STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

OIL CONSERVATION DIVISION

ADJUDICATORY APPEAL OF NMOCD DISTRICT II REJECTION OF "APPLICATION FOR ADMINISTRATIVE APPROVAL OF A RELEASE NOTIFICATION AND CORRECTIVE ACTION (C-141) FOR INCIDENT ID #NAPP2206346222"

REQUEST FOR HEARING

Released to Imaging: 6/7/2023 12:16:42 PM

CASE	NO.	

Application ID: 114703

APPEAL BY LONGFELLOW ENERGY, LP

This Adjudicatory Appeal of a decision by the New Mexico Oil Conservation Division is submitted on behalf of Longfellow Energy LP/Riata Corporate Group, LLC (Longfellow) through its counsel, Jerry D. Worsham II of Clark Hill PLC, as required by NMAC 19.15.4.14(c). Longfellow requests an Adjudicatory Hearing before a Division Examiner and approval of the Variance Application and revised C-141 submitted and dated January 13, 2023.

I. INTRODUCTION

On or about June 7, 2022, a Release Notification (NOR) was filed by Longfellow with the New Mexico Oil Conservation Division (NMOCD) Division 2 - Artesia, concerning a pipeline failure and spill of produced waters Incident ID NAPP2206346222. The location is generally described as "ROE Water Transfer Line off Turkey Tract Rd." On June 7, 2022, the initial C-141 Site Characterization/Remediation Plan was submitted to NMOCD for review by Dan Dunkelberg at Trinity Oilfield Services (Trinity) on behalf of Longfellow. The NMOCD requires that a Remediation Plan utilize a tool from the United States Fish and Wildlife Service (USFWS) - National Wetlands Inventory¹ called the "Wetlands Mapper."²

NMOCD 2018 Spill Regulations

I note that the NMOCD Chapter 29 Regulation titled "Releases" uses the term "wetland"; however, it does not legally define the term in 19.15.29.7 <u>Definitions</u> NMAC. The information commonly used (at the direction of NMOCD staff) for this NMOCD wetland evaluation for the Remediation Plan appears to be sourced from two base technical research report documents: (1) "Classification of Wetlands and Deepwater Habitats of the United States," U.S. Fish & Wildlife

¹ See Exhibit 1 email from Rusty Griffin, PWS, U. S. Fish and Wildlife Service, to Jerry D. Worsham, dated 5-17-2023, which states "One thing to remember when looking at data on the [W]etlands [M]apper is that it is consider[ed] a misuse of the data to use it for jurisdictional purposes. Our disclaimer reads: 'The wetlands displayed on the Wetlands Mapper show wetland type and extent using a biological definition of wetlands. There is no attempt 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.'

² On May 16, 2023, Longfellow submitted an Inspection of Public Records Act (IPRA) request to the NMOCD to obtain all relevant NMOCD guidance concerning the use of the USFWS "Wetlands Mapper" tool. No responsive documents have been sent from NMOCD.

Service, National Wetlands Inventory (Cowardin et al. 1979) August 2013;³ and (2) "Wetlands Mapper Documentation and Instruction Manual," U.S. Fish & Wildlife Service, Ecological Services (April 2019) ("Wetlands Mapper"). Both of these USFWS/Federal Geographic Data Committee (FCDC) documents have significant disclaimers to their use for regulatory purposes.⁴

On or about October 14, 2022, NMOCD rejected the initial C-141 Application for Administrative Approval of a Release Notification by Longfellow as follows (See **Exhibit 2**):

"The Remediation Plan is Denied. The release will need to be remediated to the strictest closure criteria standards due to the lateral extents of the release being within 300 ft of a wetland. Variance for 1000 ft2 5-point closure samples is denied, 500 ft2 is approved. Deferral of clean-up in and around Turkey Tract Road is denied. Get input from county and safely remediate as close to the road as possible. Vertical excavation on entire release is denied. Closure report must include analytical lab sample reports. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. A closure report will need to be completed and uploaded within 90 days."

II. LONGFELLOW VARIANCE REQUEST/NMOCD VARIANCE REJECTION DECISION

By letter dated January 13, 2023, Longfellow submitted a "Request for Variance 19.15.29.14 NMAC" to Mr. Mike Bratcher at NMOCD-Artesia for review and consideration, along with a revised C-141 Remediation Plan by Dan Dunkelberg at Trinity.

On May 15, 2023, the NMOCD issued the Rejection of the revised C-141 by Trinity with the following narrative (See **Exhibit 3**):

"To whom it may concern (c/o David Cain for LONGFELLOW ENERGY)

The OCD has rejected the submitted Application for administrative approval of a release notification and corrective action (C-141), for incident ID (n#) nAPP2206346222, for the following reasons:

• The Remediation Plan is denied. This release is within 300 feet of a designated wetland area and will need to be remediated to the strictest closure

³ This standard should be cited as: Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.

⁴ The FGDC Wetlands Classification Standard is neither designed, nor intended, to support legal, regulatory, or jurisdictional analyses of wetlands mapping products, nor does it attempt to differentiate between regulatory and non-regulatory wetlands. Federal, Tribal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than the FGDC Wetlands Classification Standard and the FGDC Wetlands Mapping Standard. There is no attempt to define the limits of proprietary jurisdiction of any Federal, Tribal, 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, Tribal, state, or local agencies.

⁵ On May 16, 2023, Longfellow submitted an IPRA request for any official NMOCD interpretation of the Spill Rule under 19.15.29.12(4)(e) which requires "If a release occurs within the following areas, the responsible party must treat the release as if it occurred less than 50 feet to groundwater in Table 1 of 19.15.29.12NMAC. . . (4) within 300 feet of a wetland. . .(i.e., the release must be remediation to the strictest closure standard criteria to the lateral extent of the release being within 300 feet of a wetland.)"

criteria from Table 1 of the OCD Spill Rule. There is a specific process to have FGDC change a wetland designation. The FGDC puts together and updates the wetland maps. If a site shows a designated wetland under the current map, that is what we use. You would need to call the FGDC and find out who oversees the maps. Ideally, you would need to send your wetland study to the FGDC and try to get the wetland designation changed in this particular area. If they do make changes to the map, let us know and we will honor their decision. Please let us know the FGDC's decision if you petition to have the wetland designation changed. The OCD has nothing to do with the wetland maps, we only enforce the designation if a release is within 300 feet of a release."

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 175985.

Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

III. JURISDICTIONAL DETERMINATION

Longfellow has filed an Inspection of Public Records Act (IPRA) Requests to obtain any NMOCD Technical Guidance to support the use of the Wetlands Mapper tool. Because there is no NMOCD regulations or NMOCD Technical Guidance document which clearly spells out the use of the Wetlands Mapper tool used for the Wetlands Determination it would seem to be arbitrary and capricious to deny the Longfellow Variance application dated January 13, 2023.

In response to the rejected C-141, Longfellow contracted with Grouse Mountain Environmental Consultants, LLC (Grouse), to perform a Jurisdictional Determination (JD) that was completed to the specifications of the U.S. Army Corps of Engineers (ACE) "1987 Wetlands Delineation Manual" and Regional Supplements. (See **Exhibit 4**) This JD has been submitted to the USFWS along with a "Request for Correction of Information" for revision of the output concerning the Wetlands Mapper. (See **Exhibit 5**) The USFWS is reviewing the Request for Correction of Information and the supporting JD to determine if the Wetlands Mapper should be revised. It is likely that the USFWS will significantly reduce or completely eliminate the Wetland Mapper polygon and wetland determination identified in the C-141 Remediation Plan rejected by NMOCD. Longfellow will submit the USFWS response to the Request for Correction of Information when received.

IV. LEGAL ISSUES

Received by OCD: 6/6/2023 2:08:43 PM

The NMOCD has improperly denied the Longfellow Variance application dated January 13, 2023. The NMOCD regulations on wetlands is not a Legislative Rule (because they do not define "wetland" in the Regulations subject to Notice and Comment) but now is an Interpretive Rule which allows NMOCD to decide how to implement the rules for Spill Remediation. The difference is that Interpretive Rules (i.e., general statements of policy, regulatory guidance or rules of agency

organization, procedure or practice) are not given the same deference as Legislative Rules. "Interpretive rules do not have the force and effect of law and are not accorded that weight in the adjudicatory process." (See *Bokum Resources Corp. v. New Mexico Water Quality Control Board*, 1979 NMSC 90, 93 NM 546, 603 P. 2d 285, (N.M. 1979).)

Additionally, even if a portion of the lands at issue are within three hundred (300) feet of a "wetland" (they are not), Longfellow asserts that the NMOCD is misinterpreting the applicable rules under NMAC 19.15.29.12.C.4.(e) and Table 1 of NMAC 19.15.29.12. NMAC 19.15.29.12.C.4.(e) provides that, if a release occurs within three hundred (300) feet of a "wetland," the responsible party must remediate the release as if it occurred less than fifty (50) feet to groundwater in Table 1 of NMAC 19.15.29.12. In other words, the standard of remediation of a release within three hundred (300) feet of a "wetland" is more stringent than remediation of a release that is not within three hundred (300) feet of a "wetland." NMOCD appears to interpret the rules as mandating that if any part of a release encroaches within three hundred (300) feet of a "wetland," the entirety of the release must be remediated to that more stringent "wetland" standard. Longfellow asserts that NMOCD is misinterpreting the rules. NMAC 19.15.29.12.C.4.(e) does not mandate remediation of an entire release to the "wetland" standard; rather, it mandates remediation to "wetland" standard for that portion of the release that actually encroaches within three hundred (300) feet of a "wetland."

V. HEARING NOTICE

Notice of this Appeal has been sent by "Certified Mail, Return Receipt Requested" and by email to:

State of New Mexico
New Mexico Oil Conservation Division
Mr. Mike Bratcher
Incidents Group Supervisor
Environmental Incidents Group
506 West Texas
Artesia, New Mexico 88210

Email: mike.bratcher@emnrd.nm.gov

State of New Mexico Energy, Minerals and Natural Resources Department Attn: Mr. Robert Hamlet

Environmental Specialists 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Email: robert.hamlet@emnrd.nm.gov

Additional notices will be sent as directed by the Division under NMAC 19.15.4.12(9) <u>Adjudications</u> not listed above. "The Applicant shall give notice as the division requires."

VI. CONCLUSION

Based upon the Jurisdictional Determination completed by Grouse and the likely correction of the Wetlands Mapper profile by the USFWS, the Longfellow Variance Application dated January 13, 2023, sent to NMOCD should be approved and the NMOCD Variance Denial dated May 15, 2023, rescinded.

As stated in the Wetlands Mapper Guidance document, "The FGDC Wetlands Classification Standard is neither designed, nor intended, to support legal, regulatory, or jurisdictional analyses of wetlands mapping products, nor does it attempt to differentiate between regulatory and non-regulatory wetlands. Federal, Tribal, state, and local regulatory agencies with jurisdiction over

wetlands may define and describe wetlands in a different manner than the FGDC Wetlands Classification Standard and the FGDC Wetlands Mapping Standard. (p.3) There is no attempt to define the limits of proprietary jurisdiction of any Federal, Tribal, 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, Tribal, state, or local agencies." (Email from Rusty Griffin USFWS).

Longfellow requests an Adjudicatory Hearing before a Division Examiner and requests approval of the Variance Application and revised C-141.

Respectfully submitted,

By: J. Worshand

Jerry D. Worsham II, Esq. (Bar #682)
Attorneys for Longfellow Energy LP/Riata Corporate
Group, LLC

Clark Hill PLC

3200 N. Central Avenue, Suite 1600

Phoenix, Arizona 85012

Email: jworsham@clarkhill.com

Ph: (602) 440-4808 Fax: (602) 257-9582

EXHIBIT "1"

Subject: RE: [EXTERNAL] Wetlands Mapper tool

Date: 5/17/2023 8:11 AM

From: "Griffin, Rusty" <rusty_griffin@fws.gov>

To: "Worsham II, Jerry" <jworsham@clarkhill.com>, "Wetlands Team, FWHQ"

<Wetlands Team@fws.gov>

Cc: "Michael Haynes" <michael.haynes@riatacg.com>

[External Message]

Jerry,

Thank you for sending the additional documentation and clarifying your position on the phone earlier. I have read through the documentation you provided and done a preliminary examination of the site in question. One thing to remember when looking at data on the wetlands mapper is that it is consider a misuse of the data to use it for jurisdictional purposes. Our disclaimer reads:

'The wetlands displayed on the Wetlands Mapper show wetland type and extent using a biological definition of wetlands. There is no attempt 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.'

With regards to whether the wetland polygon in question was mapped correctly using NWI protocols and definition – it does seem like this wetland is accurately depicted. That being said, because of the nature of NWI procedures being remote in nature, we allow for landowners to provide additional information that may result in edits to the FGDC endorsed data. To consider removing or editing the wetland boundary you would need to provide evidence that wetland conditions are not met during the growing season. We have a request form which you can fill out and return; we also require the site be evaluated in accordance with the USACE 1987 delineation manual. I suggest performing a full wetland delineation on the site by a certified Professional Wetland Scientist. We need to see all data collected during the delineation process. If upon examining these data, our office concurs that the polygon should be removed or changed, we will notify you of such a decision and the data will be updated during our regular bi-annual update process.

Please let me know If you need anything else from me or if I can be of further assistance.

Thank you for your interest in the NWI.

Rusty

Rusty Griffin, PWS

U.S. Fish and Wildlife Service, National Wetlands Inventory | 505 Science Drive, Suite A, Madison, WI 53711 | 608-238-9333 x31005

http://www.fws.gov/wetlands/index.html

about:blank

Page 1 of 3

From: Worsham II, Jerry <jworsham@clarkhill.com>

Sent: Tuesday, May 16, 2023 1:26 PM

To: Wetlands Team, FWHQ < Wetlands Team@fws.gov> Cc: Michael Haynes <michael.haynes@riatacg.com>

Subject: [EXTERNAL] Wetlands Mapper tool

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

HELP:

I am working with the New Mexico Oil Conservation Division (NMOCD) on a Spill remediation project and they have identified the "Wetlands Mapper" as a simple tool to identify "wetlands" subject to their particular NMOCD spill remediation program and regulations. https://www.fws.gov/program/national-wetlandsinventory/wetlands-mapper

The NMOCD does not have a formal definition of a "wetland" in their regulations and have informally adopted the USFWS tool. At a recent meeting of Army Corp of Engineers meeting on the ACOE/EPA 404 permitting program they asserted that the Wetlands Mapper was not a proper tool for their "Jurisdictional Determination" (JD) for a wetland. They use the "1987 USACE Wetlands Delineation Manual" and Regional Supplements.

Here is the classification of wetlands document from the Federal Geographic Data Committee (FGDC). https://www.fgdc.gov/standards/projects/wetlands/nwcs-2013 Note the following FGDC comment (p.3) Section 1.3 Application:

- 1.2.1 Exemptions to the FGDC Wetlands Classification Standard Circumstances under which the FGDC Wetlands Classification Standard is not required include the following:
- 2. Mapping designed, or intended, to support legal, regulatory, or jurisdictional analyses by Federal, Tribal, state, and local regulatory agencies or to differentiate between regulatory and non-regulatory wetlands.

The FGDC Wetlands Classification Standard is neither designed, nor intended, to support legal, regulatory, or jurisdictional analyses of wetlands mapping products, nor does it attempt to differentiate between regulatory and non-regulatory wetlands. Federal, Tribal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than the FGDC Wetlands Classification Standard and the FGDC Wetlands Mapping Standard. There is no attempt to define the limits of proprietary jurisdiction of any Federal, Tribal, 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, Tribal, state, or local agencies

The particular application of the "Wetlands Mapper" seems to identify an area in Southeastern New Mexico which does not meet any criteria for the Army Corps of Engineers/EPA Program for a "Water of the United States" (WOTUS) under the CWA 404 Program as a "Jurisdictional Water" nor would the land identified satisfy any characteristic of a wetland such as "vegetation, soil type or hydrology".

Received by OCD: 6/6/2023 2:08:43 PM

When NMOCD was challenged for a Variance on the use of the "Wetlands Mapper" tool, I received the

Page 2 of 3

following comment:

• The Remediation Plan is denied. This release is within 300 feet of a designated wetland area and will need to be remediated to the strictest closure criteria from Table 1 of the OCD Spill Rule. There is a specific process to have FGDC change a wetland designation. The FGDC puts together and updates the wetland maps. If a site shows a designated wetland under the current map, that is what we use. You would need to call the FGDC and find out who oversees the maps. Ideally, you would need to send your wetland study to the FGDC and try to get the wetland designation changed in this particular area. If they do make changes to the map, let us know and we will honor their decision. Please let us know the FGDC's decision if you petition to have the wetland designation changed. The OCD has nothing to do with the wetland maps, we only enforce the designation if a release is within 300 feet of a release.

Please call me to identify who at the FGDC could help review the particular map details and possibly interpret the Wetland Map differently or explain why the output from the Wetland Mapper tool is not applicable to this situation. In the alternative, please contact me to discuss the "specific process to have FGDC change a wetland designation.

My direct number is (602) 440-4808 or my cell number is (480) 403-1255!

Jerry

Jerry D. Worsham II

Member – Environment, Energy & Natural Resources Practice **Clark Hill** 3200 N. Central Avenue, Suite 1600, Phoenix, AZ 85012 +1.602.440.4808 (office)

jworsham@clarkhill.com | www.clarkhill.com

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Classification of Wetlands and Deepwater Habitats of the United States

Adapted from Cowardin, Carter, Golet and LaRoe (1979)

Wetlands Subcommittee Federal Geographic Data Committee

August 2013

EXHIBIT "2"

Worsham II, Jerry

From:

Worsham II, Jerry

Sent:

Tuesday, January 10, 2023 2:33 PM

To:

Worsham II, Jerry

Subject:

FW: Longfellow Energy | ...(OCD) has rejected the application, Application ID: 114703

Attachments:

winmail.dat

From: OCDOnline@state.nm.us<mailto:OCDOnline@state.nm.us> <OCDOnline@state.nm.us<mailto:OCDOnline@state.nm.us>>

Sent: Friday, October 14, 2022 11:00 AM

To: David Cain < david.cain@longfellowenergy.com < mailto: david.cain@longfellowenergy.com >> Subject: The Oil Conservation Division (OCD) has rejected the application, Application ID: 114703

To whom it may concern (c/o David Cain for LONGFELLOW ENERGY, LP),

The OCD has rejected the submitted Application for administrative approval of a release notification and corrective action (C-141), for incident ID (n#) nAPP2206346222, for the following reasons:

* The Remediation Plan is Denied. The release will need to be remediated to the strictest closure criteria standards due to the lateral extents of the release being within 300 ft of a wetland. Variance for 1000 ft2 5-point closure samples is denied, 500 ft2 is approved. Deferral of clean-up in and around Turkey Tract Road is denied. Get input from county and safely remediate as close to the road as possible. 4' vertical excavation on entire release is denied. Closure report must include analytical lab sample reports. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. A closure report will need to be completed and uploaded within 90 days.

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 114703. Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,
Robert Hamlet
575-748-1283
Robert.Hamlet@emnrd.nm.gov<mailto:Robert.Hamlet@emnrd.nm.gov>

New Mexico Energy, Minerals and Natural Resources Department 1220 South St. Francis Drive Santa Fe, NM 87505 ata i

Action Statu

Action Search Results

Action Status Item Details

[C-141] Release Corrective Action (C-141) Application

Submission Information

Submission ID:

114703

Districts:

Artesia

Operator:

[372210] LONGFELLOW ENERGY, LP

Counties:

Eddy

Description:

LONGFELLOW ENERGY, LP [372210]

ROE WATER TRANSFER LINE OFF TURKEY TRACT RD nAPP2206346222 {Discovery: 03/04/2022, Active, , State}

Status:

REJECTED

Status Date:

10/14/2022

References (1):

nAPP2206346222

Forms

Attachments:

C-141

C-141

Questions

This submission type does not have questions, at this time.

Acknowledgments

This submission type does not have acknowledgments, at this time.

Comments

Summary:

jharimon (6/8/2022), INITIAL TO REMEDIATION

Conditions

No conditions found for this submission.

Reasons

Received by OCD: 6/6/2023 2:08:43 PM

Summary:

rhamlet (10/14/2022), The Remediation Plan is Denied. The release will need to be remediated to the strictest closure criteria standards due to the lateral extents of the release being within 300 ft of a wetland. Variance for 1000 ft2 5-point closure samples is denied, 500 ft2 is approved. Deferral of clean-up in and around Turkey Tract Road is

Searches

Operator Data

Hearing Fee Application

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Main Page OCD Rules

H

EXHIBIT "3"

Released to Imaging: 6/7/2023 12:16:42 PM

Worsham II, Jerry

From:

David Cain <david.cain@longfellowenergy.com>

Sent:

Monday, May 15, 2023 12:31 PM Michael Haynes; Worsham II, Jerry

To: Cc:

Javier Gonzalez; David Mitchell

Subject:

FW: The Oil Conservation Division (OCD) has rejected the application, Application ID:

175985

[External Message]

Hi all,

The NMOCD has rejected our updated remediation proposal for the Turkey Tract release.

Thanks,

DC

From: OCDOnline@state.nm.us < OCDOnline@state.nm.us >

Sent: Monday, May 15, 2023 2:26 PM

To: David Cain <david.cain@longfellowenergy.com>

Subject: The Oil Conservation Division (OCD) has rejected the application, Application ID: 175985

To whom it may concern (c/o David Cain for LONGFELLOW ENERGY, LP),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2206346222, for the following reasons:

The Remediation Plan is denied. This release is within 300 feet of a designated wetland area and will need to be remediated to the strictest closure criteria from Table 1 of the OCD Spill Rule. There is a specific process to have FGDC change a wetland designation. The FGDC puts together and updates the wetland maps. If a site shows a designated wetland under the current map, that is what we use. You would need to call the FGDC and find out who oversees the maps. Ideally, you would need to send your wetland study to the FGDC and try to get the wetland designation changed in this particular area. If they do make changes to the map, let us know and we will honor their decision. Please let us know the FGDC's decision if you petition to have the wetland designation changed. The OCD has nothing to do with the wetland maps, we only enforce the designation if a release is within 300 feet of a release.

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 175985.

Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you, Robert Hamlet

Received by OCD: 6/6/2023 2:08:43 PM

575-748-1283 Robert.Hamlet@emnrd.nm.gov

New Mexico Energy, Minerals and Natural Resources Department 1220 South St. Francis Drive Santa Fe, NM 87505

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SIGN-IN HELP

Hearing Fee Application

Operator Data

Searches

OCD Permitting

Home Operator Data Action Status

Action Search Results Action Status Item Details

[C-141] Release Corrective Action (C-141) Application

Submission Information

175985 Submission ID:

Artesia

Districts:

Eddy

Counties:

[372210] LONGFELLOW ENERGY, LP Operator:

LONGFELLOW ENERGY, LP [372210]

Description:

ROE WATER TRANSFER LINE OFF TURKEY TRACT RD

nAPP2206346222 {Discovery: 03/04/2022, Active, , State}

REJECTED

Status:

05/15/2023 Status Date: nAPP2206346222 References (1):

Forms

C-141 Attachments:

C-141

C-141

Field Data

SIGN-IN HELP

Searches

Hearing Fee Application

Operator Data

This submission type does not have acknowledgments, at this time.

Acknowledgments

Comments

No comments found for this submission.

Conditions

No conditions found for this submission.

Reasons

Summary:

site shows a designated wetland under the current map, that is what we use. You would need to call the FGDC and find out who oversees the maps. Ideally, you would need thamlet (5/15/2023), The Remediation Plan is denied. This release is within 300 feet of a designated wetland area and will need to be remediated to the strictest closure criteria to send your wetland study to the FGDC and try to get the wetland designation changed in this particular area. If they do make changes to the map, let us know and we will from Table 1 of the OCD Spill Rule. There is a specific process to have FGDC change a wetland designation. The FGDC puts together and updates the wetland maps. If a honor their decision. Please let us know the FGDC's decision if you petition to have the wetland designation changed. The OCD has nothing to do with the wetland maps,

we only enforce the designation if a release is within 300 feet of a release.

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Jerry D. Worsham II T (602) 440-4808 Email: jworsham@clarkhill.com Clark Hill 3200 North Central Avenue, Suite 1600 Phoenix, AZ 85012 T (602) 440-4800 F (602) 257-9582

January 13, 2023

State of New Mexico New Mexico Oil Conservation Division Mr. Mike Bratcher Incidents Group Supervisor Environmental Incidents Group 506 West Texas Artesia, New Mexico 88210

Re: ROE Water Transfer Line Off Turkey Trot Road

OCD Incident ID NAPP 220634222/Application ID: 114703

Request for Variance 19.15.29.14 NMAC

Dear Mike:

On behalf of Longfellow Energy LP ("Longfellow"), I submit the attached Remediation Plan in compliance with 19.15.29.12 NMAC and request a Variance as described by the terms of 19.15.29.14(A)(1) and (2) NMAC. The Release occurred on March 3, 2022. The initial Remediation Plan dated May 16, 2022, by Trinity Oilfield Services was submitted by Longfellow on June 7, 2022. This initial Remediation Plan was rejected by the New Mexico Oil Conservation Division ("NMOCD") by email dated October 14, 2022, based upon information and a determination that the lateral extent of the release being within 300 feet of a wetland. (See 19.15.29.12(C)(4)(e) NMAC.) (See **Exhibit 1**)

Variance Requested

Longfellow requests that the attached Remediation Plan be reviewed and approved and a Variance granted to the NMOCD's determination that the entire release be remediated to strictest closure standard due to the lateral extent of the release being within 300 feet of a wetland. Support for the NMOCD Variance is as follows.

Basic Facts

Longfellow acknowledges the importance of protecting the New Mexico environment and understands the national emphasis on protecting wetlands which are generally referred to as "Waters of the United States" or "WOTUS" under the Clean Water Act Section 404. The national regulatory scheme for protecting WOTUS is governed by the U. S. Army Corps of Engineers ("Corps") and the U. S. Environmental Protection Agency ("EPA") under the Clean Water Act. In this particular matter, it appears that the NMOCD is not using the Corps/EPA wetlands definition or determination methods. Under the federal program, the "Corps of Engineers Wetlands

State of New Mexico New Mexico Oil Conservation Division Mr. Mike Bratcher January 13, 2023 Page 2

Delineation Manual" (January 1987) is used for the identification and delineation of wetlands. The federal program requires positive evidence of hydrophytic vegetation, hydric (wetland) soils, and wetland hydrology for a Section 404 determination that an area is a jurisdictional wetland. The geographic, geologic and biological features in the area of the captioned incident are important facts to develop the Remediation Plan. In review of the impacted area of the captioned spill, these three requirements do not exist to designate the area as a federal wetland.

NMOCD 2018 Spill Regulations

I note that the NMOCD Chapter 29 Regulation titled "Releases" uses the term "wetland"; however, it does not legally define the term in 19.15.29.7 <u>Definitions NMAC</u>. The information commonly used (at the direction of NMOCD staff) for this NMOCD wetland evaluation for the Remediation Plan appears to be sourced from two base technical research report documents: (1) "Classification of Wetlands and Deepwater Habitats of the United States," U.S. Fish & Wildlife Service, National Wetlands Inventory (Cowardin et al. 1979) August 2013; and (2) "Wetlands Mapper Documentation and Instruction Manual," U.S. Fish & Wildlife Service, Ecological Services (April 2019) ("Wetlands Mapper"). Both of these documents have significant disclaimers to their use for regulatory purposes.

Research Report Disclaimers

The Classification of Wetlands and Deepwater Habitats of the United States (p. 2) under Section 1.2.1 Exemptions to the FGDC Wetlands Classification Standard has a clear disclaimer "Circumstances under which the FGDC Wetlands Classification Standard is <u>not</u> required include the following:

2. Mapping designed, or intended, to support legal, regulatory, or jurisdictional analyses by Federal, Tribal, state, and local regulatory agencies or to differentiate between regulatory and non-regulatory wetlands.

In addition, the Classification of Wetlands and Deepwater Habitats of the United States (p. 3) under Section 1.3 <u>Applicability</u>, has a separate disclaimer:

"...

The FGDC Wetlands Classification Standard is neither designed, nor intended, to support legal, regulatory, or jurisdictional analyses of wetlands mapping products, nor does it attempt to differentiate between regulatory and non-regulatory wetlands. . . . There is no attempt to define the limits of proprietary jurisdiction of any Federal, Tribal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. . . . "

The Wetlands Mapper (p. 3) also has a clear disclaimer, "There is no attempt, in either the design or products of the inventory, to define the limits of proprietary jurisdiction of any

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State of New Mexico New Mexico Oil Conservation Division Mr. Mike Bratcher January 13, 2023 Page 3

Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies."

The FGDC Wetlands Classification Standard (WCS) defines "wetlands" according to Cowardin et al. (1979):

"WETLANDS are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes¹; (2) the substrate is predominantly undrained hydric soil²; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year. As noted in this definition, plant community composition, soil morphology, and site wetness (hydrology) are the principal indicators of whether a site is a wetland for ecological purposes."

SPILL SITE FEATURES

The site map showing the area affected by the captioned spill event around Turkey Trot Road is clearly identified in the Initial Delineation Map found under **Exhibit 2**.

Exhibit 3 depicts the same area of delineation using the Wetlands Mapper. The wetlands map depicts wetland type and extent using a biological definition of wetlands, as defined by Cowardin et al. 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. (Wetlands Mapper, p. 3)

Wetlands Delineation

The area identified by the Wetlands Mapper is highlighted in light blue on **Exhibit 3**. In the Wetlands Mapper (p. 4) it states that,

... These data have been prepared from the analysis of high altitude imagery in conjunction with collateral data sources and field work. 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

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¹ Lichvar, R. W., and J. T. Kartesz. 2009. North American Digital Flora: National Wetland Plant List, version 2.4.0 U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, New Hampshire, and BONAP, Chapel Hill, North Carolina.

 $^{^2}$ U.S. Department of Agriculture, Natural Resources Conservation Service. 2010. Field indicators of hydric soils in the United States. Version 7. L.M. Vasilas, G.W. Hunt, and C.V. Noble, eds. USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

State of New Mexico New Mexico Oil Conservation Division Mr. Mike Bratcher January 13, 2023 Page 4

classification established through image analysis. The Service uses the Cowardin et al. 2nd Edition (2013) definition of wetland. . . .

In review of the geographic, geologic and biological features of the Incident Site, it is clear that the defined wetlands boundary is not certain and could be significantly reduced (and the 300 foot buffer) by observation of the lack of hydrophytic vegetation, hydric (wetland soils) and wetland hydrology.

Depth to Groundwater

Information relevant to the groundwater from OSE Well File Number RA 12307 in the area of the captioned Incident is found under **Exhibit 4**. It includes water well data and all pertinent well information concerning the lithology and depth to groundwater in the Delineation Area. There are no other sources of springs or other sources of fresh water extraction in the area of the captioned Incident. Groundwater was initially found at 80 to 100 feet and from 110 to 140 feet. The Remediation Plan and Variance, as presented, will protect groundwater resources with a sizeable margin.

Soils Data Map

The soil data for the Incident Site from the Web Soil Survey by the U. S. Fish & Wildlife Service is found under **Exhibit 5**. This information is from the USDA National Cooperative Soil Survey. I note that the "Largo-Stony" soil type is consistent throughout the Incident Site from the Groundwater-Determined Remediation Area and the Wetland-Determined Remediation Area. There is no evidence of hydric (wetland) soils to support a federal wetlands determination.

Adjacent Production Site

The most northern extension of the spill (within the 300 feet of the alleged wetland), as delineated, is adjacent to a producing oil and gas well, the Mudcat State Com #001, which has a sizeable developed well pad for the support of the oil and gas well operations. (See **Exhibit 6**) This well pad has obliterated the natural habitat and is further evidence to support the granting of a Variance to a relatively small amount of spill impact within the defined 300 feet buffer to the delineated wetland. (See **Exhibits 2 and 3**)

Variance Support

- (1) A detailed statement explaining the need for a variance:
 - a. For Federal Jurisdictional Delineations of wetlands, the Corps uses three characteristics of wetlands when making wetland determinations: vegetation, soil, and hydrology. Unless an area has been altered or is a rare natural situation, wetland indicators of all three characteristics must be present during some portion of the growing season for an area to be a wetland. The facts on the vegetation, soil and hydrology concerning the affected area by OCD Incident ID NAPP 220634222 does not exhibit these characteristics.

State of New Mexico New Mexico Oil Conservation Division Mr. Mike Bratcher January 13, 2023 Page 5

- b. The NMOCD Chapter 29 Regulation titled "Releases" uses the term "wetland"; however, it does not legally define the term in 19.15.29.7 <u>Definitions</u> NMAC.
- c. The information commonly used (at the direction of NMOCD staff) for this NMOCD wetland evaluation appears to be sourced from two base technical research report documents: (1) "Classification of Wetlands and Deepwater Habitats of the United States," U.S. Fish & Wildlife Service, National Wetlands Inventory (Cowardin et al. 1979) August 2013; and (2) "Wetlands Mapper Documentation and Instruction Manual," U.S. Fish & Wildlife Service, Ecological Services (April 2019). Both of these documents have a disclaimer on use by federal, state or local governments concerning wetlands jurisdiction.
- d. Although the Well Mapper tool was used along with the calculated 300 foot buffer, the on-the-ground inspection would support a significantly reduced footprint and revision of the wetland boundary and the 300 foot buffer from the projected identified wetlands boundary.
- e. The significant cost to excavate the entire Incident Site footprint to 600 mg/kg chlorine standard is not justified by the basic facts and the acknowledged limitations of the Wetlands Mapper tool.
- f. The most northern extension of the spill (within the 300 feet of the alleged wetland), as delineated, is adjacent to a producing oil and gas well, the Mudcat State Com #001, which has a sizeable developed well pad for the support of the oil and gas well operations. This well pad has obliterated the natural habitat and is further evidence to support the granting of a Variance to a relatively small amount of spill impact within the defined 300 feet buffer to the delineated wetland.
- (2) A detailed written demonstration that the variance will provide equal or better protection of fresh water, public health and the environment.
 - a. This Remediation Plan and Variance will allow the remediation to be completed as soon as possible.
 - b. This Remediation Plan and Variance will be protective of the environment taking into consideration of cost, existing soil conditions and logistics in light of the overall project purpose.
 - c. This Remediation Plan and Variance would eliminate any potential risk to human health, the environment or groundwater.
 - d. This Remediation Plan and Variance will minimize the amount of affected material which would be transported to the Lea Land Surface Waste Management Facility on U.S. Highway 62/180 East, near Carlsbad, New

State of New Mexico New Mexico Oil Conservation Division Mr. Mike Bratcher January 13, 2023 Page 6

Mexico. This would preserve limited landfill space for future remediation projects.

e. If every spill is required to be remediated to the standard being imposed by the NMOCD, oil and gas producers may take a hard look at whether it makes sense to continue recycling produced water for a beneficial use. Rather, it may make sense to use fresh water only. That way, if there is a risk of a spill, there is no exposure to having to spend millions of dollars remediating a small volume of water encroaching within 300 fee of an alleged wetland.

Call me with any questions.

Very truly yours,

erry D. Worsham II

Enclosures - Exhibits 1-6

c: Michael Haynes, Esq. – Longfellow Energy LP David Cain – Longfellow Energy LP Dan Dunkelberg – Trinity Oilfield Services

EXHIBIT "1"

Worsham II, Jerry

From: Worsham II, Jerry

Sent: Tuesday, January 10, 2023 2:33 PM

To: Worsham II, Jerry

Subject: FW: Longfellow Energy | ...(OCD) has rejected the application, Application ID: 114703

Attachments: winmail.dat

From: Ocdonline@state.nm.us Ocdonline@state.nm.us >>

Sent: Friday, October 14, 2022 11:00 AM

To: David Cain < david.cain@longfellowenergy.com < mailto: david.cain@longfellowenergy.com >> Subject: The Oil Conservation Division (OCD) has rejected the application, Application ID: 114703

To whom it may concern (c/o David Cain for LONGFELLOW ENERGY, LP),

The OCD has rejected the submitted Application for administrative approval of a release notification and corrective action (C-141), for incident ID (n#) nAPP2206346222, for the following reasons:

* The Remediation Plan is Denied. The release will need to be remediated to the strictest closure criteria standards due to the lateral extents of the release being within 300 ft of a wetland. Variance for 1000 ft2 5-point closure samples is denied, 500 ft2 is approved. Deferral of clean-up in and around Turkey Tract Road is denied. Get input from county and safely remediate as close to the road as possible. 4' vertical excavation on entire release is denied. Closure report must include analytical lab sample reports. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. A closure report will need to be completed and uploaded within 90 days.

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 114703. Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,
Robert Hamlet
575-748-1283
Robert.Hamlet@emnrd.nm.gov<mailto:Robert.Hamlet@emnrd.nm.gov>

New Mexico Energy, Minerals and Natural Resources Department 1220 South St. Francis Drive Santa Fe, NM 87505

EXHIBIT "2"

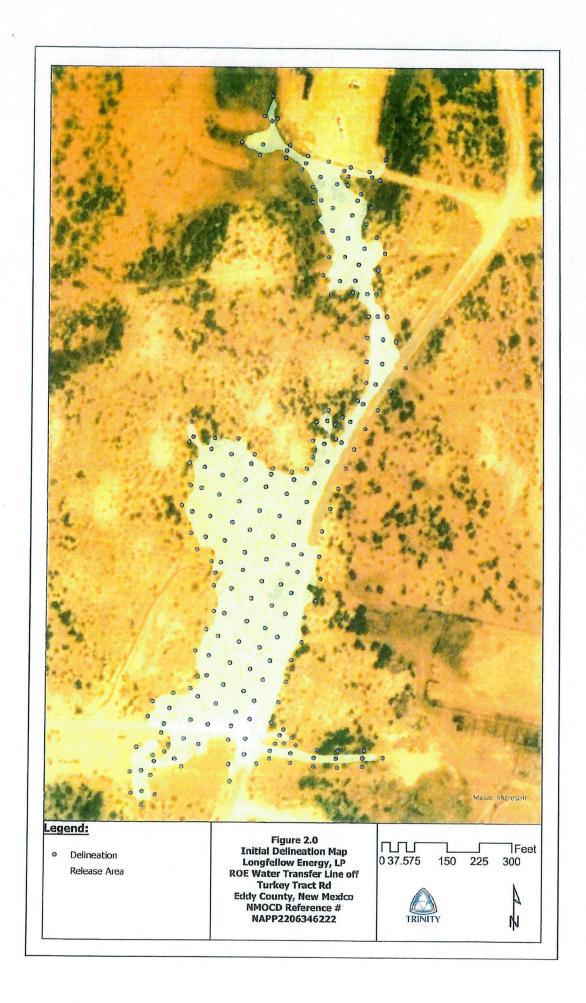


EXHIBIT "3"



EXHIBIT "4"

PAGE 1 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.osc.state.nm.us

WELL OWNER NAME(S)					RA 12307 PHONE (OPTIONAL)					
									KEY LIVEST	
	WELL OWNER MAILING ADDRESS						N	STATE	88201	
1012 E 2ND) 51	20 TO 10		A. A		ROSWELL.	141	TO COMPANY AND A	302.01	
WELL		DE	GREES	MINUTES SECO	NDS					
LOCATIO	N LAT	TTUDE 32	50 27.38 N		* ACCURACY REQUIRED: ONE TENTH OF A SECOND					
(FROM GP	S) LON	GITUDE 104	08	23.53	W	* DATUM RIS	QUIRED: WGS 84			
DESCRIPTION	N RELATIN	G WELL LOCATION TO	STREET ADDRESS	AND COMMON LANDA	MARKS PLS	S (SECTION, TO	WNSHIP, RANGE) WH	ERE AVAILABLE		
LICENSE NU	MBER	NAME OF LICENSED	DRILLER	Berling Barrell		es Manari to	NAME OF WELL DR	ILLING COMPANY		
WD-1058		CLINTON KEY					KEYS DRILLING &	PUMP SERVICE II	VC.	
DRILLING ST	TARTED	DRILLING ENDED	DEPTH OF COMPL	ETED WELL (FT)	BORE HO	LE DEPTH (FT)	DEPTH WATER FIR	ST ENCOUNTERED (F	T)	
09-28-15		09-30-15	140		140'		80'			
COMPLETED WELL IS: ARTESIAN			DRY HOLE SHALLOW (UNCONFINED)			STATIC WATER LEVEL IN COMPLETED WELL (FT) 58'				
DRILLING FI	UID	Z AIR	MUD	ADDITIVES SPE	ECIFY:					
DRILLING M		ZROTARY	HAMMER	CABLETOOL		ER - SPECIFY:				
DEPTH	(feet bgl)	BORE HOLE	CASING MATERIAL AND/OR		3 - 3 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	CASING	CASING WALL	SI		
- DOK		BORE HOLE DIAM	GRADE			ASING NECTION	INSIDE DIAM.	THICKNESS	SI	
		(inches)		easing string, and ions of screen)	1	ГҮРЕ	(inches)	(inches)	(inc	
0	20	14"	STEEL				10-3/4"	1/4"		
0	120	12-3/4	PVC		S	PLINE	4-1/2"	SCH40	***************************************	
120	140	12-3/4"	PVC		SPLINE		4-1/2"	SCH40	.(
DOICE HOLD		ANNULAR SEAL M			AMOUNT METHOD (cubic feet) PLACEME					
FROM	то	DIAM. (inches)	GRAVEL PACK SIZE-RANGI		E BY INTERVAL		(chaic reet)			
0	20	14"	CEMENT					HAND		
20	140	12-3/4" VEALMORE PEA GRAVEL					H	AND		
1										

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FILE NUMBER

LOCATION

FROM	(feet bgl)	TINCKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZO (attach supplemental sheets to fully describe all units)		ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
0	20	20	TOP SOIL	□Y ■N	
20	60	40	RED SAND STONE W/RED SANDY CLAY	□Y ■N	
60	80	20	RED SAND STONE W/COURSE SAND	□Y ■N	and do do 1 date out at 1 to the water when t
80	100	20	GREY SHELL	■Y □N	
100	110	10	RED CLAY	□Y ■N	
1,-	120	10	RED SANDY CLAY	■Y □N	
120	140	2.0	GYPSON	■Y □N	
110				□Y □N	
1				OY ON	
				□Y □N	
4				□Y □N	
31				OY ON	
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19				□Y □N	
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METHOD			OF WATER-BEARING STRATA: PUMP OTHER SPECIFY:	TOTAL ESTIMATED WELL YIELD (gpm):	30+
WELL TE			.CH A COPY OF DATA COLLECTED DURING WELL TESTING IE, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN		
MISCELLA	ANEOUS IN	FORMATION:			
PRINT NA	ME(S) OF D	RILL RIG SUPER'	VISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL.	CONSTRUCTION OTHER T	IAN LICENSEI
CLINTON K	EY		·		
CORRECT	RECORD O	F THE ABOVE DE	ES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND I SSCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WE DAYS AFTER COMPLETION OF WELL DRILLING:	BELIEF, THE FOREGOING I LL RECORD WITH THE STA	S A TRUE AND TE ENGINEER
	[][GARY KEY	10-07-2015	
	-//		AND DESCRIPTION OF THE PROPERTY OF THE PROPERT		
	SIGNAT		PRINT SIGNEE NAME	DATE	
DR OSE INTER	12222 T 37			DATE WELL RECORD & LOG (Vo	ersion 06/08/201



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** Q64 Q16 Q4 Sec Tws Rng 2 14 17S 28E

X

3633981

Driller License:

1058

RA 12307 POD1

Driller Company:

KEY'S DRILLING & PUMP SERVICE

580495

Driller Name:

CLINTON KEY

Drill Start Date:

09/28/2015

Drill Finish Date:

09/30/2015

Plug Date:

Source:

Shallow

Log File Date: Pump Type:

10/07/2015

PCW Rcv Date: Pipe Discharge Size:

Estimated Yield: 30 GPM

Casing Size:

4.50

Depth Well:

140 feet

Depth Water:

58 feet

Water Bearing Stratifications:

Top Bottom Description

80 Shale/Mudstone/Siltstone

Sandstone/Gravel/Conglomerate

Other/Unknown 120

Casing Perforations:

Top Bottom

120 140

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability for any particular purpose of the data.

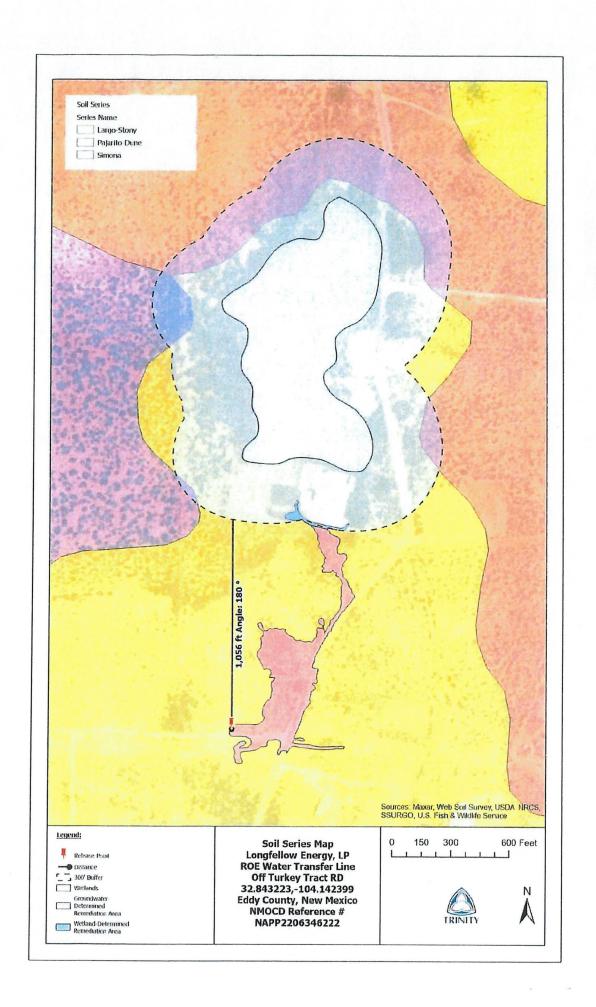
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POINT OF DIVERSION SUMMARY

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EXHIBIT "5"



LOCATION LARGO

MIM

Established Series Rev. CLC/LWH/WWJ 10/2006

LARGO SERIES

The Largo series consists of very deep, well drained soils that formed in loamy calcareous alluvium derived from redbed formations of Jurassic, Triassic, Permian and Pennsylvanian age. These soils are on channeled valley bottom terraces, alluvial fans and piedmont slopes. They have moderate to moderately slow permeability. Their slopes range from 0 to 5 percent. Average annual precipitation is about 8 to 12 inches. Average annual air temperature 59 to 65 degrees F.

TAXONOMIC CLASS: Fine-silty, mixed, superactive, calcareous, thermic Typic Torriorthents

TYPICAL PEDON: Largo silt loam -- (All colors are for moist soil unless otherwise stated.)

A--0 to 4 inches; reddish brown (5YR 5/3) silt loam, dark reddish brown (5YR 3/3) moist; weak medium platy structure in the surface 1 inch and weak medium fine subangular blocky structure below; soft, friable, slightly sticky, and slightly plastic; common fine roots; many very fine and fine pores; strongly effervescent; common faint mycelia and few soft bodies of calcium carbonate; moderately alkaline; clear smooth boundary. (3 to 6 inches thick)

AC--4 to 20 inches; reddish brown (5YR 5/3) silt loam, reddish brown (5YR 4/3) moist; weak coarse prismatic structure parting to weak medium subangular blocky; slightly hard, friable, moderately sticky and moderately plastic; many fine roots; many very fine and fine pores; few widely spaced clusters of very fine insect casts; strongly effervescent with common faint mycelia and few soft bodies of calcium carbonate; few fine limestone pebbles; moderately alkaline; gradual boundary. (4 to 20 inches thick)

C1--20 to 47 inches; reddish brown (5YR 5/4) silt loam, reddish brown (5YR 4/4) moist; weak coarse subangular blocky structure; hard, friable, moderately sticky and moderately plastic; few fine roots; many very fine and fine pores; common faint mycelia and concretions of calcium carbonate; few fine limestone pebbles; strongly effervescent; moderately alkaline; abrupt wavy boundary. (20 to several feet thick)

C2--47 to 65 inches; reddish brown (5YR 5/4) loam, reddish brown (5YR 4/4) moist; massive; hard, friable, moderately sticky and moderately plastic; about 5 percent pebbles; strongly effervescent with calcium carbonate disseminated and as coatings on pebbles and as few fine concretions; moderately alkaline.

TYPE LOCATION: Eddy County, New Mexico; 1730 feet north and 75 feet west of the southeast corner of Sec. 29, T. 16 S., R. 28 E.; Latitude 32 degrees 53 minutes 24 seconds and Longitude 104 degrees 11 minutes 22 seconds.

RANGE IN CHARACTERISTICS:

Soil depth - greater than 60 inches.

Soil moisture - soil moisture control section is usually dry in all parts more than three fourth of the time (cumulative) that the soil temperature exceeds 41 degrees F. The driest period is from October through May. Typic aridic moisture regime.

Reaction - slightly to moderately alkaline.

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Particle size control section ranges from 18 to 35 percent clay and less than 15 percent fine and coarser sand.

Calcium carbonate equivalent ranges from 0 to 15 percent Depth to free carbonates - 0 to 20 inches

A horizon

Hue: 2.5YR through 5YR.

Value: 4 or 5 dry and 3 or 4 moist.

Chroma: 3 or 4.

AC horizon

Hue: 2.5YR through 7.5YR.

Value: 5 or 6 dry and 3 through 5 moist.

Chroma: 3 to 4.

C horizon

Hue: 2.5YR through 7.5YR.

Value: 5 or 6 dry and 3 through 5 moist.

Chroma: 3 to 4.

Texture: very fine sandy loam, silt loam, clay loam, or silty clay loam.

COMPETING SERIES: The Tome (NM) soils. The Tome soils have a hue of 10YR.

GEOGRAPHIC SETTING: The Largo soils are on valley bottoms, terraces, alluvial fans, and piedmont slopes. Slopes range from 0 to 5 percent. They formed in loamy calcareous alluvium derived from redbed formations of Jurassic, Triassic, Permian and Pennsylvanian age. Elevations range from 4000 to 5500 feet. The average annual precipitation ranges from 8 to 12 inches, much of which falls in summer in heavy thunderstorms of short duration. The average annual air temperature is about 59 to 65 degrees F. The frost free period is 180 to 210 days.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the <u>Arno</u>, <u>Berino</u>, <u>Jal</u>, <u>Palomas</u> and <u>Tome</u> soils. The Arno soils have more than 35 percent clay in the series control section and irregular distribution of organic matter throughout. Berino and Palomas soils have argillic horizons than contain more than 15 percent fine and coarser sand. The Jal soils have calcic horizons within 20 inches of the surface.

DRAINAGE AND PERMEABILITY: Well drained. Runoff is medium and permeability is moderate to moderately slow.

USE AND VEGETATION: Primarily used for livestock grazing but where water is available the soil is used for irrigated cropland. Native vegetation is black grama, blue grama, sideoats grama, bush muhly, tobosa grass, vine mesquite, mesquite, and creosotebush.

DISTRIBUTION AND EXTENT: Southern New Mexico. This soil occurs in LRR-D, MLRA 42. The soil is of moderate extent

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Phoenix, Arizona

SERIES ESTABLISHED: Quay County, New Mexico, Eastern New Mexico reconnaissance survey, 1939

REMARKS: Diagnostic horizons and features recognized in this pedon are:

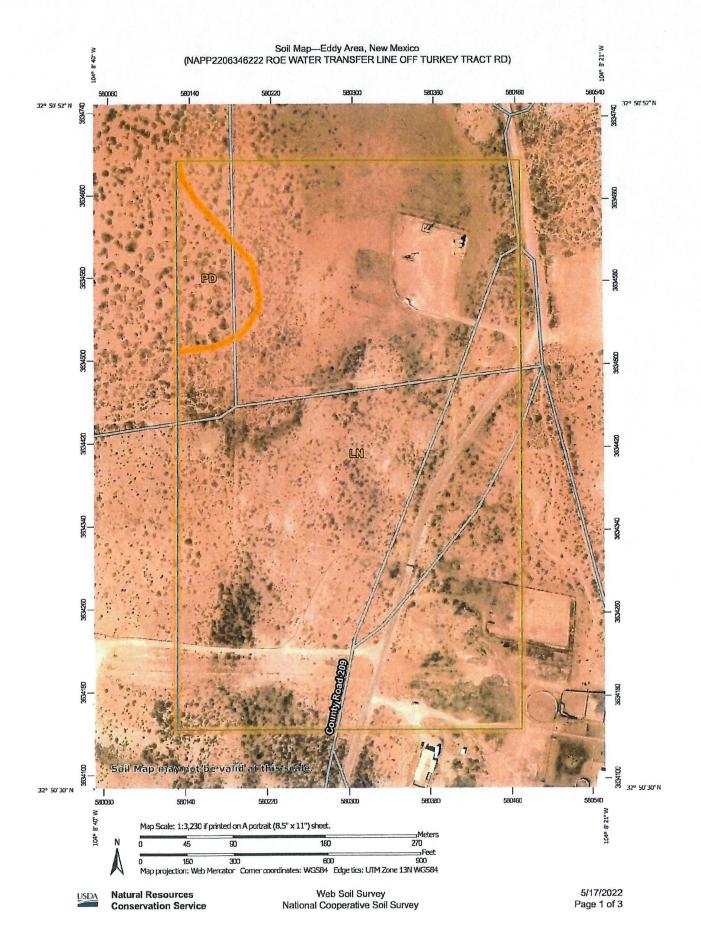
Ochric epipedon - The zone from the surface of the soil to a depth of 10 cm. (A horizon)

Entisol feature - lack of diagnostic horizon

Classified according to Soil Taxonomy Second Edition, 1999.

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National Cooperative Soil Survey U.S.A.



Soil Map—Eddy Area, New Mexico (NAPP2206346222 ROE WATER TRANSFER LINE OFF TURKEY TRACT RD)

This product is generated from the USDA-NRCS certified data as projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more Maps from the Web Soil Survey are based on the Web Mercator Date(s) aerial images were photographed: Feb 27, 2020—Feb contrasting soils that could have been shown at a more detailed misunderstanding of the detail of mapping and accuracy of soil The orthophoto or other base map on which the soil lines were Enlargement of maps beyond the scale of mapping can cause compiled and digitized probably differs from the background Soil map units are labeled (as space allows) for map scales imagery displayed on these maps. As a result, some minor Source of Map: Natural Resources Conservation Service line placement. The maps do not show the small areas of The soil surveys that comprise your AOI were mapped at Please rely on the bar scale on each map sheet for map accurate calculations of distance or area are required. Coordinate System: Web Mercator (EPSG:3857) MAP INFORMATION Warning: Soil Map may not be valid at this scale. shifting of map unit boundaries may be evident. Survey Area Data: Version 17, Sep 12, 2021 Soil Survey Area: Eddy Area, New Mexico of the version date(s) listed below. Web Soil Survey URL: 1:50,000 or larger. measurements. Special Line Features Streams and Canals Interstate Highways Aerial Photography Very Stony Spot Major Roads Local Roads US Routes Story Spot Spoil Area Wet Spot Other Rails Water Features Transportation Background MAP LEGEND 1 Soil Map Unit Polygons Severely Eroded Spot Area of Interest (AOI) Miscellaneous Water Soil Map Unit Points Soil Map Unit Lines Closed Depression Marsh or swamp Perennial Water Mine or Quarry Rack Outcrop Special Point Features **Gravelly Spot** Sandy Spot Slide or Slip Saline Spot Sodic Spot Lava Flow **Borrow Pit** Gravel Pit Clay Spot Area of Interest (AOI) Sinkhole Blowout Landfill 0 Ŵ Soils

5/17/2022 Page 2 of 3

Web Soil Survey National Cooperative Soil Survey

Map Unit Symb	ool Map Unit Name	Acres in AOI	Percent of AOI
LN	Largo-Stony land complex, 0 to 25 percent slopes	43.9	95.0%
PD	Pajarito-Dune land complex, 0 to 3 percent slopes	2.3	5.0%
Totals for Area of Inte	erest	46.2	100.0%

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EXHIBIT "6"

General Well Information					a
					• <u>G</u>
Operator:	[15363] Murchison Oil and Gas, LLC				• <u>H</u>
Status:	Activa		Direction:	Vertical	- <u>C</u>
Well Type:	Gas		Multi-Lateral:	No	• <u>O</u>
Work Type:	New		Mineral Owner:	State	• <u>P</u>
			Surface Owner:	State	• <u>C</u>
Surface Location:	P-11-17S-28E 1300 FSL 810 FEL				• W
Lat/Long:	32.8465691,-104.1412735 NAD83				• <u>F</u>
GL Elevation:	3579				= <u>C</u>
KB Elevation:			Sing/Mult Compl:	Single	• N
DF Elevation:			Potash Waiver:	False	• <u>O</u>
					• <u>P</u>
roposed Formation and/or No	las				• I
	tes				• <u>P</u>
EMPIRE MORROW					A
					* Y
					• <u>v</u>
epths					- <u>v</u>
Proposed:	10500		True Vertical Depth:	10463	
Measured Vertical Depth:	10403		Plugback Measured:	9980	
			-		• <u>r</u>
					- Ū
ormation Tops					• <u>N</u>
					* N
	Constitute		Producting	Mortegal Distances	• <u>N</u>
Yates		620			• <u>N</u>
rates		020			• <u>N</u>
Queen		1389			
200011		1303			
Grayburg		1634			
San Andres		2176			
Glorieta		3540			
Tubb		5006			
Abo		5648			
Wolfcamp		6760			
Cisco		8009			
Ganyan		8542			
Strawn		9244			

10217

Mississippian Undesignated

Event Dates

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			Searches	Operator Data	Hearing Fee Application
Abandonment:					
Shut h:					
Plug and Abandoned Intent		PNR Expiration.			
Received:		Last MIT/BHT:		05:08/2020	
Well Plugged.					
Site Release:					
Last Inspection:	05/03/∠020				
History					
History					
- /					
				*	
97/14/2005 [34953] MUDCA	T STATE COM #001	[15363] Murchister Offand Gas, LLC Ne y	Gaş	Active	
Comments					
Pits					
Pit On Site: <u>Number 1</u>					
Pit Type:	Onling	Status:			
Registration Denied:					
Closure Approved:					
Closure Denied:	Yes				
Event Dates					
Registered:	07/11/2005	Approved:		07/12/2005	
Open:		Closed (most rec	ent rig release):		

Casing

07/11/2005

Closure form denied 2/20/06.

Notes

													er er
	10	Prop.		e 4 a	Ÿ								
Hole 1	1	17.500	0	222		0	0.0	0	0			0	No
Surface Greeng	1	13.375	ij	292	145	222	63.0	222	0	Circ	Class C Cement	235	Nn
Holo 2	Ĭ	12.250	222	2203		Ø.	0.0	0	0			0	Mo
Intermediate 1 Casing	1	9.625	0	2203	J-55	2208	43.5	8208	0	Girc	Glass C Cement	1200	No

								Se	earches	O	oerator Dat	ä	Hearing Fee Application
Hole 3	1	8,500	2208	10403		n	r),n	n	0			0	No.
Production Casing	1	5.500	c)	10403	J-55	16403	17.0	10403	9	Cuc	Class C Content	2666	Ma
Foling 1	1	2,875	0	7389		0	0.0	0	0			0	No
Well Completic	ons												
[76400] EMPIRE	; MORROW,	SOUTH (G/	4S)										
Status: Bottombole Local Laf/Long:			emporanty	Plugged 300 FSL - 810	FEL	Li	ist Produc	eed:		05-01	72018		
Acreage:		E/320	(1-175-28	E Units, A.B.G.H	плов								
DHC:		No				C	onsolidatio	on Code:					
						Pi	roduction	Method:		Flow	ng		
Well Test Data													
Production Test:		12/31/200	н			Yo	st Length	. 13-1		0 hou	13		
Flowing Tubing P	ressure:	1300 psi				(=1	owing Cas	ing Pressu	re:	0 psi			
Chake Size:		0.₹81 mcl	hes			το	Testing Method:						

30	rte	ra	tic	m	9

Gas Volume:

Gas-Oil Ratio:

Disposition of Gas:

359.0 MCF

0 Kell libbl

Sold

10 108	10146	0	0	

Oil Volume:

Oil Gravity.

Water Volume:

0.0 bbls

nu bbls

0.0 Corr. API

Notes

Event Dates

Initial Effective/Approval:	07/14/2005		
Most Recent Approval:	03/19/2018	TA Expiration:	
Confidential Requested On:		Confidential Until:	
Test Allowable Approval:		Test Allowable End:	
TD Reached:		DHC:	
Deviation Report Received:	No	Rig Released:	
Directional Survey Run:	No	Logs Received:	flo.
Directional Survey Received:	No	Closure Pit Plat Received:	
First Oil Production:		First Gas Production:	01/04/2006
First Injection:			
Ready to Produce:	01/04/2006	Completion Report Received:	
C-104 Approval:	01/11/2006	New Well C-104 Approval:	
Plug Back:			
Authorization Revoked Start:		Revoked Until:	

Well Completion History

fnitial Effective/Approval: 03/13/2018 Most Recent Approval: 04/20/2018 TA Expiration: Confidential Requested On: Confidential Until: Test Allowable Approval: 06/11/2018 Test Allowable End: 09/11/2018 TD Reached: DHC: Deviation Report Received: No Rig Released: Directional Survey Run: No Logs Received: No Directional Survey Received: Mo Closure Pit Plat Received: First Oil Production: 06/07/2018 First Gas Production: First Injection: Ready to Produce: 04/20/2018 Completion Report Received: 07/17/2018 C-104 Approval: 06/11/2018 New Well C-104 Approval: 07/27/2918 Plug Back: Authorization Revoked Start: Revoked Until: Well Completion History [34953] MUDCAT STATE COM 04/2002018 #001 [15363] Murchison Oil and Gas, LLC Active 03/13/2018 [34953] MUDCAT STATE COM #001 [15363] Morchison Oil and Gas, LLC New, Not Dolled [97575] PAVO MESA; ABO

Notes

04/14/2018

93/19/2018

P-11-17S-28E

10 11-175-28E Units P

No

07/14/2005 [34853] AIUDCAT STATE COM

[97183] ANDERSON; WOLFCAMP, NORTH

0.67505018

0.500 inches

0,0 MCF

0 Kalifibbl

Sold

6790

7280

675 µs

810 FEL

#001

1300 FSL

Consolidation Code:

[15363] Murchison Oil and Gas, LLC

Production Method:

Last Produced:

Test Length: Flowing Casing Pressure: Testing Method:

Oil Volume: Oil Gravity: Water Volume: za faurs

11/01/2022

Purping

Searches

Aranye

Pumping 14.6 bbls 44,0 Corr. API 129.0 bbls

Operator Data

SIGHAN HELP

Hearing Fee Application

6890

7530

0 0

Status.

Lat/Long: Acreage:

Well Test Data Production Test:

Choke Size:

Gas Volume:

Perforations

Gas-Oil Rafio:

Disposition of Gas:

DHC:

Bottomhole Location:

Flowing Tubing Pressure:

Event Dates

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Status:

New, Not Drilled

Last Produced:

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Searches Operator Data Hearing Fee Application Well Test Data Production Test: Test Length: 0 Sours Flowing Tubing Pressure: 0 pm Flowing Casing Pressure: dipsi Choke Size: 0.000 mchas Testing Method: Gas Volume: 0.0 MCF Oil Volume: 0.0 tbls Gas-Oil Ratio: n Ket / bel Oil Gravity: 0.0 Corr. API Disposition of Gas: Water Volume: 0.0 bbls

Perforations

Notes

Event Dates

Initial Effective/Approval: 03/13/2018 Most Recent Approval: 03/13/2018

Confidential Requested On; Test Allowable Approval:

TD Reached:

Deviation Report Received: Directional Survey Run:

Directional Survey Received:

First Oil Production: First Injection: Ready to Produce:

C-104 Approval: Plug Back:

Authorization Revoked Start:

TA Expiration:

No

No

Confidential Until: Test Allowable End: OHC:

Rig Released: Logs Received:

Closure Pit Plat Received:

No

First Gas Production:

Completion Report Received: New Well C-104 Approval:

Revoked Until:

Well Completion History

95/13/2018 [34953] MUDCAT STATE COM 2001 [15363] Mordison Oil and Gas, LLC New, No. Dellad

Financial Assurance

08/18/2010 Blanket 75000 Pletadelphia Indentity Insurance Company - Strictly

11/2022

Last Production for this well: Inactive Additional Bond Due Date:

12/01/2024 Bonding Depth: 10403 45806 Required Well Bond Amount: Well Bond Required Now: No

Amount of Well Bond in Place: 0

Variance: 45806 Note. This well is covered by this operator's Blanket Bond(s).

In Violation:

If the depth of the well is Unknown, please contast the appropriate OCD District Office and provider (1) for a deviated or direction well, the measured depths or (2) for a non-directional well, the tree vartical depth.

Reguesta to release bonds must be automitted in writing. You may send an e-mail to OCDAdminComp@state.nm.us or fax a letter to (505) 476-3462.

Searches

Operator Data

Hearing Fee Application

Upstream	Natural	Gas	Venting	&	Flaring
----------	---------	-----	---------	---	---------

Earliest Natural Gas Waste Report in OCD Records: 10/2021 Last:

11/2022

Show All Upstream Venting & Flaring

O

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Grand Itital.	n	0	0	()

Orders

NSL-7652-0 Applicant:

[15363] Murchison Oil and Gas, LLC

Contact: Reviewer: Gary R. Cooper

Michael McMillan

Approved By: Issuing Office: SLO Santa Fe

Processing Dates

Received: Approved: 03/06/2018

04/03/2018

Ordered: Denied. Cancelled: 04/03/2018

Expiration: Order Pools

(97183) ANDERSON, WOLFCAMP, NORTH

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Production / Injection

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Ear	fiest Production in O	CD Records:	1/2006 La	at		11/2022		Show All Production	Export to Excel
			0.00				***		
	2006	1,565	216,505	129	353	0	0	0) N/A
	2007	833	87 860	154	359	0	υ	0) N:V
	2008	61	56,114	80	328	ŋ	U	0) N/A
	2009	36	43,591	11	345	0	0	0 (AWA (

SIGN-IN HELP

						Searches	Operator Data	ł	Hearing Fee Application
2011	1.4	36,412	51		0	O	()	0	MA
2012	2	26.268	30	363	1)	O	0	()	N/A
2013	199	25.559	49	365	0	ij	J	í)	Pt [*] A
2014	99	22,721	44	365	I)	:)	:)	ŋ	MA
2015	124	21 097	57	361	()	0	o	0	MA
2016	30	19,866	la	360	U	4)	0	()	ħ#A
2017	105	17,859	43)	362	9	O	ū	()	864
2018	1 908	6,595	30,050	305	0	-i	a	0	N-A
2019	3.326	15,875	20,054	365	1)	a	a	()	N-A
5050	1 803	7,934	16,379	277	1)	o	a	f)	N/A
2021	1.473	6,937	12,937	300	ů	ü	q	0	N/A
2022	984	3,313	6,236	222	I)	9	q	0	N/A
Grand Total.	11.953	639,813	34,362	5,747	0	i)	Ŋ	Ü	N/A

Transporters

(22THS) FRONTIER FIELD SERVICES, LLC	Gas	11/2022
[37 DB0] LUCID ENERGY DELAWARE, LLC	Gas	6/2022
[33479] HOLLYTRONTIER REFINING & MARKETING LLC	Oil	(1/2022

Points of Disposition

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1032567	Gas	MUDCAT STATE COM #001	las is suppression monecame hos en
1032566	Oil	MUDCAL STATE COM #001	[97183] ANDERSON, WOLFCAMP, NORTH
4007311	Ŏil	MUDCAT STATE COM #001	[76400] EMPIRE: MORROW, SOUTH (OAS)
4007310	Gas	MUDCAL STATE COM #001	[76460] EMPIRE: MORROW, SOUTH (GAS)

Man Developing Mounts of Mount the result by the Top of the 1972 NOV. But his result of the tell of the product of Mountain Start and the

EXHIBIT "4"



Jerry Worsham II Member-Environment, Energy & Natural Resources Practice Clark Hill 3200 N. Central Avenue, Suite 1600, Phoenix, AZ 85012 1-602-440-4808 Office iworsham@clarkhill.com www.clarkhill.com

National Wetland Inventory Site Investigation along Turkey Tract Road, in Eddy County, New Mexico.

INTRODUCTION

Grouse Mountain Environmental Consulting (Grouse Mountain) was contracted by Clark Hill to provide an on-theground site investigation to determine the accuracy of the polygon described by the United States Fish and Wildlife Service's "Wetlands Mapper". The polygon is currently defined as a PEM1A (Palustrine Emergent) wetland dominated by trees, shrubs, persistent emergents, mosses and lichens and has the following four characteristics.

- 1. Less than 20 acres in area
- 2. Wave formed shoreline
- 3. Deepest point is less than 8.2 ft in depth
- 4. Salinity less than 0.5 ppt.

In addition to the above definition, the United States Army Corps of Engineers has developed a definition of a wetland as a landform that contains hydrophytic vegetation, wetland hydrology and wetland soils. The USACE developed the 1987 Wetland Delineation Manual to quantify field observations and objectively determine the presence or absence of wetland features.

METHODS

Grouse Mountain reviewed the information available on the USFWS NWI Mapper as well as the NRCS Web Soil Survey online portal prior to visiting the project area. Grouse Mountain biologist, Jesse Shuck, visited the site on May 23, 2023 and conducted a wetland investigation from 1000 until 1230. The weather was warm (29 C) and calm. Wetland investigation soil pits were dug at four different locations (Figures 1 and 2) within the polygon in question (Soil Pit 1, 32.848478 deg N, -104.141243 deg W; Soil Pit 2, 32.847448 deg N, -104.141225 deg W; Soil Pit 3, 32.849240 deg N, -104.142187 deg W; Soil Pit 4, 32.850201 deg N, -104.140833 deg W). Conditions throughout the feature were generally similar with small changes in vegetation.

RESULTS

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Wetland Investigation

Soil Pit 1 (Photos 1 and 2) exhibited wetland plants (mainly mountain rush, Juncus arcticus, FACW), but lacked both wetland hydrology and wetland soils. Soils were 5YR 5/6 at the upper horizons and 5YR 4/4 at depths of 16-18 inches and lacked any wetland indicator characteristics. This location did not qualify as a wetland.









Soil Pit 2 (Photos 3 and 4) was vegetated with spiny cocklebur (Xanthium spinosum, FACU) and field bindweed (Convolvulus arvensis, Non-indicator species). Soils at this location were loamy with a coloration of 5YR ¾ at 16-17 inches. The site had standing water and the soils were saturated. This location met wetland hydrology, but not soils or vegetation and does not qualify as a wetland.

Soil Pit 3 was dug on the west side of the feature and was also dominated by field bindweed and mountain rush. The loamy clay soil was 5YR 5/4 from 0-2 inches and 5YR ¾ from 2-17 inches with no wetland indicators. No wetland hydrology indicators were observed at this location and this location does not qualify as a wetland.

Soil Pit 4 was dug on the north end of the feature and was also dominated by field bindweed and mountain rush. The loamy clay soil was 5YR 4/4 from 0-3" and 5YR 4/3 from 3-17" and lacked wetland indicators. No wetland hydrolgoy indicators were observed at this location.

Waters of the United States Investigation

In order to qualify as a waters of the United States (WOTUS), a waterbody/waterway must have connectivity to a Jurisdictional Waterway. This waterbody does not have any connectivity with any waterways and there are no obvious connections via streams or ephemeral streams. This feature does not appear to be a WOTUS.

The existing conditions at the Turkey Tract Road site do not currently have enough wetland characteristics to qualify as a wetland according to the 1987 United States Army Corps of Engineer's Wetland Delineation Manual and lacks characteristics that would qualify the feature as a WOTUS according to the USACE "A guide to Ordinary High Water Mark (OHWM) delineation for non-perennial streams in the Western Mountains, Valleys, and Coast Region of the United States".







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QUALIFICATIONS

Jesse Shuck

<u>ED</u>	<u>UC/</u>	<u> TTP</u>	<u>on</u>	

Texas Tech University, Lubbock, TX

2004

M.S. Fisheries and Wildlife

University of Minnesota, Duluth, MN B.S. Biology

2000

CERTIFICATIONS

- Army Corps of Engineers Wetland Delineation certified 2005
- Wetland Delineation Manual Technical Report Y-87-1
- Aerial Systems FAA Remote Pilot
- USFWS Permitted for Yellow-billed Cuckoo and Southwestern Willow Flycatcher Presence/Absence Surveys (Permit #TE34460C-0)

EXPERIENCE

Grouse Mountain Environmental Consultants, Santa Fe, NM

Project Manager, 2021-Present

- Manage various projects and advise on regulatory compliance issues
- Conduct multi-species wildlife and botanical surveys in compliance with BLM protocols
- Complete wildlife habitat assessment evaluating potential threatened, endangered, and sensitive species habitat availability using multiple vegetative factors following federal and state regulations
- Prepare NEPA Environmental Assessments and Biological Assessment/Biological Evaluations
 as a third-party contractor evaluating the potential effects of oil and gas development and
 abandoned mine land restoration on vegetation, soils, wildlife, cultural, rangeland, public health
 and safety, special management/designation areas, visual, air, and hydrologic resources
- Communicate and interact with private landowners to obtain access to and conduct work on private lands
- Manage and conduct ordinary high-water mark surveys (OHWM) and wetland delineations

SWCA, Albuquerque, NM

Project Manager/Wetland Specialist/Wildlife Biologist, 2014-2021

- Managed and conducted surveys for all life stages of the Rio Grande Silvery Minnow for BOR, USACE, MRGCD, ISC and AMAFCA
- Conducted raptor surveys in the Permian Basin to ensure compliance with the Bureau of Land Management for many oil and gas pipelines; included siting visits with BLM biologists to avoid impacts to raptors and other nesting birds
- Conducted USFWS protocol surveys for the Southwestern Willow Flycatcher and Yellow-Billed Cuckoo surveys along numerous locations in the Rio Grande Valley and initiate multi-agency consultation with USFWS, AMAFCA, MRGCD, NMDOT and ISC to comply with the ESA
- Conducted dozens of bird nest surveys along NMDOT ROW for different utility projects as well as for highway improvement projects
- Coordinated with University of Texas to reroute several different pipelines for avoidance of Dune Sagebrush Lizard habitat
- Conducted numerous USACE wetland delineations and successfully completed complicated nationwide permits and jurisdictional determinations

Marron and Associates, LLC., Albuquerque, NM

Project Manager and Wetland Specialist, 2009-2014

- Wetland delineations and permitting in the Arid West, Western Mountain and Great Plains regions
- Raptor surveys and nest monitoring for PNM FW line from Albuquerque to Farmington
- Kuenzler cactus relocation and monitoring for NMDOT
- Vegetation data collection and analysis

Taschek Environmental, LLC., Albuquerque, NM

Project Manager and Wetland Specialist, 2004-2009

- Wetland delineations for numerous NMDOT projects in New Mexico
- Rangeland inventories for reclaimed areas of the Pittsburgh McKinley mine over several seasons
- Assisted with public meetings for many NMDOT projects

RELEVANT SKILLS

- Experienced with threatened and endangered species surveys in New Mexico and Texas
- Lead multi-agency coordination on numerous projects with USACE, NMDOT, BIA, ISC, BOR and Sandia Pueblo
- Proficient in various vegetation monitoring methods: Daubenmire method, line- and pointintercept studies, utilization measures, belt transects, photo points, trend plots, percent cover, species composition, rare plant studies, and canopy cover
- · Skilled in wildlife and plant identification
- Proficient in avian identification through sight and sound
- Unmanned Aerial Vehicle Pilot since 2016
- Permitted by USFWS to conduct protocol surveys for Southwestern Willow Flycatcher, Yellow-Billed cuckoo, and all life stages of Rio Grande Silvery Minnow





Photograph 1. Soil Pit 1 showing vegetation and soils.



Photograph 2. Overview at Soil Pit 1, facing north.











Photograph 3. Soil Pit 2 showing soils and vegetation.



Photoraph 4. Overview at Soil Pit 2 facing west across feature.











Photograph 5. Soil Pit 3 showing soils and vegetation.



Photograph 6. Overview of Soil Pit 3 showing overall vegetation, facing east.









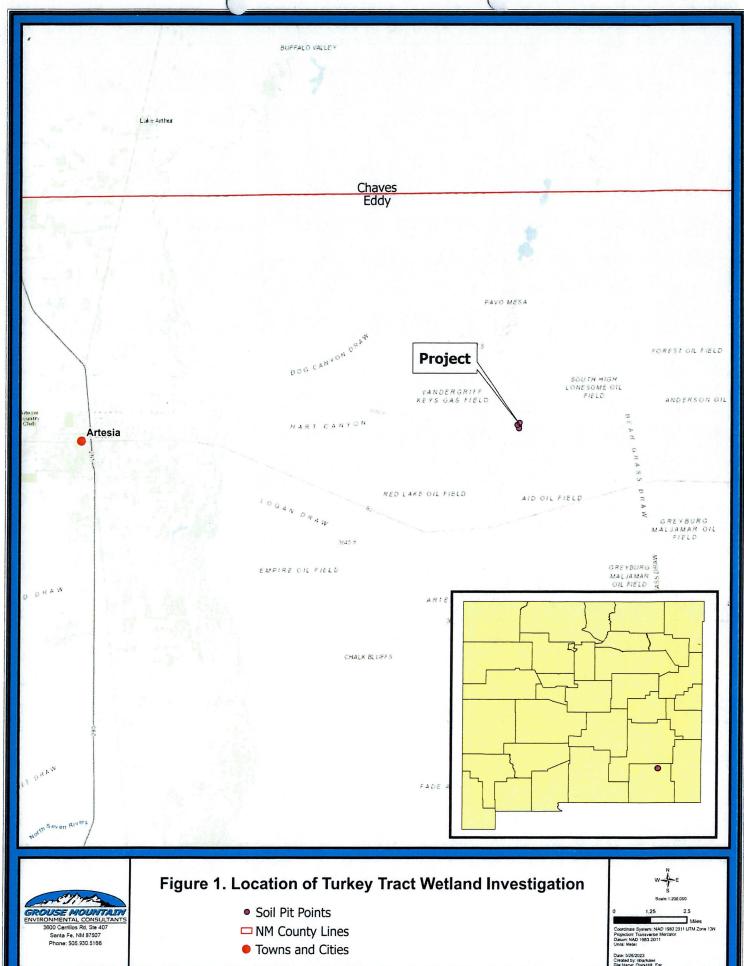


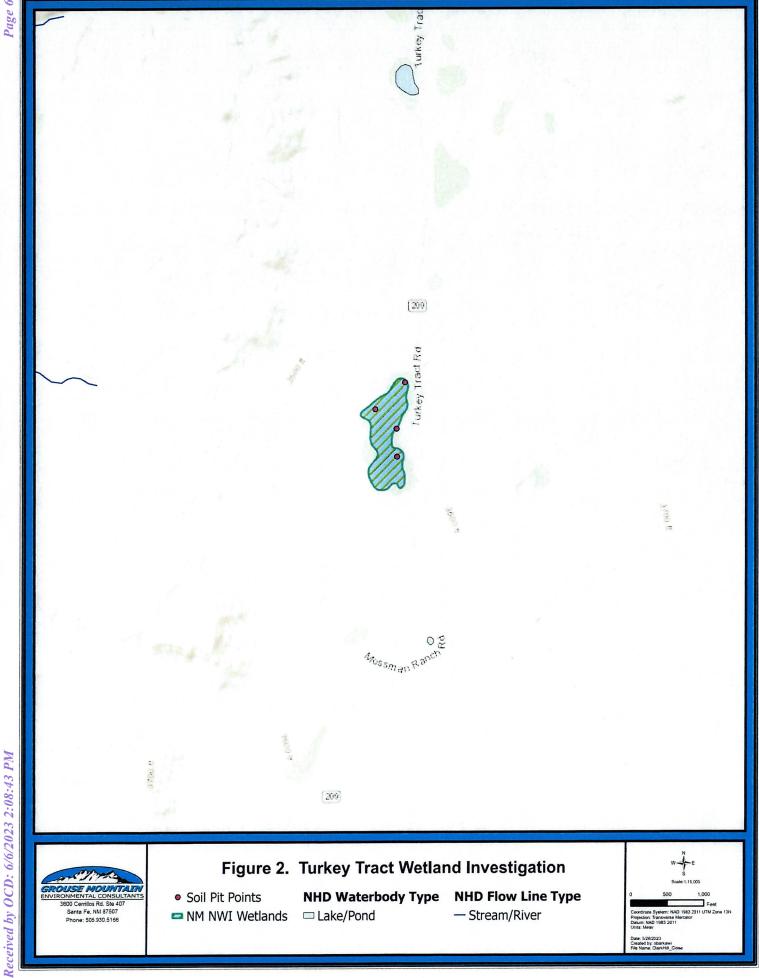
Photograph 7. Soil Pit 4 showing vegetation and soils.



Photograph 8. Overview at Soil Pit 4 facing south.







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WEILAND DETERMIN	ATION D	ATA FORM - A	Arid West Region
cVSite: 1411 Eg lact	City/Co	ounty: 602 o	14/1/5 Sampling Date: 1/23
cant/Owner:			State:Sampling Point:
stigator(s): 34acl	Sectio	n, Township, Rang	
form (hillslope, terrace, etc.):	Local	relief (concave, co	nvex, none): 6 hr ml Slope (%): 0
region (LRR): La	1: <u>25 7. 5</u>	178478	Long: 109. 191045 Datum: NADS
Map Unit Name:		-/	NWI classification: NW e tage
climatic I hydrologic conditions on the site typical for this time		A STREET OF STREET	
Vegetation, Soil, or Hydrology signif			ormal Circumstances" present? Yes No
Vegetation, Soil, or Hydrology natur			ded, explain any answers in Remarks.)
IMMARY OF FINDINGS - Attach site map sho	wing san	npling point lo	cations, transects, important features, etc
lydrophytic Vegetation Present? Yes No No	V	Is the Sampled A	
Remarks:			
the page of plants			
/EGETATION – Use scientific names of plants		ominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover St	pecies? Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
1		10 E	Total Number of Dominant (B)
2	Property.	34	Species Across All Strata:
3.		Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
4.		Total core.	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)			Total % Cover of Multiply by:
1			OBL species x1= YD x2= YD
3.			FAC species x3=
4	4	Total Cover	FACU species x4=
5. Bu	700	J. W	UPL species 30 (A) 90 (B)
Herb Stratum (Plot size: Aush July 1	10	- Tot	Column Totals: Prevalence Index = B/A = 3
1. MOGNICA 1 ALVENSIS	10		Prevalence Index - City Hydrophytic Vegetation Indicators:
2. Convolvula 1 Alver			Deminance Test is >50%
3.			Prevalence Index is \$3.01 Morphological Adaptations (Provide supporting Morphological Adaptations as separate sheet)
5			Morphological Adaptations (Frotal Sheet) data in Remarks or on a separate sheet) (Explain)
5			data in Remarks of the 359 data in Remarks of the 359 Problematic Hydrophytic Vegetation¹ (Explain)
7		= Total Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)			- Watershutic
1		= Total Cover	Vegetation Present? Yes No
2	er of Biotic C	rust	Ficonic
Ground in Herb Stratum			
% Bare Ground Ver			
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Vige: C=Concentration, D=Depletion, RM-Reduced Matrix, CS-Covered or Coated Sand Grains. *Location: PL-Pore Lining, M-Matrix, Vigin Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosoi (A1)	18	C P	70		Type	Loc	Taylura			
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Remarks: No Hydrololic	HYDROL Wetland Primary I Surfa High Satu Wate Sed Drift Surfa Inur Wate Field Of	LOGY Hydrology Indicat ndicators (minimum ace Water (A1) Water Table (A2) artion (A3) er Marks (B1) (Non iment Deposits (B2); Deposits (B3) (Not face Soil Cracks (Bindation Visible on Atter-Stained Leaves beervations:	ors: of one require riverine) (Nontiverine) (Nontiverine) (and Imagery (B9) Yes	ed: check all that apply) Salt Crust (B Biotic Crust (B Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck Si Other (Expl	11) B12) rtebrates (B13) ulfide Odor (C1) izospheres alon Reduced Iron (I Reduction in Til Surface (C7) ain in Remarks) hes): hes):	C4) lied Soils (coots (C3)	Water Marks (B Sediment Depo Drift Deposits (I Drainage Patter Dry-Season Water Crayfish Burror Saturation Visit Shallow Aquita FAC-Neutral T	1) (Riverine) sits (B2) (Riverine) sits (B10) sits (B10) siter Table (C2) ws (C8) ble on Aerial Image and (D3) sest (D5) Yes No	iry (C9)
Remarks: No Hydrololic	HYDROL Wetland Primary I Surfa High Satu Wate Sed Drift Surfa Inur Wate Field Of	LOGY Hydrology Indicat ndicators (minimum ace Water (A1) Water Table (A2) artion (A3) er Marks (B1) (Non iment Deposits (B2); Deposits (B3) (Not face Soil Cracks (Bindation Visible on Atter-Stained Leaves beervations:	ors: of one require riverine) (Nontiverine) (Nontiverine) (and Imagery (B9) Yes	ed: check all that apply) Salt Crust (B Biotic Crust (B Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck Si Other (Expl	11) B12) rtebrates (B13) ulfide Odor (C1) izospheres alon Reduced Iron (I Reduction in Til Surface (C7) ain in Remarks) hes): hes):	C4) lied Soils (coots (C3)	Water Marks (B Sediment Depo Drift Deposits (I Drainage Patter Dry-Season Water Crayfish Burror Saturation Visit Shallow Aquita FAC-Neutral T	1) (Riverine) sits (B2) (Riverine) sits (B10) sits (B10) siter Table (C2) ws (C8) ble on Aerial Image and (D3) sest (D5) Yes No	iry (C9)
Remarks: No Hydrololic	HYDROL Wetland Primary I Surfa High Satu Wate Sed Drift Surfa Inur Wate Field Of	LOGY Hydrology Indicat ndicators (minimum ace Water (A1) Water Table (A2) artion (A3) er Marks (B1) (Non iment Deposits (B2); Deposits (B3) (Not face Soil Cracks (Bindation Visible on Atter-Stained Leaves beervations:	ors: of one require riverine) (Nontiverine) (Nontiverine) (and Imagery (B9) Yes	ed: check all that apply) Salt Crust (B Biotic Crust (B Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck Si Other (Expl	11) B12) rtebrates (B13) ulfide Odor (C1) izospheres alon Reduced Iron (I Reduction in Til Surface (C7) ain in Remarks) hes): hes):	C4) lied Soils (coots (C3)	Water Marks (B Sediment Depo Drift Deposits (I Drainage Patter Dry-Season Water Crayfish Burror Saturation Visit Shallow Aquita FAC-Neutral T	1) (Riverine) sits (B2) (Riverine) sits (B10) sits (B10) siter Table (C2) ws (C8) ble on Aerial Image and (D3) sest (D5) Yes No	iry (C9)
Remarks: No Hydrololic	HYDROL Wetland Primary I Surfa High Satu Wate Sed Drift Surfa Inur Wate Field Of	LOGY Hydrology Indicat ndicators (minimum ace Water (A1) Water Table (A2) artion (A3) er Marks (B1) (Non iment Deposits (B2); Deposits (B3) (Not face Soil Cracks (Bindation Visible on Atter-Stained Leaves beervations:	ors: of one require riverine) (Nontiverine) (Nontiverine) (and Imagery (B9) Yes	ed: check all that apply) Salt Crust (B Biotic Crust (B Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck Si Other (Expl	11) B12) rtebrates (B13) ulfide Odor (C1) izospheres alon Reduced Iron (I Reduction in Til Surface (C7) ain in Remarks) hes): hes):	C4) lied Soils (coots (C3)	Water Marks (B Sediment Depo Drift Deposits (I Drainage Patter Dry-Season Water Crayfish Burror Saturation Visit Shallow Aquita FAC-Neutral T	1) (Riverine) sits (B2) (Riverine) sits (B10) sits (B10) siter Table (C2) ws (C8) ble on Aerial Image and (D3) sest (D5) Yes No	iry (C9)
	HYDROL Wetland Primary I Surfa High Satu Wate Sed Drift Surfa Inur Wate Field Of	LOGY Hydrology Indicat ndicators (minimum ace Water (A1) Water Table (A2) artion (A3) er Marks (B1) (Non iment Deposits (B2); Deposits (B3) (Not face Soil Cracks (Bindation Visible on Atter-Stained Leaves beervations:	ors: of one require riverine) (Nontiverine) (Nontiverine) (and Imagery (B9) Yes	ed: check all that apply) Salt Crust (B Biotic Crust (B Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck Si Other (Expl	11) B12) rtebrates (B13) ulfide Odor (C1) izospheres alon Reduced Iron (I Reduction in Til Surface (C7) ain in Remarks) hes): hes):	C4) lied Soils (coots (C3)	Water Marks (B Sediment Depo Drift Deposits (I Drainage Patter Dry-Season Water Crayfish Burror Saturation Visit Shallow Aquita FAC-Neutral T	1) (Riverine) sits (B2) (Riverine) sits (B10) sits (B10) siter Table (C2) ws (C8) ble on Aerial Image and (D3) sest (D5) Yes No	iry (C9)
	Remarks: HYDROI Wetland Primary I Surfa High Satu Wate Sed Drift Surfa Inur Wat Field Of Surface Water T Saturati (include Describ	Hydrology Indicated Indicators (minimum ace Water (A1)) Water Table (A2) Water Marks (B1) (Non iment Deposits (B2) (Deposits (B3) (Not face Soil Cracks (Bindation Visible on Atter-Stained Leaves Water Present? Table Present?	ors: of one require riverine) (Nontiverine) (Nontiverine) (and Imagery (B9) Yes	ed: check all that apply) Salt Crust (B Biotic Crust (B Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck Si Other (Expl	11) B12) rtebrates (B13) ulfide Odor (C1) izospheres alon Reduced Iron (I Reduction in Til Surface (C7) ain in Remarks) hes): hes):	C4) lied Soils (coots (C3)	Water Marks (B Sediment Depo Drift Deposits (I Drainage Patter Dry-Season Water Crayfish Burror Saturation Visit Shallow Aquita FAC-Neutral T	1) (Riverine) sits (B2) (Riverine) sits (B10) sits (B10) siter Table (C2) ws (C8) ble on Aerial Image and (D3) sest (D5) Yes No	iry (C9)
Arid West – Version 2.0	Remarks: HYDROI Wetland Primary I Surfa High Satu Wate Sed Drift Surfa Inur Wat Field Of Surface Water T Saturati (include Describ	Hydrology Indicated Indicators (minimum ace Water (A1)) Water Table (A2) Water Marks (B1) (Non iment Deposits (B2) (Deposits (B3) (Not face Soil Cracks (Bindation Visible on Atter-Stained Leaves Water Present? Table Present?	ors: of one require riverine) (Nontiverine) (Nontiverine) (and Imagery (B9) Yes	ed: check all that apply) Salt Crust (B Biotic Crust (B Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck Si Other (Expl	11) B12) rtebrates (B13) ulfide Odor (C1) izospheres alon Reduced Iron (I Reduction in Til Surface (C7) ain in Remarks) hes): hes):	C4) lied Soils (coots (C3)	Water Marks (B Sediment Depo Drift Deposits (I Drainage Patter Dry-Season Water Crayfish Burror Saturation Visit Shallow Aquita FAC-Neutral T	1) (Riverine) sits (B2) (Riverine) sits (B10) sits (B10) siter Table (C2) ws (C8) ble on Aerial Image and (D3) sest (D5) Yes No	iry (C9)
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	Remarks: HYDROI Wetland Primary I Surfa High Satu Wate Sed Drift Surfa Inur Wat Field Of Surface Water T Saturati (include Describ	Hydrology Indicated Indicators (minimum ace Water (A1)) Water Table (A2) Water Marks (B1) (Non iment Deposits (B2) (Deposits (B3) (Not face Soil Cracks (Bindation Visible on Atter-Stained Leaves Water Present? Table Present?	ors: of one require riverine) (Nontiverine) (Nontiverine) (and Imagery (B9) Yes	ed: check all that apply) Salt Crust (B Biotic Crust (B Aquatic Inve Hydrogen Si Oxidized Rh Presence of Recent Iron Thin Muck Si Other (Expl	11) B12) rtebrates (B13) ulfide Odor (C1) izospheres alon Reduced Iron (I Reduction in Til Surface (C7) ain in Remarks) hes): hes):	C4) lied Soils (coots (C3)	Water Marks (B Sediment Depo Drift Deposits (I Drainage Patter Dry-Season Water Crayfish Burror Saturation Visit Shallow Aquita FAC-Neutral T	1) (Riverine) sits (B2) (Riverine) master Table (C2) ws (C8) ble on Aerial Image and (D3) est (D5) Yes No) (C9)

SOIL

Histosol (A1)

Histic Epipedon (A2)

Black Histic (A3)

__ Hydrogen Sulfide (A4)

_ Stratified Layers (A5) (LRR C)

Type: Depth (inches): Remarks: Wetland Soil/s hot prc sory Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Sofrace Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B3) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial	d
Wetland Hydrology Indicators. Primary Indicators (minimum of one required; check all that apply) Water Marks (B1) (Roverney) Sofface Water (A1) Solt Crust (B12) Sediment Deposits (B2) (Riverney) High Water Table (A2) Aquatic Invertebrates (B13) Drainage Pattens (B10) Vater Marks (B1) (Nonriverney) Hydrogen Sulfide Odor (C1) Drainage Pattens (B10) Water Marks (B1) (Nonriverney) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Water Marks (B1) (Nonriverney) Oxidized Rhizospheres along Living Roots (C3) Crayfish Burrows (C8) Sediment Deposits (B2) (Nonriverney) Presence of Reduced Iron (C4) Saturation Visible on Aerial Image Surface Soil Cracks (B6) Recent Iron Reduction in Titled Soils (C6) Shallow Aquitard (D3) FAC-Neutral Test (D5) Other (Explain in Remarks)	No <u>L</u>
Surface Water Present? Water Table Present? Saturation Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	verine) (o)

²Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils¹:

1 cm Muck (A9) (LRR C)

2 cm Muck (A10) (LRR B)

Red Parent Material (TF2)

Other (Explain in Remarks)

Reduced Vertic (F18)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Sandy Redox (S5)

Stripped Matrix (S6)

Depleted Matrix (F3)

Loamy Mucky Mineral (F1)

Loamy Glayed Matrix (F2)

Redox Dark Surface (F6)

Color (moist)

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

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cusite: Turkey tra	DT	City	County: Low	- Arid West Region
tigator(s): J Shunk				Sampling Date: (7)
form (hills)	1/1	Sec	ction, Township, Ra	State: Sampling Point: Sampling Point:
egion (LRR):	enlar	Loc	cal relief (concave.	CONVEY DONN'S
Map Unit Name:		Lat:	1.84744	SLong: 104, 1412 25 Datum! Natl 9
climatic / hydrologic conditions on the	cito hadaal (NWI classification: Welland
Vegetation, Soil, or Hy	drology	this time of year?		(If no, explain in Remarks.)
Vegetation, Soil, or Hy	/drology	_ significantly dist		Normal Circumstances* present? Yes No
MMARY OF FINDINGS - AH	ach cito me	_ naturally proble	matic? (if ne	eded, explain any answers in Remarks.)
	acii site ilia	th suowing sa	impling point is	ocations, transects, important features, etc.
ydrophytic Vegetation Present? ydric Soil Present?	Yes	A STATE OF THE PARTY OF THE PAR	Is the Sampled	Area
/etiand Hydrology Present?	Yes Yes	NoNo	within a Wetlan	d? Yes No
lemarks:	1111111			
1.			- Otalisa	That Are OBL, FACW, or FAC: (A)
EGETATION - Use scientific	names of p	lants.		
Tree Stratum (Plot size:		% Cover S	Cominant Indicator Species? Status	Number of Dominant Species Out FACILITY STACE (A)
1.				Tatal Number of Dominant
2. 3.				Species Across All Strata:
4		<u> </u>	Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:	,			Pravalence Index worksheet:
Sapling/Shrub Stratum (1 tot one) 1.				Total % Cover of: Multiply by:
2.				OBL species x1 = FACW species x2 =
3.				EAC enecies x3=
4			Total Cover	FACU species x4=
5	,	-,-	V UP)	UPL species (A) (B) Column Totals: (A)
Herb Stratum (Plot size:	An	-13	FA	
1. Con volum	ple	-12	Lipe	Prevalence Index = B/A =
	•			Dominance Test is 300%
2. 1006-0661			THE RESERVE OF THE PARTY OF THE	Prevalence Index is \$3.0"
3. V WC (65)				- Inal Adoptations' (Provide Supporting
3. 4 Weres				Morphological Adaptations (Florida sheet)
3. 4 Weres				Morphological Adaptations (Floring and In Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain)
3. Which (65)		=======================================	= Total Cover	Morphological Adaptations (Florida data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
3. \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		35	= Total Cover	Morphological Adaptations (Florida sheet)
3. \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\				Morphological Adaptations (From a separate sheet) data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3. 4 Weres			= Total Cover	Morphological Adaptations (From the Marks of on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3.			= Total Cover	Morphological Adaptations (Front Land Land Land Land Land Land Land Land
3. \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			= Total Cover	Morphological Adaptations (Fronte Sheet) data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Venetation No

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ant/Owner:	City/County:	FORM - Arid West Region	
igator(s):		State: A Sampling Point: SP &	
orm (hillslope, terrace, etc.): 10 w /as	Section, Tov	wiship, Range:	
egion (LRR):	Local relief	(concave, convex, none); She (%):	
Map Unit Name:	Lat: <u>\$2.819</u>	240 Long: 104, 142187 Datum: Mand &	
limatic / hydrologic conditions on the site typical fo		NWI classification: AFM 1	
regetation, Soil, or Hydrology	r this time of year? Yes		
/egetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" present? Yes No	
MMARY OF FINDINGS	naturally problematic?	(If needed, explain any answers in Remarks.)	
	ap showing samplin	g point locations, transects, important features, etc.	
drophytic Vegetation Present? Yes	No le th	e Sampled Area	
etland Hydrology Present? Yes	Yes No Within a Wetland? Yes No		
etland Hydrology Present? Yes	_ No		
GETATION - Use scientific names of		Indicator Dominance Test worksheet:	
ree Stratum (Plot size:)	Absolute Dominan % Cover Species?	Status Number of Dominant Species	
· · · · · · · · · · · · · · · · · · ·		That Are OBL, FACW, or FAC: (A)	
		Total Number of Dominant Species Across All Strata: (B)	
3		Species Across Air Straits	
1.	= Total C	Percent of Dominant Species Over That Are OBL, FACW, or FAC: (A/B)	
Sapling/Shrub Stratum (Plot size:		Prevalence Index worksheet:	
1.		Total % Cover of: Multiply by:	
2		OBL species x1= 20	
3		FACW species	
4.		EACH engries X4=	
5	= Total C	ppl species	
Herb Stratum (Plot size:	35	Column Totals:	
1. Aprilla Ark	10	Prevalence Index = B/A =	
		Hydsephytic Vegetation Indicators:	
34		Dominance Test is >50%	
4		Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting	
6		Problematic Hydrophytic Vegetation¹ (Explain)	
8.	45 = Total 0	www.downlined.http://doi.org/	
Woody Vine Stratum (Plot size:)		Indicators of hydric soil and wedard the be present, unless disturbed or problematic.	
Woody Ville States 1.			
2	= Total	Vegetation Yes No	
	6 Cover of Blotic Crust	Present? Yes	
% Bare Ground in Herb Stratum	, cova		
Remarks:			

SOIL

Histosol (A1)

Type:

Remarks:

HYDROLOGY

Depth (inches):

Histic Epipedon (A2)

Hydrogen Sulfide (A4)

1 cm Muck (A9) (LRR D)

Thick Dark Surface (A12)

Sandy Mucky Mineral (S1)

Sandy Gleyed Matrix (S4) Restrictive Layer (if present):

Wetland Hydrology Indicators:

Surface Water (A1)

Saturation (A3)

Field Observations:

by OCD: 6/6/2023 2:08:43 PM

Surface Water Present?

High Water Table (A2)

Water Marks (B1) (Nonriverine)

Drift Deposits (B3) (Nonriverine)

Surface Soil Cracks (B6)

Water-Stained Leaves (B9)

Sediment Deposits (B2) (Nonriverine)

Inundation Visible on Aerial Imagery (B7)

Stratified Layers (A5) (LRR C)

Depleted Below Dark Surface (A11)

Black Histic (A3)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Sandy Redox (S5)

Stripped Matrix (S6)

Depleted Matrix (F3)

Vernal Pools (F9)

Loamy Mucky Mineral (F1)

Loamy Gleyed Matrix (F2)

Redox Dark Surface (F6) Depleted Dark Surface (F7)

Redox Depressions (F8)

Salt Crust (B11)

Biotic Crust (B12)

Aquatic Invertebrates (B13)

Hydrogen Sulfide Odor (C1)

Thin Muck Surface (C7)

Depth (inches):

Depth (inches):

No

Other (Explain in Remarks)

Presence of Reduced Iron (C4)

Recent Iron Reduction in Tilled Soils (C6)

Oxidized Rhizospheres along Living Roots (C3)

Color (moist)

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

No Indicators

Primary Indicators (minimum of one required; check all that apply)

Surface Water Present? Yes No Depth (inches): No Depth (inches): Depth (inches):	Wetland Hydrology Present?
Water Table Present? Saturation Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
Saturation Present? Saturation Present? Saturation Present? Saturation Present? Saturation Present?	
Describe Recorded Data (stream gauge)	
- Li	
Remarks: No Hylvic Indicators	
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	Arid West - Version 2.0
	The state of the s
US Army Corps of Engineers	

*Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils':

1 cm Muck (A9) (LRR C)

2 cm Muck (A10) (LRR B)

Red Parent Material (TF2)

Other (Explain in Remarks)

Indicators of hydrophytic vegetation and

wetland hydrology must be present,

Secondary Indicators (2 or more required)

Sediment Deposits (B2) (Riverine)

Saturation Visible on Aerial Imagery (C9)

Water Marks (B1) (Riverine)

Drift Deposits (B3) (Riverine)

Dry-Season Water Table (C2)

Drainage Patterns (B10)

Crayfish Burrows (C8)

Shallow Aquitard (D3)

FAC-Neutral Test (D5)

Wetland Hydrology Present? Yes _

unless disturbed or problematic.

Hydric Soil Present? Yes

Reduced Vertic (F18)

WETLAND DETER	MINATION D	ATA FORM - A	rid West Region
anvowner: Lower all a	City/Co	ounty: Lor 0	4/119
gator(s):			State: Sampling Point
orm (hillslope, terrace, etc.):	Section Section	n, Township, Range	
gion (LRR):	Local	relief (concave, con	vex, none): Slope (%): 0
lap Unit Name:		50301 L	ong: 107, 140 833 patum: 210 83
limatic / hydrologic conditions on the site typical for this	t lima of war 0 x		NWI classification:
, or Hydrology	ionic		(If no, explain in Remarks.) ormal Circumstances" present? Yes No
og Claudit, Soil, or Hydrology r	naturally problem	atic? (If need	led, explain any answers in Remarks.)
MMARY OF FINDINGS - Attach site map	showing sar	npling point loc	cations, transects, important features, etc.
odroobudia Vanataita na na	No .		
dric Soil Present? Yes No V			
	No_V	Wighin a Westario	
emarks:			
EGETATION - Use scientific names of pla	ants.		Dominance Test worksheet:
	Absolute D	ominant Indicator pecies? Status	Number of Dominant Species
Tree Stratum (Plot size:)		Section 1	That Are OBL FACW, or FAC:
1			Total Number of Dominant Species Across Ali Strata: (B)
2.			+ Deminant Species
4		Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
/ (Olot size:			Prevalence index worksheet:
Sapling/Shrub Stratum (Plot size:)			Total % Cover of: Mulippy CY.
1			OBL species
3.			FACW species X2 X3 = X
4		= Total Cover	FACU species X4= 100
1	-	= Total Cover	UPL species (A) DD (B)
Herb Stratum (Plot size:	35		Column Totals: 4 30 7
Herb Stratum	10	—— 旅	Prevalence Index = B/A =
Van Jahr la 1 As	44, 20		Hydrophytic Vegetation Indicators: Defrinance Test is >50%
3. Coh V Ol V 1	11-		Prevalence Index is \$3.0'
4			Morphological Adaptations (senarate sheet)
			data in Remarks or on a separation data in Remarks
5		= Total Cover	a historingy must
7		_ = 10tal Cov	¹ Indicators of hydric soil and welfand hydrology must be present, unless disturbed or problematic.
8			be present, comments
woody Vine Stratum (Plot Size.			Hydrophytic No
		= Total Cover	Vegetation Yes No No Present?
2	6 Cover of Biotic	Crust	
Constituti	6 (6)(6)		
% Bare Ground in Herb Stratum			
Remarks:			And West - Version
Too.			And Hes
		The second secon	

Remarks:

netrix	
	to a
IL.	
epth	
epth nches) Color (moist) Color (moist) Color (moist)	dicator or confirm the characteristics
Color (moist)	The absence of indicators.)
TA FE THE	Type Loc Texture Remarks
74 1/2 100	4 Jum
	- 101m
The state of the s	
Type: C=Concentration D=Depleties D11-2	and the state of t
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise note	or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matr
Histosol (A1) Sandy Redox (S5)	
Histic Epipedon (A2) Stripped Matrix (S6)	1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)
Black Histic (A3) Loamy Mucky Mineral	
Hydrogen Sulfide (A4) Loamy Gleyed Matrix	
Stratified Layers (A5) (LRR C) Depleted Matrix (F3)	Other (Explain in Remarks)
1 cm Muck (A9) (LRR D) Redox Dark Surface (
Depleted Below Dark Surface (A11) Depleted Dark Surface	
Thick Dark Surface (A12) Redox Depressions (F Sandy Mucky Mineral (S1) Vernal Pools (F9)	wetland hydrology must be present.
Odiloy Masky Market ()	unless disturbed or problematic.
Sandy Gleyed Matrix (S4) Restrictive Layer (if present):	THE RESERVE AND A STATE OF THE PARTY OF THE
	Judata Call Demant? Yes No
Type:	Hydric Soil Present? Yes No
Remarks: No C TONITA	
10 Seil Indiculi	
HYDROLOGY	Secondary Indicators (2 or more req
	Water Marks (B1) (Riverine)
Wetland Hydrology Indicators	Sediment Deposits (B2) (Riveri
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Salt Crust (B11)	Deft Deposits (B3) (Riverine)
Primary Indicators (minimum of other regers Salt Crust (B11)	
Primary Indicators (minimum of other regers Salt Crust (B11) Surface Water (A1) Biotic Crust (B12) Application invertebrate Application invertebrate	S (B13)
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EXHIBIT "5"

Worsham II, Jerry

From:

Worsham II, Jerry

Sent:

Thursday, June 1, 2023 10:18 AM

To:

'rusty_griffin@fws.gov'

Cc:

'michael.haynes@riatacg.com'; David Cain; Jesse Shuck; Dan Dunkelberg

Subject:

"Request for Correction of Information- Wetlands Mapper tool" (Approximate Lat.

32.848478 deg. N, Long. -104.141243deg. W. Eddy Co., NM)

Attachments:

1417_001.pdf

Rusty:

See attached form and documentation.

As we have discussed, I would request a review by USFWS of the attached documentation and Jurisdictional Determination (JD) by Jesse Shuck of Grouse Mountain Environmental Consultants in conformance with the 1987 United States Army Corp of Engineers' (ACOE) Wetland Delineation Manual. The Wetlands Mapper tool is used by the "New Mexico Oil Conservation Division (NMOCD)-Environmental Incidents Group" to determine a "wetland designation" for spill remediation requirements for cleanup criteria. A "wetland" determination significantly increases the cost of remediation and the amount of soil which must be removed for disposal. We assert that this area does not meet the criteria for a wetland.

As stated by NMOCD, "If [USFWS-FGDC] do make changes to the maps, let us know and we will honor their decision. Please let us know the FGDC's decision if you petition to have the wetland designation changed. The [NM]OCD has nothing to do with the wetlands maps, we only enforce the designation if the release is within 300 feet of a release." (Note: I suggest that the FGDC Wetlands Mapper tool is being used by NMOCD for a purpose for which it was not intended but that will be an argument for another time.)

If after you review the JD and supporting information, please have the correction made and submit it to me for distribution to the NMOCD with our revised Remediation Plan and an Appeal to the NMOCD's Rejection of Release Notification and Corrective Action Plan. Please call me or Jesse Shuck with any questions.

Jerry D. Worsham II

Member – Environment, Energy & Natural Resources Practice Clark Hill

3200 N. Central Avenue, Suite 1600, Phoenix, AZ 85012 +1.602.440.4808 (office)

jworsham@clarkhill.com | www.clarkhill.com

From: Griffin, Rusty <rusty_griffin@fws.gov> Sent: Wednesday, May 17, 2023 9:42 AM

To: Worsham II, Jerry < jworsham@clarkhill.com>

Cc: michael.haynes@riatacg.com

Subject: RE: [EXTERNAL] Wetlands Mapper tool

[External Message]

Not long. A week at most.

Rusty

From: Worsham II, Jerry <jworsham@clarkhill.com>

Sent: Wednesday, May 17, 2023 11:41 AM **To:** Griffin, Rusty < rusty_griffin@fws.gov>

Cc: Michael Haynes <michael.haynes@riatacg.com>
Subject: RE: [EXTERNAL] Wetlands Mapper tool

Rusty:

Once I get you the JD Report, how long for you to review and make the corrections? I will have to ask the NMOCD for an extension of time before having to file an appeal to the Administrative Law Judge within 30 days.

Jerry

Jerry D. Worsham II

Member – Environment, Energy & Natural Resources Practice

Clark Hill

3200 N. Central Avenue, Suite 1600, Phoenix, AZ 85012

+1.602.440.4808 (office)

jworsham@clarkhill.com | www.clarkhill.com

From: Griffin, Rusty < rusty griffin@fws.gov > Sent: Wednesday, May 17, 2023 8:49 AM

To: Worsham II, Jerry < jworsham@clarkhill.com Cc: Michael Haynes jworsham@clarkhill.com Subject: RE: [EXTERNAL] Wetlands Mapper tool

[External Message]

Jerry,

You can send the request form and the wetland delineation to me at this email address. The USACE does not need to review the data, we just need the data collected using their field protocols.

Rusty

Rusty Griffin, PWS

U.S. Fish and Wildlife Service, National Wetlands Inventory | 505 Science Drive, Suite A, Madison, WI 53711 | 608-238-9333 x31005

http://www.fws.gov/wetlands/index.html

From: Worsham II, Jerry < jworsham@clarkhill.com>

Sent: Wednesday, May 17, 2023 10:46 AM To: Griffin, Rusty < rusty griffin@fws.gov>

Cc: Michael Haynes < michael.haynes@riatacg.com >; Wetlands Team, FWHQ < Wetlands Team@fws.gov >

Subject: RE: [EXTERNAL] Wetlands Mapper tool

Rusty:

Thank you for the response. To whom do we submit the Request for Correction of Information along with a typical ACOE/EPA Jurisdictional Determination (JD) using the "1987 USACE Wetlands Delineation Manual" and Regional Supplements? Does the ACOE have to review and approve formally before submission to USFWS?

Released to Imaging: 6/7/2023 12:16:42 PM

Jerry

Jerry D. Worsham II

Member – Environment, Energy & Natural Resources Practice Clark Hill
3200 N. Central Avenue, Suite 1600, Phoenix, AZ 85012
+1.602.440.4808 (office)
iworsham@clarkhill.com | www.clarkhill.com







Request for Correction of Information

This document is required by the Department of the Interior, U.S. Fish and Wildlife Service Information Quality Guidelines.

Requesting a Correction of Information: Any affected person or organization may request a correction of information from the Service pursuant to the Information Quality Guidelines. The Branch of Geospatial Mapping and Technical Services will consider requests for corrections of information for the National Wetlands Geospatial Data Layer if such a request is submitted in compliance with DOI/Service Information Quality Guidelines. Requests must be routed through the appropriate Service Region for technical evaluation. Regional requests for entry of corrected map data will be made by submitting a completed "Request for Correction of Information" form to the Branch's Geodatabase Manager. This form is part of the MGD Technical Attachments of Forms and Documentation. It certifies the corrected information submitted has been approved by all appropriate technical quality control personnel and meets all data standards and requirements as outlined on the Contributed Data webpage. This complies with the requirements of Section 515 of the Treasury and General Government Appropriations Act of 2001 (Public Law 106-554) that requires Federal agencies to provide administrative mechanisms allowing the public to seek and obtain correction of information maintained and disseminated by the agency.

Date:

6/1/2023

Phone Number:

602-440-4808

Email Address:

jworsham@clarkhill.com

Organization(if any):

Clark Hill/Longfellow Energy, LP

Requester Contact Information:

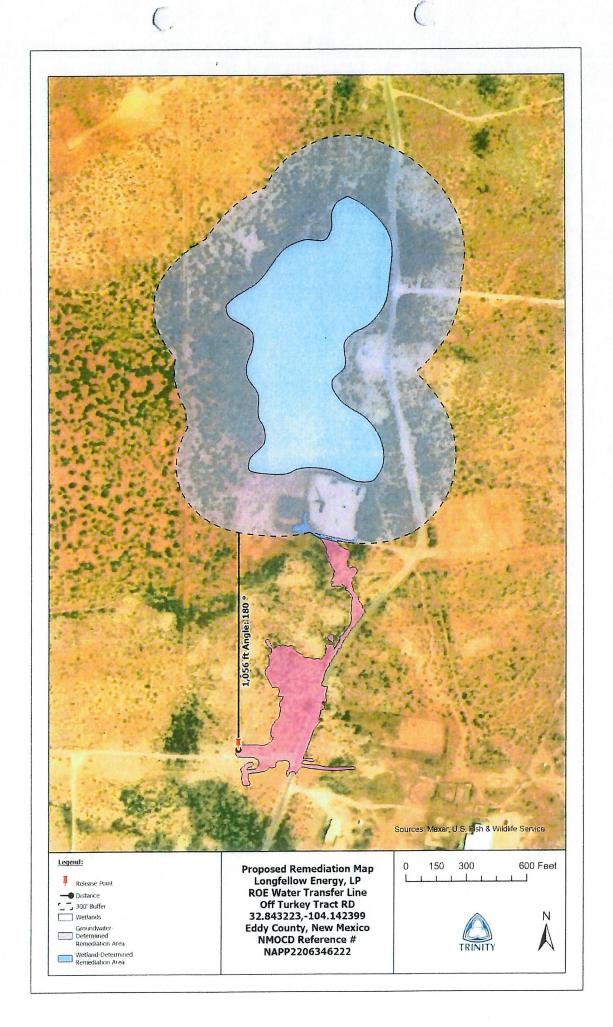
3200 N. Central Ave., Ste. 1600, Phx, AZ 85012

Requestor Name:

Jerry D. Worsham II

Address:

Approximate latitude 32.848478 deg. N, -104.1412 Effect of the Alleged Error: The designation of a "wetland" by the USFWS "Wetland M applicable remediation regulation and ultimate cost of the be removed and associated cost for remediated soil disposention of the Environmental Consultants to support a correction of the	lapper" is used by the New Mexico Oil Conservatio Remediation Plan. A wetland determination drast osal. See attached Jurisdictional Delineation by Je	tically increases the amount of soil to
FWS Evaluation Information:		
FWS Personnel:	Approved or Denied:	Date:
Justification for Correction Approval/Denia	ıl:	
The information submitted has been app	roved by all appropriate quality contr	rol personnel.
The information submitted has been app An updated metadata file is attached that		rol personnel.





Jerry D. Worsham II T (602) 440-4808 Email: jworsham@clarkhill.com

Clark Hill 3200 North Central Avenue, Suite 1600 Phoenix, AZ 85012 T (602) 440-4800 F (602) 257-9582

June 6, 2023

New Mexico Oil Conservation Commission Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

> Request for Adjudicatory Hearing; Appeal by Longfellow Energy, LP Re:

Dear Sir/Madam:

c:

Received by OCD: 6/6/2023 2:08:43 PM

Please accept this filing for an Adjudicatory Appeal and Hearing before the New Mexico Oil Conservation Division (NMOCD) and the Division Examiner. Two copies are being submitted and the Fee Application has been paid and documentation is submitted in print.

Please contact me with any questions or any issues with this filing.

Sincerely,

Enclosures - Appeal Application (2 copies) Fee Application Receipt

Mr. Michael Haynes, Esq. - Longfellow Energy LP

Mr. David Cain - Longfellow Energy LP

Mr. Mike Bratcher - NMOCD Incidents Group Supervisor

Mr. Robert Hamlet - NMOCD Environmental Specialist

State of New Mexico **Energy, Minerals and Natural Resources Department** Oil Conservation Division

Receipt of Fee Application Payment



PO Number: MJ30R-230606-REQFOR

Payment Date:

6/6/2023 2:08:43 PM

Payment Amount:

\$500.00

Payment Type:

Credit Card

Application Type:

Application for an administrative hearing, re-hearing or de novo hearing before the division or commission

Fee Amount:

Application Status:

Under OCD Review

First Name:

Jerry D.

Last Name:

Worsham II

Email:

Received by OCD: 6/6/2023 2:08:43 PM

jworsham@clarkhill.com

Law Firm:

Clark Hill PLC

Client Being

Longfellow Energy LP

Represented:

Abstract (proposed ad verbiage):

This Adjudicatory Appeal of a decision by the New Mexico Oil Conservation Division is submitted on behalf of Longfellow Energy LP/Riata Corporate Group, LLC (Longfellow) through its counsel, Jerry D. Worsham II of Clark Hill PLC, as required by NMAC 19.15.4.14(c). Longfellow requests an Adjudicatory Hearing before a Division Examiner and approval of the Variance Application and revised C-141 submitted and dated January 13, 2023. Based upon the Jurisdictional Determination completed by Grouse M...

IMPORTANT: If you are mailing or delivering your application, you must print and include your receipt of payment as the first page on your application. All mailed and delivered applications must be sent to the following address: 1220 S. St. Francis Dr., Santa Fe, NM 87505. For inquiries, reference the PO Number listed above.

> Oil Conservation Division * 1220 South St. Francis Drive * Santa Fe, New Mexico 87505 (505) 476-3441 * ocd.fees@state.nm.us * www.emnrd.nm.gov/OCD