Kathy Purvis

From: Pair, Randal <rpair@blm.gov>

Sent: Tuesday, February 25, 2014 11:45 AM

To: Cliff P. Brunson

Cc: Ken Swinney; Jennifer Gilkey; Kathy Purvis

Subject: Re: FW: Remediation Plan-Concho Perkins/Cottonmouth 4" SWD Line

Cliff, et al - sorry, lots more leaks to address ... Plus writing new policies ...

Comments:

1. Cover Table and Sec 1 2nd Paragraph - I disagree with the site characterization. Sample points 5-8 are on the flood terrace of the Delaware River, meaning those sites are less than 50-feet above local water table. They are also at most 300-feet from the Delaware itself. The spill origin is only 600-feet from the Delaware. Given the location, I see no point in using the Trend Map.

But all that may be moot, since apparently it was agreed early on that TPH and BTEX were not at issue. But the final closure report should be rewritten to address these points.

2. Sec 2, investigation. BLM was present during the first sampling. I do not remember the second sampling - I'm surprised that samples were obtained so deeply at Sample Points 1-4. In the second round, was a drill employed? That sort of info is useful in interpreting these results. It is not clear whether the deeper samples are from unconsolidated regolith or bedrock.

3. Sec 3 recommendation.

This was the first leak I looked at in this job. It was a while ago, and responsibility within BLM has been transferred from another staffer. Frankly, I cannot remember what was agreed to.

BLM's normal position on such salt water spills is to require removal of all material with Chloride concentrations above 1,000 ppm. If that would require extensive or impractical excavation, then we require excavation somewhat below 4-feet deep, installation of a liner (heavy plastic or compacted clay), and backfilling with clean material. The reason for this is that high chloride concentrations can wick back up the soil profile by capillary action, and several years later kill plants that are established on the surface. A liner both minimizes chloride movement back to the surface and reduces washing of chloride deeper into the regolith (and eventually into ground water). If there is to be no liner installed, lab confirmation that the bottom of the excavation is below 1,000 ppm Cl is critical to ensuring that we are protecting surface resources. Liners should extend past the contaminated area by at least 4-feet on all sides, and turned down into trenches at least 2-feet deep around the edges ("keyed-in").

BLM had two main concerns with this leak. First, the lower accumulation/flow (Sample Points 5-8) was on the flood terrace of the Delaware River, and we consider the Delaware and its biota to be sensitive and deserving of increased protection. Chlorides there could easily be exchanged into the river flow. Second, the top part of the spill (Points 1-5) was on a steep slope. It will be difficult to prevent erosion on this slope during and after revegetation. Soil/regolith appeared to be very shallow, so we expected that all loose material along the flow path would have to be removed. Movement of any residual chloride up the soil profile, or moving down from above with precipitation, will make effective revegetation of the slope even more difficult. On the other hand, installation of a liner on the slope would be difficult to impossible and would virtually ensure that any backfill placed on top of the liner would wash off.

Given these difficulties and having forgotten previous discussions:

a. the area around Sample Point 8 should be excavated sufficiently (4.5 - 5 feet deep) so that confirmation samples (one at each end of the bottom of the excavation) will be below 1000 ppm.

- b. Treatment of the slope may depend on the questions posed above about sampling method and nature of the samples. But rather than the proposed 4-foot deep excavation, all loose soil/regolith should be excavated along the flow path, to at least 5-feet deep or until lab confirmation samples show Cl below 1000 ppm
- c. Sample Point 1 is on the edge of the railroad ballast, on relatively level ground. The relatively level area along the RR should be excavated, including under the RR and RR ballast, to remove as much contamination as possible minimum 4-feet. This excavation will intercept the slope along the flow path. The floor of the excavation should be slopes toward the west. A heavy plastic liner should be installed so that it slopes to the west, discouraging subsurface flow toward the treated slope. The liner should be keyed-in about 3-feet back from where the excavation daylights along the flow path. After backfilling of this area, final grading should direct runoff away from the flowpath down the slope.
- d. Erosion control and control or re-direction of runoff will be critical on the finished slope.
- 4. In any case, COG will remain responsible for successful remediation and reclamation. If there are future problems with chloride wicking killing revegetation, or if Cl contamination of the Delaware should be proven, additional remedial work will be required.

Randal "Randy" Pair

Envir. Protection Specialist - Realty Compliance

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On Mon, Feb 24, 2014 at 10:15 AM, Cliff P. Brunson < <u>cbrunson@bbcinternational.com</u>> wrote: Randy,

Have you had a chance to look at this plan yet?

Thanks, Cliff

Cliff P. Brunson, CEI, CRS President BBC International, Inc. World-Wide Environmental Specialists Mailing Address: P. O. Box 805 Hobbs, NM 88241-0805 USA Shipping Address: 1324 W. Marland St. Hobbs, NM 88240 USA Phone: (575) 397-6388 Fax: (575) 397-0397

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From: Cliff Brunson < cbrunson@bbcinternational.com >

Date: Monday, February 10, 2014 10:13 AM
To: "Randal \"Randy\" Pair" < rpair@blm.gov>

Cc: Ken Swinney < kswinney@bbcinternational.com, Jennifer Gilkey kswinney@bbcinternational.com, Kathy@bbcinternational.com

Subject: FW: Remediation Plan-Concho Perkins/Cottonmouth 4" SWD Line

Randal,

I was following up on this e-mail to check the status. If you would please get back to me, I would appreciate it. Concho is ready to get this project going. If you have any questions, please let me know.

Thanks, Cliff

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From: Cliff Brunson < cbrunson@bbcinternational.com>

Date: Tuesday, January 28, 2014 5:52 PM

To: <rpair@blm.gov>

Cc: Ken Swinney kswinney@bbcinternational.com, Jennifer Gilkey kswinney@bbcinternational.com, Jennifer Gilkey kswinney@bbcinternational.com, Jennifer Gilkey kswinney@bbcinternational.com, Kathy Purvis

<kathy@bbcinternational.com>

Subject: Remediation Plan-Concho Perkins/Cottonmouth 4" SWD Line

Randal,

I appreciate your return phone call this afternoon about this site. I have attached the remediation plan that we discussed. If you would please look over what we have proposed and if this meets your requirements and agreement, please respond back via e-mail with your approval. We will then get with Concho and get a timeline on when we will start and will notify you in advance.

If you have any questions, please do not hesitate to contact me.

Thanks, Cliff

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