From: <u>Billings, Bradford, EMNRD</u>
To: <u>ACannon@yatespetroleum.com</u>

Cc: Patterson, Heather, EMNRD; Griswold, Jim, EMNRD; Oberding, Tomas, EMNRD

**Subject:** Compromise SWD 2RP-2797

**Date:** Wednesday, May 13, 2015 4:31:58 PM

Ms. Cannon,

The OCD is in receipt of the identified work plan for the above named location dated May 11, 2015. The work plan is inadequate. We have the following comments:

- 1) Appendix B contains concentrations labelled as "ND". The OCD believes this means nondetect. The actual laboratory detection limits need to be indicated in such tables.
- 2) You refer to "sections" in your letter of the 11<sup>th</sup>. It is unclear what is meant when you use that word. It is our inference that you are referring to a boring number.
- 3) Appendix A refers to locations/designators as Comp Well 4, Comp Well 14, etc, when these appear to be pothole locations, not actual monitoring wells.
- 4) The caving of soils observed while digging to depths in excess of 11 feet on April 30<sup>th</sup> which did not allow Yates to obtain discrete soil samples lends credence to the notion that vertical delineation should be undertaken using hollow stem auger rather than a backhoe.
- 5) Yates admits that vertical delineation of chloride soil contamination within the release area is incomplete. This work plan does nothing to address this deficiency.
- 6) Determination of actual "background" soil and water concentrations of chloride will inevitably fall out of a proper and complete investigation of the release. As such, Yates' intention to "conduct background sampling" within their plan of action is perhaps premature.
- 7) Yates speaks of water quality in the work plan, but provides no clear indication as to where and how any monitoring wells will be installed. Monitor wells, relative to delineation of the site should be placed for evaluation of possible ground water impact. Subsequent reporting must provide details on how wells are drilled including boring logs, construction aspects of well, development and purging protocols, and sampling techniques. Top of casing elevations should be surveyed to an accuracy of 0.01 feet for later depth to water assessment and confirmation of ground water gradient.
- 8) Yates goes on to state if "poor" water quality is observed in samples taken upgradient of the production pad "...Yates would submit notification to NMOCD that no further work would be completed as background would prove the area already contained elevated chloride levels." The NMOCD is the final arbiter of when the release has been adequately delineated and what further corrective action may be required. Chloride contamination which may be observed in the "background" locations may be the result of the release in question, historic releases, and/or natural conditions.

The presentation of information regarding prior investigation activities as summarized in your letter of May  $11^{th}$ , including the multiple appendices is unclear at best. Future correspondence should strive to be concise yet comprehensive.

## **Bradford Billings**

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