

# WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

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March 30<sup>th</sup>, 2016

TO: Internal File

THRU: Daron Haddock, Coal Program Manager

FROM: Steve Christensen, Environmental Scientist 

RE: 2015 2<sup>nd</sup> Quarter Water Monitoring (WQ15-2), Price River Terminal, LLC., Wellington Preparation Plant, C/007/0012, Task ID #4929

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 baseline collection event will be the 3<sup>rd</sup> 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 (SW-3, SW-4, SW-5, SW-6, SW-7 and SW-8).

### Wells

YES  NO

The Permittee is required to analyze samples quarterly from 16 well sites. GW-12 is no longer required for monitoring (since 1<sup>st</sup> 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 4<sup>th</sup> 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.

**UPDES** YES  NO

Six UPDES permitted outfalls at the Wellington Preparation Plant are monitored monthly: #UTG040010-003, 004, 005, 006, 007, and 008. None of the UPDES discharge points reported a discharge this quarter.

**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

Elevated concentrations for D-Mg, Cl, T-hardness and total cations were reported for monitoring site SW-1 the previous quarter. All reported parameters were within the historical range this quarter.

Surface water monitoring site SW-2A, reported slightly elevated concentrations for Cl, D-Mg and field conductivity the previous quarter. All reported parameters this quarter were within established ranges.

**Wells** YES  NO

Monitoring well GW-1 reported slightly elevated concentrations for D-K, Cl and TDS the 4<sup>th</sup> quarter of 2015. The Cl concentration was again slightly elevated along with D-K and TDS the first quarter of 2015. The reported concentrations for the aforementioned parameters returned to historical ranges this quarter.

Monitoring well GW-10 reported an elevated total selenium concentration of 60 ug/l the last quarter of 2014. The selenium concentrations returned to within historic ranges for the 1<sup>st</sup> quarter of 2015 and again this quarter.

Monitoring well GW-13 reported a slightly increased concentration for D-K.

Monitoring well GW-15A reported elevated concentrations for numerous parameters: field conductivity, D-Mg, D-Na, Cl, T-Alk, T-hardness, TDS, total cations and total anions the previous quarter. These parameters were reported well outside of two standard deviations of the mean again this quarter with the addition of an increase in sulfate.

GW-15B reported large increases in concentration for total iron and total manganese.

Monitoring GW-16 reported slightly reduced concentrations for D-Mg, D-Na, SO4 and total-hardness and an increase in concentration was reported for bicarbonate the previous quarter. All reported concentrations were within historical ranges this quarter.

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) in the 1<sup>st</sup> quarter of 2014. A reduction in bicarbonate (CaCO<sub>3</sub>) was during the 2<sup>nd</sup> quarter of 2014. A reduced concentration for dissolved calcium was reported for 3<sup>rd</sup> and 4<sup>th</sup> quarter of 2014. Concentrations for all required parameters returned to historical ranges the 1<sup>st</sup> quarter of 2015. Reported concentrations this quarter were slightly elevated for bicarbonate and total anions.

Significantly lower concentrations were reported for D-Ca, D-Mg, D-K, D-Na for monitoring well GW-8 during the 1<sup>st</sup> quarter of 2015. These parameters were reported within historic ranges this quarter.

A reduction in D-Na and CaCO<sub>3</sub> was reported for monitoring well GW-9 during the 4<sup>th</sup> quarter of 2014. A reduced concentration for bicarbonate was reported again during the 1<sup>st</sup> quarter of 2015. A reduction of bicarbonate was again reported along with a reduction in dissolved sodium concentration.

Monitoring well GW-9B reported a reduction in concentration for D-Mg, dissolved sodium (D-Na) and total cations (T-Cats) during the 3<sup>rd</sup> quarter of 2014. A continued reduction in D-Na was produced during the 4<sup>th</sup> quarter of 2014 and again during the 1<sup>st</sup> quarter of 2015. Sodium was again reported lower than the mean.

**UPDES**

YES  NO

**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