

WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

March 31, 2015

TO: Internal File
THRU: Daron Haddock, Coal Program Manager
FROM: Steve Christensen, Environmental Scientist



RE: 2014 3rd Quarter Water Monitoring (WQ14-3), Price River Terminal, LLC., Wellington Preparation Plant, C/007/0012, Task ID #4680

The Wellington Preparation Plant is currently in temporary cessation of coal mining or reclamation operations. However; trans-loading of oil is currently being conducted at the site by Price River Terminal, LLC (the Permittee). Water-monitoring requirements are in Sections 7.23 and 7.31.2 through 7.31.22, and Tables 7.24-2 and 7.24-5 of the MRP.

1. On what date does the MRP require a five-year re-sampling of baseline water data.

Baseline parameters are collected in the year preceding permit renewal. The next scheduled permit renewal for the Wellington Preparation Plant is November 30, 2014. Historically, baseline sampling has occurred during the 1st quarter of the permit renewal year. However; the Division and the Permittee have discussed that data obtained during late 2nd quarter or 3rd quarter would be more representative of baseline conditions. As a result, the Permittee collected baseline data in 3rd quarter of 2014. The next baseline collection event would be in the 3rd quarter of 2019.

2. Were data submitted for all of the MRP required sites?

Streams and Ponds

YES NO

The surface water monitoring plan requires sampling of nine surface water sites (SW-1, SW-2, SW-2A, SW-3, SW-4, SW-5, SW-6, SW-7 and SW-8). The required water quality parameters are provided in Table 7.24.5 with the exception of SW-2. Flow is the only data collected at monitoring site SW-2. Surface water monitoring sites are no longer monitored for BTEX-N. The reduction in monitoring at these sites was the result of inactivity at the site (Task ID #4253). Four of the sites are retention ponds (SW-5, SW-6, SW-7 and SW-8).

Water quality data was obtained from three sites: SW-1, SW-2 and SW-2A. The remaining monitoring locations reported no flow.

Wells

YES NO

The Permittee is required to analyze samples quarterly from 16 well sites. GW-12 is no longer required for monitoring (since 1st quarter 2012. Mid-term). GW-1, GW-3, GW-4, GW-6, GW-7, GW-8, GW-9, GW-9B, GW-10, GW-13, GW-14, GW-15A, GW-15B, GW-16, and GW-17 for the parameters in Table 7.24-2, and to measure depth only at GW-2.

Monitoring well GW-12 is no longer an actively monitored site. It was dropped during the most recent mid-term review (Task ID #4253). It was last sampled during the 4th quarter of 2012.

Data was submitted for all of the required monitoring well sites. Monitoring well GW-3, did not have enough water to collect a sample (i.e. they were reported dry).

UPDES

YES NO

Six UPDES permitted outfalls at the Wellington Preparation Plant are monitored monthly: #UTG040010-003, 004, 005, 006, 007, and 008. Outfall 005 discharged on September 30th, 2015. The required UPDES water equality parameters were sampled for and provided to the Division.

3. Were all required parameters reported for each site?

Streams and Ponds

YES NO

Wells

YES NO

UPDES

YES NO

4. Were any irregularities found in the data?

Streams and Ponds

YES NO

Surface water monitoring site SW-1 reported an elevated chloride (Cl) concentration outside of two standard deviations from the mean in the 1st quarter of 2014. The chloride concentration has returned to within two standard deviations for the last two quarters. An elevated nitrate (NO3) concentration was reported with the additional baseline sampling. A reported value of 2.78 ppm was reported. The average is 0.88 ppm.

Surface water monitoring site SW-2A had produced several parameters slightly outside of two standard deviations from the mean during the 1st quarter of 2014: dissolved calcium (D-Ca) 265.9 ppm, dissolved magnesium (D-Mg) 164.12 ppm, Cl 113 ppm, sulfate (SO4) 1,725 ppm, total hardness (T-Hardns) 1,340 ppm, total dissolved solids (TDS) 3,096 ppm and total anions (T-Anis) of 45.81 milliequivalents per liter (meq/l). All of the concentrations for the aforementioned parameters have been reported within two standard deviations from the mean for

the last two quarters (WQ14-2 and WQ14-3). However; an elevated lab specific conductance was reported this quarter (5,230 umhos/cm). The average for the monitoring site is 1,994.57 umhos/cm.

Wells

YES NO

Monitoring well GW-1 has again reported slightly elevated chloride concentrations for this quarter. An elevated chloride concentration was reported for the 1st quarter of 2014, but then returned to within two standard deviations of the mean the previous quarter (WQ14-2).

Monitoring well GW-3 has not had a measurable water level since June of 2009.

Monitoring well GW-4 had previously reported a decrease in dissolved calcium (D-Ca), dissolved magnesium (D-Mg) and Total Anions (T-Anis) the previous quarter. A reduction in bicarbonate (CaCO₃) was reported the previous quarter. A reduced concentration for D-Ca was reported this quarter (328.32 ppm)

The bicarbonate concentration for monitoring well GW-8 had shown a slight reduction from the mean the 1st quarter of 2014. The bicarbonate levels have returned to within established limits the last two quarters.

Monitoring well GW-9 reported a slight reduction in bicarbonate level. The reported concentration of 609 ppm was 2.34 standard deviations below the mean of 672.80 ppm.

Monitoring well GW-9B reported a reduction in concentration for D-Mg, dissolved sodium (D-Na) and total cations (T-Cats) during the 1st quarter of 2014. A continued reduction in D-Na was produced 2nd quarter 2014. A reduced concentration of D-Na was reported this quarter (1,208.7 ppm).

The D-Na concentration for monitoring well GW-13 was reported as slightly below two standard deviations from the mean the previous quarter. The concentration returned to historically a historically more representative concentration for the 2nd quarter of 2014. Monitoring well GW-13 was reported as being too dry to obtain a sample.

Monitoring well GW-15A had reported elevated concentrations for chlorine (Cl), total alkalinity (T-Alk) and cation/anion difference during the 1st quarter of 2014. The values have returned to normal concentrations the past two quarters.

Elevated concentrations for D-Mg, D-Na, Cl and sulfate were reported the 1st quarter of 2014. The concentrations have returned to within historically normal trends for monitoring well GW-16 for the last two quarters.

Monitoring well GW-17 reported elevated concentrations for D-Ca, D-Mg, D-K, sulfate, total hardness and TDS for the previous two consecutive quarters. The elevated concentrations returned to within established trends this quarter.

UPDES

YES NO

UPDES 005 reported a discharge on September 30th, 2014. A flow value of 8.38 gpm was reported. The mean discharge for the monitoring site is 0.05 gpm. Heavy rainfall events occurred prior to the discharge from UPDES 005. The rainfall events caused excessive flooding in the area.

5. Does the Mine Permittee need to submit more information to fulfill this quarter's monitoring requirements?

YES NO

6. Follow-up from last quarter, if necessary.

NA

7. Based on your review, what further actions, if any, do you recommend?

NA