.28	1.72	14.543			
400.00	400.00	399.50	400.17	1.34	1.09	-88.84	0.49	-24.36	24.36	21.94	2.43	10.036			
500.00	500.00	499.53	500.20	1.70	1.44	-89.32	0.28	-23.58	23.59	20.45	3.14	7.515			
600.00	600.00	599.54	600.20	2.06	1.79	-90.67	-0.26	-22.70	22.70	18.85	3.85	5.897			
700.00	700.00	699.52	700.18	2.42	2.15	-92.03	-0.77	-21.80	21.82	17.26	4.56	4.782			
800.00	800.00	799.48	800.14	2.77	2.50	-93.67	-1.35	-21.04	21.08	15.81	5.28	3.996			
900.00	900.00	899.45	900.10	3.13	2.86	-95.60	-2.00	-20.42	20.52	14.53	5.99	3.426			
1,000.00	1,000.00	999.43	1,000.07	3.49	3.21	-97.81	-2.73	-19.93	20.12	13.41	6.70	3.001			
1,100.00	1,100.00	1,099.43	1,100.08	3.85	3.57	-100.31	-3.53	-19.41	19.73	12.32	7.42	2.661			
1,200.00	1,200.00	1,199.45	1,200.09	4.21	3.92	-103.17	-4.40	-18.81	19.32	11.19	8.13	2.376			
1,300.00	1,300.00	1,299.47	1,300.10	4.57	4.28	-106.58	-5.37	-18.04	18.82	9.97	8.85	2.127			
1,400.00	1,400.00	1,399.46	1,400.08	4.93	4.64	-110.18	-6.32	-17.19	18.31	8.75	9.56	1.915 Collision Risk Procedures Req			
1,500.00	1,500.00	1,499.43	1,500.05	5.28	5.00	-112.52	-6.88	-16.59	17.96	7.68	10.28	1.747 Collision Risk Procedures Req			
1,600.00	1,600.00	1,599.43	1,600.04	5.64	5.35	-113.89	-7.16	-16.17	17.69	6.69	11.00	1.609 Collision Risk Procedures Req			
1,700.00	1,700.00	1,699.42	1,700.04	6.00	5.71	-115.07	-7.40	-15.82	17.47	5.75	11.71	1.491 Collision Risk Procedures Req			
1,800.00	1,800.00	1,799.41	1,800.02	6.36	6.07	-116.12	-7.61	-15.52	17.29	4.86	12.43	1.391 Collision Risk Procedures Req			
1,898.90	1,898.90	1,898.29	1,898.90	6.71	6.42	-117.44	-7.94	-15.28	17.22	4.08	13.14	1.311 Collision Risk Procedures Req			
1,900.00	1,900.00	1,899.38	1,900.00	6.72	6.43	-117.46	-7.94	-15.28	17.22	4.07	13.14	1.310 Collision Risk Procedures Req			
2,000.00	2,000.00	1,999.37	1,999.99	7.08	6.74	-119.02	-8.37	-15.08	17.25	3.43	13.82	1.248 Collision Risk Procedures Req			
2,100.00	2,100.00	2,099.83	2,100.43	7.43	6.78	-120.87	-8.34	-13.95	16.26	2.94	14.22	1.144 Collision Risk Procedures Req			
2,200.00	2,199.98	2,200.34	2,200.80	7.79	6.81	-154.25	-7.55	-8.85	13.20	-1.38	14.58	0.905 Collision Risk Procedures Req			
2,286.66	2,286.53	2,287.18	2,287.28	8.10	6.86	177.37	-5.32	-1.37	11.59	-3.35	14.93	0.776 Collision Risk Procedures Req	CC, SI		
2,300.00	2,299.84	2,300.52	2,300.55	8.15	6.87	172.00	-4.80	-0.03	11.64	-3.35	14.99	0.776 Collision Risk Procedures Req	ES		
2,400.00	2,399.45	2,400.18	2,399.38	8.51	6.94	136.39	-0.11	11.81	16.20	0.75	15.44	1.049 Collision Risk Procedures Req			
2,500.00	2,498.77	2,499.59	2,497.71	8.87	7.04	113.62	5.36	25.40	25.57	9.68	15.89	1.609 Collision Risk Procedures Req			
2,600.00	2,598.07	2,599.26	2,596.27	9.23	7.17	91.68	10.84	39.17	32.98	16.62	16.36	2.016			
2,700.00	2,697.30	2,699.16	2,695.12	9.59	7.32	74.55	16.03	52.71	37.15	20.29	16.86	2.204			
2,800.00	2,796.34	2,799.12	2,794.07	9.95	7.49	62.09	21.00	65.96	37.83	20.45	17.38	2.177			
2,900.00	2,895.14	2,898.79	2,892.75	10.32	7.68	59.22	25.27	79.25	36.24	18.31	17.92	2.022			
3,000.00	2,993.91	2,998.64	2,991.63	10.69	7.89	61.49	28.60	92.73	35.19	16.69	18.50	1.902 Collision Risk Procedures Req			
3,100.00	3,092.68	3,098.65	3,090.71	11.07	8.11	64.27	31.91	105.98	34.06	14.96	19.10	1.783 Collision Risk Procedures Req			
3,200.00	3,191.45	3,198.45	3,189.60	11.45	8.34	67.82	34.72	119.12	33.37	13.64	19.73	1.692 Collision Risk Procedures Req			
3,251.78	3,242.59	3,250.13	3,240.81	11.65	8.47	69.98	35.91	125.92	33.29	13.23	20.06	1.660 Collision Risk Procedures Req			
3,300.00	3,290.22	3,298.33	3,288.59	11.84	8.59	72.12	36.93	132.23	33.31	12.94	20.37	1.635 Collision Risk Procedures Req			
3,400.00	3,388.99	3,398.37	3,387.77	12.23	8.85	76.87	39.03	145.14	33.44	12.40	21.04	1.589 Collision Risk Procedures Req			
3,500.00	3,487.76	3,498.32	3,486.92	12.62	9.12	82.20	41.17	157.60	33.60	11.87	21.72	1.547 Collision Risk Procedures Req			
3,600.00	3,586.53	3,598.25	3,586.10	13.01	9.40	88.17	43.06	169.68	34.18	11.78	22.41	1.526 Collision Risk Procedures Req			
3,700.00	3,685.30	3,698.31	3,685.51	13.41	9.68	95.23	44.96	180.94	35.00	11.92	23.08	1.517 Collision Risk Procedures Req			
3,800.00	3,784.07	3,798.50	3,785.12	13.81	9.97	103.29	47.40	191.34	35.78	12.05	23.73	1.508 Collision Risk Procedures Req			
3,900.00	3,882.84	3,898.57	3,884.64	14.21	10.26	111.66	50.64	201.32	36.49	12.16	24.33	1.500 Collision Risk Procedures Req			
4,000.00	3,981.61	3,998.40	3,983.94	14.62	10.56	120.20	54.19	210.90	37.74	12.84	24.90	1.516 Collision Risk Procedures Req			
4,100.00	4,080.38	4,098.09	4,083.14	15.02	10.86	128.26	57.61	220.24	39.98	14.54	25.44	1.572 Collision Risk Procedures Req			
4,200.00	4,179.14	4,197.64	4,182.25	15.43	11.16	135.68	60.74	229.07	43.44	17.47	25.97	1.673 Collision Risk Procedures Req			
4,300.00	4,277.91	4,297.16	4,281.39	15.84	11.47	142.37	63.84	237.23	48.12	21.62	26.50	1.816 Collision Risk Procedures Req			
4,400.00	4,376.68	4,396.84	4,380.71	16.25	11.77	147.82	66.30	245.18	53.67	26.62	27.05	1.984 Collision Risk Procedures Req			
4,500.00	4,475.45	4,496.52	4,480.03	16.66	12.08	152.02	68.86	253.32	59.54	31.91	27.63	2.155			
4,600.00	4,574.22	4,595.83	4,579.02	17.07	12.40	155.53	71.12	260.90	66.26	38.03	28.23	2.347			

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

Legacy Directional Drilling Anticollision Report

Company:	Marshall & Winston	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Project:	Lea County, NM	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Reference Site:	Lookin Good 34 State Com	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Offset Design: Lookin Good 34 State Com - Lookin Good 34 State Com 502H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 155-MWD, 2018-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
4,700.00	4,672.99	4,695.48	4,678.38	17.49	12.71	158.56	73.45	268.20	73.42	44.57	28.85	2.545		
4,800.00	4,771.76	4,794.98	4,777.58	17.90	13.03	160.92	75.56	275.51	80.83	51.36	29.48	2.742		
4,900.00	4,870.53	4,894.28	4,876.82	18.32	13.34	162.61	77.14	282.71	88.71	58.59	30.12	2.945		
5,000.00	4,969.30	4,993.72	4,975.80	18.74	13.66	163.90	78.37	289.72	97.00	66.23	30.77	3.152		
5,100.00	5,068.07	5,092.98	5,074.82	19.16	13.98	165.03	79.60	296.51	105.51	74.08	31.43	3.357		
5,200.00	5,166.84	5,192.32	5,173.94	19.58	14.30	166.03	80.70	302.92	114.47	82.38	32.09	3.567		
5,300.00	5,265.61	5,291.55	5,272.97	20.00	14.63	166.86	81.88	309.22	123.60	90.84	32.76	3.773		
5,400.00	5,364.38	5,390.98	5,372.20	20.42	14.95	167.46	82.32	315.40	133.02	99.59	33.43	3.979		
5,500.00	5,463.15	5,490.54	5,471.56	20.84	15.27	167.83	82.61	321.75	142.45	108.34	34.12	4.176		
5,600.00	5,561.92	5,590.51	5,571.32	21.26	15.61	168.15	82.95	328.25	151.77	116.96	34.80	4.361		
5,700.00	5,660.69	5,690.62	5,671.20	21.68	15.94	168.40	83.34	335.08	160.76	125.27	35.50	4.529		
5,800.00	5,759.46	5,790.00	5,770.33	22.11	16.27	168.49	83.37	342.09	169.70	133.51	36.19	4.689		
5,900.00	5,858.23	5,888.39	5,868.52	22.53	16.60	168.93	84.28	348.17	179.07	142.21	36.87	4.858		
6,000.00	5,957.00	5,970.00	5,949.97	22.95	16.87	169.27	85.03	353.21	189.35	152.07	37.28	5.079		
6,100.00	6,055.77	5,970.00	5,949.97	23.38	16.87	169.27	85.03	353.21	230.35	196.93	33.42	6.893		
6,200.00	6,154.54	5,970.00	5,949.97	23.80	16.87	169.27	85.03	353.21	300.45	271.47	28.98	10.389		
6,300.00	6,253.31	5,970.00	5,949.97	24.23	16.87	169.27	85.03	353.21	384.03	358.01	26.02	14.759		
6,400.00	6,352.07	5,970.00	5,949.97	24.66	16.87	169.27	85.03	353.21	474.01	449.78	24.22	19.567		
6,500.00	6,450.84	5,970.00	5,949.97	25.08	16.87	169.27	85.03	353.21	567.35	544.22	23.14	24.522		
6,600.00	6,549.61	5,970.00	5,949.97	25.51	16.87	169.27	85.03	353.21	662.64	640.17	22.47	29.489		
6,700.00	6,648.38	5,970.00	5,949.97	25.94	16.87	169.27	85.03	353.21	759.15	737.08	22.07	34.401		
6,800.00	6,747.15	5,970.00	5,949.97	26.36	16.87	169.27	85.03	353.21	856.45	834.62	21.83	39.226		
6,900.00	6,845.92	5,970.00	5,949.97	26.79	16.87	169.27	85.03	353.21	954.31	932.60	21.71	43.951		
7,000.00	6,944.72	5,970.00	5,949.97	27.22	16.87	169.85	85.03	353.21	1,052.55	1,030.88	21.67	48.572		
7,100.00	7,043.88	5,970.00	5,949.97	27.63	16.87	171.48	85.03	353.21	1,150.63	1,128.98	21.66	53.129		
7,200.00	7,143.43	5,970.00	5,949.97	28.01	16.87	172.74	85.03	353.21	1,248.37	1,226.71	21.66	57.624		
7,300.00	7,243.25	5,970.00	5,949.97	28.37	16.87	173.75	85.03	353.21	1,345.74	1,324.05	21.69	62.043		
7,400.00	7,343.22	5,970.00	5,949.97	28.71	16.87	174.56	85.03	353.21	1,442.70	1,420.97	21.74	66.374		
7,500.00	7,443.22	5,970.00	5,949.97	29.02	16.87	-108.32	85.03	353.21	1,539.51	1,517.70	21.81	70.596		
7,600.00	7,543.22	5,970.00	5,949.97	29.35	16.87	-108.32	85.03	353.21	1,636.69	1,614.77	21.92	74.681		
7,700.00	7,643.22	5,970.00	5,949.97	29.67	16.87	-108.32	85.03	353.21	1,734.18	1,712.13	22.05	78.643		
7,800.00	7,743.22	5,970.00	5,949.97	29.99	16.87	-108.32	85.03	353.21	1,831.95	1,809.74	22.21	82.487		
7,900.00	7,843.22	5,970.00	5,949.97	30.32	16.87	-108.32	85.03	353.21	1,929.94	1,907.56	22.38	86.217		
8,000.00	7,943.22	5,970.00	5,949.97	30.64	16.87	-108.32	85.03	353.21	2,028.14	2,005.56	22.58	89.838		
8,100.00	8,043.22	5,970.00	5,949.97	30.97	16.87	-108.32	85.03	353.21	2,126.50	2,103.72	22.78	93.355		
8,200.00	8,143.22	5,970.00	5,949.97	31.30	16.87	-108.32	85.03	353.21	2,225.00	2,202.01	22.99	96.770		
8,300.00	8,243.22	5,970.00	5,949.97	31.63	16.87	-108.32	85.03	353.21	2,323.64	2,300.42	23.22	100.087		

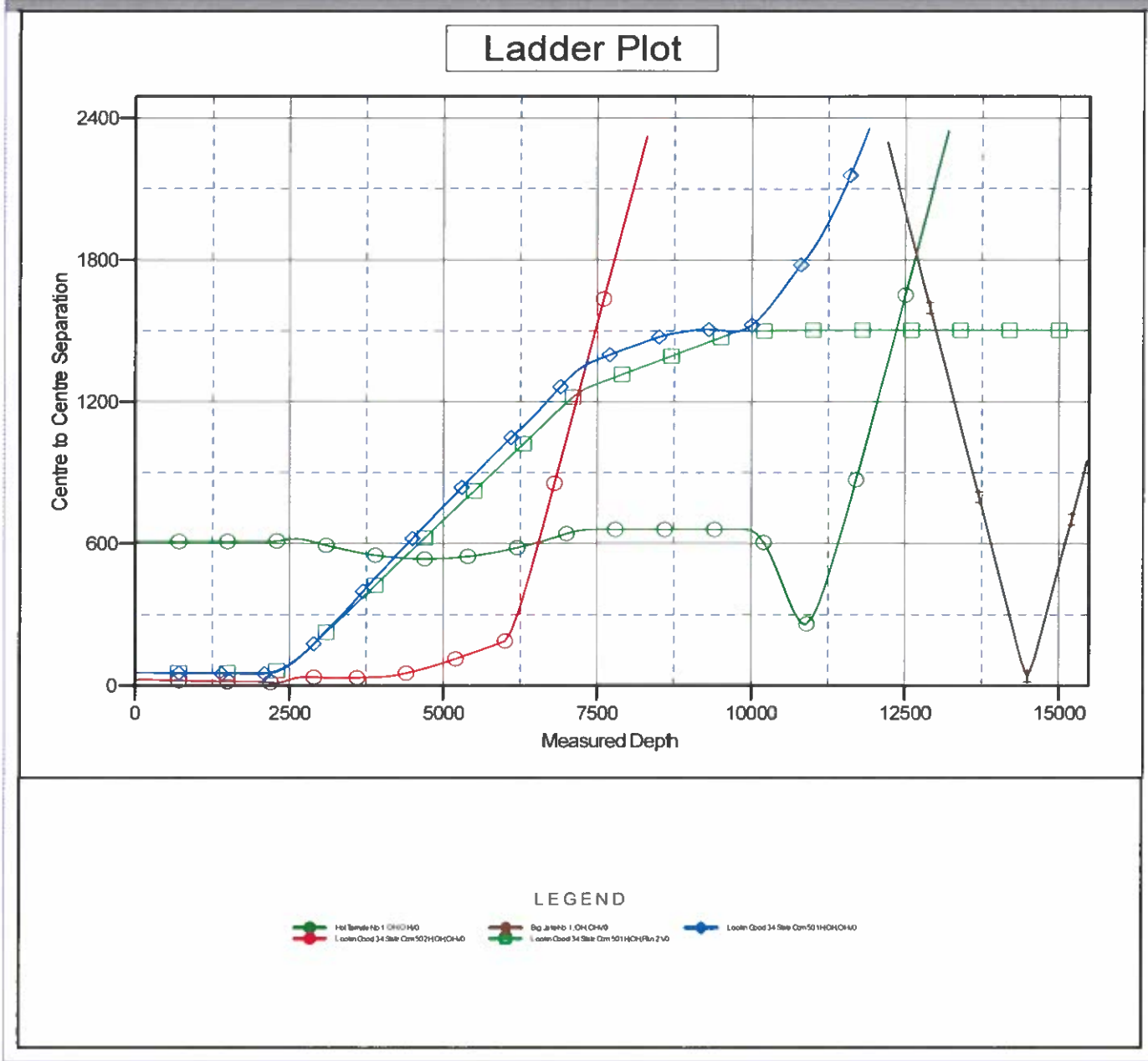
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Legacy Directional Drilling Anticollision Report

Company:	Marshall & Winston	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Project:	Lea County, NM	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Reference Site:	Lookin Good 34 State Com	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to GL 2692.48 + 26' KB @ 3718.48usft ()
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: Lookin Good 34 State Com 502H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.48°



Legacy Directional Drilling

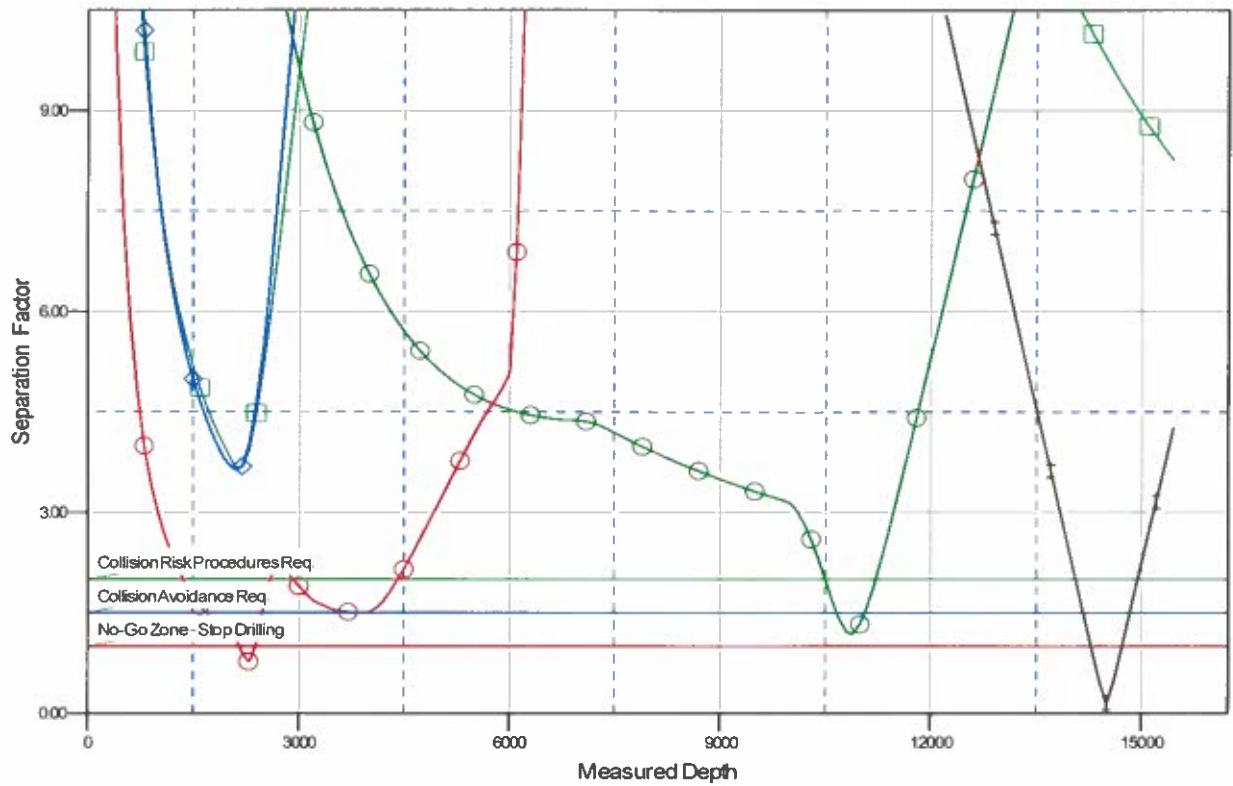
Anticollision Report

Company:	Marshall & Winston	Local Co-ordinate Reference:	Well Lookin Good 34 State Com 502H
Project:	Lea County, NM	TVD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Reference Site:	Lookin Good 34 State Com	MD Reference:	GL 2692.48 + 26' KB @ 3718.48usft (ICD 333)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lookin Good 34 State Com 502H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM_WA
Reference Design:	Plan 1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to GL 2692.48 + 26' KB @ 3718.48usft (
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: Lookin Good 34 State Com 502H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.48"

Separation Factor Plot

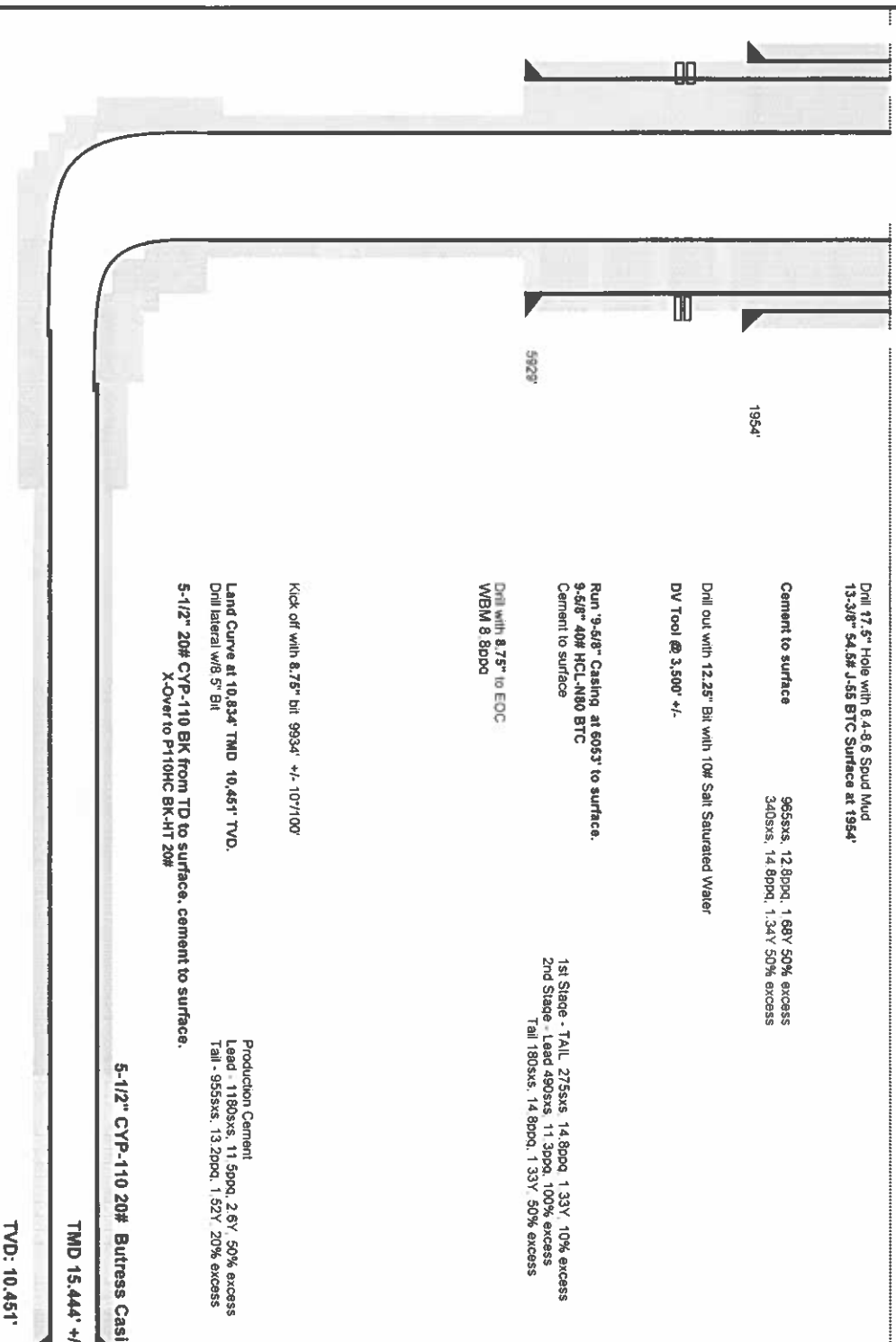


LEGEND

Well 1, OH (CH&D) Well 2, OH (CH&D) Well 3, OH (CH&D)
Lookin Good 34 State Com 502H (CH&D) Lookin Good 34 State Com 501H (CH&D) Lookin Good 34 State Com 501H (CH&D)

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

AFE No.: 502H	 Lookin Good 34 State Com 502H Lea County, NM	SHL: 250' FNL & 1110' FEL
API # TBD		BHL: 50' FSL & 400' FEL
Permit No. TBD	Proposed Wellbore Sketch	Sec 34, T-20-S, R-36-E, Lea County NM
		TD: 15,444' TMD 10,451' TVD



Well Information
Surface Location: Lea County, NM T20S R35E Section 34

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: Marshall & Winston, Inc. **OGRID:** 14187 **Date:** 8 / 7 / 2025

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Lookin Good 34 State Com 502HR		UL A, Sec 34	250 FNL	750	750	1000
		T20S, R35E	1110 FEL			

IV. Central Delivery Point Name: Lookin Good East CTB [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Lookin Good 34 State Com 502H		<u>8/18/25</u>	<u>9/22/25</u>	<u>10/20/25</u>	<u>11/5/25</u>	<u>11/5/25</u>
						<u>Estimated</u>

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☒ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☒ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:



Printed Name: Todd Passmore

Title: Operations Manager

E-mail Address: tpassmore@mar-win.com

Date: 10/24/24

Phone: 432-684-6373

OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)

Approved By:

Title:

Approval Date:

Conditions of Approval:

Marshall & Winston, Inc.

Natural Gas Management Plan ~ Attachment

- VI. Marshall & Winston, Inc. (M&W) engineering staff will utilize separation equipment based on capacities suggested by the manufacturer in conjunction with anticipated daily production rates. Engineered design of the VRU system along with pipe sizing will be verified by COMM Engineering Services to ensure maximum efficiency for anticipated volumes.
- VII. M&W will take the following actions to comply with the regulations listed in 19.15.28.8:
- A. M&W plans to efficiently recover natural gas by minimizing waste gas as defined in 19.15.2 NMAC. M&W will ensure each new well drilled and completed is connected to a natural gas gathering system before the well is on line. If the natural gas gathering infrastructure is not in place the well will be delayed or shut in until the gathering system is available.
 - B. Drilling operations are equipped with a flare located at least 100 ft from the wellbore. The flare will be used to combust any gas the is circulated to surface during drilling operations. Estimated volumes will be reported appropriately.
 - C. During completion operations and natural gas brought to surface will be flared. Following completion operations all fluids and gases flowed/pumped from the well will be directed to designed separation equipment at the central tank battery. All natural gas will be sent directly to the sales line. If the initial gas production does not meet gathering sales line specifications it will be flared for no more than 60 days. Gas analysis will be ran twice a week and once gas meets sales specifications the gas will be sent to the sales line. Flared volumes will be reported accordingly.
 - D. M&W will not flare natural gas unless it follows the provisions and exceptions list in 19.15.27.8. If the gas gathering system is unavailable each well(s) will be shut in the gathering system is back in service.
 - E. M&W will comply with required standards listed in 19.5.27.8 A-F.
 - F. The volume of natural gas that is vented or flared as a result of a malfunction or emergency during operations will be estimated and reported accordingly. The volume of natural gas that is vented, flared or used beneficially during production operations will measured or estimated. M&W will install meters to measure the volume of natural gas flared from the facility. Measuring devices will conform to industry stands as well as NMOCDC regulations.
- VIII. During maintenance operations that involve separation equipment venting will controlled by shutting in well(s). During VRU maintenance operations natural gas will be diverted to the flare to avoid venting the natural gas.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 493772

CONDITIONS

Operator: MARSHALL & WINSTON INC P.O. Box 50880 Midland, TX 79710	OGRID: 14187
	Action Number: 493772
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	Original wellbore must be plugged in accordance with OCD regulations, and a subsequent P&A is to be submitted.	8/8/2025
matthew.gomez	Well has been skid. Previous API # 30-025-53925. Current API # 30-025-54944	8/8/2025
matthew.gomez	This well is within the Capitan Reef. The first intermediate casing string shall be sat and cemented back to surface immediately below the base of the Capitan Reef.	8/8/2025
matthew.gomez	In Capitan Reef areas if lost circulation (50% or greater) occurs below the base of the salt, the operator shall switch to freshwater mud until the intermediate casing is set. (The operator shall notify NMOCD of this switch.)	8/8/2025
matthew.gomez	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.	8/8/2025
matthew.gomez	Notify the OCD 24 hours prior to casing & cement.	8/8/2025
matthew.gomez	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	8/8/2025
matthew.gomez	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	8/8/2025
matthew.gomez	Cement is required to circulate on both surface and intermediate1 strings of casing.	8/8/2025
matthew.gomez	File As Drilled C-102 and a directional Survey with C-104 completion packet.	8/8/2025
matthew.gomez	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing	8/8/2025

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

CONDITIONS

Action 493943

CONDITIONS

Operator: MARSHALL & WINSTON INC P.O. Box 50880 Midland, TX 79710	OGRID: 14187
	Action Number: 493943
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	Well has been skid. Previous API # 3002553925. Current API # 3002554944	8/8/2025