

Well Name: RODEO UNIT	Well Location: T23N / R9W / SEC 25 / SESW / 36.191179 / -107.7448	County or Parish/State: SAN JUAN / NM
Well Number: 511H	Type of Well: OIL WELL	Allottee or Tribe Name: EASTERN NAVAJO
Lease Number: NOG14021893	Unit or CA Name:	Unit or CA Number: NMNM136328A, NMNM136328X
US Well Number: 3004535875	Well Status: Approved Application for Permit to Drill	Operator: ENDURING RESOURCES LLC

Notice of Intent

Sundry ID: 2712757

Type of Submission: Notice of Intent

Date Sundry Submitted: 01/26/2023

Date proposed operation will begin: 01/26/2023

Type of Action: APD Change

Time Sundry Submitted: 03:42

Procedure Description: Enduring Resources requests to change the HSU of the Rodeo Unit 511H well per the attached updated C-102 plat. The dedicated acreage will change from 961.48 acres to 801.48 acres. See the attached documents for details.

NOI Attachments

Procedure Description

- Rodeo_Unit__511H_Detailed_As_Drilled_C_102_Plat___signed_KS_20230126153936.pdf
- RODU_511H_Drilling_Package_11072022_20230126105057.pdf
- Enduring_Rodeo__511H_final_svys_dec0822__12095__20230126104837.pdf
- RODU_511H_WBD_11072022_20230126104744.pdf

Received by OCD: 1/27/2023 12:00:14 PM

Page 2 of 32

Well Name: RODEO UNIT	Well Location: T23N / R9W / SEC 25 / SESW / 36.191179 / -107.7448	County or Parish/State: SAN JUAN / NM
Well Number: 511H	Type of Well: OIL WELL	Allottee or Tribe Name: EASTERN NAVAJO
Lease Number: N0G14021893	Unit or CA Name:	Unit or CA Number: NMNM136328A, NMNM136328X
US Well Number: 3004535875	Well Status: Approved Application for Permit to Drill	Operator: ENDURING RESOURCES LLC

Operator

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

Operator Electronic Signature: KAYLA WHITE

Signed on: JAN 26, 2023 04:54 PM

Name: ENDURING RESOURCES LLC

Title: Staff Engineer

Street Address: 9446 CLERMONT ST

City: THORNTONState: CO

Phone: (720) 768-3575

Email address: KWHITE@CDHCONSULT.COM

Field

Representative Name:

Street Address:

City:State:Zip:

Phone:

Email address:

District I
611 S. First Street, Artesia, NM 88210
Phone: (575) 393-6161 Fax: (575) 393-0720District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505☐ AMENDED REPORT

AS-DRILLED WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35875	² Pool Code 97232	³ Pool Name BASIN MANCOS
⁴ Property Code 321253	⁵ Property Name RODEO UNIT	⁶ Well Number 511H
⁷ GRID No. 372286	⁸ Operator Name ENDURING RESOURCES, LLC	⁹ Elevation 6798'

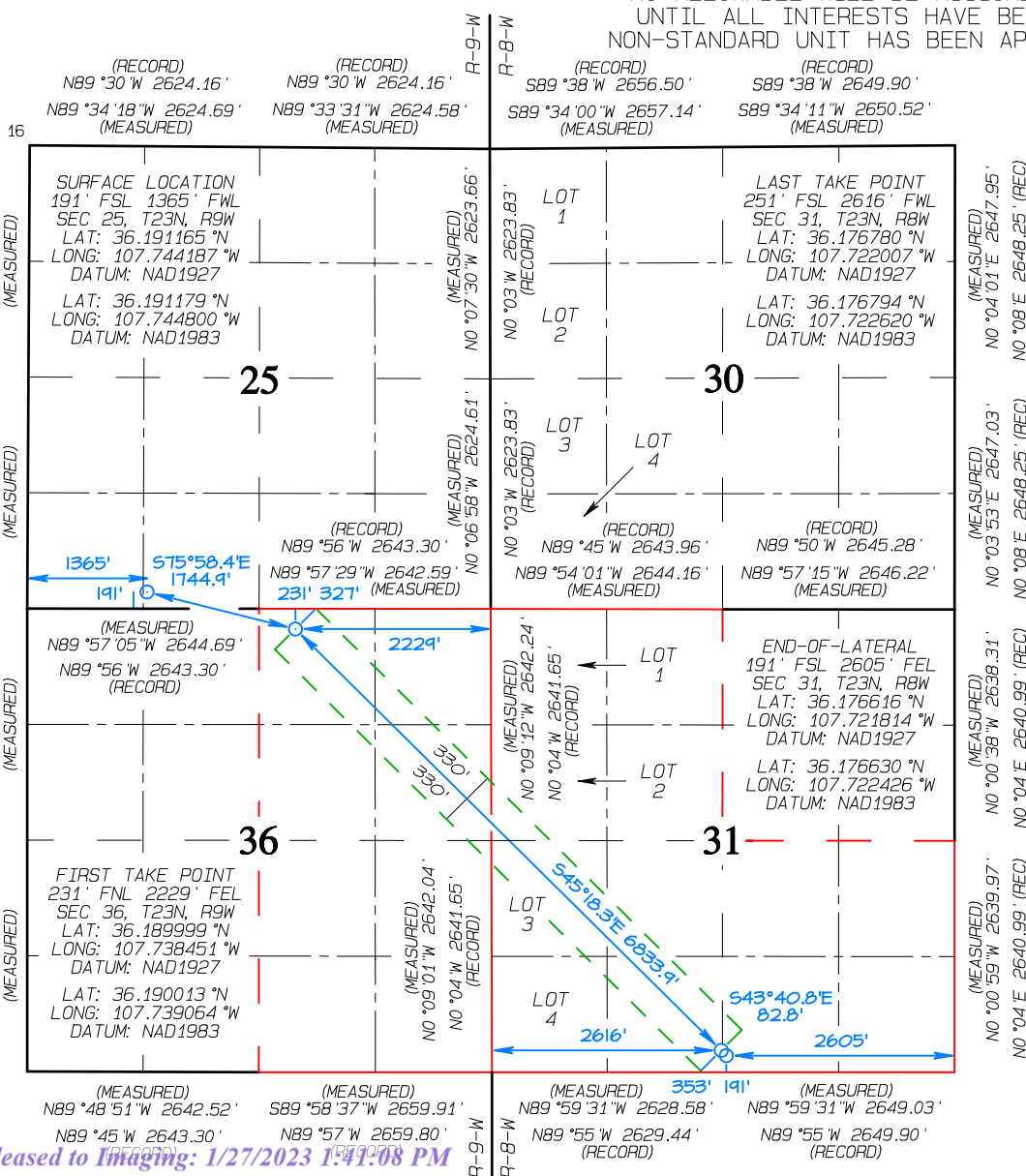
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	25	23N	9W		191	SOUTH	1365	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	31	23N	8W		191	SOUTH	2605	EAST	SAN JUAN

¹² Dedicated Acres 801.48	W/2 - Sec 36, T23NR9W W/2, SE/4 - Sec 31, T23NR8W	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-14313
-----------------------------------------	------------------------------------------------------	-------------------------------	----------------------------------	------------------------------------

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

¹⁷ OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Khem Suthiwan 1/26/2023
Signature Date
Khem Suthiwan
Printed Name
ksuthiwan@enduringresources.com
E-mail Address

¹⁸ SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Revised: JANUARY 26, 2023
Survey Date: JANUARY 24, 2017

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

District I
611 S. First Street, Artesia, NM 88210
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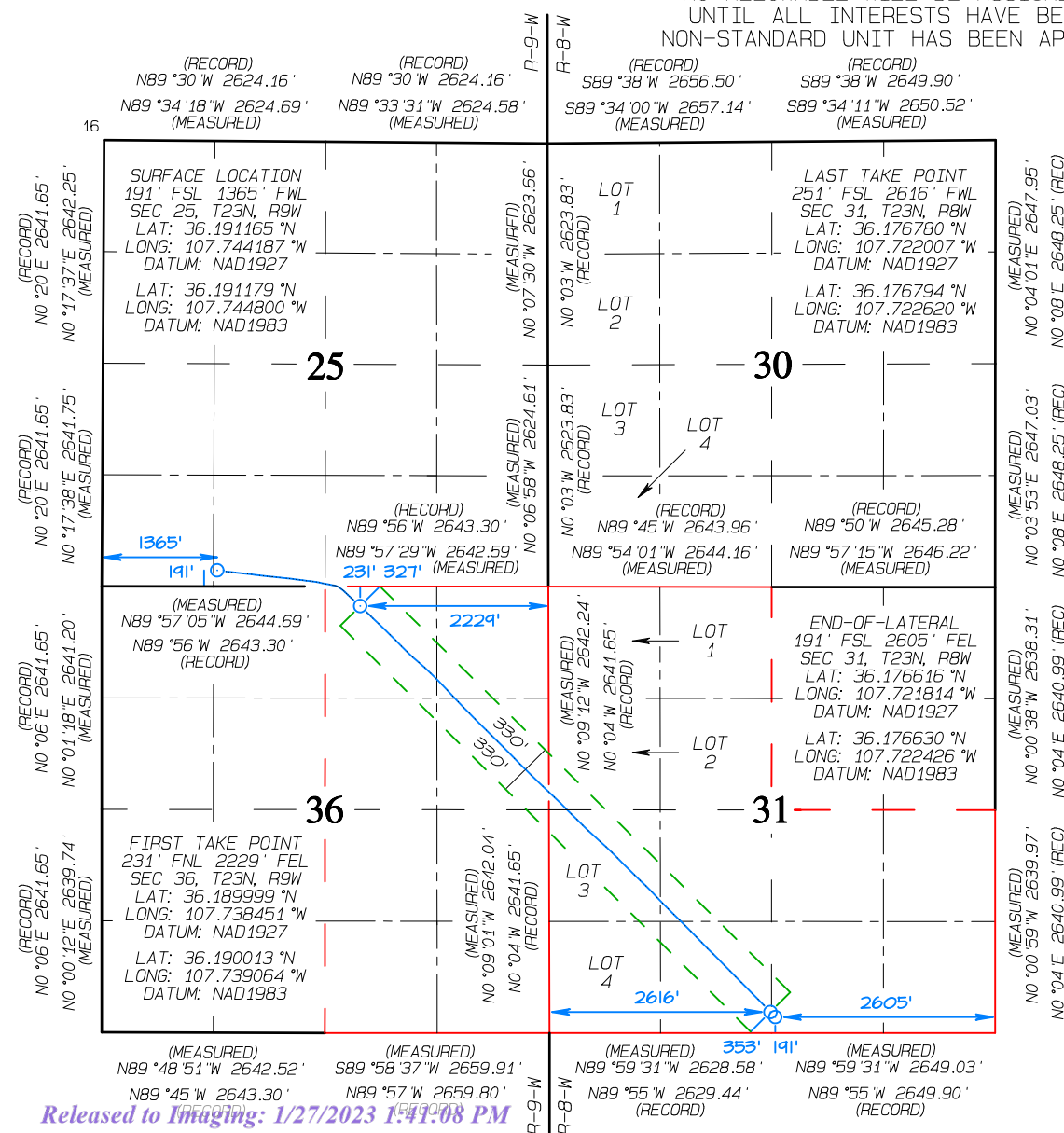
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Khem Suthiwan 1/26/2023
Signature Date
Khem Suthiwan
Printed Name
ksuthiwan@enduringresources.com
E-mail Address

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Date Revised: JANUARY 26, 2023
Survey Date: JANUARY 24, 2017

Signature and Seal of Professional Surveyor



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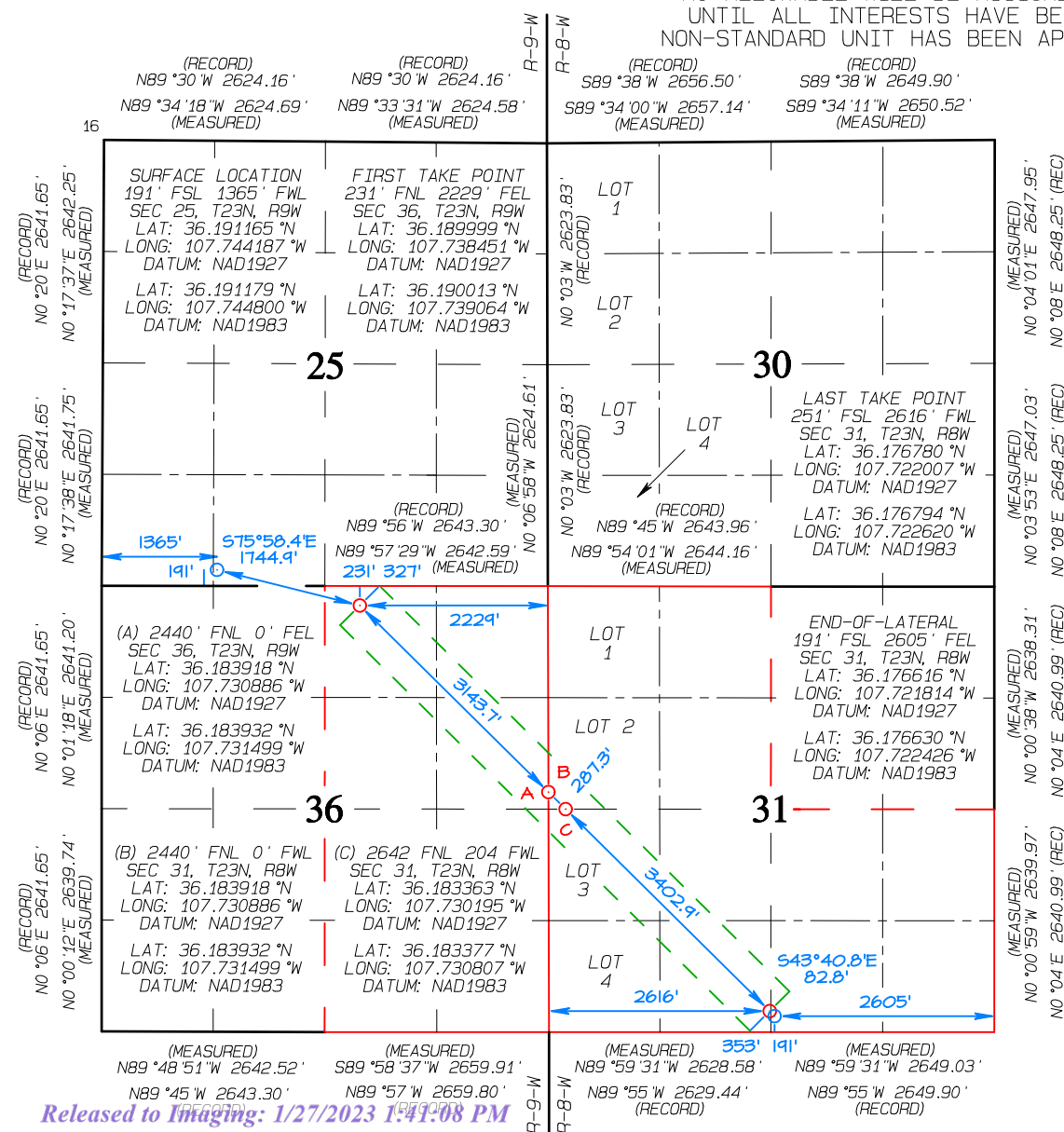
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¹² Dedicated Acres W/2 - Sec 36, T23NR9W 801.48 W/2, SE/4 - Sec 31, T23NR8W	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-14313
NO. 143134-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000-1001-1002-1003-1004-1005-1006-1007-1008-1009-1010-1011-1012-1013-1014-10			

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Khem Suthivan 1/26/2023

Signature	Date
-----------	------

Khem Suthiwan

Printed Name _____

ksuthiwan@enduringresources.com

E-mail Address

18 SURVEYOR CERTIFICATION

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

Date Revised: JANUARY 26, 2023

Survey Date: JANUARY 24, 2017

Signature and Seal of Professional Surveyor



JASON C. EDWARDS

Certificate Number	15269
--------------------	-------



Well: Rodeo Unit #511H
Site: Rodeo Unit 511 pad (511, 512 & 513)
Project: San Juan County, New Mexico NAD83 NM W
Design: Surveys Original Hole
Rig: Ensign 145

ANNOTATIONS SURVEYS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Annotation
412.00	0.21	72.690	412.00	0.22	0.72	0.34	MWD surveys
2760.00	27.20	95.691	2610.37	-75.74	641.62	499.50	9 5/8" Casing @ 2760 MD 2610.37 TVD
5123.66	69.77	132.541	4627.00	-423.01	1692.91	1478.74	FTP @ 5123.66 MD 4627.00 TVD
5143.00	71.71	132.692	4633.38	-435.38	1706.35	1496.96	330 perp @ 5143 MD 4633.38 TVD
11944.00	89.39	136.320	4621.36	-5215.00	6536.84	8290.41	Survey @ 11944 MD 4621.36 TVD
11964.20	89.39	136.320	4621.58	-5229.61	6550.79	8310.61	LTP @ 11964.20 MD 4621.58 TVD
11995.00	89.39	136.320	4621.91	-5251.88	6572.06	8341.40	330 perp @ 11995 MD 4621.91 TVD
12047.00	89.39	136.320	4622.46	-5289.49	6607.97	8393.40	Survey proj. to 12047.00 MD 4622.46 TVD

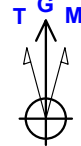


Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone

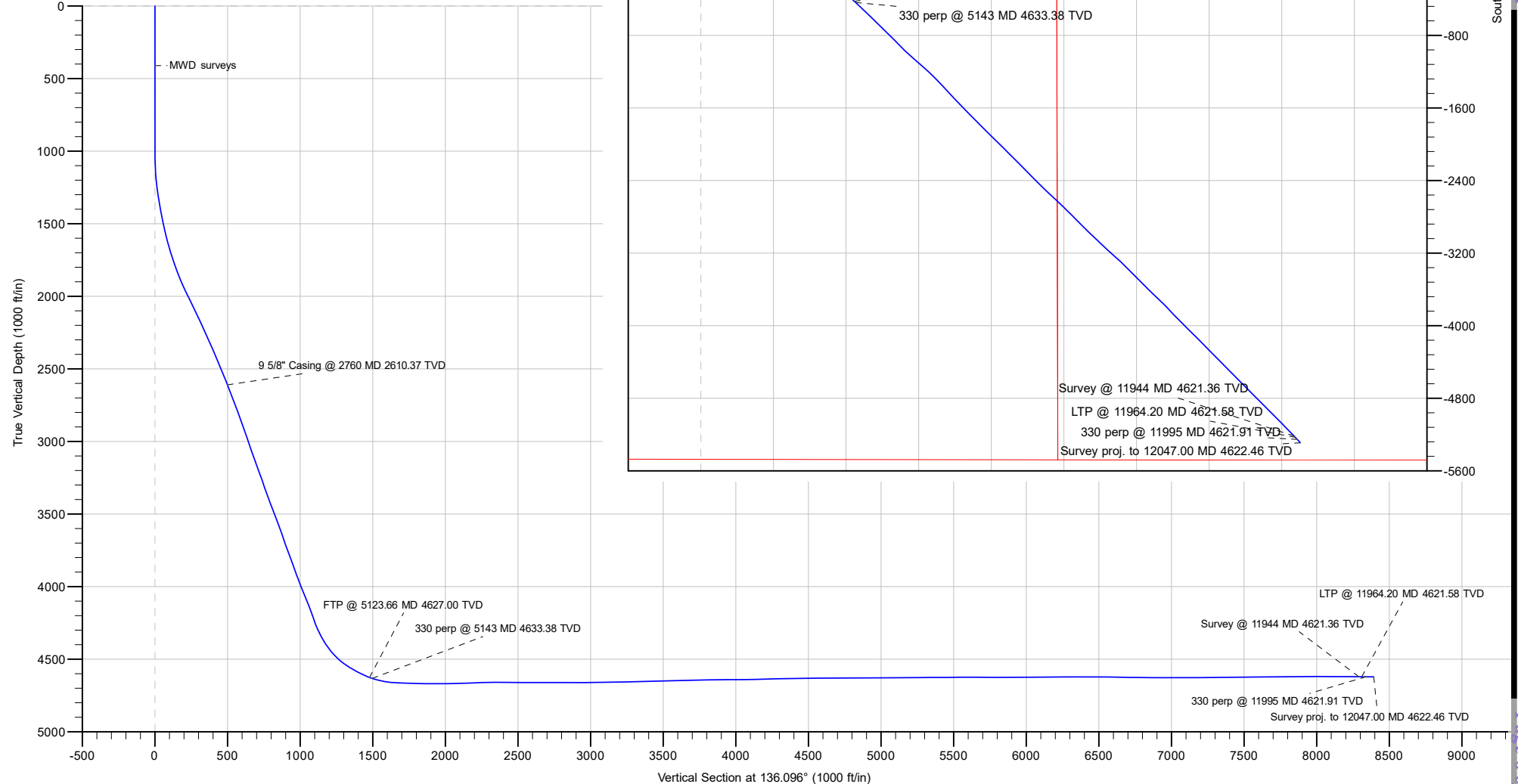
System Datum: Mean Sea Level
Depth Reference: RKB=6798+13 @ 6813.00ft (Ensign 145)

Surface location:
Northing 1888898.346 Easting 2749215.361 Latitude 36.191179000 Longitude -107.744800000

Total Corr (M=>G): To convert a Magnetic Direction to a Grid Direction, Add 8.59°



Azimuths to Grid North 00
True North: -0.05°
Magnetic North: 8.59°
Magnetic Field
Strength: 49142.1nT
Dip Angle: 62.69°
Date: 11/18/2022
Model: IGRF2020





Survey Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #511H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Well:	Rodeo Unit #511H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

Project	San Juan County, New Mexico NAD83 NM W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site		Rodeo Unit 511 pad (511, 512 & 513)			
Site Position:		Northing:	1,888,898.347 usft	Latitude:	36.191179000
From:	Lat/Long	Easting:	2,749,215.362 usft	Longitude:	-107.744800000
Position Uncertainty:		0.00 ft	Slot Radius:	13-3/16 "	

Well		Rodeo Unit #511H, Surf loc: 191 FSL 1365 FWL Section 25-T23N-R09W				
Well Position	+N/-S	0.00 ft	Northing:	1,888,898.347 usft	Latitude:	36.191179000
	+E/-W	0.00 ft	Easting:	2,749,215.362 usft	Longitude:	-107.744800000
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,798.00 ft
Grid Convergence:		0.05 °				

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	11/18/2022	8.65	62.69	49,142.13436349

Design	Surveys Original Hole				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	136.096	

Survey Program	Date	12/8/2022			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
412.00	2,654.00	MWD surf (Original Hole)	MWD	OWSG MWD - Standard	
2,709.00	11,944.00	MWD (Original Hole)	MWD	OWSG MWD - Standard	
12,047.00	12,047.00	Projection (Original Hole)	MWD	OWSG MWD - Standard	

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	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
412.00	0.21	72.690	412.00	0.22	0.72	0.34	0.05	0.05	0.00	
MWD surveys										
503.00	0.14	61.740	503.00	0.33	0.98	0.44	0.08	-0.08	-12.03	
594.00	0.09	17.630	594.00	0.45	1.10	0.44	0.11	-0.05	-48.47	
685.00	0.18	276.660	685.00	0.53	0.98	0.29	0.24	0.10	-110.96	
776.00	0.05	287.620	776.00	0.56	0.80	0.15	0.14	-0.14	12.04	
866.00	0.20	213.660	866.00	0.44	0.67	0.15	0.21	0.17	-82.18	



Survey Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #511H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Well:	Rodeo Unit #511H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

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)
957.00	0.32	217.480	957.00	0.11	0.43	0.22	0.13	0.13	4.20
1,051.00	2.44	72.050	1,050.97	0.52	2.17	1.14	2.88	2.26	-154.71
1,146.00	6.21	81.480	1,145.68	1.90	9.18	5.00	4.03	3.97	9.93
1,240.00	9.26	93.820	1,238.82	2.15	21.76	13.54	3.68	3.24	13.13
1,334.00	11.11	103.520	1,331.35	-0.47	38.11	26.77	2.68	1.97	10.32
1,429.00	12.17	103.140	1,424.39	-4.89	56.77	42.89	1.12	1.12	-0.40
1,523.00	14.68	101.610	1,515.82	-9.54	78.09	61.02	2.70	2.67	-1.63
1,617.00	18.29	98.480	1,605.94	-14.11	104.35	82.53	3.95	3.84	-3.33
1,712.00	22.02	96.050	1,695.11	-18.19	136.82	107.98	4.02	3.93	-2.56
1,806.00	24.04	96.030	1,781.61	-22.06	173.38	136.13	2.15	2.15	-0.02
1,900.00	27.35	96.570	1,866.30	-26.54	213.89	167.44	3.53	3.52	0.57
1,994.00	31.66	96.600	1,948.09	-31.85	259.87	203.15	4.59	4.59	0.03
2,089.00	32.71	96.210	2,028.49	-37.49	310.15	242.09	1.13	1.11	-0.41
2,183.00	30.97	96.300	2,108.35	-42.89	359.44	280.16	1.85	-1.85	0.10
2,277.00	31.05	97.270	2,188.91	-48.61	407.53	317.63	0.54	0.09	1.03
2,371.00	30.81	97.220	2,269.55	-54.71	455.46	355.26	0.26	-0.26	-0.05
2,466.00	29.88	96.760	2,351.53	-60.55	503.10	392.50	1.01	-0.98	-0.48
2,560.00	28.72	96.350	2,433.50	-65.80	548.80	427.98	1.25	-1.23	-0.44
2,654.00	27.82	96.060	2,516.29	-70.62	593.06	462.14	0.97	-0.96	-0.31
2,709.00	27.34	96.150	2,565.04	-73.33	618.38	481.65	0.88	-0.87	0.16
2,760.00	27.20	95.691	2,610.37	-75.74	641.62	499.50	0.50	-0.28	-0.90
9 5/8" Casing @ 2760 MD 2610.37 TVD									
2,791.00	27.11	95.410	2,637.96	-77.11	655.70	510.25	0.50	-0.28	-0.91
2,886.00	26.53	95.030	2,722.74	-81.01	698.38	542.66	0.64	-0.61	-0.40
2,981.00	25.75	97.240	2,808.02	-85.47	739.99	574.73	1.31	-0.82	2.33
3,075.00	24.77	96.160	2,893.03	-90.15	779.83	605.73	1.15	-1.04	-1.15
3,169.00	23.86	94.940	2,978.69	-93.90	818.35	635.14	1.11	-0.97	-1.30
3,263.00	24.85	97.240	3,064.33	-98.03	856.88	664.84	1.46	1.05	2.45
3,357.00	24.41	95.980	3,149.78	-102.54	895.80	695.07	0.73	-0.47	-1.34
3,451.00	26.04	98.510	3,234.81	-107.62	935.52	726.28	2.08	1.73	2.69
3,546.00	24.04	95.970	3,320.88	-112.72	975.40	757.61	2.39	-2.11	-2.67
3,640.00	24.32	99.250	3,406.64	-117.82	1,013.55	787.74	1.46	0.30	3.49
3,734.00	26.58	96.970	3,491.51	-123.49	1,053.53	819.55	2.62	2.40	-2.43
3,829.00	26.60	96.740	3,576.47	-128.56	1,095.75	852.48	0.11	0.02	-0.24
3,923.00	23.24	95.300	3,661.70	-132.75	1,135.13	882.80	3.63	-3.57	-1.53
4,018.00	24.66	101.500	3,748.54	-138.43	1,173.22	913.31	3.04	1.49	6.53
4,111.00	23.73	100.920	3,833.36	-145.84	1,210.60	944.58	1.03	-1.00	-0.62
4,205.00	23.98	102.330	3,919.34	-153.51	1,247.84	975.92	0.66	0.27	1.50
4,299.00	25.83	100.320	4,004.59	-161.25	1,286.65	1,008.41	2.16	1.97	-2.14
4,393.00	26.60	101.490	4,088.92	-169.11	1,327.42	1,042.35	0.99	0.82	1.24
4,487.00	24.96	100.100	4,173.57	-176.79	1,367.57	1,075.72	1.86	-1.74	-1.48
4,519.00	23.02	98.780	4,202.80	-178.92	1,380.40	1,086.16	6.29	-6.06	-4.13
4,551.00	22.65	102.490	4,232.29	-181.21	1,392.60	1,096.27	4.64	-1.16	11.59
4 582.00	23.96	107.350	4 260.77	-184.38	1 404.44	1 106.76	7.50	4 23	15.68



Survey Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #511H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Well:	Rodeo Unit #511H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

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)
4,613.00	25.59	112.690	4,288.92	-188.84	1,416.63	1,118.42	8.93	5.26	17.23
4,645.00	27.39	118.700	4,317.56	-195.04	1,429.46	1,131.79	10.08	5.63	18.78
4,676.00	28.70	122.080	4,344.92	-202.42	1,442.03	1,145.82	6.64	4.23	10.90
4,708.00	31.19	124.000	4,372.65	-211.14	1,455.41	1,161.38	8.34	7.78	6.00
4,739.00	33.93	127.030	4,398.77	-220.84	1,468.97	1,177.78	10.28	8.84	9.77
4,771.00	36.95	128.490	4,424.84	-232.21	1,483.64	1,196.14	9.80	9.44	4.56
4,802.00	40.25	130.890	4,449.07	-244.57	1,498.50	1,215.35	11.69	10.65	7.74
4,833.00	43.25	133.520	4,472.20	-258.44	1,513.78	1,235.94	11.20	9.68	8.48
4,865.00	46.61	133.250	4,494.85	-273.96	1,530.20	1,258.51	10.52	10.50	-0.84
4,896.00	50.18	133.480	4,515.43	-289.87	1,547.05	1,281.66	11.53	11.52	0.74
4,928.00	54.14	133.280	4,535.05	-307.23	1,565.42	1,306.90	12.38	12.38	-0.63
4,959.00	58.25	132.590	4,552.30	-324.77	1,584.27	1,332.61	13.39	13.26	-2.23
4,991.00	60.97	132.170	4,568.49	-343.37	1,604.66	1,360.16	8.58	8.50	-1.31
5,022.00	61.01	132.260	4,583.52	-361.59	1,624.74	1,387.20	0.28	0.13	0.29
5,053.00	62.19	131.950	4,598.26	-379.87	1,644.97	1,414.41	3.91	3.81	-1.00
5,085.00	65.60	131.630	4,612.34	-399.01	1,666.40	1,443.06	10.69	10.66	-1.00
5,116.00	69.00	132.480	4,624.30	-418.17	1,687.63	1,471.58	11.26	10.97	2.74
5,123.66	69.77	132.541	4,627.00	-423.01	1,692.91	1,478.74	10.06	10.03	0.79
FTP @ 5123.66 MD 4627.00 TVD									
5,143.00	71.71	132.692	4,633.38	-435.38	1,706.35	1,496.96	10.06	10.03	0.78
330 perp @ 5143 MD 4633.38 TVD									
5,148.00	72.21	132.730	4,634.93	-438.60	1,709.84	1,501.70	10.06	10.03	0.77
5,180.00	75.70	133.470	4,643.77	-459.61	1,732.29	1,532.41	11.13	10.91	2.31
5,211.00	78.66	134.140	4,650.65	-480.53	1,754.10	1,562.61	9.78	9.55	2.16
5,242.00	81.18	133.760	4,656.07	-501.71	1,776.07	1,593.11	8.22	8.13	-1.23
5,274.00	84.28	134.460	4,660.12	-523.81	1,798.86	1,624.83	9.93	9.69	2.19
5,305.00	87.18	134.110	4,662.43	-545.39	1,820.99	1,655.72	9.42	9.35	-1.13
5,336.00	87.61	133.820	4,663.84	-566.89	1,843.28	1,686.67	1.67	1.39	-0.94
5,430.00	87.77	133.710	4,667.63	-631.85	1,911.11	1,780.52	0.21	0.17	-0.12
5,524.00	89.82	134.060	4,669.61	-697.00	1,978.84	1,874.42	2.21	2.18	0.37
5,619.00	89.74	134.620	4,669.97	-763.39	2,046.78	1,969.37	0.60	-0.08	0.59
5,713.00	92.36	135.300	4,668.25	-829.80	2,113.28	2,063.33	2.88	2.79	0.72
5,808.00	92.05	135.220	4,664.59	-897.23	2,180.10	2,158.25	0.34	-0.33	-0.08
5,902.00	91.98	135.110	4,661.29	-963.85	2,246.34	2,252.18	0.14	-0.07	-0.12
5,996.00	89.84	130.960	4,659.79	-1,027.97	2,315.02	2,346.01	4.97	-2.28	-4.41
6,091.00	89.24	130.260	4,660.56	-1,089.80	2,387.13	2,440.57	0.97	-0.63	-0.74
6,186.00	89.91	133.180	4,661.26	-1,153.01	2,458.03	2,535.28	3.15	0.71	3.07
6,280.00	89.80	132.460	4,661.50	-1,216.91	2,526.98	2,629.12	0.77	-0.12	-0.77
6,374.00	90.27	135.940	4,661.44	-1,282.43	2,594.36	2,723.06	3.74	0.50	3.70
6,469.00	89.99	136.520	4,661.23	-1,351.03	2,660.08	2,818.06	0.68	-0.29	0.61
6,563.00	89.65	137.150	4,661.52	-1,419.59	2,724.38	2,912.05	0.76	-0.36	0.67
6,657.00	91.05	136.590	4,660.95	-1,488.19	2,788.64	3,006.03	1.60	1.49	-0.60
6,751.00	90.51	137.030	4,659.67	-1,556.72	2,852.97	3,100.02	0.74	-0.57	0.47



Survey Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #511H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Well:	Rodeo Unit #511H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

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)	
6,846.00	91.20	135.140	4,658.25	-1,625.14	2,918.85	3,195.00	2.12	0.73	-1.99	
6,940.00	90.37	135.380	4,656.96	-1,691.90	2,985.01	3,288.98	0.92	-0.88	0.26	
7,035.00	92.11	135.290	4,654.91	-1,759.45	3,051.77	3,383.95	1.83	1.83	-0.09	
7,130.00	92.01	134.910	4,651.49	-1,826.70	3,118.79	3,478.87	0.41	-0.11	-0.40	
7,224.00	91.78	134.930	4,648.38	-1,893.04	3,185.31	3,572.80	0.25	-0.24	0.02	
7,318.00	91.18	134.120	4,645.96	-1,958.93	3,252.31	3,666.73	1.07	-0.64	-0.86	
7,413.00	91.11	134.600	4,644.06	-2,025.34	3,320.21	3,761.67	0.51	-0.07	0.51	
7,507.00	90.62	134.610	4,642.64	-2,091.34	3,387.13	3,855.63	0.52	-0.52	0.01	
7,601.00	90.55	135.390	4,641.68	-2,157.80	3,453.59	3,949.60	0.83	-0.07	0.83	
7,696.00	90.01	135.830	4,641.21	-2,225.69	3,520.05	4,044.60	0.73	-0.57	0.46	
7,790.00	91.82	135.210	4,639.71	-2,292.75	3,585.90	4,138.58	2.04	1.93	-0.66	
7,884.00	91.52	134.880	4,636.97	-2,359.24	3,652.29	4,232.52	0.47	-0.32	-0.35	
7,979.00	91.01	135.380	4,634.88	-2,426.55	3,719.29	4,327.49	0.75	-0.54	0.53	
8,073.00	91.01	132.730	4,633.22	-2,491.89	3,786.83	4,421.40	2.82	0.00	-2.82	
8,168.00	90.90	134.000	4,631.64	-2,557.12	3,855.88	4,516.28	1.34	-0.12	1.34	
8,262.00	90.15	133.290	4,630.77	-2,621.99	3,923.90	4,610.19	1.10	-0.80	-0.76	
8,356.00	89.97	133.710	4,630.68	-2,686.69	3,992.09	4,704.09	0.49	-0.19	0.45	
8,450.00	89.94	134.360	4,630.75	-2,752.03	4,059.66	4,798.03	0.69	-0.03	0.69	
8,544.00	90.97	135.750	4,630.00	-2,818.56	4,126.06	4,892.01	1.84	1.10	1.48	
8,639.00	90.29	134.320	4,628.96	-2,885.77	4,193.19	4,986.98	1.67	-0.72	-1.51	
8,733.00	90.25	134.440	4,628.52	-2,951.51	4,260.37	5,080.94	0.13	-0.04	0.13	
8,827.00	90.68	135.300	4,627.75	-3,017.83	4,326.99	5,174.91	1.02	0.46	0.91	
8,921.00	89.98	132.160	4,627.21	-3,082.80	4,394.91	5,268.82	3.42	-0.74	-3.34	
9,016.00	90.41	132.340	4,626.89	-3,146.67	4,465.23	5,363.61	0.49	0.45	0.19	
9,110.00	90.39	132.260	4,626.23	-3,209.93	4,534.75	5,457.40	0.09	-0.02	-0.09	
9,204.00	91.17	132.720	4,624.95	-3,273.42	4,604.06	5,551.20	0.96	0.83	0.49	
9,299.00	88.92	134.290	4,624.88	-3,338.81	4,672.96	5,646.09	2.89	-2.37	1.65	
9,393.00	90.48	135.640	4,625.37	-3,405.24	4,739.46	5,740.07	2.19	1.66	1.44	
9,488.00	90.52	135.360	4,624.54	-3,472.99	4,806.04	5,835.06	0.30	0.04	-0.29	
9,582.00	89.50	134.340	4,624.52	-3,539.28	4,872.68	5,929.04	1.53	-1.09	-1.09	
9,677.00	90.07	134.510	4,624.88	-3,605.78	4,940.53	6,024.00	0.63	0.60	0.18	
9,771.00	90.59	134.440	4,624.34	-3,671.64	5,007.60	6,117.96	0.56	0.55	-0.07	
9,866.00	89.68	132.930	4,624.12	-3,737.25	5,076.30	6,212.87	1.86	-0.96	-1.59	
9,961.00	90.70	136.730	4,623.80	-3,804.21	5,143.66	6,307.83	4.14	1.07	4.00	
10,055.00	91.33	136.990	4,622.14	-3,872.79	5,207.92	6,401.80	0.73	0.67	0.28	
10,149.00	89.34	135.550	4,621.59	-3,940.71	5,272.90	6,495.79	2.61	-2.12	-1.53	
10,243.00	88.84	134.750	4,623.08	-4,007.34	5,339.18	6,589.77	1.00	-0.53	-0.85	
10,338.00	88.15	134.120	4,625.57	-4,073.83	5,406.99	6,684.69	0.98	-0.73	-0.66	
10,433.00	90.02	135.340	4,627.09	-4,140.67	5,474.47	6,779.65	2.35	1.97	1.28	
10,527.00	89.76	135.070	4,627.27	-4,207.38	5,540.70	6,873.64	0.40	-0.28	-0.29	
10,622.00	89.45	135.340	4,627.93	-4,274.79	5,607.63	6,968.62	0.43	-0.33	0.28	
10,716.00	89.39	136.040	4,628.88	-4,342.05	5,673.29	7,062.61	0.75	-0.06	0.74	
10,810.00	90.49	135.040	4,628.98	-4,409.14	5,739.13	7,156.61	1.58	1.17	-1.06	
10,905.00	90.31	135.290	4,628.31	-4,476.51	5,806.11	7,251.59	0.32	-0.19	0.26	



Survey Report



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #511H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Well:	Rodeo Unit #511H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

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)
10,999.00	91.34	135.030	4,626.96	-4,543.15	5,872.38	7,345.57	1.13	1.10	-0.28
11,094.00	90.94	135.010	4,625.07	-4,610.34	5,939.52	7,440.53	0.42	-0.42	-0.02
11,188.00	90.66	135.190	4,623.76	-4,676.92	6,005.86	7,534.51	0.35	-0.30	0.19
11,282.00	90.34	135.630	4,622.94	-4,743.85	6,071.85	7,628.50	0.58	-0.34	0.47
11,377.00	89.82	135.270	4,622.80	-4,811.55	6,138.50	7,723.49	0.67	-0.55	-0.38
11,471.00	91.16	135.050	4,622.00	-4,878.20	6,204.78	7,817.47	1.44	1.43	-0.23
11,566.00	90.81	135.480	4,620.37	-4,945.68	6,271.63	7,912.45	0.58	-0.37	0.45
11,660.00	89.82	134.610	4,619.85	-5,012.20	6,338.04	8,006.43	1.40	-1.05	-0.93
11,755.00	89.82	135.730	4,620.15	-5,079.57	6,405.02	8,101.42	1.18	0.00	1.18
11,849.00	89.66	135.520	4,620.58	-5,146.76	6,470.75	8,195.41	0.28	-0.17	-0.22
11,944.00	89.39	136.320	4,621.36	-5,215.00	6,536.84	8,290.41	0.89	-0.28	0.84
Survey @ 11944 MD 4621.36 TVD									
11,964.20	89.39	136.320	4,621.58	-5,229.61	6,550.79	8,310.61	0.00	0.00	0.00
LTP @ 11964.20 MD 4621.58 TVD									
11,995.00	89.39	136.320	4,621.91	-5,251.88	6,572.06	8,341.40	0.00	0.00	0.00
330 perp @ 11995 MD 4621.91 TVD									
12,047.00	89.39	136.320	4,622.46	-5,289.49	6,607.97	8,393.40	0.00	0.00	0.00
Survey proj. to 12047.00 MD 4622.46 TVD									

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
412.00	412.00	0.22	0.72	MWD surveys
2,760.00	2,610.37	-75.74	641.62	9 5/8" Casing @ 2760 MD 2610.37 TVD
5,123.66	4,627.00	-423.01	1,692.91	FTP @ 5123.66 MD 4627.00 TVD
5,143.00	4,633.38	-435.38	1,706.35	330 perp @ 5143 MD 4633.38 TVD
11,944.00	4,621.36	-5,215.00	6,536.84	Survey @ 11944 MD 4621.36 TVD
11,964.20	4,621.58	-5,229.61	6,550.79	LTP @ 11964.20 MD 4621.58 TVD
11,995.00	4,621.91	-5,251.88	6,572.06	330 perp @ 11995 MD 4621.91 TVD
12,047.00	4,622.46	-5,289.49	6,607.97	Survey proj. to 12047.00 MD 4622.46 TVD



Survey Report - Geographic



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #511H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Well:	Rodeo Unit #511H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

Project	San Juan County, New Mexico NAD83 NM W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Rodeo Unit 511 pad (511, 512 & 513)				
Site Position:		Northing:	1,888,898.347 usft	Latitude:	36.191179000
From:	Lat/Long	Easting:	2,749,215.362 usft	Longitude:	-107.744800000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.05 °

Well	Rodeo Unit #511H, Surf loc: 191 FSL 1365 FWL Section 25-T23N-R09W					
Well Position	+N/-S	0.00 ft	Northing:	1,888,898.347 usft	Latitude:	36.191179000
	+E/-W	0.00 ft	Easting:	2,749,215.362 usft	Longitude:	-107.744800000
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,798.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	11/18/2022	8.65	62.69	49,142.13436349

Design	Surveys Original Hole				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	136.096	

Survey Program	Date	12/8/2022			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
412.00	2,654.00	MWD surf (Original Hole)	MWD	OWSG MWD - Standard	
2,709.00	11,944.00	MWD (Original Hole)	MWD	OWSG MWD - Standard	
12,047.00	12,047.00	Projection (Original Hole)	MWD	OWSG MWD - Standard	

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	0.000	0.00	0.00	0.00	1,888,898.347	2,749,215.362	36.191179000	-107.744800000
412.00	0.21	72.690	412.00	0.22	0.72	1,888,898.571	2,749,216.083	36.191179615	-107.744797557
MWD surveys									
503.00	0.14	61.740	503.00	0.33	0.98	1,888,898.674	2,749,216.340	36.191179895	-107.744796685
594.00	0.09	17.630	594.00	0.45	1.10	1,888,898.794	2,749,216.459	36.191180227	-107.744796279
685.00	0.18	276.660	685.00	0.53	0.98	1,888,898.879	2,749,216.339	36.191180460	-107.744796687
776.00	0.05	287.620	776.00	0.56	0.80	1,888,898.908	2,749,216.159	36.191180539	-107.744797296
866.00	0.20	213.660	866.00	0.44	0.67	1,888,898.789	2,749,216.035	36.191180212	-107.744797718
957.00	0.32	217.480	957.00	0.11	0.43	1,888,898.455	2,749,215.792	36.191179296	-107.744798542
1,051.00	2.44	72.050	1,050.97	0.52	2.17	1,888,898.863	2,749,217.536	36.191180413	-107.744792630



Survey Report - Geographic



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #511H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Well:	Rodeo Unit #511H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,146.00	6.21	81.480	1,145.68	1.90	9.18	1,888,900.248	2,749,224.544	36.191184201	-107.744768876
1,240.00	9.26	93.820	1,238.82	2.15	21.76	1,888,900.498	2,749,237.122	36.191184854	-107.744726248
1,334.00	11.11	103.520	1,331.35	-0.47	38.11	1,888,897.876	2,749,253.476	36.191177612	-107.744670831
1,429.00	12.17	103.140	1,424.39	-4.89	56.77	1,888,893.460	2,749,272.128	36.191165433	-107.744607636
1,523.00	14.68	101.610	1,515.82	-9.54	78.09	1,888,888.810	2,749,293.447	36.191152604	-107.744535399
1,617.00	18.29	98.480	1,605.94	-14.11	104.35	1,888,884.236	2,749,319.712	36.191139974	-107.744446402
1,712.00	22.02	96.050	1,695.11	-18.19	136.82	1,888,880.159	2,749,352.178	36.191128693	-107.744336388
1,806.00	24.04	96.030	1,781.61	-22.06	173.38	1,888,876.290	2,749,388.745	36.191117972	-107.744212471
1,900.00	27.35	96.570	1,866.30	-26.54	213.89	1,888,871.807	2,749,429.249	36.191105554	-107.744075220
1,994.00	31.66	96.600	1,948.09	-31.85	259.87	1,888,866.499	2,749,475.227	36.191090855	-107.743919416
2,089.00	32.71	96.210	2,028.49	-37.49	310.15	1,888,860.856	2,749,525.513	36.191075227	-107.743749016
2,183.00	30.97	96.300	2,108.35	-42.89	359.44	1,888,855.454	2,749,574.805	36.191060263	-107.743581981
2,277.00	31.05	97.270	2,188.91	-48.61	407.53	1,888,849.733	2,749,622.892	36.191044422	-107.743419032
2,371.00	30.81	97.220	2,269.55	-54.71	455.46	1,888,843.639	2,749,670.821	36.191027562	-107.743256620
2,466.00	29.88	96.760	2,351.53	-60.55	503.10	1,888,837.796	2,749,718.458	36.191011388	-107.743095198
2,560.00	28.72	96.350	2,433.50	-65.80	548.80	1,888,832.542	2,749,764.158	36.190996837	-107.742940338
2,654.00	27.82	96.060	2,516.29	-70.62	593.06	1,888,827.728	2,749,808.417	36.190983500	-107.742790359
2,709.00	27.34	96.150	2,565.04	-73.33	618.38	1,888,825.020	2,749,833.737	36.190975996	-107.742704559
2,760.00	27.20	95.691	2,610.37	-75.74	641.62	1,888,822.610	2,749,856.978	36.190969315	-107.742625803
9 5/8" Casing @ 2760 MD 2610.37 TVD									
2,791.00	27.11	95.410	2,637.96	-77.11	655.70	1,888,821.241	2,749,871.059	36.190965519	-107.742578086
2,886.00	26.53	95.030	2,722.74	-81.01	698.38	1,888,817.340	2,749,913.743	36.190954693	-107.742433441
2,981.00	25.75	97.240	2,808.02	-85.47	739.99	1,888,812.879	2,749,955.351	36.190942331	-107.742292446
3,075.00	24.77	96.160	2,893.03	-90.15	779.83	1,888,808.193	2,749,995.187	36.190929354	-107.742157459
3,169.00	23.86	94.940	2,978.69	-93.90	818.35	1,888,804.443	2,750,033.707	36.190918952	-107.742026926
3,263.00	24.85	97.240	3,064.33	-98.03	856.88	1,888,800.316	2,750,072.244	36.190907516	-107.741896338
3,357.00	24.41	95.980	3,149.78	-102.54	895.80	1,888,795.803	2,750,111.156	36.190895018	-107.741764480
3,451.00	26.04	98.510	3,234.81	-107.62	935.52	1,888,790.726	2,750,150.883	36.190880967	-107.741629861
3,546.00	24.04	95.970	3,320.88	-112.72	975.40	1,888,785.627	2,750,190.757	36.190866856	-107.741494747
3,640.00	24.32	99.250	3,406.64	-117.82	1,013.55	1,888,780.524	2,750,228.905	36.190852738	-107.741365478
3,734.00	26.58	96.970	3,491.51	-123.49	1,053.53	1,888,774.860	2,750,268.891	36.190837074	-107.741229987
3,829.00	26.60	96.740	3,576.47	-128.56	1,095.75	1,888,769.784	2,750,311.109	36.190823022	-107.741086926
3,923.00	23.24	95.300	3,661.70	-132.75	1,135.13	1,888,765.600	2,750,350.486	36.190811424	-107.740953492
4,018.00	24.66	101.500	3,748.54	-138.43	1,173.22	1,888,759.917	2,750,388.577	36.190795711	-107.740824420
4,111.00	23.73	100.920	3,833.36	-145.84	1,210.60	1,888,752.503	2,750,425.964	36.190775249	-107.740697741
4,205.00	23.98	102.330	3,919.34	-153.51	1,247.84	1,888,744.841	2,750,463.196	36.190754102	-107.740571584
4,299.00	25.83	100.320	4,004.59	-161.25	1,286.65	1,888,737.093	2,750,502.008	36.190732715	-107.740440077
4,393.00	26.60	101.490	4,088.92	-169.11	1,327.42	1,888,729.232	2,750,542.779	36.190711013	-107.740301932
4,487.00	24.96	100.100	4,173.57	-176.79	1,367.57	1,888,721.562	2,750,582.931	36.190689835	-107.740165883
4,519.00	23.02	98.780	4,202.80	-178.92	1,380.40	1,888,719.422	2,750,595.763	36.190683924	-107.740122402
4,551.00	22.65	102.490	4,232.29	-181.21	1,392.60	1,888,717.135	2,750,607.963	36.190677607	-107.740081064
4,582.00	23.96	107.350	4,260.77	-184.38	1,404.44	1,888,713.966	2,750,619.800	36.190668872	-107.740040958
4,613.00	25.59	112.690	4,288.92	-188.84	1,416.63	1,888,709.506	2,750,631.987	36.190656587	-107.739999670
4,645.00	27.39	118.700	4,317.56	-195.04	1,429.46	1,888,703.303	2,750,644.823	36.190639514	-107.739956190
4,676.00	28.70	122.080	4,344.92	-202.42	1,442.03	1,888,695.925	2,750,657.386	36.190619212	-107.739913639
4,708.00	31.19	124.000	4,372.65	-211.14	1,455.41	1,888,687.209	2,750,670.768	36.190595234	-107.739868315
4,739.00	33.93	127.030	4,398.77	-220.84	1,468.97	1,888,677.508	2,750,684.333	36.190568546	-107.739822375
4,771.00	36.95	128.490	4,424.84	-232.21	1,483.64	1,888,666.140	2,750,698.995	36.190537281	-107.739772725
4,802.00	40.25	130.890	4,449.07	-244.57	1,498.50	1,888,653.782	2,750,713.863	36.190503290	-107.739722376
4,833.00	43.25	133.520	4,472.20	-258.44	1,513.78	1,888,639.908	2,750,729.140	36.190465138	-107.739670649
4,865.00	46.61	133.250	4,494.85	-273.96	1,530.20	1,888,624.388	2,750,745.563	36.190422459	-107.739615042
4,896.00	50.18	133.480	4,515.43	-289.87	1,547.05	1,888,608.473	2,750,762.411	36.190378695	-107.739557997
4,928.00	54.14	133.280	4,535.05	-307.23	1,565.42	1,888,591.120	2,750,780.776	36.190330976	-107.739495816
4,959.00	58.25	132.590	4,552.30	-324.77	1,584.27	1,888,573.581	2,750,799.633	36.190282743	-107.739431968
4,991.00	60.97	132.170	4,568.49	-343.37	1,604.66	1,888,554.978	2,750,820.022	36.190231585	-107.739362930



Survey Report - Geographic



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #511H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Well:	Rodeo Unit #511H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,022.00	61.01	132.260	4,583.52	-361.59	1,624.74	1,888,536.762	2,750,840.101	36.190181490	-107.739294944
5,053.00	62.19	131.950	4,598.26	-379.87	1,644.97	1,888,518.479	2,750,860.332	36.190131211	-107.739226441
5,085.00	65.60	131.630	4,612.34	-399.01	1,666.40	1,888,499.333	2,750,881.755	36.190078558	-107.739153904
5,116.00	69.00	132.480	4,624.30	-418.17	1,687.63	1,888,480.178	2,750,902.984	36.190025880	-107.739082021
5,123.66	69.77	132.541	4,627.00	-423.01	1,692.91	1,888,475.333	2,750,908.269	36.190012557	-107.739064127
FTP @ 5123.66 MD 4627.00 TVD									
5,143.00	71.71	132.692	4,633.38	-435.38	1,706.35	1,888,462.972	2,750,921.704	36.189978563	-107.739018637
330 perp @ 5143 MD 4633.38 TVD									
5,148.00	72.21	132.730	4,634.93	-438.60	1,709.84	1,888,459.747	2,750,925.198	36.189969695	-107.739006809
5,180.00	75.70	133.470	4,643.77	-459.61	1,732.29	1,888,438.736	2,750,947.648	36.189911917	-107.738930796
5,211.00	78.66	134.140	4,650.65	-480.53	1,754.10	1,888,417.815	2,750,969.459	36.189854384	-107.738856947
5,242.00	81.18	133.760	4,656.07	-501.71	1,776.07	1,888,396.634	2,750,991.432	36.189796140	-107.738782554
5,274.00	84.28	134.460	4,660.12	-523.81	1,798.86	1,888,374.542	2,751,014.220	36.189735390	-107.738705400
5,305.00	87.18	134.110	4,662.43	-545.39	1,820.99	1,888,352.960	2,751,036.348	36.189676042	-107.738630480
5,336.00	87.61	133.820	4,663.84	-566.89	1,843.28	1,888,331.461	2,751,058.637	36.189616923	-107.738555013
5,430.00	87.77	133.710	4,667.63	-631.85	1,911.11	1,888,266.494	2,751,126.467	36.189438270	-107.738325358
5,524.00	89.82	134.060	4,669.61	-697.00	1,978.84	1,888,201.350	2,751,194.197	36.189259130	-107.738096043
5,619.00	89.74	134.620	4,669.97	-763.39	2,046.78	1,888,134.954	2,751,262.141	36.189076551	-107.737866009
5,713.00	92.36	135.300	4,668.25	-829.80	2,113.28	1,888,068.550	2,751,328.638	36.188893952	-107.737640878
5,808.00	92.05	135.220	4,664.59	-897.23	2,180.10	1,888,001.121	2,751,395.458	36.188708536	-107.737414658
5,902.00	91.98	135.110	4,661.29	-963.85	2,246.34	1,887,934.503	2,751,461.693	36.188525350	-107.737190418
5,996.00	89.84	130.960	4,659.79	-1,027.97	2,315.02	1,887,870.380	2,751,530.374	36.188349010	-107.736957881
6,091.00	89.24	130.260	4,660.56	-1,089.80	2,387.13	1,887,808.547	2,751,602.491	36.188178950	-107.736713695
6,186.00	89.91	133.180	4,661.26	-1,153.01	2,458.03	1,887,745.334	2,751,673.389	36.188005105	-107.736473644
6,280.00	89.80	132.460	4,661.50	-1,216.91	2,526.98	1,887,681.443	2,751,742.336	36.187829401	-107.736240207
6,374.00	90.27	135.940	4,661.44	-1,282.43	2,594.36	1,887,615.920	2,751,809.715	36.187649216	-107.736012092
6,469.00	89.99	136.520	4,661.23	-1,351.03	2,660.08	1,887,547.319	2,751,875.432	36.187460581	-107.735789621
6,563.00	89.65	137.150	4,661.52	-1,419.59	2,724.38	1,887,478.758	2,751,939.737	36.187272058	-107.735571936
6,657.00	91.05	136.590	4,660.95	-1,488.19	2,788.64	1,887,410.160	2,752,003.997	36.187083433	-107.735354403
6,751.00	90.51	137.030	4,659.67	-1,556.72	2,852.97	1,887,341.632	2,752,068.326	36.186895003	-107.735136639
6,846.00	91.20	135.140	4,658.25	-1,625.14	2,918.85	1,887,273.208	2,752,134.207	36.186706852	-107.734913618
6,940.00	90.37	135.380	4,656.96	-1,691.90	2,985.01	1,887,206.446	2,752,200.365	36.186523265	-107.734689649
7,035.00	92.11	135.290	4,654.91	-1,759.45	3,051.77	1,887,138.898	2,752,267.128	36.186337516	-107.734463636
7,130.00	92.01	134.910	4,651.49	-1,826.70	3,118.79	1,887,071.650	2,752,334.142	36.186152590	-107.734236771
7,224.00	91.78	134.930	4,648.38	-1,893.04	3,185.31	1,887,005.311	2,752,400.667	36.185970163	-107.734011565
7,318.00	91.18	134.120	4,645.96	-1,958.93	3,252.31	1,886,939.419	2,752,467.660	36.185788963	-107.733784769
7,413.00	91.11	134.600	4,644.06	-2,025.34	3,320.21	1,886,873.012	2,752,535.567	36.185606345	-107.733554878
7,507.00	90.62	134.610	4,642.64	-2,091.34	3,387.13	1,886,807.012	2,752,602.484	36.185424846	-107.733328343
7,601.00	90.55	135.390	4,641.68	-2,157.80	3,453.59	1,886,740.548	2,752,668.948	36.185242074	-107.733103346
7,696.00	90.01	135.830	4,641.21	-2,225.69	3,520.05	1,886,672.663	2,752,735.403	36.185055397	-107.732878386
7,790.00	91.82	135.210	4,639.71	-2,292.75	3,585.90	1,886,605.606	2,752,801.253	36.184870998	-107.732655472
7,884.00	91.52	134.880	4,636.97	-2,359.24	3,652.29	1,886,539.114	2,752,867.641	36.184688149	-107.732430738
7,979.00	91.01	135.380	4,634.88	-2,426.55	3,719.29	1,886,471.804	2,752,934.646	36.184503048	-107.732203912
8,073.00	91.01	132.730	4,633.22	-2,491.89	3,786.83	1,886,406.457	2,753,002.185	36.184323340	-107.731975274
8,168.00	90.90	134.000	4,631.64	-2,557.12	3,855.88	1,886,341.237	2,753,071.238	36.184143974	-107.731741505
8,262.00	90.15	133.290	4,630.77	-2,621.99	3,923.90	1,886,276.363	2,753,139.255	36.183965563	-107.731511245
8,356.00	89.97	133.710	4,630.68	-2,686.69	3,992.09	1,886,211.658	2,753,207.440	36.183787614	-107.731280418
8,450.00	89.94	134.360	4,630.75	-2,752.03	4,059.66	1,886,146.319	2,753,275.018	36.183607927	-107.731051653
8,544.00	90.97	135.750	4,630.00	-2,818.56	4,126.06	1,886,079.792	2,753,341.417	36.183424978	-107.730826885
8,639.00	90.29	134.320	4,628.96	-2,885.77	4,193.19	1,886,012.582	2,753,408.545	36.183240150	-107.730599652
8,733.00	90.25	134.440	4,628.52	-2,951.51	4,260.37	1,885,946.838	2,753,475.728	36.183059349	-107.730372230
8,827.00	90.68	135.300	4,627.75	-3,017.83	4,326.99	1,885,880.524	2,753,542.343	36.182876983	-107.730146732
8,921.00	89.98	132.160	4,627.21	-3,082.80	4,394.91	1,885,815.556	2,753,610.258	36.182698308	-107.729916828
9,016.00	90.41	132.340	4,626.89	-3,146.67	4,465.23	1,885,751.682	2,753,680.578	36.182522633	-107.729678770
9,110.00	90.39	132.260	4,626.23	-3,209.93	4,534.75	1,885,688.420	2,753,750.101	36.182348643	-107.729443411



Survey Report - Geographic



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #511H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Well:	Rodeo Unit #511H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,204.00	91.17	132.720	4,624.95	-3,273.42	4,604.06	1,885,624.933	2,753,819.409	36.182174034	-107.729208783
9,299.00	88.92	134.290	4,624.88	-3,338.81	4,672.96	1,885,559.540	2,753,888.307	36.181994188	-107.728975553
9,393.00	90.48	135.640	4,625.37	-3,405.24	4,739.46	1,885,493.117	2,753,954.811	36.181811521	-107.728750440
9,488.00	90.52	135.360	4,624.54	-3,472.99	4,806.04	1,885,425.361	2,754,021.395	36.181625191	-107.728525062
9,582.00	89.50	134.340	4,624.52	-3,539.28	4,872.68	1,885,359.069	2,754,088.035	36.181442882	-107.728299490
9,677.00	90.07	134.510	4,624.88	-3,605.78	4,940.53	1,885,292.573	2,754,155.880	36.181260006	-107.728069837
9,771.00	90.59	134.440	4,624.34	-3,671.64	5,007.60	1,885,226.718	2,754,222.953	36.181078896	-107.727842798
9,866.00	89.68	132.930	4,624.12	-3,737.25	5,076.30	1,885,161.105	2,754,291.649	36.180898445	-107.727610259
9,961.00	90.70	136.730	4,623.80	-3,804.21	5,143.66	1,885,094.143	2,754,359.009	36.180714292	-107.727382252
10,055.00	91.33	136.990	4,622.14	-3,872.79	5,207.92	1,885,025.564	2,754,423.274	36.180525705	-107.727164741
10,149.00	89.34	135.550	4,621.59	-3,940.71	5,272.90	1,884,957.646	2,754,488.247	36.180338931	-107.726944832
10,243.00	88.84	134.750	4,623.08	-4,007.34	5,339.18	1,884,891.013	2,754,554.531	36.180155684	-107.726720472
10,338.00	88.15	134.120	4,625.57	-4,073.83	5,406.99	1,884,824.527	2,754,622.341	36.179972836	-107.726490945
10,433.00	90.02	135.340	4,627.09	-4,140.67	5,474.47	1,884,757.682	2,754,689.819	36.179789001	-107.726262545
10,527.00	89.76	135.070	4,627.27	-4,207.38	5,540.70	1,884,690.977	2,754,756.048	36.179605554	-107.726038376
10,622.00	89.45	135.340	4,627.93	-4,274.79	5,607.63	1,884,623.564	2,754,822.981	36.179420159	-107.725811828
10,716.00	89.39	136.040	4,628.88	-4,342.05	5,673.29	1,884,556.304	2,754,888.640	36.179235190	-107.725589597
10,810.00	90.49	135.040	4,628.98	-4,409.14	5,739.13	1,884,489.215	2,754,954.476	36.179050687	-107.725366763
10,905.00	90.31	135.290	4,628.31	-4,476.51	5,806.11	1,884,421.849	2,755,021.456	36.178865419	-107.725140059
10,999.00	91.34	135.030	4,626.96	-4,543.15	5,872.38	1,884,355.203	2,755,087.730	36.178682133	-107.724915743
11,094.00	90.94	135.010	4,625.07	-4,610.34	5,939.52	1,884,288.017	2,755,154.868	36.178497363	-107.724688503
11,188.00	90.66	135.190	4,623.76	-4,676.92	6,005.86	1,884,221.440	2,755,221.213	36.178314264	-107.724463948
11,282.00	90.34	135.630	4,622.94	-4,743.85	6,071.85	1,884,154.501	2,755,287.201	36.178130171	-107.724240607
11,377.00	89.82	135.270	4,622.80	-4,811.55	6,138.50	1,884,086.801	2,755,353.846	36.177943986	-107.724015043
11,471.00	91.16	135.050	4,622.00	-4,878.20	6,204.78	1,884,020.151	2,755,420.124	36.177760688	-107.723790719
11,566.00	90.81	135.480	4,620.37	-4,945.68	6,271.63	1,883,952.677	2,755,486.978	36.177575120	-107.723564450
11,660.00	89.82	134.610	4,619.85	-5,012.20	6,338.04	1,883,886.159	2,755,553.391	36.177392182	-107.723339670
11,755.00	89.82	135.730	4,620.15	-5,079.57	6,405.02	1,883,818.786	2,755,620.365	36.177206894	-107.723112994
11,849.00	89.66	135.520	4,620.58	-5,146.76	6,470.75	1,883,751.598	2,755,686.103	36.177022115	-107.722890506
11,944.00	89.39	136.320	4,621.36	-5,215.00	6,536.84	1,883,683.356	2,755,752.188	36.176834440	-107.722666849
Survey @ 11944 MD 4621.36 TVD									
11,964.20	89.39	136.320	4,621.58	-5,229.61	6,550.79	1,883,668.748	2,755,766.138	36.176794267	-107.722619637
LTP @ 11964.20 MD 4621.58 TVD									
11,995.00	89.39	136.320	4,621.91	-5,251.88	6,572.06	1,883,646.475	2,755,787.408	36.176733012	-107.722547652
330 perp @ 11995 MD 4621.91 TVD									
12,047.00	89.39	136.320	4,622.46	-5,289.49	6,607.97	1,883,608.870	2,755,823.319	36.176629596	-107.722426119
Survey proj. to 12047.00 MD 4622.46 TVD									

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
412.00	412.00	0.22	0.72	MWD surveys
2,760.00	2,610.37	-75.74	641.62	9 5/8" Casing @ 2760 MD 2610.37 TVD
5,123.66	4,627.00	-423.01	1,692.91	FTP @ 5123.66 MD 4627.00 TVD
5,143.00	4,633.38	-435.38	1,706.35	330 perp @ 5143 MD 4633.38 TVD
11,944.00	4,621.36	-5,215.00	6,536.84	Survey @ 11944 MD 4621.36 TVD
11,964.20	4,621.58	-5,229.61	6,550.79	LTP @ 11964.20 MD 4621.58 TVD
11,995.00	4,621.91	-5,251.88	6,572.06	330 perp @ 11995 MD 4621.91 TVD
12,047.00	4,622.46	-5,289.49	6,607.97	Survey proj. to 12047.00 MD 4622.46 TVD



Survey Report - Geographic



Company:	Enduring Resources LLC	Local Co-ordinate Reference:	Well Rodeo Unit #511H
Project:	San Juan County, New Mexico NAD83 NM W	TVD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Site:	Rodeo Unit 511 pad (511, 512 & 513)	MD Reference:	RKB=6798+13 @ 6813.00ft (Ensign 145)
Well:	Rodeo Unit #511H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Surveys Original Hole	Database:	DB_Decv0422v16

Checked By: _____ Approved By: _____ Date: _____

WELL NAME: **RODEO UNIT 511H**

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

API Number: 30-045-35875

State: New Mexico

County: San Juan

Surface Elev.: 6,798 ft ASL (GL) 6,811 ft ASL (KB)

Surface Location: 25-23N-09W Sec-Twn- Rng 191 ft FSL 1,365 ft FWL

BH Location: 31-23N-08W Sec-Twn- Rng 234 ft FSL 2646 ft FWL

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

South on US Hwy 550 for 37.8 miles to MM 113.4; Right (Southwest) on CR #7890 for 0.8 miles to fork; Left (South) remaining on CR #7890 for 1.3 miles to 4-way intersection; Left (Southeast) remaining on CR #7890 for 0.6 miles to fork; Right (Southwest) on CR #7890 for 1.5 miles to access road; Left on access road for 0.5 mile to Rodeo Unit 511H Pad (three wells planned to be drilled: 511H, 512H, 513H).

QUICK REFERENCE	
Sur TD (MD)	361 ft
Int TD (MD)	2,760 ft
KOP (MD)	4,620 ft
KOP (TVD)	4,303 ft
Target (TVD)	4,659 ft
Curve BUR	10 °/100 ft
POE (MD)	5,252 ft
TD (MD)	12,047ft
Lat Len (ft)	6,696 ft

WELL CONSTRUCTION SUMMARY:

	Hole (in)	TD MD (ft)	Csg (in)	Csg (lb/ft)	Csg (grade)	Csg (conn)	Csg Top (ft)	Csg Bot (ft)
Surface	17.500	361	13.375	54.5	J-55	BTC	0	361
Intermediate	12.250	2,760	9.625	36.0	J-55	LTC	0	2,760
Production	8.500	12,047	5.500	17.0	P-110	LTC	0	12,047

CEMENT PROPERTIES SUMMARY:

	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	Hole Cap. (cuft/ft)	% Excess	TOC (ft MD)	Total (sx)
Surface	TYPE III	14.6	1.39	6.686	0.6946	100%	0	350
Inter. (Lead)	10 Type III:P	12.5	2.14	12.05	0.3627	70%	0	531
Inter. (Tail)	Type III	14.6	1.38	6.64	0.3132	20%	2,248	136
Prod. (Lead)	Type I / II	12.4	2.360	13.40	0.2691	65%	0	623
Prod. (Tail)	G:POZ blend	13.3	1.560	7.70	0.2291	10%	3,892	1,301

COMPLETION / PRODUCTION SUMMARY:

Frac: 30 plug-and-perf stages with 270,000 bbls slickwater fluid and 11,000,000 lbs of proppant (estimated)

Flowback: Flow back through production tubing as pressures allow (ESP may be used for load recovery assistance)

Production: Produce through production tubing via gas-lift into permanent production and storage facilities

Tops	TVD (ft KB)	MD (ft KB)
Ojo Alamo	356	356
Kirtland	441	441
Fruitland	671	671
Pictured Cliffs	1,021	1,021
Lewis	1,146	1,146
Chacra	1,406	1,409
Cliff House	2,431	2,551
Menefee	2,466	2,591
Point Lookout	3,441	3,719
Mancos	3,591	3,892
Gallup (MNCS_A)	3,926	4,280
MNCS_B	4,031	4,401
MNCS_C	4,116	4,500
MNCS_Cms	4,156	4,546
MNCS_D	4,281	4,690
MNCS_E	4,431	4,875
MNCS_F	4,486	4,954
MNCS_G	4,556	5,071
MNCS_H	4,603	5,164
MNCS_I	4,671	5,396
FTP (LP) TARGET	4,659	5,252
LTP (TD) TARGET	4,627	11,948



ENDURING RESOURCES IV, LLC
6300 S SYRACUSE WAY, SUITE 525
CENTENNIAL, COLORADO 80211

DRILLING PLAN: *Drill, complete, and equip single lateral in the Mancos-I formation*

WELL INFORMATION:

Name: RODEO UNIT 511H
API Number: 30-045-35875
AFE Number: DV03087
ER Well Number: NM08086.01
State: New Mexico
County: San Juan
Surface Elevation: 6,798 ft ASL (GL) 6,811 ft ASL (KB)
Surface Location: 25-23N-09W Sec-Twn-Rng 191 ft FSL 1,365 ft FWL
 36.191179 ° N latitude 107.744800 ° W longitude (NAD 83)
BH Location (LTP): 31-23N-08W Sec-Twn-Rng 234 ft FSL 2,646 ft FWL
 36.176747 ° N latitude 107.722566 ° W longitude (NAD 83)
Driving Directions: **FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM:**
 South on US Hwy 550 for 37.8 miles to MM 113.4; Right (Southwest) on CR #7890 for 0.8 miles to fork; Left (South) remaining on CR #7890 for 1.3 miles to 4-way intersection; Left (Southeast) remaining on CR #7890 for 0.6 miles to fork; Right (Southwest) on CR #7890 for 1.5 miles to access road; Left on access road for 0.5 mile to Rodeo Unit 511H Pad (three wells planned to be drilled: 511H, 512H, 513H).

GEOLOGIC AND RESERVOIR INFORMATION:

<i>Prognosis:</i>	Formation Tops	TVD (ft ASL)	TVD (ft KB)	MD (ft KB)	O / G / W	Pressure
	Ojo Alamo	6,455	356	356	W	normal
	Kirtland	6,370	441	441	W	normal
	Fruitland	6,140	671	671	G, W	sub
	Pictured Cliffs	5,790	1,021	1,021	G, W	sub
	Lewis	5,665	1,146	1,146	G, W	normal
	Chacra	5,405	1,406	1,409	G, W	normal
	Cliff House	4,380	2,431	2,551	G, W	sub
	Menefee	4,345	2,466	2,591	G, W	normal
	Point Lookout	3,370	3,441	3,719	G, W	normal
	Mancos	3,220	3,591	3,892	O,G	sub (~0.38)
	Gallup (MNCS_A)	2,885	3,926	4,280	O,G	sub (~0.38)
	MNCS_B	2,780	4,031	4,401	O,G	sub (~0.38)
	MNCS_C	2,695	4,116	4,500	O,G	sub (~0.38)
	MNCS_Cms	2,655	4,156	4,546	O,G	sub (~0.38)
	MNCS_D	2,530	4,281	4,690	O,G	sub (~0.38)
	MNCS_E	2,380	4,431	4,875	O,G	sub (~0.38)
	MNCS_F	2,325	4,486	4,954	O,G	sub (~0.38)
	MNCS_G	2,255	4,556	5,071	O,G	sub (~0.38)
	MNCS_H	2,208	4,603	5,164	O,G	sub (~0.38)
	MNCS_I	2,140	4,671	5,396	O,G	sub (~0.38)
	FTP (LP) TARGET	2,152	4,659	5,252	O,G	sub (~0.38)
	LTP (TD) TARGET	2,184	4,627	11,948	O,G	sub (~0.38)

Surface: Nacimiento

Oil & Gas Zones: Several gas bearing zones will be encountered; target formation is the Gallup

Pressure: Normal (0.43 psi/ft) or sub-normal pressure gradients anticipated in all formations

Max. pressure gradient:	0.43	psi/ft	Evacuated hole gradient:	0.22	psi/ft
Maximum anticipated BH pressure, assuming maximum pressure gradient:	2,010	psi			
Maximum anticipated surface pressure, assuming partially evacuated hole:	990	psi			

Temperature: Maximum anticipated BHT is 125° F or less

H₂S INFORMATION:

H₂S Zones: Encountering hydrogen-sulfide bearing zones is **NOT** anticipated.

Safety: Sensors and alarms will be placed in the substructure, on the rig floor, above the pits, and at the shakers.

LOGGING, CORING, AND TESTING:

Mud Logs: None planned; gas detection from drill out of 13-3/8" casing to TD; remote geo-steering from drill out of 9-5/8" casing to TD.

MWD / LWD: MWD surveys with inclination and azimuth in 100' stations (minimum) from drill out of 13-3/8" casing to TD; Gamma Ray from drill out of 9-5/8" casing to TD; Gamma Ray optional in 12-1/4" intermediate hole

Open Hole Logs: None planned

Testing: None planned

Coring: None planned

Cased Hole Logs: CBL on 5-1/2" casing from deepest free-fall depth to surface

DRILLING RIG INFORMATION:

Contractor: Ensign

Rig No.: 145

Draw Works: Lewco LDS 1500K (1,000 hp)

Mast: ADR 1000 Cantilever Triple (134 ft, 500,000 lbs)

Top Drive: Tesco 350-EXI-600 (250 ton)

Prime Movers: 2 - CAT 3512 (1,350 hp), 1 -CAT C32 (1,100 hp)

Pumps: 2 - Mudder MD11 (5,000 psi)

BOPE 1: T3 Annular & Shaffer double gate ram (13-5/8", 5,000 psi)

Int Hole BOPE 2: T3 annular(13-5/8", 5,000 psi)

Prod Hole BOPE 2: T3 annular/ Townsend Double gate(11", 5,000 psi)

Choke 3", 5,000 psi

KB-GL (ft): 12.5

Note: Actual drilling rig may vary depending on availability at time the well is scheduled to be drilled.

Note: BOPE 2 are alternate stacks to be used only if problems with rig height and BOP 1 height are encountered.

Intermediate hole BOPE 2 is designed for 2,000 psi permit requirements.

BOPE REQUIREMENTS:

See attached diagram for details regarding BOPE specifications and configuration.

- 1) Rig will be equipped with upper and lower kelly cocks with handles available.
- 2) Inside BOP and TIW valves will be available to use on all sizes and threads of drill pipe used while drilling the well.
- 3) BOP accumulator will have enough capacity to open the HCR valve, close all rams and annular preventer, and retain minimum of 200 psi above precharge on the closing manifold without the use of closing pumps. The fluid reservoir capacity shall be at least double the usable fluid volume of the accumulator system capacity, and the fluid level shall be maintained at manufacturer's recommendation. There will be two additional sources of power for the closing pumps (electric and air). Sufficient nitrogen bottles will be available and will be recharged when pressure falls below manufacturer's recommended minimum.
- 4) BOP testing shall be conducted (a) when initially installed, (b) whenever any seal is broken or repaired, (c) if the time since the previous test exceeds 30 days. Tests will be conducted using a test plug. BOP ram preventers will be tested to 3,000 psig for 10 minutes, and the annular preventer will be tested to 1,500 psi for 10 minutes. Ram and annular preventers will be tested to 250 psi for 5 minutes. Additionally, BOP and casing strings will be tested to .22 psi/ft or 1,500 psi, whichever is greater but not exceeding 70% of yield strength of the casing, for 30 minutes, prior to drilling out 13-3/8" and 9-5/8" casing. Rams and hydraulically operated remote choke line valve will be function tested daily at a minimum.
- 5) Remote valve for BOP rams, HCR, and choke shall be placed in a location that is readily available to the driller. The remote BOP valve shall be capable of closing and opening the rams.
- 6) Manual locking devices (hand wheels) shall be installed on rams. A valve will be installed on the annular preventer's closing line as close as possible to the preventer to act as a locking device. The valve will be maintained in the open position and shall only be closed when there is no power to the accumulator.

FLUIDS AND SOLIDS CONTROL PROGRAM:

Fluid Measurement: Pumps shall be equipped with stroke counters with displays in the dog-house. Slow pump speed shall be recorded daily and after mudding up, at a minimum, on the drilling report. A Pit Volume Totalizer will be installed and the readout will be displayed in the dog-house. Gas-detecting equipment will be installed at the shakers, and readouts will be available in the dog-house and the in the geologist's work-station (if geologist or mud-logger is on-site).

Closed-Loop System: A fully, closed-loop system will be utilized. The system will consist of above-ground piping and above-ground storage tanks and bins. The system will not entail any earthen pits, below-grade storage, or drying pads. All equipment will be disassembled and removed from the site when drilling operations cease. The system will be capable of storing all fluids and generated cuttings and of preventing uncontrolled releases of the same. The system will be operated in an efficient manner to allow the recycling and reuse of as much fluid as possible and to minimize the amount of fluids and solids that require disposal.

Fluid Disposal: Fluids that cannot be reused, recycled, or returned to the supplier will be hauled to and disposed of at an approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.).

Solids Disposal: Drilling solids will be stored (until haul-off) on-site in separate containers with no other waste, debris, or garbage products. Waste solids will be hauled to and disposed of at an approved disposal site (Industrial Ecosystem, Inc. or Envirotech, Inc.).

Fluid Program: See "Detailed Drilling Plan" section for specifics and fluid program from Newpark. Sufficient weighting agent will be on location to weight up mud system to balance the maximum expected pressure gradient.

DETAILED DRILLING PLAN:

SURFACE: Drill vertically to casing setting depth (plus necessary rathole), run casing, cement casing to surface.

0 ft (MD)	to	350 ft (MD)	Hole Section Length:	350 ft
0 ft (TVD)	to	350 ft (TVD)	Casing Required:	350 ft

Note: Surface hole may be drilled, cased, and cemented with a smaller rig in advance of the drilling rig.

Fluid:	Type	MW (ppg)	FL (mL/30 min)	PV (cp)	YP (lb/100 sqft)	pH	Comments
	Fresh Water	8.4	N/C	2 - 8	2 - 12	9.0	Spud mud

Hole Size: 17-1/2"

Bit / Motor: Mill Tooth or PDC, no motor

MWD / Survey: No MWD, deviation survey

Logging: None

Procedure: Drill to TD. Use 12-/4" bit and open to 17-1/2" if unable to drill with 17-1/2" bit. Run inclination survey in 100' stations from TD to surface. Condition hole and fluid for casing running as required. TOOH. Run casing. Pump cement as detailed below. Monitor returns during cement job and note cement volume to surface. Install cellar and wellhead.

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	13.375	54.5	J-55	BTC	1,130	2,730	853,000	909,000
Loading					153	571	116,634	116,634
Min. S.F.					7.39	4.78	7.31	7.79

Assumptions: Collapse: fully evacuated casing with 8.4 ppg equivalent external pressure gradient

Burst: maximum anticipated surface pressure with 9.5 ppg fluid inside casing while drilling

intermediate hole and 8.4 ppg equivalent external pressure gradient

Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs): Minimum: N/A Optimum: N/A Maximum: N/A

Make-up as per API Buttress Connection running procedure.

Casing Details: Float shoe, 1 jt casing, float collar, casing to surface

Centralizers: 2 centralizers per jt stop-banded 10' from each collar on bottom 3 jts, 1 centralizer per 2 jts to surface

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	Hole Cap. (cuft/ft)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
	TYPE III	14.6	1.39	6.686	0.6946	100%	0	350

Drake Energy Services: Calculated cement volumes assume gauge hole and the excess noted in table

	Calcium Chloride	D-CD2 .2% BWOC
ASTM Type III	.5% BWOC	Dispersant/Friction
Blend	Accelerator	reducer

Tail

Notify NMOCD & BLM if cement is not circulated to surface. Cement must achieve 500 psi compressive strength before drilling out.

INTERMEDIATE: Drill as per directional plan to casing setting depth, run casing, cement casing to surface.

350 ft (MD)	to	2,748 ft (MD)	Hole Section Length:	2,398 ft
350 ft (TVD)	to	2,626 ft (TVD)	Casing Required:	2,748 ft

***TARGET CSG SHOE DEPTH IS 150' TVD BELOW MENEFFEE TOP**

Fluid:	Type	MW (ppg)	FL (mL/30 min)	PV (cp)	YP (lb/100 sqft)	pH	Comments
	LSND (KCl)	8.8 - 9.5	20	8 - 14	8 - 14	9.0 - 9.5	No OBM

Interm Hole Mud: Losses may occur around 5,400' TVD. Maintain minimum mud weights. Pre-treat with gilsonite and medium LCM products, 60% fibrous, 20% platey, 20% granular. If needed, reduce gpm

Hole Size: 12-1/4"

Bit / Motor: PDC w/mud motor

Bit / Motor (Detail): MOTOR: NOV 087840 - 7/8, 4.0, stage, 0.16 rev/gal, 1.83 DEG, 900 GPM, 950 DIFF PSIG

BIT: 5- or 6-BLADE PDC w/16 mm or 19 mm cutters, target TFA 0.65 - 1.0 max); 6 - 14s = 0.902 sq-in TFA

MWD / Survey: MWD surveys with inclination and azimuth in 100' stations (minimum), GR optional

Logging: None

Pressure Test: NU BOPE and test (as noted above); pressure test 13-3/8" casing to 1,500 psi for 30 minutes.

Procedure: Drill to TD following directional plan (20' rat-hole (MAX) past casing setting depth). Steer as needed to keep well on plan. Keep DLS < 3 deg/100' and keep slide length < 10', when possible. Take surveys every stand, at a minimum. Target flow-rates of 750 GPM (higher if able to control return rates). Minimum desired flow-rate is 650 GPM. At TD, condition hole and fluid for casing running. TOOH. Run casing using a CRT and washing / circulating as required. Land casing. ND BOPE. Walk rig to next well and perform off-line cement job, if possible. Pump cement as detailed below. Monitor returns during cement job and note cement volume to surface.

Casing Specs:		Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
Specs	9.625	36.0	J-55	LTC	2,020	3,520	564,000	453,000
Loading					1,147	1,140	186,254	186,254
Min. S.F.					1.76	3.09	3.03	2.43

Assumptions: Collapse: fully evacuated casing with 8.4 ppg equivalent external pressure gradient

Burst: maximum anticipated surface pressure with 9.5 ppg fluid inside casing while drilling

production hole and 8.4 ppg equivalent external pressure gradient

Tension: buoyed weight in 8.4 ppg fluid with 100,000 lbs over-pull

MU Torque (ft lbs): *Mininum:* 3,900 *Optimum:* 5,200 *Maximum:* 6,500

Casing Summary: Float shoe, 1 jt casing, float collar, casing to surface

Centralizers: 1 centralizers jt stop-banded 10' from float shoe on bottom 1 jt & 1 centralizer floating on bottom joint, 1 centralizer per 3 jts to surface

Cement:	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
	90:10 Type III:POZ	12.5	2.140	12.05	70%	0	531
Lead	Type III	14.6	1.380	6.64	20%	2,248	136
Tail							
Annular Capacity	0.3627	cuft/ft	9-5/8" casing x 13-3/8" casing annulus				
	0.3132	cuft/ft	9-5/8" casing x 12-1/4" hole annulus				

Drake Energy Services: Calculated cement volumes assume gauge hole and the excess noted in table

Spacer *D-Mud Breaker* SAPP

Lead	ASTM Type III 90/10 Poz	D-CSE 1 5.0% BWOC Strength Enhancer	D-MPA-1.4% BWOC Fluid Loss & Gas Migration Control	D-SA 1 1.4% BWOC Na Metasilicate	D-CD 2 .4% BWOC Dispersant	Cello Flace LCM .25 lb/sx	D-FP 1.5% BWOC Defoamer	D-R1 .5% Retarder
	ASTM Type III Blend		D-MPA-1.4% BWOC Fluid Loss & Gas Migration Control			Cello Flace LCM .25 lb/sx		

Drake Intermediate Cementing Program

Notify NMOCD & BLM if cement is not circulated to surface. Cement must achieve 500 psi compressive strength before drilling out.

PRODUCTION: *Drill to TD following directional plan, run casing, cement casing to surface.*

2,748	ft (MD)	to	11,948 ft (MD)	Hole Section Length:	9,201 ft
2,626	ft (TVD)	to	4,627 ft (TVD)	Casing Required:	11,948 ft

<i>Estimated KOP:</i>	4,620 ft (MD)	4,303 ft (TVD)
<i>Estimated Landing Point (FTP):</i>	5,252 ft (MD)	4,659 ft (TVD)
<i>Estimated Lateral Length:</i>	6,696 ft (MD)	

Fluid:	Type	MW (ppg)	FL (mL/30')	PV (cp)	YP (lb/100 sqft)	ES	OWR
	OBM	8.7 - 9.0	10 - 15	10 - 20	6 - 10	500+	80:20

Fluids / Solids Notes: Newpark OptiDrill OBM system. Ensure that drying shakers are rigged up after the rig (2nd set) of shakers. Solids control will burn retorts on cuttings samples one per tour to check % ROC. Add diesel and products as required to maintain mud in program specs. Reference Newpark's mud program for additional details. No asphalt products are to be added to the OBM system. **Any changes to the mud systems are to be discussed with engineering prior to application.**

Hole Size: 8-1/2"

Bit / Motor: PDC w/mud motor

Bit / Motor (Detail): MOTOR: NOV 077857 - 7/8, 5.7, stage, 0.23 rev/gal, 1.83 - 2.12 DEG, 750 GPM, 1,580 DIFF PSIG (or similar); on demand friction breaking device(s) as required, bottom tool spaced ~3,000' behind the bit.

BIT: 5-BLADE PDC w/16 mm - 19 mm cutters, matrix body, target TFA = 1.0 - 1.5 sq-in

MWD / Survey: MWD surveys with inclination and azimuth in 100' stations (minimum) before KOP, every joint from KOP to POE, every 100' (minimum) from POE to TD; Gamma Ray from drill out of 9-5/8" shoe to TD

Logging: MWD Gamma Ray for entire section, no mud-log or cuttings sampling, no OH WL logs

Pressure Test: NU BOPE and test (as noted above); pressure test 9-5/8" casing to 1,500 psi for 30 minutes.

Procedure: Drill to KOP following directional plan. Target flow-rate is 650 - 700 GPM. Target differential is pressure is 700 - 1,000 psig. Target ROP 500 - 600 ft/hr. Steer as needed to keep well on plan. Keep DLS < 3 deg/100' and keep slide length < 10' until KOP, when feasible. Take surveys every stand, at a minimum. Confirm landing target, planned BUR for curve, and KOP with Geology and Engineering. Drill curve following directional plan and updated landing target. Take survey every joint during curve. Land curve. Continue drilling in lateral section, steering as needed to keep well on plan and in the target window. Keep DLS < 2 deg/100' and keep slide length < 20', when feasible. Take surveys every stand, at a minimum. **Target rotating parameters / performance: flow-rate is 650 - 700 GPM, differential is pressure is 700 - 1,000 psig, ROP 500 - 600 ft/hr, torque 38K ft-lbs (MAX drill pipe MUT).** After reaching TD, perform clean-up cycle to condition hole for casing running. Spot lube as required and TOOH (ROOH, if required; should NOT be required with OBM system). Run casing as described below. Use CRT for casing running only if necessary (should NOT be required with OBM). Verify make up torque when running casing. Space out casing getting the toe sleeve as close to LTP as possible. Land casing and test pack-off. Open floatation sub, fill casing, and circulate as required. Nipple down BOPE, walk rig to next well, and perform off-line cement job (unless on final well on the pad). Pump cement as detailed below. Note cement volume circulated to surface.

Casing Specs:								
	Size (in)	Wt (lb/ft)	Grade	Conn.	Collapse (psi)	Burst (psi)	Tens. Body (lbs)	Tens. Conn (lbs)
<i>Specs</i>	5.500	20.0	HCP-110	TCBC-HT	12,200	12,360	641,000	667,000

Loading	2,286	8,933	406,201	406,201
Min. S.F.	5.34	1.38	1.58	1.64

Assumptions: Collapse: fully evacuated casing with 9.5 ppq fluid in the annulus (floating casing during running)

Burst: 8,500 psi maximum surface treating pressure with 10.2 ppg equivalent mud weight sand laden fluid with 8.4 ppg equivalent external pressure gradient

Tension: buoyed weight in 9.0 ppq fluid with 200,000 lbs over-pull

MU Torque (ft lbs):	Minumum:	10,000	Optimum:	13,500	Maximum:	18,500
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Casing Summary: Float shoe, 1 float collar, 1 jt casing, float collar, 20' marker joint, toe-initiation sleeve, casing to KOP with 20' marker joints spaced evenly in lateral every ~2,000', floatation sub at KOP (+/-), casing to surface. The toe-initiation sleeve shall be placed no closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the the azimuth of the well. **Note: the LTP is the maximum depth of the toe sleeve and is noted on the Well Plan. Drill past the LTP as required for necessary rat-hole and shoe-track length to place the toe sleeve as close to (but not past) the planned LTP as possible.**

Centralizers: Centralizer count and placement may be adjusted based on well conditions and as-drilled surveys (**ARSENAL**)

Lateral and Curve: 1 centralizer per 3 joints

Top of curve to 9-5/8" shoe: 1 centralizer per 5 joints

9-5/8" shoe to surface: 1 centralizer per 5 joints

	Type	Weight (ppg)	Yield (cuft/sk)	Water (gal/sk)	% Excess	Planned TOC (ft MD)	Total Cmt (sx)
Cement:	IntegraGuard						
Spacer	EZ II LCM	11		30.7 gpb			60 bbls
Lead	Type I / II	12.4	2.360	13.40	65%	0	623
Tail	G:POZ blend	13.3	1.560	7.70	10%	3.892	1.301

Annular Capacity	0.2691	cuft/ft	5-1/2" casing x 9-5/8" casing annulus
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0.2291 cuft/ft 5-1/2" casing x 8-1/2" hole annulus

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

Calculated cement volumes assume gauge hole and no excess noted in table							
Spacer	Cmt, Fly Ash 170.903 lbs/bbl	Avis 616 viscosifier 11.6 lb/bbl	FP24 Defoamer .5 lb/bbl	Plus 3K LCM 15 lb/bbl	SS201 Surfactant 1 gal/bbl	IntegraGuard Star	
Lead	ASTM Type I/II	BA90 Bonding Agent 5.0 lb/sx	Bentonite Viscosifier 8% BWOB	FL24 Fluid Loss .5% BWOB	GW86 Viscosifier .1% BWOB	IntegraSeal Poli LCM .25 lb/sx	R7C Retarder .2% BWOB
							FP24 Defoamer 0.3% BWOB, Anti- Static .01 lb/sx R3 Retarder .5% BWOB
Tail	Type G 50%	Pozzolan Fly Ash Extender 50%	BA90 Bonding Agent 3.0 lb/sx	Bentonite Viscosifier 4% BWOB	FL24 Fluid Loss .4% BWOB	IntegraGuard GW86 Viscosifier .1% BWOB	IntegraSeal Poli LCM .25 lb/sx
							BWOB Defoamer .3% BWOB

American Cementing Liner & Production Blend

Notify NMOCD & BLM if cement is not circulated to surface.

Note: This well will not be considered an unorthodox well location as defined by NMAC 19.15.16.15.C.5. As defined in NMAC 19.15.16.15.C.1.a and 19.15.16.15.C.1.b, no point in the completed interval shall be closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the azimuth well. The boundaries of the completed interval, as defined by NMAC 19.15.16.7.B, are the last take point and first take point, as defined by NMAC 19.15.16.7.E and NMAC 19.15.16.7.J, respectively. In the case of this well, the last take point will be the bottom toe-initiation sleeve, and the first take point will be the top perforation. **Neither the toe-initiation sleeve nor the top perforation shall be closer to the unit boundary than 100' measured along the azimuth of the well or 330' measured perpendicular to the azimuth of the well.**

FINISH WELL: ND BOP, RDMO Drilling Rig.

Procedure: ND BOP. Walk rig to next well. Cement off-line. Cap well.

COMPLETION AND PRODUCTION PLAN:

Frac: 30 plug-and-perf stages with 270,000 bbls slickwater fluid and 11,000,000 lbs of proppant (estimated)

Flowback: Flow back through production tubing as pressures allow (ESP may be used for load recovery assistance)

Production: Produce through production tubing via gas-lift into permanent production and storage facilities

ESTIMATED START DATES:

Drilling: 7/1/2022

Completion: 8/15/2022

Production: 9/29/2022

Prepared by: Alec Bridge 4/17/2019

Updated by: Alec Bridge 3/31/2022 - updated drilling prog & directional plans for new development plan & current program

Greg Olson 10/17/2022 - updated drilling prog & directional plans for new development plan & current program

WELL NAME: **RODEO UNIT 511H**

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

API Number: 30-045-35875

State: New Mexico

County: San Juan

Surface Elev.: 6,798 ft ASL (GL) 6,811 ft ASL (KB)

Surface Location: 25-23N-09W Sec-Twn- Rng 191 ft FSL 1,365 ft FWL

BH Location: 31-23N-08W Sec-Twn- Rng 234 ft FSL 2646 ft FWL

Driving Directions: **FROM THE INTERSECTION OF US HWY 550 & US HWY 64 IN BLOOMFIELD, NM:**
South on US Hwy 550 for 37.8 miles to MM 113.4; Right (Southwest) on CR #7890 for 0.8 miles to fork; Left (South) remaining on CR #7890 for 1.3 miles to 4-way intersection; Left (Southeast) remaining on CR #7890 for 0.6 miles to fork; Right (Southwest) on CR #7890 for 1.5 miles to access road; Left on access road for 0.5 mile to Rodeo Unit 511H Pad (three wells planned to be drilled: 511H, 512H, 513H).

QUICK REFERENCE	
Sur TD (MD)	350 ft
Int TD (MD)	2,748 ft
KOP (MD)	4,620 ft
KOP (TVD)	4,303 ft
Target (TVD)	4,659 ft
Curve BUR	10 °/100 ft
POE (MD)	5,252 ft
TD (MD)	11,948 ft
Lat Len (ft)	6,696 ft

WELL CONSTRUCTION SUMMARY:

	Hole (in)	TD MD (ft)	Csg (in)	Csg (lb/ft)	Csg (grade)	Csg (conn)	Csg Top (ft)	Csg Bot (ft)
Surface	17.500	350	13.375	54.5	J-55	BTC	0	350
Intermediate	12.250	2,748	9.625	36.0	J-55	LTC	0	2,748
Production	8.500	11,948	5.500	20.0	HCP-110	TCBC-HT	0	11,948

CEMENT PROPERTIES SUMMARY:

	Type	Wt (ppg)	Yd (cuft/sk)	Wtr (gal/sk)	Hole Cap. (cuft/ft)	% Excess	TOC (ft MD)	Total (sx)
Surface	TYPE III	14.6	1.39	6.686	0.6946	100%	0	350
Inter. (Lead)	10 Type III:P	12.5	2.14	12.05	0.3627	70%	0	531
Inter. (Tail)	Type III	14.6	1.38	6.64	0.3132	20%	2,248	136
Prod. (Lead)	Type I / II	12.4	2.360	13.40	0.2691	65%	0	623
Prod. (Tail)	G:POZ blend	13.3	1.560	7.70	0.2291	10%	3,892	1,301

COMPLETION / PRODUCTION SUMMARY:

Frac: 30 plug-and-perf stages with 270,000 bbls slickwater fluid and 11,000,000 lbs of proppant (estimated)

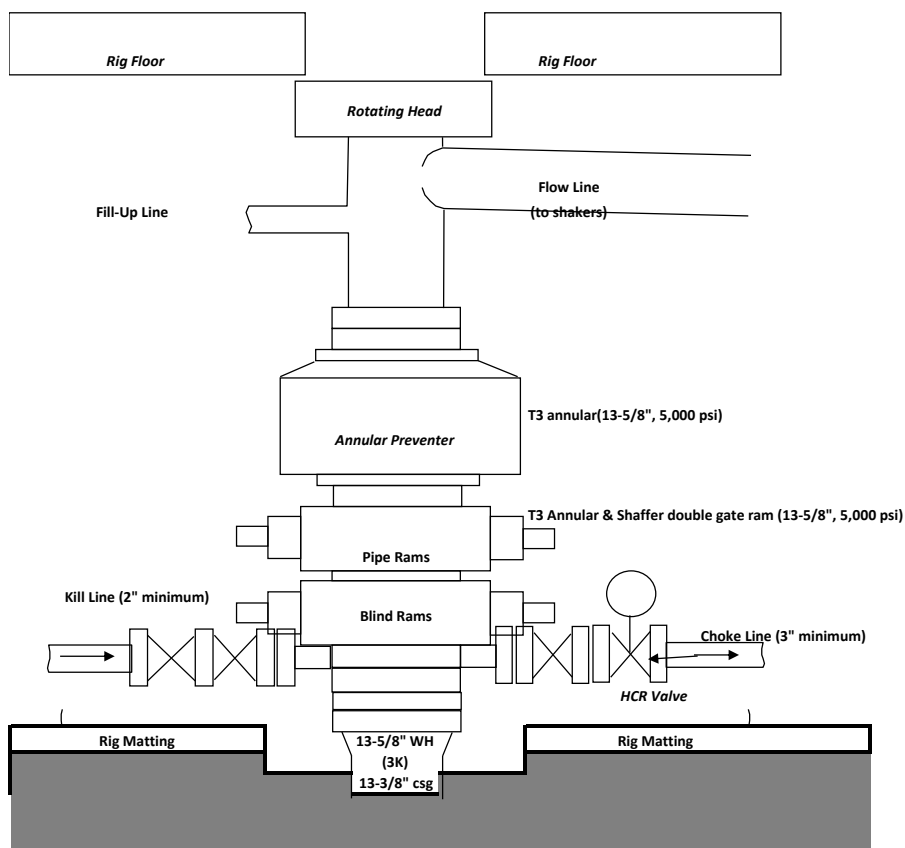
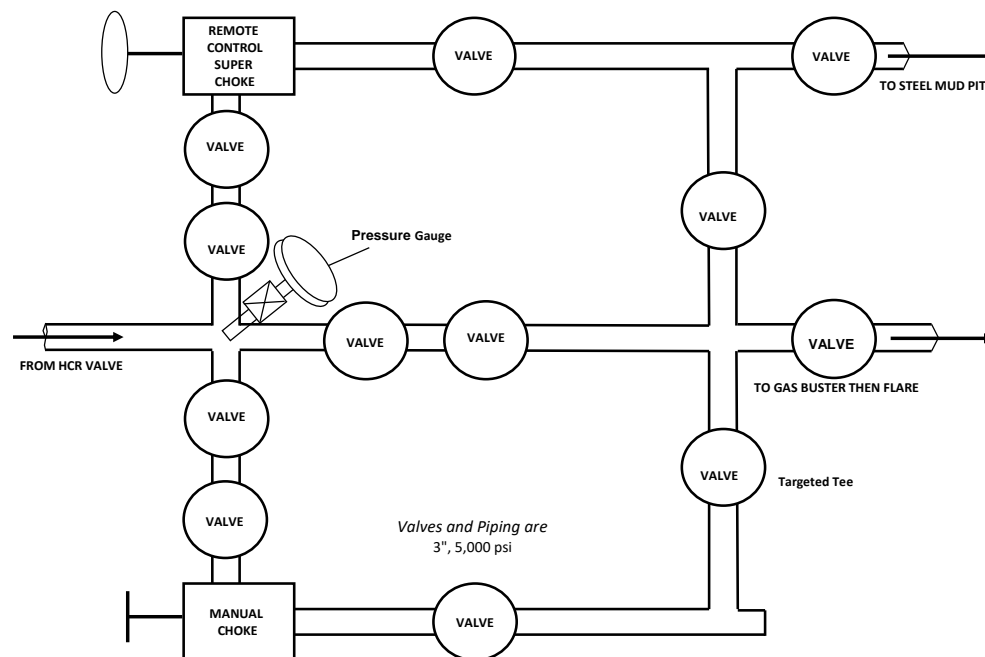
Flowback: Flow back through production tubing as pressures allow (ESP may be used for load recovery assistance)

Production: Produce through production tubing via gas-lift into permanent production and storage facilities

Tops	TVD (ft KB)	MD (ft KB)
Ojo Alamo	356	356
Kirtland	441	441
Fruitland	671	671
Pictured Cliffs	1,021	1,021
Lewis	1,146	1,146
Chacra	1,406	1,409
Cliff House	2,431	2,551
Menefee	2,466	2,591
Point Lookout	3,441	3,719
Mancos	3,591	3,892
Gallup (MNCS_A)	3,926	4,280
MNCS_B	4,031	4,401
MNCS_C	4,116	4,500
MNCS_Cms	4,156	4,546
MNCS_D	4,281	4,690
MNCS_E	4,431	4,875
MNCS_F	4,486	4,954
MNCS_G	4,556	5,071
MNCS_H	4,603	5,164
MNCS_I	4,671	5,396
FTP (LP) TARGET	4,659	5,252
LTP (TD) TARGET	4,627	11,948

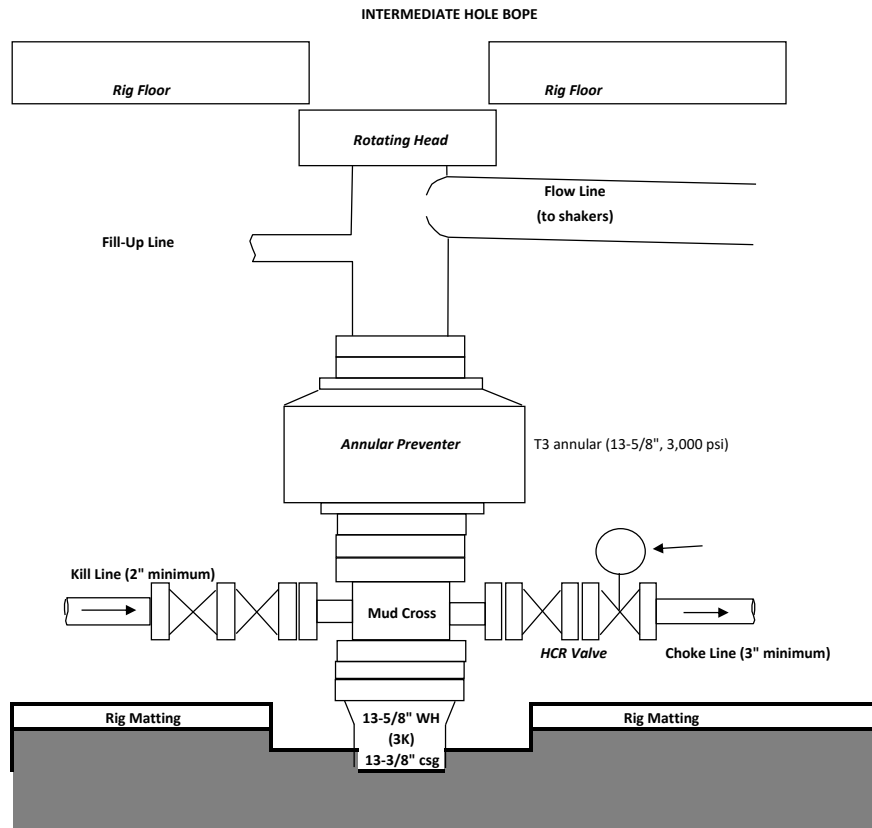
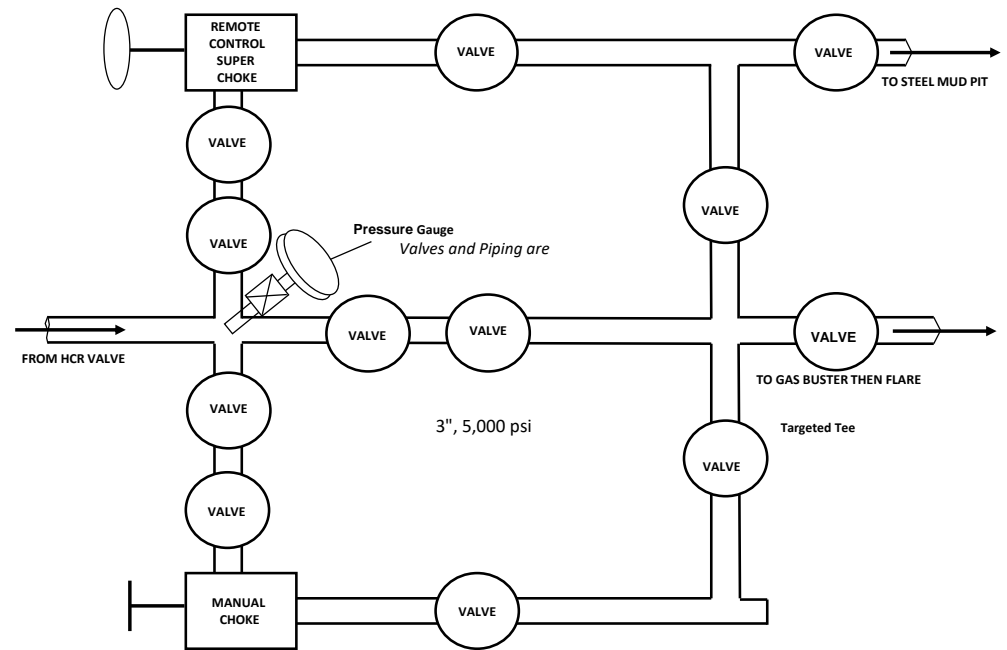
BOPE & CHOKE MANIFOLD DIAGRAMS

NOTE: EXACT BOPE AND CHOKE CONFIGURATION AND COMPONENTS MAY DIFFER FROM WHAT IS DEPICTED IN THE DIGRAMS BELOW DEPENDING ON THE RIG AND ITS ASSOCIATED EQUIPMENT. RAM PREVENTERS, ANNULAR PREVENTERS, AND CHOKE MANIFOLD AND COMPONENTS WILL BE RATED TO 3,000 PSI MINIMUM.

BOPE**CHOKE MANIFOLD**

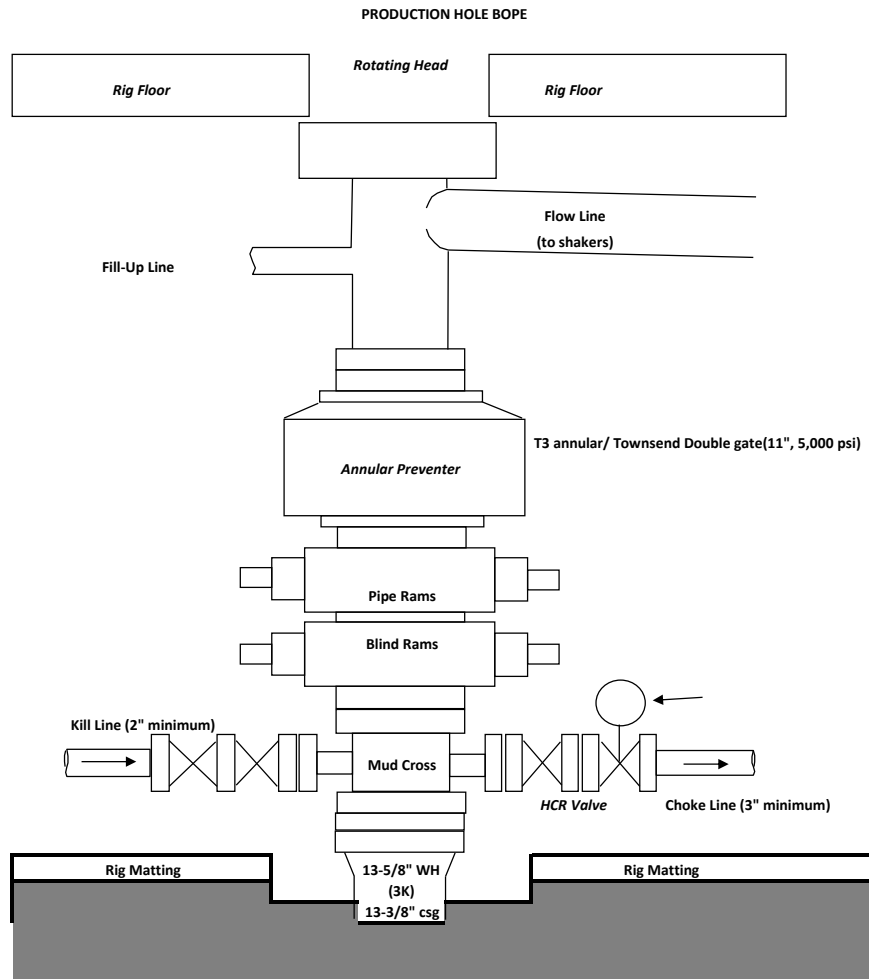
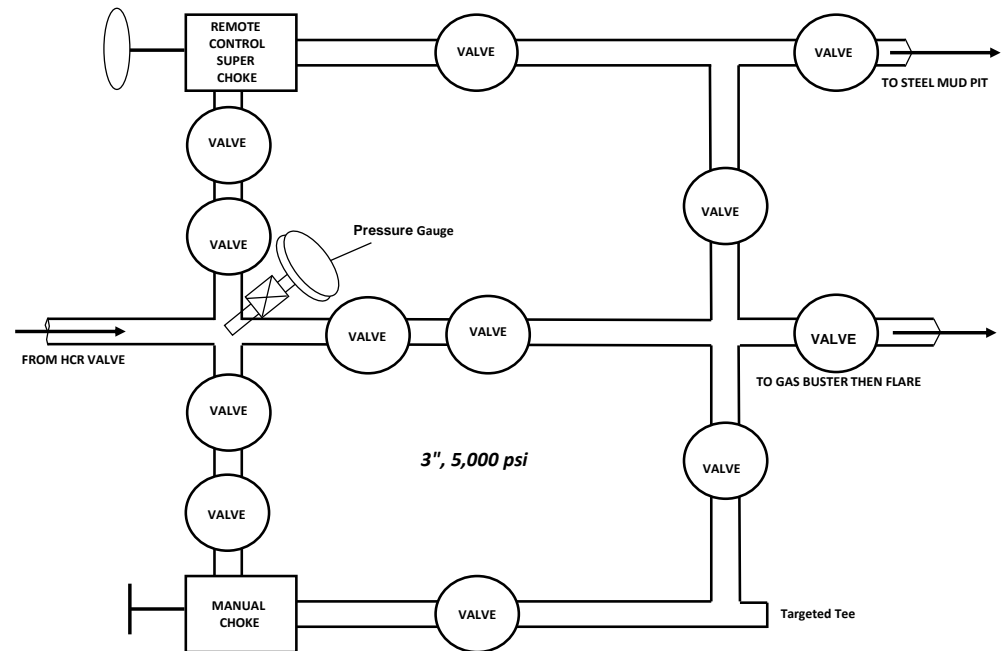
ALTERNATE, INTERMEDIATE HOLE ONLY, BOPE & CHOKE MANIFOLD DIAGRAMS

NOTE: EXACT BOPE AND CHOKE CONFIGURATION AND COMPONENTS MAY DIFFER FROM WHAT IS DEPICTED IN THE DIGRAMS BELOW DEPENDING ON THE RIG AND ITS ASSOCIATED EQUIPMENT. RAM PREVENTERS, ANNULAR PREVENTERS, AND CHOKE MANIFOLD AND COMPONENTS WILL BE RATED TO 2,000 PSI MINIMUM. THIS BOPE SETUP IS AN ALTERNATE ONLY, DESIGNED FOR ANY POSSIBLE FUTURE DRILLING RIG WITH SUBSTRUCTURE HEIGHT THAT IS TOO SHORT TO ACCOMADATE A FULL 13-5/8" 3,000 PSI BOP STACK

BOPE**CHOKE MANIFOLD**

ALTERNATE, PRODUCTION HOLE ONLY, BOPE & CHOKE MANIFOLD DIAGRAMS

NOTE: EXACT BOPE AND CHOKE CONFIGURATION AND COMPONENTS MAY DIFFER FROM WHAT IS DEPICTED IN THE DIGRAMS BELOW DEPENDING ON THE RIG AND ITS ASSOCIATED EQUIPMENT. RAM PREVENTERS, ANNULAR PREVENTERS, AND CHOKE MANIFOLD AND COMPONENTS WILL BE RATED TO 3,000 PSI MINIMUM. THIS BOPE SETUP IS AN ALTERNATE ONLY, DESIGNED FOR ANY POSSIBLE FUTURE DRILLING RIG WITH SUBSTRUCTURE HEIGHT THAT IS TOO SHORT TO ACCOMADATE A FULL 13-5/8" 3,000 PSI BOP STACK

BOPE**CHOKE MANIFOLD**

WELL NAME: RODEO UNIT 511H
API NUMBER: 30-045-35875
AFE NUMBER: DVO3087
ER WELL NUMBER: NM08086.01
WELL LOCATION: 191 ft FSL & 1365 ft FWL 25-23N-09W
AFE SUMMARY: Drill, complete, and equip single lateral in the Mancos-I formation
TD (FT MD): 11,948
LAT LEN (FT MD): 6,696

DRILLING SUMMARY
Drill Surface: *Mo-Te will pre-drill surface hole*
Prep hole for casing, run 13-3/8" casing, cement casing: Mo-Te will pre-set surface casing
MIRU Drilling Rig to pad (mob rate)
Walk Rig, NU BOPE, TIH w/BHA (operating rate)
Drill Intmerediate to casing point (into Menefee)
Prep hole for casing, run 9-5/8" casing, cement casing, walk rig for production section, NU BOPE, PU BHA & TIH
Drill to KOP
Drill Curve to landing point
Drill lateral to TD
Prep hole for casing, run 5-1/2" casing, cement casing

	Sec. Days	Cum. Drig. Days	Ttl. Dep. (ft MD)	Sec. Ftg. (ft MD)	Avg. ROP (ft/day)
Drill Surface:	0.50	0.50	350	350	700
Surface Casing:	0.50	1.00	350	N/A	N/A
MIRU:	0.00	0.00	300	N/A	N/A
Test & PU BHA:	0.75	0.00	350	N/A	N/A
Drill Intermediate:	0.75	0.75	2,748	2397.5	3197
Inter. Casing:	1.50	2.25	2,748	N/A	N/A
Drill Veritcal:	0.50	2.75	4,620	1872.5	3745
Drill Curve:	0.75	3.50	5,252	632	843
Drill Lateral:	1.75	5.25	11,948	6696	3826
Prod Casing:	1.50	6.75	11,948	N/A	N/A
DO SURF TO RR:		6.75			
TOTAL BIG RIG DAYS:		7.50		(Total Operating Rate Days)	
TOTAL BIG RIG DAYS:		7.50		(Total Days Operating + Mobilization)	

795H is first well on pad

CODE 1	CODE 2	COST DESCRIPTION & DETAILS	RATE & QUANTITY DETAILS						ITEM	CODE
			Rate	units	Count	desc.	Count	desc.	SUBTOTAL	TOTAL
830	10	IDC - PERMITS & SURVEYS								\$58,500
		Permits w/BLM & NMOCD	\$10,000	\$/ea	1	ea			\$10,000	
		Air Quality Management Services	\$4,000	\$/ea	1	ea			\$4,000	
		NEPA Services	\$3,000	\$/ea	1	ea			\$3,000	
		Archaeology	\$1,500	\$/ea	1	ea			\$1,500	
		Survey & Mapping	\$20,000	\$/ea	1	ea			\$20,000	
		ROW & SUA	\$20,000	\$/ea	1	ea			\$20,000	
830	15	IDC - CONDUCTOR/RAT/MOUSE HOLE								\$9,000
		install cellar w/Adobe (8' diameter x 8' deep & backfilled to no more than 6' deep after WH is installed)	\$5,000	\$/ea	1	ea			\$5,000	
		Drill Mousehole w/MOTE	\$4,000	\$/ea	1	ea			\$4,000	
830	20	IDC - DRILLING TITLE OPINION								\$0
		N/A							\$0	
830	30	IDC - LOCATION AND ROADS								\$45,000
		Build pad & access road (\$150,000 pad total, split evenly between CTB & D&C AFEs)	\$75,000	\$/pad	3	wells			\$25,000	
		Interim reclamation	\$60,000	\$/pad	3	wells			\$20,000	
830	50	IDC - RIG MOBILIZATION								\$98,400
		mobilize rig from W Lybrook Unit 726H Pad	\$200,000	\$/mob	1	mob	3	wells	\$66,667	
		mobilize other rig equipment (camps, solids control, drill pipe, etc.)	\$95,000	\$/mob	1	mob	3	wells	\$31,667	
830	60	IDC - DAYRATE DRILLING								\$228,600
		Ensign 145 (mobilization rate - 85% op rate)	\$17,850	\$/day	2.0	days			\$35,700	
		Ensign 145 (operating - \$18,600/day + \$2400/day 6th man)	\$21,000	\$/day	7.50	days			\$157,500	
		Ensign 145 (crew per diem - \$35/day + tax)	\$35	\$/day/man	7.50	days	13	men	\$3,413	
		Ensign Edge drilling software (\$600/day - used + tax)	\$600	\$/day	7.50	days			\$4,500	
		Forklift + Manlift (\$380/day + tax)	\$380	\$/day	7.50	days			\$2,850	
		Ensign 145 (OBM pay) = \$400/day + \$35/day/man, 8.5 section only	\$35	\$/day/man	4.50	days	13	men	\$4,005	
		drill pipe credit	\$0	\$/day	7.50	days			\$0	
		Boiler (winter only)	\$750	\$/day	7.50	days			\$5,625	
830	65	IDC - FISHING SERVICES								\$0
		N/A							\$0	
830	70	IDC - FOOTAGE DRILLING								\$28,000
		Mo-Te to drill surface hole & set surface casing	\$28,000	\$/ea	1	ea			\$28,000	
830	75	IDC - DIRECTIONAL SERVICES								\$122,500
		MWD & DD operating charges: including motor rentals	\$11,000	\$/day	7.50	days			\$82,500	
		MWD & DD operating charges: standby	\$5,000	\$/day	1.0	day			\$5,000	
		Other charges: trucking, inspections, battery disposal, motor inspections / relines, well planning, etc	\$35,000	\$/ea	1	ea			\$35,000	
830	90	IDC - BITS								\$25,000
		12-1/4" bit rental	\$12,500	\$/ea	1	ea			\$12,500	
		8-1/2" bit rental	\$12,500	\$/ea	1	ea			\$12,500	
830	92	IDC - MOTORS/AGITATORS								\$20,000
		third party motor rentals	\$15,000	\$/run	0	runs			\$0	
		motor re-lines & inspections	\$6,000	\$/ea	0	ea			\$0	
		agitator rentals & inspection	\$20,000	\$/ea	1	ea			\$20,000	
830	95	IDC - BRINE MUD, CHEM & TRUCK								\$14,000
		20% KCl base fluid + trucking	\$40.00	\$/bbl	350	bbls			\$14,000	
830	100	IDC - MUD & CHEMICALS								\$28,800
		engineer	\$5,000	\$/day	3.00	days			\$15,000	
		mud products	\$5	\$/ft	2748	ft			\$13,738	
830	105	IDC - OILBASE MUD, CHEM & TRUCKING								\$115,200
		mud products (not including lubricant) & mud engineer	\$8,000	\$/day	4.25	days			\$34,000	
		add'l chem usage	\$6.00	\$/ft	4,320	ft			\$25,920	
		diesel make up for OBM	1.50	gal/ lat ft	6696	ft	\$5.50	gal	\$55,242	
830	106	IDC - MUD HANDLING EQUIP RENTAL								\$45,400
		solids control package & mud storage (equipment, personnel, materials)	\$4,200	\$/day	7.50	days			\$31,500	
		mud storage tanks & cuttings bins	\$1,500	\$/day	7.50	days			\$11,250	
		solids control loader	\$350	\$/day	7.50	days			\$2,625	
830	110	IDC - FUEL & POWER								\$165,000
		Rig Diesel (operating)	\$5.50	\$/gal	3,500	gal/day	7.50	days	\$144,375	
		Boiler diesel	\$5.50	\$/day	500	gal/day	7.50	days	\$20,625	
		Rig Diesel (mobilization)	\$5.50	\$/gal	1,000	gal	0.0	days	\$0	
830	120	IDC - RIG WATER								\$29,900
		Water for cement jobs & rig (including trucking)	\$5.00	\$/bbl	0.50	bbls/ft	11948.0	ft	\$29,870	
830	121	IDC - WATER FOR DRILLING FLUIDS								\$0
		all charged to 830.120							\$0	
830	130	IDC - CEMENT & CEMENT SERVICES								\$197,700
		13-3/8" casing cement job	\$36,000	\$/job					\$36,000	
		9-5/8" casing cement job	\$50,000	\$/job					\$50,000	
		5-1/2" casing cement job	\$40,000	\$/job	\$6.00	\$/ft	11,948	ft	\$111,688	
830	135	IDC - CASING CREW/SERVICES								\$54,400
		Run 13-3/8" casing	\$4,500	\$/job	1	job			\$4,500	
		Rack, clean, drift 9-5/8" casing	\$1.50	\$/ft	2,748	ft			\$4,121	
		Run 9-5/8" casing + CRT rental	\$2.50	\$/ft	2,748	ft			\$6,869	
		9-5/8" CRT	\$6,000	\$/job	1	job			\$6,000	
		Rack, clean, drift 5-1/2" casing	\$0.50	\$/ft	11,948	ft			\$5,974	
		Run 5-1/2" casing	\$1.25	\$/ft	11,948	ft			\$14,935	
		5-1/2" CRT & Torque Turn	\$12,000	\$/job	1	job			\$12,000	
830	140	IDC - OPEN HOLE LOGS								\$0
		N/A							\$0	
830	160	IDC - CORING								\$0
		N/A							\$0	
830	165	IDC - WELDING								\$0
		N/A							\$0	
830	180	IDC - RENTAL EQUIPMENT								\$28,500
		misc surface rentals (pipe racks, light towers, flare stack, etc.)	\$1,500	\$/day	7.50	days			\$11,250	
		Loader	\$300	\$/day	7.50	days			\$2,250	
		BOPE	\$900	\$/day	7.50	days			\$6,750	
		Pason PVT equipment	\$1,100	\$/day	7.50	days			\$8,250	
830	181	IDC - DRILL STRING RENTAL								\$31,100
		5" HWDP Drill-pipe (intermediate section only)	\$350	\$/day	3.0	days			\$1,050	
		5" Drill-Pipe rental	\$2,000	\$/day	7.50	days			\$15,000	

		Inspection / repair / recut (DP rental included in rig's day rate)	\$15,000	\$/well	1	well		\$15,000	
830	183	IDC - BOPE RENTALS							\$3,800
		Rotating Head Rental + rubbers	\$150	\$/day	7.50	days	\$1,500	\$/well	\$2,625
		Choke & flare	\$150	\$/day	7.50	days			\$1,125
830	190	IDC - TRANSPORTATION							\$10,000
		misc. transporation & hot shot							\$5,000
		transport rig camp, drill pipe, mud handling equipment							\$5,000
830	200	IDC - COMMUNICATIONS							\$2,400
		internet for rig	\$150	\$/day	7.5	days			\$1,125
		hand-held radios, phones, printer/scanner/fax	\$170	\$/day	7.5	days			\$1,275
830	210	IDC - CONTRACT LABOR							\$41,700
		drilling consultant	\$1,850	\$/ea/day	7.50	days	2	ea.	\$27,750
		drilling superintendent	\$1,850	\$/ea/day	7.50	days	1	ea.	\$13,875
830	215	IDC - CREW QUARTERS							\$9,400
		trailer houses (includes servicing) for on-site personnel	\$1,250	\$/day/ea	7.50	days			\$9,375
830	220	IDC - CONSULTING ENGINEER							\$0
		Moblize Drilling Analytics	\$0	\$/day/ea	7.50	days			\$0
830	230	IDC - CONSULTING GEOLOGIST							\$1,800
		TD Geo Steering	\$600	\$/day/ea	3.00	days			\$1,800
830	260	IDC - MISCELLANEOUS							\$20,000
		pit cleaning, other misc services							\$20,000
830	270	IDC - PLUGGING & ABANDONMENT							\$0
		N/A							\$0
830	280	IDC - SURFACE DAMAGES							\$0
		N/A							\$0
830	310	IDC - LAYDOWN MACHINE							\$0
		N/A							\$0
830	320	IDC - NU/ND/BOP TEST/WH SERV.							\$20,000
		BOP test	\$5,000	\$/test	2	tests			\$10,000
		Service tech to land 9-5/8" and 5-1/2" casings	\$5,000	\$/job	2	jobs			\$10,000
830	330	IDC - GYRO							\$0

		N/A								\$0	
830	480	IDC - CUTTINGS DISPOSAL								\$61,900	
		dispose of cuttings (including dillution of high chlorides & OBM Charges)	\$20.00	\$/yd	592	yds				\$11,831	
		trucking & truck clean outs	\$1,250	\$/load	40	loads				\$50,000	
830	481	IDC - LIQUIDS DISPOSAL								\$16,300	
		dispose of fluids (including dillution of high chlorides)	\$20.00	\$/bbl	500	bbls				\$10,000	
		trucking & truck clean outs	\$1,250	\$/load	5	loads				\$6,250	
830	482	IDC - OTHER DISPOSAL								\$12,300	
		dispose of cement returns	\$14.00	\$/bbl	250	bbls				\$3,500	
			\$1,250	\$/load	3	loads				\$3,750	
		Other misc disposal (trash, etc.)								\$5,000	
830	290	IDC - CONTINGENCIES								\$0	
		0%								\$0	
830 INTANGIBLE DRILLING COSTS TOTAL										\$1,544,600	
850	10	TDC - CONDUCTOR PIPE								\$0	
		none								\$0	
850	20	TDC - SURFACE CASING								\$30,900	
		13-3/8", 54.5#, J55, STC casing	\$82.00	\$/ft	350	ft				\$28,700	
850	25	TDC - INTERMEDIATE CASING								\$156,600	
		9-5/8", 36.0#, J-55, LTC casing	\$53.00	\$/ft	2,748	ft				\$145,618	
850	30	TDC - LINERS								\$0	
		N/A								\$0	
850	40	TDC - PRODUCTION CASING								\$556,900	
		5-1/2", 20.0#, P110, GBCD	\$43.00	\$/ft	11,948	ft				\$513,764	
		marker jts	\$780.00	\$/ea	5.0	ea				\$4,251	
850	50	TDC - CASING HEADS & SPOOLS								\$65,000	
		13-3/8" x 9-5/8" x 5-1/2" (Antelope Uni-Head assembly)	\$65,000	\$/ea	1	ea				\$65,000	
850	60	TDC - LINERS & HANGERS								\$0	
		N/A								\$0	
850	90	TDC - MISCELLANEOUS EQUIPMENT								\$0	
		N/A								\$0	
850	100	TDC - FLOAT EQUIPMENT								\$50,000	
		13-3/8" float equipment	\$3,000	\$/ea	1	ea				\$3,000	
		13-3/8" centralizers (average 1 per jt)	\$65	\$/ea	8	ea				\$520	
		9-5/8" float equipment	\$1,500	\$/ea	1	ea				\$1,500	
		9-5/8" centralizers (average 1 per jt)	\$50	\$/ea	70	ea				\$3,500	
		5-1/2" centralizers (average 1 per jt)	\$40	\$/ea	280	ea				\$11,200	
		5-1/2" toe-initiation sleeve	\$10,000	\$/ea	1	ea				\$10,000	
		5-1/2" float equipment	\$5,200	\$/ea	1	ea				\$5,200	
		5-1/2" casing floatation sub	\$10,000	\$/ea	1	ea				\$10,000	
		service tech for toe sleeves & floatation sub	\$5,000	\$/ea	1	ea				\$5,000	
850	13	TDC - CONTINGENCIES								\$0	
		0%								\$0	
850 TANGIBLE DRILLING COSTS TOTAL										\$859,400	
840	30	ICC - LOCATION & ROADS								\$6,000	
1		Traffic control during frac operations + 3 days	\$1,000	\$/day	6	days				\$6,000	
840	50	ICC - RIG MOBILIZATION								\$16,000	
		mob running production	\$4,000	\$/mob	1	mob				\$4,000	
		AD 980 mobilization	\$60,000	\$/day	1	mob		5	wells	\$12,000	
840	55	ICC - COMPLETION RIG								\$118,500	
		Run production (well Service Rig)	\$4,500	\$/day	1	days				\$4,500	
		Drill out plugs (AD 980) 15 plugs / day + 2 days (\$14K/day + ancillary charges)	\$18,750	\$/day	4	days				\$75,000	
		Drill out (AD 980), mob time (3 days first/last well, 1 day middle wells)	\$13,000	\$/day	3	days				\$39,000	
840	70	ICC - FISHING SERVICES								\$0	
		none								\$0	
840	90	ICC - TANK RENTAL								\$31,700	
1		mob and de-mob frac tanks	\$25,000	\$/pad	5	wells				\$5,000	
1		AST trucking, install, rental (rental per tank per pad)	\$60,000	\$/tank	2	tanks		5	wells	\$24,000	
0.5		tank rental during pre frac, frac, drill-out (7 days between frac & drill-out)	\$500	\$/day	27.0	days		5	wells	\$2,700	
840	100	ICC - WIRELINE SERVICES								\$121,800	
1		perforate & set frac plugs	\$4,200	\$/stage	29	stages				\$121,800	
840	110	ICC - FUEL & POWER								\$193,800	
		Diesel fuel for AD 980	\$3.50	\$/gal	2,000	gal/day		7	days	\$49,000	
1		Diesel fuel for frac spread (8,000 gal/day)	\$3.50	\$/gal	8,000	gal/day		3	days	\$84,000	
		Diesel for camp equipment	\$3.50	\$/gal	300	gal/day		46	days	\$48,300	
1		frac shack fuel distribution	\$4,150	\$/day	3	days				\$12,450	
840	120	ICC - WATER/HAULING								\$814,200	
1		Water for frac (frac pond)	\$2.52	\$/bbl	9,000	bbl/stage		29	stages	\$657,720	
1		Water transfer pre-frac (equipment, pumps, line)	\$15,000	\$/day	10	days/pad		5	wells/pad	\$30,000	
1		Vac truck rental on pad (during frac)	\$2,650	\$/day	3	days/pad				\$7,950	
1		Water transfer during frac (equipment, pumps, line)	\$23,000	\$/day	10	stg/day		3	days*	\$69,000	
1		Water transfer during flowback (equipment, pumps, line)	\$15,000	\$/day	14	days		5	wells/pad	\$42,000	
		Water for drill-outs (frac pond / WSW)	\$2.52	\$/bbl	1,000	bbls/well		1	well	\$2,520	
1		Fresh water for testing lay-flat (includes trucking)	\$5.00	\$/bbl	5,000	bbls		5	wells/pad	\$5,000	
840	150	ICC - DIRT WORK								\$0	
		none								\$0	
840	160	ICC - WELDING								\$0	
		none								\$0	
840	170	ICC - FIELD SUPERVISOR								\$74,000	
1		well site supervisor (pre-frac)	\$1,850	\$/day	2	ea.		3	days	\$11,100	
1		well site supervisor (frac)	\$1,850	\$/day	4	ea.		3	days	\$22,200	
		well-site supervisor consultant & superintendent (drill-out)	\$1,850	\$/day	3	ea.		7	days	\$38,850	
		well-site supervisor (run production)	\$1,850	\$/day	1	ea.		1	days	\$1,850	
840	180	ICC - RENTAL EQUIPMENT								\$141,400	
		Motors, bits, tools, personnel for cleanout BHA (daily rental)	\$2,500	\$/day	4	days				\$10,000	
		Motors, bits, tools, personnel for cleanout BHA (repair, redress, mileage, other one-time charges)	\$15,000	\$/well	1	well				\$15,000	
		Agitator Rental	\$18,000	\$/ea	0	ea				\$0	
		HZT pipe rental	\$3,500	\$/day	4	days				\$14,000	
		solids control equipment, tanks, & transfer pumps during drillout	\$3,000	\$/day	7	days				\$21,000	
		Other misc rentals for drill-out ops (light plants, BOPE, containment, loader, Pason EDR, valves, etc.)	\$5,500	\$/day	7	days				\$38,500	
1		Other rentals for frac, water transfer, flowback ops (light towers, forklift, porta-potty, etc.)	\$5,500	\$/day	39	days		5	wells/pad	\$42,900	
840	181	ICC - FRAC HD RENTALS & SERVICE								\$64,500	
1		Frac head, valve, zipper manifold, greasing (frac + 3 days)	\$16,500	\$/day	3	days				\$49,500	
1		Frac head, valve, zipper manifold - Repairs & damages	\$15,000	\$/well	1	well				\$15,000	
840	184	ICC - FOAM/NITROGEN UNITS								\$0	
		None								\$0	
840	185	ICC - RENTAL PUMP EQUIPMENT								\$0	
		None								\$0	
840	190	ICC - TRANSPORTATION								\$0	
		None - use 840.420								\$0	
840	200	ICC - COMMUNICATION								\$1,900	
0.33		Internet and communications	\$200	\$/day	46	days		5	wells/pad	\$1,840	
840	210	ICC - CONTRACT LABOR								\$24,300	
1		Operate Transfer Pumps & Monitor Lay-Flat (pre-frac & frac & post frac)	\$2,000	\$/day	39	days		5	wells/pad	\$15,600	
		WH Techs for landing tbg hangers	\$1,200	\$/job	1	job				\$1,200	
		Misc. labor for wellhead hook-ups, etc	\$7,500	\$/job	1	job				\$7,500	
840	215	ICC - CREW QUARTERS								\$6,900	
0.33		Housing & Offices	\$750	\$/day	46	days		5	wells/pad	\$6,900	
840	260	ICC - MISCELLANEOUS								\$0	
		None								\$0	
840	310	ICC - CTU / SWAB UNIT								\$0	
1		None								\$0	

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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 180353

CONDITIONS

Operator: ENDURING RESOURCES, LLC 6300 S Syracuse Way, Suite 525 Centennial, CO 80111	OGRID: 372286
	Action Number: 180353
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Adhere to previous NMOCD Conditions of Approval	1/27/2023