2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535] C-147/Application

[7377] EOG RESOURCES INC
04/28/2023

C-147 Registration Package for Dire Wolf Truckin Containment and Recycle Facility

Section 13, Township 26-S, Range 30-E, Eddy County

Prepared for:
EOG Resources, Inc.
5509 Champions Drive
Midland, TX 79706

Prepared by:
Cold Peak Environmental, LLC
15 Smith Road, Suite 2008
Midland, TX 79705

Galan Kelley
gkelley@coldpeakenviro.com
361.701.8465

March 20, 2023

EMNRD/OCD
Attn: Victoria Venegas
South St. Francis Dr.
Santa Fe, NM 87505

Re: EOG Resources, Inc.
Dire Wolf Truckin Containment and Recycle Facility

Dear Mrs. Venegas,

Cold Peak Environmental, LLC, on behalf of EOG Resources, Inc., submits the attached C-147 registration.

Thank you for allowing EOG Resources to promote water reuse in the State of New Mexico. Please find attached the C-147 form with accompanying documentation for the Truckin Containment and Recycle Facility.

The package follows the order of Form C-147 for easier review by OCD.

Please do not hesitate to contact me with any questions, comments, or concerns.

Sincerely,

Galan Kelley
Cold Peak Environmental, LLC
Chief Executive Officer

Form C-147

State of New Mexico
Energy Minerals and Natural Resources
Department Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505
https://www.emnrd.nm.gov/ocd/ocd-e-permitting/

Form C-147
Revised October 11, 2022

Recycling Facility and/or Recycling Containment

Type of Facility: ☒ Recycling Facility ☒ Recycling Containment*

Type of action: ☒ Permit ☒ Registration ☐ Modification ☐ Extension ☐ Closure ☐ Other (explain) _____

*** At the time C-147 is submitted to the division for a Recycling Containment, a copy shall be provided to the surface owner.**

Be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: EOG Resources, Inc. (For multiple operators attach page with information) OGRID #: 7377
Address: 5509 Champions Dr. Midland, TX 79706
Facility or well name (include API# if associated with a well): Dire Wolf Truckin Containment and Recycle Facility
OCD Permit Number: 2RF-190 (For new facilities the permit number will be assigned by the district office)
U/L or Qtr/Qtr SE1/4 of NE1/4 Section 13 Township 26 South Range 30 East County: Eddy County
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Recycling Facility:**
Location of recycling facility (if applicable): Latitude 32.044212° 32° 2'39.16"N Longitude -103.829835° 103°49'47.41"W NAD83
Proposed Use: ☐ Drilling* ☒ Completion* ☐ Production* ☐ Plugging *
**The re-use of produced water may NOT be used until fresh water zones are cased and cemented*
☐ Other, *requires permit for other uses. Describe use, process, testing, volume of produced water and ensure there will be no adverse impact on groundwater or surface water.*
☒ Fluid Storage
☒ Above ground tanks ☒ Recycling containment ☐ Activity permitted under 19.15.17 NMAC explain type _____
☐ Activity permitted under 19.15.36 NMAC explain type: _____ ☐ Other explain _____
☐ For multiple or additional recycling containments, attach design and location information of each containment
☐ **Closure Report (required within 60 days of closure completion):** ☐ Recycling Facility Closure Completion Date: _____

3.
☒ **Recycling Containment:**
☐ Annual Extension after initial 5 years (attach summary of monthly leak detection inspections for previous year)
Center of Recycling Containment (if applicable): Latitude 32.044172° 32° 2'39.02"N Longitude -103.827851° 103°49'40.27"W NAD83
☐ For multiple or additional recycling containments, attach design and location information of each containment
☒ Lined ☒ Liner type: Thickness 60 Primary 40 Secondary mil ☐ LLDPE ☒ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☒ Welded ☐ Factory ☐ Other _____ Volume: 666,423 bbl Dimensions: L 720 x W 271 x D 18
☐ Recycling Containment Closure Completion Date: _____
Two containments with common wall - volume & dimensions above is each
Total containment capacity for both 1,332,846 bbls (L=720' x W=542' x D=18')

4.
Bonding:

☒ Covered under bonding pursuant to 19.15.8 NMAC per 19.15.34.15(A)(2) NMAC **(These containments are limited to only the wells owned or operated by the owners of the containment.)**

☐ Bonding in accordance with 19.15.34.15(A)(1). Amount of bond $_____ **(work on these facilities cannot commence until bonding amounts are approved)**

☐ Attach closure cost estimate and documentation on how the closure cost was calculated.

5.
Fencing:

☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☒ Alternate. Please specify Please see attached Variance Request Detail

6.
Signs:

☒ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☐ Signed in compliance with 19.15.16.8 NMAC

7.
Variances:

Justifications and/or demonstrations that the proposed variance will afford reasonable protection against contamination of fresh water, human health, and the environment.

Check the below box only if a variance is requested:

☒ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval. If a Variance is requested, include the variance information on a separate page and attach it to the C-147 as part of the application.

If a Variance is requested, it must be approved prior to implementation.

ALL CONSTRUTION AND OPERATION VARIANCES HAVE BEEN PREVIOUSLY APPROVED BY NMOCD.

8.
Siting Criteria for Recycling Containment

Instructions: The applicant must provide attachments that demonstrate compliance for each siting criteria below as part of the application. Potential examples of the siting attachment source material are provided below under each criteria.

General siting

Ground water is less than 50 feet below the bottom of the Recycling Containment. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; written approval obtained from the municipality	☐ Yes ☒ No ☐ NA
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Minerals Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; topographic map	☐ Yes ☒ No
Within a 100-year floodplain. FEMA map	☐ Yes ☒ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; aerial photo; satellite image	☐ Yes ☒ No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; topographic map; visual inspection (certification) of the proposed site	☐ Yes ☒ No

9.
Recycling Facility and/or Containment Checklist:
Instructions: Each of the following items must be attached to the application. Indicate, by a check mark in the box, that the documents are attached.

- ☒ Design Plan - based upon the appropriate requirements.
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements.
- ☒ Closure Plan - based upon the appropriate requirements.
- ☒ Site Specific Groundwater Data -
- ☒ Siting Criteria Compliance Demonstrations –
- ☒ **Certify that notice of the C-147 (only) has been sent to the surface owner(s)**

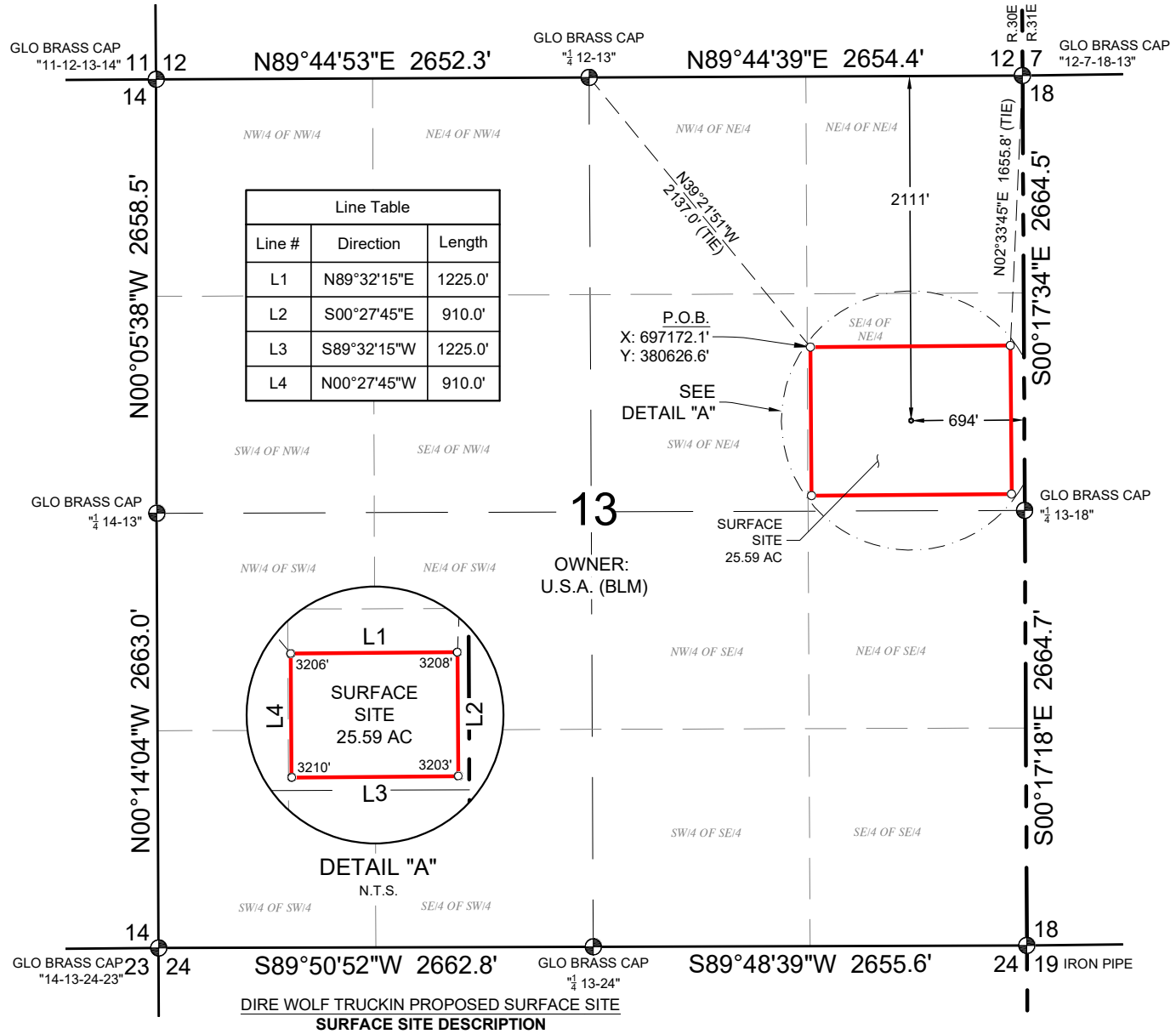
10.
Operator Application Certification:
I hereby certify that the information and attachments submitted with this application are true, accurate and complete to the best of my knowledge and belief.

Name (Print): Olivia Desser Title: Water Resource Manager
Signature: Olivia Desser Date: 3/29/2023
e-mail address: Olivia_Desser@eogresources.com Telephone: (432) 247-6359

11.
OCD Representative Signature: Victoria Venegas **Approval Date:** 04/28/2023
Title: Environmental Specialist **OCD Permit Number:** 2RF-190
☒ OCD Conditions
☒ Additional OCD Conditions on Attachment

Survey Plats

SECTION 13, TOWNSHIP 26 SOUTH, RANGE 30 EAST,
EDDY COUNTY, NEW MEXICO



Line Table		
Line #	Direction	Length
L1	N89°32'15"E	1225.0'
L2	S00°27'45"E	910.0'
L3	S89°32'15"W	1225.0'
L4	N00°27'45"W	910.0'

DIRE WOLF TRUCKIN PROPOSED SURFACE SITE

SURFACE SITE DESCRIPTION

A PROPOSED SURFACE SITE SITUATED IN THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 13, TOWNSHIP 26 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS;

BEGINNING AT A POINT FROM WHICH A GLO BRASS CAP FOUND AND ACCEPTED AS THE NORTH QUARTER CORNER OF SAID SECTION 13 BEARS N39°21'51"W, 2137.0 FEET, SAID POINT BEING THE NORTHWEST CORNER HEREOF;

THENCE THE FOLLOWING FOUR COURSES AND DISTANCES:
N89°32'15"E, 1225.0 FEET;
S00°27'45"E, 910.0 FEET;
S89°32'15"W, 1225.0 FEET;
N00°27'45"W, 910.0 FEET TO THE **POINT OF BEGINNING**, CONTAINING 25.59 ACRES.

SITE
POINT FOR BEGIN/END OR ANGLE POINT
FOUND MONUMENT AS SHOWN
CALCULATED CORNER

0 500' 1000'
SCALE: 1"= 1000'

NOTES:
- BEARINGS, COORDINATES, AND DISTANCES SHOWN HEREON ARE BASED ON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83- 2011 (EPOCH 2010) FRAMEWORK, AS DERIVED BY OPUS SOLUTION.
- LAND OWNERSHIP INFORMATION REFLECTED HEREON WAS PROVIDED BY CLIENT AND/OR OBTAINED FROM PUBLIC DOMAIN DATA, NO INDEPENDENT OWNERSHIP SEARCH WAS PERFORMED BY ASCENT

BRANDON MOSER NEW MEXICO 22502 PROFESSIONAL SURVEYOR 04/11/2022

I, BRANDON A. MOSER, NEW MEXICO PROFESSIONAL SURVEYOR NO. 22502, DO HEREBY CERTIFY THAT THIS EASEMENT PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND I FURTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT AND THAT THIS INSTRUMENT IS AN EASEMENT PLAT OF A PROPOSED EASEMENT.

BRANDON A. MOSER, N.M. P.L.S. **No.22502**

SURVEY DATE: 02/03/2022
JOB NO.: B22.EOG.0001
DRAFT: JW
SHEET: 1 OF 1

eog resources

DIRE WOLF TRUCKIN PROPOSED SURFACE SITE
SEC. 13, T-26-S, R-30-E, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

ASCENT GEOMATICS SOLUTIONS

PETROLEUM FIELD SERVICES, LLC
DBA: ASCENT GEOMATICS SOLUTIONS
223 W. WALL ST. SUITE 226
MIDLAND, TEXAS 79701
OFFICE: (432) 756-5680

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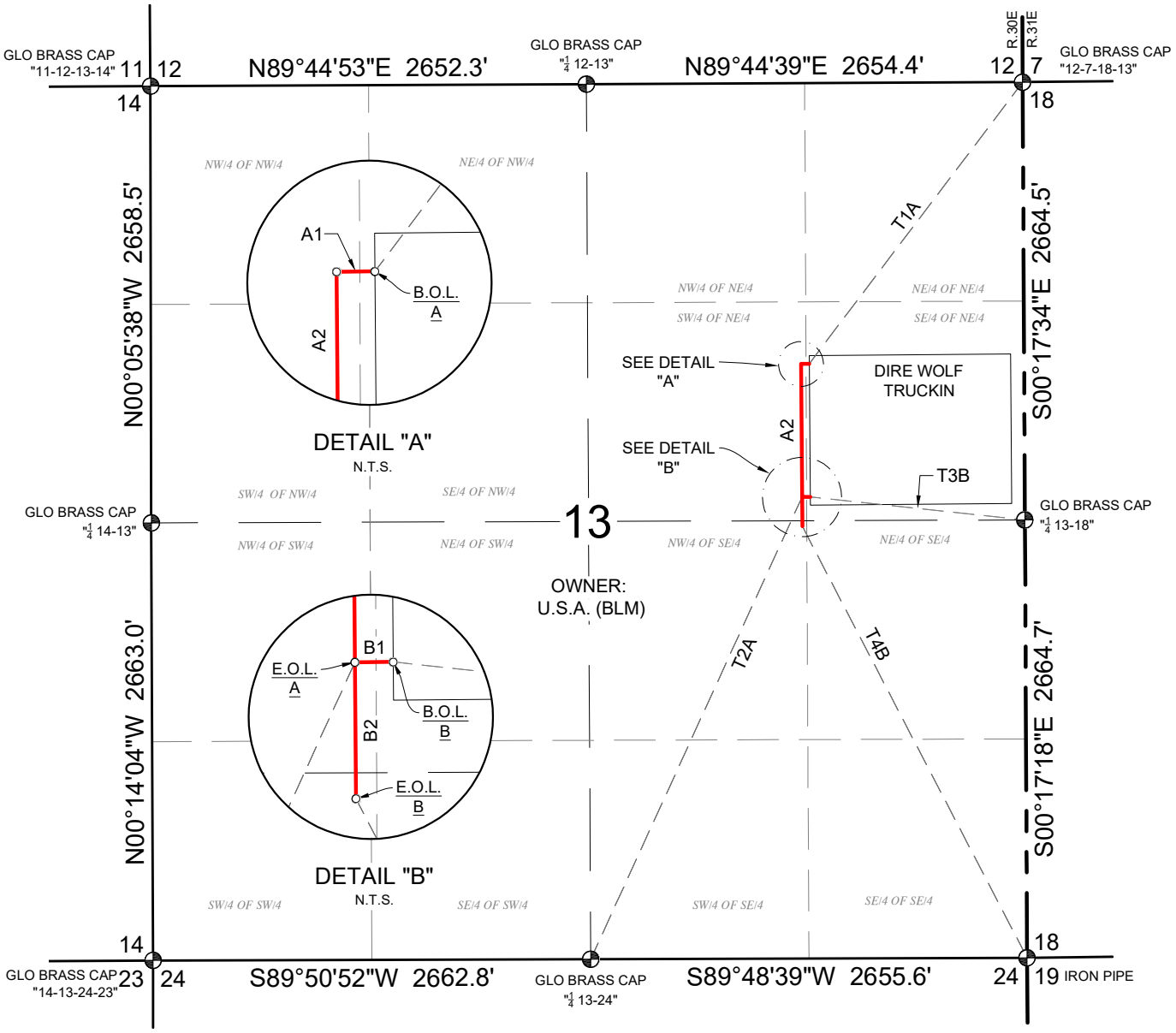
SECTION 13, TOWNSHIP 26 SOUTH, RANGE 30 EAST,
EDDY COUNTY, NEW MEXICO



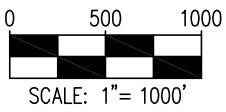
ROSS DRAW TO DIRE WOLF TRUCKIN ACCESS ROADS

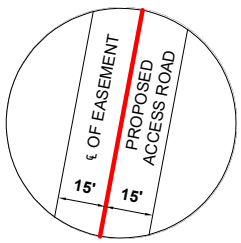
CENTERLINE DESCRIPTION

A STRIP OF LAND 30 FEET IN WIDTH AND 1088.7 FEET, 66.0 RODS OR 0.21 MILES IN LENGTH, SITUATED IN SECTION 13, TOWNSHIP 26 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO, AND BEING 15 FEET ON EACH SIDE OF THE SURVEY OF CENTERLINES AS SHOWN HEREON.

- ACCESS ROADS
- POINT FOR CORNER
- POINT FOR BEGIN/END
- FOUND MONUMENT AS SHOWN
- CALCULATED CORNER

SEE SHEET 2 OF 2 FOR ADDITIONAL INFORMATION





TYPICAL PERMANENT EASEMENT

NOTES:
- BEARINGS, COORDINATES, AND DISTANCES SHOWN HEREON ARE BASED ON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83- 2011 (EPOCH 2010) FRAMEWORK, AS DERIVED BY OPUS SOLUTION.
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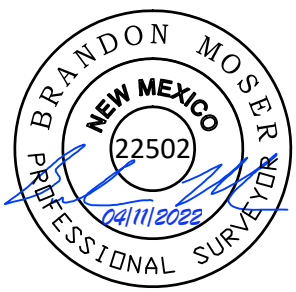

I, BRANDON A. MOSER, NEW MEXICO PROFESSIONAL SURVEYOR NO. 22502, DO HEREBY CERTIFY THAT THIS EASEMENT PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND I FURTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT AND THAT THIS INSTRUMENT IS AN EASEMENT PLAT OF A PROPOSED EASEMENT.

BRANDON A. MOSER, N.M. P.L.S. **No.22502**

SURVEY DATE: 02/01/2022 DRAFT: JW
JOB NO.: B22.EOG.0002 SHEET: 1 OF 2

eog resources

ROSS DRAW TO DIRE WOLF TRUCKIN PROPOSED ACCESS ROADS CROSSING SEC. 13, T-26-S, R-30-E, N.M.P.M., EDDY COUNTY, NEW MEXICO

ASCENT GEOMATICS SOLUTIONS

PETROLEUM FIELD SERVICES, LLC
DBA: ASCENT GEOMATICS SOLUTIONS
223 W. WALL ST. SUITE 226
MIDLAND, TEXAS 79701
OFFICE: (432) 756-5680

F:\EOG _ B220002\PROD\ROW\WATER LINE\ROSS_DRAW_TO_DIRE_WOLF_TRUCKIN_ACCESS_ROADS_R1 4/11/2022 2:35 PM

SECTION 13, TOWNSHIP 26 SOUTH, RANGE 30 EAST,
EDDY COUNTY, NEW MEXICO

Line Table - Access Roads			
Line #	Direction	Length	Length (Rods)
A1	S89°32'15"W	50.0'	3.0
A2	S0°27'45"E	810.0'	49.1
B1	S89°32'15"W	50.0'	3.0
B2	S0°27'45"E	178.7'	10.8

Line Table - Ties			
Line #	Direction	Length	TIE TO
T1A	N37°08'56"E	2150.4'	B.O.L. - A
T2A	S24°34'26"W	3093.6'	E.O.L. - A
T3B	S83°51'41"E	1313.2'	B.O.L. - B
T4B	S27°30'40"E	2960.8'	E.O.L. - B

SEE SHEET 1 OF 2 FOR ADDITIONAL INFORMATION

NOTES:
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BRANDON A. MOSER, N.M. P.L.S. **No.22502**

SURVEY DATE: 02/01/2022 DRAFT: JW
JOB NO.: B22.EOG.0002 SHEET: 2 OF 2

eog resources

ROSS DRAW TO DIRE WOLF TRUCKIN PROPOSED ACCESS ROADS CROSSING SEC. 13, T-26-S, R-30-E, N.M.P.M., EDDY COUNTY, NEW MEXICO

ASCENT GEOMATICS SOLUTIONS

PETROLEUM FIELD SERVICES, LLC
DBA: ASCENT GEOMATICS SOLUTIONS
223 W. WALL ST. SUITE 226
MIDLAND, TEXAS 79701
OFFICE: (432) 756-5680

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U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Sundry Print Report

06/16/2022

Well Name: DIRE WOLF 12 FED

Well Location: T26S / R30E / SEC 12 / SESW / 32.053236 / -103.83799

County or Parish/State: EDDY / NM

Well Number: 712H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM94610

Unit or CA Name:

Unit or CA Number:

US Well Number: 3001547684

Well Status: Producing Oil Well

Operator: EOG RESOURCES INCORPORATED

Notice of Intent

Sundry ID: 2666473

Type of Submission: Notice of Intent

Type of Action: Surface Disturbance

Date Sundry Submitted: 04/12/2022

Time Sundry Submitted: 07:48

Date proposed operation will begin: 04/13/2022

Procedure Description: 4-13-2022 EOG Resources, Inc. (EOG) requests authorization to construct, operate, and maintain one 1,225’ x 910’ frac pit located in the SE of the NE of section 13, T26S, R30E, Eddy County, NM and is depicted on the attached plat. The frac pit will be capable of holding 1MM barrels of water to be used across EOG’s leasehold in Eddy County for drilling and completing operations. The frac pit will be lined with a 40 mil secondary (lower) liner, a 200 mil Geonet used for leak detection, and a 60 mil primary top liner. The liner edges will be anchored into an 18’ trench and then earth-filled and compacted. The site will house three 30,000 barrel AST tanks, one filter press, one sludge tank, one DAF system, one chemical trailer, one polishing tank, and one filtration tank. There will be various valves and meters, and poly pipe to connect the reuse system together. EOG also requests authorization for one 30’ wide right-of-way (ROW) to construct, operate, and maintain one 16.9kV overhead electric line to power the pumps onsite. The powerline will begin at the SE corner of the frac pit in the SENE and run directly south for ~115’ and tie in to an existing Excel line in the NESE quarter of Sec. 13, T26S, R30E, Eddy County, New Mexico. This route is depicted on the attached plat. EOG also requests authorization to construct, operate, and maintain one 30’ access road for the frac pit. The road will begin at an existing lease road in the NESE and run north for ~989’ before turning east for ~50’ into the NW corner of the frac pit being in the SENE. Another 50’ long entrance into the frac pit will be built ~50’ north of the frac pit’s SW corner on the west side of the pit being in the SENE. Total distance of road to be built is ~1,089’ and is depicted on the attached plat. The onsite for Dire Wolf was conducted on 2/21/2019 with Matias Telles (BLM), Zane Homesley (GosHawk Environmental), and Ascent Geomatics Solutions (Surveyor). The Dire Wolf 12 Fed 712H is approximately 11.25 miles south of HWY 128 and 9 miles west of CR1.

Well Name: DIRE WOLF 12 FED

Well Location: T26S / R30E / SEC 12 / SESW / 32.053236 / -103.83799

County or Parish/State: EDDY / NM

Well Number: 712H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM94610

Unit or CA Name:

Unit or CA Number:

US Well Number: 3001547684

Well Status: Producing Oil Well

Operator: EOG RESOURCES INCORPORATED

Surface Disturbance

Is any additional surface disturbance proposed?: Yes

Proposed Disturbance(acres): 26.42

Interim Reclamation (acres): 26.42

Long Term Disturbance (acres): 26.42

Surface Disturbance:

NOI Attachments

Surface Disturbance

EP_ROSS_DRAW_TO_DIRE_WOLF_TRUCKIN_ELECTRIC_LINE_SEC_13_R1_20220412074732.pdf

EP_ROSS_DRAW_TO_DIRE_WOLF_TRUCKIN_ACCESS_ROADS_SEC_13_R1_20220412074721.pdf

BO_DIRE_WOLF_TRUCKIN_SURFACE_SITE_SEC_13_R1_20220412074700.pdf

Conditions of Approval

Specialist Review

TRUCKIN_FRAC_PIT_COAS_20220609112323.pdf

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: EMILY FOLLIS

Signed on: APR 12, 2022 07:47 AM

Name: EOG RESOURCES INCORPORATED

Title: Sr. Regulatory Administrator

Street Address: 5509 Champions Drive

City: Midland **State:** TX

Phone: (432) 848-9163

Email address: emily_follis@eogresources.com

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

Well Name: DIRE WOLF 12 FED

Well Location: T26S / R30E / SEC 12 / SESW / 32.053236 / -103.83799

County or Parish/State: EDDY / NM

Well Number: 712H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM94610

Unit or CA Name:

Unit or CA Number:

US Well Number: 3001547684

Well Status: Producing Oil Well

Operator: EOG RESOURCES INCORPORATED

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: 06/16/2022

Signature: Cody R. Layton

C-147 Detail

C-147 DETAIL

Dire Wolf Truckin Containment Pit

OPERATOR AND FACILITY / LOCATION DETAIL

The proposed reuse water containment facility & containment pit referred to as the Dire Wolf Truckin Containment and Recycle Facility, will be owned and operated by EOG Resources, Inc. (EOG) and located in Township 26 South, Range 30 East, and Section 13 in southeastern Eddy County.

RECYCLING FACILITY DETAIL

The proposed containment pit will be located adjacent to the Dire Wolf Truckin Water Recycling Facility and will hold treated water for use in EOG hydraulic fracturing operations. The adjacent recycling facility will utilize advanced water treatment technologies to produce a clean brine effluent prior to storage and subsequent reuse. An oxidation and solids removal/filtering system will treat the incoming influent stream to internal standards sufficient for hydraulic fracturing reuse applications.

RECYCLING CONTAINMENT DETAIL

EOG is proposing to construct a multi-liner dual containment pit utilizing leak detection systems to ensure an intact leak-free barrier system. As depicted in the attached design plan and schematics, *Truckin Reuse Pit*, the proposed pits will incorporate standards that meet or exceed the required standards per 19.15.34.12 NMAC. The proposed recycle containment will be approximately 702’ x 271’ inside floor dimensions each with 4:1 inside and outside berm grades. The approximate wall height will average 10ft from outside ground level to ensure no surface water run-on will occur. The top of the levee shall be approximately 20ft wide 2% outside sloping grade to ensure no surface water run-on will occur. The containment pit floor and wall preparation will include laser-finished grade free of rocks, debris, and sharp edges, compacted to a

density to ensure an unyielding base. At the onset of pit construction, all vegetative material and topsoil will be removed and stockpiled at the outside toe of the levee slopes. The interior liner system of the containment pit will consist of a 10-ounce geotextile felt base layer to protect the secondary geomembrane liner from any protruding floor irregularities. The secondary geomembrane liner will be composed of 40 mil HDPE. Between the secondary and primary liners will consist of 200 mil geonet sloping to the leak detection trough. The primary liner consists of a 60 mil HDPE liner. All liners will meet or exceed EPA SW-846 method 9090A. All seams will be oriented vertically with 4–6-inch liner overlap and all seam testing shall exceed all guidelines. As depicted in the attached design plan, *Truckin Reuse Pit,* the proposed containment pit will include a center-aligned leak detection trough and collection sump completed with perforated pipe and pump casing allowing for the installation of a leak detection pump system. Both inlet and discharge manifold systems, depicted in *Truckin Reuse Pit,* will be installed to prevent any liner damage from water entrance velocity or hose installation. Two audible bird deterrents will be utilized to deter any native birds and wildlife from the containment pit area.

BONDING

EOG will source and distribute reuse water for the Dire Wolf Truckin Containment and Recycle Facility from wells solely operated by EOG. Therefore, attached are the details of Bond Number LPM9260153 – State of New Mexico Land Office Oil and Gas Minerals Division.

FENCING

Please see the Variance detail.

SIGNAGE

As shown in the attached example sign, EOG shall place the appropriate signage along the water recycling facility and containment pit perimeter that meets all guidelines established in 19.15.34.12 C NMAC.

VARIANCES

Included are three variances as indicated in Section 7 of the C-147 registration form. NMOCD has previously approved all construction and operation variances.

1. Install two audible Mega Blaster Pro bird deterrents capable of covering up to 30 acres each.
2. Enclose the perimeter with a 6-foot galvanized chain link fence with 3 strands 45-degree barbed wire arm toppers.
3. Utilize 40-mil HDPE liner, in leu of the 30-mil string reinforced liner.

SITING CRITERIA FOR RECYCLING CONTAINMENT

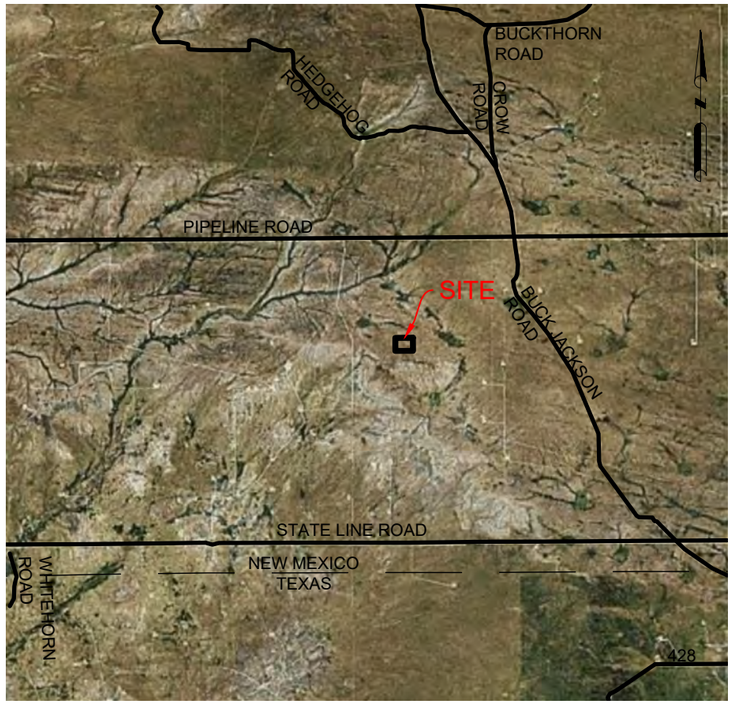
Enclosed within this submittal are comprehensive third-party reports detailing conformity to siting criteria described in Section 8 of the C-147 registration form; a detailed list and description of these attachments can be found in the subsequent section.

RECYCLING FACILITY AND CONTAINMENT CHECKLIST

As indicated in Section 9 on the attached C-147 form, all the required attachments have been included on the submittal, and certification of C-147 delivery to the landowner is acknowledged.

Recycling Containment Design Drawings

EOG RESOURCES, INC.
TRUCKIN REUSE PIT
EDDY COUNTY, NEW MEXICO
CONSTRUCTION PLAN



REGIONAL MAP

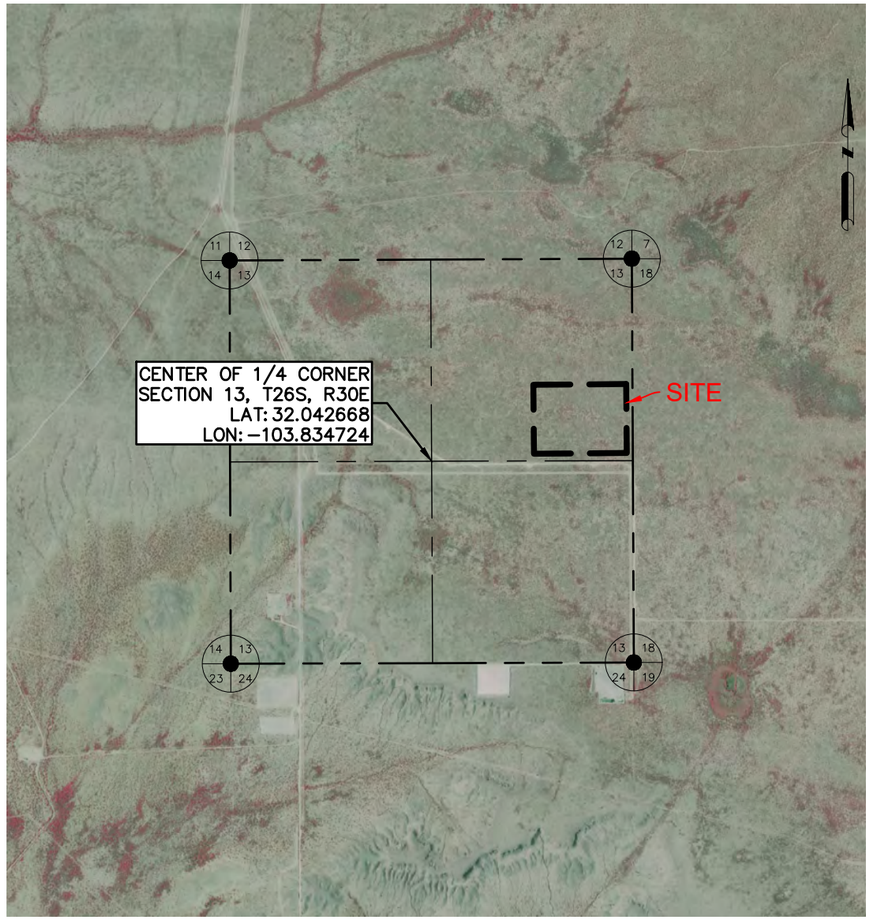
N.T.S.

NOTES:

1. COORDINATES ARE GRID AS DERIVED FROM GPS OBSERVATIONS AND ARE BASED ON STATE PLANE COORDINATES FOR NEW MEXICO EAST ZONE NAD-83 AND US SURVEY FOOT.

2. EXISTING UTILITY LOCATIONS SHOWN ARE TAKEN FROM AVAILABLE RECORDS PROVIDED BY THE UTILITY OWNER AND FIELD LOCATIONS OF SURFACE APPURTENANCES. LOCATIONS SHOWN ARE GENERALLY SCHEMATIC IN NATURE AND MAY NOT ACCURATELY REFLECT THE SIZE AND LOCATION OF EACH INDIVIDUAL UTILITY. SOME UTILITY LINES MAY NOT BE SHOWN.

3. ANY DAMAGES THAT MAY OCCUR TO REAL PROPERTY OR EXISTING IMPROVEMENTS SHALL BE RESTORED BY THE CONTRACTOR TO AT LEAST THE SAME CONDITION THAT THE REAL PROPERTY OR EXISTING IMPROVEMENTS WERE IN PRIOR TO THE DAMAGES.



VICINITY MAP

N.T.S.

Sheet List Table		
Sheet Number	Sheet Title	Sheet Revision Number
01	COVER SHEET	0
02	POND LAYOUT	0
03	POND CALCULATIONS	0
04	CROSS SECTIONS	0
05	DETIALS 1	0
06	DETAILS 2	0
07	DETAILS 3	0

MARK A. SKELSKEY
NEW MEXICO
28079
PROFESSIONAL ENGINEER
12·16·2022

DATA SOURCE:
AERIAL: NAIP 2020

PUBLICLY AVAILABLE DATA SOURCES HAVE NOT BEEN INDEPENDENTLY VERIFIED BY ASCENT.

DISCLAIMER:
THIS PLOT DOES NOT REPRESENT A MONUMENTED LAND SURVEY AND SHOULD NOT BE RELIED UPON TO DETERMINE BOUNDARY LINES, PROPERTY OWNERSHIP OR OTHER PROPERTY INTERESTS. PARCEL LINES, IF DEPICTED HAVE NOT BEEN FIELD VERIFIED AND MAY BE BASED UPON PUBLICLY AVAILABLE DATA THAT ALSO HAS NOT BEEN INDEPENDENTLY VERIFIED.

ASCENT GEOMATICS SOLUTIONS
8620 WOLFF COURT
WESTMINSTER, CO 80031
(303) 928-7128

PREPARED FOR:
eog resources

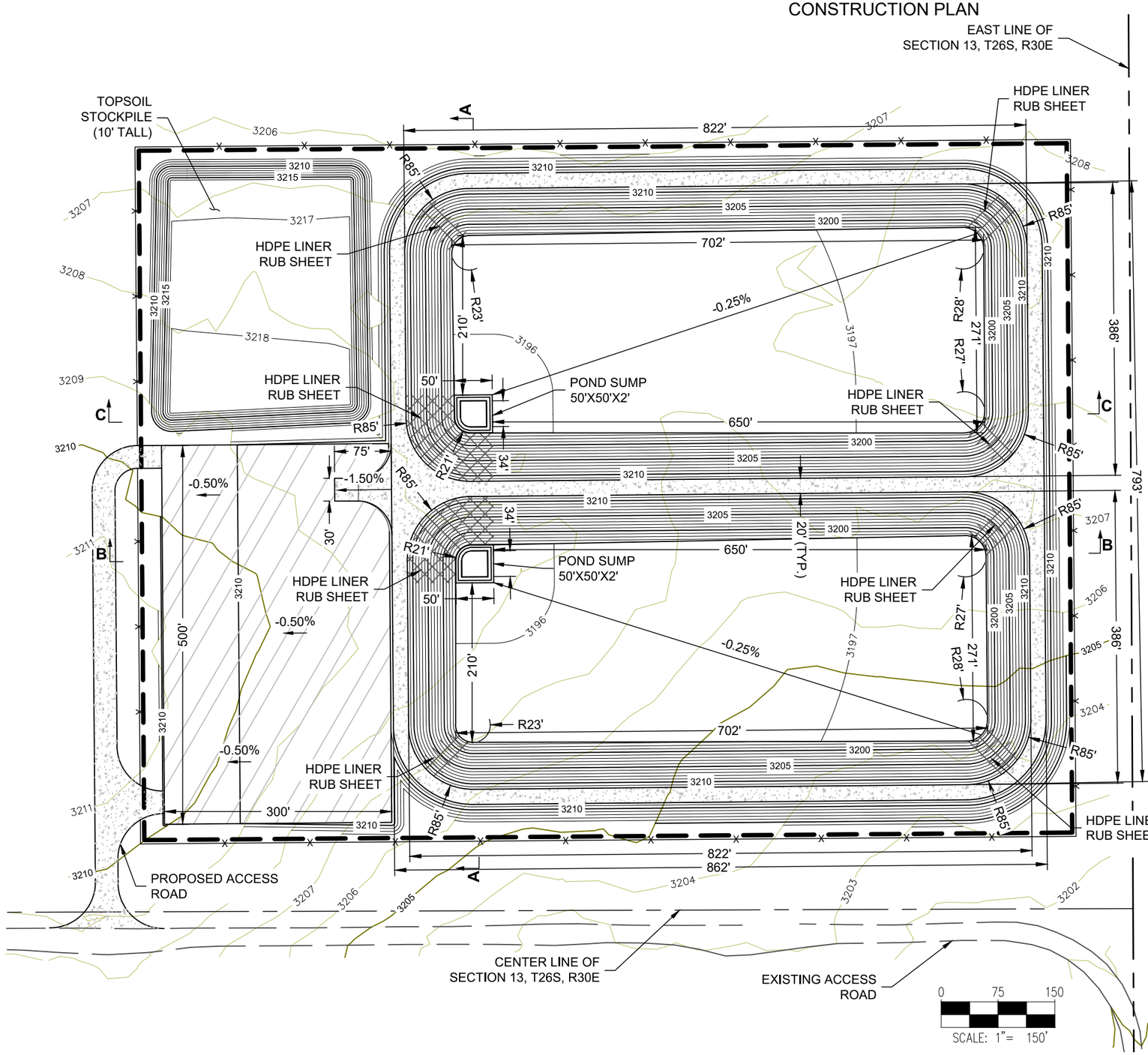
SHEET NAME:
COVER SHEET

TRUCKIN REUSE PIT
SE 1/4 NE 1/4 SECTION 13
T26S, R30E, NEW MEXICO P.M.
EDDY COUNTY, NEW MEXICO

REV.	REVISION DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	AS	12/16/22
		MAS	12/16/22

DRAWING DATE: 12/16/22
DRAFTED BY: AS
SHEET NO. 01 OF 07

EOG RESOURCES, INC.
TRUCKIN REUSE PIT
EDDY COUNTY, NEW MEXICO
CONSTRUCTION PLAN



LEGEND:

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- SECTION LINE
- CENTER-SECTION LINE
- OIL & GAS LOCATION
- PROPOSED FENCE
- PROPOSED BERM DRIVE & ACCESS ROAD
- PROPOSED EQUIPMENT PAD
- PROPOSED RUB SHEET

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PROFESSIONAL ENGINEER
12-16-2022

ASCENT GEOMATICS SOLUTIONS
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WESTMINSTER, CO 80031
(303) 928-7128

PREPARED FOR:
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SHEET NAME: POND LAYOUT
TRUCKIN REUSE PIT
SE 1/4 NE 1/4 SECTION 13
T26S, R30E, NEW MEXICO P.M.
EDDY COUNTY, NEW MEXICO

REV.	REVISION DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	AS	12/16/22
		MAS	12/16/22

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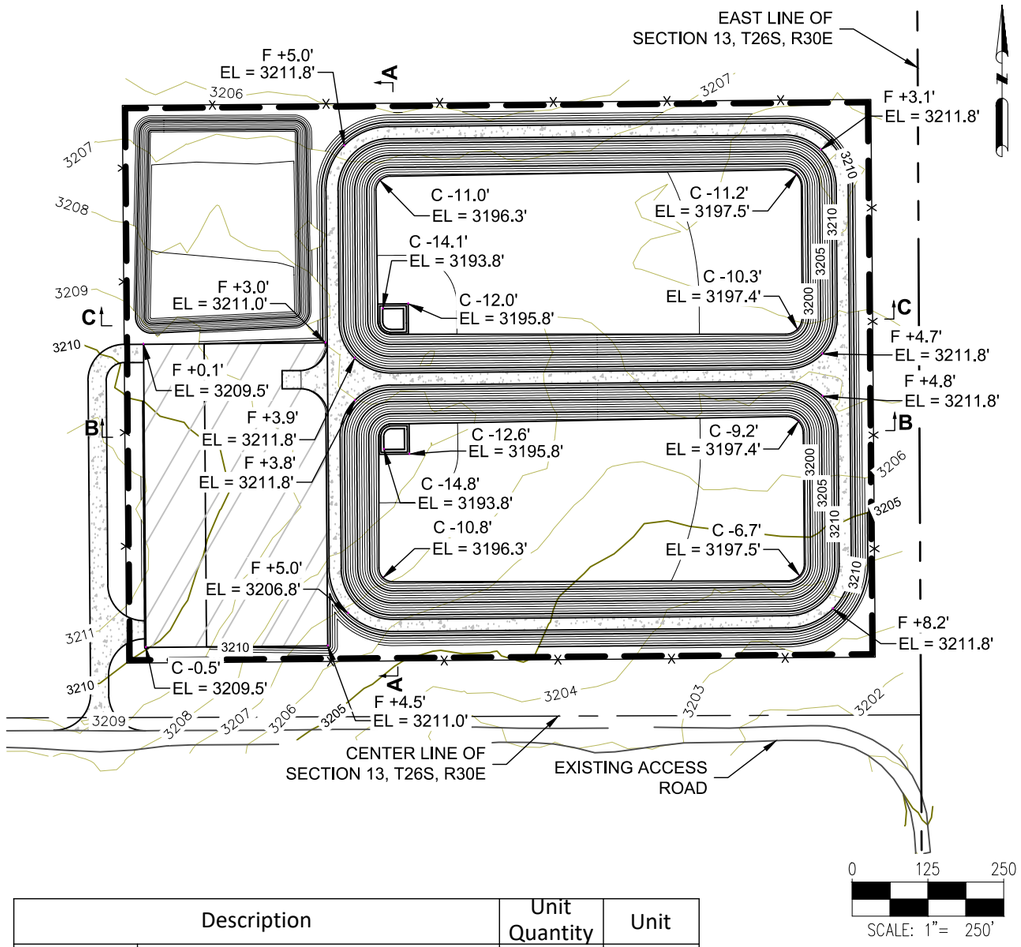
SHEET NO. 02 OF 07

EOG RESOURCES, INC.
TRUCKIN REUSE PIT
EDDY COUNTY, NEW MEXICO
CONSTRUCTION PLAN



Description		Unit Quantity	Unit
Liner Areas			
	Out-Slope Area	72,635	SQ.FT
	Pond Area	622,615	SQ.FT
	Rub Sheet	31,532	SQ.FT
Piping			
	6" HDPE Casing Pipe	151	LN.FT
	4" HDPE Collection Pipe	1,448	LN.FT
	12 HDPE Suction Line	154	LN.FT
Roads			
	Site Access Road & Berm Drive (6" Gravel)	113,989	SQ.FT
Fences			
	6' Chain Link Fence	4,234	LN.FT
	Access Gate, 2-Truck, 2-Walk	4	EA
Mass Grading			
	Clearing and Grubbing	25.59	ACRE

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12-16-2022

TRUCKIN REUSE PIT STAGE STORAGE

ELEV	DEPTH (FT)	AREA (ACRES)	VOL (BBLS)	VOL (ACRE FT)	VOL(CY)
3,193.80	0.00	0.03	0.00	0.00	0.00
3,194.00	0.20	0.03	41.51	0.01	8.63
3,194.50	0.70	0.03	162.91	0.02	33.88
3,195.00	1.20	0.04	311.41	0.04	64.76
3,195.50	1.70	0.05	489.69	0.06	101.83
3,196.00	2.20	0.36	1,282.72	0.17	266.74
3,196.50	2.70	1.87	5,605.14	0.72	1,165.57
3,197.00	3.20	3.21	15,449.25	1.99	3,212.63
3,197.50	3.70	4.40	30,204.43	3.89	6,280.94
3,198.00	4.20	4.49	47,449.85	6.12	9,867.08
3,198.50	4.70	4.58	65,037.77	8.38	13,524.44
3,199.00	5.20	4.67	82,970.42	10.69	17,253.49
3,199.50	5.70	4.76	101,250.04	13.05	21,054.70
3,200.00	6.20	4.85	119,878.86	15.45	24,928.51
3,200.50	6.70	4.94	138,859.12	17.90	28,875.41
3,201.00	7.20	5.03	158,193.06	20.39	32,895.86
3,201.50	7.70	5.12	177,882.90	22.93	36,990.31
3,202.00	8.20	5.21	197,930.89	25.51	41,159.24
3,202.50	8.70	5.31	218,339.26	28.14	45,403.11
3,203.00	9.20	5.40	239,110.24	30.82	49,722.38
3,203.50	9.70	5.50	260,246.07	33.54	54,117.53
3,204.00	10.20	5.59	281,748.99	36.32	58,589.01
3,204.50	10.70	5.69	303,621.22	39.13	63,137.28
3,205.00	11.20	5.78	325,865.01	42.00	67,762.82
3,205.50	11.70	5.88	348,482.59	44.92	72,466.09
3,206.00	12.20	5.98	371,476.20	47.88	77,247.56
3,206.50	12.70	6.07	394,848.06	50.89	82,107.68
3,207.00	13.20	6.17	418,600.43	53.95	87,046.93
3,207.50	13.70	6.27	442,735.52	57.07	92,065.76
3,208.00	14.20	6.37	467,255.58	60.23	97,164.64
3,208.50	14.70	6.47	492,162.84	63.44	102,344.05
3,208.80	15.00	6.53	507,293.91	65.39	105,490.52
3,209.00	15.20	6.57	517,459.40	66.70	107,604.40
3,209.50	15.70	6.67	543,147.76	70.01	112,946.24
3,210.00	16.20	6.77	569,230.04	73.37	118,369.98
3,210.50	16.70	6.88	595,708.45	76.78	123,876.10
3,211.00	17.20	6.98	622,585.24	80.25	129,465.06
3,211.50	17.70	7.08	649,862.64	83.76	135,137.33
3,211.80	18.00	7.15	666,423.06	85.90	138,581.03

*INFORMATION ABOVE IS IDENTICAL FOR EACH POND

EARTHWORKS QUANTITIES

TOTAL CUT FOR SITE	140,967	CY
TOTAL FILL FOR SITE	44,700	CY
TOPSOIL (6" DEPTH)	21,555	CY
TOTAL EXPORT	96,267	CY
TOTAL GRADING AREA	21.38	ACRES

*VOLUMES ASSUME A CUT FACTOR OF 0.85.

POND SUMMARY

MAX VOLUME	666,423.06	BBLS
MAX AREA	7.15	ACRES
MAX ELEVATION OF POND	3211.80	FT
3' FREEBOARD ELEVATION	3208.80	FT
VOLUME AT FREEBOARD	507,293.91	BBLS

*INFORMATION ABOVE IS IDENTICAL FOR EACH POND

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ASCENT GEOMATICS SOLUTIONS
ASCENT GEOMATICS SOLUTIONS
8620 WOLFF COURT
WESTMINSTER, CO 80031
(303) 928-7128

PREPARED FOR:
eog resources

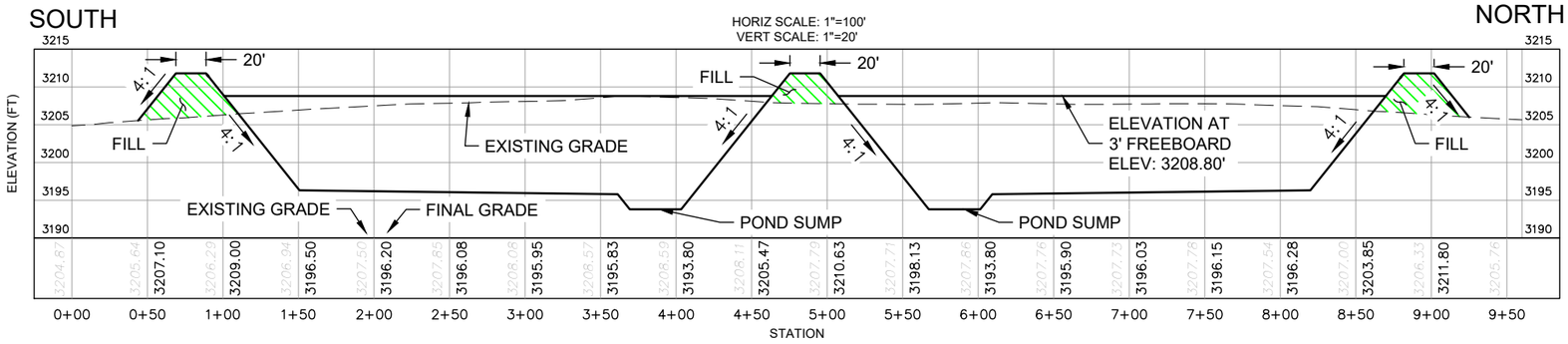
SHEET NAME: POND CALCULATIONS

TRUCKIN REUSE PIT
SE 1/4 NE 1/4 SECTION 13
T26S, R30E, NEW MEXICO P.M.
EDDY COUNTY, NEW MEXICO

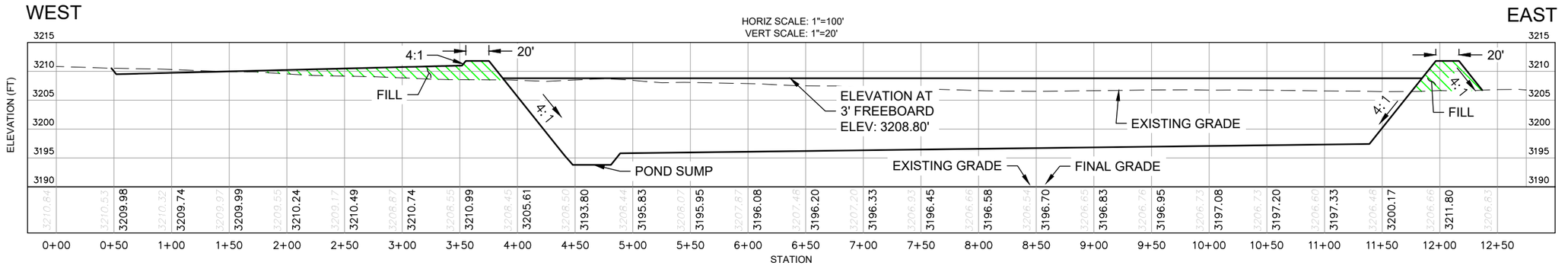
REV.	REVISION DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	AS	12/16/22
		MAS	12/16/22

DRAWING DATE: 12/16/22
DRAFTED BY: AS
SHEET NO. 03 OF 07

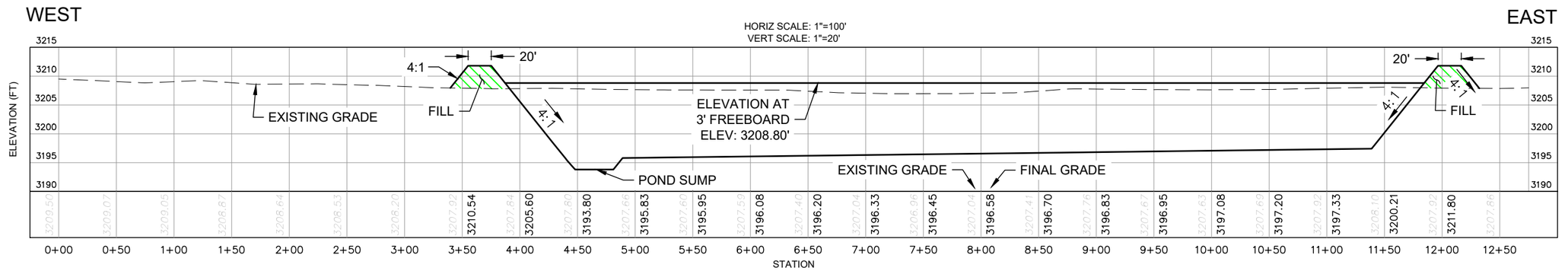
EOG RESOURCES, INC.
TRUCKIN REUSE PIT
EDDY COUNTY, NEW MEXICO
CONSTRUCTION PLAN



SECTION A - LOOKING WEST



SECTION B - LOOKING NORTH



SECTION C - LOOKING NORTH

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MARK A. SKELSKEY
NEW MEXICO
28079
PROFESSIONAL ENGINEER
12-16-2022

ASCENT GEOMATICS SOLUTIONS
8620 WOLFF COURT
WESTMINSTER, CO 80031
(303) 928-7128

PREPARED FOR:
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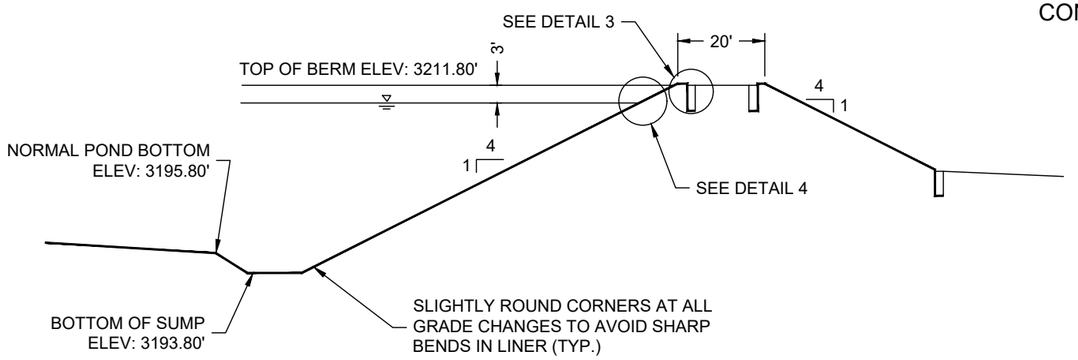
SHEET NAME:
CROSS SECTIONS

TRUCKIN REUSE PIT
SE 1/4 NE 1/4 SECTION 13
T26S, R30E, NEW MEXICO P.M.
EDDY COUNTY, NEW MEXICO

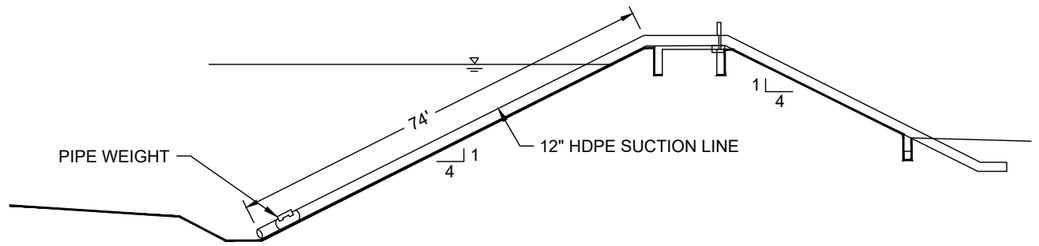
REV.	REVISION DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	AS	12/16/22

DRAWING DATE: 12/16/22
DRAFTED BY: AS
SHEET NO. 04 OF 07

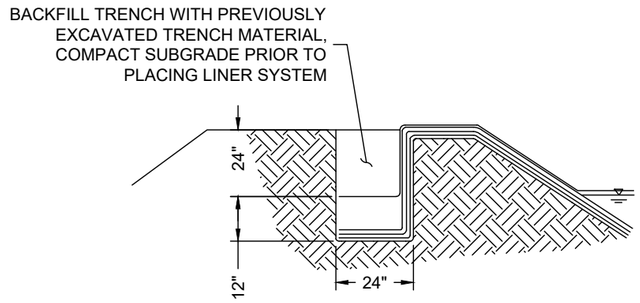
EOG RESOURCES, INC.
TRUCKIN REUSE PIT
EDDY COUNTY, NEW MEXICO
CONSTRUCTION PLAN



1 TYPICAL BERM SECTION
N.T.S.

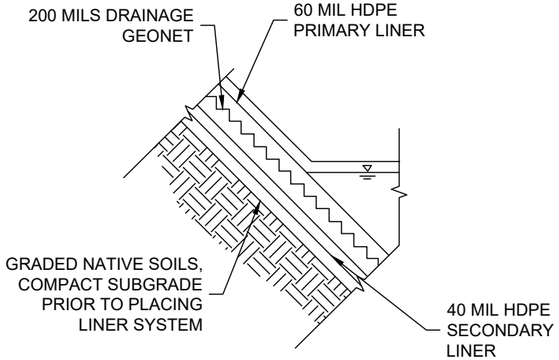


2 SUCTION PIPE SECTION
N.T.S.



NOTES:
1. AMOUNT OF LAYERS WILL VARY BY POND TYPE AND WHERE A RUB SHEET IS UTILIZED.

3 TYPICAL ANCHOR TRENCH
N.T.S.



4 BRINE WATER LINER SYSTEM
N.T.S.

MARK A. SKELSKEY
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PROFESSIONAL ENGINEER
12·16·2022

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GEOMATICS SOLUTIONS
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8620 WOLFF COURT
WESTMINSTER, CO 80031
(303) 928-7128

PREPARED FOR:
eog resources

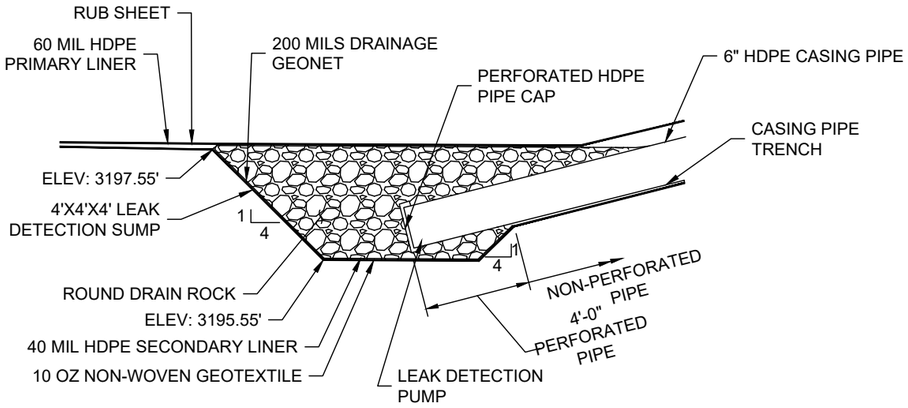
SHEET NAME: DETAILS 1

TRUCKIN REUSE PIT
SE 1/4 NE 1/4 SECTION 13
T26S, R30E, NEW MEXICO P.M.
EDDY COUNTY, NEW MEXICO

REV.	REVISION DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	AS	12/16/22
		MAS	3/16/22

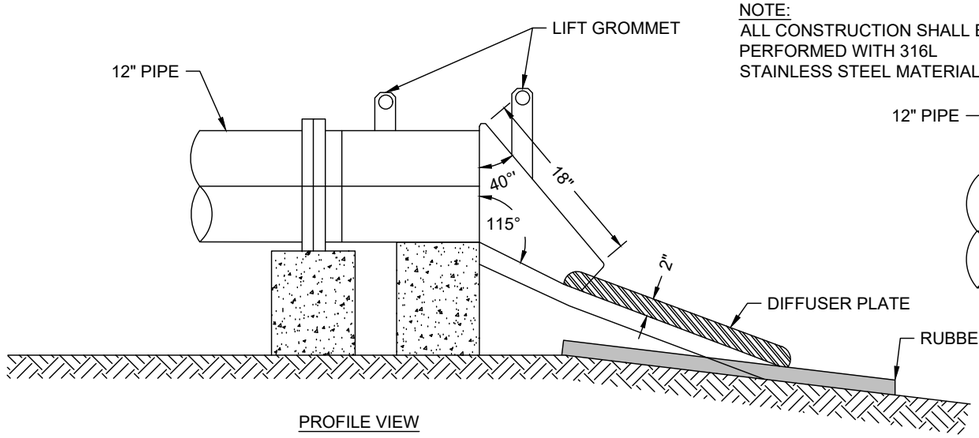
DRAWING DATE: 12/16/22
DRAFTED BY: AS
SHEET NO. 05 OF 07

EOG RESOURCES, INC.
TRUCKIN REUSE PIT
EDDY COUNTY, NEW MEXICO
CONSTRUCTION PLAN

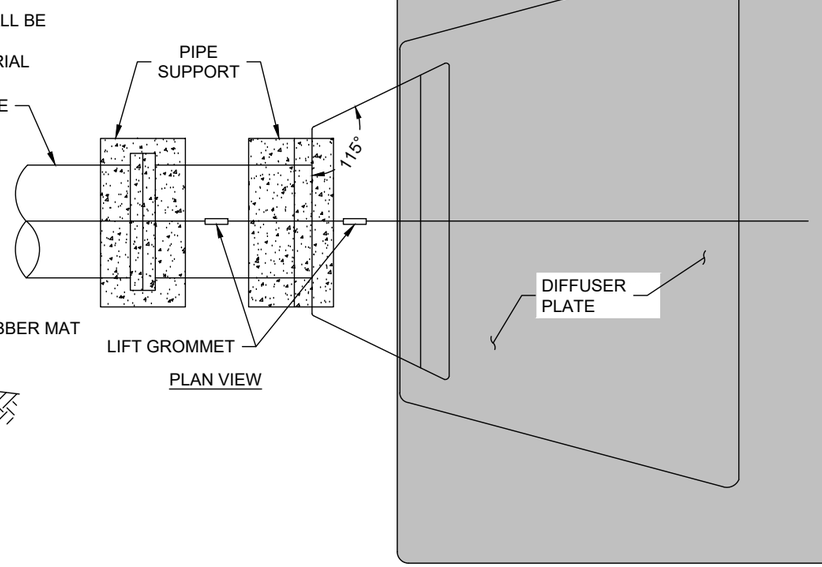


5 LEAK DETECTION SUMP
N.T.S.

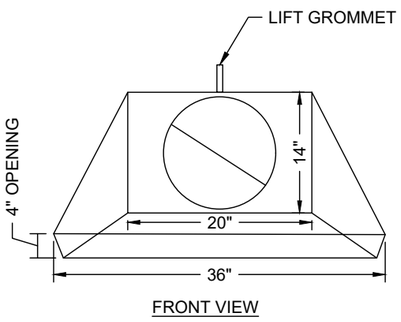
NOTE:
ALL CONSTRUCTION SHALL BE PERFORMED WITH 316L STAINLESS STEEL MATERIAL



PROFILE VIEW



PLAN VIEW



FRONT VIEW

6 POND FILL APPARATUS
N.T.S.

ASCENT GEOMATICS SOLUTIONS
8620 WOLFF COURT
WESTMINSTER, CO 80031
(303) 928-7128

PREPARED FOR:
eog resources

SHEET NAME: DETAILS 2

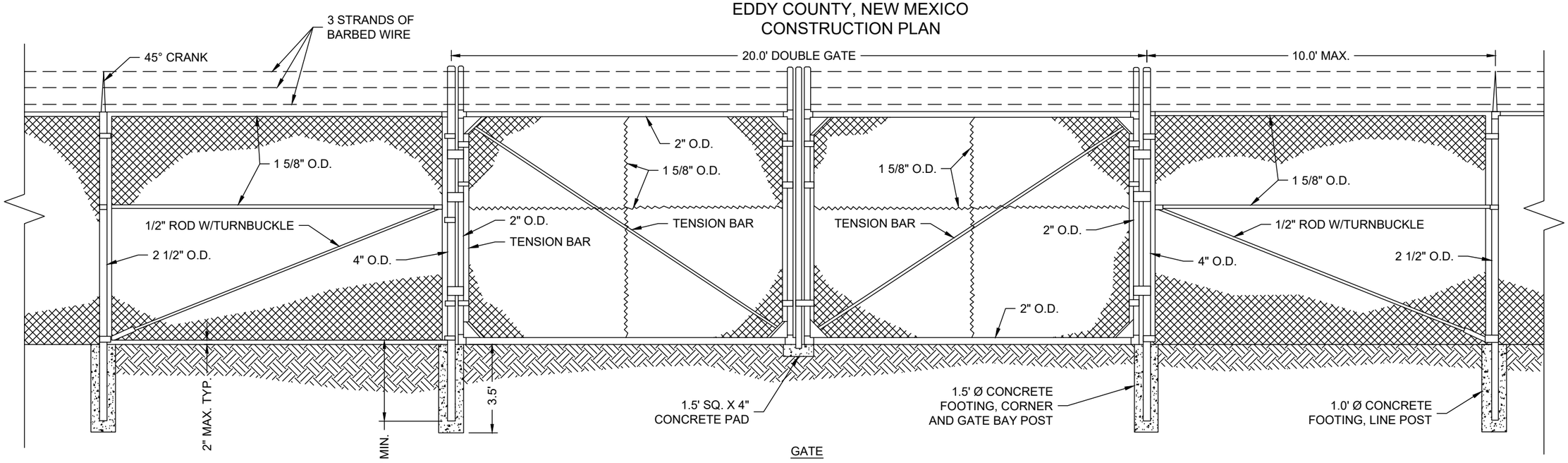
TRUCKIN REUSE PIT
SE 1/4 NE 1/4 SECTION 13
T26S, R30E, NEW MEXICO P.M.
EDDY COUNTY, NEW MEXICO

REV.	REVISION DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	AS	12/16/22

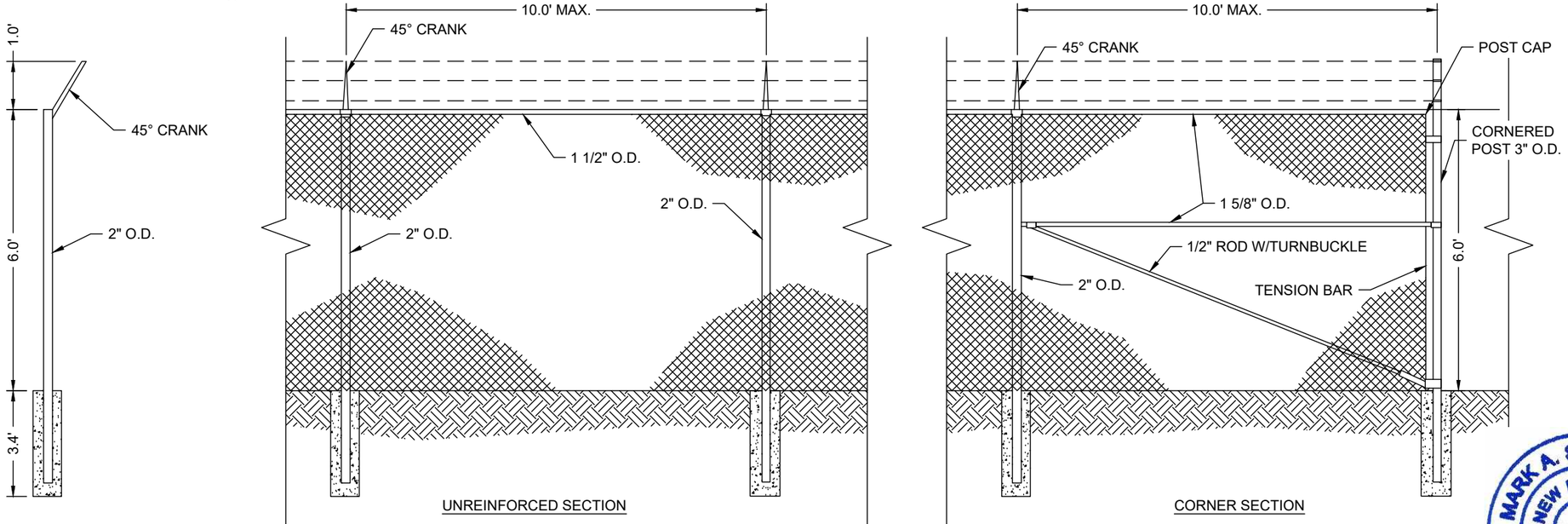
DRAWING DATE: 12/16/22
DRAFTED BY: AS
SHEET NO. 06 OF 07

P:\EOG___B220075\PROD\Grading\5_Details.dwg

EOG RESOURCES, INC.
TRUCKIN REUSE PIT
EDDY COUNTY, NEW MEXICO
CONSTRUCTION PLAN



GATE



7 PERMANENT 6' CHAINLINK FENCE WITH BARBED WIRE DETAIL
N.T.S.

MARK A. SKELSKEY NEW MEXICO 28079 PROFESSIONAL ENGINEER
12-16-2022

ASCENT GEOMATICS SOLUTIONS
8620 WOLFF COURT
WESTMINSTER, CO 80031
(303) 928-7128

PREPARED FOR:
eog resources

SHEET NAME: DETAILS 3

TRUCKIN REUSE PIT
SE 1/4 NE 1/4 SECTION 13
T26S, R30E, NEW MEXICO P.M.
EDDY COUNTY, NEW MEXICO

REV.	REVISION DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	AS	12/16/22

DRAWING DATE: 12/16/22
DRAFTED BY: AS
SHEET NO. 07 OF 07

P:_EOG___B220075\PROD\Grading\5_Details.dwg

Liner Installation

Installation Procedure

(This is a "Layman's" guide specific instructions follow as determined by IAGI)

1. Mobilize equipment and crew to location.
2. Once at location before any work is done complete a "JSA" and an equipment check list.
3. Inspect subgrade to determine if it is acceptable to begin work.
4. Begin excavation a 2'x2' anchor trench around the pits perimeter once a line locate has been completed
5. Once subgrade is accepted and before liner is deployed pull samples from one of the rolls to be used and test welders and seam quality (samples will be kept for QAQC documentation).
6. Anytime the welders set for more than two hours or a notable change in temperature occurs, the welders must be retested (samples will be kept for QAQC documentation)
7. The deployment direction will be determined by the direction of the wind on the first day, panels will be deployed moving in the direction that puts the wind at the back of the installer so that it is less likely for wind to get under the material and create air pockets, and unnecessary wrinkles.
    a. NOTE: You must also look at the forecast and consider any changing wind directions.
8. The first panel will be laid across the width of the pit five feet from the toe, the panel will be "squared" up with the pit and secured in place with the sand bags.
9. You then will begin end cap deployment. Panels will be pulled 3-5 feet past the first toe pull that was installed, corners will be "cut in" so that there are no perpendicular welds on the wall after end cap is completed.
10. Once the end cap is complete proceed with the floor installation.
    a. Note: For each panel pull overlap and adjust from there for the welder tract
    b. Note: Each pull will be pulled out to account for the current wind direction. Make sure that the end flap is not in the wind, if needed lift the flap of the installed panel and pull underneath it.
11. Complete the second end cap the same as in #8
12. If the pit is a "multi-layer" pit, or the customer has requested air channel testing you will now begin the QC and air test's.
    a. All extrusion welds will be Vacuum tested
    b. All testing will be done in accordance to IAGI standards
13. Net will now be installed in the floor using zip ties every 6" to secure panels together
14. Secondary layer will be installed in the same manner as # 4-11
15. "Dump Pads" or "Rub Sheets" will be installed in the requested location of the customer and will be alternate in color to the main liner. They will be extruded fully.
16. Sand bags will be installed around the entire toe of the pit to ballast the pit until water is available.
17. Documentation will be done throughout the installation, noting the roll numbers, and length of each panel. All repairs will also be documented.

Patriot Environmental, LLC
220 W. Carl Hubbell Blvd. # 671
Meeker, OK 74855

Bonding

4.

Bonding:

☒ Covered under bonding pursuant to 19.15.8 NMAC per 19.15.34.15(A)(2) NMAC **(These containments are limited to only the wells owned or operated by the owners of the containment.)**

☐ Bonding in accordance with 19.15.34.15(A)(1). Amount of bond $_____ **(work on these facilities cannot commence until bonding amounts are approved)**

☐ Attach closure cost estimate and documentation on how the closure cost was calculated.

ARGO SURETY

RIDER

To be attached to and form part of Bond No. SUR0013939.

Issued on behalf of EOG Resources, Inc as Principal, and in favor of Commissioner of Public Lands, New Mexico State Land Office as Obligee.

It is agreed that:

Bond is changed to include the following EOG Subsidiaries under State Land Bond No. OGB0959:

EOG Resources & Meridian Oil, EOG Resources & Mitchell Energy, EOG Resources & Murchison O&G, EOG Resources & Nortex G&O Co., EOG Resources & Read & Stevens, EOG Resources Marketing, Inc., EOG Resources Inc, Enron Oil and Gas Co., Enron Oil & Gas, EOG Resources & Internorth Inc, EOG Resources & Meridian Oil, EOG Resources & Sun Operating, Enron Oil & Gas Company, & EOG Resources

This rider shall become effective as of February 13, 2012

PROVIDED, however, that the liability of the Surety under the attached bond as changed by this Rider shall not be cumulative.

Signed, sealed and dated February 13, 2012.

By: Argonaut Insurance Company

Gina Rodriguez

Attorney-in-Fact Gina Rodriguez

Accepted: Commissioner of Public Lands, New Mexico State Land Office

Obligee

By: _____

EOG Resources, Inc

Principal

By: _____

Helen Y. Lim, VP & Treasurer

AS-0026046

Argonaut Insurance Company
225 W. Washington, 6th Floor
Chicago, IL 60606

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the Argonaut Insurance Company, a Corporation duly organized and existing under the laws of the State of Illinois and having its principal office in the County of Cook, Illinois does hereby nominate, constitute and appoint:

Donald R. Gibson, Sandra Parker, Tannis Mattson, Melissa Haddick, Terri Morrison, Gina Rodriguez

its true and lawful agent and attorney-in-fact, to make, execute, seal and deliver for and on its behalf as surety, and as its act and deed any and all bonds, contracts, agreements of indemnity and other undertakings in suretyship provided, however, that the penal sum of any one such instrument executed hereunder shall not exceed the sum of:

$15,000,000.00

This Power of Attorney is granted and is signed and sealed under and by the authority of the following Resolution adopted by the Board of Directors of Argonaut Insurance Company:

"RESOLVED, That the President, Senior Vice President, Vice President, Assistant Vice President, Secretary, Treasurer and each of them hereby is authorized to execute powers of attorney, and such authority can be executed by use of facsimile signature, which may be attested or acknowledged by any officer or attorney, of the Company, qualifying the attorney or attorneys named in the given power of attorney, to execute in behalf of, and acknowledge as the act and deed of the Argonaut Insurance Company, all bond undertakings and contracts of suretyship, and to affix the corporate seal thereto."

IN WITNESS WHEREOF, Argonaut Insurance Company has caused its official seal to be hereunto affixed and these presents to be signed by its duly authorized officer on the 15th day of September, 2008.

Argonaut Insurance Company

By: _____

Michael E. Arledge President

STATE OF TEXAS
COUNTY OF BEXAR SS:

On this 15th day of September, 2008 A.D., before me, a Notary Public of the State of Texas, in and for the County of Bexar, duly commissioned and qualified, came THE ABOVE OFFICER OF THE COMPANY, to me personally known to be the individual and officer described in, and who executed the preceding instrument, and he acknowledged the execution of same, and being by me duly sworn, deposed and said that he is the officer of the said Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and the said Corporate Seal and his signature as officer were duly affixed and subscribed to the said instrument by the authority and direction of the said corporation, and that Resolution adopted by the Board of Directors of said Company, referred to in the preceding instrument is now in force.

IN TESTIMONY WHEREOF, I have hereunto set my hand, and affixed my Official Seal at the County of Bexar, the day and year first above written.

BECKY JIMENEZ
Notary Public, State of Texas
My Commission Expires
December 30, 2011

Becky Jimenez

(Notary Public)

I, the undersigned Officer of the Argonaut Insurance Company, Illinois Corporation, do hereby certify that the original POWER OF ATTORNEY of which the foregoing is a full, true and correct copy is still in full force and effect and has not been revoked.

IN WITNESS WHEREOF, I have hereunto set my hand, and affixed the Seal of said Company, on the 13th day of February 2012

Robert F. Thomas

Robert F. Thomas Vice President

THIS DOCUMENT IS NOT VALID UNLESS PRINTED ON SHADED BACKGROUND WITH BLUE SERIAL NUMBER IN THE UPPER RIGHT HAND CORNER. IF YOU HAVE QUESTIONS ON AUTHENTICITY OF THIS DOCUMENT CALL (210) 321 -8400.

ONLINE Version

NEW MEXICO STATE LAND OFFICE – Oil, Gas, and Minerals Division

BOND FOR CONTRACT PERFORMANCE AND SURFACE OR IMPROVEMENT DAMAGE

Surface Improvement Damage Megabond

BOND NO. SUR0013[redacted]
(For use of Surety C[redacted])

BOND NO. _____
(For use of State Land Office)

Know all men by these presents

EOG Resources, Inc., P.O. Box 4362, Houston, TX 77210-4362, as **Principal**,

and Argonaut Insurance Company, as **Surety**, a corporation organized,

existing and doing business under and by virtue of the laws of the State of Illinois and

authorized to transact a surety business in the State of New Mexico, are held and firmly bound unto the New Mexico Commissioner of Public Lands in the sum of **Twenty-five Thousand Dollars ($25,000)** for the following uses:

1. For the use and benefit of the Commissioner, to secure the performance of said Principal as lessee under one or more state leases or permits for minerals, oil and gas, coal or geothermal resources or as holder under one or more state rights-of-way or easements which Principal has heretofore executed or may hereafter execute with the Commissioner; and

2. For the use and benefit of the Commissioner, state surface lessees, state land contract purchasers, state patentees, and their successors and assigns, to pay for damages to the surface of lands subject to a state lease or permit for minerals, oil and gas, coal or geothermal resources or a state right-of-way or easement held by Principal, or for damages to surface improvements located thereon, suffered by reason of Principal's operations under a state lease or permit for minerals, oil and gas, coal or geothermal resources or under a state right-of-way or easement.

For the payment of said sum, well and truly to be made, Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

The conditions of the foregoing obligations are:

1. If the above bound Principal or its successors or assigns shall well and truly perform and keep all terms, covenants, conditions, and requirements of all state leases for minerals, oil and gas, coal or geothermal resources and of all state rights-of-way and easements heretofore or hereafter executed by the Commissioner and Principal, including the payment of royalties when due and compliance with all established mining plans; and

2. If Principal or its successors or assigns shall in all respects make good and sufficient recompense, satisfaction or payment to the Commissioner of Public Lands for damages to the surface of lands subject to a state lease or permit for minerals, oil and gas, coal or geothermal resources or a state right-of-way or easement held by Principal and for damages to livestock, water, crops, tangible improvements or surface improvements of any kind located thereon suffered by reason of Principal's operations under such state lease, permit, right-of-way or easement heretofore or hereafter executed by the Commissioner and Principal;

THEN, the obligation to pay the sum of Twenty-five Thousand Dollars ($25,000) shall be null and void.

If, however, Principal shall default or otherwise fail in performance under such state lease, permit, right-of-way or easement, including the failure to pay royalties when due or to comply with established mining plans, or if Principal shall fail or refuse to make good and sufficient recompense, satisfaction or payment to the Commissioner for damages to the surface of the above designated lands or to improvements located thereon, then the obligation to pay said sum shall remain in full force and effect.

The liability of Surety upon this bond shall not expire upon the termination of any state lease or permit or any

renewal or extension thereof for minerals, oil and gas, coal or geothermal resources or any state right-of-way or easement or any renewal or extension thereof which Principal or its successors or assigns has heretofore executed or may hereafter execute with the Commissioner, but shall be and remain in full force and effect until released in writing by the Commissioner of Public Lands.

Principal and Surety further agree that in the event an action is brought on this bond and a court of competent jurisdiction determines Principal or Surety is in breach of the agreements contained in this bond, Principal or Surety or both of them shall pay to the Commissioner the costs associated with the recovery of the amounts due hereunder, including reasonable attorneys' fees.

This bond is executed pursuant to the laws of the State of New Mexico, including Sections 19-8-24, 19-9-12, 19-10-26, 19-13-19, and 46-6-1 through -9, NMSA 1978.

The premium for which this bond is written is One Hundred Thirteen and No/100---------- *Dollars.*

In witness whereof we hereunto set our hands this 30th *day of* January, *20* 12.

EOG Resources, Inc.
PRINCIPAL
P.O. Box 4362, Houston, TX 77210-4362
Address
BY _____
Signature Helen Y. Lim, VP & Treasurer
Title
(Note: Principal, if corporation, affix Corporate seal here.)

Argonaut Insurance Company
SURETY
225 W. Washington, 6th Floor, Chicago, IL 60606
Address
BY _____
Attorney-in-Fact *Signature*
Gina Rodriguez
(Note: Corporate surety, affix Corporate seal here.)

ACKNOWLEDGMENT FORM FOR NATURAL PERSONS

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ *day of* _____, *20*_____,
before me personally appeared _____, *to me known to be the person(s) described in and who executed the same as (his, her, their) free act and deed.*

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this certificate first above written.

_____ _____ _____
My commission expires *Notary Public name* *Signature, notary*

(Notary Seal)

ACKNOWLEDGMENT FORM FOR CORPORATION

STATE OF TEXAS)
) ss.
COUNTY OF HARRIS)

On this 19th day of January, 20 12,
before me personally appeared Helen Y. Lim, to me personally known, who, being by me duly sworn, did say that s/ he is VP & Treasurer of EOG Resources, Inc. and that this instrument was signed and sealed on behalf of said corporation by authority of its board of directors, and acknowledged said instrument to be the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this certificate first above written.

April 3, 2014 — My commission expires
Mary J. Grisaffi — Notary Public name
Signature notary

(Notary Seal)

MARY J. GRISAFFI
Notary Public, State of Texas
My Commission Expires
April 03, 2014

ACKNOWLEDGMENT FORM FOR CORPORATE SURETY

STATE OF TEXAS)
) ss.
COUNTY OF Harris)

On this 30th day of January, 20 12,
before me personally appeared Gina Rodriguez, to me personally known, who, being by me duly sworn, did say that s/ he is Attorney-in-Fact of Argonaut Insurance Company and that this instrument was signed and sealed on behalf of said corporation by authority of its board of directors, and acknowledged said instrument to be the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year in this certificate first above written.

11-30-2014 — My commission expires
Elizabeth Rhodes — Notary Public name
Signature, notary

(Notary Seal)

ELIZABETH RHODES
NOTARY PUBLIC
STATE OF TEXAS
COMM. EXPIRES 11-30-2014

Note: Corporate surety, attach power of attorney.

APPROVED this _____ day of _____, 20_____.

_____
COMMISSIONER OF PUBLIC LANDS

NOTE: File before development or operations are commenced, with:

Commissioner of Public Lands
New Mexico State Land Office, OGMD
P.O. Box 1148 — or — 310 Old Santa Fe Trail
Santa Fe, New Mexico 87504-1148 — Santa Fe, NM 87501-2708

AS-0026041

Argonaut Insurance Company
225 W. Washington, 6th Floor
Chicago, IL 60606

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the Argonaut Insurance Company, a Corporation duly organized and existing under the laws of the State of Illinois and having its principal office in the County of Cook, Illinois does hereby nominate, constitute and appoint:

Donald R. Gibson, Sandra Parker, Tannis Mattson, Melissa Haddick, Terri Morrison, Gina Rodriguez

its true and lawful agent and attorney-in-fact, to make, execute, seal and deliver for and on its behalf as surety, and as its act and deed any and all bonds, contracts, agreements of indemnity and other undertakings in suretyship provided, however, that the penal sum of any one such instrument executed hereunder shall not exceed the sum of:

$15,000,000.00

This Power of Attorney is granted and is signed and sealed under and by the authority of the following Resolution adopted by the Board of Directors of Argonaut Insurance Company:

"RESOLVED, That the President, Senior Vice President, Vice President, Assistant Vice President, Secretary, Treasurer and each of them hereby is authorized to execute powers of attorney, and such authority can be executed by use of facsimile signature, which may be attested or acknowledged by any officer or attorney, of the Company, qualifying the attorney or attorneys named in the given power of attorney, to execute in behalf of, and acknowledge as the act and deed of the Argonaut Insurance Company, all bond undertakings and contracts of suretyship, and to affix the corporate seal thereto."

IN WITNESS WHEREOF, Argonaut Insurance Company has caused its official seal to be hereunto affixed and these presents to be signed by its duly authorized officer on the 15th day of September, 2008.

Argonaut Insurance Company

By: _____

Michael E. Arledge President

STATE OF TEXAS
COUNTY OF BEXAR SS.

On this 15th day of September, 2008 A.D., before me, a Notary Public of the State of Texas, in and for the County of Bexar, duly commissioned and qualified, came THE ABOVE OFFICER OF THE COMPANY, to me personally known to be the individual and officer described in, and who executed the preceding instrument, and he acknowledged the execution of same, and being by me duly sworn, deposed and said that he is the officer of the said Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and the said Corporate Seal and his signature as officer were duly affixed and subscribed to the said instrument by the authority and direction of the said corporation, and that Resolution adopted by the Board of Directors of said Company, referred to in the preceding instrument is now in force.

IN TESTIMONY WHEREOF, I have hereunto set my hand, and affixed my Official Seal at the County of Bexar, the day and year first above written.

BECKY JIMENEZ
Notary Public, State of Texas
My Commission Expires
December 30, 2011

Becky Jimenez

(Notary Public)

I, the undersigned Officer of the Argonaut Insurance Company, Illinois Corporation, do hereby certify that the original POWER OF ATTORNEY of which the foregoing is a full, true and correct copy is still in full force and effect and has not been revoked.

IN WITNESS WHEREOF, I have hereunto set my hand, and affixed the Seal of said Company, on the 30th day of January 2012

Robert F. Thomas

Robert F. Thomas Vice President

THIS DOCUMENT IS NOT VALID UNLESS PRINTED ON SHADED BACKGROUND WITH BLUE SERIAL NUMBER IN THE UPPER RIGHT HAND CORNER. IF YOU HAVE QUESTIONS ON AUTHENTICITY OF THIS DOCUMENT CALL (210) 321 - 8400.

eog resources

EOG Resources, Inc.
1111 Bagby
Sky Lobby 2
Houston, Texas 77002

P.O. Box 4362
Houston, Texas 77210-4362

Date: 1-12-2012

Requestor: Roger Motley	**Division**: Midland
Telephone: 432-686-3642	**Fax:** 432-686-3733

Principal

EOG Resources, Inc.
P.O. Box 4362
Houston, TX 77210 4362

(Name & Address of EOG Entity, if other than EOG Resources, Inc.):

Obligee (Name & Physical Address of Party requiring bond) **Phone:**
Commissioner of Public Lands
New Mexico State Land Office – Right of Way Division
310 Old Santa Fe Trail
Santa Fe, New Mexico

Effective Date of Bond: 1-30-2012 **Date Bond Required:** 1-20-2012
Amount of Bond: $25,000
Bond Type:

Performance	
License/Permit	
Road Crossing	
Right of Way	
Oil & Gas Drilling	
Plugging & Surface Restoration	

Other: Surface Improvement Damage Megabond
(If court bond, please provide a copy of judgment and bond form)

Bond Description: (Road, mileage, Well #, Location, County, etc)
This Megabond will cover all operations by EOG Resources, Inc. on our State of New Mexico leases.

Other Comments/Information:

Deliver completed Bonds by Fed Ex To:
Requestor Roger Motley, Midland Division Land Dept.
Obligee Nick Jaramillo, New Mexico State Land Office – Right of Way Division
310 Old Santa Fe Trail
Santa Fe, New Mexico 78501-2708

Sign

6.

Signs:

☒ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☐ Signed in compliance with 19.15.16.8 NMAC

48”x48”


eog resources
DIRE WOLF TRUCKIN REUSE WATER PIT
SE/NE SEC.13 - T26S - R30E
EDDY COUNTY, NM
32.044162°, -103.828373°
CAUTION
PPE
REQUIRED
DANGER
H2S
MAY BE PRESENT
DANGER
NO
SMOKING
NOTICE
AUTHORIZED
PERSONNEL ONLY

Variances

7.

Variances:

Justifications and/or demonstrations that the proposed variance will afford reasonable protection against contamination of fresh water, human health, and the environment.

Check the below box only if a variance is requested:

☒ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval. If a Variance is requested, include the variance information on a separate page and attach it to the C-147 as part of the application.

If a Variance is requested, it must be approved prior to implementation.

ALL CONSTRUTION AND OPERATION VARIANCES HAVE BEEN PREVIOUSLY APPROVED BY NMOCD.

Variance Request for Bird Deterrent

Re: Dire Wolf Truckin Containment and Recycle Facility

EOG Resources, Inc. (EOG) would like to request the OCD's approval for a variance regarding bird deterrents at the location described above. EOG proposes to utilize the Bird-X Mega Blaster Pro, creating intermittent distress calls to create a "danger zone" that frightens native and or migrating birds and wildlife from the water recycling facility and containment pit area. Two units would be installed, each containing two built-in high-output amplifiers and housing 20 speakers, capable of producing up to 125 decibels and a frequency range from 2,000 – 10,000 Hz.

Please see details below.

Mega Blaster Pro – Specs:

- Coverage: Up to 30 acres from single unit
- Box dimensions: Box 1: 23" x 18" x 16" (23 lbs., unit & speaker), Box 2: 32" x 24" x 5" (17 lbs., solar panel)
- Power Input: 12vDC (3 amps) via solar panel and battery
- Sound Pressure: up to 125 decibels
- Frequency: 2,000–10,000 Hz
- Library of predator calls
- Full customizable to the species of bird in our area of operation
- Compliance: UL & CE listed
- EPA Est. 075310-OR-001
- Included: Generating unit with two built-in high-output amplifiers, 20-speaker tower with audio cables, 40-watt solar panel, battery clips, & all mounting hardware
- The unit is typically mounted with a tripod pole setup. The tripod would be a typical sturdy tripod that would be used to support a large PA speaker. The pole that would fit into the top of the tripod that the speaker tower, control box and solar panel would mount to should be ¾" diameter and be 6-12 feet tall. The taller the pole the greater the distance the sound will travel.

- The effective range of the Mega Blaster Pro is 30 acres, in a circular coverage pattern around the 20-speaker tower with a radius of about 666 feet. The 20-speaker tower features 5 speakers pointing in each direction to create the even dispersal

This is the typical configuration EOG proposes to utilize at the Dire Wolf Truckin Containment and Recycle Facility.

Variance Request for Fencing

Re: Dire Wolf Truckin Containment and Recycle Facility

EOG Resources, Inc. (EOG) would like to request the OCD's approval for a variance regarding fencing at the location described above. EOG proposes to utilize a 6-foot galvanized chain-link fence with 3 strands of barbed wire on the top of the chain-link fencing. The 3 strands of barbed wire will be mounted on a galvanized bracket with a 45-degree angle pointing toward the outside of the location. Each post hole will be drilled via an auger to ensure a consistent and accurate depth and will be set in concrete. Six 18" x 18" swinging gates will be installed at ground level for temporary waterlines to pass through. The gates will remain closed as depicted in the pictures below to ensure no wildlife can access the containment site when no waterlines are present.

Please see the details below.

This is the typical configuration EOG proposes to utilize at the Dire Wolf Truckin Containment and Recycle Facility.

Variance Request for Secondary Liner

Re: Dire Wolf Truckin Containment and Recycle Facility

EOG Resources, Inc. (EOG) would like to request the OCD's approval for a variance regarding the secondary liner at the location described above. EOG proposes to utilize 40-mil HDPE for the secondary liner, in lieu of a 30-mil LLDPE string-reinforced liner. The standard LLDPE string-reinforced liner has a hydraulic conductivity no greater than $1x10^{-9}$ cm/sec and meets or exceeds the EPA SW-846 method 9090A per 19.15.34.12 NMAC.

The proposed 40-mil HDPE Geomembrane liner has a typical Hydraulic Conductivity no greater than 10^{-12} cm/sec, per the attached letter from Solmax. This hydraulic conductivity of no greater than 10^{-12} cm/sec exceeds the standard 30-mil LLDPE string-reinforced liner and EPA SW-846 method 9090A.

RAVEN INDUSTRIES INC.
Statement of Performance

SUBJECT: Raven HD400 and HD600 geomembrane liners

IN REFERENCE TO: Hydraulic conductivity rating

DATE: April 15, 2022

Raven Industries hereby certifies that our Hydraline HD40 and HD60 polyethylene membranes have hydraulic conductivity of less than 1×10^{-10} cm/sec.

Permeance is calculated from Water Vapor Transmission (WVT) data generated by test method ASTM E96 *Water Vapor Transmission of Materials* or F1249 *Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor*. Using this data, specific hydraulic conductivity rates for the two materials are as follows:

Hydraline HD40	2.10×10^{-12} cm/sec
Hydraline HD60	4.08×10^{-13} cm/sec

Clint Boerhave

Clint Boerhave
Staff Quality Engineer
Raven Industries - Engineered Films Division

RAVEN

Siting Criteria for Recycling Containment

8.
Siting Criteria for Recycling Containment

***Instructions:** The applicant must provide attachments that demonstrate compliance for each siting criteria below as part of the application. Potential examples of the siting attachment source material are provided below under each criteria.*

General siting	
Ground water is less than 50 feet below the bottom of the Recycling Containment. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; written approval obtained from the municipality	☐ Yes ☒ No ☐ NA
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Minerals Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; topographic map	☐ Yes ☒ No
Within a 100-year floodplain. FEMA map	☐ Yes ☒ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; aerial photo; satellite image	☐ Yes ☒ No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; topographic map; visual inspection (certification) of the proposed site	☐ Yes ☒ No

GOSHAWK ENVIRONMENTAL CONSULTING, INC.

11 January 2023

Olivia Desser
EOG Resources, Inc.
5509 Champions Drive
Midland, Texas, 79706

Re: Dire Wolf Truckin Containment and Recycle Facility - Comprehensive Resource Review Eddy County, New Mexico

Dear Ms. Desser

Goshawk Environmental Consulting, Inc. (Goshawk) conducted a comprehensive desktop resource review and limited field investigations for the Dire Wolf Truckin Containment and Recycle Facility in Eddy County, New Mexico. The work was conducted on behalf of our client, EOG Resources, Inc (EOG). This resource review included Waters of the US (WATERS), Threatened or Endangered (T/E) species, and cultural resources. The purpose of these investigations was to evaluate whether the proposed containment and recycle facility contained any protected resources, the approximate size and location of identified protected resources, and associated development constraints, if applicable. Goshawk also conducted a cultural resources survey of the containment and recycle facility. All figures are in Appendix A.

INTRODUCTION

The Dire Wolf Truckin Containment and Recycle Facility will include a double-lined water pit with leak detection, a tanker offload and storage area, and a reuse water treatment facility. The main facility is approximately 1,220-feet-wide on its horizontal axis and 920-feet-long on its vertical axis. It will encompass approximately 25.56 acres. In addition, a 990-foot-long access road will abut the facility's western side and an overhead electric line will be approximately 170 feet from the southeast corner of the facility. The facility site is generally located in a very rural portion of Eddy County, where land use is primarily cattle ranching and oil/gas exploration and production.

WATERS REVIEW

REGULATORY BACKGROUND AND METHODOLOGY

Investigations to identify potential WATERS within the proposed Dire Wolf Truckin Containment and Recycle Facility included a resource review, followed by a field investigation. The resource review included inspection of available United States Geological Survey (USGS) 7.5-minute topographic quadrangle for Phantom Banks New Mexico; recent digital aerial orthoimagery; and the Natural Resource Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO). Field investigations were performed in accordance with US Army Corps of Engineers (USACE) guidelines, utilizing the *Corps of Engineers Wetlands Delineation Manual – Technical Report Y-87-1* (January 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) – ERDC/EL TR-08-28* (September 2008).

The jurisdictional status of identified features was determined based on 33 CFR 328.3(a), along with the US Army Core of Engineers (USACE)–Environmental Protection Agency (EPA) joint guidance on Clean

Water Act (CWA) jurisdiction, following the US Supreme Court's decision in *Rapanos v. United States* and *Carabell v. United States*. Current guidance states that the USACE and EPA will assert jurisdiction over (1) traditionally navigable waters (TNWs) and all wetlands adjacent to TNWs; (2) relatively permanent waters (RPWs), which include non-navigable tributaries of TNWs that typically flow year-round or have continuous flow at least seasonally, and all wetlands that are directly abutting RPWs; and (3) other water bodies such as non-RPWs; wetlands adjacent to non-RPWs; and wetlands adjacent to but not directly abutting an RPW that are analyzed and determined to have a significant nexus with a TNW. A significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or an insubstantial effect on the chemical, physical, and/or biological integrity of a TNW.

LITERATURE REVIEW

Topographic Map

The topographic quadrangle (Figure 1) indicates the Dire Wolf Truckin Containment and Recycle Facility is entirely within grasslands (white background). The terrain is relatively flat, with an approximate elevation of 3,200 feet above mean sea level (AMSL). No mapped waterbodies are indicated within the proposed facility. The nearest mapped tributary is shown approximately 1,670 feet southwest of the proposed facility. Other tributaries are mapped in the vicinity of the proposed facility to the north-northeast, but they will not be of any concern for the project. Drainage occurs by overland sheet flow in the direction of two mapped tributaries.

The Dire Wolf Truckin Containment and Recycle Facility is within the Red Bluff Reservoir Watershed and the Lower Pecos River basin. The nearest direct line point to the Pecos River is approximately 9.1 miles west-southwest. There are no range improvements mapped within the proposed facility.

Aerial Orthoimagery

The aerial orthoimagery (Figure 2) indicates the Dire Wolf Truckin Containment and Recycle Facility is within relatively open rangeland, dominated by shrubs. A caliche capped road, not indicated on the topographic map, is visible approximately 120 feet south of the proposed facility, and a pipeline ROW is visible 240 feet from the facility's southern edge. Additional oil/gas infrastructure is visible in the vicinity.

Soils

The NRCS SSURGO spatial data (Figure 3) indicates the soil map units underlying the Dire Wolf Truckin Containment and Recycle Facility consist entirely of Simona-Bippus complex (SM). Simona series soils consist of shallow gravelly sandy loams over indurated material, are composed of mixed alluvium and aeolian deposits, and are typically located on plains and alluvial fans. Bippus series soils consist of silty clay loams over clay loams, are composed of mixed alluvium, and are typically found in flood plains and alluvial fans. Neither soil is considered hydric.

Precipitation

Data derived from the National Centers for Environmental Information indicated that mean annual precipitation in Eddy County for the period of April 1900 to March 2021 was 13.2 inches. However, Eddy

County only received 11.3 inches of precipitation in the last 12 months (December 2021 to November 2022).

Subsurface Water

EOG contracted to have one subsurface water well drilled within the footprint of the proposed project to determine the presence and depth of groundwater (Figure 4). The well was left open for 48 hours and did not locate groundwater.

FIELD INVESTIGATION

A field investigation was conducted on 1 December 2022 to determine the presence of potential WATERS within the proposed Dire Wolf Truckin Containment and Recycle Facility. The proposed facility site was traversed on foot. The conditions were generally consistent with those depicted on the topographic map and aerial orthoimagery described above. The area was relatively flat and dominated by shrubland vegetation, intermixed with grasses and bare ground. Vegetation within the area consisted primarily of creosote (*Larrea tridentata*), honey mesquite (*Prosopis glandulosa*), Plains yucca (*Yucca glauca*), and allthorn (*Koeberlinia spinosa Zucc.*). Vegetative coverage within the site was approximately 70 percent.

Drainage occurs primarily by overland sheet flow toward the northeast and southwest. No evidence of an Ordinary High-Water Mark (OHWM) or standing water was found within the proposed facility. Additionally, no flowing watercourse, lakebed, sinkhole, or playa exhibiting an OHWM were found within the proposed facility or within the surrounding area. The nearest waterbody exhibiting an OHWM is 1,670 feet away southwest from the proposed facility.

REGULATORY DEVELOPMENT CONSTRAINTS

It is Goshawk's opinion that construction of the proposed Dire Wolf Truckin Containment and Recycle Facility will not impact any regulated WATERS. It is important to note that only USACE has the authority to make a formal determination defining its jurisdictional limits under the CWA. Approved jurisdictional determinations are made by USACE in accordance with internal policies and procedures in place at that time and on a case-by-case basis using information at its disposal (such as other permits in the local area and case law) that may not be readily available to the public. Therefore, Goshawk's opinion should not be considered authoritative and cannot wholly eliminate uncertainty regarding USACE's jurisdictional limits.

FEMA FLOODPLAIN

REGULATORY BACKGROUND

Floodplain management is regulated under the Federal Emergency Management Agency (FEMA); however, a local floodplain administrator is usually responsible for implementation within a community. A local floodplain administrator will operate under FEMA's minimum floodplain management standards or the state and/or local regulations, which provide standards for the purpose of flood damage prevention and reduction. Floodplain management standards are based on FEMA floodplain maps, which identify special flood hazard areas.

DEVELOPMENT CONSTRAINTS

Eddy County would be the floodplain administrator for the proposed project. Although Eddy County participates in the National Flood Program, FEMA floodplain maps have not been produced for rural portions of Eddy County. The proposed project falls within FEMA flood hazard zone D, which indicates that the area has not been assessed for flood hazards by FEMA. The proposed project falls within panel 35015C1900D, which is listed as "Not Printed". The Dire Wolf Truckin Containment and Recycle Facility can be developed without any correspondence with Eddy County for purposes of floodplain consideration.

THREATENED OR ENDANGERED SPECIES

REGULATORY BACKGROUND AND METHODOLOGY

The Endangered Species Act prohibits any action that causes a "take" of any listed T/E species. A "take" is defined as harm or harassment, including hunting, wounding, killing, trapping, and the capture or collection of individuals of listed species. The law also protects against the degradation or loss of vital habitat for listed species. The United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service are the regulatory authorities for federally listed T/E species.

State-listed T/E species are protected under New Mexico Wildlife Conservation Act (17-2-41). The New Mexico Department of Game and Fish (NMDGF) has the authority to establish a list of fish and wildlife species that are endangered or threatened. Unlike the federal act, the state's regulation makes no provision for the protection of wildlife species from indirect take (e.g., destruction of habitat or unfavorable management practices); rather, it protects from the unlawful killing, trade, or transportation of state-listed species. Therefore, the state-listed species are only a potential development constraint if listed species are determined to be currently occupying the proposed facility.

Literature and agency file searches were conducted to identify the potential occurrence of any federally and state-listed T/E species near the Dire Wolf Truckin Containment and Recycle Facility. An internet search of the USFWS *Information, Planning, and Conservation System* (IPaC) was conducted for Eddy County to identify federally listed T/E species "that should be considered as part of an effects analysis" for the proposed project. Additionally, a report from the NMDGF Biota Information System of New Mexico (BISON-M) was obtained and reviewed for Eddy County.

RESOURCE REVIEW

The T/E species listed in the IPaC Trust Resource Report for Eddy County (Appendix C) include: Mexican Spotted Owl (*Strix occidentalis lucida)*, Northern Aplomado Falcon (*Falco femoralis septentronalis*), Piping Plover (*Charadrius melodus*), Red Knot (*Calidris canutus rufa*), Southwestern Willow Flycatcher (*Empidonax traillii extimus*), Yellow-billed Cuckoo (*Coccyzus americanus*), Pecos Bluntnose Shiner (*Notropis simus pecosensis*), Pecos Gambusia (*Gambusia nobilis*), Texas Hornshell (*Popenaias popeii*), Gypsum Wild-buckwheat (*Eriogonum gypsophilum*), Kuenzler Hedgehog Cactus (*Echinocereus fendleri var. kuenzleri*), Lee Pincushion Cactus (*Coryphantha sneedii var. leei*), Sneed Pincushion Cactus (*Coryphantha sneedii var. sneedii*).

The state-listed T/E species on NMDGF BISON-M County List for Eddy County dated 10 January 2023 (Appendix D) include: Eddyst Shrew (*Cryptotis parvus*),Spotted Bat (*Euderma maculatum*), Common

Ground Dove (*Columbina passerine*), Lucifer Hummingbird (*Calothorax lucifer*), Broad-billed Hummingbird (*Cynanthus latirostris*), Piping Plover (*Charadrius melodus*), Eddyst Tern (*Sternula antillarum*), Neotropic Cormorant (*Phalacrocorax brasilianus*), Brown Pelican (*Pelecanus occidentalis*), Bald Eagle (*Haliaeetus leucocephalus*), Common Black Hawk (Buteogallus anthracinus), Northern Aplomado Falcon (*Falco femoralis septentronalis*), Peregrine Falcon (*Falco peregrinus*), Northern Beardless-Tyrannulet (*Camptostoma imberbe*), Thick-billed Kingbird (*Tyrannus crassirostris*), Southwestern Willow Flycatcher (*Empidonax Traillii extimus*), Bell's vireo (*Vireo bellii*), Gray Vireo (*Vireo vicinior*), Baird's sparrow (*Centronyx bairdii*), Varied Bunting (*Passerina versicolor*), Western River Cooter (Pseudemys gorzugi), Dunes Sagebrush Lizard (*Sceloporus arenicolus*), Gray-banded Kingsnake (Lampropeltis alterna), Plain-bellied Water Snake (*Nerodia erythrogaster*), Arid Land Ribbonsnake (*Thamnophis proximus*), Mottled Rock Rattlesnake (*Crotalus lepidus lepidus*), Western Narrow-mouthed Toad (*Gastrophryne olivacea*), . Fish and mollusks are also listed for Eddy County; however, due to the nature of the proposed facility and lack of potential habitat, these species would not occur at the proposed facility site.

DEVELOPMENT CONSTRAINTS

The northern aplomado falcon is listed for many coastal and West Texas counties (including Eddy County) within its historic range. Historically, the falcon utilized open desert grasslands and/or savannas in West Texas, where scattered shrubs and trees provided roosting and nesting locations. Although scattered shrubs and grasslands are present along the proposed project, land use of this area (heavy cattle grazing and oil/gas production) likely precludes the northern aplomado falcon from utilizing the project vicinity.

The Mexican spotted owl is listed for areas near the Guadalupe Mountains (including Eddy County) within its historic range. Historically, the owl utilized mature old-growth forests in deep, cool canyons. The steep slopes and rocky cliffs within the canyons provide an ideal habitat for nesting. There are no old-growth forests near the proposed project; therefore, the Mexican spotted owl would not utilize this area.

According to the USFWS IPaC, the piping plover and red knot are conditional and only need to be considered for wind-related projects within the migratory routes of these species. Although these species occasionally stop at points along migration routes, use of the proposed project would be unlikely, due to the lack of suitable habitat.

Critical habitat for the southwestern willow flycatcher is found within riparian areas and streams that occur within a 100-year floodplain in Catron, Grant, Hidalgo, Mora, Rio Arriba, Socorro, Taos, and Valencia Counties, which are not within the vicinity of the proposed project.

Currently proposed critical habitat for the yellow-billed cuckoo is found within riparian areas and streams in Bernalillo, Catron, Dona Ana, Grant, Hidalgo, Rio Arriba, Sandoval, Santa Fe, Sierra, Socorro, and Valencia counties, which are not within the vicinity of the proposed project.

Gypsum Wild-buckwheat is found in Eddy County. The three known locations are north of Carlsbad at Seven River Hills, south of Black River Village, and in the drainages of Ben Slaughter Draw and Hay Hollow. It is found in sparsely vegetated areas high in gypsum and in association with other gypsum

loving plants such as hairy crinklemat, gypsum blazingstar, and gyp ringstem. None of the known locations are within the vicinity of the proposed project; therefore, it is unlikely that the proposed project would negatively impact any gypsum wild-buckwheat.

Kuenzler's hedgehog cactus is a small cactus that can be found in shrubland communities in Lincoln and Eddy Counties, New Mexico. Although there are scattered shrubs, the proposed project is primarily within a grassland vegetative community; therefore, impacts to this species are unlikely.

The Sneed pincushion cactus and Lee pincushion cactus are both subspecies of *Coryphanta sneedii* (Sneed – *Coryphanta sneedii var. sneedii*, Lee – *Coryphanta sneedii var. leei*). The Sneed pincushion cactus can be found in the Chihuahuan Desert, particularly in far western Texas and southern New Mexico, including Eddy County. This species occurs primarily on steep, exposed limestone slopes in shrubland or grassland communities. The proposed project does not include areas of exposed limestone; therefore, impacts to this species are unlikely. The Lee pincushion cactus is endemic to New Mexico and is restricted areas within Eddy County, particularly within, or adjacent to, Carlsbad Caverns National Park and the Guadalupe Mountains. This cactus occurs primarily on steep limestone slopes within Chihuahuan Desert scrubland communities at elevations ranging from 4,000 to 5,000 feet. The proposed project is within dense grasslands at elevations lower than what is considered primary Sneed or Lee pincushion cactus habitat; therefore impacts to this species are unlikely.

The Pecos gambusia is found within the San Solomon Spring complex and/or the Diamond-Y Spring System of Reeves and Pecos Counties. These areas are located near Balmorhea and north of Fort Stockton, neither of which are in the vicinity of the proposed project.

Critical habitat for the Pecos bluntnose shiner is found within the Pecos River in the northern extents of Eddy and Chaves Counties, as well as the southern half of De Baca County, which are not within the vicinity of the proposed project. The New Mexico distribution of the Pecos gambusia is primarily within springs and their outflow of the Pecos River watershed, with a few populations within sinkholes on the Bitter Lake National Wildlife Refuge. A population occurs in Blue Spring (located east of Whites City) and the spring run down to its confluence with the Black River. It is believed the mainstream portion of the Pecos River served as dispersal routes more so than important habitat.

The Texas hornshell historically occurred in the Pecos-Rio Grande drainage; however, due to an increase in salinity, much of this habitat is no longer considered suitable. This species is currently only found in four locations: an 8.5-mile stretch of the Black River in New Mexico, the Lower Rio Grande in Texas, the Devil's River in Texas, and the Delaware River in New Mexico. These filter-feeding organisms require clean, flowing water, making them susceptible to water pollution and changes in salinity. Since they are very sensitive to pollution, they are good indicators of aquatic ecosystem health.

The Texas hornshell has a parasitic larval stage, which attaches to a host species, typically a fish. These larvae transform into juvenile mussels over a period of up to six weeks, at which point, they fall off the host. Host fishes enable the Texas hornshell to achieve life cycle completion and genetic dispersal. If movement of host species becomes restricted, due to the construction of dams and other barriers, the movement of the Texas hornshell would also become restricted, resulting in a detrimental decrease in

population numbers. Due to the distance to one of the four known occupied locations, it is unlikely that the proposed project would negatively impact the Texas hornshell.

The two listed fish and one mollusk would only be found in perennial aquatic habitats. No aquatic habitats exist within the water reuse pit site.

No impacts are expected to any of the federally listed species. State regulations prohibit the taking, possession, transportation, or sale of any state-listed T/E species. Since Eddy County has the potential to support state-listed T/E species, care should be taken to avoid direct impacts (including harassment, harm, killing, and/or collection) to any species that may inhabit the proposed facility. The state-listed birds would have the ability to leave the pit site during active construction to avoid impacts. However, slower-moving species (reptiles and amphibians) are ground-dwelling and relatively slow-moving, which makes them more likely to be impacted by construction activities than other state-listed species.

CULTURAL RESOURCES DESKTOP REVIEW

REGULATORY BACKGROUND AND METHODOLOGY

Section 106 of the National Historic Preservation Act (NHPA) of 1966 requires Federal agencies to consider the effects of their actions on historic properties and provide the State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on their projects. Historic properties are defined as archaeological sites, standing structures, or other historic resources listed on or eligible for listing on the National Register of Historic Places (NRHP). The New Mexico Prehistoric and Historic Sites Preservation Act and the New Mexico Cultural Properties Act provide protection of archaeological sites (prehistoric and historic) listed in the State Register of Cultural Properties or on the NRHP.

The regulatory process seeks to determine if a project will have an “effect” on historic properties. The term “effect” is defined as an “alteration to the characteristics of historic property qualifying it for inclusion in, or eligibility for the National Register (of Historic Places).” An effect is “adverse” when it will endanger those qualities that make the property eligible for inclusion on the NRHP.

Goshawk performed an archival review to evaluate the potential for historic properties present near the Dire Wolf Truckin Containment and Recycle Facility. The Archaeological Records Management Section’s (ARMS) New Mexico Cultural Resources Information System (NMCRIS) online database, geospatial data obtained from the US Bureau of Land Management (BLM) Carlsbad Field Office, and the Natural Resources Conservation Service Web Soil Survey were utilized for the review.

ARCHIVAL REVIEW

Archival Research

According to NMCRIS, the proposed Dire Wolf Truckin Containment and Recycle Facility and surrounding area was subjected to partial archaeological survey under one seismic survey project, but otherwise had not been surveyed for cultural resources. Previous surveys have yielded largely negative results in the immediate vicinity of the proposed Dire Wolf Truckin Containment and Recycle Facility (Table 1).

Table 1: Surveys Undertaken Within 1,640 feet (500 meters) of the Proposed Project

Activity Number	Organization Name	Eddyd Agency	Total Acres	Sites Visited	Date of Survey Start/End
24260	Pecos Archaeological Consultants	US Bureau of Land Management Roswell District	59.89	1	26 Nov to 13 Dec 1988
48771	Lone Mountain Archaeological Services	US Bureau of Land Management Roswell District NM State Land Office	4,070.00	53	18 Mar to 18 Sep 1995
149971	Black River Consulting, LLC.	US Bureau of Land Management Carlsbad Field Office and NM State Land Office	27299.11	137	4 Jun to 7 Nov 2018

There are no previously documented archaeological sites within 500 meters (1,640 feet) of the proposed project.

The nearest site, LA 68935, was located 3,024 feet (921.7 m) southwest of the proposed Dire Wolf Truckin Containment and Recycle Facility. Site LA 68935 was originally recorded in 1988 by the US Bureau of Land Management New Mexico State Office. The site measured approximately 500 by 100 meters. The assemblage included lithic debitage and fire cracked rock and was determined to date to the late archaic period. The site was revisited by Boone Archaeological Services in 2018 under NMCRIS activity 146411. In 2020, the State Historic Preservation Office (SHPO) determined the site not eligible for listing on the National Register of Historic Places (NRHP).

National Register Properties

No NRHP-listed properties have been recorded near the proposed site. According to the NMCRIS database, the nearest NRHP-listed property is the Pope's Wells Site (LA 69016). This site consists of the remains of a camp and well site that was part of efforts to establish a water well in the area in the 1850's. The Pope's Wells Site lies approximately 2.0 miles southeast of the proposed project.

Soils Analysis

Soils mapped within the proposed site consisted entirely of Simona-Bippus complex soils. Simona series soils consist of shallow gravelly sandy loams over indurated material, are composed of mixed alluvium and aeolian deposits, and are typically located on plains and alluvial fans. These soils present a low potential for the presence of stratified cultural deposits. Bippus series soils consist of silty clay loams over clay loams, are composed of mixed alluvium, and are typically found in flood plains and alluvial fans. These soils present a moderate potential for the presence of stratified cultural deposits. Considering the soils present, there is a moderate probability for the presence of significant cultural resources within the proposed Dire Wolf Truckin Containment and Recycle Facility.

FIELD REVIEW

A Class III archaeological survey of the facility and the surrounding area was conducted on 1 December 2022 under NMCRIS activity 152110. A total of 58.19 acres was surveyed on foot by a two-person crew traversing 50-foot (30.48-meter) transects. No archaeological sites, isolated manifestations, or other cultural resources were observed in the course of the survey.

DEVELOPMENT CONSTRAINTS

The cultural resources archival review determined there is a moderate probability for the presence of significant prehistoric resources within the proposed project. However, a pedestrian survey of the proposed project area did not locate any cultural resources. No impacts to cultural resources would be expected by the proposed Dire Wolf Truckin Containment and Recycle Facility.

SUMMARY

Based on the results of the Resource Review, it is Goshawk's opinion that the construction of the proposed Dire Wolf Truckin Containment and Recycle Facility is unlikely to impact any sensitive natural resources, including WATERS and T/E species. Based on the negative results from previous cultural resources surveys, it is Goshawk's opinion that the proposed project is not likely to contain significant cultural resources. In the unlikely event that cultural resources (including human remains) are discovered, all construction or maintenance activities should be immediately halted, and a qualified archaeologist should be notified. If you have any questions or desire additional information, please contact our office.

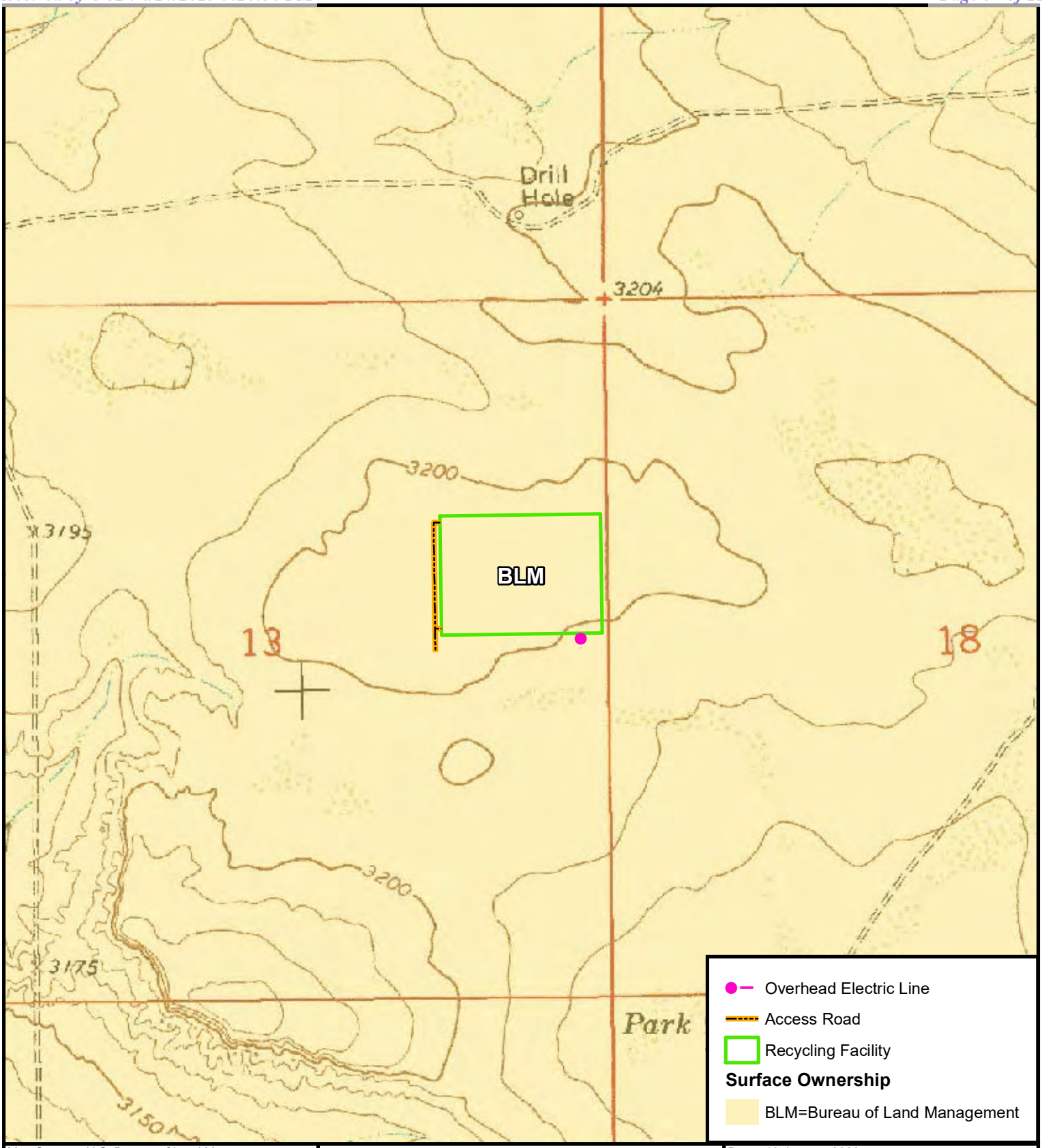
Sincerely,

Cody Cox
Ecologist

Steven Evans, MA, RPA
Cultural Resources Manager

Cc: Olivia Desser, EOG Resources, Inc.
Galan Kelley, Cold Peak Environmental, LLC.

APPENDIX A
FIGURES



Map Source: U.S. Bureau of Land Management - New Mexico State Office - GIS Data Download; USGS, Phantom Banks, New Mexico Quadrangle.

0 500 1,000 Feet

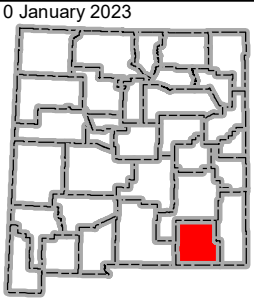
0 160 320 Meters

GOSHAWK ENVIRONMENTAL CONSULTING, INC.

Figure 1
USGS Topographic Map
Eddy County, New Mexico

Dire Wolf Truckin Containment and Recycle Facility
Township 26S; Range 30E; Section 13

Date: 10 January 2023



N

Map Source: USDA, NAIP Natural Color Imagery of New Mexico, 2020.

0 500 1,000 Feet

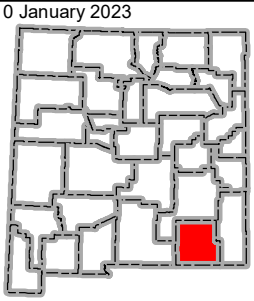
0 160 320 Meters

GOSHAWK ENVIRONMENTAL CONSULTING, INC.

Figure 2
Aerial Orthoimagery
Eddy County, New Mexico

Dire Wolf Truckin Containment and Recycle Facility
Township 26S; Range 30E; Section 13

Date: 10 January 2023



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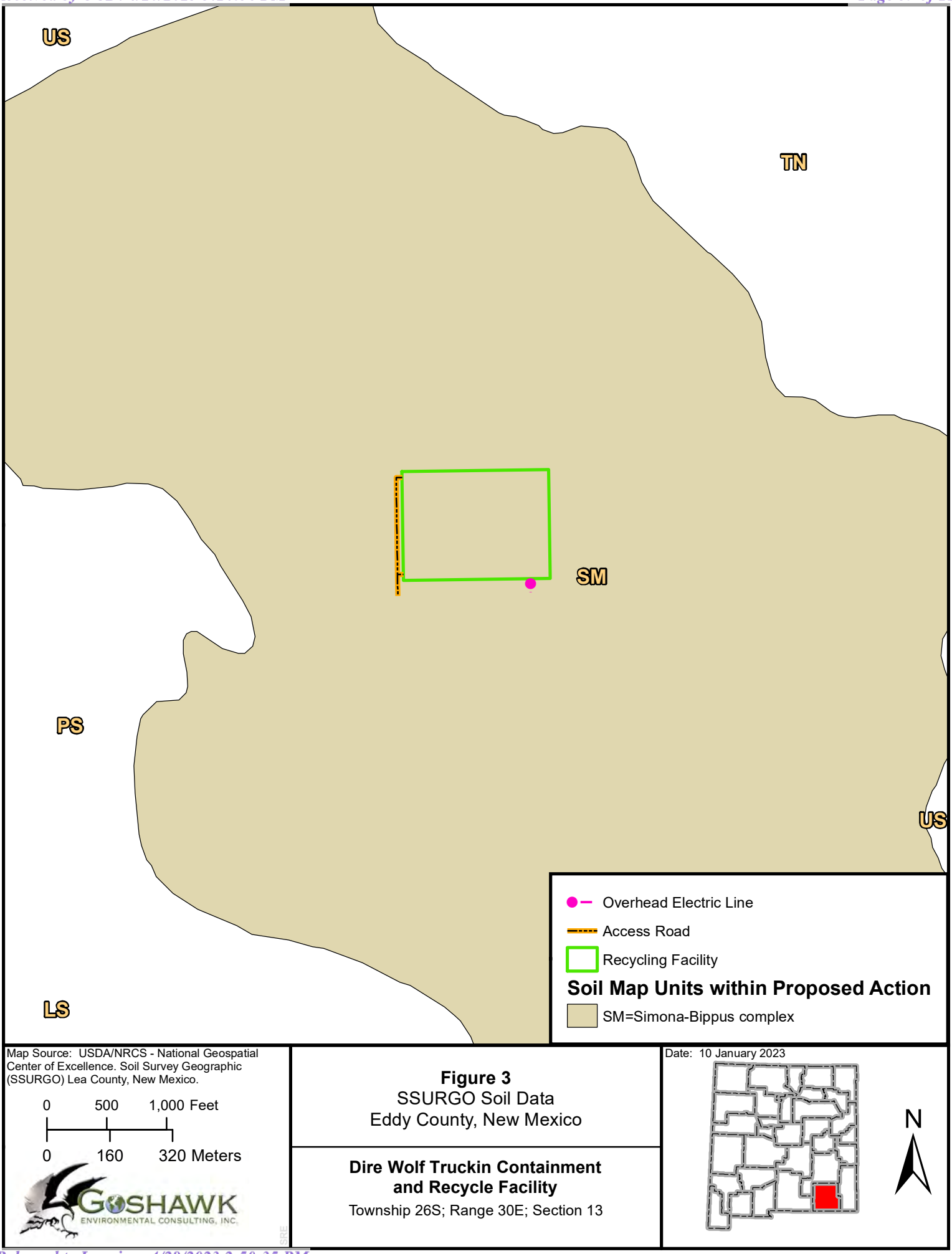


Map Source: USDA/NRCS - National Geospatial Center of Excellence. Soil Survey Geographic (SSURGO) Lea County, New Mexico.

0 500 1,000 Feet

0 160 320 Meters

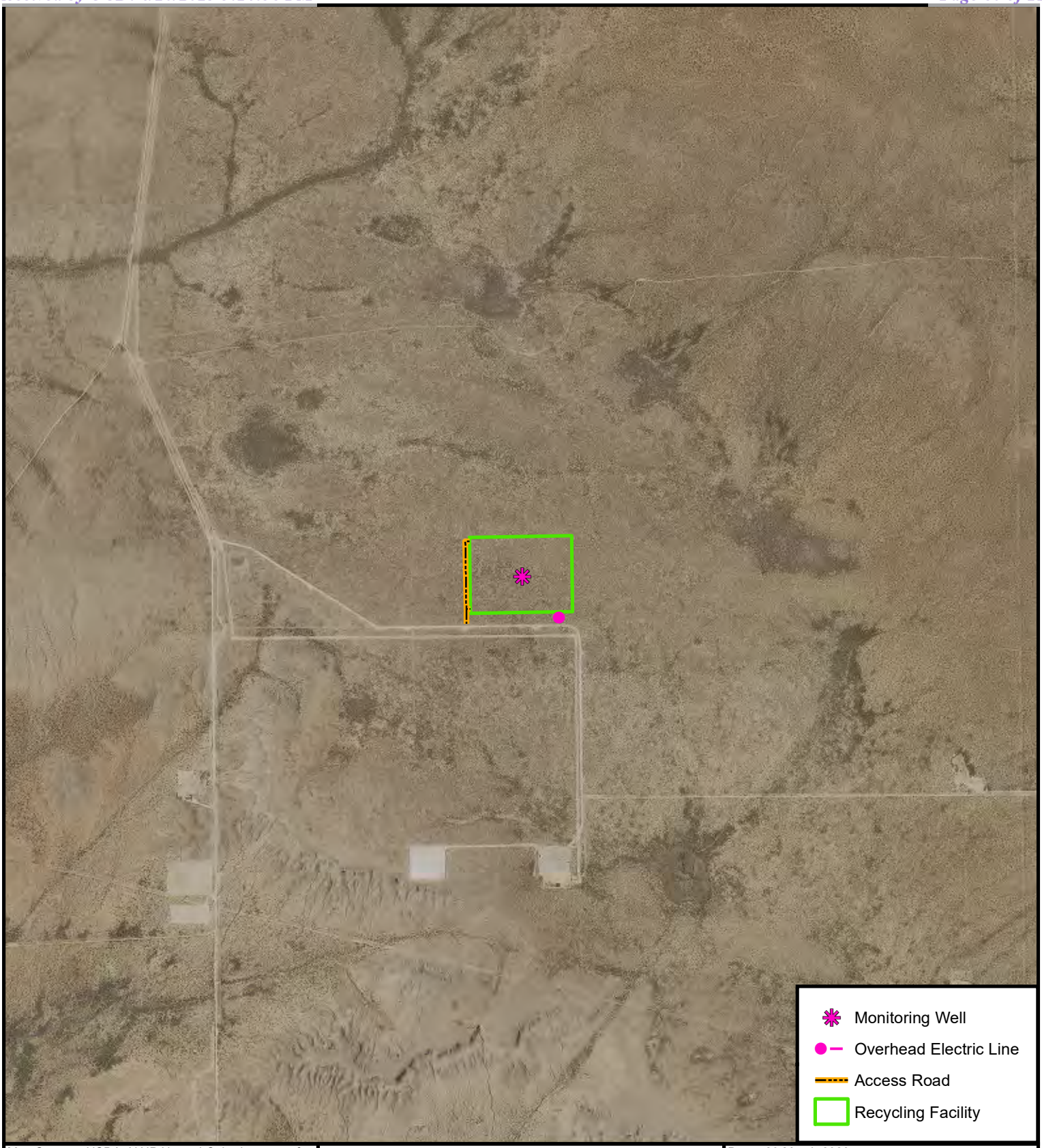
GOSHAWK ENVIRONMENTAL CONSULTING, INC.

Figure 3
SSURGO Soil Data
Eddy County, New Mexico

Dire Wolf Truckin Containment and Recycle Facility
Township 26S; Range 30E; Section 13

Date: 10 January 2023

N



Map Source: USDA, NAIP Natural Color Imagery of New Mexico, 2020.

0 750 1,500 Feet

0 260 520 Meters

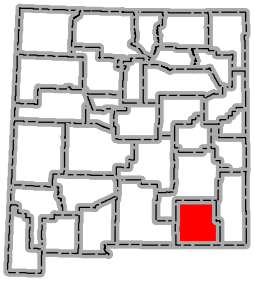
GOSHAWK ENVIRONMENTAL CONSULTING, INC.

Figure 4
Monitoring Well Locations
Eddy County, New Mexico

Dire Wolf Truckin Containment and Recycle Facility

Township 26S; Range 30E; Section 13

Date: 29 March 2023



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APPENDIX B

Lithology Report

SOIL BORING / MONITORING WELL LOG

Project: Dire Wolf Truckin Containment & Recycle Facility
Project Number: EOG - 02202023
Client: EOG Resources, Inc.
Boring Well Number: BH-01
Total Depth: 75 Feet
Surface Elevation: 3205 FT
Latitude: 32.044162°

Drilling Company: Elite Drillers Corporation
Driller: Bryce Wallace
Drillers Licenst Number: WD-1706
Drilling Method: Air Rotary
Bore Hole Diameter: 6-1/8"
Date Drilled: 2/20/2023
Longitude: -103.828373°

DEPTH (FEET)	SYMBOL	SAMPLE	MATERIAL DESCRIPTION	DEPTH (FEET)
			Sand (Wind Blown) * DRY - NO MOISTURE	
5		SS	**White Caliche / Limestone** * DRY - NO MOISTURE	5
10		SS		10
15		SS	**White Sandy Caliche** * DRY - NO MOISTURE	15
20		SS		20
25		SS	**Tan Sand / Gravel** * DRY - NO MOISTURE	25
30		SS		30
35		SS		35
40		SS	**Fine Red Sand** * DRY - NO MOISTURE	40
45		SS		45
50		SS		50
55		SS		55
60		SS		60
65		SS	**Fine Reddish Brown Sand** * DRY - NO MOISTURE	65
70		SS		70
75		SS		75
			END OF LOG	

NOTE: NO GROUNDWATER WAS PRESENT DURING OR AT THE COMPLETION OF DRILLING ACTIVITIES.

APPENDIX C

USFWS IPAC RESOURCE TRUST REPORT

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Eddy County, New Mexico

Local offices

Austin Ecological Services Field Office

(512) 490-0057
(512) 490-0974

10711 Burnet Road, Suite 200

Austin, TX 78758-4460

New Mexico Ecological Services Field Office

(505) 346-2525
(505) 346-2542

2105 Osuna Road Ne
Albuquerque, NM 87113-1001

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
Mexican Spotted Owl *Strix occidentalis lucida* Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8196	Threatened
Northern Aplomado Falcon *Falco femoralis septentrionalis* No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1923	EXPN
Northern Aplomado Falcon *Falco femoralis septentrionalis* No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1923	Endangered
Piping Plover *Charadrius melodus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot *Calidris canutus rufa* Wherever found This species only needs to be considered if the following condition applies: • Wind Energy Projects There is **proposed** critical habitat for this species. https://ecos.fws.gov/ecp/species/1864	Threatened
Southwestern Willow Flycatcher *Empidonax traillii extimus* Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6749	Endangered

Yellow-billed Cuckoo Coccyzus americanus — Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/3911

Fishes

NAME	STATUS
Pecos Bluntnose Shiner Notropis simus pecosensis Wherever found There is **final** critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/4362	Threatened
Pecos Gambusia Gambusia nobilis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/460	Endangered

Clams

NAME	STATUS
Texas Hornshell Popenaias popeii Wherever found There is **proposed** critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/919	Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS

Gypsum Wild-buckwheat Eriogonum gypsophilum Wherever found There is **final** critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/7770	Threatened
Kuenzler Hedgehog Cactus Echinocereus fendleri var. kuenzleri Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2859	Threatened
Lee Pincushion Cactus Coryphantha sneedii var. leei Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2504	Threatened
Sneed Pincushion Cactus Coryphantha sneedii var. sneedii Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4706	Endangered
Wright's Marsh Thistle Cirsium wrightii There is **proposed** critical habitat for this species. https://ecos.fws.gov/ecp/species/8963	Proposed Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
Gypsum Wild-buckwheat Eriogonum gypsophilum https://ecos.fws.gov/ecp/species/7770#crithab	Final
Pecos Bluntnose Shiner Notropis simus pecosensis https://ecos.fws.gov/ecp/species/4362#crithab	Final
Texas Hornshell Popenaias popeii https://ecos.fws.gov/ecp/species/919#crithab	Proposed

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

Migratory bird information is not available at this time

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid

cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to

you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

APPENDIX D

NMDGF BISON-M COUNTY LIST

All Species
Eddy

Taxonomic Group	# Species	Taxonomic Group	# Species
Amphibians	15	Birds	340
Coleoptera; beetles	21	Crustaceans	6
Ephemeroptera; mayfiles	10	Fish	51
Hymenoptera; ants, bees, wasps	1	Lepidoptera; moths and butterflies	123
Mammals	88	Misc. Arachnids	8
Molluscs	38	Myriapoda; centipedes, millipedes, etc.	2
Odonata; dragonflies	74	Orthoptera; grasshoppers & crickets	59
Reptiles	65	Spiders	12

TOTAL SPECIES: 913

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Poling's Hairstreak	Satyrium polingi polingi					No Photo
Virginia Opossum	Didelphis virginiana					View
Nine-banded Armadillo	Dasypus novemcinctus					View
Black-tailed Jackrabbit	Lepus californicus					View
Desert Cottontail Rabbit	Sylvilagus audubonii					View
Holzner's Cottontail Rabbit	Sylvilagus holzneri holzneri; robustus					No Photo
Least Shrew	Cryptotis parvus	T			Y	View
Crawford's Desert Shrew	Notiosorex crawfordi					View
Pocketed Free-tailed Bat	Nyctinomops femorosaccus					No Photo
Big Free-tailed Bat	Nyctinomops macrotis					No Photo
Brazilian Free-tailed Bat	Tadarida brasiliensis					View
Hoary Bat	Aeorestes cinereus					No Photo
Pallid Bat	Antrozous pallidus					View
Pale Townsend's Big-eared Bat	Corynorhinus townsendii				Y	View
Big Brown Bat	Eptesicus fuscus					No Photo
Spotted Bat	Euderma maculatum	T			Y	View
Silver-haired Bat	Lasionycteris noctivagans					No Photo
Eastern Red Bat	Lasiurus borealis					No Photo
California Myotis	Myotis californicus					No Photo
Western Small-footed Myotis	Myotis ciliolabrum					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Fringed Myotis	Myotis thysanodes					View
Cave Myotis	Myotis velifer					No Photo
Long-legged Myotis	Myotis volans					View
Yuma Myotis	Myotis yumanensis					View
Canyon Bat	Parastrellus hesperus					View
Tri-colored Bat	Perimyotis subflavus		P			No Photo
Coyote	Canis latrans					View
Common Gray Fox	Urocyon cinereoargenteus					View
Kit Fox	Vulpes macrotis					View
Red Fox	Vulpes vulpes					View
Swift Fox	Vulpes velox					View
Bobcat	Lynx rufus					View
Mountain Lion	Puma concolor					View
Common Hog-nosed Skunk	Conepatus leuconotus					View
Striped Skunk	Mephitis mephitis					View
Western Spotted Skunk	Spilogale gracilis					View
Long-tailed Weasel	Neogale frenata					View
American Badger	Taxidea taxus					View
Ringtail	Bassariscus astutus					View
Common Raccoon	Procyon lotor					View
Black Bear	Ursus americanus					View
Pronghorn	Antilocapra americana americana					View
Barbary Sheep	Ammotragus lervia					View
Persian Ibex	Capra hircus					No Photo
Elk	Cervus canadensis nelsoni					View
Mule Deer	Odocoileus hemionus					View
Coues' White-tailed Deer	Odocoileus virginianus couesi					View
Feral Pig	Sus scrofa					No Photo
Collared Peccary	Peccari tajacu sonoriensis; angulatus					View
American Beaver	Castor canadensis					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
White-toothed woodrat	Neotoma leucodon					View
Mexican Woodrat	Neotoma mexicana mexicana; inopinata; pinetorum; scopulorum					No Photo
Southern Plains Woodrat	Neotoma micropus canescens					No Photo
Pecos River Muskrat	Ondatra zibethicus ripensis					View
Chihuahua Grasshopper Mouse	Onychomys arenicola arenicola					No Photo
Northern Grasshopper Mouse	Onychomys leucogaster					No Photo
Brush Mouse	Peromyscus boylii					No Photo
Cactus Mouse	Peromyscus eremicus anthonyi; eremicus					View
Lacey's White-ankled Deermouse	Peromyscus laceianus					No Photo
White-footed Mouse	Peromyscus leucopus					View
Deer Mouse	Peromyscus maniculatus					No Photo
Hispid Cotton Rat	Sigmodon hispidus berlandieri; confinis; texianus					View
Western Harvest Mouse	Reithrodontomys megalotis megalotis; aztecus					No Photo
Plains Harvest Mouse	Reithrodontomys montanus					No Photo
Common Porcupine	Erethizon dorsatum					View
Yellow-faced Pocket Gopher	Cratogeomys castanops					No Photo
Jones' Pocket Gopher	Geomys knoxjonesi					No Photo
Botta's Pocket Gopher	Thomomys bottae					No Photo
Chihuahuan Pocket Mouse	Chaetodipus eremicus					No Photo
Hispid Pocket Mouse	Chaetodipus hispidus					No Photo
Nelson's Pocket Mouse	Chaetodipus nelsoni					No Photo
Desert Pocket Mouse	Chaetodipus penicillatus					No Photo
Merriam's Kangaroo Rat	Dipodomys merriami					View
Ord's Kangaroo Rat	Dipodomys ordii					View
Banner-tailed Kangaroo Rat	Dipodomys spectabilis baileyi; clarencei; spectabilis					No Photo
Arizona Banner-tailed Kangaroo Rat	Dipodomys spectabilis perblandus; spectabilis					No Photo
Silky Pocket Mouse	Perognathus flavus flavus; hopiensis					No Photo

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Merriam's Pocket Mouse	Perognathus merriami					No Photo
House Mouse	Mus musculus					View
Norway Rat	Rattus norvegicus					No Photo
Texas Antelope Squirrel	Ammospermophilus interpres					View
Arizona Black-tailed Prairie Dog	Cynomys ludovicianus arizonensis					View
Black-tailed Prairie Dog	Cynomys ludovicianus ludovicianus				Y	View
Rio Grande Ground Squirrel	Ictidomys parvidens					View
Rock Squirrel	Otospermophilus variegatus grammurus					View
Abert's Squirrel	Sciurus aberti aberti; chuscensis; ferreus					View
Eastern Fox Squirrel	Sciurus niger rufiventer; limitis					View
Gray-footed Chipmunk	Neotamias canipes					No Photo
Spotted Ground Squirrel	Xerospermophilus spilosoma					No Photo
Black-bellied Whistling Duck	Dendrocygna autumnalis					View
Greater White-fronted Goose	Anser albifrons					View
Snow Goose	Anser caerulescens					View
Ross's Goose	Anser rossii					View
Canada Goose	Branta canadensis					View
Wood Duck	Aix sponsa					View
Northern Shoveler Duck	Spatula clypeata					View
Cinnamon Teal Duck	Spatula cyanoptera					View
Blue-winged Teal Duck	Spatula discors					View
American Wigeon Duck	Mareca americana					View
Gadwall Duck	Mareca strepera					View
Mallard Duck	Anas platyrhynchos					View
Mexican Duck	Anas diazi					No Photo
Northern Pintail	Anas acuta					View
Green-winged Teal Duck	Anas crecca					View
Canvasback Duck	Aythya valisineria					View
Redhead Duck	Aythya americana					View
Ring-necked Duck	Aythya collaris					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Lesser Scaup Duck	Aythya affinis					View
Bufflehead Duck	Bucephala albeola					View
Common Goldeneye Duck	Bucephala clangula					View
Hooded Merganser Duck	Lophodytes cucullatus					View
Common Merganser Duck	Mergus merganser					View
Red-breasted Merganser Duck	Mergus serrator					No Photo
Ruddy Duck	Oxyura jamaicensis					View
Northern Bobwhite Quail	Colinus virginianus					View
Scaled Quail	Callipepla squamata					View
Montezuma Quail	Cyrtonyx montezumae					View
Lesser Prairie-Chicken	Tympanuchus pallidicinctus		E		Y	View
Ring-necked Pheasant	Phasianus colchicus					View
Pied-billed Grebe	Podilymbus podiceps					View
Horned Grebe	Podiceps auritus					No Photo
Eared Grebe	Podiceps nigricollis				Y	View
Rock Pigeon	Columba livia					View
Band-tailed Pigeon	Patagioenas fasciata					View
Eurasian Collared-Dove	Streptopelia decaocto					View
Inca Dove	Columbina inca					View
Common Ground Dove	Columbina passerina	E			Y	View
White-winged Dove	Zenaida asiatica					View
Mourning Dove	Zenaida macroura					View
Greater Roadrunner	Geococcyx californianus					View
Yellow-billed Cuckoo (eastern pop)	Coccyzus americanus occidentalis					No Photo
Lesser Nighthawk	Chordeiles acutipennis					View
Common Nighthawk	Chordeiles minor				Y	View
Common Poorwill	Phalaenoptilus nuttalli					No Photo
Eastern Whip-poor-will	Antrostomus vociferus					No Photo
Mexican Whip-poor-will	Antrostomus arizonae				Y	View
Chimney Swift	Chaetura pelagica					No Photo
White-throated Swift	Aeronautes saxatalis					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Blue-throated Mountain-gem	Lampornis clemenciae					View
Lucifer Hummingbird	Calothorax lucifer	T			Y	View
Black-chinned Hummingbird	Archilochus alexandri					View
Rufous Hummingbird	Selasphorus rufus					View
Broad-tailed Hummingbird	Selasphorus platycercus					View
Broad-billed Hummingbird	Cynanthus latirostris	T			Y	View
Virginia Rail	Rallus limicola					View
Sora	Porzana carolina					View
Common Gallinule	Gallinula galeata					View
American Coot	Fulica americana					View
Sandhill Crane	Antigone canadensis					View
Black-necked Stilt	Himantopus mexicanus					View
American Avocet	Recurvirostra americana					View
Killdeer	Charadrius vociferus					View
Semipalmated Plover	Charadrius semipalmatus					View
Piping Plover	Charadrius melodus	T	T			No Photo
Mountain Plover	Charadrius montanus				Y	View
Snowy Plover	Charadrius nivosus				Y	View
Upland Sandpiper	Bartramia longicauda					No Photo
Long-billed Curlew	Numenius americanus				Y	View
Marbled Godwit	Limosa fedoa					View
Red Knot	Calidris canutus					View
Stilt Sandpiper	Calidris himantopus					No Photo
Sanderling	Calidris alba					View
Dunlin	Calidris alpina					View
Baird's Sandpiper	Calidris bairdii					View
Least Sandpiper	Calidris minutilla					View
White-rumped Sandpiper	Calidris fuscicollis					No Photo
Pectoral Sandpiper	Calidris melanotos					View
Western Sandpiper	Calidris mauri					View
Short-billed Dowitcher	Limnodromus griseus					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Long-billed Dowitcher	Limnodromus scolopaceus					View
Wilson's Snipe	Gallinago delicata					View
Spotted Sandpiper	Actitis macularius					View
Solitary Sandpiper	Tringa solitaria					View
Lesser Yellowlegs	Tringa flavipes					View
Willet	Tringa semipalmata					View
Greater Yellowlegs	Tringa melanoleuca					View
Wilson's Phalarope	Phalaropus tricolor					View
Red-necked Phalarope	Phalaropus lobatus					No Photo
Bonaparte's Gull	Choricocephalus philadelphia					View
Mew Gull	Larus canus					No Photo
Ring-billed Gull	Larus delawarensis					View
California Gull	Larus californicus					View
Lesser Black-backed Gull	Larus fuscus					View
Glaucous Gull	Larus hyperboreus					No Photo
Least Tern	Sternula antillarum	E			Y	View
Black Tern	Chlidonias niger					View
Red-throated Loon	Gavia stellata					No Photo
Double-crested Cormorant	Phalacrocorax auritus					View
Neotropic Cormorant	Phalacrocorax brasilianus	T			Y	View
American White Pelican	Pelecanus erythrorhynchos					View
Brown Pelican	Pelecanus occidentalis	E				View
American Bittern	Botaurus lentiginosus				Y	View
Great Blue Heron	Ardea herodias					View
Great Egret	Ardea alba					View
Snowy Egret	Egretta thula					View
Little Blue Heron	Egretta caerulea					View
Tricolored Heron	Egretta tricolor					View
Reddish Egret	Egretta rufescens					View
Cattle Egret	Bubulcus ibis					View
Green Heron	Butorides virescens					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Black-crowned Night-Heron	Nycticorax nycticorax					View
White-faced Ibis	Plegadis chihi					View
Turkey Vulture	Cathartes aura					View
Osprey	Pandion haliaetus					View
Golden Eagle	Aquila chrysaetos					View
Northern Harrier	Circus hudsonius					View
Sharp-shinned Hawk	Accipiter striatus					View
Cooper's Hawk	Accipiter cooperii					View
Northern Goshawk	Accipiter gentilis					View
Bald Eagle	Haliaeetus leucocephalus	T			Y	View
Mississippi Kite	Ictinia mississippiensis					View
Common Black Hawk	Buteogallus anthracinus	T			Y	View
Harris's Hawk	Parabuteo unicinctus					View
Red-shouldered Hawk	Buteo lineatus					View
Broad-winged Hawk	Buteo platypterus					View
Swainson's Hawk	Buteo swainsoni					View
Zone-tailed Hawk	Buteo albonotatus					View
Red-tailed Hawk	Buteo jamaicensis					View
Rough-legged Hawk	Buteo lagopus					View
Ferruginous Hawk	Buteo regalis					View
Barn Owl	Tyto alba					View
Flammulated Owl	Psiloscops flammeolus				Y	View
Western Screech-Owl	Megascops kennicottii					View
Great Horned Owl	Bubo virginianus					View
Northern Pygmy Owl	Glaucidium gnoma					View
Elf Owl	Micrathene whitneyi				Y	View
Burrowing Owl	Athene cunicularia				Y	View
Mexican Spotted Owl	Strix occidentalis lucida		T	Y	Y	View
Long-eared Owl	Asio otus					View
Short-eared Owl	Asio flammeus					View
Belted Kingfisher	Megaceryle alcyon					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Lewis's Woodpecker	Melanerpes lewis				Y	View
Red-headed Woodpecker	Melanerpes erythrocephalus				Y	View
Acorn Woodpecker	Melanerpes formicivorus					View
Williamson's Sapsucker	Sphyrapicus thyroideus				Y	View
Yellow-bellied Sapsucker	Sphyrapicus varius					View
Red-naped Sapsucker	Sphyrapicus nuchalis					View
Downy Woodpecker	Dryobates pubescens					View
Ladder-backed Woodpecker	Dryobates scalaris					View
Hairy Woodpecker	Dryobates villosus					View
Northern Flicker	Colaptes auratus					View
American Kestrel	Falco sparverius					View
Aplomado Falcon	Falco femoralis	E	E		Y	View
Peregrine Falcon	Falco peregrinus	T			Y	View
Arctic Peregrine Falcon	Falco peregrinus tundrius					No Photo
Prairie Falcon	Falco mexicanus					View
Northern Beardless-Tyrannulet	Camptostoma imberbe	E			Y	View
Ash-throated Flycatcher	Myiarchus cinerascens					View
Great Crested Flycatcher	Myiarchus crinitus					No Photo
Great Kiskadee	Pitangus sulphuratus					View
Cassin's Kingbird	Tyrannus vociferans					View
Thick-billed Kingbird	Tyrannus crassirostris	E			Y	View
Western Kingbird	Tyrannus verticalis					View
Eastern Kingbird	Tyrannus tyrannus					View
Scissor-tailed Flycatcher	Tyrannus forficatus					View
Olive-sided Flycatcher	Contopus cooperi				Y	View
Greater Pewee	Contopus pertinax					View
Western Wood Pewee	Contopus sordidulus					View
Eastern Wood Pewee	Contopus virens					No Photo
Willow Flycatcher	Empidonax traillii brewsteri; adastus					View
Southwestern Willow Flycatcher	Empidonax traillii extimus	E	E	Y	Y	View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Hammond's Flycatcher	Empidonax hammondii					View
Gray Flycatcher	Empidonax wrightii					View
Dusky Flycatcher	Empidonax oberholseri					View
Cordilleran Flycatcher	Empidonax occidentalis					View
Black Phoebe	Sayornis nigricans					View
Eastern Phoebe	Sayornis phoebe					View
Say's Phoebe	Sayornis saya					View
Vermilion Flycatcher	Pyrocephalus rubinus					View
Loggerhead Shrike	Lanius ludovicianus				Y	View
Black-capped Vireo	Vireo atricapilla					View
Bell's Vireo	Vireo bellii	T			Y	View
Gray Vireo	Vireo vicinior	T			Y	View
Hutton's Vireo	Vireo huttoni					View
Cassin's Vireo	Vireo cassinii					View
Blue-headed Vireo	Vireo solitarius					View
Plumbeous Vireo	Vireo plumbeus					View
Warbling Vireo	Vireo gilvus					View
Red-eyed Vireo	Vireo olivaceus					View
Pinyon Jay	Gymnorhinus cyanocephalus				Y	View
Steller's Jay	Cyanocitta stelleri					View
Blue Jay	Cyanocitta cristata					View
Woodhouse's Scrub Jay	Aphelocoma woodhouseii					View
Chihuahuan Raven	Corvus cryptoleucus					View
Horned Lark	Eremophila alpestris					View
Bank Swallow	Riparia riparia				Y	View
Tree Swallow	Tachycineta bicolor					View
Violet-green Swallow	Tachycineta thalassina					View
Northern Rough-winged Swallow	Stelgidopteryx serripennis					View
Barn Swallow	Hirundo rustica					View
Cliff Swallow	Petrochelidon pyrrhonota					View
Cave Swallow	Petrochelidon fulva					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Mountain Chickadee	Poecile gambeli					View
Bridled Titmouse	Baeolophus wollweberi					View
Juniper Titmouse	Baeolophus ridgwayi				Y	View
Verdin	Auriparus flaviceps					View
Bushtit	Psaltriparus minimus					View
Red-breasted Nuthatch	Sitta canadensis					View
White-breasted Nuthatch	Sitta carolinensis					View
Pygmy Nuthatch	Sitta pygmaea				Y	View
Brown Creeper	Certhia americana					View
Rock Wren	Salpinctes obsoletus					View
Canyon Wren	Catherpes mexicanus					View
House Wren	Troglodytes aedon					View
Winter Wren	Troglodytes hiemalis					No Photo
Marsh Wren	Cistothorus palustris					View
Bewick's Wren	Thryomanes bewickii					View
Cactus Wren	Campylorhynchus brunneicapillus					View
Blue-gray Gnatcatcher	Polioptila caerulea					View
Black-tailed Gnatcatcher	Polioptila melanura					View
American Dipper	Cinclus mexicanus					View
Golden-crowned Kinglet	Regulus satrapa					No Photo
Ruby-crowned Kinglet	Regulus calendula					View
Eastern Bluebird	Sialia sialis					View
Western Bluebird	Sialia mexicana				Y	View
Mountain Bluebird	Sialia currucoides				Y	View
Townsend's Solitaire	Myadestes townsendi					View
Swainson's Thrush	Catharus ustulatus					View
Hermit Thrush	Catharus guttatus					View
American Robin	Turdus migratorius					View
Gray Catbird	Dumetella carolinensis					View
Curve-billed Thrasher	Toxostoma curvirostre					View
Brown Thrasher	Toxostoma rufum					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Bendire's Thrasher	Toxostoma bendirei				Y	View
Crissal Thrasher	Toxostoma crissale					View
Sage Thrasher	Oreoscoptes montanus					View
Northern Mockingbird	Mimus polyglottos					View
European Starling	Sturnus vulgaris					View
Bohemian Waxwing	Bombycilla garrulus					No Photo
Cedar Waxwing	Bombycilla cedrorum					View
Phainopepla	Phainopepla nitens					View
House Sparrow	Passer domesticus					View
American Pipit	Anthus rubescens					View
Sprague's Pipit	Anthus spragueii				Y	View
Evening Grosbeak	Coccothraustes vespertinus				Y	View
House Finch	Haemorhous mexicanus					View
Cassin's Finch	Haemorhous cassinii				Y	View
Red Crossbill	Loxia curvirostra					View
Pine Siskin	Spinus pinus					View
Lesser Goldfinch	Spinus psaltria					View
American Goldfinch	Spinus tristis					View
Chestnut-collared Longspur	Calcarius ornatus				Y	View
Thick-billed Longspur	Rhynchophanes mccownii				Y	View
Cassin's Sparrow	Peucaea cassinii				Y	View
Grasshopper Sparrow	Ammodramus savannarum perpallidus					View
Black-throated Sparrow	Amphispiza bilineata					View
Lark Sparrow	Chondestes grammacus					View
Lark Bunting	Calamospiza melanocorys					View
Chipping Sparrow	Spizella passerina					View
Clay-colored Sparrow	Spizella pallida					View
Black-chinned Sparrow	Spizella atrogularis				Y	View
Field Sparrow	Spizella pusilla					View
Brewer's Sparrow	Spizella breweri					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Fox Sparrow	Passerella iliaca					View
American Tree Sparrow	Spizelloides arborea					No Photo
Dark-eyed Junco	Junco hyemalis					View
White-crowned Sparrow	Zonotrichia leucophrys					View
Golden-crowned Sparrow	Zonotrichia atricapilla					View
Harris's Sparrow	Zonotrichia querula					View
White-throated Sparrow	Zonotrichia albicollis					View
Sagebrush Sparrow	Artemisiospiza nevadensis				Y	View
Vesper Sparrow	Pooecetes gramineus				Y	View
Baird's Sparrow	Centronyx bairdii	T			Y	View
Savannah Sparrow	Passerculus sandwichensis nevadensis; anthinus					View
Song Sparrow	Melospiza melodia					View
Lincoln's Sparrow	Melospiza lincolnii					View
Swamp Sparrow	Melospiza georgiana					View
Canyon Towhee	Melozone fusca					View
Rufous-crowned Sparrow	Aimophila ruficeps					View
Green-tailed Towhee	Pipilo chlorurus					View
Spotted Towhee	Pipilo maculatus					View
Eastern Towhee	Pipilo erythrophthalmus					No Photo
Yellow-breasted Chat	Icteria virens					View
Yellow-headed Blackbird	Xanthocephalus xanthocephalus					View
Bobolink	Dolichonyx oryzivorus					No Photo
Eastern Meadowlark	Sturnella magna					View
Western Meadowlark	Sturnella neglecta					View
Orchard Oriole	Icterus spurius					View
Hooded Oriole	Icterus cucullatus					View
Bullock's Oriole	Icterus bullockii					View
Baltimore Oriole	Icterus galbula					View
Scott's Oriole	Icterus parisorum					View
Red-winged Blackbird	Agelaius phoeniceus					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Bronzed Cowbird	Molothrus aeneus					View
Brown-headed Cowbird	Molothrus ater					View
Rusty Blackbird	Euphagus carolinus					View
Brewer's Blackbird	Euphagus cyanocephalus					View
Common Grackle	Quiscalus quiscula					View
Great-tailed Grackle	Quiscalus mexicanus					View
Northern Waterthrush	Parkesia noveboracensis					View
Black-and-white Warbler	Mniotilta varia					View
Prothonotary Warbler	Protonotaria citrea					No Photo
Tennessee Warbler	Leiothlypis peregrina					No Photo
Orange-crowned Warbler	Leiothlypis celata					View
Lucy's Warbler	Leiothlypis luciae				Y	View
Nashville Warbler	Leiothlypis ruficapilla					View
Virginia's Warbler	Leiothlypis virginiae				Y	View
Macgillivray's Warbler	Geothlypis tolmiei					View
Mourning Warbler	Geothlypis philadelphia					No Photo
Kentucky Warbler	Geothlypis formosa					View
Common Yellowthroat	Geothlypis trichas					View
Hooded Warbler	Setophaga citrina					View
American Redstart	Setophaga ruticilla					View
Northern Parula	Setophaga americana					No Photo
Yellow Warbler	Setophaga petechia					View
Palm Warbler	Setophaga palmarum					View
Pine Warbler	Setophaga pinus					View
Yellow-rumped Warbler	Setophaga coronata					View
Prairie Warbler	Setophaga discolor					View
Grace's Warbler	Setophaga graciae				Y	View
Black-throated Gray Warbler	Setophaga nigrescens				Y	View
Townsend's Warbler	Setophaga townsendi					View
Black-throated Green Warbler	Setophaga virens					View
Wilson's Warbler	Cardellina pusilla					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Red-faced Warbler	Cardellina rubrifrons				Y	View
Painted Redstart	Myioborus pictus				Y	View
Hepatic Tanager	Piranga flava					View
Summer Tanager	Piranga rubra					View
Western Tanager	Piranga ludoviciana					View
Northern Cardinal	Cardinalis cardinalis					View
Pyrrhuloxia	Cardinalis sinuatus					View
Rose-breasted Grosbeak	Pheucticus ludovicianus					View
Black-headed Grosbeak	Pheucticus melanocephalus					View
Blue Grosbeak	Passerina caerulea					View
Lazuli Bunting	Passerina amoena					View
Indigo Bunting	Passerina cyanea					View
Varied Bunting	Passerina versicolor	T			Y	View
Painted Bunting	Passerina ciris					View
Dickcissel	Spiza americana					View
Snapping Turtle	Chelydra serpentina					View
Western Painted Turtle	Chrysemys picta					View
Western River Cooter	Pseudemys gorzugi	T			Y	View
Ornate Box Turtle	Terrapene ornata					View
Red-eared Slider	Trachemys scripta					View
Yellow Mud Turtle	Kinosternon flavescens					View
Sonoran Mud Turtle	Kinosternon sonoriense sonoriense				Y	View
Spiny Softshell Turtle	Apalone spinifera					View
Eastern Collared Lizard	Crotaphytus collaris					View
Long-nosed Leopard Lizard	Gambelia wislizenii					View
Common Lesser Earless Lizard	Holbrookia maculata maculata; bunkeri; ruthveni					View
Texas Horned Lizard	Phrynosoma cornutum					View
Hernandez's Short-horned Lizard	Phrynosoma hernandesi					View
Round-tailed Horned Lizard	Phrynosoma modestum					View
Dunes Sagebrush Lizard	Sceloporus arenicolus	E			Y	View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Twin-spotted Spiny Lizard	Sceloporus bimaculosus					View
Greater Earless Lizard	Cophosaurus texanus					View
Southwestern Fence Lizard	Sceloporus cowlesi					View
Crevice Spiny Lizard	Sceloporus poinsettii					View
Northern Tree Lizard	Urosaurus ornatus					View
Common Side-blotched Lizard	Uta stansburiana					View
Texas Banded Gecko	Coleonyx brevis					View
Chihuahuan Spotted Whiptail	Aspidoscelis exsanguis					View
Texas Spotted Whiptail	Aspidoscelis gularis					View
Trans-pecos Striped Whiptail	Aspidoscelis inornata heptagramma					No Photo
Woodland Striped Whiptail	Aspidoscelis inornata junipera					No Photo
Plains Striped Whiptail	Aspidoscelis inornata llanuras					View
Marbled Whiptail	Aspidoscelis marmorata					View
Prairie Racerunner	Aspidoscelis sexlineata					View
Common Checkered Whiptail	Aspidoscelis tesselata					View
Many-lined Skink	Plestiodon multivirgatus					View
Great Plains Skink	Plestiodon obsoletus					View
Texas Blind Snake	Rena dissecta					View
Western Blind Snake	Rena humilis					View
Glossy Snake	Arizona elegans					View
Trans-Pecos Rat Snake	Bogertophis subocularis					View
Coachwhip	Coluber flagellum					View
Desert Striped Whipsnake	Coluber taeniatus					View
Ringneck Snake	Diadophis punctatus					View
Western Hooknose Snake	Gyalopion canum					View
Mexican Hog-nosed Snake	Heterodon kennerlyi					View
Plains Hog-nosed Snake	Heterodon nasicus					View
Chihuahuan Nightsnake	Hypsiglena jani					View
Gray-banded Kingsnake	Lampropeltis alterna	E			Y	View
Milk Snake	Lampropeltis gentilis					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Desert Kingsnake	Lampropeltis splendida					View
Plain-bellied Water Snake	Nerodia erythrogaster	E			Y	View
Great Plains Rat Snake	Pantherophis emoryi					View
Gophersnake	Pituophis catenifer					View
Texas Long-nosed Snake	Rhinocheilus lecontei					View
Mountain Patchnose Snake	Salvadora grahamiae					View
Big Bend Patchnose Snake	Salvadora hexalepis deserticola					View
Ground Snake	Sonora semiannulata					View
Plains Black-headed Snake	Tantilla nigriceps					View
Smith's Black-headed Snake	Tantilla hobartsmithi					View
Black-necked Gartersnake	Thamnophis cyrtopsis					View
Wandering Gartersnake	Thamnophis elegans					View
Marcy's Checkered Gartersnake	Thamnophis marcianus					View
Arid Land Ribbonsnake	Thamnophis proximus	T			Y	View
Lined Snake	Tropidoclonion lineatum					View
Western Diamond-backed Rattlesnake	Crotalus atrox					View
Mottled Rock Rattlesnake	Crotalus lepidus lepidus	T			Y	View
Eastern Black-tailed Rattlesnake	Crotalus ornatus					View
Prairie Rattlesnake	Crotalus viridis					View
Western Massasauga	Sistrurus tergeminus				Y	View
Tiger Salamander	Ambystoma mavortium mavortium; nebulosum					View
Plains Spadefoot	Spea bombifrons					View
New Mexico Spadefoot	Spea multiplicata					View
Eastern Barking Frog	Craugastor augusti latrans				Y	View
Great Plains Toad	Anaxyrus cognatus					View
Western Green Toad	Anaxyrus debilis					View
Red-spotted Toad	Anaxyrus punctatus					View
Texas Toad	Anaxyrus speciosus					View
Woodhouse's Toad	Anaxyrus woodhousii					View
Blanchard's Cricket Frog	Acris blanchardi					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Western Narrow-mouthed Toad	Gastrophryne olivacea	E			Y	View
Rio Grande Leopard Frog	Lithobates berlandieri				Y	View
Plains Leopard Frog	Lithobates blairi				Y	View
Bullfrog	Lithobates catesbeianus					View
Couch's Spadefoot	Scaphiopus couchii					View
Goldfish	Carassius auratus					View
Longnose Gar	Lepisosteus osseus					View
Gizzard Shad	Dorosoma cepedianum					View
Threadfin Shad	Dorosoma petenense					No Photo
Grass Carp	Ctenopharyngodon idella					No Photo
Red Shiner	Cyprinella lutrensis					View
Common Carp	Cyprinus carpio					View
Roundnose Minnow	Dionda episcopa					No Photo
Rio Grande Chub	Gila pandora				Y	View
Plains Minnow (Intro. pop)	Hybognathus placitus					No Photo
Speckled Chub	Macrhybopsis aestivalis					View
Golden Shiner	Notemigonus crysoleucas					View
Arkansas River Shiner (Introd. pop.)	Notropis girardi					No Photo
Rio Grande Shiner	Notropis jemezanus					View
Pecos Bluntnose Shiner	Notropis simus pecosensis	E	T	Y	Y	View
Sand Shiner	Notropis stramineus					No Photo
Fathead Minnow	Pimephales promelas					View
Longnose Dace	Rhinichthys cataractae					View
River Carpsucker	Carpiodes carpio					View
White Sucker	Catostomus commersoni					View
Blue Sucker	Cycleptus elongatus	E			Y	View
Smallmouth Buffalo	Ictiobus bubalus					View
Gray Redhorse	Moxostoma congestum	E			Y	View
Mexican Tetra	Astyanax mexicanus	T			Y	View
Black Bullhead	Ameiurus melas					View
Blue Catfish	Ictalurus furcatus					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Headwater Catfish	Ictalurus lupus					No Photo
Channel Catfish	Ictalurus punctatus					View
Flathead Catfish	Pylodictis olivaris					View
Rainbow Trout	Oncorhynchus mykiss					View
Brook Trout	Salvelinus fontinalis					View
Northern Pike	Esox lucius					View
Inland Silverside	Menidia beryllina					No Photo
Plains Killifish	Fundulus zebrinus					No Photo
Rainwater Killifish	Lucania parva					No Photo
Pecos Pupfish	Cyprinodon pecosensis	T			Y	View
Western mosquitofish	Gambusia affinis					No Photo
Pecos Gambusia	Gambusia nobilis	E	E		Y	View
White Bass	Morone chrysops					View
Rock Bass	Ambloplites rupestris					No Photo
Green Sunfish	Lepomis cyanellus					View
Warmouth	Lepomis gulosus					View
Bluegill	Lepomis macrochirus					View
Longear Sunfish	Lepomis megalotis					View
Spotted Bass	Micropterus punctulatus					No Photo
Largemouth Bass	Micropterus salmoides					View
White Crappie	Pomoxis annularis					View
Black Crappie	Pomoxis nigromaculatus					View
Greenthroat Darter	Etheostoma lepidum	T			Y	View
Bigscale Logperch (Native pop.)	Percina macrolepida	T			Y	View
Walleye	Sander vitreus					View
Decollate Snail	Rumina decollata					View
Mexican Coil Snail	Helicodiscus eigenmani					No Photo
Smooth Coil Snail	Helicodiscus singleyanus					No Photo
Vagabond Holospira Snail	Holospira montivaga					No Photo
Distorted Metastoma Snail	Metastoma roemeri					No Photo
Whitewashed Rabdotus Snail	Rabdotus dealbatus					No Photo

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Armed Snaggletooth Snail	Gastrocopta armifera armifera					No Photo
Bottleneck Snaggletooth Snail	Gastrocopta contracta					No Photo
Crested Snaggletooth Snail	Gastrocopta cristata					No Photo
Slim Snaggletooth Snail	Gastrocopta pellucida					No Photo
Comb Snaggletooth Snail	Gastrocopta pentodon					No Photo
Montane Snaggletooth Snail	Gastrocopta pilsbryana					No Photo
Wing Snaggletooth Snail	Gastrocopta procera					No Photo
White-lipped Dagger Snail	Pupoides albilabris					No Photo
Three-Toothed Column Snail	Pupilla sonorana					No Photo
Vertigo Snail	Vertigo arizonensis					No Photo
Ovate Vertigo Snail	Vertigo ovata	T			Y	View
Glossy Pillar Snail	Cionella lubrica					No Photo
Multirib Vallonia Snail	Vallonia gracilicosta					No Photo
Thin-lipped Vallonia Snail	Vallonia perspectiva					No Photo
Lovely Vallonia Snail	Vallonia pulchella					No Photo
Meadow Slug Snail	Deroceras laeve					No Photo
Florida Flatcoil Snail	Polygyra septemvolva					No Photo
Carved Glyph Snail	Glyphyalina indentata					No Photo
Minute Gem Snail	Hawaiia minuscula					No Photo
Median Striate Snail	Striatura meridionalis					No Photo
Quick Gloss Snail	Zonitoides arboreus					No Photo
Brown Hive Snail	Euconulus fulvus					No Photo
Brown Gardensnail	Helix aspersa					View
Guadalupe Woodlandsnail	Ashmunella carlbadensis					No Photo
Texas Liptooth Snail	Linisa texasiana				Y	View
Southwestern Fringed-snail	Thysanophora hornii					No Photo
Northern Treeband Snail	Humboldtiana ultima					No Photo
New Mexico Ramshorn Snail	Pecosorbis kansasensis				Y	No Photo
Pecos Springsnail	Pyrgulopsis pecosensis	T			Y	No Photo
Brine Shrimp	Artemia franciscana				Y	View
Beavertail Fairy Shrimp	Thamnocephalus platyurus				Y	View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Mexican Clam Shrimp	Cyzicus mexicanus				Y	No Photo
Short Finger Clam Shrimp	Lynceus brevifrons				Y	No Photo
Tiger Beetle	Amblycheila picolominii					No Photo
Tiger Beetle	Cicindela circumptica johnsoni					No Photo
Big Sand Tiger Beetle	Cicindela formosa rutilovirescens					View
Tiger Beetle	Cicindela fulgida fulgida; pseudowillistoni					No Photo
Tiger Beetle	Cicindela lemniscata					No Photo
Dainty Tiger Beetle	Cicindela lepida					No Photo
Tiger Beetle	Cicindela nigrocoerula					No Photo
Tiger Beetle	Cicindela obsoleta obsoleta; santaclarae					No Photo
Tiger Beetle	Cicindela ocelleta					No Photo
Tiger Beetle	Cicindela oregona					No Photo
Guadalupe Mountains Tiger Beetle	Cicindela politula petrophila					No Photo
Limestone Tiger Beetle	Cicindela politula viridimonticola; barbaraannae					No Photo
Tiger Beetle	Cicindela punctulata					No Photo
Tiger Beetle	Cicindela scutellaris scutellaris					No Photo
Tiger Beetle	Cicindela sedecimpunctata					No Photo
Tiger Beetle	Cicindela sperata					No Photo
Tiger Beetle	Cicindela tenuisignata					No Photo
Tiger Beetle	Cicindela togata					No Photo
Tiger Beetle	Cicindela willistoni hirtifrons					No Photo
Tiger Beetle	Ellipsoptera nevadica citata;knausii					No Photo
Tiger Beetle	Tetracha carolina					No Photo
Andrenid Bee	Perdita sidae					No Photo
Moth	Syssphinx hubbardi					No Photo
Moth	Automeris zephyria					View
Moth	Hemileuca chinatiensis					No Photo
Moth	Sphinx perelegans					No Photo
Common Streaky Skipper	Celotes nessus					No Photo

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Sleepy Duskywing Skipper	Erynnis brizo					View
Funereal Duskywing Skipper	Erynnis funeralis					View
Meridian Duskywing Skipper	Erynnis meridianus					No Photo
Rocky Mtn Duskywing Skipper	Erynnis telemachus					View
Mournful Duskywing Skipper	Erynnis tristis					No Photo
Saltbush Sootywing Skipper	Hesperopsis alpheus					No Photo
Common Sootywing Skipper	Pholisora catullus					View
Mexican Sootywing Skipper	Pholisora mejicana					No Photo
White Checkered Skipper	Pyrgus albescens					View
Common Checkered Skipper	Pyrgus communis					View
Small Checkered Skipper	Pyrgus scriptura					View
Golden-headed Scallopwing Skipper	Staphylus ceos					No Photo
Texas Powdered Skipper	Systasea pulverulemta					No Photo
Arizona Powdered Skipper	Systasea zampa					No Photo
Northern Cloudywing Skipper	Thorybes pylades					View
Bronze Roadside Skipper	Amblyscirtes aenus					No Photo
Dotted Roadside Skipper	Amblyscirtes eos					No Photo
Slaty Roadside Skipper	Amblyscirtes nereus					No Photo
Nysa Roadside Skipper	Amblyscirtes nysa					No Photo
Oslar's Roadside Skipper	Amblyscirtes oslari					No Photo
Simius Roadside Skipper	Amblyscirtes simius					No Photo
Texas Roadside Skipper	Amblyscirtes texanae					No Photo
Tropical Least Skipper	Ancyloxypha arene					No Photo
Sachem Skipper	Atalopedes campestris					View
Delaware Skipper	Atrytone logan					No Photo
Python Skipper	Atrytonopsis python					No Photo
Viereck's Skipper	Atrytonopsis vierecki					No Photo
Orange Skipperling Skipper	Copaeodes aurantiacus					View
Kiowa Dun Skipper	Euphyes vestris					View
Pahaska Skipper	Hesperia pahaska pahaska					No Photo
Uncas Skipper	Hesperia uncas uncas					No Photo

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Green Skipper	Hesperia viridis					View
Apache Skipper	Hesperia woodgatei ssp.					No Photo
Fiery Skipper	Hylephila phlyeus					View
Edwards' Skipperling Skipper	Oarisma edwardsii					No Photo
Morrison's Skipper	Stinga morrisoni					No Photo
Mary's Giant Skipper	Agathymus mariae					No Photo
Carlsbad Agave Borer Skipper	Agathymus neumoegeni carlsbadensis					No Photo
Reuben's Yucca Borer Skipper	Megathymus coloradensis reubeni					No Photo
Wink Yucca Borer Skipper	Megathymus coloradensis winkensis					No Photo
Texas Giant Skipper	Megathymus streckeri texanus					No Photo
Viola's Yucca Borer Skipper	Megathymus ursus violae					No Photo
Rhesus Skipper	Yvretta rhesus					No Photo
Pipevine Swallowtail Butterfly	Battus philenor					View
Carus Skipper	Yvretta carus					No Photo
Black Swallowtail Butterfly	Papilio polyxenes asterius					View
Giant Swallowtail Butterfly	Papilio cresphontes					View
Two-Tailed Swallowtail Butterfly	Pterourus multicaudatus					View
Cabbage White Butterfly	Pieris rapae					View
Checkered White Butterfly	Pontia protodice					View
Spring White Butterfly	Pontia sisymbrii elivata					No Photo
Orange Sulphur Butterfly	Colias eurytheme					View
Western Common Sulphur Butterfly	Colias philodice					View
Boisduval's Yellow Butterfly	Eurema boisduvalianum					No Photo
Little Yellow Butterfly	Eurema lisa					View
Mexican Yellow Butterfly	Eurema mexicanum					No Photo
Sleepy Orange Butterfly	Eurema nicippe					View
Lyside Sulphur Butterfly	Kricogonia lyside					View
Dainty Sulphur Butterfly	Nathalis iole					View
Cloudless Sulphur Butterfly	Phoebis sennae					View
Southern Dogface Butterfly	Zerene cesonia					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Great Purple Hairstreak Butterfly	Atlides halesus					View
Trans-Pecos Elfin Butterfly	Callophrys henrici					No Photo
Juniper Hairstreak Butterfly	Callophrys gryneus					View
Thicket Hairstreak Butterfly	Callophrys spinetorum					View
Soapberry Hairstreak Butterfly	Phaeostrymon alcestis alcestis					No Photo
Sandia Hairstreak Butterfly	Callophrys mcfarlandi					View
Frank's Common Hairstreak Butterfly	Strymon melinus					View
Arizona Blue Butterfly	Celastrina ladon cinerea					No Photo
Eastern Tailed Blue Butterfly	Cupido comyntas					View
Ceraunus Blue Butterfly	Hemiargus ceraunus					No Photo
Reakirt's Blue Butterfly	Hemiargus isola					View
Marine Blue Butterfly	Leptotes marina					View
Melissa Blue Butterfly	Plebejus melissa					View
Texas Blue Butterfly	Plebejus acmon					View
Cyna Blue Butterfly	Zizula cyna					View
Druy's Metalmark Butterfly	Apodemia mormo druyi					No Photo
Leda Hairstreak Butterfly	Ministrymon leda					No Photo
Western Pygmy Blue Butterfly	Brephidum exile					View
Southern Snout Butterfly	Libytheana bachmanii					No Photo
Buckeye Butterfly	Junonia coenia					View
Dark Buckeye Butterfly	Junonia nigrosuffusa					View
Mourning Cloak Butterfly	Nymphalis antiopa					View
Question Mark Butterfly	Polygonia interrogationis					View
Red Admiral Butterfly	Vanessa atalanta					View
Painted Lady Butterfly	Vanessa cardui					View
American Lady Butterfly	Vanessa virginiensis					View
Variegated Fritillary Butterfly	Euptoieta claudia					View
Definite Patch Butterfly	Chlosyne definita					No Photo
Crocale Patch Butterfly	Chlosyne lacinia					View
Dymas Checkerspot Butterfly	Dymasia dymas					No Photo
Phaon Crescent Butterfly	Phyciodes phaon					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Painted Crescent Butterfly	Phyciodes pictus					View
Camillus Crescent Butterfly	Phyciodes pulchella					View
Pearl Crescent Butterfly	Phyciodes tharos Type A					View
Vesta Crescent Butterfly	Phyciodes vesta					View
Ulrica Checkerspot Butterfly	Texola elada ulrica					No Photo
Chinati Checkerspot Butterfly	Thessalia chinatiensis					No Photo
Fulvia Checkerspot Butterfly	Thessalia fulvia					View
Thekla Checkerspot Butterfly	Thessalia theona thekla					No Photo
Arizona Sister Butterfly	Adelpha bredowii					View
Tropical Leaf Wing Butterfly	Anaea aidea					No Photo
Goatweed Butterfly	Anaea andria					No Photo
Hackberry Butterfly	Asterocampa celtis ssp.					No Photo
Texan Emperor Butterfly	Asterocampa clyton					No Photo
Chermock's Satyr Butterfly	Cercyonis meadii mexicana					No Photo
Texas Brown Butterfly	Cyllopsis pertepida avicula					No Photo
Canyonland Satyr Butterfly	Cyllopsis pertepida dorothea					View
Red Satyr Butterfly	Megisto rubricata rubricata					View
Striated Queen Butterfly	Danaus gilippus					View
Monarch Butterfly	Danaus plexippus		C			View
Gulf Fritillary Butterfly	Agraulis vanillae					View
Green Looper Moth	Nemoria rindgei					No Photo
Texan Crescent Butterfly	Anthanassa texana					View
Arizona Admiral Butterfly	Limenitis arthemis					View
Obsolete Viceroy Butterfly	Limenitis archippus obsoleta					No Photo
Arizona Viceroy	Limenitis archippus obsoleta					No Photo
Great Spreadwing	Archilestes grandis					View
Plateau Spreadwing	Lestes alacer					View
American Rubyspot	Hetaerina americana					View
Blue-fronted Dancer	Argia apicalis					View
Violet Dancer	Argia fumipennis					View
Lavender Dancer	Argia hinei					No Photo

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Kiowa Dancer	Argia immunda					No Photo
Leonora's Dancer	Argia leonorae					No Photo
Sooty Dancer	Argia lugens					View
Powdered Dancer	Argia moesta					View
Aztec Dancer	Argia nahuana					View
Springwater Dancer	Argia plana					View
Blue-ringed Dancer	Argia sedula					View
Dusky Dancer	Argia translata					No Photo
Vivid Dancer	Argia vivida					View
Double-striped Bluet	Enallagma basidens					No Photo
Boreal Bluet	Enallagma boreale					No Photo
Tule Bluet	Enallagma carunculatum					View
Familiar Bluet	Enallagma civile					View
Stream Bluet	Enallagma exsulans					No Photo
Arroyo Bluet	Enallagma praevarum					No Photo
Painted Damsel	Hesperagrion heterodoxum					View
Desert Forktail	Ischnura barberi					No Photo
Plains Forktail	Ischnura damula					View
Mexican Forktail	Ischnura demorsa					View
Black-fronted Forktail	Ischnura denticollis					No Photo
Fragile Forktail	Ischnura posita					No Photo
Desert Firetail	Telebasis salva					View
Persephone's Darner	Aeshna persephone					No Photo
Common Green Darner	Anax junius					View
Giant Darner	Anax walsinghami					No Photo
Arroyo Darner	Rhionaeschna dugesi					No Photo
Blue-eyed Darner	Rhionaeschna multicolor					View
Flag-tailed Spinyleg	Dromogomphus spoliatus					No Photo
Yellow-legged Ringtail	Erpetogomphus crotalinus					No Photo
Eastern Ringtail	Erpetogomphus designatus					No Photo
Plains Clubtail	Gomphurus externus					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Sulphur-tipped Clubtail	Phanogomphus militaris					No Photo
Brimstone Clubtail	Stylurus intricatus					View
Russet-tipped Clubtail	Stylurus plagiatus					No Photo
Bronzed River Cruiser	Macromia annulata					No Photo
Dot-winged Baskettail	Epitheca petechialis					No Photo
Orange Shadowdragon	Neurocordulia xanthosoma					No Photo
Four-spotted Pennant	Brachymesia gravida					No Photo
Pale-faced Clubskimmer	Brechmorhoga mendax					View
Gray-waisted Skimmer	Cannaphila insularis					No Photo
Halloween Pennant	Celithemis eponina					View
Checkered Setwing	Dythemis fugax					View
Black Setwing	Dythemis nigrescens					No Photo
Swift Setwing	Dythemis velox					View
Black Pondhawk	Erythemis attala					No Photo
Western Pondhawk	Erythemis collocata					No Photo
Eastern Pondhawk	Erythemis simplicicollis					View
Plateau Dragonlet	Erythrodiplax basifusca					View
Seaside Dragonlet	Erythrodiplax berenice					View
Comanche Skimmer	Libellula comanche					View
Bleached Skimmer	Libellula composita					View
Widow skimmer	Libellula luctuosa					View
Twelve-spotted Skimmer	Libellula pulchella					View
Flame Skimmer	Libellula saturata					View
Marl Pennant	Macrodiplax balteata					View
Thornbush Dasher	Micrathyria hagenii					No Photo
Roseate Skimmer	Orthemis ferruginea					View
Blue Dasher	Pachydiplax longipennis					View
Red Rock Skimmer	Paltothemis lineatipes					No Photo
Wandering Glider	Pantala flavescens					View
Spot-winged Glider	Pantala hymenaea					View
Eastern Amberwing	Perithemis tenera					View

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Desert Whitetail	Plathemis subornata					View
Filigree Skimmer	Pseudoleon superbus					No Photo
Variegated meadowhawk	Sympetrum corruptum					View
Autumn Meadowhawk	Sympetrum vicinum					View
Black Saddlebags	Tramea lacerata					View
Red Saddlebags	Tramea onusta					View
Lubber Grasshopper	Brachystola magna					View
Robust Toad Hopper Grasshopper	Phrynotettix robustus					No Photo
Slender Range Grasshopper	Acantherus piperatus					No Photo
Point-headed Grasshopper	Acrolophitus maculipennis					No Photo
White Whiskers Grasshopper	Ageneotettix deorum					No Photo
Elliott Grasshopper	Aulocara elliotti					No Photo
White Cross Grasshopper	Aulocara femoratum					No Photo
Black Males Grasshopper	Boopedon nubilum					View
Creosotebush Grasshopper	Bootettix argentatus					No Photo
Cream Grasshopper	Cibolacris parviceps					No Photo
Crenulated Grasshopper	Cordillacris crenulata					No Photo
Spotted Wing Grasshopper	Cordillacris occipitalis					No Photo
Rufous Grasshopper	Heliaula rufa					No Photo
Pecos Clicker Grasshopper	Ligurotettix planum					No Photo
Mermiria Grasshopper	Mermiria bivittata					No Photo
Grasshopper	Mermiria texana					No Photo
Obscure Grasshopper	Opeia obscura					No Photo
Slant-Faced Grasshopper	Syrbula montezuma					No Photo
Speckled Rangeland Grasshopper	Arphia conspera					No Photo
Red-Winged Grasshopper	Arphia pseudonietana					No Photo
Grasshopper	Derotmema laticinctum					No Photo
Carolina Grasshopper	Dissosteira carolina					No Photo
Grasshopper	Encoptolophus subgracilis					No Photo
Three-Banded Range Grasshopper	Hadrotettix trifasciatus					No Photo
Grasshopper	Hippopedon capito					No Photo

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Saussure's Grasshopper	Pardalophora saussurei					No Photo
Mottled Sand Grasshopper	Spharagemon collare					No Photo
Grasshopper	Spharagemon cristatum					No Photo
Shy Rose-Winged Grasshopper	Trepidulus rosaceus					No Photo
Strenuous Grasshopper	Trimerotropis californica					No Photo
Grasshopper	Trimerotropis fratercula					No Photo
Broad-Banded Grasshopper	Trimerotropis latifasciata					No Photo
Pallid-Winged Grasshopper	Trimerotropis pallidipennis					View
Barren Land Grasshopper	Trimerotropis pristrinaria					No Photo
Grasshopper	Trimerotropis salina					No Photo
Grasshopper	Trimerotropis sp.					No Photo
Great Crested Grasshopper	Tropidolophus formosus					View
Red Shanks Grasshopper	Xanthippus corallipes					No Photo
White-Lined Bird Grasshopper	Schistocerca alutacea albolineata					No Photo
Lined Bird Grasshopper	Schistocerca alutacea lineata					No Photo
Green Bird Grasshopper	Schistocerca alutacea shoshone					No Photo
Gray Bird Locust Grasshopper	Schistocerca nitens					No Photo
Gray Creosotebush Grasshopper	Clematodes larreae					No Photo
Thistle Grasshopper	Aeoloplides turnbulli					No Photo
Fuzzy Olive-Green Grasshopper	Campylacantha olivacea					No Photo
Painted Grasshopper	Dactylotum bicolor					View
Green Streak Grasshopper	Hesperotettix viridis					No Photo
Arid Land's Spur-Throat Grasshopper	Melanoplus aridis					No Photo
Bowditch's Spur-Throat Grasshopper	Melanoplus bowditchi					No Photo
Differential Grasshopper	Melanoplus differentialis					No Photo
Yellow Spur-Throat Grasshopper	Melanoplus flavidus					No Photo
Gladston's Spur-Throat Grasshopper	Melanoplus gladstoni					No Photo
Glaucous-Legged Grasshopper	Melanoplus glaucipes					No Photo
Arrowweed Spur-Throat Grasshopper	Melanoplus herbaceous					No Photo
Grasshopper	Melanoplus lakinus					No Photo
Ponderous Spur-Throat Grasshopper	Melanoplus ponderous					No Photo

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Lesser Migratory Grasshopper	Melanoplus sanguinipes					No Photo
Aztec Range Grasshopper	Lactisa aztecus					No Photo
Platte Range Grasshopper	Mestobregna plattei					No Photo
Mayfly	Baetis tricaudatus					No Photo
Mayfly	Callibaetis ferrugineus					No Photo
Mayfly	Callibaetis fluctuans					No Photo
Mayfly	Fallceon quilleri					No Photo
Mayfly	Hexagenia bilineata					No Photo
Mayfly	Leptophlebia bradleyi					No Photo
Mayfly	Neochoroterpes oklahoma					No Photo
Mayfly	Paraleptophlebia debilis					No Photo
Mayfly	Caenis latipennis					No Photo
Mayfly	Tricorythodes explicatus					No Photo
Cave Obligate Millipede	Speodesmus tuganbius					No Photo
Cave Obligate Centipede	Thalkethops grallatrix					No Photo
Spider	Euagrus chisoseus					No Photo
Comb-Footed Spider	Steatoda variata					No Photo
Spider	Eperigone antraea					No Photo
Spider	Metepeira comanche					No Photo
Spider	Neoscona crucifera					No Photo
Spider	Neoscona oaxcensis					No Photo
Diving Spider	Dolomedes triton					No Photo
Spider	Varacosa gosiuta					No Photo
Spider	Orthonops lapanus					No Photo
Pseudoscorpion	Levichelifer fulvopalpus					No Photo
Pseudoscorpion	Lamprochernes ellipticus					No Photo
Pseudoscorpion	Dinocheirus astutus					No Photo
Pseudoscorpion	Neoallochernes incertus					No Photo
Pseudoscorpion	Chitrella welbourni					No Photo
Pseudoscorpion	Apochthonius magnanimus					No Photo
Pseudoscorpion	Aphrastochthonius pachysetus					No Photo

All Species
Eddy

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat	SGCN	Photo
Spider	Diguetia canities					No Photo
Pseudoscorpion	Albiorix retrodentatus					No Photo
Spider	Eidmannella pallida					No Photo
Violin Spider	Loxosceles blanda					No Photo
Giant Floater Mussel	Pyganodon grandis					No Photo
Texas Hornshell	Popenaias popeii	E	E		Y	View
Asian Clam	Corbicula fluminea					No Photo
Sitting Bull Spring cryptic species Amphipod	Gammarus sp.				Y	No Photo
Red Swamp Crayfish	Procambarus clarkii					No Photo

Operating and Maintenance Plan

OPERATING AND MAINTENANCE PLAN

Dire Wolf Truckin Containment Pit

OVERVIEW

The attached plan details the operational requirements regarding the Dire Wolf Truckin Containment Pit. In addition, the required reporting, and inspections as well as the appropriate actions/notifications are listed.

PURPOSE

The attached plan implements the operational requirement as outlined by NMOCD under 19.15.34 NMAC. The application of this plan will ensure the reuse water containment pit is operated in a manner that minimizes any risk to health, safety, and the environment.

OPERATIONAL REQUIREMENTS

Below are the operational requirements that must be always adhered to. Deviation from these requirements is prohibited.

- Inlet flow
    - Recycling facility effluent stream water must meet all water quality norms before water is introduced into the containment pit. These norms are to include no detected oil in the stream.
    - Inlet water may only be introduced into the containment pit via the diffuser manifold so as to not cause any stress or damage to the liner system.
    - A minimum of 3ft of freeboard will be maintained in the reuse water containment pit at all times.

- Effluent Flow
    - Effluent water may only exit the reuse water containment via the permanent discharge header system; no external hoses or pipes may be placed into the pit at any time.
    - Effluent water may only be transferred to EOG completion operations.
- Volume Reporting
    - All influent and effluent volumes are to be logged daily. These volumes are to be tracked via inbound and outbound mag meters and tracked via paper and SCADA systems.
- Site Inspection
    - The pit and surrounding area are to be inspected daily while water is contained within the pit. These inspections are to include all inlet/outlet piping, berms, exposed liner, surrounding grounds, and fencing.
- Leak Detection Testing
    - Leak detection testing shall be conducted weekly. Testing shall include starting the leak detection sump pump to determine if any fluid has collected in the collection sump. The sump pump shall be run for a minimum of 5 minutes to allow for inlet flow. If any flow is detected the proper notification to the Hobbs NMOCD will occur and drainage will commence.

Reporting, Monitoring, and Inspection Plan

- List of Weekly Reporting and Inspections to be completed:
    - Influent and Effluent Volume Reporting
    - Visually inspect the Facility and Containment Pit
    - Leak Detection test to ensure the integrity of the primary liner has not deteriorated
- List of Monthly Reporting and Inspections to be completed:
    - Monthly volume report via Form C-148
    - Leak Detection test
    - Visual inspection of the Facility and Containment Pit

Notifications

In the event of a leak detection denoting a compromised liner below the water level, notice shall be provided via the OCD Permitting Online Portal.

ASSOCIATED FORMS

- List of Associated forms for Operating and Maintenance Plan
  - NA

Closure Plan

WATER CONTAINMENT CLOSURE PLAN

Dire Wolf Truckin Containment Pit

OVERVIEW

The attached plan details the requirements regarding the closure of the Dire Wolf Truckin Containment Pit. In addition, the required sampling and reporting obligations are detailed.

PURPOSE

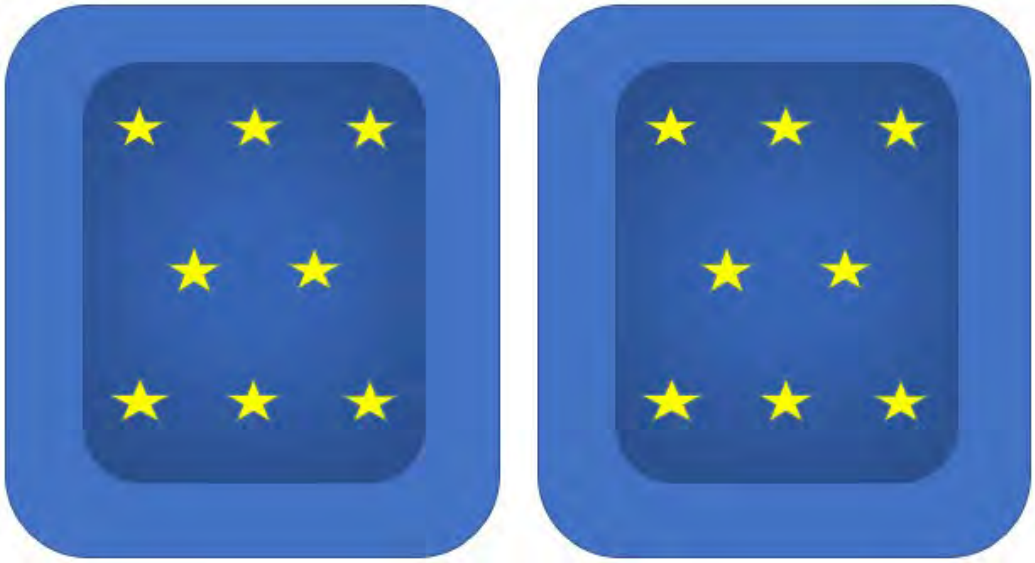
The attached plan implements the closure requirement as outlined by NMOCD under 19.15.34.14 NMAC. The application of this plan will ensure the reuse water containment pit is closed and reclamation is completed in a manner that minimizes any risk to health, safety, and the environment.

CLOSURE REQUIREMENTS

- Containment Pit Drainage
  - All reuse water remaining in the containment pit shall be removed from the impoundment within 60 days of operations cessation. The removed fluids will then be transferred to a division-approved disposal facility. Records of all removal, transfer, and disposal activities shall be retained for inclusion in the final closure report submittal.
- Liner Material Removal and Disposal
  - Removal of the liner shall be conducted in a manner that minimizes any risk of soil disturbance to the surface within and surrounding the containment. The removed liner material will then be transferred to and disposed of at a division-approved disposal facility. Records of all removal,

transfer, and disposal activities shall be retained for inclusion in the final closure report submittal.

- Soil Sampling
  - Soil sampling shall be conducted at the locations depicted in the below schematic, Sampling Point Diagram, by a qualified third-party contractor and analyzed at NELAC certified laboratory.
  - If any contaminant concentration is higher than the parameters listed in Table 1 in 19.15.34.14 NMAC, notice shall be provided to the Hobbs NMOCD office before proceeding with closure.
  - If all sample concentrations are less than or equal to the parameters listed in Table 1 in 19.15.34.14 NMAC, then closure can proceed, backfilling with non-waste containing, uncontaminated, earthen material.
  - Sampling Diagram



- Site Reclamation and Re-vegetation
  - Following closure, reclamation of the containment's location can commence and ensure that it is returned to a safe and stable location that blends with the surrounding undisturbed area. Topsoil and subsoils shall be replaced to original positions and contoured to achieve erosion-free long-term stability and preservation of surface water flow patterns.
  - The disturbed area shall then be reseeded in the first favorable growing season following the closure of the containment. The surface area shall be restored to the condition that existed prior to the construction of the containment.
  - Reclamation of all disturbed areas no longer in use shall be considered complete when all ground surface disturbing activities at the site have

been completed and a uniform vegetative cover has been established that reflects a life form ratio of +/- 50% of pre-disturbance levels and a total percent plant cover of at least 70% of pre-disturbance levels, excluding noxious weeds.

CLOSURE AND RECLAMATION REPORT SUBMITTAL / NOTICE

- Closure Report
  - Within 60 days of closure completion, EOG shall submit a closure report on form C-147 to the NMOCD Hobbs office, including required attachments, to document all closure activities including sampling results and the details of any backfilling, capping, or covering.
  - The closure report shall certify that all information in the report and attachments is correct and that EOG has complied with all applicable closure requirements and conditions specified in the division rules or directives.
- Reclamation Notice
  - EOG shall notify the NMOCD Hobbs office when all reclamation and re-vegetation are complete.

NOTIFICATIONS

In the event of any deviance from this closure plan or exceeding a sampling constituent, notice shall be provided via the OCD Permitting Online Portal.

ASSOCIATED FORMS

- List of Associated forms for containment pit closure
  - NA

Venegas, Victoria, EMNRD

From: Venegas, Victoria, EMNRD
Sent: Friday, April 28, 2023 2:41 PM
To: Patricia Donald; Galan Kelley; Olivia_Desser@eogresources.com
Subject: 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535]
Attachments: C-147 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535].pdf

2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535]

Good afternoon,
NMOCD has reviewed the recycling containment permit application and related documents, submitted by [7377] EOG RESOURCES INC on April 20, 2023, for 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535] in Unit Letter H, Section 13, Township 26S, Range 30E, Eddy County, New Mexico. [7377] EOG RESOURCES INC requested variances from 19.15.34 NMAC for 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535].

The following variances have been approved:

- The variance to 19.15.34.12.A.(4) NMAC for the installation on the containment of a 40 mil HDPE as secondary liner is approved. The proposed 40-mil HDPE Geomembrane liner has a typical Hydraulic Conductivity no greater than 10^{-12} cm/sec. This hydraulic conductivity of no greater than 10^{-12} cm/sec exceeds the standard 30-mil LLDPE string reinforced liner and EPA SW-846 method 9090A.
- The variance from 19.15.34.13.D NMAC, for the installation of an eight-foot-tall chain link fence equipped with three strands of barbed wire on top, is approved.
- The variance from 19.15.34.13.E NMAC for the installation of an audible bird deterrence system, “Bird-X Mega-Blaster Pro”, is approved.

The form C-147 and related documents for 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535] is approved with the following conditions of approval:

- The purpose of this permit is for oil and gas activities regulated under the NMAC 19.15.34.3 STATUTORY AUTHORITY: 19.15.34 NMAC is adopted pursuant to the Oil and Gas Act, Paragraph (15) of Section 70-2-12(B) NMSA 1978, which authorizes the division to regulate the disposition of water produced or used in connection with the drilling for or producing of oil and gas or both and Paragraph (21) of Section 70-2-12(B) NMSA 1978 which authorizes the regulation of the disposition of nondomestic wastes from the exploration, development, production or storage of crude oil or natural gas.
- [7377] EOG RESOURCES INC shall construct, operate, maintain, close, and reclaim 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535] in compliance with NMAC 19.15.34 NMAC.
- Water reuse and recycling from 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535] is limited to wells owned or operated by [7377] EOG RESOURCES INC.
- 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535] is approved for five years of operation from the date of the permit application. 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535] permit expires on April 20, 2028. If [7377] EOG RESOURCES INC wishes to extend operations past five years, an annual permit extension request must be submitted using OCD form C-147 through OCD Permitting by March 20, 2028.
- [7377] EOG RESOURCES INC shall notify OCD, through OCD Permitting, when construction of 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535] commences.

- [7377] EOG RESOURCES INC shall notify NMOCD through OCD Permitting when recycling operations commence and cease at 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535].
- A minimum of 3-feet freeboard must be maintained at 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535] at all times during operations.
- If less than 20% of the total fluid capacity is utilized every six months, beginning from the first withdrawal, operations of the 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535] is considered ceased and a notification of cessation of operations should be sent electronically to OCD Permitting. A request to extend the cessation of operation, not to exceed six months, may be submitted using a C-147 form through OCD Permitting. If after that 6-month extension period, the 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535] is not utilized at a minimum of 20% fluid capacity, no additional extensions would be granted, and the operator would be directed to remove all fluids and proceed with the closure requirements.
- [7377] EOG RESOURCES INC shall submit monthly reports of recycling and reuse of produced water, drilling fluids, and liquid oil field waste on OCD form C-148 via OCD Permitting even if there is zero activity.
- [7377] EOG RESOURCES INC shall inspect the recycling containment and associated leak detection systems weekly while it contains fluids. The operator shall maintain a current log of such inspections and make the logs available for review by the division upon request as per 19.15.34.13.A.
- [7377] EOG RESOURCES INC shall comply with 19.15.29 NMAC Releases in the event of any release of produced water or other oil field waste at 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535].

Please reference number 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535] in all future communications.
Regards,

Victoria Venegas ● Environmental Specialist
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Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
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CONDITIONS

Action 209434

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 209434
	Action Type: [C-147] Water Recycle Long (C-147L)

CONDITIONS

Created By	Condition	Condition Date
vvenegas	NMOCD has reviewed and approved the recycling containment permit application and related documents, submitted by [7377] EOG RESOURCES INC on April 20, 2023, for 2RF-190 - DIRE WOLF TRUCKIN CONTAINMENT AND RECYCLE FACILITY ID [fVV2311751535] in Unit Letter H, Section 13, Township 26S, Range 30E, Eddy County, New Mexico.	4/28/2023