

Well Name: GOONCH FED COM 0409	Well Location: T23S / R28E / SEC 4 / LOT 2 /	County or Parish/State:
Well Number: 216H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM13233	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001548222	Well Status: Approved Application for Permit to Drill	Operator: NOVO OIL AND GAS NORTHERN DELAWARE LLC

Notice of Intent

Sundry ID: 2717561

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 02/23/2023	Time Sundry Submitted: 02:09
Date proposed operation will begin: 12/16/2021	

Procedure Description: Per NMOCD request: Novo Oil & Gas Northern Delaware LLC respectfully requests to change the SHL to 530' FNL 1512' FEL, from the previously approved location of 449' FNL 1350' FEL, Sec 4-T23S-R28E. There will be no additional surface disturbance with the changed of SHL. Change BHL to 10' FNL 1870 FEL, from 130' FSL 1914' FEL, SESE, Sec P-T23S-R28E. Change Pool Name to Culebra Bluff; Bone Spring, South, from Purple Sage; Wolfcamp. See attached for detailed changes to casing depth, cement and mud programs and C-102.

NOI Attachments

Procedure Description

- Goonch_Fed_Com_0409_216H_Standard_Plan_1___Plot_20230223140800.pdf
- Drill_Plan_3S_10K_GOONCH_FED_COM_0409_216H_122021_20220104124719_20230223140747.pdf
- Goonch_0409_216H_BHL_Change_of_Plans_20220104124704_20230223140731.pdf
- C_102_Goonch_Fed_Com_0409_216H_BHL_Change_20230223140701.pdf

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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: LINDA GOOD	Signed on: FEB 23, 2023 02:08 PM
Name: NOVO OIL AND GAS NORTHERN DELAWARE LLC	
Title: Contractor	
Street Address: 1001 WEST WILSHIRE BLVE SUITE 206	
City: OKLAHOMA CITY	State: OK
Phone: (405) 590-4809	
Email address: JCARTER@NOVOOG.COM	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: CODY LAYTON	BLM POC Title: Assistant Field Manager Lands & Minerals
BLM POC Phone: 5752345959	BLM POC Email Address: clayton@blm.gov
Disposition: Approved	Disposition Date: 05/31/2023
Signature: Cody R. Layton	

CHANGE TO PLANS

Move Bottom Hole Location

From: 130' FSL & 1,914' FEL, Section 9, T-23-S, R-28-E, SWSE

To: 10' FSL & 1,870' FEL, Section 9, T-23-S, R-28-E, SWSE

Change Target Formation

From: Wolfcamp XY

To: First Bone Spring

Casing Depth Interval Change (TMD)

Surface Casing (13-3/8"): 0' – 410'

Intermediate Casing (8-5/8"): 0' – 3,475'

Production Casing (5-1/2"): 0' – 18,107'

Single State Cement Job for 13-3/8: Surface Casing String (TOC = Surface)

Tail: 352 Sacks; 569.7 cu. ft.; 100% excess; 1.62 cu. ft./sx; 13.8 ppg; Class C cement + Gel + Accelerator, + LCM; 1,200 psi 24-hour comprehensive strength

Single Stage Cement Job for 8-5/8" Intermediate Casing String (TOC = Surface)

Lead: 205 Sacks; 735.5 cu. ft.; 100% excess; 3.58 cu.ft./sx; 10 ppg; Class C or H + retarder + LCM + beads; 900 psi 24-hour compressive strength.

Tail: 130 Sacks; 180.7 cu. ft; 50% excess; 1.39 cu.ft./sx; 13.80 ppg; Class C or H + retarder + LCM; 1,200 psi 24-hour compressive strength.

Singe Stage Cement Job for 5-1/2" Production Casing String (TOC = Surface)

Lead: 132 Sacks; 278.9 cu. ft.; 20% excess; 2.12 cu.ft./sx; 12 ppg; Class H + retarder; 1,200 psi 24-hour compressive strength.

Tail: 2,415 Sacks; 3,840.2 cu. ft; 20% excess; 1.59 cu.ft./sx; 13.2 ppg; Class H + retarder; 1,200 psi 24-hour compressive strength.

Drilling Fluid Program Changes

Fresh Water Spud Mud:	0' – 410';	8.3 ppg
Brine:	410' – 3,325';	8.8-9.6 ppg
WBM or OBM:	3,325 – 18,107';	9.2-9.9 ppg

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 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 30-015-48222	² Pool Code 15011	³ Pool Name Culebra Bluff; Bone Spring, South
⁴ Property Code	⁵ Property Name GOONCH FED COM 0409	⁶ Well Number 216H
⁷ OGRID No. 372920	⁸ Operator Name NOVO OIL & GAS NORTHERN DELAWARE, LLC	⁹ Elevation 3036.3

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
2	4	23 S	28 E		530	NORTH	1512	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
O	9	23 S	28 E		10	SOUTH	1870	EAST	EDDY

¹² Dedicated Acres 320.22	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

NW CORNER SEC. 4 LAT. = 32.3419277°N LONG. = 104.1004691°W NMSP EAST (FT) N = 488203.46 E = 613253.56 W/4 CORNER SEC. 4 LAT. = 32.3345328°N LONG. = 104.1007792°W NMSP EAST (FT) N = 485513.07 E = 613163.63 SW CORNER SEC. 4 LAT. = 32.3271399°N LONG. = 104.1010900°W NMSP EAST (FT) N = 482823.39 E = 613073.47 FIRST TAKE POINT 100' FNL, 1870' FEL LAT. = 32.3416422°N LONG. = 104.0899232°W NMSP EAST (FT) N = 488106.82 E = 616510.71 LAST TAKE POINT 100' FSL, 1870' FEL LAT. = 32.3128877°N LONG. = 104.0899793°W NMSP EAST (FT) N = 477646.24 E = 616517.15 SW CORNER SEC. 9 LAT. = 32.3125842°N LONG. = 104.1011208°W NMSP EAST (FT) N = 477528.19 E = 613075.43 NE CORNER SEC. 4 LAT. = 32.3419104°N LONG. = 104.083736°W NMSP EAST (FT) N = 488208.68 E = 618378.80 E/4 CORNER SEC. 4 LAT. = 32.3348965°N LONG. = 104.0837492°W NMSP EAST (FT) N = 485657.22 E = 618423.16 SE CORNER SEC. 4 LAT. = 32.3271286°N LONG. = 104.0840436°W NMSP EAST (FT) N = 482831.13 E = 618338.83 E/4 CORNER SEC. 9 LAT. = 32.3199338°N LONG. = 104.0840079°W NMSP EAST (FT) N = 480213.77 E = 618355.92 SE CORNER SEC. 9 LAT. = 32.3126281°N LONG. = 104.0839243°W NMSP EAST (FT) N = 477556.11 E = 618387.96 NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE, VERTICAL DATUM NAVD83. BOTTOM OF HOLE LAT. = 32.3126404°N LONG. = 104.0899765°W NMSP EAST (FT) N = 477556.28 E = 616518.22	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. <i>Justin Carter</i> 12.9.2021 Signature Date Justin Carter Printed Name jcarter@novoog.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 7, 2021 Date of Survey <i>[Signature]</i> Signature and Seal of Professional Surveyor Certificate Number: FIRMON FERRANIELLO, PLS 12797 SURVEY NO. 7272C

Intent ☐ As Drilled ☐

API #		
Operator Name: NOVO OIL & GAS NORTHERN DELAWARE, LLC	Property Name: GOONCH FED COM 0409	Well Number 216H

Kick Off Point (KOP)

UL	Section 4	Township 23S	Range 28E	Lot 2	Feet 530	From N/S NORTH	Feet 1512	From E/W EAST	County EDDY
Latitude 32.3404597					Longitude 104.0887423			NAD 83	

First Take Point (FTP)

UL	Section 4	Township 23S	Range 28E	Lot 2	Feet 100	From N/S NORTH	Feet 1870	From E/W EAST	County EDDY
Latitude 32.3416422					Longitude 104.0899232			NAD 83	

Last Take Point (LTP)

UL O	Section 9	Township 23S	Range 28E	Lot	Feet 100	From N/S SOUTH	Feet 1870	From E/W EAST	County EDDY
Latitude 32.3128877					Longitude 104.0899793			NAD 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 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
SITE MAP

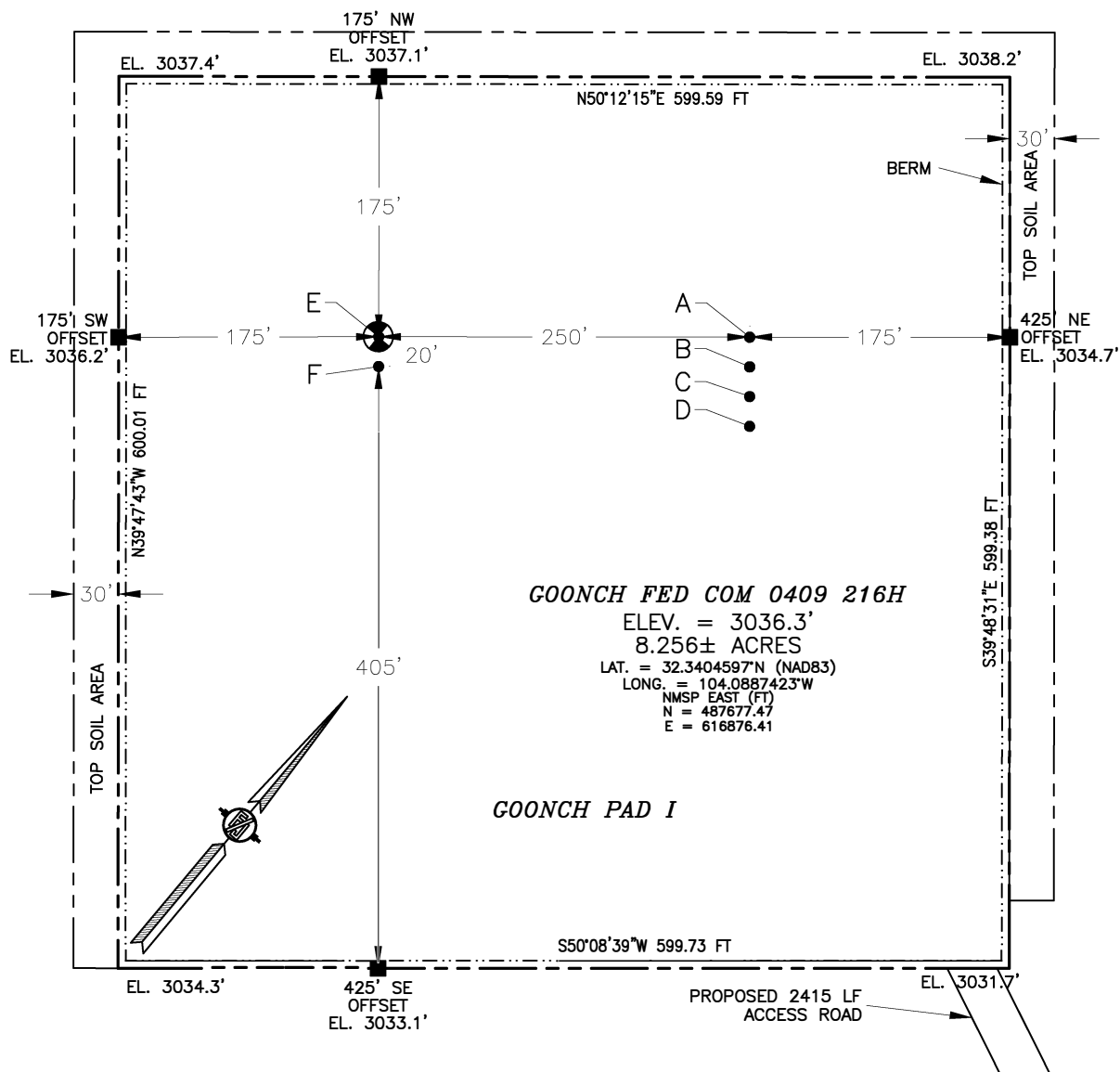
AS-DRILLED WELLS

A - GOONCH FED COM 0409 225H
 B - GOONCH FED COM 0409 236H
 C - GOONCH FED COM 0409 235H
 D - GOONCH FED COM 0409 136H

E - GOONCH FED COM 0409 216H
 F - GOONCH FED COM 0409 226H

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83) LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE. VERTICAL DATUM NAVD88.

SEC. 33
 SEC. 4



012 60 120 240

SCALE 1" = 120'

DIRECTIONS TO LOCATION

FROM STATE ROAD 31 (POTASH MINES) & CR 605 (REFINERY) GO NORTHWEST ON REFINERY ROAD APPROX 3.57 MILES TO HERRADURA BEND ROAD, TURN LEFT AND GO WEST-SOUTHWEST ON HERRADURA BEND ROAD APPROX. 0.66 OF A MILE, TURN LEFT AND GO SOUTH-SOUTHEAST APPROX. 0.59 OF A MILE TO A PROPOSED ROAD, GO SOUTHWEST-NORTHWEST 2415' TO THE SOUTHEAST PAD CORNER FOR THIS LOCATION.

I, FILIMON F. JARAMILLO, A PROFESSIONAL SURVEYOR, CERTIFY THAT THIS SURVEY WAS MADE IN ACCORDANCE WITH THE MINIMUM STANDARDS FOR SURVEYING IN THE STATE OF NEW MEXICO.

FILIMON F. JARAMILLO, 2793

MADON SURVEYING, INC.

301 SOUTH CANAL
 (575) 234-3341

NOVO OIL & GAS NORTHERN DELAWARE, LLC
GOONCH FED COM 0409 216H
 LOCATED 530 FT. FROM THE NORTH LINE
 AND 1512 FT. FROM THE EAST LINE OF
 SECTION 4, TOWNSHIP 23 SOUTH,
 RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 7, 2021

SURVEY NO. 7272C

CARLSBAD, NEW MEXICO

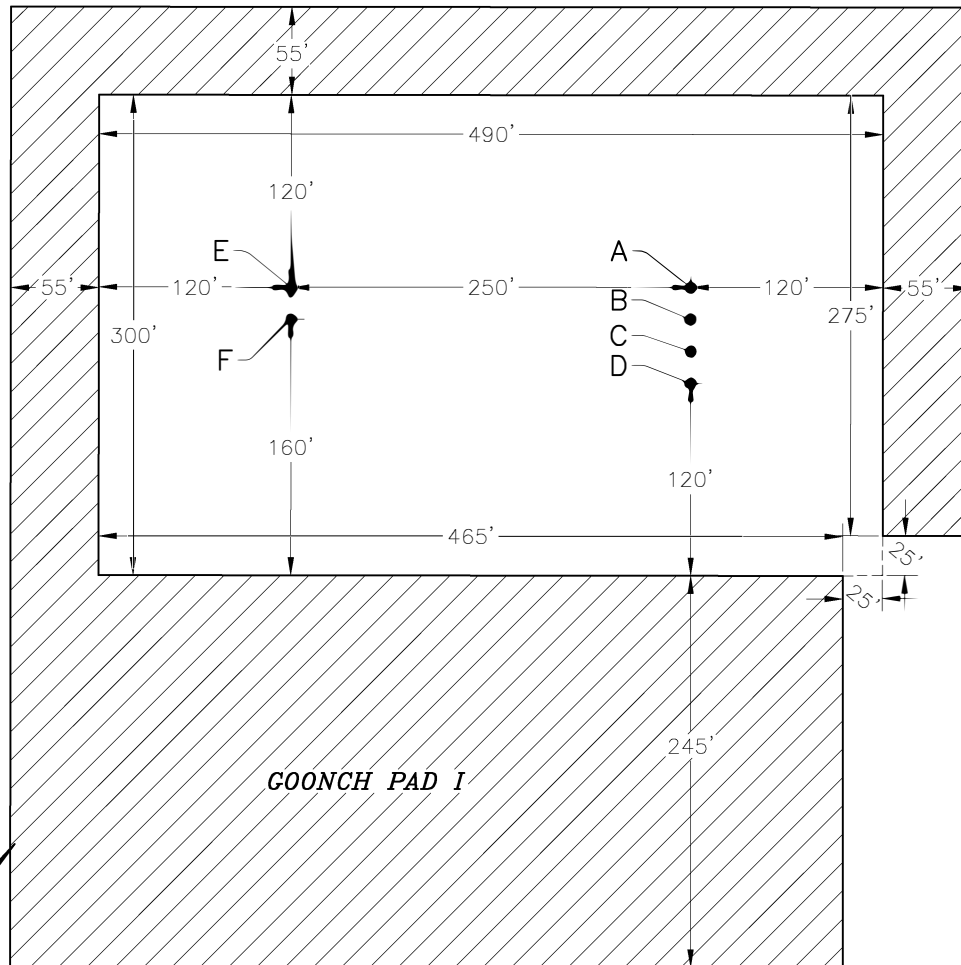
SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
INTERIM SITE BUILD PLAN

AS-DRILLED WELLS

A - GOONCH FED COM 0409 225H
 B - GOONCH FED COM 0409 236H
 C - GOONCH FED COM 0409 235H
 D - GOONCH FED COM 0409 136H

E - GOONCH FED COM 0409 216H
 F - GOONCH FED COM 0409 226H

SEC. 33
 SEC. 4



GOONCH PAD I

DENOTES INTERIM PAD
 RECLAMATION AREA
 4.403± ACRES

PROPOSED 2415 LF
 ACCESS ROAD

012 60 120 240
 SCALE 1" = 120'

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 EDDY COUNTY, STATE OF NEW MEXICO

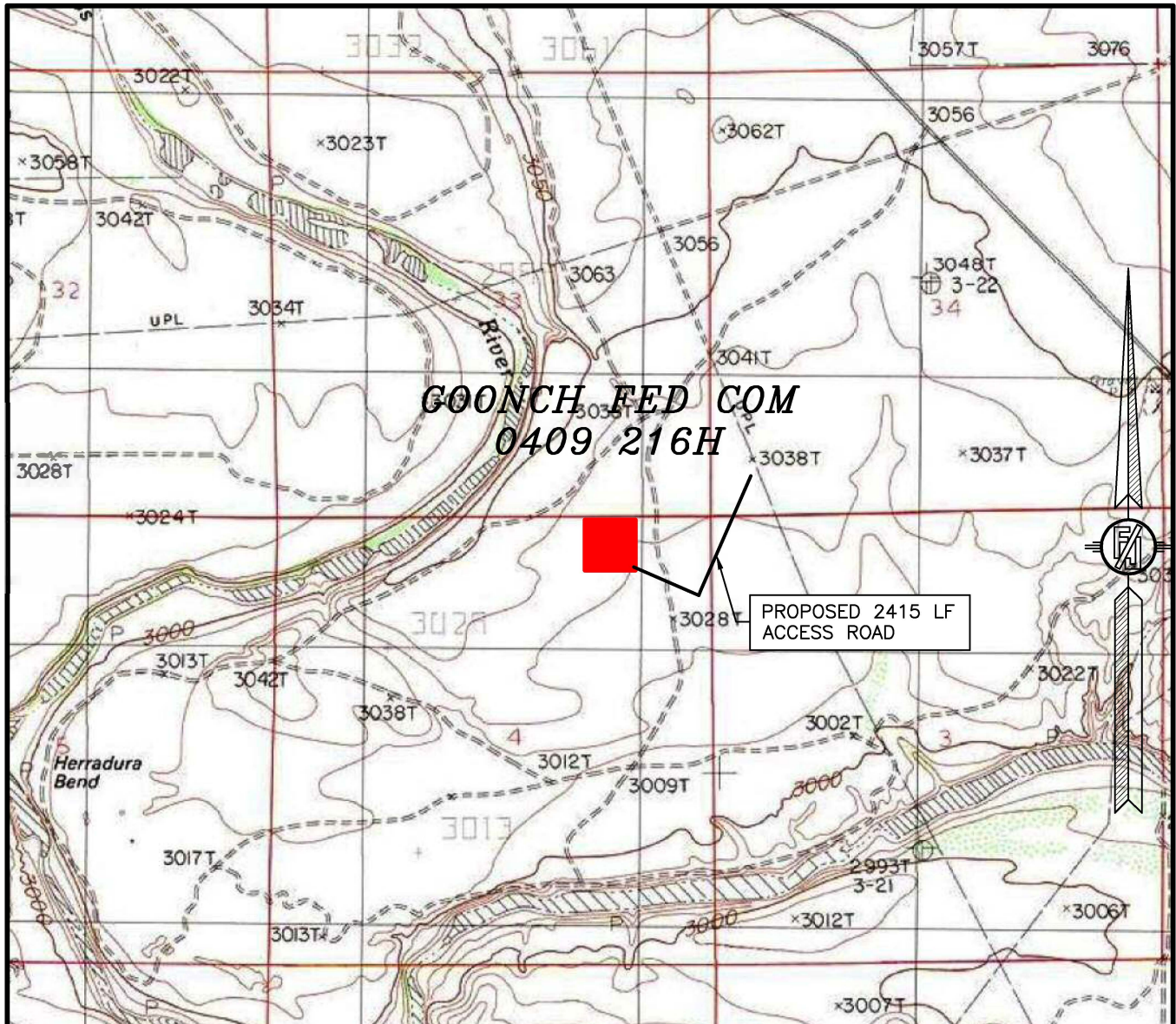
DECEMBER 7, 2021

MADRON SURVEYING, INC.

301 SOUTH CANAL
 (575) 234-3341

SURVEY NO. 7272C
 CARLSBAD, NEW MEXICO

SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 LOCATION VERIFICATION MAP



USGS QUAD MAP:
 LOVING

NOT TO SCALE

NOVO OIL & GAS NORTHERN DELAWARE, LLC
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 EDDY COUNTY, STATE OF NEW MEXICO

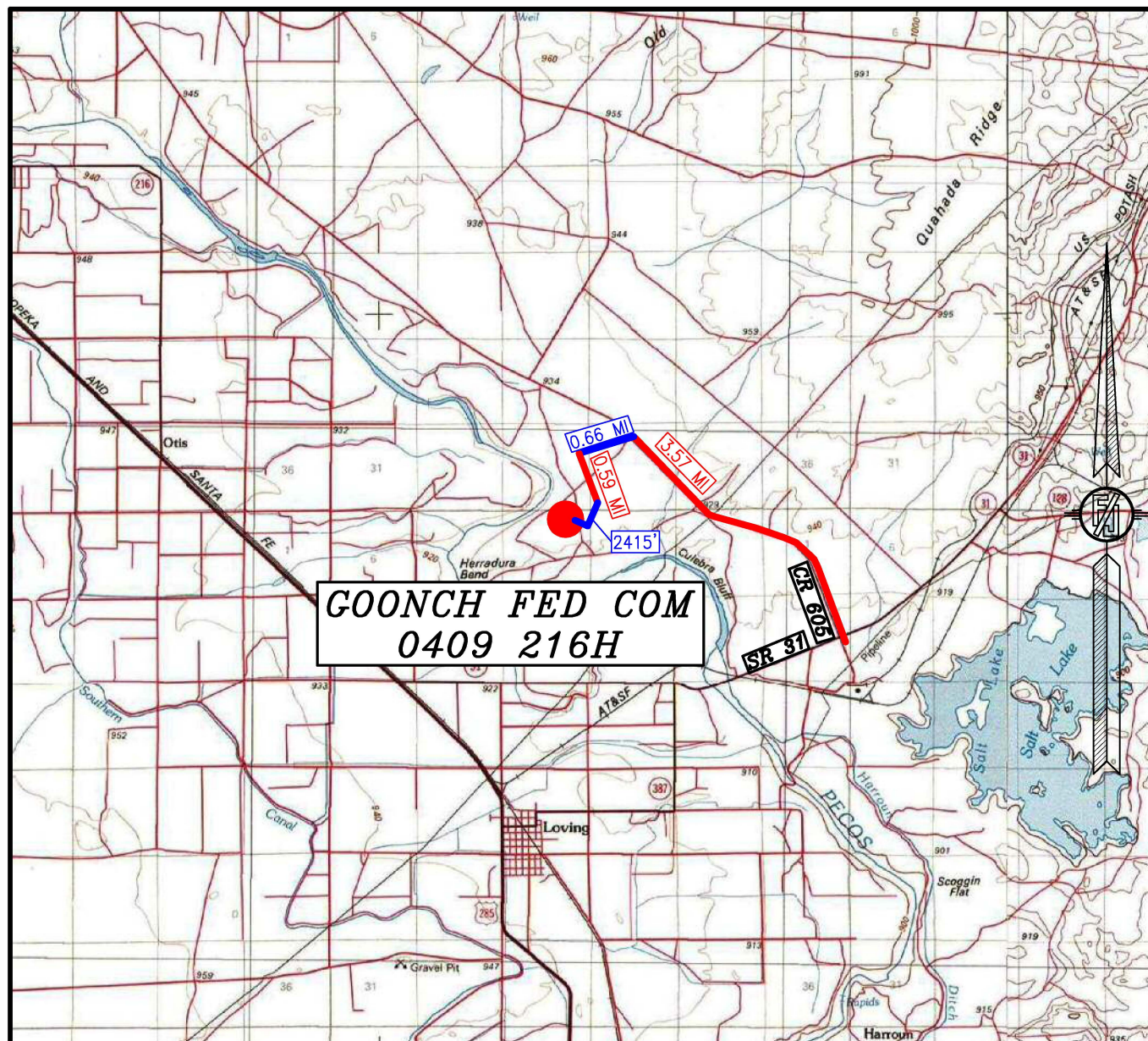
DECEMBER 7, 2021

MADRON SURVEYING, INC.

301 SOUTH CANAL
 (575) 234-3341

SURVEY NO. 7272C
 CARLSBAD, NEW MEXICO

SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

NOVO OIL & GAS NORTHERN DELAWARE, LLC
GOONCH FED COM 0409 216H

LOCATED 530 FT. FROM THE NORTH LINE
 AND 1512 FT. FROM THE EAST LINE OF
 SECTION 4, TOWNSHIP 23 SOUTH,
 RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

DIRECTIONS TO LOCATION

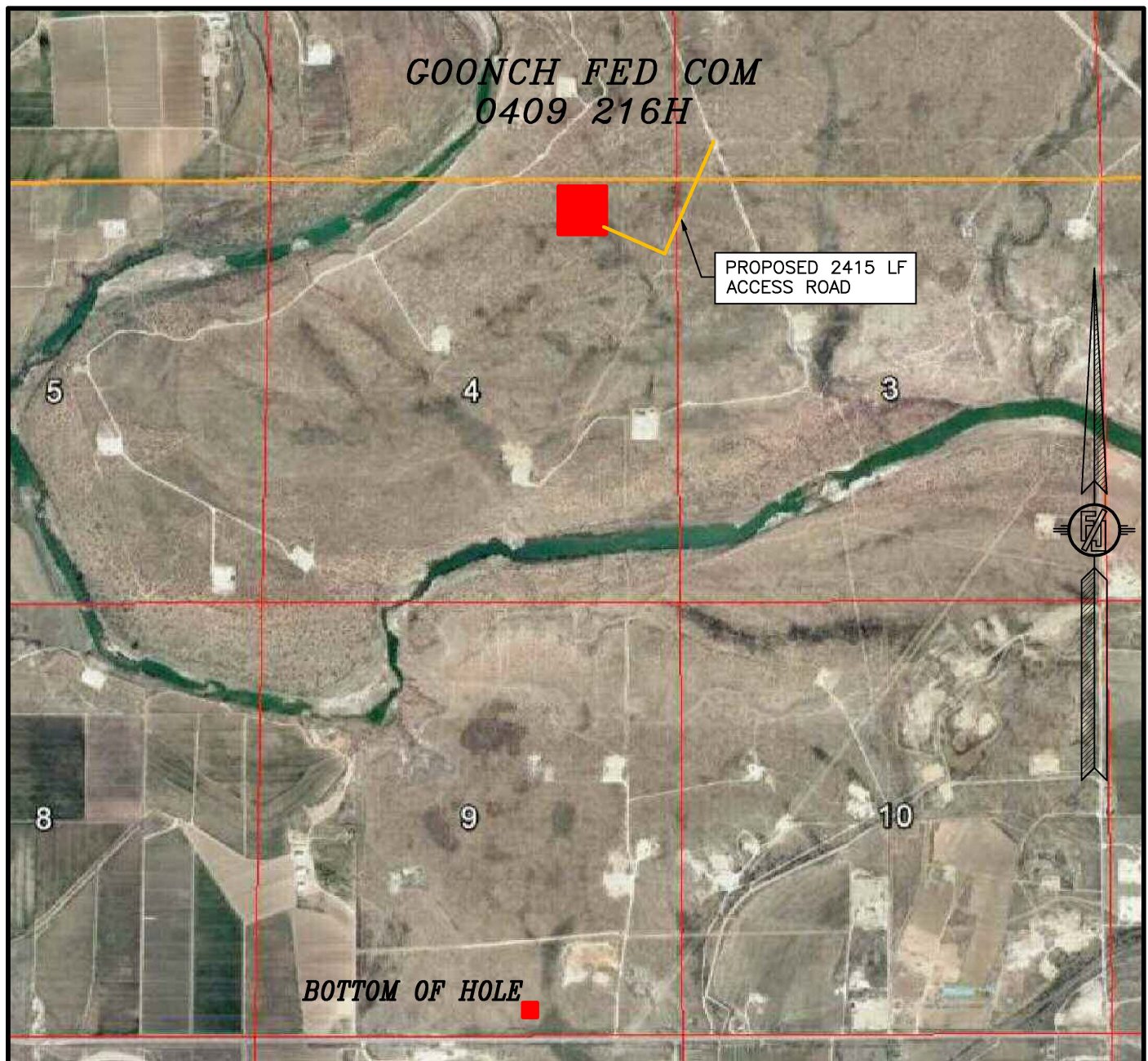
FROM STATE ROAD 31 (POTASH MINES) & CR 605 (REFINERY) GO
 NORTHWEST ON REFINERY ROAD APPROX 3.57 MILES TO HERRADURA BEND
 ROAD, TURN LEFT AND GO WEST-SOUTHWEST ON HERRADURA BEND ROAD
 APPROX. 0.66 OF A MILE, TURN LEFT AND GO SOUTH-SOUTHEAST APPROX.
 0.59 OF A MILE TO A PROPOSED ROAD, GO SOUTHWEST-NORTHWEST 2415'
 TO THE SOUTHEAST PAD CORNER FOR THIS LOCATION.

DECEMBER 7, 2021

MADRON SURVEYING, INC. 301 SOUTH CANAL
 (575) 234-3341

SURVEY NO. 7272C
 CARLSBAD, NEW MEXICO

SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 AERIAL PHOTO



NOT TO SCALE
 AERIAL PHOTO:
 GOOGLE EARTH
 MARCH 2016

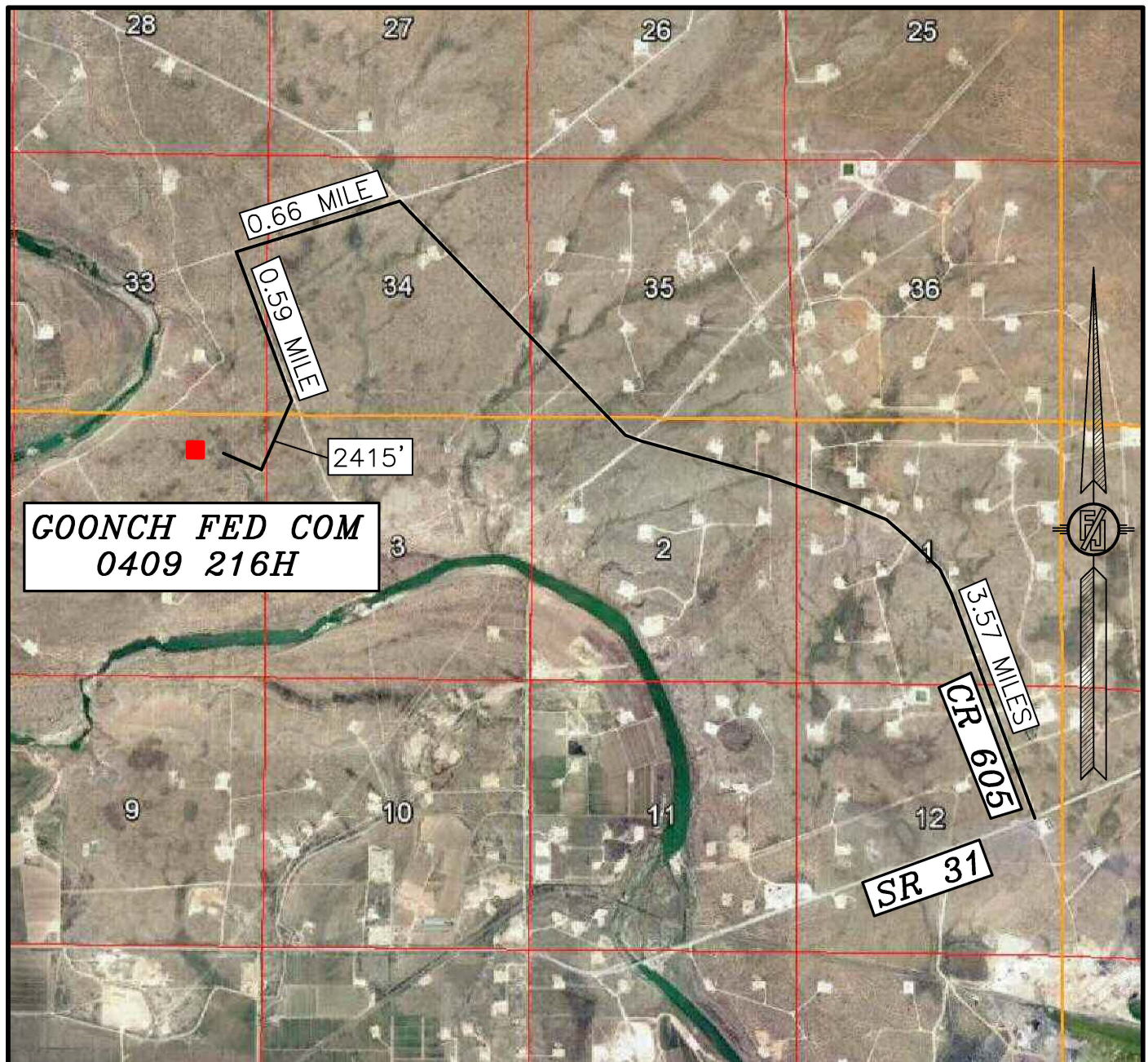
NOVO OIL & GAS NORTHERN DELAWARE, LLC
GOONCH FED COM 0409 216H
 LOCATED 530 FT. FROM THE NORTH LINE
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 SECTION 4, TOWNSHIP 23 SOUTH,
 RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 7, 2021

MADRON SURVEYING, INC. 301 SOUTH CANAL
 (575) 234-3341

SURVEY NO. 7272C
 CARLSBAD, NEW MEXICO

SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 ACCESS AERIAL ROUTE MAP



NOT TO SCALE
 AERIAL PHOTO:
 GOOGLE EARTH
 MARCH 2016

NOVO OIL & GAS NORTHERN DELAWARE, LLC
GOONCH FED COM 0409 216H
 LOCATED 530 FT. FROM THE NORTH LINE
 AND 1512 FT. FROM THE EAST LINE OF
 SECTION 4, TOWNSHIP 23 SOUTH,
 RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

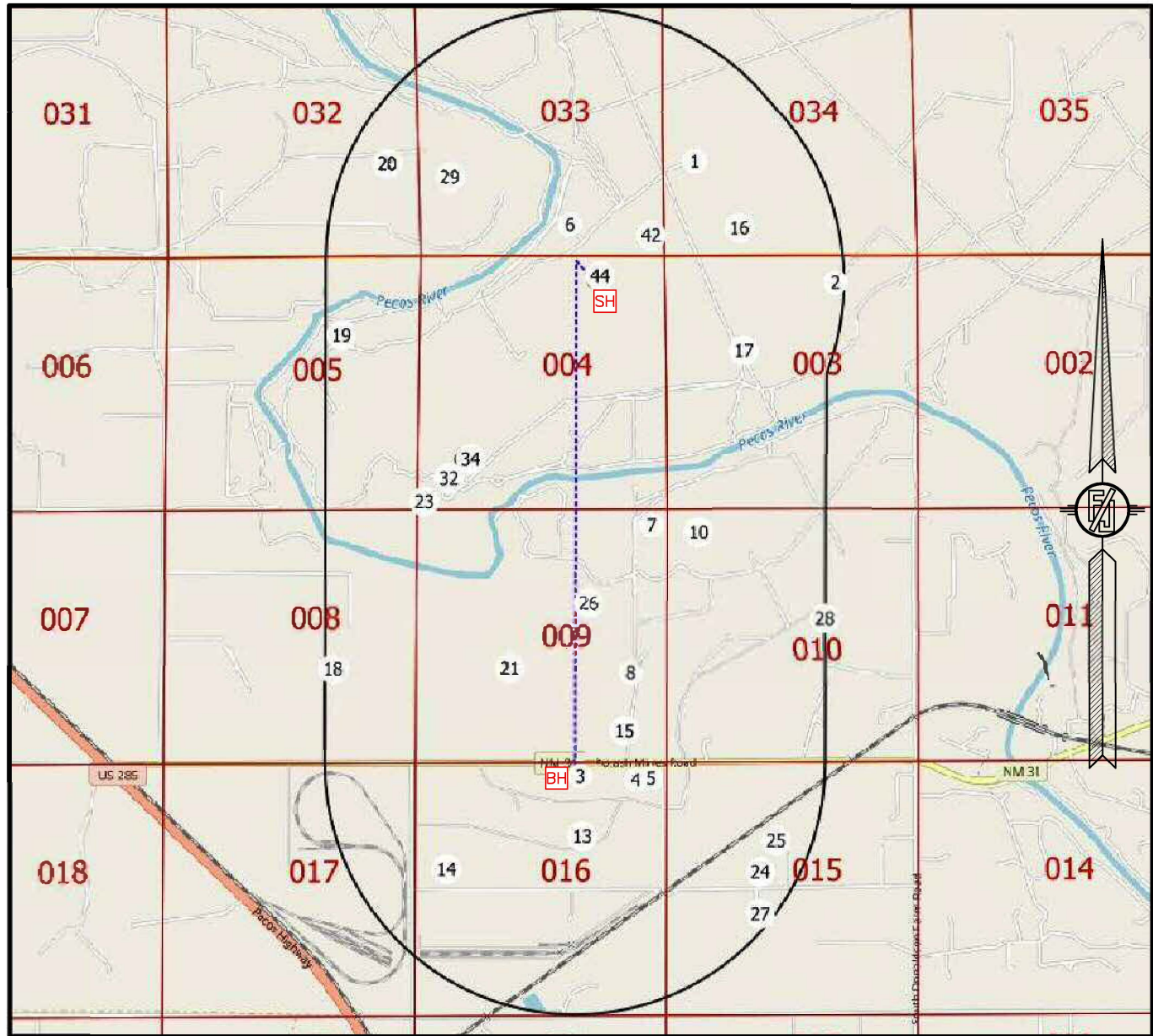
DECEMBER 7, 2021

MADRON SURVEYING, INC.

301 SOUTH CANAL
 (575) 234-3341

SURVEY NO. 7272C
 CARLSBAD, NEW MEXICO

1-MILE MAP



NOT TO SCALE

[SH] SURFACE LOCATION

[BH] BOTTOM OF HOLE

[XX] WELLS WITHIN 1 MILE

--- WELL PATH

— 1-MILE BOUNDARY

NOVO OIL & GAS NORTHERN DELAWARE, LLC
GOONCH FED COM 0409 216H
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 RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

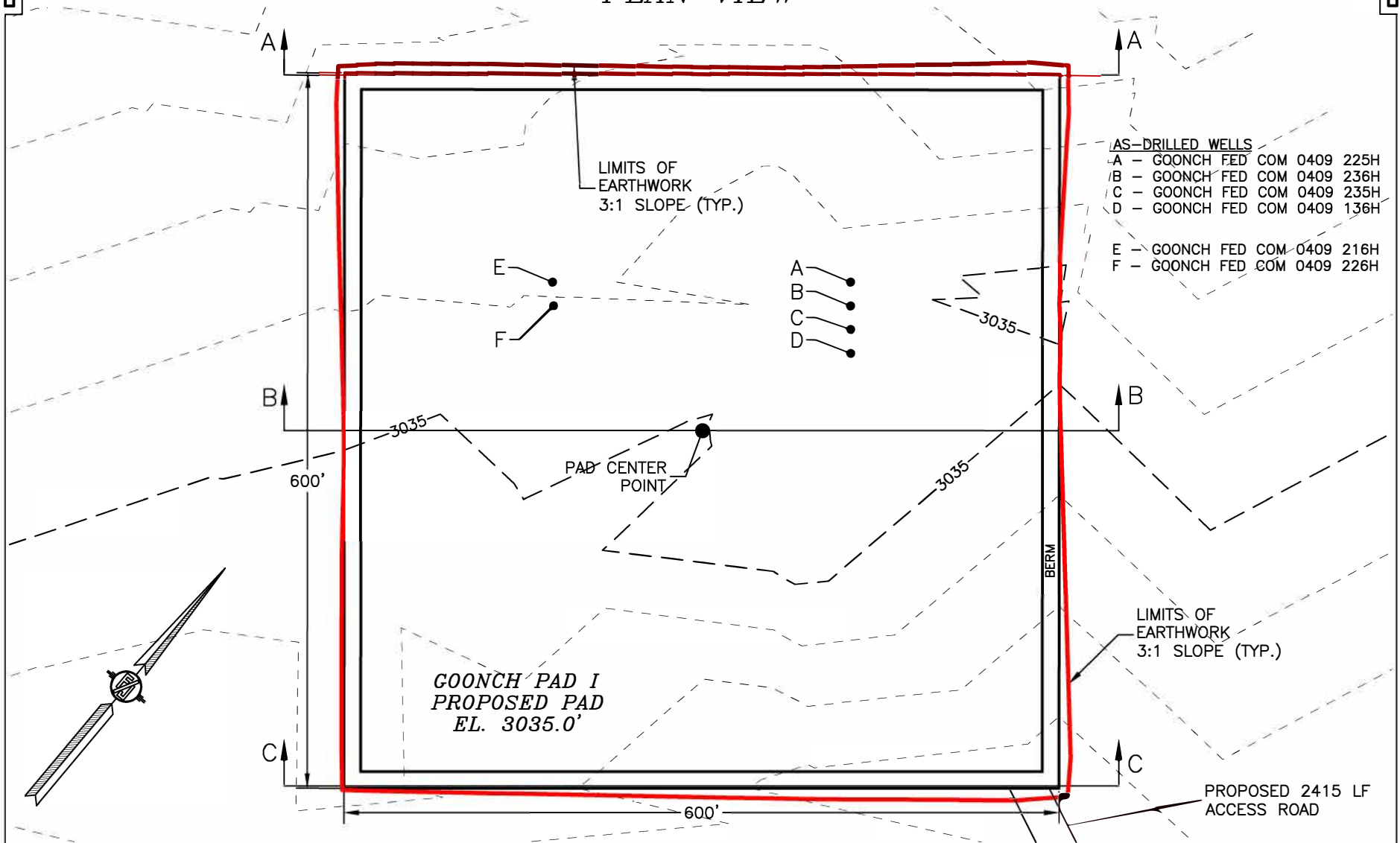
DECEMBER 7, 2021

SURVEY NO. 7272C

MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

PLAN VIEW



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

NOVO OIL & GAS NORTHERN DELAWARE, LLC
GRADING PLAN AND CROSS SECTIONS
FOR GOONCH FED COM 0409 216H
 SECTION 4, TOWNSHIP 23 SOUTH,
 RANGE 28 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 7, 2021

CUT	FILL	NET
6849 CU. YD	7927 CU. YD	1078 CU. YD (FILL)

EARTHWORK QUANTITIES ARE ESTIMATED

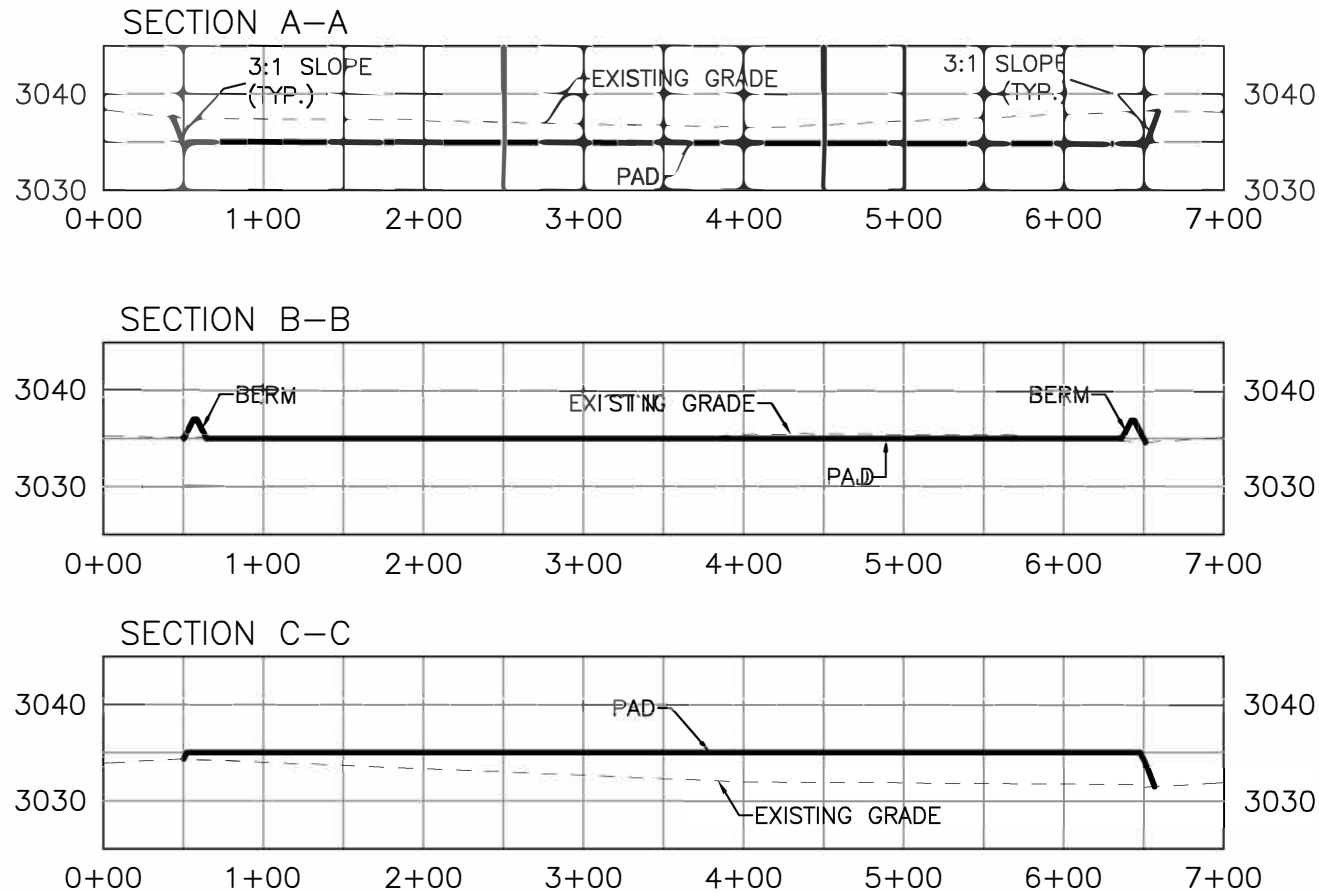
FILIMON F. JARAMILLO, 12797



MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 **CARLSBAD, NEW MEXICO**

SHEET 1-2
SURVEY NO. 7272C

CROSS SECTIONS



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

FILIMON F. JARAMILLO, 12797

NOVO OIL & GAS NORTHERN DELAWARE, LLC
GRADING PLAN AND CROSS SECTIONS
FOR GOONCH FED COM 0409 216H
SECTION 4, TOWNSHIP 23 SOUTH,
RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 7, 2021

301 SOUTH CANAL
 (575) 234-3341

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

012 60 120 240
 SCALE 1" = 120' - 1" = 20' VER

CUT	FILL	NET
6849 CU. YD	7927 CU. YD	1078 CU. YD (FILL)

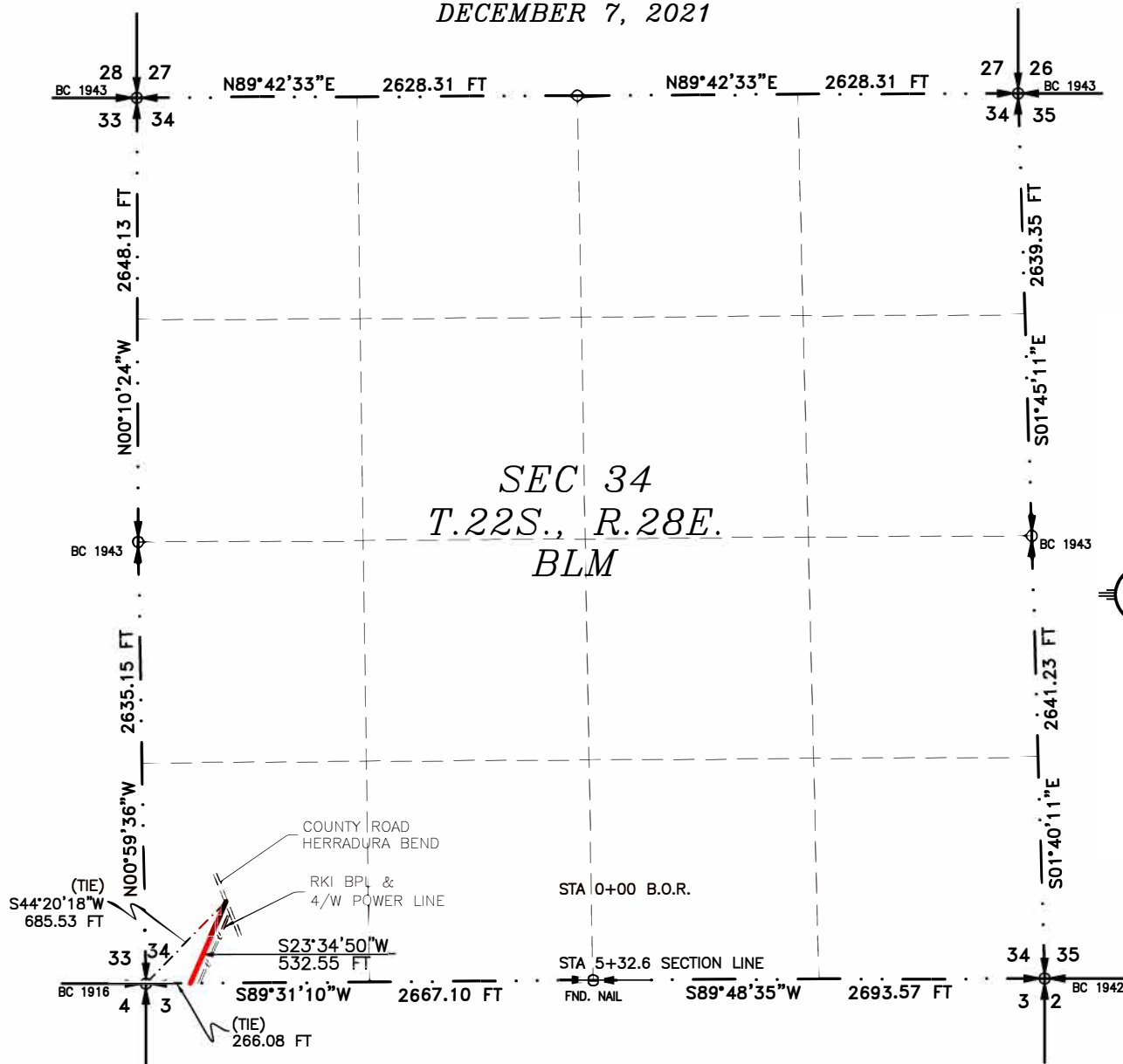
EARTHWORK QUANTITIES ARE ESTIMATED

SHEET 2-2
SURVEY NO. 7272C

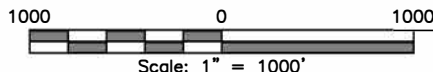
ACCESS ROAD PLAT

ACCESS ROAD TO THE GOONCH PAD I
(GOONCH FED COM 0409 236H, 136H, 225H, 235H, 216H, 226H)

NOVO OIL & GAS NORTHERN DELAWARE, LLC
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 34, TOWNSHIP 22 SOUTH, RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2021



SEE NEXT SHEET (2-6) FOR DESCRIPTION

**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.

SHEET: 1-6

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO 88220 Phone (575) 234-3341

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 8 DAY OF DECEMBER 2021

FILIMON F. JARAMILLO
NEW MEXICO
12797
SURVEYOR

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 7272C

ACCESS ROAD PLAT

ACCESS ROAD TO THE GOONCH PAD I

(GOONCH FED COM 0409 236H, 136H, 225H, 235H, 216H, 226H)

NOVO OIL & GAS NORTHERN DELAWARE, LLC
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 34, TOWNSHIP 22 SOUTH, RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2021

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 34, TOWNSHIP 22 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE SW/4 SW/4 OF SAID SECTION 34, TOWNSHIP 22 SOUTH, RANGE 28 EAST, N.M.P.M., WHENCE THE SOUTHWEST CORNER OF SAID SECTION 34, TOWNSHIP 22 SOUTH, RANGE 28 EAST, N.M.P.M. BEARS S44°20'18"W, A DISTANCE OF 685.53 FEET;
 THENCE S23°34'50"W A DISTANCE OF 532.55 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE SOUTHWEST CORNER OF SAID SECTION 34, TOWNSHIP 22 SOUTH, RANGE 28 EAST, N.M.P.M. BEARS S89°31'10"W, A DISTANCE OF 266.08 FEET;

SAID STRIP OF LAND BEING 532.55 FEET OR 32.28 RODS IN LENGTH, CONTAINING 0.367 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SW/4 SW/4 532.55 L.F. 32.28 RODS 0.367 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.

SHEET: 2-6

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO 88220
 (575) 234-3341

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 8 DAY OF DECEMBER 2021

FILIMON F. JARAMILLO PLS. 12797

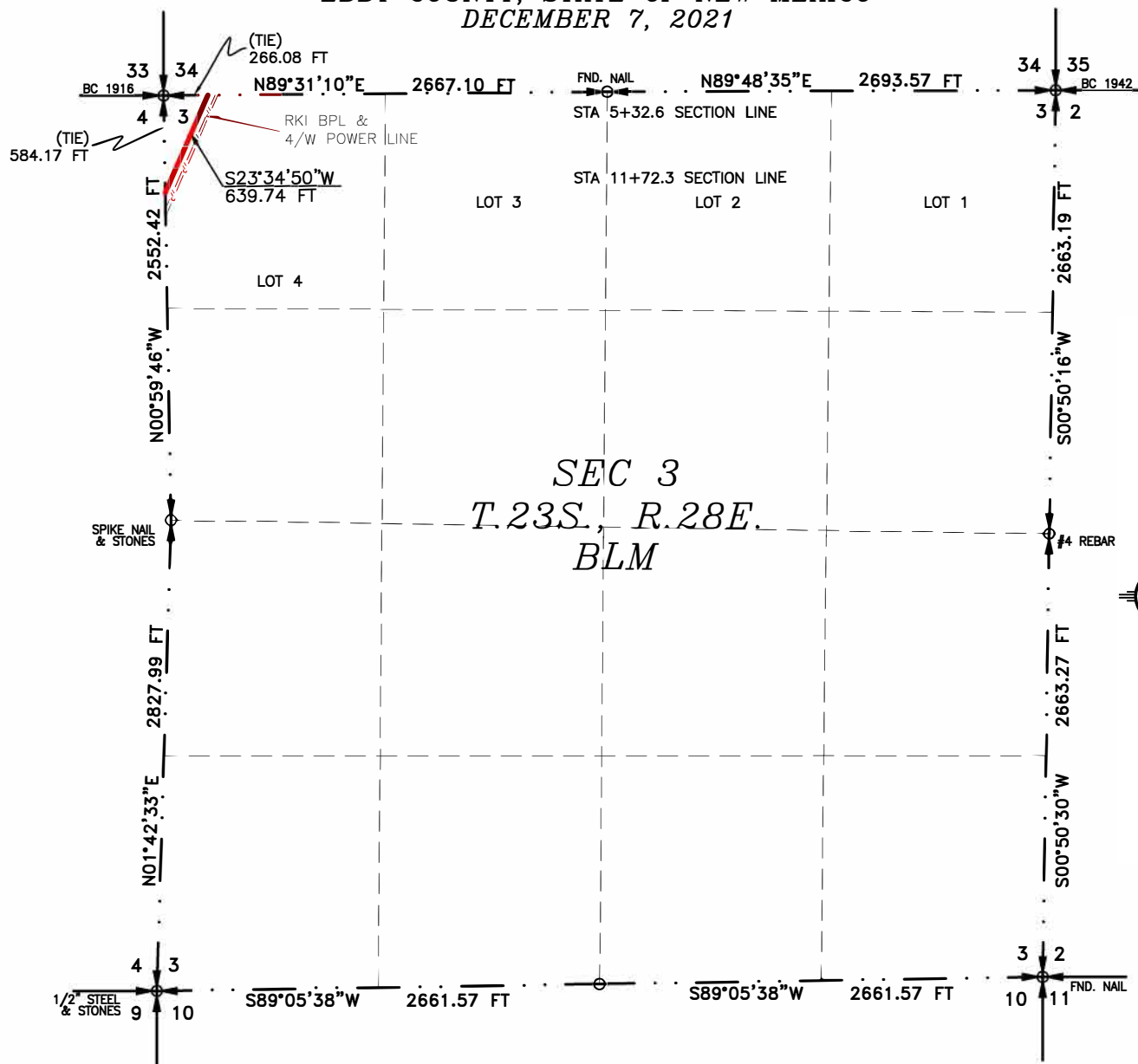
MADRON SURVEYING, INC.
 301 SOUTH CANAL
 CARLSBAD, NEW MEXICO 88220
 Phone (575) 234-3341

SURVEY NO. 7272C

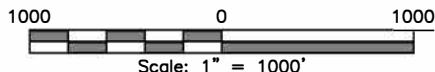
ACCESS ROAD PLAT

ACCESS ROAD TO THE GOONCH PAD I
(GOONCH FED COM 0409 236H, 136H, 225H, 235H, 216H, 226H)

NOVO OIL & GAS NORTHERN DELAWARE, LLC
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 3, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2021



SEE NEXT SHEET (4-6) FOR DESCRIPTION

**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.

SHEET: 3-6

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO (575) 234-3341

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 8 DAY OF DECEMBER 2021

FILIMON F. JARAMILLO PLS. 12797
MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 7272C

ACCESS ROAD PLAT

ACCESS ROAD TO THE GOONCH PAD I

(GOONCH FED COM 0409 236H, 136H, 225H, 235H, 216H, 226H)

NOVO OIL & GAS NORTHERN DELAWARE, LLC
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 3, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2021

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 3, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY 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 3, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M., WHENCE THE NORTHWEST CORNER OF SAID SECTION 3, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M. BEARS S89°31'10"W, A DISTANCE OF 266.08 FEET; THENCE S23°34'50"W A DISTANCE OF 639.74 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTHWEST CORNER OF SAID SECTION 3, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M. BEARS N00°59'46"W, A DISTANCE OF 584.17 FEET;

SAID STRIP OF LAND BEING 639.74 FEET OR 38.77 RODS IN LENGTH, CONTAINING 0.441 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

LOT 4 639.74 L.F. 38.77 RODS 0.441 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.

SHEET: 4-6

MADRON SURVEYING, INC.

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 8TH DAY OF DECEMBER 2021



MADRON SURVEYING, INC.
 301 SOUTH CANAL
 CARLSBAD, NEW MEXICO 88220
 Phone (575) 234-3341

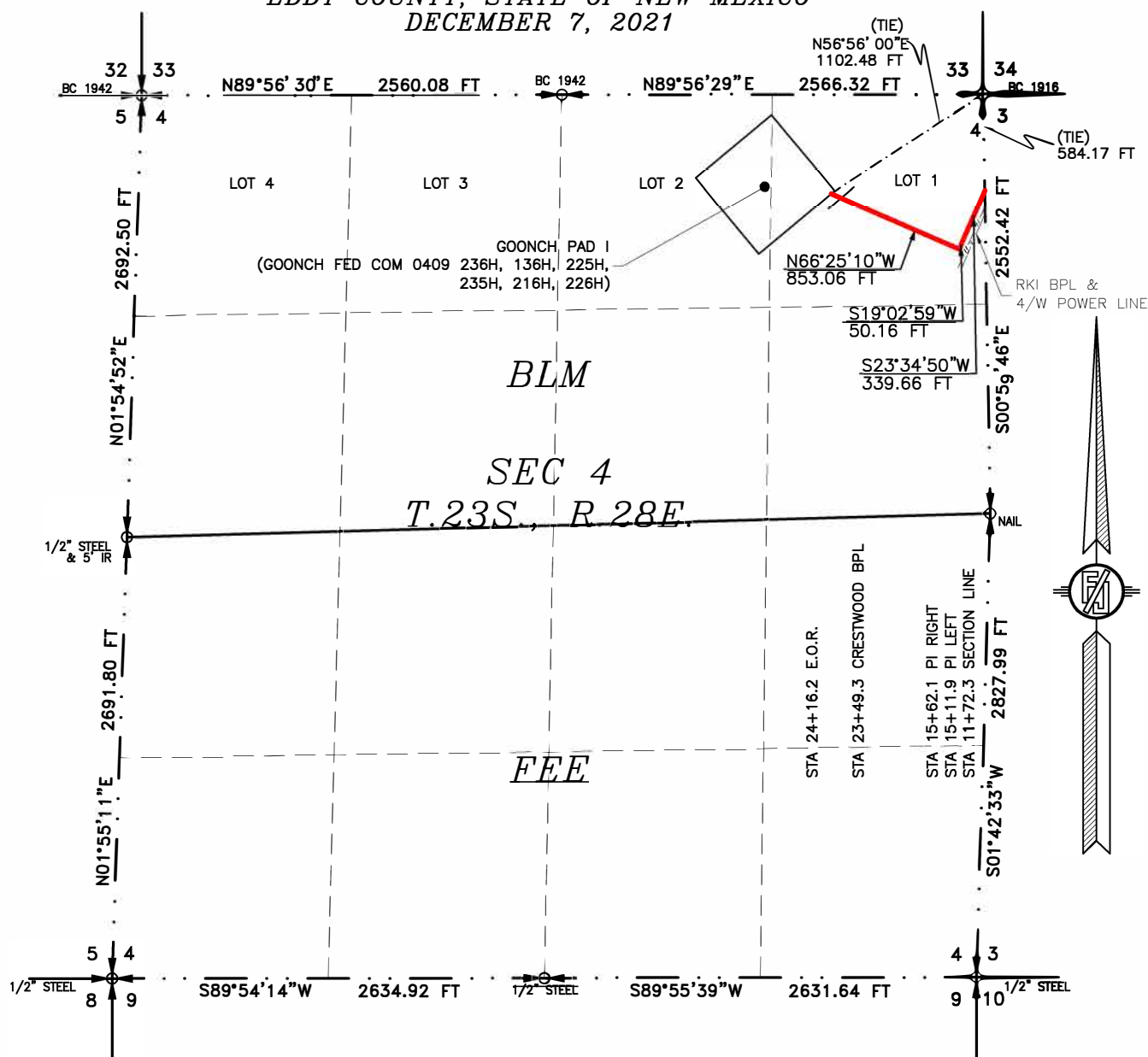
SURVEY NO. 7272C

CARLSBAD, NEW MEXICO

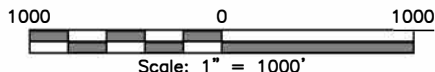
ACCESS ROAD PLAT

ACCESS ROAD TO THE GOONCH PAD I
(GOONCH FED COM 0409 236H, 136H, 225H, 235H, 216H, 226H)

NOVO OIL & GAS NORTHERN DELAWARE, LLC
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2021



SEE NEXT SHEET (6-6) FOR DESCRIPTION

**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.

SHEET: 5-6

MADRON SURVEYING, INC.

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 8 DAY OF DECEMBER 2021

FILIMON F. JARAMILLO P.S. 12797
MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 7272C

CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD TO THE GOONCH PAD I

(GOONCH FED COM 0409 236H, 136H, 225H, 235H, 216H, 226H)

NOVO OIL & GAS NORTHERN DELAWARE, LLC
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
DECEMBER 7, 2021

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN LOT 1 OF SAID SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M., WHENCE THE NORTHEAST CORNER OF SAID SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M. BEARS N00°59'46"W, A DISTANCE OF 584.17 FEET; THENCE S23°34'50"W A DISTANCE OF 339.66 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED; THENCE S19°02'59"W A DISTANCE OF 50.16 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED; THENCE N66°25'10"W A DISTANCE OF 853.06 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTHEAST CORNER OF SAID SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M. BEARS N56°56'00"E, A DISTANCE OF 1102.48 FEET;

SAID STRIP OF LAND BEING 1242.88 FEET OR 75.33 RODS IN LENGTH, CONTAINING 0.856 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

LOT 1 1242.88 L.F. 75.33 RODS 0.856 ACRES

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 8TH DAY OF DECEMBER 2021

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.

SHEET: 6-6

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341



MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 7272C

CARLSBAD, NEW MEXICO

NOVO OIL & GAS NORTHERN DELAWARE, LLC
Goonch Fed Com 0409 216H
 SHL: 530' FNL & 1,512' FEL' of Section 4-23S-28E
 BHL: 1,870' FEL & 10' FSL Section 9-23S-28E
Eddy County, New Mexico
FBSG



Drilling Program

1. ESTIMATED TOPS

Formation Name	TVD KB	MD'	Bearing
Quaternary	0	-	Water
Rustler anhydrite (surface csg @ 410' MD)	330	330	N/A
Salado salt	564	574	N/A
Lamar limestone	2725	2,745	N/A
Bell Canyon sandstone	2765	2,795	Hydrocarbons
Cherry Canyon sandstone	3792	3,832	Hydrocarbons
Brushy Canyon sandstone	5245	5,295	Hydrocarbons
Bone Spring limestone	6315	6,375	Hydrocarbons
Avalon shale	6995	7,065	Hydrocarbons
1st Bone Spring sandstone	7000	7,080	Hydrocarbons
2nd Bone Spring carbonate	7665	7,755	Hydrocarbons
2nd Bone Spring sandstone	8000	8,100	Hydrocarbons
3rd Bone Spring carbonate	8485	8,595	Hydrocarbons
Wolfcamp XY	9650	9,770	Hydrocarbons
Wolfcamp A	9820	9,950	Hydrocarbons
Wolfcamp B	10080	10,220	Hydrocarbons
Wolfcamp B Flow Unit	10350	10,500	Hydrocarbons
Wolfcamp C	10625	10,625	Hydrocarbons
Intermediate Casing Point	3,325	3,445	
KOP	6,500	6,630	
TD	7,100	18,107	

2. NOTABLE ZONES

3. PRESSURE CONTROL

A 13.625" 5M Blowout Preventer system will be installed on a multi-bowl (speed head) wellhead with a 13.625" flanged casing spool.

Top flange of casing spool will be set in a cellar below ground level. BOP system will consist of a single pipe ram on the bottom, mud cross, double pipe ram with blind rams on bottom and pipe rams on top, and annular preventer. Blowout preventer will be installed on top of the 13.375" surface casing and will remain installed to TD of the well. Wellhead, blowout preventer, and choke manifold diagram are included.

Variance is requested to use a co-flex hose between the BOP system and choke manifold. A typical co-flex pressure test certificate is attached. An equipment specific co-flex pressure test certificate will be on site when testing the BOP.

All casing strings will be tested in accordance with Onshore Order 2 III.B.1.h.

The BOP system will be isolated with a test plug and tested by an independent tester to 250 psi low and 5,000 psi high for 10 minutes.

The Surface Casing will be pressure tested to 250 psi low and 1500 psi high. Intermediate Casing will be pressure tested to 250 psi low and (.22 psi x Shoe TVD, which is equivalent to 731.5 psi) high for 30 minutes

NOVO OIL & GAS NORTHERN DELAWARE, LLC
Goonch Fed Com 0409 216H
 SHL: 530' FNL & 1,512' FEL' of Section 4-23S-28E
 BHL: 1,870' FEL & 10' FSL Section 9-23S-28E
Eddy County, New Mexico



4. CASING & CEMENT

Variance is requested for an option to use a surface rig to drill the surface hole, set the surface casing, and cement the surface casing. If the schedule between rigs would preclude presetting the surface casing, then the primary rig will MIRU and drill all of the well.

All casing will be API and new. See attached casing assumption worksheet.

Casing Details

Name	Hole Size	Casing Size	Standard	Tapered	Top MD	BTM MD	Top TVD	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	17 1/2	13 3/8	API	No	0	410	0	410	J-55	54.5	BTC	1.125	1.125	1.6
Intermediate	9 7/8	8 5/8	API	No	0	3,475	0	3,325	P-110 HP	32	Talon HTQ	1.125	1.125	1.6
Production	7 7/8	5 1/2	API	No	0	18,107	0	7,100	P-110 EC	20	DWC/C- IS +	1.125	1.125	1.6

Alternate grades and/or higher weights could be substituted to meet maximum stimulation pressures or due to coupling availability.

Name	Hole Size	Casing Size	Standard	Tapered	Top MD	BTM MD	Top TVD	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Intermediate	9 7/8	8 5/8	API	No	0	3,475	0	3325	P-110 HP	32	TLW	1.125	1.125	1.6
Production	7 7/8	5 1/2	API	No	0	18,107	0	7100	P-110 EC	17	DWC/C- IS +	1.125	1.125	1.6

Cement Details

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Tail	0	352	1.62	569.7	13.8	100%	C	Gel, Accelerator, LCM
Intermediate	Lead	0	205	3.58	735.5	10	100%	C or H	Fluid Loss, Retarder, LCM, Possibly beads
	Tail	2325	130	1.39	180.7	13.8	50%	C or H	Fluid Loss, Retarder, LCM
Production	Lead	0	132	2.12	278.9	12	20%	H	Fluid Loss, Retarder, LCM
	Tail	1325	2415	1.59	3840.2	13.2	20%	H	Fluid Loss, Retarder, LCM

5. MUD PROGRAM

An electronic PVT mud system will monitor flow rate, pump pressure, stroke rate, and volume. All necessary mud products (barite, bentonite, LCM) to control weight and fluid loss will be on site at all times. Mud program may change due to hole conditions. A closed loop system will be used.

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	410'	Water Based Spud Mud	8.30	30-60	NC
Intermediate	410	3325	Brine	8.8-9.6	35-45	NC
Production	3325	18107	WBM or OBM	9.2-9.9	35-65	4-6

6. CORES, TEST, & LOGS

No core or drill stem test is planned. A 2-person mud logging program will be used from ≈3000' to TD. GR log will be acquired by MWD tools from the intermediate casing to TD.

7. DOWN HOLE CONDITIONS

No abnormal pressure or temperature is expected. Maximum anticipated surface pressure is ≈3053 psi. Anticipated bottom hole pressure is ≈4615 psi. Expected bottom hole temperature is ≈215 deg F.

An H2S plan is attached.

8. OTHER INFORMATION

Anticipated spud date is upon approval. It is expected it will take ≈3 months to drill and complete the well.



NOVO Oil & Gas

EDDY CO., NM (NAD83)

SEC. 04-T23S-R28E

GOONCH FED COM 0409 216H

Wellbore #1

Plan: Plan 1

Standard Planning Report

15 December, 2021





Planning Report



Database:	1 - EDM Production	Local Co-ordinate Reference:	Well GOONCH FED COM 0409 216H
Company:	NOVO Oil & Gas	TVD Reference:	RKB 25' + GL 3036' @ 3061.00usft
Project:	EDDY CO., NM (NAD83)	MD Reference:	RKB 25' + GL 3036' @ 3061.00usft
Site:	SEC. 04-T23S-R28E	North Reference:	Grid
Well:	GOONCH FED COM 0409 216H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Project	EDDY CO., NM (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	SEC. 04-T23S-R28E		
Site Position:		Northing:	487,875.76 usft
From:	Map	Easting:	615,421.32 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.34101377
		Longitude:	-104.09345229

Well	GOONCH FED COM 0409 216H					
Well Position	+N/-S	0.00 usft	Northing:	487,677.47 usft	Latitude:	32.34045966
	+E/-W	0.00 usft	Easting:	616,876.41 usft	Longitude:	-104.08874225
Position Uncertainty		0.33 usft	Wellhead Elevation:	usft	Ground Level:	3,036.00 usft
Grid Convergence:		0.13 °				

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	12/13/2021	6.74	59.91	47,460.29829176

Design	Plan 1				
Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	180.00	

Plan Survey Tool Program	Date	12/15/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	18,107.73 Plan 1 (Wellbore #1)	MWD+IGRF		
			OWSG MWD + IGRF or WMM		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,207.94	14.16	336.98	2,200.76	80.10	-34.03	2.00	2.00	0.00	336.98	
5,947.06	14.16	336.98	5,826.28	921.90	-391.67	0.00	0.00	0.00	0.00	
6,655.00	0.00	0.00	6,527.04	1,002.00	-425.70	2.00	-2.00	0.00	180.00	
7,555.00	90.00	175.00	7,100.00	431.22	-375.76	10.00	10.00	0.00	175.00	
7,803.14	90.00	179.96	7,100.00	183.39	-364.86	2.00	0.00	2.00	90.00	
18,107.73	90.00	179.96	7,100.00	-10,121.19	-358.19	0.00	0.00	0.00	0.00	PBHL GOONCH 216H



Planning Report



Database:	1 - EDM Production	Local Co-ordinate Reference:	Well GOONCH FED COM 0409 216H
Company:	NOVO Oil & Gas	TVD Reference:	RKB 25' + GL 3036' @ 3061.00usft
Project:	EDDY CO., NM (NAD83)	MD Reference:	RKB 25' + GL 3036' @ 3061.00usft
Site:	SEC. 04-T23S-R28E	North Reference:	Grid
Well:	GOONCH FED COM 0409 216H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	2.00	336.98	1,599.98	1.61	-0.68	-1.61	2.00	2.00	0.00
1,700.00	4.00	336.98	1,699.84	6.42	-2.73	-6.42	2.00	2.00	0.00
1,800.00	6.00	336.98	1,799.45	14.44	-6.14	-14.44	2.00	2.00	0.00
1,900.00	8.00	336.98	1,898.70	25.66	-10.90	-25.66	2.00	2.00	0.00
2,000.00	10.00	336.98	1,997.47	40.06	-17.02	-40.06	2.00	2.00	0.00
2,100.00	12.00	336.98	2,095.62	57.62	-24.48	-57.62	2.00	2.00	0.00
2,207.94	14.16	336.98	2,200.76	80.10	-34.03	-80.10	2.00	2.00	0.00
2,300.00	14.16	336.98	2,290.02	100.82	-42.84	-100.82	0.00	0.00	0.00
2,400.00	14.16	336.98	2,386.98	123.34	-52.40	-123.34	0.00	0.00	0.00
2,500.00	14.16	336.98	2,483.94	145.85	-61.97	-145.85	0.00	0.00	0.00
2,600.00	14.16	336.98	2,580.91	168.36	-71.53	-168.36	0.00	0.00	0.00
2,700.00	14.16	336.98	2,677.87	190.88	-81.09	-190.88	0.00	0.00	0.00
2,800.00	14.16	336.98	2,774.83	213.39	-90.66	-213.39	0.00	0.00	0.00
2,900.00	14.16	336.98	2,871.79	235.91	-100.22	-235.91	0.00	0.00	0.00
3,000.00	14.16	336.98	2,968.76	258.42	-109.79	-258.42	0.00	0.00	0.00
3,100.00	14.16	336.98	3,065.72	280.93	-119.35	-280.93	0.00	0.00	0.00
3,200.00	14.16	336.98	3,162.68	303.45	-128.92	-303.45	0.00	0.00	0.00
3,300.00	14.16	336.98	3,259.64	325.96	-138.48	-325.96	0.00	0.00	0.00
3,400.00	14.16	336.98	3,356.60	348.47	-148.05	-348.47	0.00	0.00	0.00
3,500.00	14.16	336.98	3,453.57	370.99	-157.61	-370.99	0.00	0.00	0.00
3,600.00	14.16	336.98	3,550.53	393.50	-167.18	-393.50	0.00	0.00	0.00
3,700.00	14.16	336.98	3,647.49	416.01	-176.74	-416.01	0.00	0.00	0.00
3,800.00	14.16	336.98	3,744.45	438.53	-186.31	-438.53	0.00	0.00	0.00
3,900.00	14.16	336.98	3,841.41	461.04	-195.87	-461.04	0.00	0.00	0.00
4,000.00	14.16	336.98	3,938.38	483.55	-205.44	-483.55	0.00	0.00	0.00
4,100.00	14.16	336.98	4,035.34	506.07	-215.00	-506.07	0.00	0.00	0.00
4,200.00	14.16	336.98	4,132.30	528.58	-224.57	-528.58	0.00	0.00	0.00
4,300.00	14.16	336.98	4,229.26	551.09	-234.13	-551.09	0.00	0.00	0.00
4,400.00	14.16	336.98	4,326.23	573.61	-243.70	-573.61	0.00	0.00	0.00
4,500.00	14.16	336.98	4,423.19	596.12	-253.26	-596.12	0.00	0.00	0.00
4,600.00	14.16	336.98	4,520.15	618.63	-262.83	-618.63	0.00	0.00	0.00
4,700.00	14.16	336.98	4,617.11	641.15	-272.39	-641.15	0.00	0.00	0.00
4,800.00	14.16	336.98	4,714.07	663.66	-281.96	-663.66	0.00	0.00	0.00
4,900.00	14.16	336.98	4,811.04	686.17	-291.52	-686.17	0.00	0.00	0.00
5,000.00	14.16	336.98	4,908.00	708.69	-301.09	-708.69	0.00	0.00	0.00
5,100.00	14.16	336.98	5,004.96	731.20	-310.65	-731.20	0.00	0.00	0.00
5,200.00	14.16	336.98	5,101.92	753.71	-320.22	-753.71	0.00	0.00	0.00
5,300.00	14.16	336.98	5,198.88	776.23	-329.78	-776.23	0.00	0.00	0.00



Planning Report



Database:	1 - EDM Production	Local Co-ordinate Reference:	Well GOONCH FED COM 0409 216H
Company:	NOVO Oil & Gas	TVD Reference:	RKB 25' + GL 3036' @ 3061.00usft
Project:	EDDY CO., NM (NAD83)	MD Reference:	RKB 25' + GL 3036' @ 3061.00usft
Site:	SEC. 04-T23S-R28E	North Reference:	Grid
Well:	GOONCH FED COM 0409 216H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,400.00	14.16	336.98	5,295.85	798.74	-339.35	-798.74	0.00	0.00	0.00	
5,500.00	14.16	336.98	5,392.81	821.25	-348.91	-821.25	0.00	0.00	0.00	
5,600.00	14.16	336.98	5,489.77	843.77	-358.47	-843.77	0.00	0.00	0.00	
5,700.00	14.16	336.98	5,586.73	866.28	-368.04	-866.28	0.00	0.00	0.00	
5,800.00	14.16	336.98	5,683.70	888.79	-377.60	-888.79	0.00	0.00	0.00	
5,900.00	14.16	336.98	5,780.66	911.31	-387.17	-911.31	0.00	0.00	0.00	
5,947.06	14.16	336.98	5,826.28	921.90	-391.67	-921.90	0.00	0.00	0.00	
6,000.00	13.10	336.98	5,877.74	933.38	-396.55	-933.38	2.00	-2.00	0.00	
6,100.00	11.10	336.98	5,975.51	952.68	-404.74	-952.68	2.00	-2.00	0.00	
6,200.00	9.10	336.98	6,073.96	968.81	-411.60	-968.81	2.00	-2.00	0.00	
6,300.00	7.10	336.98	6,172.95	981.78	-417.11	-981.78	2.00	-2.00	0.00	
6,400.00	5.10	336.98	6,272.38	991.56	-421.27	-991.56	2.00	-2.00	0.00	
6,500.00	3.10	336.98	6,372.12	998.14	-424.06	-998.14	2.00	-2.00	0.00	
6,600.00	1.10	336.98	6,472.05	1,001.51	-425.49	-1,001.51	2.00	-2.00	0.00	
6,655.00	0.00	0.00	6,527.04	1,002.00	-425.70	-1,002.00	2.00	-2.00	0.00	
6,700.00	4.50	175.00	6,572.00	1,000.24	-425.55	-1,000.24	10.00	10.00	0.00	
6,750.00	9.50	175.00	6,621.61	994.17	-425.02	-994.17	10.00	10.00	0.00	
6,800.00	14.50	175.00	6,670.50	983.82	-424.11	-983.82	10.00	10.00	0.00	
6,850.00	19.50	175.00	6,718.30	969.26	-422.84	-969.26	10.00	10.00	0.00	
6,900.00	24.50	175.00	6,764.65	950.61	-421.20	-950.61	10.00	10.00	0.00	
6,950.00	29.50	175.00	6,809.18	928.00	-419.23	-928.00	10.00	10.00	0.00	
7,000.00	34.50	175.00	6,851.57	901.61	-416.92	-901.61	10.00	10.00	0.00	
7,050.00	39.50	175.00	6,891.49	871.65	-414.30	-871.65	10.00	10.00	0.00	
7,100.00	44.50	175.00	6,928.64	838.33	-411.38	-838.33	10.00	10.00	0.00	
7,150.00	49.50	175.00	6,962.72	801.91	-408.19	-801.91	10.00	10.00	0.00	
7,200.00	54.50	175.00	6,993.50	762.67	-404.76	-762.67	10.00	10.00	0.00	
7,250.00	59.50	175.00	7,020.72	720.91	-401.11	-720.91	10.00	10.00	0.00	
7,300.00	64.50	175.00	7,044.19	676.94	-397.26	-676.94	10.00	10.00	0.00	
7,350.00	69.50	175.00	7,063.72	631.11	-393.25	-631.11	10.00	10.00	0.00	
7,400.00	74.50	175.00	7,079.16	583.75	-389.11	-583.75	10.00	10.00	0.00	
7,450.00	79.50	175.00	7,090.40	535.23	-384.86	-535.23	10.00	10.00	0.00	
7,500.00	84.50	175.00	7,097.36	485.92	-380.55	-485.92	10.00	10.00	0.00	
7,555.00	90.00	175.00	7,100.00	431.22	-375.76	-431.22	10.00	10.00	0.00	
7,600.00	90.00	175.90	7,100.00	386.36	-372.19	-386.36	2.00	0.00	2.00	
7,700.00	90.00	177.90	7,100.00	286.51	-366.79	-286.51	2.00	0.00	2.00	
7,803.14	90.00	179.96	7,100.00	183.39	-364.86	-183.39	2.00	0.00	2.00	
7,900.00	90.00	179.96	7,100.00	86.53	-364.80	-86.53	0.00	0.00	0.00	
8,000.00	90.00	179.96	7,100.00	-13.47	-364.74	13.47	0.00	0.00	0.00	
8,100.00	90.00	179.96	7,100.00	-113.47	-364.67	113.47	0.00	0.00	0.00	
8,200.00	90.00	179.96	7,100.00	-213.47	-364.61	213.47	0.00	0.00	0.00	
8,300.00	90.00	179.96	7,100.00	-313.47	-364.54	313.47	0.00	0.00	0.00	
8,400.00	90.00	179.96	7,100.00	-413.47	-364.48	413.47	0.00	0.00	0.00	
8,500.00	90.00	179.96	7,100.00	-513.47	-364.41	513.47	0.00	0.00	0.00	
8,600.00	90.00	179.96	7,100.00	-613.47	-364.35	613.47	0.00	0.00	0.00	
8,700.00	90.00	179.96	7,100.00	-713.47	-364.28	713.47	0.00	0.00	0.00	
8,800.00	90.00	179.96	7,100.00	-813.47	-364.22	813.47	0.00	0.00	0.00	
8,900.00	90.00	179.96	7,100.00	-913.47	-364.15	913.47	0.00	0.00	0.00	
9,000.00	90.00	179.96	7,100.00	-1,013.47	-364.09	1,013.47	0.00	0.00	0.00	
9,100.00	90.00	179.96	7,100.00	-1,113.47	-364.02	1,113.47	0.00	0.00	0.00	
9,200.00	90.00	179.96	7,100.00	-1,213.47	-363.96	1,213.47	0.00	0.00	0.00	
9,300.00	90.00	179.96	7,100.00	-1,313.46	-363.89	1,313.46	0.00	0.00	0.00	
9,400.00	90.00	179.96	7,100.00	-1,413.46	-363.83	1,413.46	0.00	0.00	0.00	
9,500.00	90.00	179.96	7,100.00	-1,513.46	-363.76	1,513.46	0.00	0.00	0.00	
9,600.00	90.00	179.96	7,100.00	-1,613.46	-363.70	1,613.46	0.00	0.00	0.00	



Planning Report



Database:	1 - EDM Production	Local Co-ordinate Reference:	Well GOONCH FED COM 0409 216H
Company:	NOVO Oil & Gas	TVD Reference:	RKB 25' + GL 3036' @ 3061.00usft
Project:	EDDY CO., NM (NAD83)	MD Reference:	RKB 25' + GL 3036' @ 3061.00usft
Site:	SEC. 04-T23S-R28E	North Reference:	Grid
Well:	GOONCH FED COM 0409 216H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,700.00	90.00	179.96	7,100.00	-1,713.46	-363.63	1,713.46	0.00	0.00	0.00	
9,800.00	90.00	179.96	7,100.00	-1,813.46	-363.57	1,813.46	0.00	0.00	0.00	
9,900.00	90.00	179.96	7,100.00	-1,913.46	-363.50	1,913.46	0.00	0.00	0.00	
10,000.00	90.00	179.96	7,100.00	-2,013.46	-363.44	2,013.46	0.00	0.00	0.00	
10,100.00	90.00	179.96	7,100.00	-2,113.46	-363.38	2,113.46	0.00	0.00	0.00	
10,200.00	90.00	179.96	7,100.00	-2,213.46	-363.31	2,213.46	0.00	0.00	0.00	
10,300.00	90.00	179.96	7,100.00	-2,313.46	-363.25	2,313.46	0.00	0.00	0.00	
10,400.00	90.00	179.96	7,100.00	-2,413.46	-363.18	2,413.46	0.00	0.00	0.00	
10,500.00	90.00	179.96	7,100.00	-2,513.46	-363.12	2,513.46	0.00	0.00	0.00	
10,600.00	90.00	179.96	7,100.00	-2,613.46	-363.05	2,613.46	0.00	0.00	0.00	
10,700.00	90.00	179.96	7,100.00	-2,713.46	-362.99	2,713.46	0.00	0.00	0.00	
10,800.00	90.00	179.96	7,100.00	-2,813.46	-362.92	2,813.46	0.00	0.00	0.00	
10,900.00	90.00	179.96	7,100.00	-2,913.46	-362.86	2,913.46	0.00	0.00	0.00	
11,000.00	90.00	179.96	7,100.00	-3,013.46	-362.79	3,013.46	0.00	0.00	0.00	
11,100.00	90.00	179.96	7,100.00	-3,113.46	-362.73	3,113.46	0.00	0.00	0.00	
11,200.00	90.00	179.96	7,100.00	-3,213.46	-362.66	3,213.46	0.00	0.00	0.00	
11,300.00	90.00	179.96	7,100.00	-3,313.46	-362.60	3,313.46	0.00	0.00	0.00	
11,400.00	90.00	179.96	7,100.00	-3,413.46	-362.53	3,413.46	0.00	0.00	0.00	
11,500.00	90.00	179.96	7,100.00	-3,513.46	-362.47	3,513.46	0.00	0.00	0.00	
11,600.00	90.00	179.96	7,100.00	-3,613.46	-362.40	3,613.46	0.00	0.00	0.00	
11,700.00	90.00	179.96	7,100.00	-3,713.46	-362.34	3,713.46	0.00	0.00	0.00	
11,800.00	90.00	179.96	7,100.00	-3,813.46	-362.27	3,813.46	0.00	0.00	0.00	
11,900.00	90.00	179.96	7,100.00	-3,913.46	-362.21	3,913.46	0.00	0.00	0.00	
12,000.00	90.00	179.96	7,100.00	-4,013.46	-362.15	4,013.46	0.00	0.00	0.00	
12,100.00	90.00	179.96	7,100.00	-4,113.46	-362.08	4,113.46	0.00	0.00	0.00	
12,200.00	90.00	179.96	7,100.00	-4,213.46	-362.02	4,213.46	0.00	0.00	0.00	
12,300.00	90.00	179.96	7,100.00	-4,313.46	-361.95	4,313.46	0.00	0.00	0.00	
12,400.00	90.00	179.96	7,100.00	-4,413.46	-361.89	4,413.46	0.00	0.00	0.00	
12,500.00	90.00	179.96	7,100.00	-4,513.46	-361.82	4,513.46	0.00	0.00	0.00	
12,600.00	90.00	179.96	7,100.00	-4,613.46	-361.76	4,613.46	0.00	0.00	0.00	
12,700.00	90.00	179.96	7,100.00	-4,713.46	-361.69	4,713.46	0.00	0.00	0.00	
12,800.00	90.00	179.96	7,100.00	-4,813.46	-361.63	4,813.46	0.00	0.00	0.00	
12,900.00	90.00	179.96	7,100.00	-4,913.46	-361.56	4,913.46	0.00	0.00	0.00	
13,000.00	90.00	179.96	7,100.00	-5,013.46	-361.50	5,013.46	0.00	0.00	0.00	
13,100.00	90.00	179.96	7,100.00	-5,113.46	-361.43	5,113.46	0.00	0.00	0.00	
13,200.00	90.00	179.96	7,100.00	-5,213.46	-361.37	5,213.46	0.00	0.00	0.00	
13,300.00	90.00	179.96	7,100.00	-5,313.46	-361.30	5,313.46	0.00	0.00	0.00	
13,400.00	90.00	179.96	7,100.00	-5,413.46	-361.24	5,413.46	0.00	0.00	0.00	
13,500.00	90.00	179.96	7,100.00	-5,513.46	-361.17	5,513.46	0.00	0.00	0.00	
13,600.00	90.00	179.96	7,100.00	-5,613.46	-361.11	5,613.46	0.00	0.00	0.00	
13,700.00	90.00	179.96	7,100.00	-5,713.46	-361.04	5,713.46	0.00	0.00	0.00	
13,800.00	90.00	179.96	7,100.00	-5,813.46	-360.98	5,813.46	0.00	0.00	0.00	
13,900.00	90.00	179.96	7,100.00	-5,913.46	-360.91	5,913.46	0.00	0.00	0.00	
14,000.00	90.00	179.96	7,100.00	-6,013.46	-360.85	6,013.46	0.00	0.00	0.00	
14,100.00	90.00	179.96	7,100.00	-6,113.46	-360.79	6,113.46	0.00	0.00	0.00	
14,200.00	90.00	179.96	7,100.00	-6,213.46	-360.72	6,213.46	0.00	0.00	0.00	
14,300.00	90.00	179.96	7,100.00	-6,313.46	-360.66	6,313.46	0.00	0.00	0.00	
14,400.00	90.00	179.96	7,100.00	-6,413.46	-360.59	6,413.46	0.00	0.00	0.00	
14,500.00	90.00	179.96	7,100.00	-6,513.46	-360.53	6,513.46	0.00	0.00	0.00	
14,600.00	90.00	179.96	7,100.00	-6,613.46	-360.46	6,613.46	0.00	0.00	0.00	
14,700.00	90.00	179.96	7,100.00	-6,713.46	-360.40	6,713.46	0.00	0.00	0.00	
14,800.00	90.00	179.96	7,100.00	-6,813.46	-360.33	6,813.46	0.00	0.00	0.00	
14,900.00	90.00	179.96	7,100.00	-6,913.46	-360.27	6,913.46	0.00	0.00	0.00	
15,000.00	90.00	179.96	7,100.00	-7,013.46	-360.20	7,013.46	0.00	0.00	0.00	



Planning Report



Database:	1 - EDM Production	Local Co-ordinate Reference:	Well GOONCH FED COM 0409 216H
Company:	NOVO Oil & Gas	TVD Reference:	RKB 25' + GL 3036' @ 3061.00usft
Project:	EDDY CO., NM (NAD83)	MD Reference:	RKB 25' + GL 3036' @ 3061.00usft
Site:	SEC. 04-T23S-R28E	North Reference:	Grid
Well:	GOONCH FED COM 0409 216H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
15,100.00	90.00	179.96	7,100.00	-7,113.46	-360.14	7,113.46	0.00	0.00	0.00	
15,200.00	90.00	179.96	7,100.00	-7,213.46	-360.07	7,213.46	0.00	0.00	0.00	
15,300.00	90.00	179.96	7,100.00	-7,313.46	-360.01	7,313.46	0.00	0.00	0.00	
15,400.00	90.00	179.96	7,100.00	-7,413.46	-359.94	7,413.46	0.00	0.00	0.00	
15,500.00	90.00	179.96	7,100.00	-7,513.46	-359.88	7,513.46	0.00	0.00	0.00	
15,600.00	90.00	179.96	7,100.00	-7,613.46	-359.81	7,613.46	0.00	0.00	0.00	
15,700.00	90.00	179.96	7,100.00	-7,713.46	-359.75	7,713.46	0.00	0.00	0.00	
15,800.00	90.00	179.96	7,100.00	-7,813.46	-359.68	7,813.46	0.00	0.00	0.00	
15,900.00	90.00	179.96	7,100.00	-7,913.46	-359.62	7,913.46	0.00	0.00	0.00	
16,000.00	90.00	179.96	7,100.00	-8,013.46	-359.55	8,013.46	0.00	0.00	0.00	
16,100.00	90.00	179.96	7,100.00	-8,113.46	-359.49	8,113.46	0.00	0.00	0.00	
16,200.00	90.00	179.96	7,100.00	-8,213.46	-359.43	8,213.46	0.00	0.00	0.00	
16,300.00	90.00	179.96	7,100.00	-8,313.46	-359.36	8,313.46	0.00	0.00	0.00	
16,400.00	90.00	179.96	7,100.00	-8,413.46	-359.30	8,413.46	0.00	0.00	0.00	
16,500.00	90.00	179.96	7,100.00	-8,513.46	-359.23	8,513.46	0.00	0.00	0.00	
16,600.00	90.00	179.96	7,100.00	-8,613.46	-359.17	8,613.46	0.00	0.00	0.00	
16,700.00	90.00	179.96	7,100.00	-8,713.46	-359.10	8,713.46	0.00	0.00	0.00	
16,800.00	90.00	179.96	7,100.00	-8,813.46	-359.04	8,813.46	0.00	0.00	0.00	
16,900.00	90.00	179.96	7,100.00	-8,913.46	-358.97	8,913.46	0.00	0.00	0.00	
17,000.00	90.00	179.96	7,100.00	-9,013.46	-358.91	9,013.46	0.00	0.00	0.00	
17,100.00	90.00	179.96	7,100.00	-9,113.46	-358.84	9,113.46	0.00	0.00	0.00	
17,200.00	90.00	179.96	7,100.00	-9,213.46	-358.78	9,213.46	0.00	0.00	0.00	
17,300.00	90.00	179.96	7,100.00	-9,313.46	-358.71	9,313.46	0.00	0.00	0.00	
17,400.00	90.00	179.96	7,100.00	-9,413.46	-358.65	9,413.46	0.00	0.00	0.00	
17,500.00	90.00	179.96	7,100.00	-9,513.46	-358.58	9,513.46	0.00	0.00	0.00	
17,600.00	90.00	179.96	7,100.00	-9,613.46	-358.52	9,613.46	0.00	0.00	0.00	
17,700.00	90.00	179.96	7,100.00	-9,713.46	-358.45	9,713.46	0.00	0.00	0.00	
17,800.00	90.00	179.96	7,100.00	-9,813.46	-358.39	9,813.46	0.00	0.00	0.00	
17,900.00	90.00	179.96	7,100.00	-9,913.46	-358.32	9,913.46	0.00	0.00	0.00	
18,000.00	90.00	179.96	7,100.00	-10,013.46	-358.26	10,013.46	0.00	0.00	0.00	
18,099.90	90.00	179.96	7,100.00	-10,113.37	-358.20	10,113.37	0.00	0.00	0.00	
20" Casing										
18,107.73	90.00	179.96	7,100.00	-10,121.19	-358.19	10,121.19	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
PBHL GOONCH 216H (	0.00	0.00	7,100.00	-10,121.19	-358.19	477,556.28	616,518.22	32.31264039	-104.08997648	
- hit/miss target										
- Shape										
- Point										
GOONCH 216H FTP(10	0.00	0.00	7,100.00	429.35	-365.70	488,106.82	616,510.71	32.34164216	-104.08992320	
- plan misses target center by 9.86usft at 7557.66usft MD (7100.00 TVD, 428.57 N, -375.53 E)										
- Point										
GOONCH 216H LTP(10	0.00	0.00	7,100.00	-10,031.23	-359.26	477,646.24	616,517.15	32.31288769	-104.08997928	
- plan misses target center by 1.01usft at 18017.77usft MD (7100.00 TVD, -10031.23 N, -358.25 E)										
- Point										

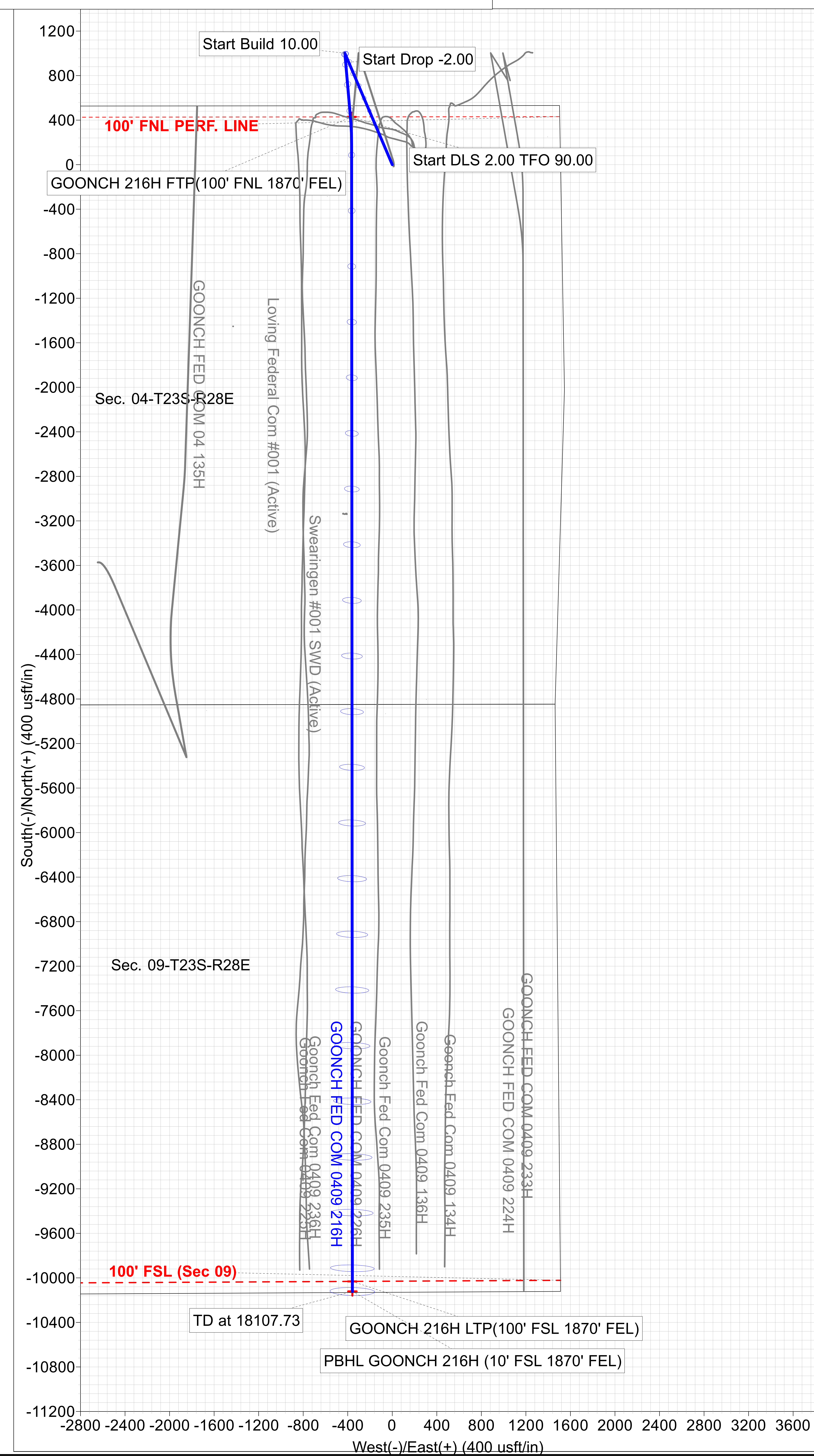
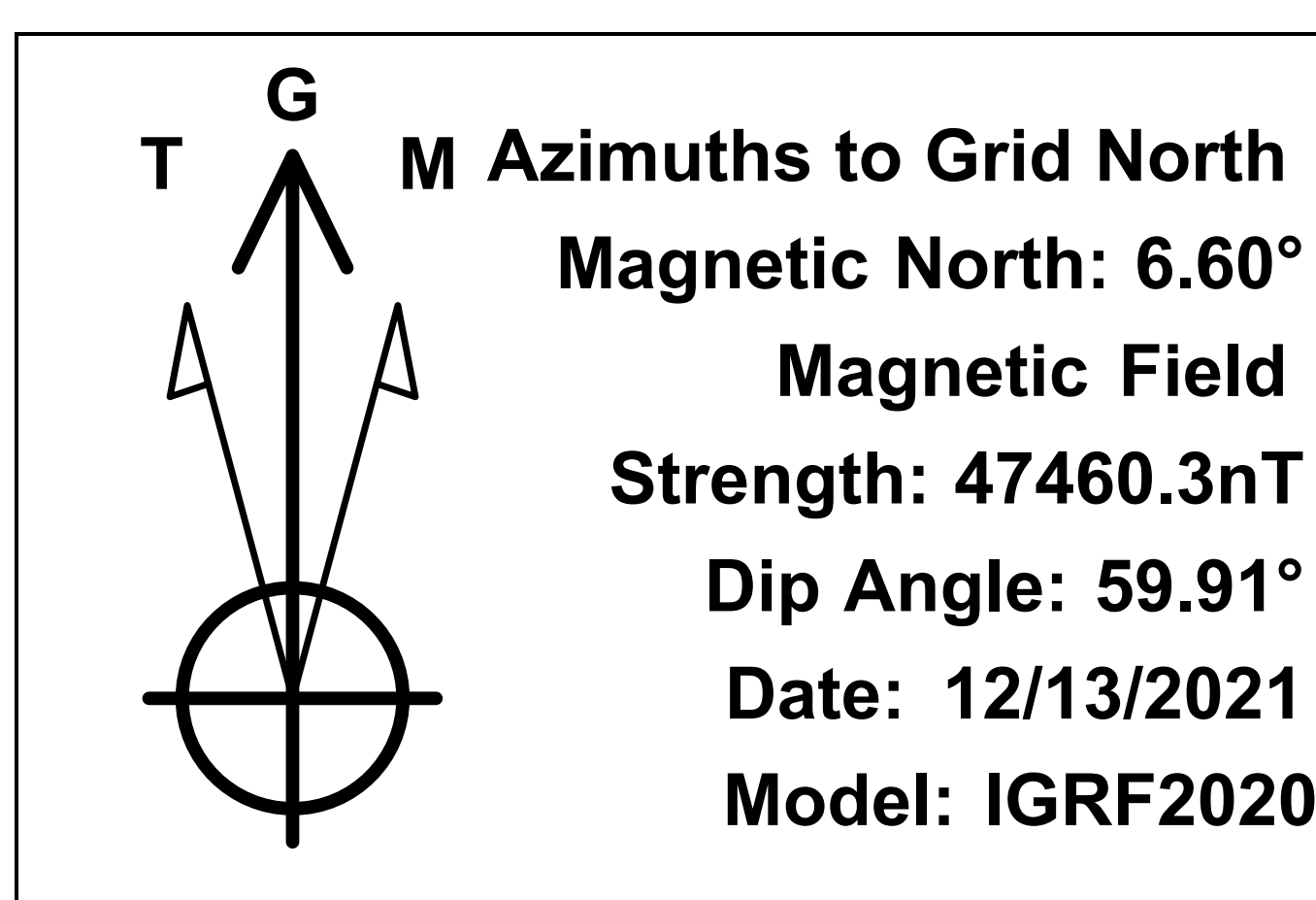


Planning Report



Database:	1 - EDM Production	Local Co-ordinate Reference:	Well GOONCH FED COM 0409 216H
Company:	NOVO Oil & Gas	TVD Reference:	RKB 25' + GL 3036' @ 3061.00usft
Project:	EDDY CO., NM (NAD83)	MD Reference:	RKB 25' + GL 3036' @ 3061.00usft
Site:	SEC. 04-T23S-R28E	North Reference:	Grid
Well:	GOONCH FED COM 0409 216H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
18,099.90	7,100.00	20" Casing	20	24	



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 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 30-015-48222	² Pool Code 15011	³ Pool Name Culebra Bluff; Bone Spring, South
⁴ Property Code 326983	⁵ Property Name GOONCH FED COM 0409	⁶ Well Number 216H
⁷ OGRID No. 372920	⁸ Operator Name NOVO OIL & GAS NORTHERN DELAWARE, LLC	⁹ Elevation 3036.3

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
2	4	23 S	28 E		530	NORTH	1512	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
O	9	23 S	28 E		10	SOUTH	1870	EAST	EDDY

¹² Dedicated Acres 320.22	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE, VERTICAL DATUM NAVD83. BOTTOM OF HOLE LAT. = 32.3126404°N LONG. = 104.0899765°W NMSP EAST (FT) N = 477556.28 E = 616518.22 LAST TAKE POINT 100' FSL, 1870' FEL LAT. = 32.3128877°N LONG. = 104.0899793°W NMSP EAST (FT) N = 477646.24 E = 616517.15 FIRST TAKE POINT 100' FNL, 1870' FEL LAT. = 32.3416422°N LONG. = 104.0899232°W NMSP EAST (FT) N = 488106.82 E = 616510.71	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. <i>Justin Carter</i> 12.9.2021 Signature Date Justin Carter Printed Name jcarter@novoog.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 7, 2021 Date of Survey <i>[Signature]</i> Signature and Seal of Professional Surveyor Certificate Number: FILMONT FERRANDELLO, PLS 12797 SURVEY NO. 7272C
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Intent ☐ As Drilled ☐

API #		
Operator Name: NOVO OIL & GAS NORTHERN DELAWARE, LLC	Property Name: GOONCH FED COM 0409	Well Number 216H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	4	23S	28E	2	530	NORTH	1512	EAST	EDDY
Latitude 32.3404597					Longitude 104.0887423			NAD 83	

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	4	23S	28E	2	100	NORTH	1870	EAST	EDDY
Latitude 32.3416422					Longitude 104.0899232			NAD 83	

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
O	9	23S	28E		100	SOUTH	1870	EAST	EDDY
Latitude 32.3128877					Longitude 104.0899793			NAD 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

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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 222673

CONDITIONS

Operator: NOVO OIL & GAS NORTHERN DELAWARE, LLC 1001 West Wilshire Blvd Oklahoma City, OK 73116	OGRID: 372920
	Action Number: 222673
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Original COA's still apply.	10/19/2023