

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

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

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

Form C-101

August 1, 2011

Permit 335284

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

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address HADAWAY CONSULTING AND ENGINEERING, LLC 711 W Birch St Canadian, TX 79014		2. OGRID Number 371985
		3. API Number 30-005-29228
4. Property Code 333841	5. Property Name STATE	6. Well No. 503H

7. Surface Location

UL - Lot N	Section 5	Township 08S	Range 33E	Lot Idn N	Feet From 700	N/S Line S	Feet From 2649	E/W Line W	County Chaves
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8. Proposed Bottom Hole Location

UL - Lot B	Section 5	Township 08S	Range 33E	Lot Idn 3	Feet From 100	N/S Line N	Feet From 2657	E/W Line W	County Chaves
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9. Pool Information

CHAVEROO;SAN ANDRES	12049
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 4443
16. Multiple N	17. Proposed Depth 8992	18. Formation San Andres	19. Contractor	20. Spud Date 6/1/2023
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	13.5	9.625	36	2300	1525	0
Prod	8.75	5.5	20	8992	2080	0

Casing/Cement Program: Additional Comments

Production Casing Grade is P110 HC

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	3000	3000	3M Shaffer

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.	OIL CONSERVATION DIVISION	
Signature:		
Printed Name: Electronically filed by Allen C Hadaway	Approved By: Paul F Kautz	
Title: Manager	Title: Geologist	
Email Address: hadaway@hadeng.com	Approved Date: 3/21/2023	Expiration Date: 3/21/2025
Date: 3/1/2023	Phone: 806-323-9811	Conditions of Approval Attached

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STATE of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 12041	Pool Name Chaverro San Andres (Chaves)
Property Code	Property Name STATE	Well Number 503H
OGRID No. 371985	Operator Name HADAWAY CONSULTING & ENGINEERING, LLC	Elevation 4443'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N/O	5	8 S	33 E		700	SOUTH	2649	WEST	CHAVES

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B/C	5	8 S	33 E		100	NORTH	2657	WEST	CHAVES
Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.						

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

	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Cory Walk</i> 02-28-2023 Signature Date Cory Walk Printed Name cory@permitswest.com Email Address
	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. JANUARY 2, 2022 Date Surveyed <i>Gary L. Jones</i> Signature & Seal of Professional Surveyor 7977 Certificate No. Gary L. Jones 7977 BASIN SURVEYS
	0' 1000' 2000' 3000' 4000' SCALE: 1" = 2000' WO Num.: 35571
	0' 1000' 2000' 3000' 4000' SCALE: 1" = 2000' WO Num.: 35571

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

Form APD Conditions

Permit 335284

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: HADAWAY CONSULTING AND ENGINEERING, LLC [371985] 711 W Birch St Canadian, TX 79014	API Number: 30-005-29228
	Well: STATE #503H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	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
pkautz	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
pkautz	Cement is required to circulate on both surface and production strings of casing
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

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STATE of New Mexico
Energy, Minerals and Natural Resources Department

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 12041	Pool Name Chaveroo San Andres (Chaves)
Property Code	Property Name STATE	Well Number 503H
OGRID No. 371985	Operator Name HADAWAY CONSULTING & ENGINEERING, LLC	Elevation 4443'

Surface Location

UL or lot No. N/O	Section 5	Township 8 S	Range 33 E	Lot Idn	Feet from the 700	North/South line SOUTH	Feet from the 2649	East/West line WEST	County CHAVES
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Bottom Hole Location If Different From Surface

UL or lot No. B/C	Section 5	Township 8 S	Range 33 E	Lot Idn	Feet from the 100	North/South line NORTH	Feet from the 2657	East/West line WEST	County CHAVES
Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.						

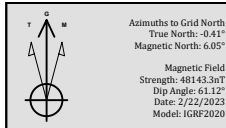
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Cory Walk</i> 02-28-2023 Signature Date Cory Walk Printed Name cory@permitswest.com Email Address
	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. JANUARY 2, 2022 Date Surveyed <i>Gary L. Jones</i> Signature & Seal of Professional Surveyor 7977 Certificate No. Gary L. Jones 7977 BASIN SURVEYS
	0' 1000' 2000' 3000' 4000' SCALE: 1" = 2000' WO Num.: 35571
	0' 1000' 2000' 3000' 4000' SCALE: 1" = 2000' WO Num.: 35571

Hadaway Consulting & Eng. LLC

DrilTech, LLC

Hadaway Consulting & Eng. LLC
State 503H
Wellbore #1
Plan #2
Norton #2



SECTION DETAILS

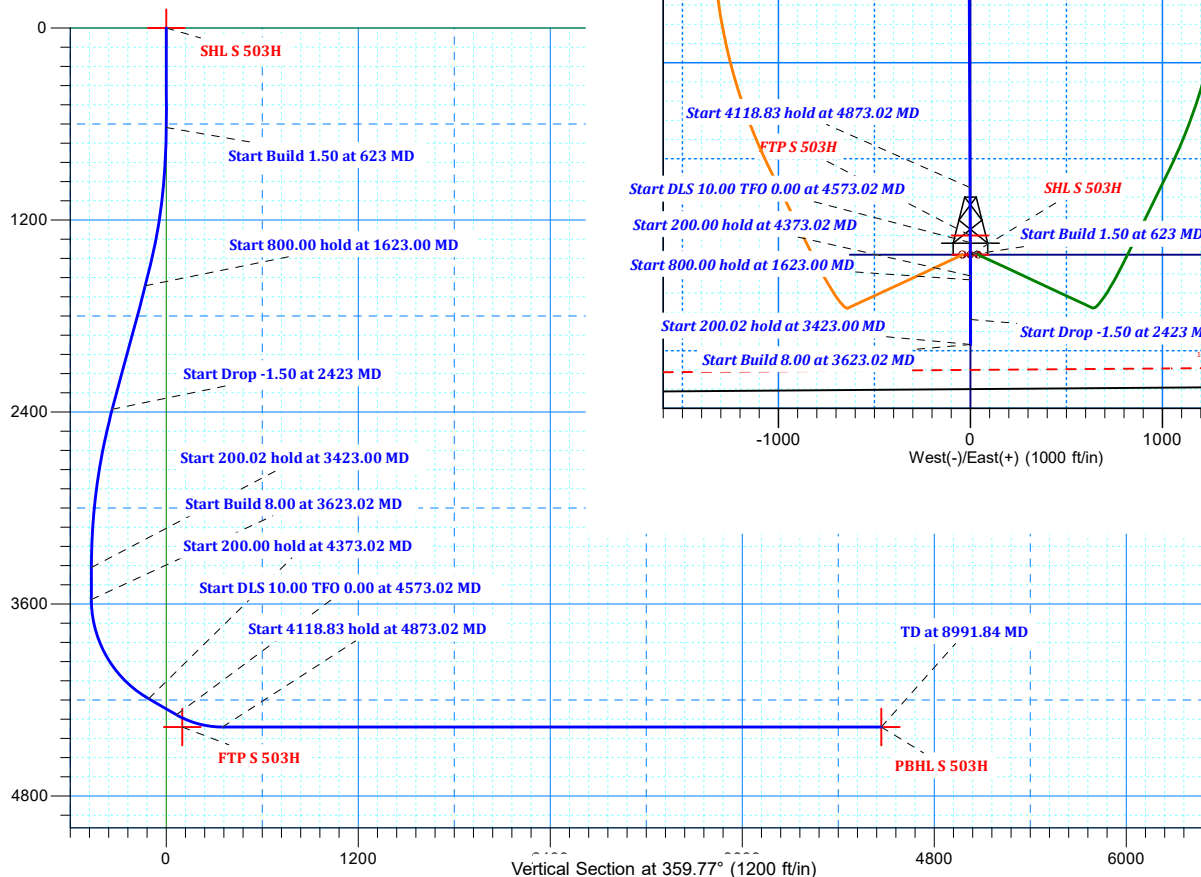
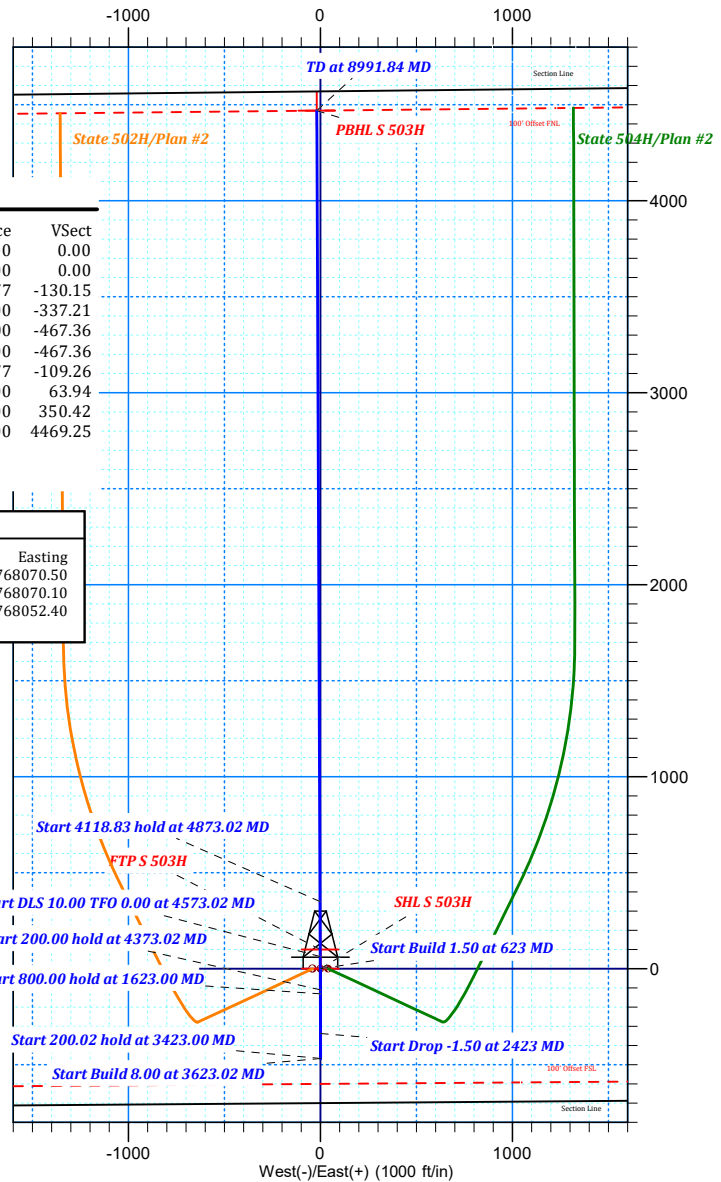
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
623.00	0.00	0.00	623.00	0.00	0.00	0.00	0.00	0.00
1623.00	15.00	179.77	1611.62	-130.15	0.52	1.50	179.77	-130.15
2423.00	15.00	179.77	2384.36	-337.21	1.35	0.00	0.00	-337.21
3423.00	0.00	0.00	3372.97	-467.36	1.88	1.50	180.00	-467.36
3623.02	0.00	0.00	3572.99	-467.36	1.88	0.00	0.00	-467.36
4373.02	60.00	359.77	4193.24	-109.26	0.44	8.00	359.77	-109.26
4573.02	60.00	359.77	4293.24	63.94	-0.26	0.00	0.00	63.94
4873.02	90.00	359.77	4370.00	350.42	-1.41	10.00	0.00	350.42
8991.84	90.00	359.77	4370.00	4469.21	-18.10	0.00	0.00	4469.25

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
SHL S 503H	0.00	0.00	0.00	962751.00	768070.50
FTP S 503H	4370.00	100.60	-0.40	962851.60	768070.10
PBHL S 503H	4370.00	4469.21	-18.10	967220.20	768052.40

SURFACE LOCATION

US State Plane 1983
New Mexico Eastern Zone
Elevation: GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Northing 962751.00 Easting 768070.50 Latitude 33° 38' 39.209 N Longitude 103° 35' 17.938 W



Hadaway Consulting & Eng. LLC

Hadaway Chaves County, NM (NAD 83)

State 503H

State 503H

Wellbore #1

Plan: Plan #2

Standard Planning Report

25 February, 2023

Planning Report

Database:	edmdb	Local Co-ordinate Reference:	Well State 503H
Company:	Hadaway Consulting & Eng. LLC	TVD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Project:	Hadaway Chaves County, NM (NAD 83)	MD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Site:	State 503H	North Reference:	Grid
Well:	State 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Project	Hadaway Chaves County, NM (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	State 503H		
Site Position:		Northing:	962,751.00 usft
From:	Map	Easting:	768,070.50 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	33° 38' 39.209 N
		Longitude:	103° 35' 17.938 W

Well	State 503H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
Grid Convergence:	0.41 °		
		Latitude:	33° 38' 39.209 N
		Longitude:	103° 35' 17.938 W
		Ground Level:	4,443.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2/22/2023	6.47	61.12	48,143.30039122

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	359.77

Plan Survey Tool Program	Date	2/22/2023		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	8,991.84 Plan #2 (Wellbore #1)	MWD	
			MWD - Standard	

Planning Report

Database:	edmdb	Local Co-ordinate Reference:	Well State 503H
Company:	Hadaway Consulting & Eng. LLC	TVD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Project:	Hadaway Chaves County, NM (NAD 83)	MD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Site:	State 503H	North Reference:	Grid
Well:	State 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
623.00	0.00	0.00	623.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,623.00	15.00	179.77	1,611.62	-130.15	0.52	1.50	1.50	0.00	179.77	
2,423.00	15.00	179.77	2,384.36	-337.21	1.35	0.00	0.00	0.00	0.00	
3,423.00	0.00	0.00	3,372.97	-467.36	1.88	1.50	-1.50	0.00	180.00	
3,623.02	0.00	0.00	3,572.99	-467.36	1.88	0.00	0.00	0.00	0.00	
4,373.02	60.00	359.77	4,193.24	-109.26	0.44	8.00	8.00	0.00	359.77	
4,573.02	60.00	359.77	4,293.24	63.94	-0.26	0.00	0.00	0.00	0.00	
4,873.02	90.00	359.77	4,370.00	350.42	-1.41	10.00	10.00	0.00	0.00	
8,991.84	90.00	359.77	4,370.00	4,469.21	-18.10	0.00	0.00	0.00	0.00	PBHL S 503H

Planning Report

Database:	edmdb	Local Co-ordinate Reference:	Well State 503H
Company:	Hadaway Consulting & Eng. LLC	TVD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Project:	Hadaway Chaves County, NM (NAD 83)	MD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Site:	State 503H	North Reference:	Grid
Well:	State 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
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
623.00	0.00	0.00	623.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.50 at 623 MD									
700.00	1.16	179.77	699.99	-0.78	0.00	-0.78	1.50	1.50	0.00
800.00	2.66	179.77	799.94	-4.10	0.02	-4.10	1.50	1.50	0.00
900.00	4.16	179.77	899.76	-10.04	0.04	-10.04	1.50	1.50	0.00
1,000.00	5.66	179.77	999.39	-18.59	0.07	-18.59	1.50	1.50	0.00
1,100.00	7.16	179.77	1,098.76	-29.74	0.12	-29.74	1.50	1.50	0.00
1,200.00	8.66	179.77	1,197.81	-43.50	0.17	-43.50	1.50	1.50	0.00
1,300.00	10.16	179.77	1,296.46	-59.84	0.24	-59.84	1.50	1.50	0.00
1,400.00	11.66	179.77	1,394.65	-78.76	0.32	-78.76	1.50	1.50	0.00
1,500.00	13.16	179.77	1,492.32	-100.24	0.40	-100.24	1.50	1.50	0.00
1,600.00	14.66	179.77	1,589.38	-124.27	0.50	-124.27	1.50	1.50	0.00
1,623.00	15.00	179.77	1,611.62	-130.15	0.52	-130.15	1.50	1.50	0.00
Start 800.00 hold at 1623.00 MD									
1,700.00	15.00	179.77	1,685.99	-150.08	0.60	-150.08	0.00	0.00	0.00
1,800.00	15.00	179.77	1,782.58	-175.96	0.71	-175.96	0.00	0.00	0.00
1,900.00	15.00	179.77	1,879.18	-201.85	0.81	-201.85	0.00	0.00	0.00
2,000.00	15.00	179.77	1,975.77	-227.73	0.91	-227.73	0.00	0.00	0.00
2,100.00	15.00	179.77	2,072.36	-253.61	1.02	-253.61	0.00	0.00	0.00
2,200.00	15.00	179.77	2,168.96	-279.49	1.12	-279.49	0.00	0.00	0.00
2,300.00	15.00	179.77	2,265.55	-305.37	1.23	-305.37	0.00	0.00	0.00
2,400.00	15.00	179.77	2,362.14	-331.25	1.33	-331.26	0.00	0.00	0.00
2,423.00	15.00	179.77	2,384.36	-337.21	1.35	-337.21	0.00	0.00	0.00
Start Drop -1.50 at 2423 MD									
2,500.00	13.85	179.77	2,458.93	-356.38	1.43	-356.39	1.50	-1.50	0.00
2,600.00	12.35	179.77	2,556.33	-379.04	1.52	-379.04	1.50	-1.50	0.00
2,700.00	10.85	179.77	2,654.28	-399.14	1.60	-399.14	1.50	-1.50	0.00
2,800.00	9.35	179.77	2,752.73	-416.67	1.67	-416.67	1.50	-1.50	0.00
2,900.00	7.85	179.77	2,851.61	-431.61	1.73	-431.61	1.50	-1.50	0.00
3,000.00	6.35	179.77	2,950.84	-443.96	1.78	-443.96	1.50	-1.50	0.00
3,100.00	4.85	179.77	3,050.36	-453.71	1.82	-453.71	1.50	-1.50	0.00
3,200.00	3.35	179.77	3,150.10	-460.85	1.85	-460.86	1.50	-1.50	0.00
3,300.00	1.85	179.77	3,249.99	-465.38	1.87	-465.38	1.50	-1.50	0.00
3,400.00	0.35	179.77	3,349.97	-467.29	1.88	-467.29	1.50	-1.50	0.00
3,423.00	0.00	0.00	3,372.97	-467.36	1.88	-467.36	1.50	-1.50	0.00
Start 200.02 hold at 3423.00 MD									
3,500.00	0.00	0.00	3,449.97	-467.36	1.88	-467.36	0.00	0.00	0.00
3,600.00	0.00	0.00	3,549.97	-467.36	1.88	-467.36	0.00	0.00	0.00
3,623.02	0.00	0.00	3,572.99	-467.36	1.88	-467.36	0.00	0.00	0.00
Start Build 8.00 at 3623.02 MD									
3,700.00	6.16	359.77	3,649.82	-463.23	1.86	-463.23	8.00	8.00	0.00
3,800.00	14.16	359.77	3,748.18	-445.60	1.79	-445.61	8.00	8.00	0.00
3,900.00	22.16	359.77	3,843.12	-414.46	1.66	-414.47	8.00	8.00	0.00
4,000.00	30.16	359.77	3,932.80	-370.41	1.49	-370.42	8.00	8.00	0.00
4,100.00	38.16	359.77	4,015.49	-314.31	1.26	-314.31	8.00	8.00	0.00
4,200.00	46.16	359.77	4,089.55	-247.25	0.99	-247.25	8.00	8.00	0.00
4,300.00	54.16	359.77	4,153.57	-170.53	0.68	-170.53	8.00	8.00	0.00

Planning Report

Database:	edmdb	Local Co-ordinate Reference:	Well State 503H
Company:	Hadaway Consulting & Eng. LLC	TVD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Project:	Hadaway Chaves County, NM (NAD 83)	MD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Site:	State 503H	North Reference:	Grid
Well:	State 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,373.02	60.00	359.77	4,193.24	-109.26	0.44	-109.26	8.00	8.00	0.00
Start 200.00 hold at 4373.02 MD									
4,400.00	60.00	359.77	4,206.73	-85.90	0.34	-85.90	0.00	0.00	0.00
4,500.00	60.00	359.77	4,256.73	0.71	0.00	0.71	0.00	0.00	0.00
4,573.02	60.00	359.77	4,293.24	63.94	-0.26	63.94	0.00	0.00	0.00
Start DLS 10.00 TFO 0.00 at 4573.02 MD									
4,600.00	62.70	359.77	4,306.17	87.62	-0.35	87.62	10.00	10.00	0.00
4,700.00	72.70	359.77	4,344.07	180.02	-0.72	180.02	10.00	10.00	0.00
4,800.00	82.70	359.77	4,365.35	277.60	-1.12	277.60	10.00	10.00	0.00
4,873.02	90.00	359.77	4,370.00	350.42	-1.41	350.42	10.00	10.00	0.00
Start 4118.83 hold at 4873.02 MD									
4,900.00	90.00	359.77	4,370.00	377.40	-1.52	377.40	0.00	0.00	0.00
5,000.00	90.00	359.77	4,370.00	477.40	-1.93	477.40	0.00	0.00	0.00
5,100.00	90.00	359.77	4,370.00	577.40	-2.33	577.40	0.00	0.00	0.00
5,200.00	90.00	359.77	4,370.00	677.40	-2.74	677.40	0.00	0.00	0.00
5,300.00	90.00	359.77	4,370.00	777.40	-3.14	777.40	0.00	0.00	0.00
5,400.00	90.00	359.77	4,370.00	877.40	-3.55	877.40	0.00	0.00	0.00
5,500.00	90.00	359.77	4,370.00	977.39	-3.95	977.40	0.00	0.00	0.00
5,600.00	90.00	359.77	4,370.00	1,077.39	-4.36	1,077.40	0.00	0.00	0.00
5,700.00	90.00	359.77	4,370.00	1,177.39	-4.76	1,177.40	0.00	0.00	0.00
5,800.00	90.00	359.77	4,370.00	1,277.39	-5.17	1,277.40	0.00	0.00	0.00
5,900.00	90.00	359.77	4,370.00	1,377.39	-5.57	1,377.40	0.00	0.00	0.00
6,000.00	90.00	359.77	4,370.00	1,477.39	-5.98	1,477.40	0.00	0.00	0.00
6,100.00	90.00	359.77	4,370.00	1,577.39	-6.38	1,577.40	0.00	0.00	0.00
6,200.00	90.00	359.77	4,370.00	1,677.39	-6.79	1,677.40	0.00	0.00	0.00
6,300.00	90.00	359.77	4,370.00	1,777.39	-7.19	1,777.40	0.00	0.00	0.00
6,400.00	90.00	359.77	4,370.00	1,877.39	-7.60	1,877.40	0.00	0.00	0.00
6,500.00	90.00	359.77	4,370.00	1,977.39	-8.00	1,977.40	0.00	0.00	0.00
6,600.00	90.00	359.77	4,370.00	2,077.39	-8.41	2,077.40	0.00	0.00	0.00
6,700.00	90.00	359.77	4,370.00	2,177.38	-8.81	2,177.40	0.00	0.00	0.00
6,800.00	90.00	359.77	4,370.00	2,277.38	-9.22	2,277.40	0.00	0.00	0.00
6,900.00	90.00	359.77	4,370.00	2,377.38	-9.62	2,377.40	0.00	0.00	0.00
7,000.00	90.00	359.77	4,370.00	2,477.38	-10.03	2,477.40	0.00	0.00	0.00
7,100.00	90.00	359.77	4,370.00	2,577.38	-10.44	2,577.40	0.00	0.00	0.00
7,200.00	90.00	359.77	4,370.00	2,677.38	-10.84	2,677.40	0.00	0.00	0.00
7,300.00	90.00	359.77	4,370.00	2,777.38	-11.25	2,777.40	0.00	0.00	0.00
7,400.00	90.00	359.77	4,370.00	2,877.38	-11.65	2,877.40	0.00	0.00	0.00
7,500.00	90.00	359.77	4,370.00	2,977.38	-12.06	2,977.40	0.00	0.00	0.00
7,600.00	90.00	359.77	4,370.00	3,077.38	-12.46	3,077.40	0.00	0.00	0.00
7,700.00	90.00	359.77	4,370.00	3,177.38	-12.87	3,177.40	0.00	0.00	0.00
7,800.00	90.00	359.77	4,370.00	3,277.38	-13.27	3,277.40	0.00	0.00	0.00
7,900.00	90.00	359.77	4,370.00	3,377.37	-13.68	3,377.40	0.00	0.00	0.00
8,000.00	90.00	359.77	4,370.00	3,477.37	-14.08	3,477.40	0.00	0.00	0.00
8,100.00	90.00	359.77	4,370.00	3,577.37	-14.49	3,577.40	0.00	0.00	0.00
8,200.00	90.00	359.77	4,370.00	3,677.37	-14.89	3,677.40	0.00	0.00	0.00
8,300.00	90.00	359.77	4,370.00	3,777.37	-15.30	3,777.40	0.00	0.00	0.00
8,400.00	90.00	359.77	4,370.00	3,877.37	-15.70	3,877.40	0.00	0.00	0.00
8,500.00	90.00	359.77	4,370.00	3,977.37	-16.11	3,977.40	0.00	0.00	0.00
8,600.00	90.00	359.77	4,370.00	4,077.37	-16.51	4,077.40	0.00	0.00	0.00
8,700.00	90.00	359.77	4,370.00	4,177.37	-16.92	4,177.40	0.00	0.00	0.00
8,800.00	90.00	359.77	4,370.00	4,277.37	-17.32	4,277.40	0.00	0.00	0.00
8,900.00	90.00	359.77	4,370.00	4,377.37	-17.73	4,377.40	0.00	0.00	0.00
8,991.84	90.00	359.77	4,370.00	4,469.21	-18.10	4,469.25	0.00	0.00	0.00

Planning Report

Database:	edmdb	Local Co-ordinate Reference:	Well State 503H
Company:	Hadaway Consulting & Eng. LLC	TVD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Project:	Hadaway Chaves County, NM (NAD 83)	MD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Site:	State 503H	North Reference:	Grid
Well:	State 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
TD at 8991.84 MD									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL S 503H - plan hits target center - Point	0.00	0.01	0.00	0.00	0.00	962,751.00	768,070.50	33° 38' 39.209 N	103° 35' 17.938 W
PBHL S 503H - plan hits target center - Point	0.00	0.00	4,370.00	4,469.21	-18.10	967,220.20	768,052.40	33° 39' 23.424 N	103° 35' 17.771 W
FTP S 503H - plan misses target center by 52.11ft at 4636.28ft MD (4321.78 TVD, 120.36 N, -0.48 E) - Point	0.00	0.00	4,370.00	100.60	-0.40	962,851.60	768,070.10	33° 38' 40.204 N	103° 35' 17.934 W

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
623.00	623.00	0.00	0.00	Start Build 1.50 at 623 MD	
1,623.00	1,611.62	-130.15	0.52	Start 800.00 hold at 1623.00 MD	
2,423.00	2,384.36	-337.21	1.35	Start Drop -1.50 at 2423 MD	
3,423.00	3,372.97	-467.36	1.88	Start 200.02 hold at 3423.00 MD	
3,623.02	3,572.99	-467.36	1.88	Start Build 8.00 at 3623.02 MD	
4,373.02	4,193.24	-109.26	0.44	Start 200.00 hold at 4373.02 MD	
4,573.02	4,293.24	63.94	-0.26	Start DLS 10.00 TFO 0.00 at 4573.02 MD	
4,873.02	4,370.00	350.42	-1.41	Start 4118.83 hold at 4873.02 MD	
8,991.84	4,370.00	4,469.21	-18.10	TD at 8991.84 MD	

Hadaway Consulting & Eng. LLC

Hadaway Chaves County, NM (NAD 83)

State 503H

State 503H

Wellbore #1

Plan: Plan #2

Standard Planning Report - Geographic

25 February, 2023

Planning Report - Geographic

Database:	edmdb	Local Co-ordinate Reference:	Well State 503H
Company:	Hadaway Consulting & Eng. LLC	TVD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Project:	Hadaway Chaves County, NM (NAD 83)	MD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Site:	State 503H	North Reference:	Grid
Well:	State 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Project	Hadaway Chaves County, NM (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		State 503H			
Site Position:		Northing:	962,751.00 usft	Latitude:	33° 38' 39.209 N
From:	Map	Easting:	768,070.50 usft	Longitude:	103° 35' 17.938 W
Position Uncertainty:		0.00 ft	Slot Radius:	13.200 in	

Well	State 503H					
Well Position	+N/-S	0.00 ft	Northing:	962,751.00 usft	Latitude:	33° 38' 39.209 N
	+E/-W	0.00 ft	Easting:	768,070.50 usft	Longitude:	103° 35' 17.938 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,443.00 ft
Grid Convergence:		0.41 °				

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2/22/2023	6.47	61.12	48,143.30039122

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	359.77

Plan Survey Tool Program	Date	2/22/2023		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	8,991.84 Plan #2 (Wellbore #1)	MWD	
			MWD - Standard	

Planning Report - Geographic

Database:	edmdb	Local Co-ordinate Reference:	Well State 503H
Company:	Hadaway Consulting & Eng. LLC	TVD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Project:	Hadaway Chaves County, NM (NAD 83)	MD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Site:	State 503H	North Reference:	Grid
Well:	State 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
623.00	0.00	0.00	623.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,623.00	15.00	179.77	1,611.62	-130.15	0.52	1.50	1.50	0.00	179.77	
2,423.00	15.00	179.77	2,384.36	-337.21	1.35	0.00	0.00	0.00	0.00	
3,423.00	0.00	0.00	3,372.97	-467.36	1.88	1.50	-1.50	0.00	180.00	
3,623.02	0.00	0.00	3,572.99	-467.36	1.88	0.00	0.00	0.00	0.00	
4,373.02	60.00	359.77	4,193.24	-109.26	0.44	8.00	8.00	0.00	359.77	
4,573.02	60.00	359.77	4,293.24	63.94	-0.26	0.00	0.00	0.00	0.00	
4,873.02	90.00	359.77	4,370.00	350.42	-1.41	10.00	10.00	0.00	0.00	
8,991.84	90.00	359.77	4,370.00	4,469.21	-18.10	0.00	0.00	0.00	0.00	PBHL S 503H

Planning Report - Geographic

Database:	edmdb	Local Co-ordinate Reference:	Well State 503H
Company:	Hadaway Consulting & Eng. LLC	TVD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Project:	Hadaway Chaves County, NM (NAD 83)	MD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Site:	State 503H	North Reference:	Grid
Well:	State 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	962,751.00	768,070.50	33° 38' 39.209 N	103° 35' 17.938 W
100.00	0.00	0.00	100.00	0.00	0.00	962,751.00	768,070.50	33° 38' 39.209 N	103° 35' 17.938 W
200.00	0.00	0.00	200.00	0.00	0.00	962,751.00	768,070.50	33° 38' 39.209 N	103° 35' 17.938 W
300.00	0.00	0.00	300.00	0.00	0.00	962,751.00	768,070.50	33° 38' 39.209 N	103° 35' 17.938 W
400.00	0.00	0.00	400.00	0.00	0.00	962,751.00	768,070.50	33° 38' 39.209 N	103° 35' 17.938 W
500.00	0.00	0.00	500.00	0.00	0.00	962,751.00	768,070.50	33° 38' 39.209 N	103° 35' 17.938 W
600.00	0.00	0.00	600.00	0.00	0.00	962,751.00	768,070.50	33° 38' 39.209 N	103° 35' 17.938 W
623.00	0.00	0.00	623.00	0.00	0.00	962,751.00	768,070.50	33° 38' 39.209 N	103° 35' 17.938 W
Start Build 1.50 at 623 MD									
700.00	1.16	179.77	699.99	-0.78	0.00	962,750.23	768,070.50	33° 38' 39.201 N	103° 35' 17.938 W
800.00	2.66	179.77	799.94	-4.10	0.02	962,746.90	768,070.51	33° 38' 39.168 N	103° 35' 17.938 W
900.00	4.16	179.77	899.76	-10.04	0.04	962,740.96	768,070.54	33° 38' 39.109 N	103° 35' 17.938 W
1,000.00	5.66	179.77	999.39	-18.59	0.07	962,732.41	768,070.57	33° 38' 39.025 N	103° 35' 17.938 W
1,100.00	7.16	179.77	1,098.76	-29.74	0.12	962,721.26	768,070.62	33° 38' 38.914 N	103° 35' 17.939 W
1,200.00	8.66	179.77	1,197.81	-43.50	0.17	962,707.50	768,070.67	33° 38' 38.778 N	103° 35' 17.939 W
1,300.00	10.16	179.77	1,296.46	-59.84	0.24	962,691.16	768,070.74	33° 38' 38.617 N	103° 35' 17.940 W
1,400.00	11.66	179.77	1,394.65	-78.76	0.32	962,672.25	768,070.81	33° 38' 38.430 N	103° 35' 17.941 W
1,500.00	13.16	179.77	1,492.32	-100.24	0.40	962,650.77	768,070.90	33° 38' 38.217 N	103° 35' 17.941 W
1,600.00	14.66	179.77	1,589.38	-124.27	0.50	962,626.73	768,071.00	33° 38' 37.979 N	103° 35' 17.942 W
1,623.00	15.00	179.77	1,611.62	-130.15	0.52	962,620.85	768,071.02	33° 38' 37.921 N	103° 35' 17.943 W
Start 800.00 hold at 1623.00 MD									
1,700.00	15.00	179.77	1,685.99	-150.08	0.60	962,600.92	768,071.10	33° 38' 37.724 N	103° 35' 17.943 W
1,800.00	15.00	179.77	1,782.58	-175.96	0.71	962,575.04	768,071.20	33° 38' 37.468 N	103° 35' 17.944 W
1,900.00	15.00	179.77	1,879.18	-201.85	0.81	962,549.16	768,071.31	33° 38' 37.212 N	103° 35' 17.945 W
2,000.00	15.00	179.77	1,975.77	-227.73	0.91	962,523.28	768,071.41	33° 38' 36.956 N	103° 35' 17.946 W
2,100.00	15.00	179.77	2,072.36	-253.61	1.02	962,497.39	768,071.52	33° 38' 36.700 N	103° 35' 17.947 W
2,200.00	15.00	179.77	2,168.96	-279.49	1.12	962,471.51	768,071.62	33° 38' 36.444 N	103° 35' 17.948 W
2,300.00	15.00	179.77	2,265.55	-305.37	1.23	962,445.63	768,071.72	33° 38' 36.188 N	103° 35' 17.949 W
2,400.00	15.00	179.77	2,362.14	-331.25	1.33	962,419.75	768,071.83	33° 38' 35.932 N	103° 35' 17.950 W
2,423.00	15.00	179.77	2,384.36	-337.21	1.35	962,413.80	768,071.85	33° 38' 35.873 N	103° 35' 17.950 W
Start Drop -1.50 at 2423 MD									
2,500.00	13.85	179.77	2,458.93	-356.38	1.43	962,394.62	768,071.93	33° 38' 35.683 N	103° 35' 17.951 W
2,600.00	12.35	179.77	2,556.33	-379.04	1.52	962,371.96	768,072.02	33° 38' 35.459 N	103° 35' 17.952 W
2,700.00	10.85	179.77	2,654.28	-399.14	1.60	962,351.86	768,072.10	33° 38' 35.260 N	103° 35' 17.953 W
2,800.00	9.35	179.77	2,752.73	-416.67	1.67	962,334.34	768,072.17	33° 38' 35.087 N	103° 35' 17.953 W
2,900.00	7.85	179.77	2,851.61	-431.61	1.73	962,319.39	768,072.23	33° 38' 34.939 N	103° 35' 17.954 W
3,000.00	6.35	179.77	2,950.84	-443.96	1.78	962,307.04	768,072.28	33° 38' 34.816 N	103° 35' 17.954 W
3,100.00	4.85	179.77	3,050.36	-453.71	1.82	962,297.29	768,072.32	33° 38' 34.720 N	103° 35' 17.955 W
3,200.00	3.35	179.77	3,150.10	-460.85	1.85	962,290.15	768,072.35	33° 38' 34.649 N	103° 35' 17.955 W
3,300.00	1.85	179.77	3,249.99	-465.38	1.87	962,285.62	768,072.37	33° 38' 34.605 N	103° 35' 17.955 W
3,400.00	0.35	179.77	3,349.97	-467.29	1.88	962,283.71	768,072.37	33° 38' 34.586 N	103° 35' 17.955 W
3,423.00	0.00	0.00	3,372.97	-467.36	1.88	962,283.64	768,072.37	33° 38' 34.585 N	103° 35' 17.955 W
Start 200.02 hold at 3423.00 MD									
3,500.00	0.00	0.00	3,449.97	-467.36	1.88	962,283.64	768,072.37	33° 38' 34.585 N	103° 35' 17.955 W
3,600.00	0.00	0.00	3,549.97	-467.36	1.88	962,283.64	768,072.37	33° 38' 34.585 N	103° 35' 17.955 W
3,623.02	0.00	0.00	3,572.99	-467.36	1.88	962,283.64	768,072.37	33° 38' 34.585 N	103° 35' 17.955 W
Start Build 8.00 at 3623.02 MD									
3,700.00	6.16	359.77	3,649.82	-463.23	1.86	962,287.78	768,072.36	33° 38' 34.626 N	103° 35' 17.955 W
3,800.00	14.16	359.77	3,748.18	-445.60	1.79	962,305.40	768,072.29	33° 38' 34.800 N	103° 35' 17.954 W
3,900.00	22.16	359.77	3,843.12	-414.46	1.66	962,336.54	768,072.16	33° 38' 35.108 N	103° 35' 17.953 W
4,000.00	30.16	359.77	3,932.80	-370.41	1.49	962,380.59	768,071.98	33° 38' 35.544 N	103° 35' 17.952 W
4,100.00	38.16	359.77	4,015.49	-314.31	1.26	962,436.69	768,071.76	33° 38' 36.099 N	103° 35' 17.949 W
4,200.00	46.16	359.77	4,089.55	-247.25	0.99	962,503.75	768,071.49	33° 38' 36.763 N	103° 35' 17.947 W
4,300.00	54.16	359.77	4,153.57	-170.53	0.68	962,580.47	768,071.18	33° 38' 37.522 N	103° 35' 17.944 W

Planning Report - Geographic

Database:	edmdb	Local Co-ordinate Reference:	Well State 503H
Company:	Hadaway Consulting & Eng. LLC	TVD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Project:	Hadaway Chaves County, NM (NAD 83)	MD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Site:	State 503H	North Reference:	Grid
Well:	State 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,373.02	60.00	359.77	4,193.24	-109.26	0.44	962,641.74	768,070.94	33° 38' 38.128 N	103° 35' 17.942 W
Start 200.00 hold at 4373.02 MD									
4,400.00	60.00	359.77	4,206.73	-85.90	0.34	962,665.11	768,070.84	33° 38' 38.359 N	103° 35' 17.941 W
4,500.00	60.00	359.77	4,256.73	0.71	0.00	962,751.71	768,070.49	33° 38' 39.216 N	103° 35' 17.938 W
4,573.02	60.00	359.77	4,293.24	63.94	-0.26	962,814.94	768,070.24	33° 38' 39.841 N	103° 35' 17.935 W
Start DLS 10.00 TFO 0.00 at 4573.02 MD									
4,600.00	62.70	359.77	4,306.17	87.62	-0.35	962,838.62	768,070.15	33° 38' 40.076 N	103° 35' 17.934 W
4,700.00	72.70	359.77	4,344.07	180.02	-0.72	962,931.02	768,069.77	33° 38' 40.990 N	103° 35' 17.931 W
4,800.00	82.70	359.77	4,365.35	277.60	-1.12	963,028.60	768,069.38	33° 38' 41.955 N	103° 35' 17.927 W
4,873.02	90.00	359.77	4,370.00	350.42	-1.41	963,101.42	768,069.08	33° 38' 42.675 N	103° 35' 17.924 W
Start 4118.83 hold at 4873.02 MD									
4,900.00	90.00	359.77	4,370.00	377.40	-1.52	963,128.40	768,068.98	33° 38' 42.942 N	103° 35' 17.923 W
5,000.00	90.00	359.77	4,370.00	477.40	-1.93	963,228.40	768,068.57	33° 38' 43.932 N	103° 35' 17.920 W
5,100.00	90.00	359.77	4,370.00	577.40	-2.33	963,328.40	768,068.17	33° 38' 44.921 N	103° 35' 17.916 W
5,200.00	90.00	359.77	4,370.00	677.40	-2.74	963,428.40	768,067.76	33° 38' 45.910 N	103° 35' 17.912 W
5,300.00	90.00	359.77	4,370.00	777.40	-3.14	963,528.40	768,067.35	33° 38' 46.900 N	103° 35' 17.909 W
5,400.00	90.00	359.77	4,370.00	877.40	-3.55	963,628.39	768,066.95	33° 38' 47.889 N	103° 35' 17.905 W
5,500.00	90.00	359.77	4,370.00	977.39	-3.95	963,728.39	768,066.54	33° 38' 48.878 N	103° 35' 17.901 W
5,600.00	90.00	359.77	4,370.00	1,077.39	-4.36	963,828.39	768,066.14	33° 38' 49.868 N	103° 35' 17.897 W
5,700.00	90.00	359.77	4,370.00	1,177.39	-4.76	963,928.39	768,065.73	33° 38' 50.857 N	103° 35' 17.894 W
5,800.00	90.00	359.77	4,370.00	1,277.39	-5.17	964,028.39	768,065.33	33° 38' 51.846 N	103° 35' 17.890 W
5,900.00	90.00	359.77	4,370.00	1,377.39	-5.57	964,128.39	768,064.92	33° 38' 52.836 N	103° 35' 17.886 W
6,000.00	90.00	359.77	4,370.00	1,477.39	-5.98	964,228.39	768,064.52	33° 38' 53.825 N	103° 35' 17.882 W
6,100.00	90.00	359.77	4,370.00	1,577.39	-6.38	964,328.39	768,064.11	33° 38' 54.814 N	103° 35' 17.879 W
6,200.00	90.00	359.77	4,370.00	1,677.39	-6.79	964,428.39	768,063.71	33° 38' 55.804 N	103° 35' 17.875 W
6,300.00	90.00	359.77	4,370.00	1,777.39	-7.19	964,528.39	768,063.30	33° 38' 56.793 N	103° 35' 17.871 W
6,400.00	90.00	359.77	4,370.00	1,877.39	-7.60	964,628.38	768,062.90	33° 38' 57.782 N	103° 35' 17.868 W
6,500.00	90.00	359.77	4,370.00	1,977.39	-8.00	964,728.38	768,062.49	33° 38' 58.771 N	103° 35' 17.864 W
6,600.00	90.00	359.77	4,370.00	2,077.39	-8.41	964,828.38	768,062.09	33° 38' 59.761 N	103° 35' 17.860 W
6,700.00	90.00	359.77	4,370.00	2,177.38	-8.81	964,928.38	768,061.68	33° 39' 0.750 N	103° 35' 17.856 W
6,800.00	90.00	359.77	4,370.00	2,277.38	-9.22	965,028.38	768,061.28	33° 39' 1.739 N	103° 35' 17.853 W
6,900.00	90.00	359.77	4,370.00	2,377.38	-9.62	965,128.38	768,060.87	33° 39' 2.729 N	103° 35' 17.849 W
7,000.00	90.00	359.77	4,370.00	2,477.38	-10.03	965,228.38	768,060.47	33° 39' 3.718 N	103° 35' 17.845 W
7,100.00	90.00	359.77	4,370.00	2,577.38	-10.44	965,328.38	768,060.06	33° 39' 4.707 N	103° 35' 17.841 W
7,200.00	90.00	359.77	4,370.00	2,677.38	-10.84	965,428.38	768,059.66	33° 39' 5.697 N	103° 35' 17.838 W
7,300.00	90.00	359.77	4,370.00	2,777.38	-11.25	965,528.38	768,059.25	33° 39' 6.686 N	103° 35' 17.834 W
7,400.00	90.00	359.77	4,370.00	2,877.38	-11.65	965,628.37	768,058.85	33° 39' 7.675 N	103° 35' 17.830 W
7,500.00	90.00	359.77	4,370.00	2,977.38	-12.06	965,728.37	768,058.44	33° 39' 8.665 N	103° 35' 17.826 W
7,600.00	90.00	359.77	4,370.00	3,077.38	-12.46	965,828.37	768,058.04	33° 39' 9.654 N	103° 35' 17.823 W
7,700.00	90.00	359.77	4,370.00	3,177.38	-12.87	965,928.37	768,057.63	33° 39' 10.643 N	103° 35' 17.819 W
7,800.00	90.00	359.77	4,370.00	3,277.38	-13.27	966,028.37	768,057.23	33° 39' 11.633 N	103° 35' 17.815 W
7,900.00	90.00	359.77	4,370.00	3,377.37	-13.68	966,128.37	768,056.82	33° 39' 12.622 N	103° 35' 17.812 W
8,000.00	90.00	359.77	4,370.00	3,477.37	-14.08	966,228.37	768,056.42	33° 39' 13.611 N	103° 35' 17.808 W
8,100.00	90.00	359.77	4,370.00	3,577.37	-14.49	966,328.37	768,056.01	33° 39' 14.600 N	103° 35' 17.804 W
8,200.00	90.00	359.77	4,370.00	3,677.37	-14.89	966,428.37	768,055.61	33° 39' 15.590 N	103° 35' 17.800 W
8,300.00	90.00	359.77	4,370.00	3,777.37	-15.30	966,528.37	768,055.20	33° 39' 16.579 N	103° 35' 17.797 W
8,400.00	90.00	359.77	4,370.00	3,877.37	-15.70	966,628.36	768,054.80	33° 39' 17.568 N	103° 35' 17.793 W
8,500.00	90.00	359.77	4,370.00	3,977.37	-16.11	966,728.36	768,054.39	33° 39' 18.558 N	103° 35' 17.789 W
8,600.00	90.00	359.77	4,370.00	4,077.37	-16.51	966,828.36	768,053.98	33° 39' 19.547 N	103° 35' 17.785 W
8,700.00	90.00	359.77	4,370.00	4,177.37	-16.92	966,928.36	768,053.58	33° 39' 20.536 N	103° 35' 17.782 W
8,800.00	90.00	359.77	4,370.00	4,277.37	-17.32	967,028.36	768,053.17	33° 39' 21.526 N	103° 35' 17.778 W
8,900.00	90.00	359.77	4,370.00	4,377.37	-17.73	967,128.36	768,052.77	33° 39' 22.515 N	103° 35' 17.774 W
8,991.84	90.00	359.77	4,370.00	4,469.21	-18.10	967,220.20	768,052.40	33° 39' 23.424 N	103° 35' 17.771 W
TD at 8991.84 MD									

Planning Report - Geographic

Database:	edmdb	Local Co-ordinate Reference:	Well State 503H
Company:	Hadaway Consulting & Eng. LLC	TVD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Project:	Hadaway Chaves County, NM (NAD 83)	MD Reference:	GL 4443' + RKB 17 @ 4460.00ft (Norton #2)
Site:	State 503H	North Reference:	Grid
Well:	State 503H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
SHL S 503H	0.00	0.01	0.00	0.00	0.00	962,751.00	768,070.50	33° 38' 39.209 N	103° 35' 17.938 W
- plan hits target center									
- Point									
PBHL S 503H	0.00	0.00	4,370.00	4,469.21	-18.10	967,220.20	768,052.40	33° 39' 23.424 N	103° 35' 17.771 W
- plan hits target center									
- Point									
FTP S 503H	0.00	0.00	4,370.00	100.60	-0.40	962,851.60	768,070.10	33° 38' 40.204 N	103° 35' 17.934 W
- plan misses target center by 52.11ft at 4636.28ft MD (4321.78 TVD, 120.36 N, -0.48 E)									
- Point									

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	Comment
623.00	623.00	0.00	0.00	Start Build 1.50 at 623 MD
1,623.00	1,611.62	-130.15	0.52	Start 800.00 hold at 1623.00 MD
2,423.00	2,384.36	-337.21	1.35	Start Drop -1.50 at 2423 MD
3,423.00	3,372.97	-467.36	1.88	Start 200.02 hold at 3423.00 MD
3,623.02	3,572.99	-467.36	1.88	Start Build 8.00 at 3623.02 MD
4,373.02	4,193.24	-109.26	0.44	Start 200.00 hold at 4373.02 MD
4,573.02	4,293.24	63.94	-0.26	Start DLS 10.00 TFO 0.00 at 4573.02 MD
4,873.02	4,370.00	350.42	-1.41	Start 4118.83 hold at 4873.02 MD
8,991.84	4,370.00	4,469.21	-18.10	TD at 8991.84 MD