Mr. Runnels:

Except for specific circumstances and locations, NMOCD does not intervene in the selection of sampling equipment. The recommendation was based on expediency. Please be advised that a soil borer may still be required to complete vertical delineation on the well pad, in the same locations as the backhoe trenches, if deeper chloride contamination is detected. Just remember to explicitly state any changes in sampling methodology for sample locations in the site characterization report. Sampling terminology and sample IDs should be identified accordingly.

Thanks, Olivia

From: Robbie Runnels <rrunnels@basinenv.com>
Sent: Tuesday, August 21, 2018 10:35 AM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Subject: RE: Kaiser State SWD (1RP-3512, et al) - Updated Sampling Plan

Ms. Yu,

Given that the pad appears to be very well compacted, may we use a backhoe to sample on the pad in that the soil borer has difficulty in such indurated areas? We will use the soil borer in the pasture area.

Sincerely,

Robbie Runnels Basin/Etech

------ Original Message ------Subject: RE: Kaiser State SWD (1RP-3512, et al) - Updated Sampling Plan From: "Yu, Olivia, EMNRD" <<u>Olivia.Yu@state.nm.us</u>> Date: 8/21/18 9:26 am To: "Robbie Runnels" <<u>rrunnels@basinenv.com</u>> Cc: "Mann, Ryan" <<u>rmann@slo.state.nm.us</u>>, "Jody Walters" <<u>sjwalters@basinenv.com</u>>, "<u>kim@etechenv.com</u>" <<u>kim@etechenv.com</u>>, "james@permianws.com" <<u>james@permianws.com</u>>, "<u>aantillon@slo.state.nm.us</u>" <<u>aantillon@slo.state.nm.us</u>>, "<u>arickard@cambrianmgmt.com</u>" <<u>arickard@cambrianmgmt.com</u>>, "<u>rhendricks@chambersenergy.com</u>" <<u>rhendricks@chambersenergy.com</u>>, "<u>dale@permianws.com</u>" <<u>dale@permianws.com</u>>, "Hernandez, Christina, EMNRD"

<<u>Christina.Hernandez@state.nm.us</u>>

Good morning Mr. Runnels:

Notes

- 1. Depth to groundwater is approximately 100 ft. bgs. The USGS well identified with depth to groundwater at greater than 700 ft. bgs (322738103263701) is in a different aquifer than the closest USGS well (322824103253301) within 1 mile radius.
- 2. There was an additional release subsequent to the submission of this proposed release characterization for the Kaiser SWD. The release from August 17, 2018, needs to be addressed as well. This release, in the lined facility on location, was actively flowing during the site visit by NMSLO and NMOCD on the same day (August 17, 2018). The liner under the tank battery did not appear to be intact or to have maintained integrity. The aforementioned release will be assigned identifier 1RP-5163.
- 3. NMOCD recommends site characterization for releases 1RP-3512, 1RP-3621, 1RP-4305, 1RP-4525, 1RP-4855, 1RP-4960, 1RP-5139, and 1RP-5149, to be completed with a soil borer. If the liner for the tank battery located on the Southwest side of the location is found to be not intact, release characterization for 1RP-5163, under and around the lined area, will need to be completed.

NMOCD concurs with NMSLO's stipulations and additional delineation sample locations. The section of the release for 1RP-5139, off the western edge of the SWD well pad extending pass the strip of vegetation, must be delineated. For complete site characterization, submit field and laboratory data for Benzene, BTEX, TPH extended, and chlorides for each 1 ft. interval from surface to 4 ft. bgs. Subsequently, completion of vertical delineation, deeper than 4 ft. bgs can be conducted via a combination of field and laboratory data at no greater than 5 ft sample intervals. All depths with laboratory data must have corresponding field data for correlation. NMOCD acknowledges that some sample locations may not require hydrocarbon testing. However, please be advised that certain horizontal delineation and subsequent confirmation sample locations will require BTEX and TPH extended analyses.

Furthermore,

- 1. Please be advised that aerial imagery from March 2012 indicated that there was a probable release on the eastern edge of the location (behind the unlined tank battery). Gridded sampling is required for this area.
- 2. The release characterization report for 1RP-3512 and 1RP-3621 provided data of deep impacted area on the lease road, identified as S2. Please ensure that this pooling location is one of the delineation sample locations.
- 3. Provide dated and captioned photo documentation of site characterization activities.

Please contact for clarifications or questions.

Thanks,

Olivia Yu Environmental Specialist NMOCD, District I <u>Olivia.yu@state.nm.us</u> 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.

From: Robbie Runnels <<u>rrunnels@basinenv.com</u>>
Sent: Monday, August 20, 2018 8:54 AM
To: Yu, Olivia, EMNRD <<u>Olivia.Yu@state.nm.us</u>>
Cc: Mann, Ryan <<u>rmann@slo.state.nm.us</u>>; Jody Walters <<u>sjwalters@basinenv.com</u>>; kim@etechenv.com; james@permianws.com; aantillon@slo.state.nm.us; arickard@cambrianmgmt.com; rhendricks@chambersenergy.com; dale@permianws.com
Subject: Kaiser State SWD (1RP-3512, et al) - Updated Sampling Plan

Ms. Yu,

Have you had the opportunity to review the Sampling Plan for the aforementioned site? I have attached an updated version that adds the additional sample depth that the SLO required. Given that the location has numerous open 1RP's and a directive from the SLO as well as approval to sample from the SLO, we are hoping to start remediating this location as soon as possible. Please let me know if you have any questions or concerns.

Thank you,

Robbie Runnels

Project Manager Basin Environmental Service Technologies 3100 Plains Hwy. P.O. Box 301 Lovington, NM 88260 p. 575-396-2378 m. 575-441-5598 f. 575-396-1429 rrunnels@basinenv.com

From:	Mann, Ryan
To:	"Robbie Runnels"
Cc:	Yu, Olivia, EMNRD
Subject:	RE: Cambrian Management/Permian Water Solutions LLC - Kaiser State SWD
Date:	Thursday, August 16, 2018 12:06:19 PM

Yes, clean sample + 5 feet (2', 3', 4', 5' are not required). Also since chloride should be the primary contaminant you may cease once the contaminant(TPH or BTEX) is delineated with the additional 5'. It is not necessary to continue analysis after the TPH or BTEX is delineated. If this is unclear, don't hesitate to call

Thanks Ryan Mann Remediation Specialist Field Operation Division (575) 392-3697 (505) 699-1989 New Mexico State Land Office 2827 N. Dal Paso Suite 117 Hobbs, NM 88240

From: Robbie Runnels [mailto:rrunnels@basinenv.com]
Sent: Thursday, August 16, 2018 6:44 AM
To: Mann, Ryan <rmann@slo.state.nm.us>
Cc: olivia.yu@state.nm.us
Subject: RE: Cambrian Management/Permian Water Solutions LLC - Kaiser State SWD

Mr. Mann,

Thank you for catching my error on the BTEX concentrations. My questions to you is for clarification. If we are clean at 1' bgs, can we immediately go to 6' for confirmation, or do you also want 2', 3', 4', and 5' samples? In addition, if we are clean at say 1' for TPH and BTEX but still above the RRAL for chlorides, will the 6' sample (assuming it is clean for BTEX and TPH) suffice for delineation for those two or do you want us to continue with analytical for BTEX and TPH until chloride is delineated?

Thank you,

Robbie Runnels Basin Environmental

------ Original Message ------Subject: RE: Cambrian Management/Permian Water Solutions LLC - Kaiser State SWD From: "Mann, Ryan" <<u>rmann@slo.state.nm.us</u>> Date: 8/15/18 4:28 pm To: "Robbie Runnels'" <<u>rrunnels@basinenv.com</u>>, "<u>olivia.yu@state.nm.us</u>" <<u>olivia.yu@state.nm.us</u>> Cc: "Antillon, Andrea" <<u>aantillon@slo.state.nm.us</u>>, "<u>arickard@cambrianmgmt.com</u>" <<u>arickard@cambrianmgmt.com</u>>, "<u>kim@etechenv.com</u>" <<u>kim@etechenv.com</u>>, "Jody Walters" <<u>sjwalters@basinenv.com</u>>, "james@permianws.com" <<u>james@permianws.com</u>>, "<u>rhendricks@chambersenergy.com</u>" <<u>rhendricks@chambersenergy.com</u>>, "<u>dale@permianws.com</u>"

Mr. Runnels,

The appropriate levels for delineation of BTEX is 50ppm, not 100ppm as stated in the plan. The area in the northwest portion of the pad (where is excavation is) will need more sample points. Some of the release traveled off the location, this will need to be addressed as well. See that attached photo, it should help clarify where additional sampling locations are necessary.

Given the number of releases that have occurred at the location, sampling will need to be advanced further than 1' bgs even if the sample results are clean. I am requesting a clean sample plus an additional 5' below the clean sample point to ensure to area is properly delineated.

Please contact me if you have any question. The plan will be approved after the above alterations have been made.

Approval is also necessary from NMOCD who may have additional comments or stipulations.

Ryan Mann Remediation Specialist Field Operation Division (575) 392-3697 (505) 699-1989 New Mexico State Land Office 2827 N. Dal Paso Suite 117 Hobbs, NM 88240

From: Robbie Runnels [mailto:rrunnels@basinenv.com]
Sent: Friday, August 10, 2018 6:20 AM
To: olivia.yu@state.nm.us
Cc: Antillon, Andrea <aantillon@slo.state.nm.us>; Mann, Ryan <rmann@slo.state.nm.us>; arickard@cambrianmgmt.com; kim@etechenv.com; Jody Walters
<sjwalters@basinenv.com>; james@permianws.com; rhendricks@chambersenergy.com; dale@permianws.com

Subject: Cambrian Management/Permian Water Solutions LLC - Kaiser State SWD

Ms. Yu,

Attached is the Soil Sampling Plan for the aforementioned site. Please let me know if you have any questions or comments.

Thank you, Robbie Runnels Project Manager Basin Environmental Service Technologies 3100 Plains Hwy. P.O. Box 301 Lovington, NM 88260 p. 575-396-2378 m. 575-441-5598 f. 575-396-1429 rrunnels@basinenv.com

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