

**From:** [Yu, Olivia, EMNRD](#)  
**To:** ["Alyssa Beard"](#); [Billings, Bradford, EMNRD](#); [Naranjo, Mark](#)  
**Cc:** [Homer Madden](#); [Stephanie Stephens](#); [Joel Sauer](#); [Rick Payne](#)  
**Subject:** RE: Foundation Energy Chalupa SWD Release Characterization Report (1RP-4633)  
**Date:** Thursday, March 15, 2018 4:50:00 PM  
**Attachments:** USGS\_1mile\_1RP4633.pdf

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Ms. Beard:

Thank you for the release characterization work completed for 1RP-4633. NMOCD will agree that vertical delineation is completed for several impacted regions of the release area. However, what is the proposed plan to complete delineation (vertical and horizontal) for the area represented by HA-1 to HA-4? Data indicate that despite lateral extension from BH-1 to HA-4 to HA-1, chloride levels at depth and on surface exceed 600 mg/kg.

Please note that there are two USGS well with more recent data than NMOSE within 1 mile radius of the release location. The average of both is less than 100 ft. bgs. Search is attached for your reference.

Furthermore, aerial imagery appears to indicate that a portion of the release may have impacted a probable playa. Please be advised that a proposed remediation plan may need to take the characteristics of this landform under consideration.

The interim correspondent for NMSLO is Mark Naranjo.

Thanks,  
Olivia

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**From:** Alyssa Beard [mailto:[ABeard@foundationenergy.com](mailto:ABeard@foundationenergy.com)]  
**Sent:** Wednesday, February 28, 2018 1:12 PM  
**To:** Yu, Olivia, EMNRD <[Olivia.Yu@state.nm.us](mailto:Olivia.Yu@state.nm.us)>; Groves, Amber <[agroves@slo.state.nm.us](mailto:agroves@slo.state.nm.us)>; Billings, Bradford, EMNRD <[Bradford.Billings@state.nm.us](mailto:Bradford.Billings@state.nm.us)>  
**Cc:** Homer Madden <[hmadden@foundationenergy.com](mailto:hmadden@foundationenergy.com)>; Stephanie Stephens <[ssstephens@foundationenergy.com](mailto:ssstephens@foundationenergy.com)>; Joel Sauer <[jsauer@foundationenergy.com](mailto:jsauer@foundationenergy.com)>; Rick Payne <[rpayne@foundationenergy.com](mailto:rpayne@foundationenergy.com)>  
**Subject:** Foundation Energy Chalupa SWD Release Characterization Report (1RP-4633)

Good Afternoon Ms. Yu:

Please find attached the Chalupa SWD flowline release characterization report (1RP-4633), as required by the NMOCD. Fieldwork and reporting was conducted on Foundation's behalf by Enviro Clean Cardinal.

Thank you,

Alyssa M. Beard  
EHS & Regulatory

Foundation Energy Management, LLC  
1801 Broadway Suite 1500  
Denver, CO 80202  
(303) 244-8114 (O)  
(720) 257-2302 (cell)



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**From:** Yu, Olivia, EMNRD [<mailto:Olivia.Yu@state.nm.us>]  
**Sent:** Wednesday, September 20, 2017 11:01 AM  
**To:** Alyssa Beard <[ABeard@foundationenergy.com](mailto:ABeard@foundationenergy.com)>; Groves, Amber <[agroves@slo.state.nm.us](mailto:agroves@slo.state.nm.us)>; Billings, Bradford, EMNRD <[Bradford.Billings@state.nm.us](mailto:Bradford.Billings@state.nm.us)>  
**Cc:** Homer Madden <[hmadden@foundationenergy.com](mailto:hmadden@foundationenergy.com)>; Stephanie Stephens <[sstephens@foundationenergy.com](mailto:sstephens@foundationenergy.com)>; Rachel Grant <[rgrant@foundationenergy.com](mailto:rgrant@foundationenergy.com)>; Buddy Richardson <[Buddy.Richardson@eccgrp.com](mailto:Buddy.Richardson@eccgrp.com)>; Regulatory <[regulatory@foundationenergy.com](mailto:regulatory@foundationenergy.com)>  
**Subject:** RE: Foundation Energy Chalupa #4 Work Plan Submission (1RP-4632 and 1RP-4633)

Good morning Ms. Beard:

Thank you for your prompt response to the questions posed regarding 1RP-4632 and 1RP-4633. NMOCD approves of the proposed release characterization plans for 1RP-4632 and 1RP-4633. Please be advised that NMOCD may still require more than one deep borehole for each 1RP to verify that vertical delineation is complete for the releases. Please see the attachments for your records.

NMSLO may have additional requirements or stipulations.

Thanks,

Olivia Yu  
Environmental Specialist  
NMOCD, District I  
[Olivia.yu@state.nm.us](mailto:Olivia.yu@state.nm.us)  
575-393-6161 x113

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

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**From:** Alyssa Beard [<mailto:ABeard@foundationenergy.com>]

**Sent:** Wednesday, September 20, 2017 9:51 AM

**To:** Yu, Olivia, EMNRD <[Olivia.Yu@state.nm.us](mailto:Olivia.Yu@state.nm.us)>; Groves, Amber <[agroves@slo.state.nm.us](mailto:agroves@slo.state.nm.us)>; Billings, Bradford, EMNRD <[Bradford.Billings@state.nm.us](mailto:Bradford.Billings@state.nm.us)>

**Cc:** Homer Madden <[hmadden@foundationenergy.com](mailto:hmadden@foundationenergy.com)>; Stephanie Stephens <[sstephens@foundationenergy.com](mailto:sstephens@foundationenergy.com)>; Rachel Grant <[rgrant@foundationenergy.com](mailto:rgrant@foundationenergy.com)>; Buddy Richardson <[Buddy.Richardson@eccgrp.com](mailto:Buddy.Richardson@eccgrp.com)>; Regulatory <[regulatory@foundationenergy.com](mailto:regulatory@foundationenergy.com)>

**Subject:** RE: Foundation Energy Chalupa #4 Work Plan Submission (1RP-4632 and 1RP-4633)

Ms. Yu,

Please see responses (in red) to your comments below.

Thanks so much,

Alyssa

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**From:** Yu, Olivia, EMNRD [<mailto:Olivia.Yu@state.nm.us>]

**Sent:** Tuesday, September 19, 2017 8:20 AM

**To:** Alyssa Beard <[ABeard@foundationenergy.com](mailto:ABeard@foundationenergy.com)>; Groves, Amber <[agroves@slo.state.nm.us](mailto:agroves@slo.state.nm.us)>; Billings, Bradford, EMNRD <[Bradford.Billings@state.nm.us](mailto:Bradford.Billings@state.nm.us)>

**Cc:** Homer Madden <[hmadden@foundationenergy.com](mailto:hmadden@foundationenergy.com)>; Stephanie Stephens <[sstephens@foundationenergy.com](mailto:sstephens@foundationenergy.com)>; Rachel Grant <[rgrant@foundationenergy.com](mailto:rgrant@foundationenergy.com)>; Buddy Richardson <[Buddy.Richardson@eccgrp.com](mailto:Buddy.Richardson@eccgrp.com)>; Regulatory <[regulatory@foundationenergy.com](mailto:regulatory@foundationenergy.com)>

**Subject:** RE: Foundation Energy Chalupa #4 Work Plan Submission (1RP-4632 and 1RP-4633)

Good morning Ms. Beard:

Please address these concerns regarding the release characterization/delineation workplans for 1RP-4632 and 1RP-4633.

1. Due to the timeline between release date and date of proposed delineation activities, will the EM38 survey be conducted outside of the release area? In other words, will the EM38 survey extend beyond the lateral edges of the known release area if elevated EC readings are observed? **It was, and will continue to be, our intent to extend the limits of the EM38 ground conductivity survey beyond the areas of brine impact, into areas of background levels.**
2. Based on the extent of the impacted areas, likely more than 1 deep vertical borehole is required for each 1RP. Please be advised that sufficient boreholes for vertical delineation would be necessary to adequately characterize the releases and calibrate/ validate EM38 survey data. **We proposed the drilling of several shallow soil borings to assist in the calibration of the EM survey and to provide horizontal delineation. The one deep boring at each of the North and South sites was proposed with the intent that the single boring would be located in the area of greatest surface impact. One deep boring was proposed based on the depth to groundwater in the area. Please advise so that we can fine tune our plan, if necessary.**

3. Please include all data from field tests, soil bore logs, and EM38 survey along with laboratory analyses of soil samples. **Yes, we are planning to include these items in our submittal.**

Thanks again.

Please confirm or inform if clarification is needed.

Thanks,  
Olivia

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**From:** Alyssa Beard [<mailto:ABeard@foundationenergy.com>]  
**Sent:** Friday, August 18, 2017 10:14 AM  
**To:** Yu, Olivia, EMNRD <[Olivia.Yu@state.nm.us](mailto:Olivia.Yu@state.nm.us)>; Groves, Amber <[agroves@slo.state.nm.us](mailto:agroves@slo.state.nm.us)>; Oberding, Tomas, EMNRD <[Tomas.Oberding@state.nm.us](mailto:Tomas.Oberding@state.nm.us)>  
**Cc:** Homer Madden <[hmadden@foundationenergy.com](mailto:hmadden@foundationenergy.com)>; Stephanie Stephens <[sstephens@foundationenergy.com](mailto:sstephens@foundationenergy.com)>; Rachel Grant <[rgrant@foundationenergy.com](mailto:rgrant@foundationenergy.com)>; Buddy Richardson <[Buddy.Richardson@eccgrp.com](mailto:Buddy.Richardson@eccgrp.com)>; Regulatory <[regulatory@foundationenergy.com](mailto:regulatory@foundationenergy.com)>  
**Subject:** Foundation Energy Chalupa #4 Work Plan Submission (1RP-4632 and 1RP-4633)

Good morning,  
Please find attached for your review the Chalupa #4 North and South Work Plans and Right-of-Entry-Permit to perform release delineation at this location. Foundation has contracted with Enviro Clean Cardinal of Tulsa to perform delineation activities.  
Please let me know if you require any additional information.  
Thanks so much.

Alyssa M. Beard  
EHS & Regulatory Specialist  
Foundation Energy Management, LLC  
1801 Broadway Suite 1500  
Denver, CO 80202  
(303) 244-8114 (O)  
(720) 257-2302 (cell)