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

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

Form C-101
August 1, 2011

Permit 359607

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

1. Operator Name and Address	2. OGRID Number
MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	13837
	3. API Number 30-025-52536

4. Property Code	5. Property Name	6. Well No.
335346	BOAR STATE COM	002H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
M	30	14S	32E	4	856	S	990	W	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
M	31	14S	32E	4	1	S	990	W	Lea

9. Pool Information

DOUBLE L;SAN ANDRES, SOUTH	19150

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	4362
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	11126	San Andres		4/15/2024
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	12.25	9.625	48	1475	1130	0
Prod	8.75	7	26	5500	2280	0
Prod	8.75	7	26	4440	2280	0
Prod	8.75	5.5	17	11126	2280	0

Casing/Cement Program: Additional Comments

Mack Energy Corporation proposed to drill 12 1/4" hole to 1475', run 9 5/8" csg/cmt. Drill 8 3/4" hole to 11126', run 7" & 5 1/2" csg/cmt, put well on production.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.

Signature:

OIL CONSERVATION DIVISION

Printed Name:	Electronically filed by Jerry Sherrell		Approved By:	Paul F Kautz	
Title:	Regulatory Supervisor		Title:	Geologist	
Email Address:	jerrys@mec.com		Approved Date:	2/16/2024	Expiration Date: 2/16/2026
Date:	2/13/2024	Phone: 575-748-1288	Conditions of Approval Attached		

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
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811 S. First St., Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 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	[2] Pool Code	[3] Pool Name
30-025-52536	19150	DOUBLE L;SAN ANDRES, SOUTH

[4] Property Code	[5] Property Name	[6] Well Number
335346	BOAR STATE COM	2H

[7] OGRID No.	[8] Operator Name	[9] Elevation
13837	MACK ENERGY CORPORATION	4362.2

[10] Surface Location

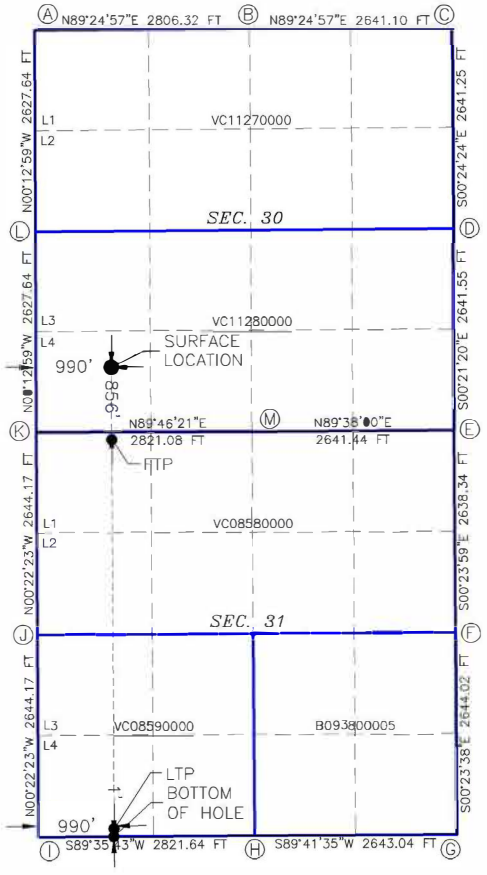
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	30	14 S	32 E		856	SOUTH	990	WEST	LEA

[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
4	31	14S	32 E		1	SOUTH	990	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
160			

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.



BOAR STATE COM 2H
EL. = 4362.2

GEODETIC COORDINATES
NAD 83 NMSP EAST
SURFACE LOCATION
N.= 753727.36
E.= 715970.68
LAT. = 33.0706840°N
LONG. = 103.7632588°W

KICK OFF POINT
856' FSL, 990' FWL
N.= 753727.36
E.= 715970.68
LAT. = 33.0706840°N
LONG. = 103.7632588°W

FIRST TAKE POINT (PPP 1)
100' FNL, 990' FWL
N.= 752772.34
E.= 715974.59
LAT. = 33.0680592°N
LONG. = 103.7632629°W

LAST TAKE POINT
100' FSL, 990' FWL
N.= 747688.49
E.= 716007.70
LAT. = 33.0540862°N
LONG. = 103.7632449°W

BOTTOM OF HOLE
1' FSL, 990' FWL
N.= 747589.52
E.= 716008.35
LAT. = 33.0538142°N
LONG. = 103.7632446°W

CORNER COORDINATES TABLE
NAD 83 NMSP EAST

A	N.= 758122.25	E.= 714964.37
B	N.= 758150.86	E.= 717769.81
C	N.= 758177.78	E.= 720410.08
D	N.= 755537.28	E.= 720428.82
E	N.= 752896.47	E.= 720445.22
F	N.= 750258.89	E.= 720463.62
G	N.= 747615.62	E.= 720481.79
H	N.= 747601.46	E.= 717839.47
I	N.= 747581.53	E.= 715018.64
J	N.= 750224.95	E.= 715001.42
K	N.= 752868.38	E.= 714984.20
L	N.= 755495.32	E.= 714974.29
M	N.= 752879.58	E.= 717804.52

LEGEND
SECTION LINE
QUARTER LINE
LEASE LINE
WELL PATH

[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.

Delilah Flores
Signature

Date 2/13/2024

Delilah Flores
Printed Name

delilah@mec.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.

DECEMBER 14, 2023
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number: FIDENCIO F. JARAMILLO, PLS 12797

SURVEY NO. 9956

Intent ☐ As Drilled ☐

API #

Operator Name:	Property Name:	Well Number
MACK ENERGY CORPORATION	BOAR STATE COM	1H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	30	14S	32E	4	856	SOUTH	990	WEST	LEA

Latitude	Longitude	NAD
33.0706840	103.7632588	

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	31	14S	32E	1	100	NORTH	990	WEST	LEA

Latitude	Longitude	NAD
33.0680592	103.7632629	83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	31	14S	32E	4	100	SOUTH	990	WEST	LEA

Latitude	Longitude	NAD
33.0540862	103.7632449	83

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

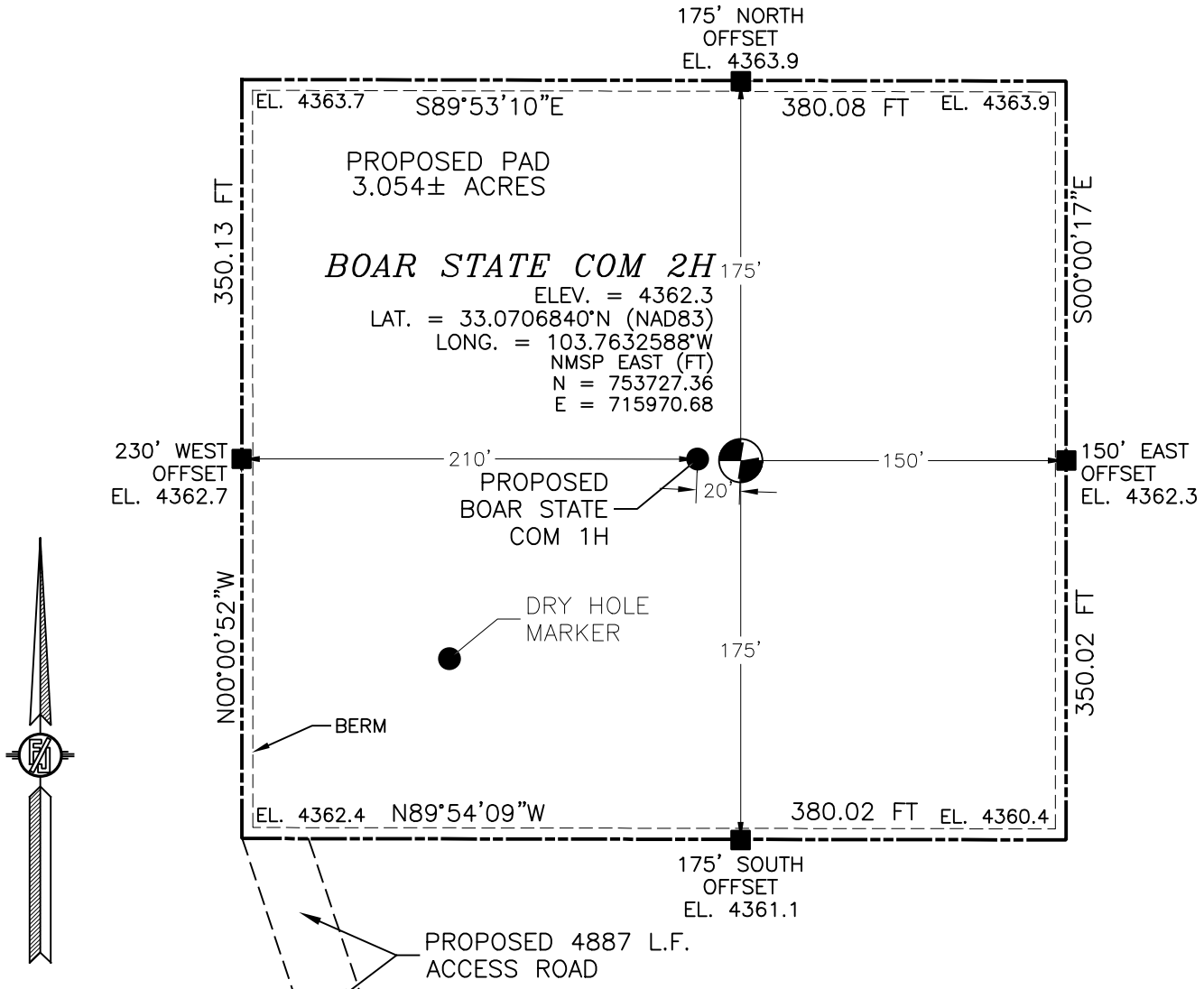
If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number

KZ 06/29/2018

SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
SITE MAP



DIRECTIONS TO LOCATION
FROM THE INTERSECTION OF STATE HIGHWAY 249 & STATE HIGHWAY 172, GO NORTH ON STATE HIGHWAY 172 FOR APPROX. 0.9 OF A MILE, GO NORTHWEST ON 20' CLR FOR APPROX. 50', GO NORTH FOR APPROX. 0.73 OF A MILE, GO EAST APPROX. 0.96 OF A MILE, GO SOUTH APPROX. 0.23 OF A MILE, GO EAST APPROX. 405', GO SOUTHWEST APPROX. 392', GO EAST APPROX. 0.92 OF A MILE, GO NORTHEAST APPROX. 0.32 OF A MILE, GO NORTH APPROX. 0.88 OF A MILE, GO EAST APPROX. 105', GO NORTHEAST APPROX. 408', GO NORTHEAST APPROX. 201', GO EAST APPROX. 201', GO NORTH APPROX. 0.31 OF A MILE TO BEGIN ROAD SURVEY, FOLLOW ROAD SURVEY WEST APPROX. 319', CONTINUE NORTHWEST APPROX. 4887' TO THE SOUTHWEST PAD CORNER FOR THIS LOCATION.

I, FILIMON F. JARAMILLO, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY WAS DONE TO MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

FILIMON F. JARAMILLO, PLS 17078

MACK ENERGY CORPORATION
BOAR STATE COM 2H
LOCATED 856 FT. FROM THE SOUTH LINE AND 990 FT. FROM THE WEST LINE OF SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO

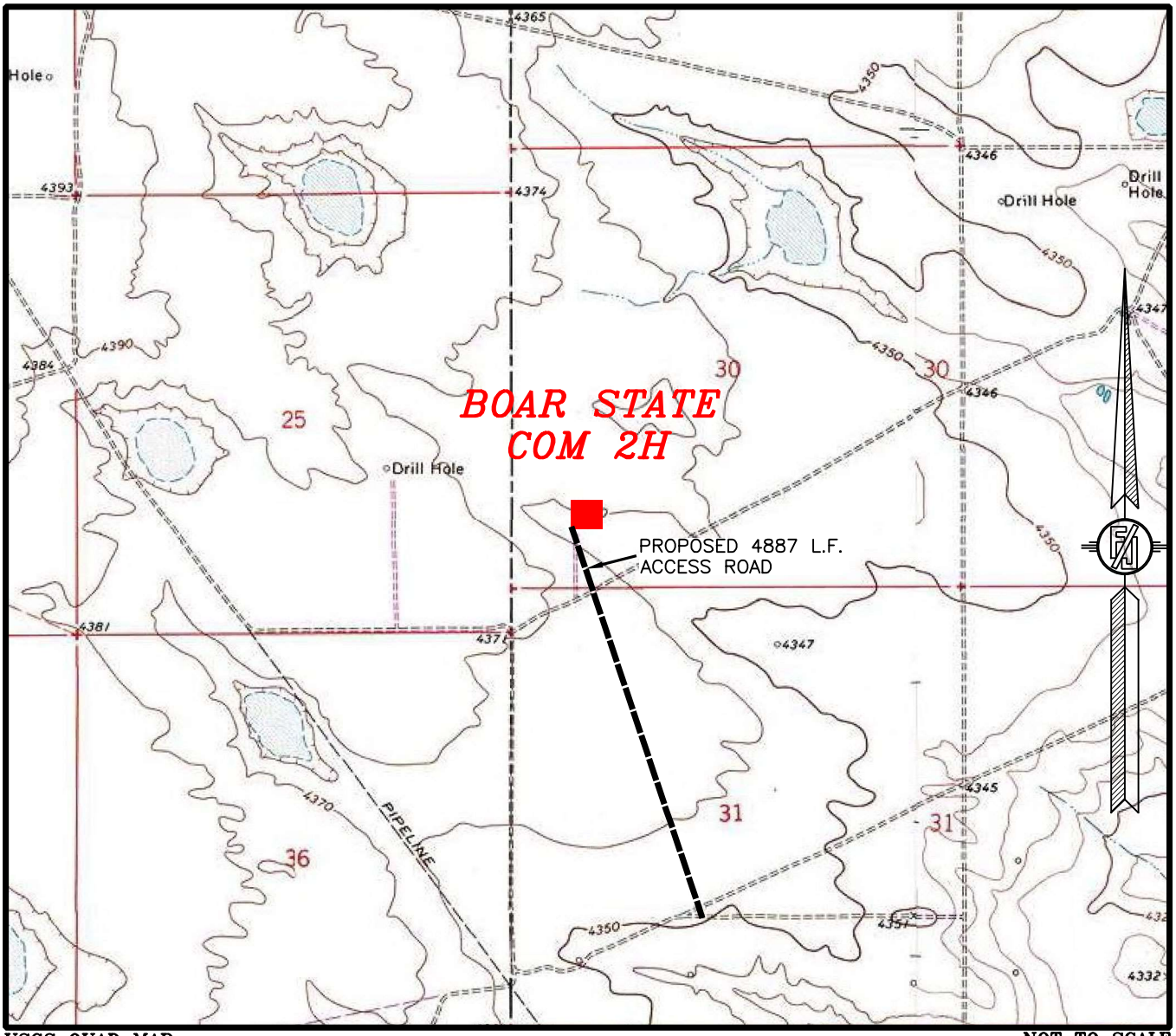
DECEMBER 14, 2023

SURVEY NO. 9956

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3327 *CARLSBAD, NEW MEXICO*

SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

LOCATION VERIFICATION MAP



USGS QUAD MAP:
CEDAR POINT SE

NOT TO SCALE

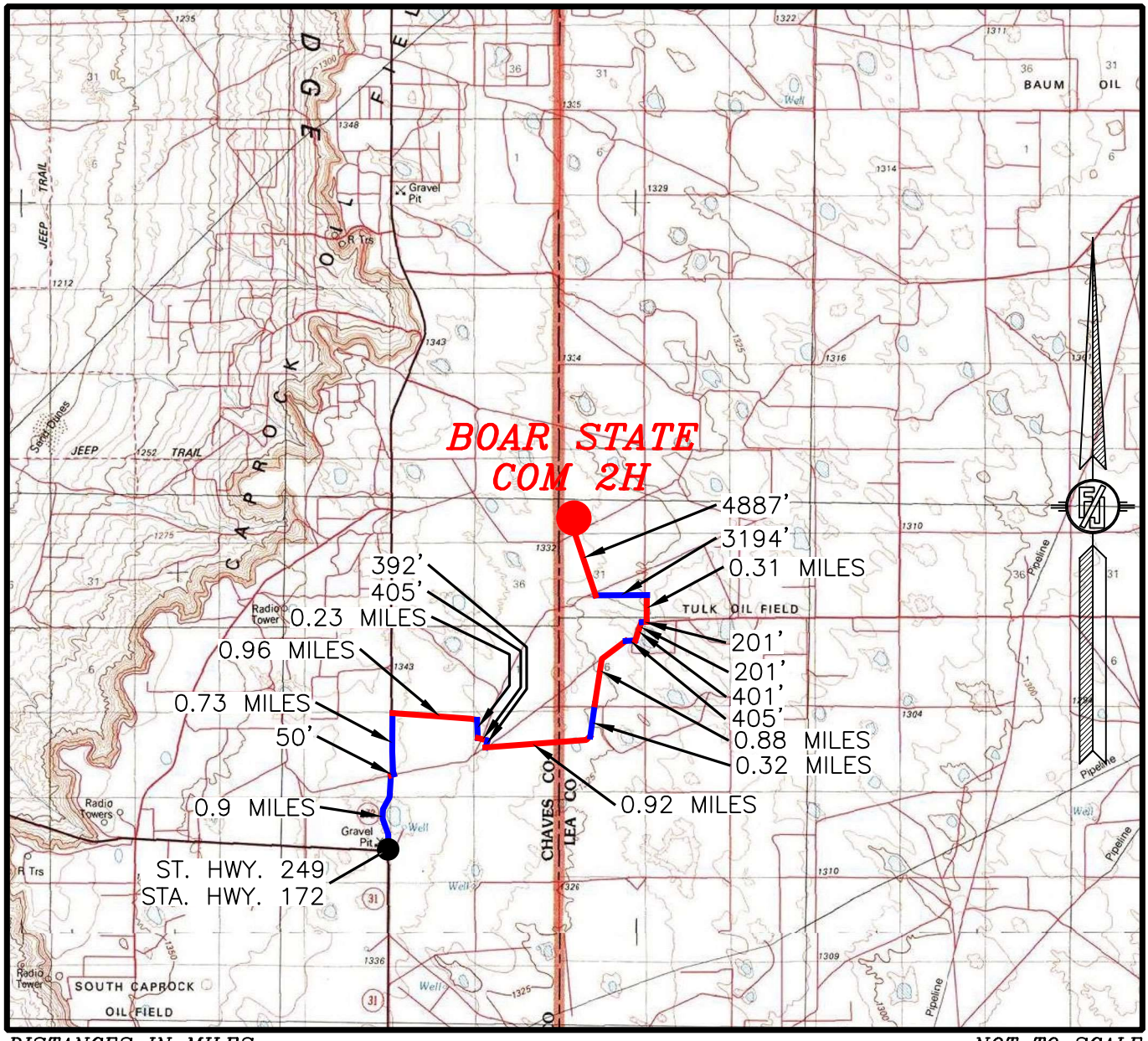
MACK ENERGY CORPORATION
BOAR STATE COM 2H
LOCATED 856 FT. FROM THE SOUTH LINE
AND 990 FT. FROM THE WEST LINE OF
SECTION 30, TOWNSHIP 14 SOUTH,
RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

DECEMBER 14, 2023

SURVEY NO. 9956

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3327 CARLSBAD, NEW MEXICO

SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES *NOT TO SCALE*

DIRECTIONS TO LOCATION
FROM THE INTERSECTION OF STATE HIGHWAY 249 & STATE HIGHWAY 172, GO NORTH ON STATE HIGHWAY 172 FOR APPROX. 0.9 OF A MILE, GO NORTHWEST ON 20' CLR FOR APPROX. 50', GO NORTH FOR APPROX. 0.73 OF A MILE, GO EAST APPROX. 0.96 OF A MILE, GO SOUTH APPROX. 0.23 OF A MILE, GO EAST APPROX. 405', GO SOUTHWEST APPROX. 392', GO EAST APPROX. 0.92 OF A MILE, GO NORTHEAST APPROX. 0.32 OF A MILE, GO NORTH APPROX. 0.88 OF A MILE, GO EAST APPROX. 405', GO NORTHEAST APPROX. 408', GO NORTHEAST APPROX. 201', GO EAST APPROX. 201', GO NORTH APPROX. 0.31 OF A MILE TO BEGIN ROAD SURVEY, FOLLOW ROAD SURVEY WEST APPROX. 3194', CONTINUE NORTHWEST APPROX. 4887' TO THE SOUTHWEST PAD CORNER FOR THIS LOCATION.

MACK ENERGY CORPORATION
BOAR STATE COM 2H
LOCATED 856 FT. FROM THE SOUTH LINE AND 990 FT. FROM THE WEST LINE OF SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO

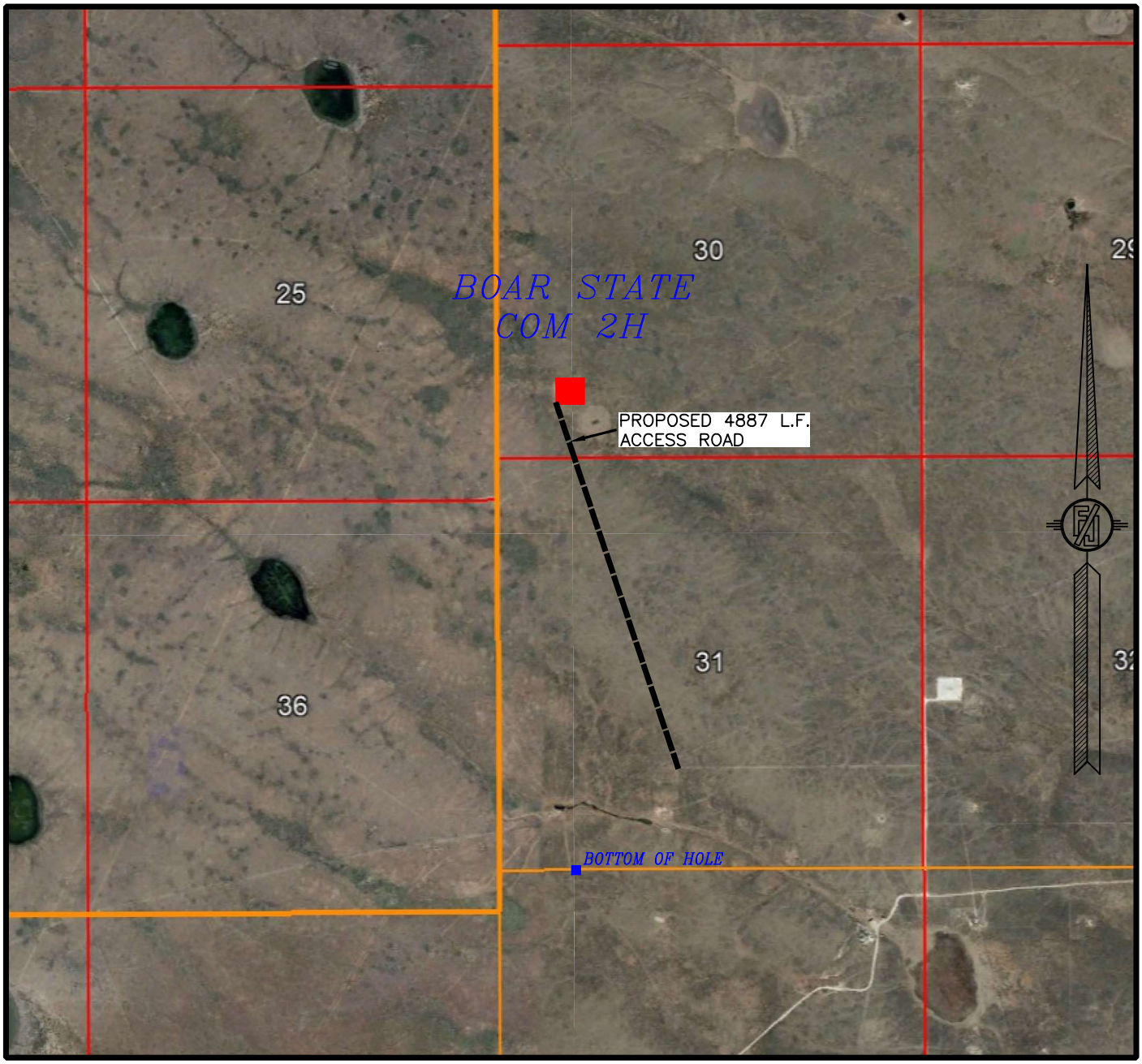
DECEMBER 14, 2023

SURVEY NO. 9956

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3327 *CARLSBAD, NEW MEXICO*

SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
JUNE 2019

MACK ENERGY CORPORATION

BOAR STATE COM 2H

LOCATED 856 FT. FROM THE SOUTH LINE
AND 990 FT. FROM THE WEST LINE OF
SECTION 30, TOWNSHIP 14 SOUTH,
RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

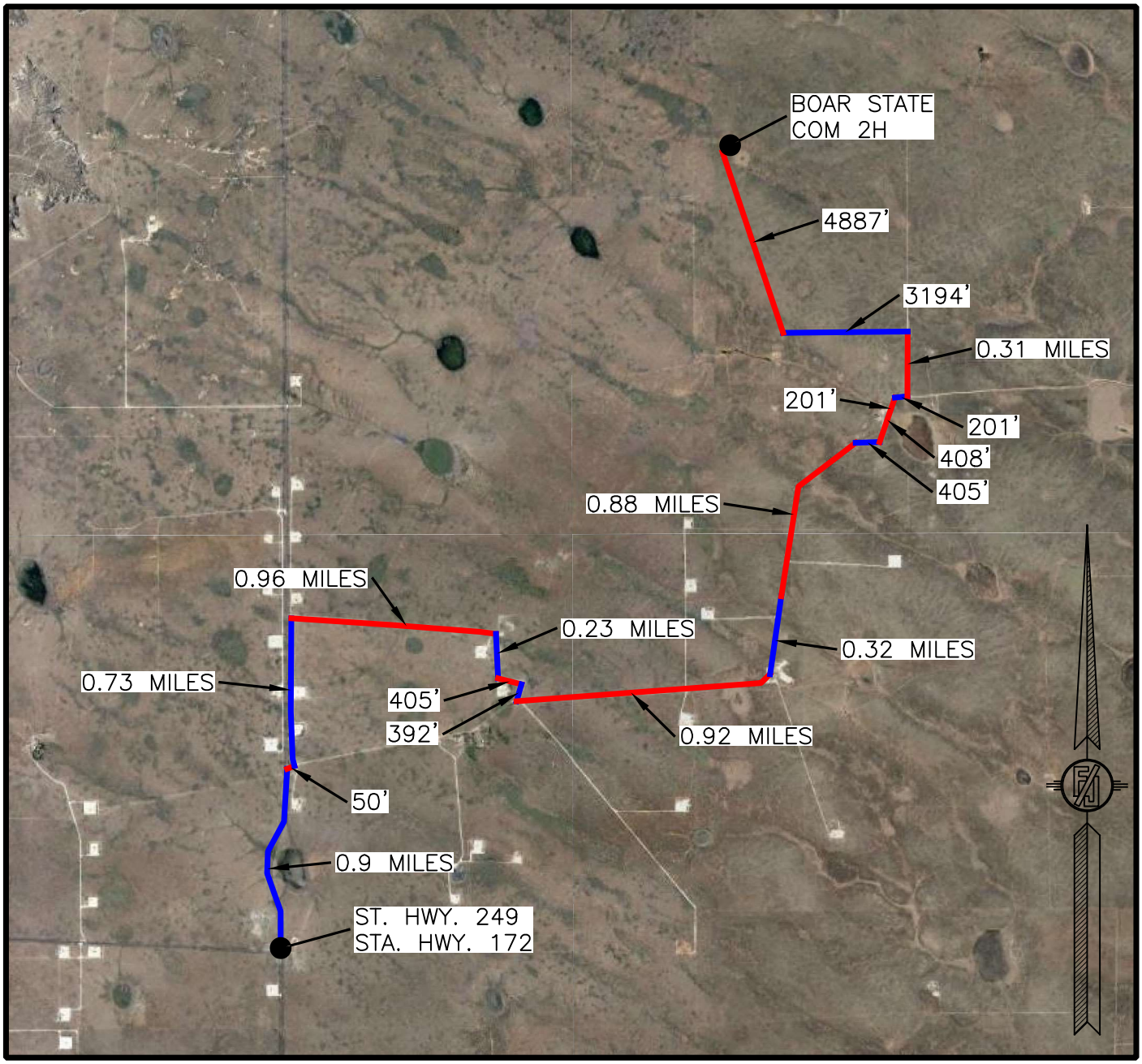
DECEMBER 14, 2023

SURVEY NO. 9956

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3327 CARLSBAD, NEW MEXICO

SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

AERIAL ACCESS ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
JUNE 2019

MACK ENERGY CORPORATION
BOAR STATE COM 2H
LOCATED 856 FT. FROM THE SOUTH LINE
AND 990 FT. FROM THE WEST LINE OF
SECTION 30, TOWNSHIP 14 SOUTH,
RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

DECEMBER 14, 2023

SURVEY NO. 9956

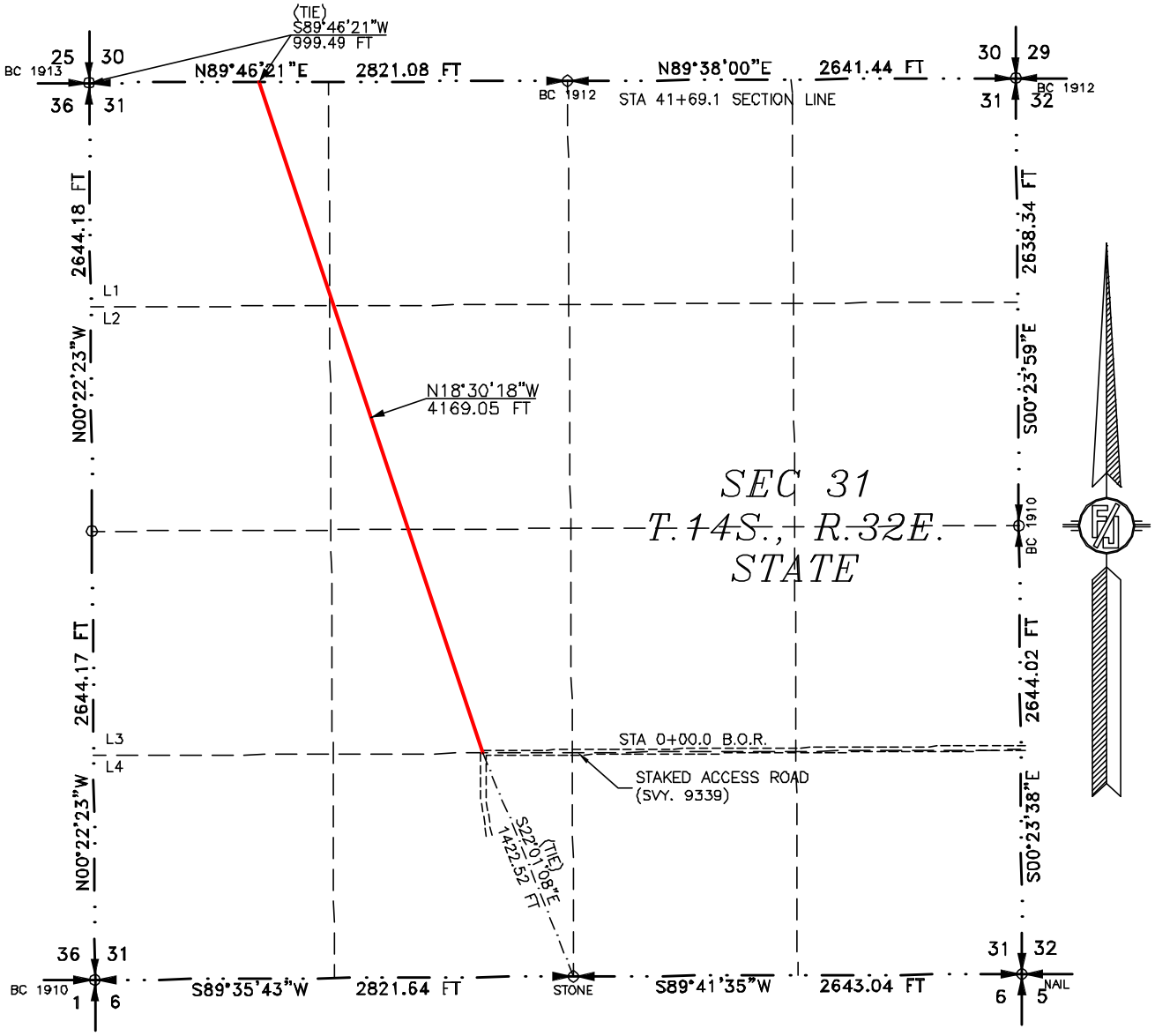
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3327 CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR BOAR STATE COM 1H & 2H

MACK ENERGY CORPORATION

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 31, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
DECEMBER 14, 2023



SEE NEXT SHEET (2-4) FOR DESCRIPTION

1000 0 1000
Scale: 1" = 1000'

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 30TH DAY OF JANUARY 2024.

FILIMON F. JARAMILLO PLS 12797
301 SOUTH CANAL
(575) 234-3327

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3327

SHEET: 1-4

SURVEY NO. 9956

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR BOAR STATE COM 1H & 2H

MACK ENERGY CORPORATION

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 31, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
DECEMBER 14, 2023

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 31, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M., LEA COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE NE/4 SW/4 OF SAID SECTION 31, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M., WHENCE THE SOUTH QUARTER CORNER OF SAID SECTION 31, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M. BEARS S22°01'08"E, A DISTANCE OF 1422.52 FEET;
THENCE N18°30'18"W A DISTANCE OF 4169.05 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTHWEST CORNER OF SAID SECTION 31, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M. BEARS S89°46'21"W, A DISTANCE OF 999.49 FEET;

SAID STRIP OF LAND BEING 4169.05 FEET OR 252.67 RODS IN LENGTH, CONTAINING 2.871 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NE/4 SW/4	1388.80 L.F.	84.17 RODS	0.956 ACRES
SE/4 NW/4	1390.50 L.F.	84.27 RODS	0.958 ACRES
NE/4 NW/4	68.72 L.F.	4.16 RODS	0.047 ACRES
LOT 1	1321.03 L.F.	80.06 RODS	0.910 ACRES

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 10TH DAY OF JANUARY 2024.

FILIMON F. JARAMILLO PLS 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3327

SHEET: 2-4

SURVEY NO. 9956

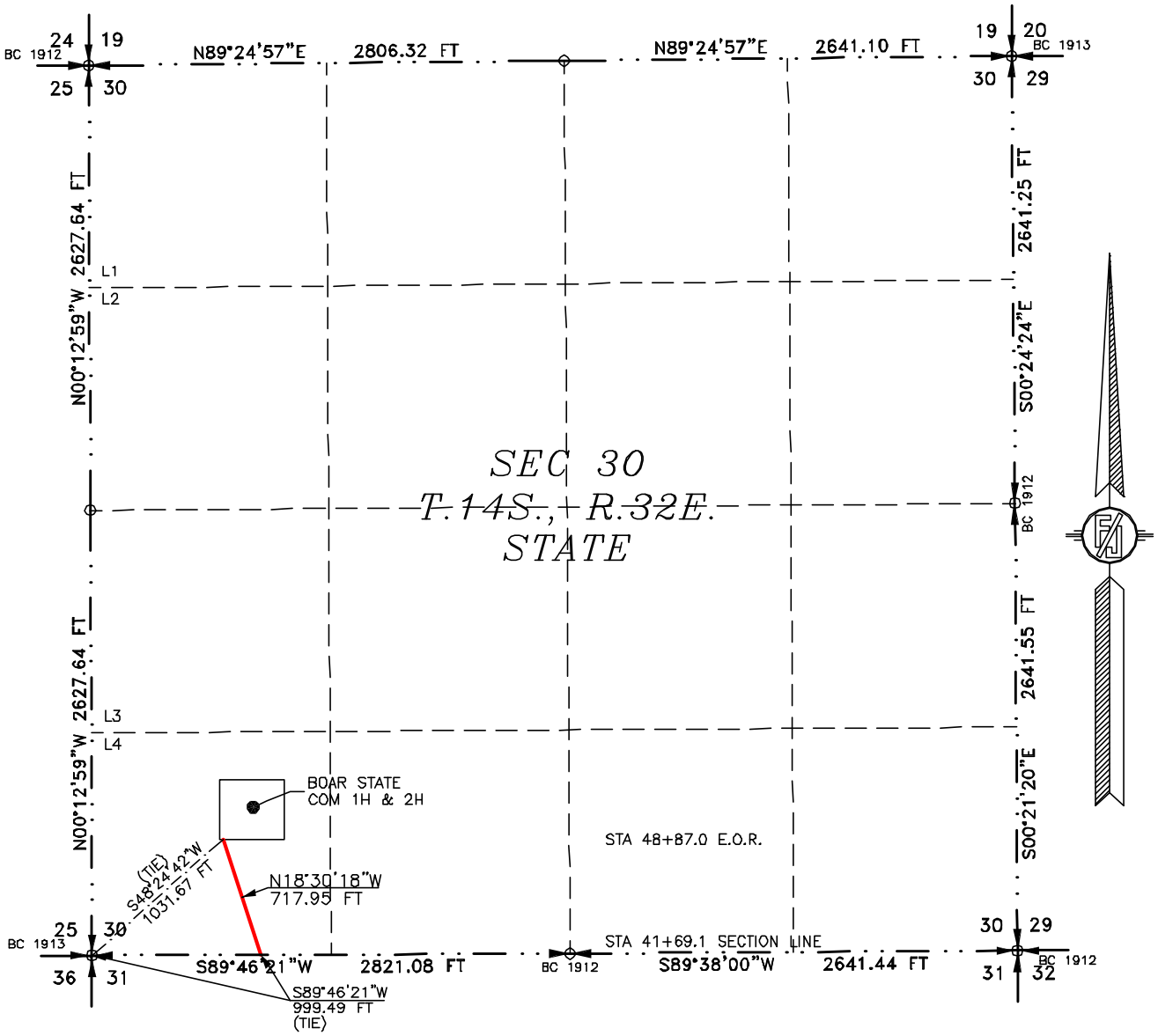
MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR BOAR STATE COM 1H & 2H

MACK ENERGY CORPORATION

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
DECEMBER 14, 2023



SEE NEXT SHEET (4-4) FOR DESCRIPTION

1000 0 1000
Scale: 1" = 1000'

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 30TH DAY OF JANUARY 2024.

FILIMON F. JARAMILLO PLS 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3327

SHEET: 3-4

SURVEY NO. 9956

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR BOAR STATE COM 1H & 2H

MACK ENERGY CORPORATION

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
DECEMBER 14, 2023

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M., LEA COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN LOT 4 OF SAID SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M., WHENCE THE TIE1 CORNER OF SAID SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M. BEARS S89°46'21"W, A DISTANCE OF 999.49 FEET;
THENCE N18°30'18"W A DISTANCE OF 717.95 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE SOUTHWEST CORNER OF SAID SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, N.M.P.M. BEARS S48°24'42"W, A DISTANCE OF 1031.67 FEET;

SAID STRIP OF LAND BEING 717.95 FEET OR 43.51 RODS IN LENGTH, CONTAINING 0.494 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

LOT 4	717.95 L.F.	43.51 RODS	0.494 ACRES

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 30TH DAY OF JANUARY 2024.

FILIMON F. JARAMILLO PLS 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3327

SHEET: 4-4

SURVEY NO. 9956

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

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

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

Form APD Conditions

Permit 359607

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
MACK ENERGY CORP [13837] P.O. Box 960 Artesia, NM 882110960	30-025-52536
	Well: BOAR STATE COM #002H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
pkautz	Cement is required to circulate on both surface and production strings of casing
pkautz	If cement does not circulate on any string, a CBL is required for that string of casing
pkautz	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: Mack Energy Corporation **OGRID:** 013837 **Date:** 2/13/2024

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Boar State Com 2H		M Sec 30 T14S R32E	856 FSL 990 FWL	100	100	1,000

IV. Central Delivery Point Name: DCP Midstream Linam Ranch Processing Plant/Durango Midstream [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Boar State Com 2H		4/1/2024	4/21/2024	5/21/2024	5/21/2024	5/21/2024

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature:	Delilah Flores
Printed Name:	Delilah Flores
Title:	Regulatory Technician I
E-mail Address:	delilah@mec.com
Date:	2/13/2024
Phone:	575-748-1288

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

Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

VI. Separation Equipment:

Mack Energy Corporation(MEC) production facilities include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool of our completion project. MEC will utilize flowback separation equipment and production separation equipment designed and built to industry specifications after the completion to optimize gas capture and send gas to sales or flare based on analytical composition. MEC operates facilities that are typically multi-well facilities. Production separation equipment is upgraded prior to new wells being completed, if determined to be undersized or inadequate. This equipment is already on-site and tied into our sales gas lines prior to the new drill operations.

VII. Operational Practices:

1. Subsection (A) Venting and Flaring of Natural Gas. MEC understands the requirements of NMAC 19.15.27.8 which outlines that the venting and flaring of natural gas during drilling, completion or production operations that constitutes waste as defined in 19.15.2 are prohibited.
2. Subsection (B) Venting and Flaring during drilling operations. This gas capture plan isn't for a well being drilled.
3. Subsection (C) Venting and flaring during completion or recompletion. Flowlines will be routed for flowback fluids into a completion or storage tank and if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
    - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.
4. Subsection (D) Venting and flaring during production operations ○ At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.
    - Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.
    - MEC will not vent or flare except during the approved activities listed in NMAC 19.15.27.8 (D) 14.
5. Subsection (E) Performance standards ○ All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste.
    - If a flare is utilized during production operations it will have a continuous pilot and is located more than 100 feet from any known well or storage tanks.
    - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.

6. Subsection (F) Measurement or estimation of vented and flared natural gas ○ Measurement equipment is installed to measure the volume of natural gas flared from process piping.
    - When measurement isn't practicable, estimation of vented and flared natural gas will be completed as noted in 19.15.27.8 (F) 5-6.

VIII. Best Management Practices:

1. MEC has adequate storage and takeaway capacity for wells it chooses to complete as the flowlines at the sites are already in place and tied into a gathering system.
2. MEC will flare rather than vent vessel blowdown gas when technically feasible during active and/or planned maintenance to equipment on-site.
3. MEC combusts natural gas that would otherwise be vented or flared, when technically feasible.
4. MEC will shut in wells in the event of a takeaway disruption, emergency situation, or other operations where venting or flaring may occur due to equipment failures.
5. MEC has a gas gathering system in place(CTB-887)a with multiple purchaser's to limit venting or flaring, due to purchaser shut downs.

Boar State Com #2H, Plan 1

Operator	Mack Energy Corp	**Units**	feet, °/100ft	11:45 Monday, February 12, 2024	Page 1 of 4
Field		**County**	Lea	**Vertical Section Azimuth**	180.37
Well Name	Boar State Com #2H	**State**	New Mexico	**Survey Calculation Method**	Minimum Curvature
Plan	1	**Country**		**Database**	Access

Location	SL: 856 FSL & 990 FWL Section 30-T14S-R32E BHL: 1 FSL & 990 FWL Section 31-T14S-R32E	**Map Zone**	UTM	**Lat Long Ref**	
Site		**Surface X**	2019359.6	**Surface Long**	
Slot Name	**UWI**	**Surface Y**	12006528.5	**Surface Lat**	
Well Number	**API**	**Surface Z**	4379.7	**Global Z Ref**	KB
Project	**MD/TVD Ref** KB	**Ground Level**	4362.2	**Local North Ref**	Grid

DIRECTIONAL WELL PLAN

MD* ft	INC* deg	AZI* deg	TVD* ft	N* ft	E* ft	DLS* °/100ft	V. S.* ft	MapE* ft	MapN* ft	SysTVD* ft
*** TIE (at MD = 4440.00)										
4440.00	0.00	0.0	4440.00	0.00	0.00		0.00	2019359.60	12006528.50	-60.30
4450.00	0.00	0.0	4450.00	0.00	0.00	0.00	0.00	2019359.60	12006528.50	-70.30
4500.00	0.00	0.0	4500.00	0.00	0.00	0.00	0.00	2019359.60	12006528.50	-120.30
*** KOP 8 DEGREE (at MD = 4540.00)										
4540.00	0.00	0.0	4540.00	0.00	0.00	0.00	0.00	2019359.60	12006528.50	-160.30
4550.00	0.80	180.4	4550.00	-0.07	0.00	8.00	0.07	2019359.60	12006528.43	-170.30
4600.00	4.80	180.4	4599.93	-2.51	-0.02	8.00	2.51	2019359.58	12006525.99	-220.23
4650.00	8.80	180.4	4649.57	-8.43	-0.05	8.00	8.43	2019359.55	12006520.07	-269.87
4700.00	12.80	180.4	4698.67	-17.80	-0.11	8.00	17.80	2019359.49	12006510.70	-318.97
4750.00	16.80	180.4	4747.00	-30.57	-0.20	8.00	30.57	2019359.40	12006497.93	-367.30
4800.00	20.80	180.4	4794.33	-46.68	-0.30	8.00	46.68	2019359.30	12006481.82	-414.63
4850.00	24.80	180.4	4840.41	-66.05	-0.43	8.00	66.05	2019359.17	12006462.45	-460.71
4900.00	28.80	180.4	4885.03	-88.59	-0.57	8.00	88.59	2019359.03	12006439.91	-505.33
4950.00	32.80	180.4	4927.97	-114.18	-0.74	8.00	114.19	2019358.86	12006414.32	-548.27
5000.00	36.80	180.4	4969.02	-142.71	-0.92	8.00	142.72	2019358.68	12006385.79	-589.32
5050.00	40.80	180.4	5007.98	-174.04	-1.12	8.00	174.04	2019358.48	12006354.46	-628.28
5100.00	44.80	180.4	5044.66	-208.00	-1.34	8.00	208.00	2019358.26	12006320.50	-664.96
5150.00	48.80	180.4	5078.88	-244.44	-1.58	8.00	244.45	2019358.02	12006284.06	-699.18
5200.00	52.80	180.4	5110.47	-283.18	-1.83	8.00	283.19	2019357.77	12006245.32	-730.77
*** 55 DEGREE TANGENT (at MD = 5227.50)										
5227.50	55.00	180.4	5126.67	-305.40	-1.97	8.00	305.40	2019357.63	12006223.10	-746.97
5250.00	55.00	180.4	5139.58	-323.83	-2.09	0.00	323.83	2019357.51	12006204.67	-759.88
5300.00	55.00	180.4	5168.26	-364.78	-2.36	0.00	364.79	2019357.24	12006163.72	-788.56
5350.00	55.00	180.4	5196.94	-405.74	-2.62	0.00	405.75	2019356.98	12006122.76	-817.24
5400.00	55.00	180.4	5225.62	-446.70	-2.88	0.00	446.71	2019356.72	12006081.80	-845.92
*** 10 DEGREE BUILD (at MD = 5427.50)										
5427.50	55.00	180.4	5241.39	-469.22	-3.03	0.00	469.23	2019356.57	12006059.28	-861.69
5450.00	57.25	180.4	5253.93	-487.90	-3.15	10.00	487.91	2019356.45	12006040.60	-874.23
5500.00	62.25	180.4	5279.11	-531.08	-3.43	10.00	531.09	2019356.17	12005997.42	-899.41
5550.00	67.25	180.4	5300.43	-576.29	-3.72	10.00	576.30	2019355.88	12005952.21	-920.73
5600.00	72.25	180.4	5317.73	-623.18	-4.02	10.00	623.19	2019355.58	12005905.32	-938.03
5650.00	77.25	180.4	5330.88	-671.40	-4.34	10.00	671.42	2019355.26	12005857.10	-951.18
5700.00	82.25	180.4	5339.77	-720.59	-4.65	10.00	720.61	2019354.95	12005807.91	-960.07
5750.00	87.25	180.4	5344.35	-770.36	-4.97	10.00	770.38	2019354.63	12005758.14	-964.65
*** LANDING POINT (at MD = 5770.00)										
5770.00	89.25	180.4	5344.96	-790.35	-5.10	10.00	790.37	2019354.50	12005738.15	-965.26
5800.00	89.25	180.4	5345.35	-820.35	-5.30	0.00	820.37	2019354.30	12005708.15	-965.65
5850.00	89.25	180.4	5346.01	-870.34	-5.62	0.00	870.36	2019353.98	12005658.16	-966.31

Boar State Com #2H, Plan 1

Operator	Mack Energy Corp	**Units**	feet, °/100ft	11:45 Monday, February 12, 2024	Page 2 of 4
Field		**County**	Lea	**Vertical Section Azimuth**	180.37
Well Name	Boar State Com #2H	**State**	New Mexico	**Survey Calculation Method**	Minimum Curvature
Plan	1	**Country**		**Database**	Access

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Site		**Surface X**	2019359.6	**Surface Long**	
Slot Name	**UWI**	**Surface Y**	12006528.5	**Surface Lat**	
Well Number	**API**	**Surface Z**	4379.7	**Global Z Ref**	KB
Project	**MD/TVD Ref** KB	**Ground Level**	4362.2	**Local North Ref**	Grid

DIRECTIONAL WELL PLAN

MD* ft	INC* deg	AZI* deg	TVD* ft	N* ft	E* ft	DLS* °/100ft	V. S.* ft	MapE* ft	MapN* ft	SysTVD* ft
5900.00	89.25	180.4	5346.66	-920.34	-5.94	0.00	920.36	2019353.66	12005608.16	-966.96
5950.00	89.25	180.4	5347.32	-970.33	-6.27	0.00	970.35	2019353.33	12005558.17	-967.62
6000.00	89.25	180.4	5347.97	-1020.33	-6.59	0.00	1020.35	2019353.01	12005508.17	-968.27
6050.00	89.25	180.4	5348.62	-1070.32	-6.91	0.00	1070.35	2019352.69	12005458.18	-968.92
6100.00	89.25	180.4	5349.28	-1120.32	-7.23	0.00	1120.34	2019352.37	12005408.18	-969.58
6150.00	89.25	180.4	5349.93	-1170.31	-7.56	0.00	1170.34	2019352.04	12005358.19	-970.23
6200.00	89.25	180.4	5350.59	-1220.31	-7.88	0.00	1220.33	2019351.72	12005308.19	-970.89
6250.00	89.25	180.4	5351.24	-1270.30	-8.20	0.00	1270.33	2019351.40	12005258.20	-971.54
6300.00	89.25	180.4	5351.90	-1320.30	-8.53	0.00	1320.32	2019351.07	12005208.20	-972.20
6350.00	89.25	180.4	5352.55	-1370.29	-8.85	0.00	1370.32	2019350.75	12005158.21	-972.85
6400.00	89.25	180.4	5353.21	-1420.29	-9.17	0.00	1420.32	2019350.43	12005108.21	-973.51
6450.00	89.25	180.4	5353.86	-1470.28	-9.49	0.00	1470.31	2019350.11	12005058.22	-974.16
6500.00	89.25	180.4	5354.51	-1520.27	-9.82	0.00	1520.31	2019349.78	12005008.23	-974.81
6550.00	89.25	180.4	5355.17	-1570.27	-10.14	0.00	1570.30	2019349.46	12004958.23	-975.47
6600.00	89.25	180.4	5355.82	-1620.26	-10.46	0.00	1620.30	2019349.14	12004908.24	-976.12
6650.00	89.25	180.4	5356.48	-1670.26	-10.79	0.00	1670.29	2019348.81	12004858.24	-976.78
6700.00	89.25	180.4	5357.13	-1720.25	-11.11	0.00	1720.29	2019348.49	12004808.25	-977.43
6750.00	89.25	180.4	5357.79	-1770.25	-11.43	0.00	1770.29	2019348.17	12004758.25	-978.09
6800.00	89.25	180.4	5358.44	-1820.24	-11.75	0.00	1820.28	2019347.85	12004708.26	-978.74
6850.00	89.25	180.4	5359.10	-1870.24	-12.08	0.00	1870.28	2019347.52	12004658.26	-979.40
6900.00	89.25	180.4	5359.75	-1920.23	-12.40	0.00	1920.27	2019347.20	12004608.27	-980.05
6950.00	89.25	180.4	5360.40	-1970.23	-12.72	0.00	1970.27	2019346.88	12004558.27	-980.70
7000.00	89.25	180.4	5361.06	-2020.22	-13.05	0.00	2020.26	2019346.55	12004508.28	-981.36
7050.00	89.25	180.4	5361.71	-2070.22	-13.37	0.00	2070.26	2019346.23	12004458.28	-982.01
7100.00	89.25	180.4	5362.37	-2120.21	-13.69	0.00	2120.26	2019345.91	12004408.29	-982.67
7150.00	89.25	180.4	5363.02	-2170.21	-14.01	0.00	2170.25	2019345.59	12004358.29	-983.32
7200.00	89.25	180.4	5363.68	-2220.20	-14.34	0.00	2220.25	2019345.26	12004308.30	-983.98
7250.00	89.25	180.4	5364.33	-2270.20	-14.66	0.00	2270.24	2019344.94	12004258.31	-984.63
7300.00	89.25	180.4	5364.99	-2320.19	-14.98	0.00	2320.24	2019344.62	12004208.31	-985.29
7350.00	89.25	180.4	5365.64	-2370.18	-15.31	0.00	2370.23	2019344.29	12004158.32	-985.94
7400.00	89.25	180.4	5366.29	-2420.18	-15.63	0.00	2420.23	2019343.97	12004108.32	-986.59
7450.00	89.25	180.4	5366.95	-2470.17	-15.95	0.00	2470.23	2019343.65	12004058.33	-987.25
7500.00	89.25	180.4	5367.60	-2520.17	-16.27	0.00	2520.22	2019343.33	12004008.33	-987.90
7550.00	89.25	180.4	5368.26	-2570.16	-16.60	0.00	2570.22	2019343.00	12003958.34	-988.56
7600.00	89.25	180.4	5368.91	-2620.16	-16.92	0.00	2620.21	2019342.68	12003908.34	-989.21
7650.00	89.25	180.4	5369.57	-2670.15	-17.24	0.00	2670.21	2019342.36	12003858.35	-989.87
7700.00	89.25	180.4	5370.22	-2720.15	-17.57	0.00	2720.20	2019342.03	12003808.35	-990.52

Boar State Com #2H, Plan 1

Operator	Mack Energy Corp	**Units**	feet, °/100ft	11:45 Monday, February 12, 2024	Page 3 of 4
Field		**County**	Lea	**Vertical Section Azimuth**	180.37
Well Name	Boar State Com #2H	**State**	New Mexico	**Survey Calculation Method**	Minimum Curvature
Plan	1	**Country**		**Database**	Access

Location	SL: 856 FSL & 990 FWL Section 30-T14S-R32E BHL: 1 FSL & 990 FWL Section 31-T14S-R32E	**Map Zone**	UTM	**Lat Long Ref**	
Site		**Surface X**	2019359.6	**Surface Long**	
Slot Name	**UWI**	**Surface Y**	12006528.5	**Surface Lat**	
Well Number	**API**	**Surface Z**	4379.7	**Global Z Ref**	KB
Project	**MD/TVD Ref** KB	**Ground Level**	4362.2	**Local North Ref**	Grid

DIRECTIONAL WELL PLAN

MD*	INC*	AZI*	TVD*	N*	E*	DLS*	V. S.*	MapE*	MapN*	SysTVD*
ft	deg	deg	ft	ft	ft	°/100ft	ft	ft	ft	ft
7750.00	89.25	180.4	5370.88	-2770.14	-17.89	0.00	2770.20	2019341.71	12003758.36	-991.18
7800.00	89.25	180.4	5371.53	-2820.14	-18.21	0.00	2820.20	2019341.39	12003708.36	-991.83
7850.00	89.25	180.4	5372.19	-2870.13	-18.53	0.00	2870.19	2019341.07	12003658.37	-992.49
7900.00	89.25	180.4	5372.84	-2920.13	-18.86	0.00	2920.19	2019340.74	12003608.37	-993.14
7950.00	89.25	180.4	5373.49	-2970.12	-19.18	0.00	2970.18	2019340.42	12003558.38	-993.79
8000.00	89.25	180.4	5374.15	-3020.12	-19.50	0.00	3020.18	2019340.10	12003508.38	-994.45
8050.00	89.25	180.4	5374.80	-3070.11	-19.83	0.00	3070.17	2019339.77	12003458.39	-995.10
8100.00	89.25	180.4	5375.46	-3120.10	-20.15	0.00	3120.17	2019339.45	12003408.40	-995.76
8150.00	89.25	180.4	5376.11	-3170.10	-20.47	0.00	3170.17	2019339.13	12003358.40	-996.41
8200.00	89.25	180.4	5376.77	-3220.09	-20.79	0.00	3220.16	2019338.81	12003308.41	-997.07
8250.00	89.25	180.4	5377.42	-3270.09	-21.12	0.00	3270.16	2019338.48	12003258.41	-997.72
8300.00	89.25	180.4	5378.08	-3320.08	-21.44	0.00	3320.15	2019338.16	12003208.42	-998.38
8350.00	89.25	180.4	5378.73	-3370.08	-21.76	0.00	3370.15	2019337.84	12003158.42	-999.03
8400.00	89.25	180.4	5379.38	-3420.07	-22.09	0.00	3420.14	2019337.51	12003108.43	-999.68
8450.00	89.25	180.4	5380.04	-3470.07	-22.41	0.00	3470.14	2019337.19	12003058.43	-1000.34
8500.00	89.25	180.4	5380.69	-3520.06	-22.73	0.00	3520.14	2019336.87	12003008.44	-1000.99
8550.00	89.25	180.4	5381.35	-3570.06	-23.05	0.00	3570.13	2019336.55	12002958.44	-1001.65
8600.00	89.25	180.4	5382.00	-3620.05	-23.38	0.00	3620.13	2019336.22	12002908.45	-1002.30
8650.00	89.25	180.4	5382.66	-3670.05	-23.70	0.00	3670.12	2019335.90	12002858.45	-1002.96
8700.00	89.25	180.4	5383.31	-3720.04	-24.02	0.00	3720.12	2019335.58	12002808.46	-1003.61
8750.00	89.25	180.4	5383.97	-3770.04	-24.35	0.00	3770.11	2019335.25	12002758.46	-1004.27
8800.00	89.25	180.4	5384.62	-3820.03	-24.67	0.00	3820.11	2019334.93	12002708.47	-1004.92
8850.00	89.25	180.4	5385.27	-3870.02	-24.99	0.00	3870.11	2019334.61	12002658.48	-1005.57
8900.00	89.25	180.4	5385.93	-3920.02	-25.31	0.00	3920.10	2019334.29	12002608.48	-1006.23
8950.00	89.25	180.4	5386.58	-3970.01	-25.64	0.00	3970.10	2019333.96	12002558.49	-1006.88
9000.00	89.25	180.4	5387.24	-4020.01	-25.96	0.00	4020.09	2019333.64	12002508.49	-1007.54
9050.00	89.25	180.4	5387.89	-4070.00	-26.28	0.00	4070.09	2019333.32	12002458.50	-1008.19
9100.00	89.25	180.4	5388.55	-4120.00	-26.61	0.00	4120.08	2019332.99	12002408.50	-1008.85
9150.00	89.25	180.4	5389.20	-4169.99	-26.93	0.00	4170.08	2019332.67	12002358.51	-1009.50
9200.00	89.25	180.4	5389.86	-4219.99	-27.25	0.00	4220.08	2019332.35	12002308.51	-1010.16
9250.00	89.25	180.4	5390.51	-4269.98	-27.57	0.00	4270.07	2019332.03	12002258.52	-1010.81
9300.00	89.25	180.4	5391.17	-4319.98	-27.90	0.00	4320.07	2019331.70	12002208.52	-1011.47
9350.00	89.25	180.4	5391.82	-4369.97	-28.22	0.00	4370.06	2019331.38	12002158.53	-1012.12
9400.00	89.25	180.4	5392.47	-4419.97	-28.54	0.00	4420.06	2019331.06	12002108.53	-1012.77
9450.00	89.25	180.4	5393.13	-4469.96	-28.87	0.00	4470.05	2019330.73	12002058.54	-1013.43
9500.00	89.25	180.4	5393.78	-4519.96	-29.19	0.00	4520.05	2019330.41	12002008.54	-1014.08
9550.00	89.25	180.4	5394.44	-4569.95	-29.51	0.00	4570.05	2019330.09	12001958.55	-1014.74

Boar State Com #2H, Plan 1

Operator	Mack Energy Corp	**Units**	feet, °/100ft	11:45 Monday, February 12, 2024	Page 4 of 4
Field		**County**	Lea	**Vertical Section Azimuth**	180.37
Well Name	Boar State Com #2H	**State**	New Mexico	**Survey Calculation Method**	Minimum Curvature
Plan	1	**Country**		**Database**	Access

Location	SL: 856 FSL & 990 FWL Section 30-T14S-R32E BHL: 1 FSL & 990 FWL Section 31-T14S-R32E	**Map Zone**	UTM	**Lat Long Ref**	
Site		**Surface X**	2019359.6	**Surface Long**	
Slot Name	**UWI**	**Surface Y**	12006528.5	**Surface Lat**	
Well Number	**API**	**Surface Z**	4379.7	**Global Z Ref**	KB
Project	**MD/TVD Ref** KB	**Ground Level**	4362.2	**Local North Ref**	Grid

DIRECTIONAL WELL PLAN

MD* ft	INC* deg	AZI* deg	TVD* ft	N* ft	E* ft	DLS* °/100ft	V. S.* ft	MapE* ft	MapN* ft	SysTVD* ft
9600.00	89.25	180.4	5395.09	-4619.94	-29.83	0.00	4620.04	2019329.77	12001908.56	-1015.39
9650.00	89.25	180.4	5395.75	-4669.94	-30.16	0.00	4670.04	2019329.44	12001858.56	-1016.05
9700.00	89.25	180.4	5396.40	-4719.93	-30.48	0.00	4720.03	2019329.12	12001808.57	-1016.70
9750.00	89.25	180.4	5397.06	-4769.93	-30.80	0.00	4770.03	2019328.80	12001758.57	-1017.36
9800.00	89.25	180.4	5397.71	-4819.92	-31.13	0.00	4820.02	2019328.47	12001708.58	-1018.01
9850.00	89.25	180.4	5398.36	-4869.92	-31.45	0.00	4870.02	2019328.15	12001658.58	-1018.66
9900.00	89.25	180.4	5399.02	-4919.91	-31.77	0.00	4920.02	2019327.83	12001608.59	-1019.32
9950.00	89.25	180.4	5399.67	-4969.91	-32.09	0.00	4970.01	2019327.51	12001558.59	-1019.97
10000.00	89.25	180.4	5400.33	-5019.90	-32.42	0.00	5020.01	2019327.18	12001508.60	-1020.63
10050.00	89.25	180.4	5400.98	-5069.90	-32.74	0.00	5070.00	2019326.86	12001458.60	-1021.28
10100.00	89.25	180.4	5401.64	-5119.89	-33.06	0.00	5120.00	2019326.54	12001408.61	-1021.94
10150.00	89.25	180.4	5402.29	-5169.89	-33.39	0.00	5169.99	2019326.21	12001358.61	-1022.59
10200.00	89.25	180.4	5402.95	-5219.88	-33.71	0.00	5219.99	2019325.89	12001308.62	-1023.25
10250.00	89.25	180.4	5403.60	-5269.88	-34.03	0.00	5269.99	2019325.57	12001258.62	-1023.90
10300.00	89.25	180.4	5404.25	-5319.87	-34.35	0.00	5319.98	2019325.25	12001208.63	-1024.55
10350.00	89.25	180.4	5404.91	-5369.86	-34.68	0.00	5369.98	2019324.92	12001158.64	-1025.21
10400.00	89.25	180.4	5405.56	-5419.86	-35.00	0.00	5419.97	2019324.60	12001108.64	-1025.86
10450.00	89.25	180.4	5406.22	-5469.85	-35.32	0.00	5469.97	2019324.28	12001058.65	-1026.52
10500.00	89.25	180.4	5406.87	-5519.85	-35.65	0.00	5519.96	2019323.95	12001008.65	-1027.17
10550.00	89.25	180.4	5407.53	-5569.84	-35.97	0.00	5569.96	2019323.63	12000958.66	-1027.83
10600.00	89.25	180.4	5408.18	-5619.84	-36.29	0.00	5619.96	2019323.31	12000908.66	-1028.48
10650.00	89.25	180.4	5408.84	-5669.83	-36.61	0.00	5669.95	2019322.99	12000858.67	-1029.14
10700.00	89.25	180.4	5409.49	-5719.83	-36.94	0.00	5719.95	2019322.66	12000808.67	-1029.79
10750.00	89.25	180.4	5410.15	-5769.82	-37.26	0.00	5769.94	2019322.34	12000758.68	-1030.45
10800.00	89.25	180.4	5410.80	-5819.82	-37.58	0.00	5819.94	2019322.02	12000708.68	-1031.10
10850.00	89.25	180.4	5411.45	-5869.81	-37.91	0.00	5869.93	2019321.69	12000658.69	-1031.75
10900.00	89.25	180.4	5412.11	-5919.81	-38.23	0.00	5919.93	2019321.37	12000608.69	-1032.41
10950.00	89.25	180.4	5412.76	-5969.80	-38.55	0.00	5969.93	2019321.05	12000558.70	-1033.06
11000.00	89.25	180.4	5413.42	-6019.80	-38.87	0.00	6019.92	2019320.73	12000508.70	-1033.72
11050.00	89.25	180.4	5414.07	-6069.79	-39.20	0.00	6069.92	2019320.40	12000458.71	-1034.37
11100.00	89.25	180.4	5414.73	-6119.78	-39.52	0.00	6119.91	2019320.08	12000408.72	-1035.03
*** TD (at MD = 11126.00)										
11126.00	89.25	180.4	5415.07	-6145.78	-39.69	0.00	6145.91	2019319.91	12000382.72	-1035.37