

From: [Yu, Olivia, EMNRD](#)
To: [Rebecca Haskell](#); [Tavarez, Ike](#); [Tucker, Shelly](#); hprice@blm.gov; [Billings, Bradford, EMNRD](#)
Cc: [Robert McNeill](#); [Dakota Neel](#); [Aaron Lieb](#); [Gonzales, Clair](#)
Subject: RE: COG - King Tut/Windward Work Plan Approval Request
Date: Monday, October 23, 2017 1:59:00 PM

Ms. Haskell:

In regards to the proposed remedial activities for 1RP-4485, 1RP-4696, 1RP-4772:

- After review of the provided data, NMOCDD will agree that BTEX and TPH analyses will not be necessary for the stockpiled soil used for backfilling.
- Correct; for point #3, bottom confirmation samples were not required, only samples from sidewalls.

Thanks,
Olivia

From: Rebecca Haskell [<mailto:RHaskell@concho.com>]
Sent: Monday, October 23, 2017 1:28 PM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>; Tavarez, Ike <Ike.Tavarez@tetrattech.com>; Tucker, Shelly <stucker@blm.gov>; hprice@blm.gov; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
Cc: Robert McNeill <RMcNeill@concho.com>; Dakota Neel <DNeel2@concho.com>; Aaron Lieb <ALieb@concho.com>; Gonzales, Clair <Clair.Gonzales@tetrattech.com>
Subject: RE: COG - King Tut/Windward Work Plan Approval Request

Ms. Yu,

1. For areas represented by B-2, B-3, and B-6:
 - First bullet point, why are you requiring that we sample for BTEX and TPH. The spills were produced water and we have already established that BTEX and TPH are not a concern at this site?
 - Third bullet point, bottom samples should not be required because we are installing a liner.

Otherwise COG agrees to the stipulations outlined below,

Thank You,

Becky Haskell
Senior HSE Coordinator
COG Operating LLC
600 W Illinois Avenue | Midland, TX 79701
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rhaskell@concho.com



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From: Yu, Olivia, EMNRD [<mailto:Olivia.Yu@state.nm.us>]
Sent: Thursday, October 12, 2017 9:38 AM
To: Tavaréz, Ike; Tucker, Shelly; hprice@blm.gov; Billings, Bradford, EMNRD
Cc: Rebecca Haskell; Robert McNeill; Dakota Neel; Aaron Lieb; Gonzales, Clair
Subject: [External] RE: COG - King Tut/Windward Work Plan Approval Request

**** External email. Use caution. ****

Mr. Tavaréz:

NMOCD will agree to the proposed remediation plan for 1RP-4485, 1RP-4696, 1RP-4772 with these stipulations.

1. For the areas represented by B-2, B-3, and B-6:
 - 2-3 ft. of low-chloride soil is allowed to be stockpiled on plastic on location for use in backfilling. One soil sample per 25 yd³ must be laboratory tested for BTEX (Method 8260 or 8021), TPH extended (Method 8015), and chlorides (Method 300).
 - The 4th-5th foot bgs of soil must be removed and a 40 mil liner properly placed at the bottom.
 - Confirmation bottoms and sidewalls for each of these areas are required at no greater than 50 ft. distance interval.
2. For the area represented by B-4 and B-5, NMOCD will grant that no remedial activity will be required. 2 sidewall samples are required: 1 at the border with the area represented by B-8 and 1 at the border for B-3 area.
3. For the areas represented by B-1, B-7, and B-8: remove 4 ft. of chloride-impacted soil and properly set a 40 mil liner at the bottom. Confirmation sidewall samples are required.
4. Provide a scaled map with 1) locations of confirmation bottom and sidewalls marked for each of the excavated areas; 2) lined areas outlined; and 3) release points for 1RP-4485, 1RP-4696, and 1RP-4772 annotated.

Also, for this release only, NMOCD will not require further vertical delineation for B-8. Please be advised that this is an exception.

Please confirm or inform if additional clarification is required.

Thanks,

Olivia Yu
Environmental Specialist

NMOCD, District I
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.

From: Tavaréz, Ike [<mailto:Ike.Tavaréz@tetrattech.com>]
Sent: Thursday, October 5, 2017 3:41 PM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>; Tucker, Shelly <stucker@blm.gov>;
hprice@blm.gov; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
Cc: Rebecca Haskell <RHaskell@concho.com>; Robert McNeill <RMcNeill@concho.com>; Dakota
Neel <DNeel2@concho.com>; Aaron Lieb <ALieb@concho.com>; Gonzales, Clair
<Clair.Gonzales@tetrattech.com>
Subject: RE: COG - King Tut/Windward Work Plan Approval Request

Olivia,

Thanks for meeting with me to discuss some of the questions for the above mention project. Let me know if you need additional information. Once approved, the proposed remediation will be implemented.

- For the reuse material, Tetra Tech will remove (0-3'), segregate and stockpile the material into 25-50 cubic yards piles for sampling. If the stockpile is below 600 mg/kg (chlorides), the material will be placed back into the excavation. Any stockpile material (25-50 cubic yards) above 600 mg/kg will be hauled to disposal.
- The area of BH-8 did show a chloride concentration of 782 mg/kg at 24'-25', slightly above the 600 mg/kg threshold. As discussed, the area of BH-8 will be capped with a 40 mil liner, as proposed in the work plan.

Ike Tavaréz, PG | Senior Project Manager
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From: Yu, Olivia, EMNRD [<mailto:Olivia.Yu@state.nm.us>]

Sent: Wednesday, October 04, 2017 9:03 AM

To: Gonzales, Clair <Clair.Gonzales@tetrattech.com>; Tucker, Shelly <stucker@blm.gov>; hprice@blm.gov; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>

Cc: Rebecca Haskell <RHaskell@concho.com>; Tavarez, Ike <Ike.Tavarez@tetrattech.com>; Robert McNeill <RMcNeill@concho.com>; Dakota Neel <DNeel2@concho.com>; Aaron Lieb <ALieb@concho.com>

Subject: RE: COG - King Tut/Windward Work Plan Approval Request

Ms. Gonzales:

Based on the information provided, is the implication that all samples for 1RP-4485, 1RP-4696, 1RP-4772 are elevated due to cross contamination?

Irrespective of the depth to groundwater, permissible chloride levels is ≤ 600 mg/kg in 0-4 ft. of soil for remediation. Except for specific circumstances, 4 ft. of chloride-impacted soils must be removed with a minimal 20 mil liner at 4 ft. bgs to encapsulate elevated chloride levels in depth. This is standard NMOCD policy.

NMOCD has not yet decided to grant permission for removal and reuse of soil from 0-3 ft.

Olivia

From: Gonzales, Clair [<mailto:Clair.Gonzales@tetrattech.com>]

Sent: Wednesday, October 4, 2017 7:12 AM

To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>; Tucker, Shelly <stucker@blm.gov>; hprice@blm.gov

Cc: Rebecca Haskell <RHaskell@concho.com>; Tavarez, Ike <Ike.Tavarez@tetrattech.com>; Robert McNeill <RMcNeill@concho.com>; Dakota Neel <DNeel2@concho.com>; Aaron Lieb <ALieb@concho.com>

Subject: RE: COG - King Tut/Windward Work Plan Approval Request

Ms. Yu,

Referring to the bottom hole chloride concentration of 782 mg/kg at BH-8; as stated in the work plan, the slightly elevated concentration appears to be caused by cross contamination from the upper soils.

The area of BH-2 did show a chloride concentration of 1,110 mg/kg at 4'-5' below surface, while the areas of boreholes (BH-3 and BH-6) showed elevated concentrations of 7,960 mg/kg (4'-5') and 2,440 mg/kg (6'-7'), respectively. Based on the depth to groundwater in the area, which is between 325' and 350' below surface, the chloride concentration of 1,110 mg/kg detected at BH-2 is not significant and does not appear to be an environmental concern or imminent threat to groundwater.

The work plan proposes excavating the areas of BH-1, BH-3, BH-6, and BH-7 to between 3.0' and 4.0' below surface and capping the areas with a 40 mil liner. The

area of BH-8 will be excavated to 6.0' below surface, if accessible. Based on the data, the soils in the areas of BH-3 and BH-6 are to be removed (0-3.0') and reused for backfill. Soil samples will be collected every 50 yd³ for chlorides by Method 300, as directed.

*Thank you,
Clair Gonzales*

Clair Gonzales | Geologist III

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

Sent: Tuesday, October 03, 2017 12:53 PM

To: Gonzales, Clair <Clair.Gonzales@tetratech.com>; Tucker, Shelly <stucker@blm.gov>; hprice@blm.gov

Cc: Rebecca Haskell <RHaskell@concho.com>; Tavarez, Ike <Ike.Tavarez@tetratech.com>; Robert McNeill <RMcNeill@concho.com>; Dakota Neel <DNeel2@concho.com>; Aaron Lieb <ALieb@concho.com>

Subject: RE: COG - King Tut/Windward Work Plan Approval Request

Dear Ms. Gonzales:

Please address these concerns regarding the workplan covering 1RP-4485, 1RP-4696, 1RP-4772:

- Vertical delineation for BH-8 is not considered complete at 25 ft. bgs. What is the proposed plan of action?
- Chloride content of the soil profile for BH-2 is similar to BH-3 and BH-6. Why is the proposed course of remedial activity different?
- Please be advised that the conventional remedial activity is 4 ft. excavation with a liner.
- If the proposed 0-3 ft. of soil at BH-3 and BH-6 is to be removed and reused for backfill is deemed permissible, NMOCD will request soils to be sampled every 50 yd³ with Method 300.

Thanks,

Olivia Yu

Environmental Specialist

NMOCD, District I

Olivia.yu@state.nm.us

575-393-6161 x113

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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: Gonzales, Clair [<mailto:Clair.Gonzales@tetrattech.com>]

Sent: Thursday, September 21, 2017 1:03 PM

To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>; Tucker, Shelly <stucker@blm.gov>; hprice@blm.gov

Cc: Rebecca Haskell <RHaskell@concho.com>; Tavaréz, Ike <Ike.Tavaréz@tetrattech.com>; Robert McNeill <RMcNeill@concho.com>; Dakota Neel <DNeel2@concho.com>; Aaron Lieb <ALieb@concho.com>

Subject: COG - King Tut/Windward Work Plan Approval Request

Good Afternoon,

Attached is the work plan for three releases (1RP-4485, 1RP-4696, and 1RP-4772) that occurred on the same location, located in Lea County, New Mexico. Once approved, COG will implement the proposed work plan. Let me know if you have any questions or concerns.

Thank you

Clair Gonzales

Clair Gonzales | Geologist III

Phone: 432.687.8123 | Mobile 432.260.8634 | Fax: 432.682.3946

clair.gonzales@tetrattech.com

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