CORDILLERAN

May 10, 2008

EnCana Oil & Gas (USA) Inc.
2717 County Rd. 215
Suite 100
Parachute, CO 81635
Attn: Mr. Brett Middleton

Dear Mr. Middleton:

Cordilleran Compliance Services, Inc. (Cordilleran) has been retained by EnCana Oil & Gas (USA) Inc. (EnCana) to provide environmental services including; quarterly groundwater and surface-water monitoring and remediation of groundwater that has been impacted by dissolved phase volatile hydrocarbons comprised primarily of methane and benzene in the area of the West Divide Creek Gas Seep (Figure 1).

This report summarizes the results of surface-water and groundwater monitoring in March 2008 and data collected since 2004 at the seep site in a continued effort to monitor the possible migration of the hydrocarbon plume.

Groundwater and Surface-Water Monitoring

Cordilleran collected groundwater samples from twenty-one monitoring wells during March 2008. Seventeen of these monitoring wells are located on the Langegger property, one well is located on the Thompson property, and three wells are located on the Eicher property. Groundwater samples and field parameters (temperature, specific conductance, dissolved oxygen, pH, total dissolved solids and turbidity), were collected from March 3, 2008 and March 4, 2008 from monitoring wells (MW-1, 2, 4, 6-9, 12, 14-18, 20-24, 26, and 27) (Figure 1). Prior to sample collection, static water levels were measured in monitoring wells to within 0.01 feet (ft) from the top of the PVC casing using an electronic water level indicator. A total of three casing volumes were removed prior to sampling each well using dedicated disposable bailers with bottom loading valve assemblies. Field parameters were obtained at the completion of purging activities. Groundwater samples were collected following field parameter measurements.

Cordilleran collected eight surface-water samples (DCS-1-8) and field parameters (temperature, specific conductance (SpC), dissolved oxygen, pH, total dissolved solids, and turbidity) from the West Divide Creek located on the Langegger property on March 3, 2008.

Water-quality samples collected during this period were analyzed by Evergreen Analytical Laboratory (EAL) of Wheat Ridge, CO for the following analysis:

- BTEX/MTBE using EPA method 8021

- Dissolved methane using method RSK 175M
- Chloride (Cl) using method 300E
- Sodium (Na) using method SW6020
- pH using EPA method 150.1
- Total dissolved solids (TDS) using method SM240C
- Specific conductivity using method SM251B.

Isotopic methane was determined by Isotech Laboratories, Inc of Champaign, IL. Stable isotopes of carbon and hydrogen in methane and stable isotopes of carbon in ethane and propane and gas composition were determined where dissolved gasses were sufficient.

Groundwater and surface-water samples were placed in the appropriate sample containers provided by EAL, labeled, stored on ice, and delivered under chain-of-custody procedures to EAL.

Site Hydrogeology and Hydrology

In the vicinity of the seep area, groundwater was encountered at depths ranging from surface level (in the seep area) to 23.12 (MW-21) feet below ground surface (ft-bgs). The groundwater flow direction continues to be from the seep area towards the north, mimicking the creek flow direction (Figure 2). The groundwater gradient for this period of monitoring was 0.023 feet/foot (ft/ft), which is consistent with gradients measured during other monitoring periods.

The interaction between groundwater and the creek is based on water level measurements determined by measuring water levels in the stream and piezometers on the stream banks (Figure 1). The shallow, unconfined groundwater in the area of remediation is in communication with surface water of West Divide Creek with recharge to the area from the east. Groundwater found in the area, east of West Divide Creek is influenced by springs that originate from unlined irrigation ditches located on the mesa to the east. The results generally indicate that the creek is losing water to groundwater on the west side of the creek and the creek is gaining water from the wetlands east of the creek.

The flow in the creek during March was low due the lack spring runoff. During March, the south-east side of the study area, primarily within the vicinity of the wetlands near monitoring wells 12, 13, 19 and 25 was frozen; therefore the groundwater levels and groundwater samples were not acquired from these wells.

Groundwater Monitoring Results

A summary of laboratory analytical groundwater results for March 2008 is presented in Table 1. The extent of benzene concentrations for this monitoring period is shown in Figure 3. The total dissolved methane concentrations are shown in Figure 4. The March 2008 results along with results for the last year are depicted in Figure 5. A summary of historical hydrocarbon analyses results for groundwater for data collected since 2004 are contained in Appendix A. The

laboratory reports for March 2008 are in Appendix C and a digital package of all field and laboratory data collected to date, including inorganic results are in Appendix D.

For March 2008, detections of benzene, toluene, ethylbenzene, and total xylenes (BTEX) were found in monitoring wells 2, 4, 9, 14 and 17. For this reporting period, benzene concentrations above the state standard of 5 $\mu g/l$ were found in monitoring wells MW-2 at 186 $\mu g/l$, MW-4 at 130 $\mu g/l$, and MW-17 at 6.7 $\mu g/l$ (Table 1). Toluene was not detected above the lower laboratory detection limit (LDL) of 2 $\mu g/l$ in any of the Divide Creek monitoring wells during March 2008 (Table 1). Ethylbenzene was detected during March in monitoring wells MW-2 and MW-4 at concentrations of 5.1 $\mu g/l$ and 3.3 $\mu g/l$ respectively (Table 1). Total xylenes were present during March in well MW-4 at a concentration of 31.6 $\mu g/l$ (Table 1).

Total dissolved methane concentrations, which includes biogenic and thermogenic methane in groundwater have decreased since the start up of the air sparge system in the area of MW-1, MW-6, MW-7, and MW-8 (Appendix A). Total dissolved methane above the LDL is generally detected in all monitoring wells in the study area. The highest concentrations of total dissolved methane in the groundwater are located in close proximity to the seep at wells MW-4 and MW-9 (Table 1 and Figure 4).

The laboratory results for methane are reported as total dissolved methane. This included both biogenic (methane gas generated by biologic reduction of organic matter) and thermogenic methane (methane gas generated by thermal reduction of deeply buried organic matter). Using the reported total dissolved methane concentration; the concentration of thermogenic methane was calculated. Isotopic samples were collected from monitoring wells 2, 4, 9, 12, 14, 16, and 17 during this monitoring period, which have historically shown the presence of thermogenic methane. The results indicate that thermogenic methane was found in monitoring wells MW-2 at 3.6 mg/L, MW-4 at 6.4 mg/L, MW-9 at 5.0 mg/L, MW-14 at 3.1 mg/L and MW-17 at 0.50 mg/L (Table 1).

Surface-Water Monitoring Results

Laboratory results indicate that BTEX compounds were not detected in any of the Divide Creek surface-water samples (Table 2). Total dissolved methane was detected in all samples; all with concentrations less than 1.0 mg/l (Table 2). The results to date indicate that thermogenic methane has dropped considerably within and down stream of the seep at locations DCS-2 and DCS-3 (Appendix B).

Divide Creek Seep Status

The air sparge remediation system has operated continuously throughout the quarter with minimal down time. Since the start up of the system in April of 2004, the number of monitoring stations with benzene concentrations above the maximum contaminant level (MCL) in the area has been reduced from 14 to 3. Thermogenic methane concentrations have dropped dramatically downgradient of the seep and within the remediation system. The size of the area underlain by

groundwater that is impacted by benzene concentrations above 1.0 $\mu g / l$ has been reduced from 134,974 ft^2 in June 2005 to approximately 72,613 ft^2 in March 2008.

A summary of historical analytical results for groundwater and surface water for the West Divide Creek Seep study area are contained in Appendix A (Groundwater) and Appendix B (Surface water). The historical data for groundwater and surface water indicates the following:

- 12 wells (MW-11, 13, 15, 18, 19, 20, 21, 22, 23, 24, 26 and 27) have never had any detections of any BTEX compounds above the LDL;
- Monitoring wells MW-1, 6, 7 and 8 located within the treatment area of the air sparge remediation system have not had any detections of benzene above the state standard since 2005 or 6 months after startup of the system;
- Monitoring wells 2, 4, 9, 12, 14, 16 and 17 located near the seep and upgradient of the remediation system have shown decreasing concentrations of benzene since the initial discovery of the seep in 2004;
- Benzene concentrations greater than the state standard and total dissolved methane greater than 1 mg/L in groundwater is primarily located within 250 feet of the seep;
- Thermogenic methane concentrations have fluctuated but essentially remained the same in wells located in the vicinity of the seep;
- Thermogenic methane concentrations have been reduced significantly downstream of the seep and in the area of the remediation system; and
- BTEX compounds have not been detected above the LDL in the creek since 2005.

For remediation, it is expected that the treatment time will be reduced from 24 hr/day to 12 hr/day in order to understand any rebounds in concentrations. The treatment time may be reduced further if the data shows continued treatment at 12 hr/day is sufficient. Cordilleran will continue to evaluate remedial options in the area upgradient of the present air sparge array. Comprehensive monitoring and remediation has been implemented since April 2004. Monitoring of all springs, ponds, monitoring wells, and West Divide Creek has continuously shown that the air sparge remediation system has successfully mitigated migration of the hydrocarbon plume.

Cordilleran recommends that a variance be applied for to reduce the number of wells and frequency of monitoring for the reasons listed above. Monitoring wells 18, 19, 20, 21 23, 24, 25, 26 and 27 and West Divide Creek Monitoring Stations DCS- 6, 7, 8 have not shown BTEX concentrations above the lower detection limits for the past 45 months and should be sampled on annual basis in the fall when concentration levels may exceed the LDL. All other monitoring wells and surface-water monitoring stations (MW-1, 2, 4, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, DCS-1, 2, 3, 4 and 5) and water levels should continue to be monitored due to their location to the seep and the remediation system on a quarterly basis.

Cordilleran appreciates the opportunity to provide services to EnCana Oil & Gas (USA) Inc. If you have any questions or concerns regarding this information, please contact our offices.

Sincerely,
Cordilleran Compliance Services, Inc.

Dion Plsek, P.E
Principal Engineer

Brad Stephenson, P.G.
Associate Hydrogeologist

Attachments

TABLES

FIGURES

APPENDIX A

APPENDIX B

APPENDIX C