<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720 District III 1000 Rio Brazos Rd., Aztec, NM 87410

Phone:(505) 334-6178 Fax:(505) 334-6170 **District IV**

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

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

Form C-101 August 1, 2011

Permit 337411

APPLICATION FOR PERMIT TO DRIL	., RE-ENTER, DEEPEN	I, PLUGBACK	, OR ADD A ZONE
--------------------------------	---------------------	-------------	-----------------

	Operator Name and Address	2. OGRID Number	
	Permian Resources Operating, LLC	372165	
	1001 17th Street, Suite 1800	3. API Number	
	Denver, CO 80202		30-015-53764
Ī	4. Property Code	5. Property Name	6. Well No.
	333978	RED EAGLE 18 STATE COM	133H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
Р	18	19S	28E	Р	531	S	215	E	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
J	13	19S	27E	J	2310	S	2646	E	Eddy

9. Pool Information

WINCHESTE	R; WOLFCAMP, NORTHWEST	97044

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3528
16. Multiple	17. Proposed Depth	18. Formation	19. Contractor	20. Spud Date
N	16338	3rd Bone Spring Sand		9/18/2023
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☑ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	164	170	0
Int1	12.25	9.625	40	2850	1321	0
Prod	7.875	5.5	20	16338	1074	0
Prod	8.75	5.5	20	8838	1024	0

Casing/Cement Program: Additional Comments

Drilling 8.75-hole size for the curve and 7.875-hole size for the lateral for the 5.5 production casing string.

22. Proposed Blowout Prevention Program

ZZ: 1 Toposou Biomout 1 Togram											
Type	Working Pressure	Test Pressure	Manufacturer								
Pipe	10000	5000	Cameron								

knowledge and	belief. I have complied with 19.15.14.9 (A)	true and complete to the best of my NMAC ☑ and/or 19.15.14.9 (B) NMAC		OIL CONSE	ERVATION DIVISION
Printed Name:	Electronically filed by Sarah Ferr	eyros	Approved By:	John Harrison	
Title:	e: Regulatory Manager			Petroleum Specialist	A
Email Address:	ail Address: Sarah.Ferreyros@permianres.com			5/2/2023	Expiration Date: 5/2/2025
Date:	4/19/2023	Conditions of Apr	proval Attached	•	

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720

District II

811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 <u>District III</u>

1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 <u>District IV</u>

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

State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

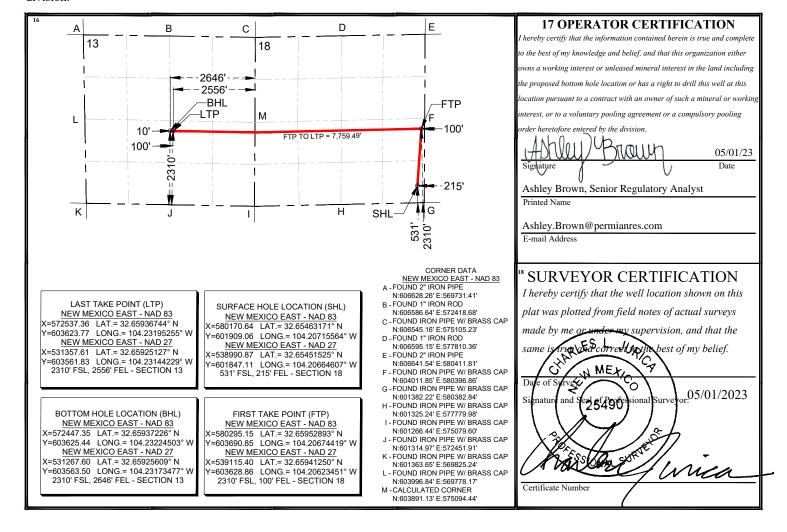
WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-015-53764		2 Pool Code 97044	ГНWEST
4 Property Code 333978		6 Well Number 133H	
7 OGRID No. 372165		8 O _l PERMIAN RESO	9 Elevation 3528.56'

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
P	18	19-S	28-E		531'	SOUTH	215'	EAST	EDDY
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
J	13	19-S	27-E		2310'	SOUTH	2646'	EAST	EDDY
12 Dedicated Acres 13 Joint or Infill 14 Consolidation Code 15 Order No.									
242.00									

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



Form APD Conditions

Permit 337411

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240

Phone: (575) 393-6161 Fax: (575) 393-0720 <u>District II</u>

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

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

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

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

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
Permian Resources Operating, LLC [372165]	30-015-53764
1001 17th Street, Suite 1800	Well:
Denver, CO 80202	RED EAGLE 18 STATE COM #133H

OCD Reviewer	Condition
john.harrison	Notify OCD 24 hours prior to casing & cement
john.harrison	Will require a File As Drilled C-102 and a Directional Survey with the C-104
	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
john.harrison	Cement is required to circulate on both surface and intermediate1 strings of casing
	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
john.harrison	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description Effective May 25, 2021

I. Operator: Permian Resources Operating, LLC OGRID: 372165 Date: 4/13/2023

II. Type: ■ Original \square Amendment due to \square 19.15.27.9.D(6)(a) NMAC \square 19.15.27.9.D(6)(b) NMAC \square Other.

If Other, please describe:

III. Well(s): Provide the be recompleted from a s					wells pi	roposed to	be dri	lled or proposed to			
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D			P	Anticipated Produced Water BBL/D			
Red Eagle 18 State Com 133H		P-18-19S-28E	531FSL&215FEL	771 BBL/D	2121	MCF/D	2	466 BBL/D			
Red Eagle 18 State Com 134H		P-18-19S-28E	531FSL&185FEL	771 BBL/D	2121	MCF/D	2	466 BBL/D			
IV. Central Delivery Point Name: Red Eagle CDP [See 19.15.27.9(D)(1) NMAC] V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.											
Well Name	API	Spud Date	TD Reached Date	Completion Commencement		Initial Flow Back Date		First Production Date			
Red Eagle 18 State Com 133H		8/25/2023	9/07/2023	10/26/2023		11/02/20)23	11/02/2023			
Red Eagle 18 State Com 134H		8/13/2023	8/25/2023	10/26/2023		11/02/20	023	11/02/2023			
VI. Separation Equipment: ■ Attach a complete description of how Operator will size separation equipment to optimize gas capture. VII. Operational Practices: ■ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC. VIII. Best Management Practices: ■ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.											

Page 6

Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

E segment or portion of the natural gas and the control of the natural gas oduction volume from the well prior of the control	NCCs).		
Operator System . Map. Attach an accurate and eduction operations to the existing exegment or portion of the natural gas oduction volume from the well priority. The natural gas oduction volume from the well priority and gas gathering system(s) descriptions. Attach Operator's plan to manage	(NCCS).		
. Map. □ Attach an accurate and oduction operations to the existing a segment or portion of the natural gallocation volume from the well prior of the Pressure. Operator □ docural gas gathering system(s) described the Attach Operator's plan to manage	(11003):		
e segment or portion of the existing e segment or portion of the natural and a segment or portion of the natural gas oduction volume from the well prior of the existing system. Operator determined by the existing system of the existing system of the existing system of the existing system of the existing system.	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in
ural gas gathering system(s) desc Attach Operator's plan to manage	or planned interconnect of t gas gathering system(s) to gathering system will [the natural gas gathering system which the well(s) will be conn will not have capacity to ga	m(s), and the maximum daily capacity
		• • • • • • • • • • • • • • • • • • • •	ed to the same segment, or portion, of t line pressure caused by the new well(s
	production in response to t	the increased line pressure.	
· ·	asserts confidentiality purs		A 1978 for the information provided all description of the specific information

(i)

Section 3 - Certifications Effective May 25, 2021

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

■ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or ☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. If Operator checks this box, Operator will select one of the following: Well Shut-In.

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

Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including: power generation on lease; (a) power generation for grid; **(b)** compression on lease; (c) (d) liquids removal on lease: reinjection for underground storage; (e) reinjection for temporary storage; **(f)** reinjection for enhanced oil recovery; (g) fuel cell production; and (h)

Section 4 - Notices

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

other alternative beneficial uses approved by the division.

- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- (b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

Page 8

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

Signature: Jackson Taylor									
Printed Name: Jackson Taylor									
Title: Director of Marketing									
E-mail Address:									
Date:									
Phone:									
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)									
Approved By:									
Title:									
Approval Date:									
Conditions of Approval:									

Permian Resources Operating, LLC (372165)

Natural Gas Management Plan Descriptions

VI. Separation Equipment:

Permian utilizes a production forecast from our Reservoir Engineering team to appropriately size each permanent, 3-phase separator and heater treater utilized for production operations. Our goal is to maintain 5 minutes of retention time in the test vessel and 20 minutes in the heater treater at peak production rates. The gas produced is routed from the separator to the gas sales line.

VII. Operational Practices:

Drilling

During Permian's drilling operations it is uncommon for venting or flaring to occur. If flaring is needed due to safety concerns, gas will be routed to a flare and volumes will be estimated.

Flowback

During completion/recompletion flowback operations, after separation flowback begins and as soon as it is technically feasible, Permian routes gas though a permanent separator and the controlled facility where the gas is either sold or flared through a high-pressure flare if needed.

Production

Per 19.15.27.8.D, Permian's facilities are designed to minimize waste. Our produced gas will only be vented or flared in an emergency or malfunction situation, except as allowed for normal operations noted in 19.15.27.8.D(2) & (4). All gas that is flared is metered. All gas that may be vented will be estimated.

Performance Standards

Permian utilizes a production forecast from our Reservoir Engineering team to appropriately size each permanent, 3-phase separator and heater treater utilized for production operations.

All of Permian's permanent storage tanks associated with production operations which are routed to a flare or control device are equipped with an automatic gauging system.

All of Permian's flare stacks, both currently installed and for future installation, are:

- 1) Appropriately sized and designed to ensure proper combustion efficiency.
- 2) Equipped with an automatic ignitor or continuous pilot.
- 3) Anchored and located at least 100 feet from the well and storage tanks.

Permian's field operations and HSE teams have implemented an AVO inspection schedule that adheres to the requirements of 19.15.27.8.E(5).

All of our operations and facilities are designed to minimize waste. We routinely employ the following methods and practices:

- Closed-loop systems
- Enclosed and properly sized tanks

Permian Resources Operating, LLC (372165)

- Vapor recovery units to maximize recovery of low-pressure gas streams and potential unauthorized emissions
- Low-emitting or electric engines whenever practical
- Combustors and flare stacks in the event of a malfunction or emergency
- Routine facility inspections to identify leaking components, functioning control devices, such as flares and combustors, and repair / replacement of malfunctioning components where applicable

Measurement or estimation

Permian measures or estimates the volumes of natural gas vented, flared and/or beneficially used for all of our drilling, completing and producing wells. We utilize accepted industry standards and methodology which can be independently verified. Annual GOR testing is completed on our wells and will be submitted as required by the OCD. None of our equipment is designed to allow diversion around metering elements except during inspection, maintenance and repair operations.

VIII. Best Management Practices:

Permian utilizes the following BMPs to minimize venting during active and planned maintenance activities:

- Use a closed-loop process wherever possible during planned maintenance activities, such as blowdowns, liquid removal, and work over operations.
- Employ low-emitting or electric engines for equipment, such as compressors
- Adhere to a strict preventative maintenance program which includes routine facility inspections, identification of component malfunctions, and repairing or replacing components such as hatches, seals, valves, etc. where applicable
- Utilize vapor recovery units (VRU's) to maximize recovery of volumes of low-pressure gas streams and potential unauthorized emissions
- Route low pressure gas and emissions streams to a combustion device to prevent venting where necessary



NEW MEXICO

(SP) EDDY RED EAGLE RED EAGLE 18 ST COM 133H

OWB

Plan: PWP0

Standard Planning Report - Geographic

23 March, 2023



Planning Report - Geographic

Database: Compass
Company: NEW MEXICO
Project: (SP) EDDY
Site: RED EAGLE

Well: RED EAGLE 18 ST COM 133H

Wellbore: OWB
Design: PWP0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well RED EAGLE 18 ST COM 133H

GL @ 3528.5usft GL @ 3528.5usft

Grid

Minimum Curvature

Project (SP) EDDY

Map System: Geo Datum:

Map Zone:

US State Plane 1983 North American Datum 1983 New Mexico Eastern Zone System Datum:

Mean Sea Level

Site RED EAGLE

601,909.06 usft Northing: Site Position: Latitude: 32° 39' 16.674 N 580,170.64 usft 104° 12' 25.760 W Мар Easting: From: Longitude: Slot Radius: 13-3/16 " 0.07 **Position Uncertainty:** 0.0 usft **Grid Convergence:**

Well RED EAGLE 18 ST COM 133H

 Well Position
 +N/-S
 0.0 usft
 Northing:
 601,909.06 usft
 Latitude:
 32° 39' 16.674 N

 +E/-W
 0.0 usft
 Easting:
 580,170.64 usft
 Longitude:
 104° 12' 25.760 W

 Position Uncertainty
 0.0 usft
 Wellhead Elevation:
 Ground Level:
 3,528.5 usft

OWB Wellbore Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (°) (°) (nT) 60.53 48,979.92396798 IGRF200510 12/31/2009 8.07

PWP0 Design Audit Notes: Version: Phase: **PROTOTYPE** Tie On Depth: 0.0 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 0.0 0.0 0.0 282.53

Plan Survey Tool Program Date 3/23/2023

Depth From Depth To (usft) (usft)

(usft) Survey (Wellbore)

y (Wellbore) Tool Name Remarks

0.0 16,338.1 PWP0 (OWB) MWD+IFR1+MS

OWSG_Rev2_ MWD + IFR1 +

Plan Sections Measured Vertical Dogleg Ruild Turn +N/-S Depth Inclination Azimuth Depth +E/-W Rate Rate Rate TFO (usft) (°) (°) (usft) (usft) (usft) (°/100usft) (°/100usft) (°/100usft) Target (°) 0.0 0.00 0.00 0.0 0.0 0.0 0.00 0.00 0.00 0.00 2,000.0 0.00 0.00 2,000.0 0.0 0.0 0.00 0.00 0.00 0.00 2.750.0 15.00 8.00 2.741.5 96.7 13.6 2.00 2.00 0.00 8.00 8,100.0 15.00 8.00 7,909.2 1,467.9 206.3 0.000.00 0.00 0.00 8,838.1 90.00 283.50 8,359.0 1,695.9 -229.8 12.00 10.16 -11.45 -84.69 9,537.8 90.00 269.51 8,359.0 1,775.0 -923.2 2.00 0.00 -2.00 -90.00 16,338.1 90.00 269.51 8,359.0 1,716.4 -7,723.3 0.00 0.00 0.00 0.00 RED EAGLE 18 ST C



Planning Report - Geographic

Database: Compass

Company: NEW MEXICO
Project: (SP) EDDY
Site: RED EAGLE

Well: RED EAGLE 18 ST COM 133H

Wellbore: OWB
Design: PWP0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well RED EAGLE 18 ST COM 133H

GL @ 3528.5usft GL @ 3528.5usft

Grid

Planned Survey	,								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N	104° 12' 25.760 W
100.0	0.00	0.00	100.0	0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N	104° 12' 25.760 W
200.0	0.00	0.00	200.0	0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N	104° 12' 25.760 W
300.0	0.00	0.00	300.0	0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N	104° 12' 25.760 W
400.0 500.0	0.00	0.00 0.00	400.0 500.0	0.0 0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N 32° 39' 16.674 N	104° 12' 25.760 W
600.0	0.00	0.00	600.0	0.0	0.0 0.0	601,909.06 601,909.06	580,170.64 580,170.64	32° 39′ 16.674 N	104° 12' 25.760 W 104° 12' 25.760 W
700.0	0.00	0.00	700.0	0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N	104° 12' 25.760 W
800.0	0.00	0.00	800.0	0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N	104° 12' 25.760 W
900.0	0.00	0.00	900.0	0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N	104° 12' 25.760 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N	104° 12' 25.760 W
1,100.0	0.00	0.00	1,100.0	0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N	104° 12' 25.760 W
1,200.0	0.00	0.00	1,200.0	0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N	104° 12' 25.760 W
1,300.0	0.00	0.00	1,300.0	0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N	104° 12' 25.760 W
1,400.0	0.00	0.00	1,400.0	0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N	104° 12' 25.760 W
1,500.0	0.00	0.00	1,500.0	0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N	104° 12' 25.760 W
1,600.0	0.00	0.00	1,600.0	0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N	104° 12' 25.760 W
1,700.0	0.00	0.00	1,700.0	0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N	104° 12' 25.760 W
1,800.0	0.00	0.00	1,800.0	0.0	0.0	601,909.06	580,170.64	32° 39' 16.674 N	104° 12' 25.760 W
1,900.0 2,000.0	0.00	0.00 0.00	1,900.0 2,000.0	0.0 0.0	0.0 0.0	601,909.06 601,909.06	580,170.64 580,170.64	32° 39' 16.674 N 32° 39' 16.674 N	104° 12' 25.760 W 104° 12' 25.760 W
2,100.0	2.00	8.00	2,000.0	1.7	0.0	601,910.79	580,170.89	32° 39' 16.691 N	104° 12' 25.757 W
2,200.0	4.00	8.00	2,100.0	6.9	1.0	601,915.97	580,171.61	32° 39' 16.743 N	104° 12' 25.749 W
2,300.0	6.00	8.00	2,199.5	15.5	2.2	601,924.60	580,171.83	32° 39' 16.828 N	104° 12' 25.745 W
2,400.0	8.00	8.00	2,398.7	27.6	3.9	601,936.67	580,174.52	32° 39' 16.947 N	104° 12' 25.715 W
2,500.0	10.00	8.00	2,497.5	43.1	6.1	601,952.16	580,176.70	32° 39' 17.101 N	104° 12' 25.689 W
2,600.0	12.00	8.00	2,595.6	62.0	8.7	601,971.06	580,179.36	32° 39' 17.287 N	104° 12' 25.658 W
2,700.0	14.00	8.00	2,693.1	84.3	11.8	601,993.33	580,182.49	32° 39' 17.508 N	104° 12' 25.621 W
2,750.0	15.00	8.00	2,741.5	96.7	13.6	602,005.73	580,184.23	32° 39' 17.631 N	104° 12' 25.600 W
2,800.0	15.00	8.00	2,789.8	109.5	15.4	602,018.54	580,186.03	32° 39' 17.757 N	104° 12' 25.579 W
2,900.0	15.00	8.00	2,886.4	135.1	19.0	602,044.17	580,189.63	32° 39' 18.011 N	104° 12' 25.536 W
3,000.0	15.00	8.00	2,982.9	160.7	22.6	602,069.80	580,193.23	32° 39' 18.264 N	104° 12' 25.494 W
3,100.0	15.00	8.00	3,079.5	186.4	26.2	602,095.43	580,196.84	32° 39' 18.518 N	104° 12' 25.451 W
3,200.0	15.00	8.00	3,176.1	212.0	29.8	602,121.06	580,200.44	32° 39' 18.772 N	104° 12' 25.409 W
3,300.0	15.00	8.00	3,272.7	237.6	33.4	602,146.69	580,204.04	32° 39' 19.025 N	104° 12' 25.366 W
3,400.0	15.00	8.00	3,369.3	263.3 288.9	37.0	602,172.32	580,207.64	32° 39' 19.279 N	104° 12' 25.324 W
3,500.0 3,600.0	15.00 15.00	8.00 8.00	3,465.9 3,562.5	314.5	40.6 44.2	602,197.95 602,223.58	580,211.24 580,214.85	32° 39' 19.532 N 32° 39' 19.786 N	104° 12' 25.281 W 104° 12' 25.239 W
3,700.0	15.00	8.00	3,659.1	340.2	44.2 47.8	602,249.21	580,218.45	32° 39' 20.039 N	104° 12' 25.239 W
3,800.0	15.00	8.00	3,755.7	365.8	51.4	602,274.84	580,222.05	32° 39' 20.293 N	104° 12' 25.154 W
3,900.0	15.00	8.00	3,852.3	391.4	55.0	602,300.47	580,225.65	32° 39' 20.547 N	104° 12' 25.111 W
4,000.0	15.00	8.00	3,948.9	417.0	58.6	602,326.10	580,229.25	32° 39' 20.800 N	104° 12' 25.069 W
4,100.0	15.00	8.00	4,045.5	442.7	62.2	602,351.73	580,232.86	32° 39' 21.054 N	104° 12' 25.026 W
4,200.0	15.00	8.00	4,142.1	468.3	65.8	602,377.36	580,236.46	32° 39' 21.307 N	104° 12' 24.984 W
4,300.0	15.00	8.00	4,238.6	493.9	69.4	602,402.99	580,240.06	32° 39' 21.561 N	104° 12' 24.941 W
4,400.0	15.00	8.00	4,335.2	519.6	73.0	602,428.62	580,243.66	32° 39' 21.815 N	104° 12' 24.899 W
4,500.0	15.00	8.00	4,431.8	545.2	76.6	602,454.25	580,247.26	32° 39' 22.068 N	104° 12' 24.856 W
4,600.0	15.00	8.00	4,528.4	570.8	80.2	602,479.88	580,250.87	32° 39' 22.322 N	104° 12' 24.814 W
4,700.0	15.00	8.00	4,625.0	596.5	83.8	602,505.51	580,254.47	32° 39' 22.575 N	104° 12' 24.771 W
4,800.0	15.00	8.00	4,721.6	622.1	87.4	602,531.14	580,258.07	32° 39' 22.829 N	104° 12' 24.729 W
4,900.0	15.00	8.00	4,818.2	647.7	91.0	602,556.77	580,261.67	32° 39' 23.082 N	104° 12' 24.687 W
5,000.0	15.00	8.00	4,914.8 5.011.4	673.3	94.6	602,582.40	580,265.27	32° 39' 23.336 N	104° 12' 24.644 W
5,100.0 5,200.0	15.00 15.00	8.00 8.00	5,011.4 5,108.0	699.0 724.6	98.2 101.8	602,608.03 602,633.66	580,268.88 580,272.48	32° 39' 23.590 N 32° 39' 23.843 N	104° 12' 24.602 W 104° 12' 24.559 W
5,300.0	15.00 15.00	8.00	5,108.0 5,204.6	724.6 750.2	101.6	602,659.29	580,276.08	32° 39' 24.097 N	104° 12′ 24.539 W
5,300.0	10.00	0.00	J,ZU4.U	100.2	103.4	002,008.28	JUU,Z1 U.U0	UL UU 24.UUI IN	107 12 24.311 W



Planning Report - Geographic

Database: Compass

Company: NEW MEXICO
Project: (SP) EDDY
Site: RED EAGLE

Well: RED EAGLE 18 ST COM 133H

Wellbore: OWB
Design: PWP0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well RED EAGLE 18 ST COM 133H

GL @ 3528.5usft GL @ 3528.5usft

Grid

ned Survey	'								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,400.0	15.00	8.00	5,301.2	775.9	109.0	602,684.92	580,279.68	32° 39' 24.350 N	104° 12' 24.474
5,500.0	15.00	8.00	5,397.8	801.5	112.6	602,710.55	580,283.29	32° 39' 24.604 N	104° 12' 24.432
5,600.0	15.00	8.00	5,494.4	827.1	116.2	602,736.18	580,286.89	32° 39' 24.857 N	104° 12' 24.389
5,700.0	15.00	8.00	5,590.9	852.8	119.8	602,761.81	580,290.49	32° 39' 25.111 N	104° 12' 24.347
5,800.0	15.00	8.00	5,687.5	878.4	123.4	602,787.44	580,294.09	32° 39' 25.365 N	104° 12' 24.304
5,900.0	15.00	8.00	5,784.1	904.0	127.1	602,813.07	580.297.69	32° 39' 25.618 N	104° 12' 24.262
6,000.0	15.00	8.00	5,880.7	929.6	130.7	602,838.70	580,301.30	32° 39' 25.872 N	104° 12' 24.219
6,100.0	15.00	8.00	5,977.3	955.3	134.3	602,864.33	580,304.90	32° 39' 26.125 N	104° 12' 24.17
6,200.0	15.00	8.00	6,073.9	980.9	137.9	602,889.96	580,308.50	32° 39' 26.379 N	104° 12' 24.13
6,300.0	15.00	8.00	6,170.5	1,006.5	141.5	602,915.59	580,312.10	32° 39' 26.632 N	104° 12' 24.09
6,400.0	15.00	8.00	6,267.1	1,032.2	145.1	602,941.22	580,315.70	32° 39' 26.886 N	104° 12' 24.04
6,500.0	15.00	8.00	6,363.7	1,057.8	148.7	602,966.85	580,319.31	32° 39' 27.140 N	104° 12' 24.00
6,600.0	15.00	8.00	6,460.3	1,083.4	152.3	602,992.48	580,322.91	32° 39' 27.393 N	104° 12' 23.96
6,700.0	15.00	8.00	6,556.9	1,109.1	155.9	603,018.11	580,326.51	32° 39' 27.647 N	104° 12' 23.92
6,800.0	15.00	8.00	6,653.5	1,134.7	159.5	603,043.74	580,330.11	32° 39' 27.900 N	104° 12' 23.87
6,900.0	15.00	8.00	6,750.1	1,160.3	163.1	603,069.37	580,333.71	32° 39' 28.154 N	104° 12' 23.83
7,000.0	15.00	8.00	6,846.6	1,185.9	166.7	603,095.00	580,337.32	32° 39' 28.407 N	104° 12' 23.79
7,100.0	15.00	8.00	6,943.2	1,211.6	170.3	603,120.63	580,340.92	32° 39' 28.661 N	104° 12' 23.75
7,100.0	15.00	8.00	7,039.8	1,237.2	173.9	603,146.26	580,344.52	32° 39' 28.915 N	104° 12' 23.70
7,300.0	15.00	8.00	7,136.4	1,262.8	177.5	603,171.89	580,348.12	32° 39' 29.168 N	104° 12' 23.66
7,400.0	15.00	8.00	7,130.4	1,288.5	181.1	603,197.52	580,351.72	32° 39' 29.422 N	104° 12' 23.62
7,500.0	15.00	8.00	7,329.6	1,314.1	184.7	603,223.15	580,355.33	32° 39' 29.675 N	104° 12' 23.58
7,600.0	15.00	8.00	7,426.2	1,339.7	188.3	603,248.78	580,358.93	32° 39' 29.929 N	104° 12' 23.53
7,700.0	15.00	8.00	7,522.8	1,365.4	191.9	603,274.41	580,362.53	32° 39' 30.183 N	104° 12' 23.49
7,700.0	15.00	8.00	7,619.4	1,391.0	195.5	603,300.05	580,366.13	32° 39' 30.436 N	104 12 23.45 104° 12' 23.45
7,800.0	15.00	8.00	7,019.4	1,416.6	199.1	603,325.68	580,369.73	32° 39' 30.690 N	104° 12' 23.41
8,000.0	15.00	8.00	7,710.0	1,442.2	202.7	603,351.31	580,373.34	32° 39' 30.943 N	104° 12' 23.36
8,100.0	15.00	8.00	7,909.2	1,442.2	206.3	603,376.94	580,376.94	32° 39' 31.197 N	104° 12' 23.32
	15.00	0.00	7,909.2	1,407.9	200.5	003,370.94	300,370.94	32 39 31.197 N	104 12 23.32
KOP 8,200.0	10.00	330.70	8,004.8	1,495.7	199.7	602 404 75	E90 270 26	32° 39' 31.472 N	104° 12' 23.40
8,300.0	19.98 29.23	311.96	8,095.8	1,495.7	173.1	603,404.75	580,370.36	32° 39' 31.783 N	104 12 23.40 104° 12' 23.71
		302.11		1,560.5	173.1	603,436.09	580,343.74		104 12 23.71 104° 12' 24.24
8,400.0	39.89	302.11	8,178.1	1,560.5	127.0	603,469.58	580,298.26	32° 39' 32.114 N	104 12 24.24
FTP	E4.00	205.04	0.040.4	4 504 7	05.0	000 500 70	E00 00E 00	20° 201 20 452 N	4049 401 04 07
8,500.0	51.06	295.94	8,248.1	1,594.7	65.3	603,503.76	580,235.90	32° 39' 32.453 N	104° 12' 24.97
8,600.0	62.48	291.49	8,302.8	1,628.1	-11.3	603,537.14	580,159.39	32° 39' 32.785 N	104° 12' 25.86
8,700.0	74.01	287.88	8,339.8	1,659.2	-98.6	603,568.26	580,072.07	32° 39' 33.094 N	104° 12' 26.89
8,800.0	85.59	284.68	8,357.5	1,686.7	-192.9	603,595.76	579,977.75	32° 39' 33.367 N	104° 12' 27.99
8,838.0	89.99	283.50	8,359.0	1,695.9	-229.7	603,605.00	579,940.93	32° 39' 33.459 N	104° 12' 28.42
EOC	22.22	000 50	0.050.6	4.005.0	000.0	000 005 0	F70.040.00	000 001 00 450 1:	4040 40100 15
8,838.1	90.00	283.50	8,359.0	1,695.9	-229.8	603,605.01	579,940.88	32° 39' 33.459 N	104° 12' 28.42
8,900.0	90.00	282.26	8,359.0	1,709.8	-290.1	603,618.82	579,880.50	32° 39' 33.596 N	104° 12' 29.13
9,000.0	90.00	280.26	8,359.0	1,729.3	-388.2	603,638.35	579,782.43	32° 39' 33.791 N	104° 12' 30.27
9,100.0	90.00	278.26	8,359.0	1,745.4	-486.9	603,654.44	579,683.74	32° 39' 33.951 N	104° 12' 31.43
9,200.0	90.00	276.26	8,359.0	1,758.0	-586.1	603,667.08	579,584.54	32° 39' 34.077 N	104° 12' 32.59
9,300.0	90.00	274.26	8,359.0	1,767.2	-685.7	603,676.25	579,484.97	32° 39' 34.169 N	104° 12' 33.75
9,400.0	90.00	272.26	8,359.0	1,772.9	-785.5	603,681.93	579,385.14	32° 39' 34.226 N	104° 12' 34.92
9,500.0	90.00	270.26	8,359.0	1,775.1	-885.5	603,684.14	579,285.16	32° 39' 34.249 N	104° 12' 36.09
9,537.8	90.00	269.51	8,359.0	1,775.0	-923.2	603,684.06	579,247.41	32° 39' 34.249 N	104° 12' 36.53
9,600.0	90.00	269.51	8,359.0	1,774.5	-985.5	603,683.52	579,185.17	32° 39' 34.244 N	104° 12' 37.26
9,700.0	90.00	269.51	8,359.0	1,773.6	-1,085.5	603,682.66	579,085.17	32° 39' 34.237 N	104° 12' 38.43
9,800.0	90.00	269.51	8,359.0	1,772.7	-1,185.5	603,681.80	578,985.17	32° 39' 34.230 N	104° 12' 39.60
9,900.0	90.00	269.51	8,359.0	1,771.9	-1,285.5	603,680.94	578,885.18	32° 39' 34.222 N	104° 12' 40.77
10,000.0	90.00	269.51	8,359.0	1,771.0	-1,385.5	603,680.07	578,785.18	32° 39' 34.215 N	104° 12' 41.94
10,100.0	90.00	269.51	8,359.0	1,770.1	-1,485.5	603,679.21	578,685.19	32° 39' 34.208 N	104° 12' 43.11



Planning Report - Geographic

Database: Compass
Company: NEW MEXICO
Project: (SD) EDDY

Project: (SP) EDDY Site: RED EAGLE

Well: RED EAGLE 18 ST COM 133H

Wellbore: OWB
Design: PWP0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well RED EAGLE 18 ST COM 133H

GL @ 3528.5usft GL @ 3528.5usft

Grid

Planned Survey	•								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,200.0	90.00	269.51	8,359.0	1,769.3	-1,585.5	603,678.35	578,585.19	32° 39' 34.200 N	104° 12' 44.282 W
10,300.0	90.00	269.51	8,359.0	1,768.4	-1,685.4	603,677.49	578,485.19	32° 39' 34.193 N	104° 12' 45.452 W
10,400.0	90.00	269.51	8,359.0	1,767.6	-1,785.4	603,676.63	578,385.20	32° 39' 34.185 N	104° 12' 46.622 W
10,500.0	90.00	269.51	8,359.0	1,766.7	-1,885.4	603,675.77	578,285.20	32° 39' 34.178 N	104° 12' 47.791 W
10,600.0	90.00	269.51	8,359.0	1,765.8	-1,985.4	603,674.90	578,185.20	32° 39' 34.170 N	104° 12' 48.961 W
10,700.0	90.00	269.51	8,359.0	1,765.0	-2,085.4	603,674.04	578,085.21	32° 39' 34.163 N	104° 12' 50.131 W
10,800.0	90.00	269.51	8,359.0	1,764.1	-2,185.4	603,673.18	577,985.21	32° 39' 34.156 N	104° 12' 51.301 W
10,900.0	90.00	269.51	8,359.0	1,763.3	-2,285.4	603,672.32	577,885.22	32° 39' 34.148 N	104° 12' 52.470 W
11,000.0	90.00	269.51	8,359.0	1,762.4	-2,385.4	603,671.46	577,785.22	32° 39' 34.141 N	104° 12' 53.640 W
11,100.0	90.00	269.51	8,359.0	1,761.5	-2,485.4	603,670.59	577,685.22	32° 39' 34.133 N	104° 12' 54.810 W
11,200.0	90.00	269.51	8,359.0	1,760.7	-2,585.4	603,669.73	577,585.23	32° 39' 34.126 N	104° 12' 55.980 W
11,300.0	90.00	269.51	8,359.0	1,759.8	-2,685.4	603,668.87	577,485.23	32° 39' 34.119 N	104° 12' 57.149 W
11,400.0	90.00	269.51	8,359.0	1,758.9	-2,785.4	603,668.01	577,385.23	32° 39' 34.111 N	104° 12' 58.319 W
11,500.0	90.00	269.51	8,359.0	1,758.1	-2,885.4	603,667.15	577,285.24	32° 39' 34.104 N	104° 12' 59.489 W
11,600.0	90.00	269.51	8,359.0	1,757.2	-2,985.4	603,666.28	577,185.24	32° 39' 34.096 N	104° 13' 0.659 W
11,700.0	90.00	269.51	8,359.0	1,756.4	-3,085.4	603,665.42	577,085.25	32° 39' 34.089 N	104° 13' 1.828 W
11,800.0	90.00	269.51	8,359.0	1,755.5	-3,185.4	603,664.56	576,985.25	32° 39' 34.081 N	104° 13' 2.998 W
11,900.0	90.00	269.51	8,359.0	1,754.6	-3,285.4	603,663.70	576,885.25	32° 39' 34.074 N	104° 13' 4.168 W
12,000.0	90.00	269.51	8,359.0	1,753.8	-3,385.4	603,662.84	576,785.26	32° 39' 34.066 N	104° 13' 5.338 W
12,100.0	90.00	269.51	8,359.0	1,752.9	-3,485.4	603,661.97	576,685.26	32° 39' 34.059 N	104° 13' 6.507 W
12,200.0	90.00	269.51	8,359.0	1,752.0	-3,585.4	603,661.11	576,585.26	32° 39' 34.051 N	104° 13' 7.677 W
12,300.0	90.00	269.51	8,359.0	1,751.2	-3,685.4	603,660.25	576,485.27	32° 39' 34.044 N	104° 13' 8.847 W
12,400.0	90.00	269.51	8,359.0	1,750.3	-3,785.4	603,659.39	576,385.27	32° 39' 34.037 N	104° 13' 10.017 W
12,500.0	90.00	269.51	8,359.0	1,749.5	-3,885.4	603,658.53	576,285.28	32° 39' 34.029 N	104° 13' 11.186 W
12,600.0	90.00	269.51	8,359.0	1,748.6	-3,985.4	603,657.66	576,185.28	32° 39' 34.022 N	104° 13' 12.356 W
12,700.0	90.00	269.51	8,359.0	1,747.7	-4,085.4	603,656.80	576,085.28	32° 39' 34.014 N	104° 13' 13.526 W
12,800.0	90.00	269.51	8,359.0	1,746.9	-4,185.4	603,655.94	575,985.29	32° 39' 34.007 N	104° 13' 14.696 W
12,900.0	90.00	269.51	8,359.0	1,746.0	-4,285.4	603,655.08	575,885.29	32° 39' 33.999 N	104° 13' 15.865 W
13,000.0	90.00	269.51	8,359.0	1,745.2	-4,385.3	603,654.22	575,785.29	32° 39' 33.992 N	104° 13' 17.035 W
13,100.0	90.00	269.51	8,359.0	1,744.3	-4,485.3	603,653.35	575,685.30	32° 39' 33.984 N	104° 13' 18.205 W
13,200.0	90.00	269.51	8,359.0	1,743.4	-4,585.3	603,652.49	575,585.30	32° 39' 33.977 N	104° 13' 19.375 W
13,300.0	90.00	269.51	8,359.0	1,742.6	-4,685.3	603,651.63	575,485.30	32° 39' 33.969 N	104° 13' 20.544 W
13,400.0	90.00	269.51	8,359.0	1,741.7	-4,785.3	603,650.77	575,385.31	32° 39' 33.962 N	104° 13' 21.714 W
13,500.0	90.00	269.51	8,359.0	1,740.8	-4,885.3	603,649.91	575,285.31	32° 39' 33.954 N	104° 13' 22.884 W
13,600.0	90.00	269.51	8,359.0	1,740.0	-4,985.3	603,649.04	575,185.32	32° 39' 33.947 N	104° 13' 24.054 W
13,700.0	90.00	269.51	8,359.0	1,739.1	-5,085.3	603,648.18	575,085.32	32° 39' 33.939 N	104° 13' 25.223 W
13,800.0	90.00	269.51	8,359.0	1,738.3	-5,185.3	603,647.32	574,985.32	32° 39' 33.932 N	104° 13' 26.393 W
13,900.0	90.00	269.51	8,359.0	1,737.4	-5,285.3	603,646.46	574,885.33	32° 39' 33.924 N	104° 13' 27.563 W
14,000.0	90.00	269.51	8,359.0	1,736.5	-5,385.3	603,645.60	574,785.33	32° 39' 33.917 N	104° 13' 28.733 W
14,100.0	90.00	269.51	8,359.0	1,735.7	-5,485.3	603,644.73	574,685.33	32° 39' 33.909 N	104° 13' 29.902 W
14,200.0	90.00	269.51	8,359.0	1,734.8	-5,585.3	603,643.87	574,585.34	32° 39' 33.902 N	104° 13' 31.072 W
14,300.0	90.00	269.51	8,359.0	1,733.9	-5,685.3	603,643.01	574,485.34	32° 39' 33.894 N	104° 13' 32.242 W
14,400.0	90.00	269.51	8,359.0	1,733.1	-5,785.3	603,642.15	574,385.35	32° 39' 33.887 N	104° 13' 33.412 W
14,500.0	90.00	269.51	8,359.0	1,732.2	-5,885.3	603,641.29	574,285.35	32° 39' 33.879 N	104° 13' 34.581 W
14,600.0	90.00	269.51	8,359.0	1,731.4	-5,985.3	603,640.42	574,185.35	32° 39' 33.872 N	104° 13' 35.751 W
14,700.0	90.00	269.51	8,359.0	1,730.5	-6,085.3	603,639.56	574,085.36	32° 39' 33.864 N	104° 13' 36.921 W
14,800.0	90.00	269.51	8,359.0	1,729.6	-6,185.3	603,638.70	573,985.36	32° 39' 33.856 N	104° 13' 38.091 W
14,900.0	90.00	269.51	8,359.0	1,728.8	-6,285.3	603,637.84	573,885.36	32° 39' 33.849 N	104° 13' 39.260 W
15,000.0	90.00	269.51	8,359.0	1,727.9	-6,385.3	603,636.98	573,785.37	32° 39' 33.841 N	104° 13' 40.430 W
15,100.0	90.00	269.51	8,359.0	1,727.1	-6,485.3	603,636.12	573,685.37	32° 39' 33.834 N	104° 13' 41.600 W
15,200.0	90.00	269.51	8,359.0	1,726.2	-6,585.3	603,635.25	573,585.38	32° 39' 33.826 N	104° 13' 42.770 W
15,300.0	90.00	269.51	8,359.0	1,725.3	-6,685.3	603,634.39	573,485.38	32° 39' 33.819 N	104° 13' 43.939 W
15,400.0	90.00	269.51	8,359.0	1,723.5	-6,785.3	603,633.53	573,385.38	32° 39' 33.811 N	104° 13' 45.109 W
15,500.0	90.00	269.51	8,359.0	1,724.5	-6,885.3	603,632.67	573,285.39	32° 39' 33.804 N	104° 13' 46.279 W
15,600.0	90.00	269.51	8,359.0	1,723.0	-6,985.3	603,631.81	573,185.39	32° 39' 33.796 N	104° 13' 47.449 W
10,000.0	90.00	ا ن.وںع	0,559.0	1,122.1	-0,500.3	000,001.01	010,100.08	02 08 00.180 N	107 10 41.448 W



Planning Report - Geographic

Database: Compass
Company: NEW MEXICO

Project: (SP) EDDY
Site: RED EAGLE

Well: RED EAGLE 18 ST COM 133H

Wellbore: OWB
Design: PWP0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well RED EAGLE 18 ST COM 133H

GL @ 3528.5usft GL @ 3528.5usft

Grid

Planned Survey	,								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,700.0 15,800.0 15,900.0 16,000.0 16,100.0 16,200.0 16,248.1	90.00 90.00 90.00 90.00 90.00 90.00 90.00	269.51 269.51 269.51 269.51 269.51 269.51	8,359.0 8,359.0 8,359.0 8,359.0 8,359.0 8,359.0 8,359.0	1,721.9 1,721.0 1,720.2 1,719.3 1,718.4 1,717.6 1,717.2	-7,085.2 -7,185.2 -7,285.2 -7,385.2 -7,485.2 -7,585.2 -7,633.3	603,630.94 603,630.08 603,629.22 603,628.36 603,627.50 603,626.63 603,626.22	573,085.39 572,985.40 572,885.40 572,785.40 572,685.41 572,585.41 572,537.31	32° 39' 33.788 N 32° 39' 33.781 N 32° 39' 33.773 N 32° 39' 33.766 N 32° 39' 33.758 N 32° 39' 33.751 N 32° 39' 33.747 N	104° 13' 48.618 W 104° 13' 49.788 W 104° 13' 50.958 W 104° 13' 52.128 W 104° 13' 53.297 W 104° 13' 54.467 W 104° 13' 55.030 W
LTP 16,300.0 16,338.1 BHL	90.00 90.00	269.51 269.51	8,359.0 8,359.0	1,716.7 1,716.4	-7,685.2 -7,723.3	603,625.77 603,625.44	572,485.42 572,447.35	32° 39' 33.743 N 32° 39' 33.740 N	104° 13' 55.637 W 104° 13' 56.082 W

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
RED EAGLE 18 ST COM - plan misses target - Point		0.00 .3usft at 857	8,359.0 3.1usft MD (1,781.8 8292.3 TVD, 1	124.5 1620.9 N, 6.6	603,690.85 E)	580,295.15	32° 39' 34.304 N	104° 12' 24.279 W
RED EAGLE 18 ST COM - plan misses target - Point		0.00 usft at 16248.	8,359.0 1usft MD (8	1,714.7 359.0 TVD, 17	-7,633.3 717.2 N, -7633	603,623.77 3.3 E)	572,537.36	32° 39' 33.723 N	104° 13' 55.029 W
RED EAGLE 18 ST COM - plan hits target cer - Point		0.00	8,359.0	1,716.4	-7,723.3	603,625.44	572,447.35	32° 39' 33.740 N	104° 13' 56.082 W

Plan Annotat	tions				
	Measured	Vertical	Local Coord	dinates	
	Depth (usft)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
	8,100.0	7,909.2	1,467.9	206.3	KOP
	8,400.0	8,178.1	1,560.5	127.6	FTP
	8,838.0	8,359.0	1,695.9	-229.7	EOC
	16,248.1	8,359.0	1,717.2	-7,633.3	LTP
	16,338.1	8,359.0	1,716.4	-7,723.3	BHL

Inten	t	As Dril	led									
API#	ł											
Ope	rator Nai	ne:				Property N		Well Number				
Kick (Off Point	(KOP)										
UL	Section	Township	Range	Lot	Feet	From N	1/S	Feet	Fı	om E/W	County	
Latitu	ude				Longitu	ıde					NAD	
First ⁻	Take Poir	t (FTP)	Range	Lot	Feet	eet From N/S Feet From E/W County						
Latitu	ude				Longitu	Longitude						
UL	Section	t (LTP) Township	Range	Lot	Feet	From N/S	Feet		From E/V	V Coun	ty	
Latitu	nde				Longitu	ıde						
			vell for th	ne Hori	zontal SĮ ¬	oacing Unit?]			
is this	s well an	infill well?										
Spaci	ng Unit.	lease provi	ide API if	availal	ole, Ope	rator Name	and v	vell nı	umber fo	r Defini	ng well fo	or Horizontal
API#												
Ope	rator Nai	me:				Property N	lame:					Well Number

KZ 06/29/2018