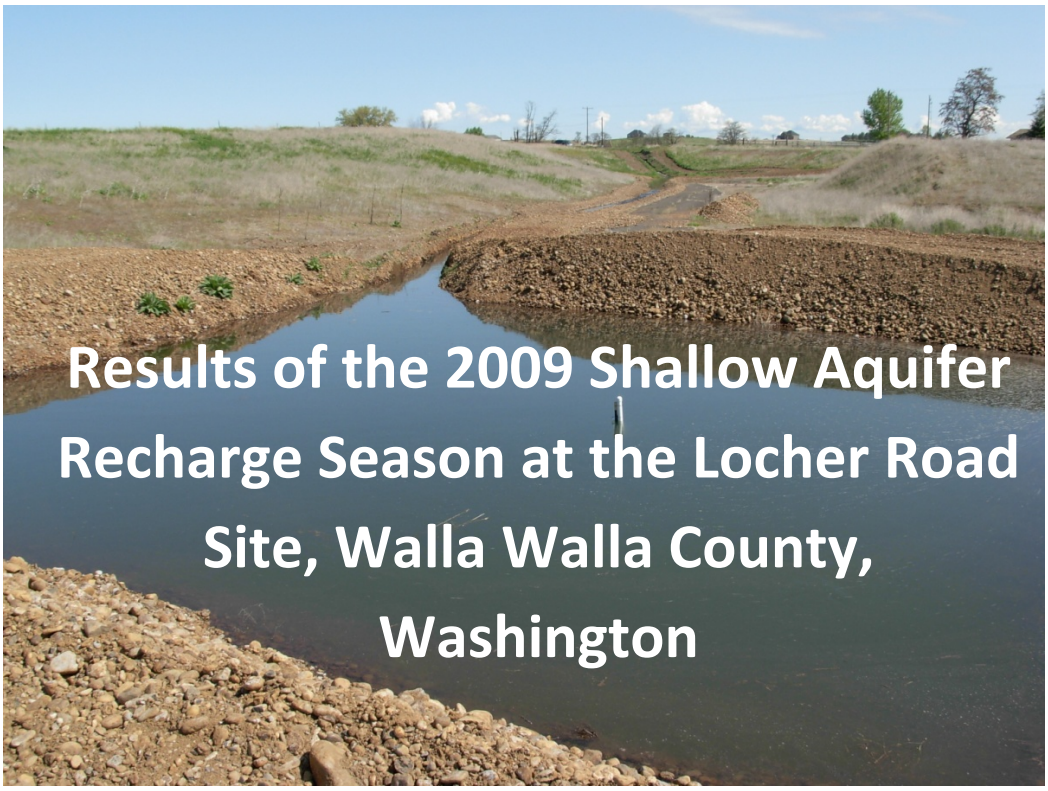
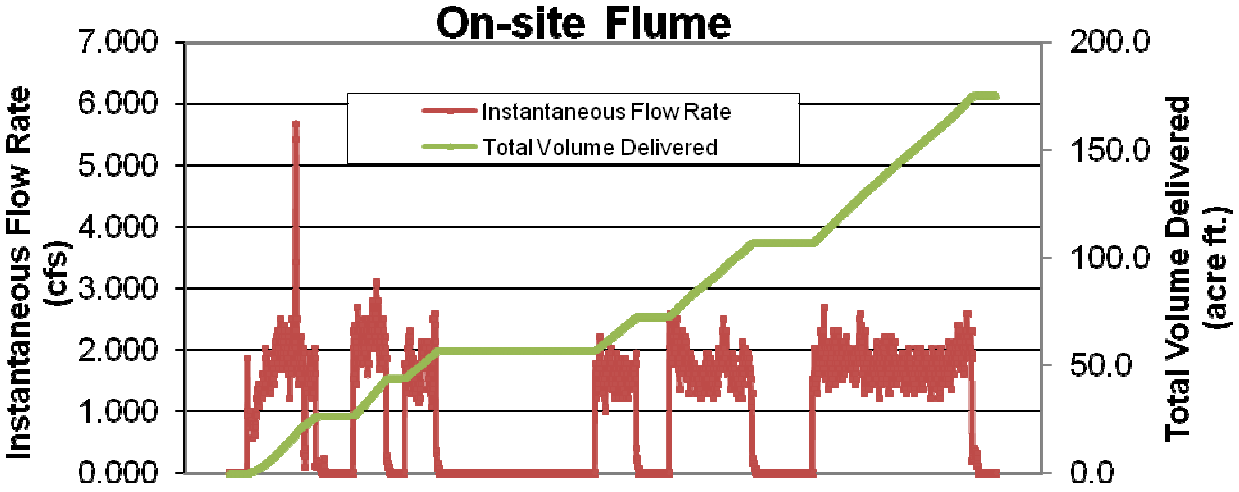


Results of the 2009 Shallow Aquifer Recharge Season at the Locher Road Site, Walla Walla County, Washington



Prepared for
Gardena Farms Irrigation District #13 and
Washington Department of Ecology

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December 2009

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Executive Summary

This report presents data collected during the 2009 shallow aquifer recharge (SAR) season at the Locher Road Site (the Site) and preliminary interpretations of that data. Work continued to evaluate the feasibility of using SAR to help restore depleted shallow alluvial aquifer groundwater levels and improve flow in spring-fed creeks and streams. SAR at the Site is permitted under a temporary water use authorization granted by the Washington Department of Ecology to Gardena Farms Irrigation District #13 (GFID). This permit authorizes SAR activity for a single season and specifies operating and monitoring conditions for that season. The work done during the 2009 SAR season was done under the third successive permit granted to date.

Given GFID canal operational constraints, observed flow conditions in the Walla Walla River, and the conditions associated with the temporary water use authorization, the 2009 SAR season began on 06 March 2009 and ended on 01 June 2009. Because of flow requirements on the Walla Walla River (both minimum and maximum), SAR activities in the 2009 SAR season occurred in six separate events. A total of approximately 175 acre-feet of water was delivered to the Site and recharged to the alluvial aquifer system during the 56 operational days of the 2009 SAR season.

The alluvial aquifer in the vicinity of the Site does respond to SAR activities, rising and falling as the recharge rate increased and decreased. However, it is not known how far away from the Site the water table response extended during the 2009 SAR season. Water level data collected from off-site wells showed the influence of groundwater pumping which masked the effects of SAR, if any, on the water table more distant from the Site. Following the end of the SAR season, alluvial aquifer water levels at the Site began to fall within one day of the end of operations.

Based on the field and basic water quality parameters collected during the 2009 SAR season, SAR activities at the Site are interpreted to have not degraded groundwater quality in the area of the Site. This data does suggest a high degree of hydraulic continuity between local surface and groundwater, with groundwater at the Site likely influenced by surface water up-gradient of the Site. A few SOC's were detected intermittently. However, the timing of these detections are interpreted to indicate they were not caused by SAR operations and the measured concentrations represent background concentrations related to off-site activities.

It is recommended that SAR at the Site be continued as it does provide recharge to the alluvial aquifer system. Future work should include increasing the size and volume of the recharge basin(s) and conducting currently planned aquifer testing. In addition, every opportunity to deliver water to the Site for SAR should be exploited. This would include several actions being recommended in a draft water plan that GFID will be submitting to the Walla Walla Watershed Partnership in the near future. Finally, given that the alluvial aquifer beneath the Site already receives significant recharge from the Burlingame Canal, and that SOC's are only present rarely and intermittently at extremely low concentrations, it is recommended that SOC sampling be discontinued.

Table of Contents

List of Tables

List of Figures

List of Appendices

1.0 - INTRODUCTION

The Locher Road shallow aquifer recharge pilot project (the Project) is one of several projects in the Walla Walla Basin (the Basin) being done to evaluate shallow aquifer recharge (SAR) methods and effects. The objectives of the Project are to gain experience and information on SAR operations, collect information and data to use in evaluating the possible effects of SAR on shallow alluvial aquifer water levels and to contribute recharge water to the alluvial aquifer system. SAR is being explored by water resource stakeholders, in conjunction with other activities in the Basin, to help address water supply, stream flow, water table level, and habitat issues. Data collected from the Locher Road site (the Site) will be used to address these issues in the immediate area of the Site and contribute to basin-wide planning and water resource management efforts.

It is anticipated that pilot SAR activities at the Site will be carried out for several more years, or SAR seasons. Consequently, this report is an interim, or annual, report for 2009 and it does not present final conclusions relative to the project. It is the third annual report produced for the Project to-date.

This report describes the results of the 2009 SAR season, summarizes some basic comparisons between previous seasons and the 2009 SAR season, and presents recommendations for future SAR activities at the Site to be implemented as funding is secured. Site location and basic layout are shown in Figures 1 and 2. As the project progresses over the next several years future project reports will build on the data and recommendations presented in this, previous (GSI, 2007, 2008), and subsequent annual reports.

Descriptions of basic Site physical conditions and infrastructure are found in previous reports (Kennedy/Jenks, 2006; GSI, 2007, 2008). Kennedy/Jenks (2006) also describes: (1) background conditions interpreted for the Site prior to the start of SAR in early 2007 and (2) regulatory constraints under which SAR can be done at the Site. That information will not be repeated in this report.

The data and information described in this report was collected by GSI Water Solutions, Inc. (GSI) as the Project hydrogeologist under contract to Gardena Farms Irrigation District #13 (GFID), by GFID as the Site operator, and by the Walla Walla Basin Watershed Council (WWBWC) as part of its basin-wide groundwater and surface water

data collection and monitoring efforts. This Project is funded by the Washington Department of Ecology (Ecology). The permit authority to operate the Site for the Project was granted by Ecology under a temporary water use authorization issued to GFID.

Topics and information presented in this report include the following:

- A timeline listing the major events associated with the 2009 SAR season.
- Site modifications and changes relative to the 2008 SAR season.
- Rates and volumes of water delivered to the Site in the 2009 SAR season.
- Alluvial aquifer water levels and Mud Creek staff gauge measurements before, during, and after the 2009 SAR season.
- Results of groundwater and surface water quality monitoring for the 2009 SAR season.
- Conclusions and recommendations.

In addition, this report is accompanied by appendices that contain data and information collected during the course of the 2009 SAR season. These appendices are as follows:

- Appendix A. Water quality data, including laboratory QA/QC records.

The Site, including turnouts, control gates, and water distribution was manually operated by the GFID personnel during the 2009 SAR season. GFID staff adjusted flows diverted onto the Site as needed to prevent overtopping of the recharge basins and to meet the conditions and provisions of the temporary water use authorization. GFID staff recorded the time and date of specific actions in field notes, and provided those notes to GSI for use in the preparation of this report. Staff gauge readings also were periodically taken by GFID staff and recorded in project field notes.

WWBWC staff was responsible for water quality sampling before, during, and after the 2009 SAR season, submitting these samples to an analytical laboratory for analysis, and providing analytical results to GSI. WWBWC staff also provided GSI staff with water level data from wells in WWBWC's alluvial aquifer monitoring network that are near the Site.

GSI staff primarily was responsible for data analysis and reporting. In addition, GSI staff attempted to coordinate the activities of GSI, WWBWC, and GFID on the Project.

For the work described herein, the project team included the following people:

- Stuart Durfee – GFID Manager, project manager for the Project, and Site operator.
- Kevin Lindsey, Ph.D., L.HG. – GSI project manager and hydrogeologist.
- John Fazio, P.E. – Fazio Engineering, project engineer, working under subcontract to GSI.
- Jon Travis – GSI, technical support.
- Terry Tolan, L.HG. – GSI, technical review, hydrogeologist.
- Troy Baker – WWBWC, water quality sampling.
- Nella Parks – WWBWC, technical support.

The work conducted for this project could not have been done without the cooperation of the Site landowner, Mrs. Patricia Case, the efforts of GFID staff, and the endorsement of the GFID Board of Directors. We thank these people for their support.

2.0 - 2009 TIMELINE

The primary actions associated with the Project during the 2009 SAR season were to operate it and deliver water to the Site (GFID staff primarily responsible), collect monitoring data (WWBWC primarily responsible), and evaluate and interpret monitoring and performance data (GSI staff primarily responsible). Below is a chronological list of basic project activities conducted before, during, and after the 2009 SAR season.

- 28 October 2008 – Samples for basic water quality parameters and carbamates collected by WWBWC staff from wells L-1, L-2 and L-3. Source water not collected because Burlingame Canal was not operating.
- 16 December 2008 – Samples for basic water quality parameters and SOC's collected by WWBWC staff from wells L-1, L-2 and L-3. Carbamates not analyzed for in well L-1 sample. Source water not collected because Burlingame Canal was not operating.
- 12 February 2009 – Samples for basic water quality collected by WWBWC staff from all three wells and source water. Samples for SOC analysis also collected

by WWBWC staff from all three wells. Source water not collected because Burlingame Canal was not operating.

- 03 March 2009 – GSI staff install transducer in flume.
- 05 March 2009 – Burlingame Canal operation resumes for spring with opening of head gate on the Walla Walla River near Beet Road by GFID staff.
- 06 March 2009 – 2009 recharge season begins at 1100 hours. Initial measurement on flume gauge is 0.12 feet or 0.360 cfs.
- 12 March 2009 – Samples for basic water quality parameters, carbamates, and herbicides collected by WWBWC staff from all three wells and source water. SOC samples not collected.
- 13 March 2009 – GSI staff shutdown recharge at 0740 to install transducer in lower basin. Site operations resume at 1135.
- 15 March 2009 – GFID shuts down SAR operations.
- 19 March 2009 – GFID resumes SAR operations.
- 23 March 2009 – GFID shuts down SAR operations.
- 25 March 2009 – GFID resumes SAR operations.
- 29 March 2009 – GFID shuts down SAR operations.
- 17 April 2009 – GFID resumes SAR operations.
- 22 April 2009 – GFID shuts down SAR operations.
- 23 April 2009 – Samples for basic water quality collected by WWBWC staff from wells L-1 and L-2, source water, and Mud Creek.
- 26 April 2009 – GFID resumes SAR operations.
- 6 May 2009 – GFID shuts down SAR operations.
- 13 May 2009 – GFID resumes SAR operations.
- 28 May 2009 – Samples for basic water quality collected by WWBWC staff from wells L-1, L-2 and L-3, source water, and Mud Creek sampling points.
- 01 June 2009 – 2009 recharge season ends.

3.0 - ON-SITE WORK

No physical modifications were made to the Site for the 2009 SAR season. Work done late in the 2008 SAR season, which focused primarily on increasing the size of the lower basin and deepening the connecting trench between the upper and lower basin, increased the lower basin size approximately four times over its original size (GSI, 2007). For the 2009 SAR season the lower basin had a maximum volume of approximately 50,000 cubic-feet and an approximate wetted surface area of 10,400 square-feet.

4.0 - WATER VOLUME USED IN 2009 SAR SEASON

As was done in the preceding two SAR seasons, the volume of water delivered to the Site during the 2009 SAR season was measured at a ramp flume constructed at the turn-out from Burlingame Canal. A staff gauge for manual readings and a digital pressure transducer for electronic readings were installed in the ramp flume. A conversion chart for the staff gauge (see GSI, 2007) was prepared that allowed the direct conversion of staff gauge readings, in feet, to flow in cfs. Direct staff gauge readings were recorded in field notebooks by GSI and GFID staff during Site visits. The digital transducer was set to record pressure data hourly. The pressure data was converted to the depth of water (height) crossing the measurement sill. These data were subsequently converted to flow estimates using the equation:

$$Q = 10.18 \times h^{1.576}$$

Where:

h = height of water above flume measurement sill

Q = flow in cfs through flume

Based on this equation, instantaneous flow onto the Site ranged from approximately 1.0 to 2.5 cfs. The highest measured flow was approximately 5.6 cfs on 12 March 2009. Converting these flow calculations to volume, for the 2009 SAR season approximately 175.8 acre-feet of water (Figure 3) was delivered to the Site during the 56 operating days of the season, for a daily average of approximately 3.14 acre-feet/day.

The 2009 SAR season at the Site is subdivided into six discrete, separate events. The timing and duration of these events was controlled by flow in the Walla Walla River as

measured at the Detour Road gauge. Table 1 summarizes the start and end date, length, average instantaneous flow, and total water volume delivered to the Site for each of these events.

Based on the amount of time it took to drain the lower basin following each of the six events, infiltration rate estimates averaged over the entire lower basin were made. Given that the total surface area of the lower basin is approximately 10,400 square-feet and the water volume and drain time data summarized in Table 2 for each event, infiltration rate on a velocity and unit area basis ranges from 3.8 to 5.3 feet/day and 28 to 39 gallons/square-foot/day, respectively (Table 2). This variability likely reflects such factors as source water temperature (as it relates to viscosity), source water turbidity (as it may influence pore plugging), and water depth in the lower basin (as it may influence driving, pressure, or head).

Comparing water level data discussed in the next section to the known time each SAR event started suggests actual infiltration rates are more rapid than suggested by the average estimates summarized in Table 2. Water levels in the Site monitoring wells generally begin to rise within approximately 12 to 24 hours of the start of each recharge event. Given a depth to water beneath the lower basin of 15 feet, or slightly less, this response time suggests vertical flow velocities through the vadose zone in excess of 30 feet/day. This indicates actual infiltration is not evenly distributed through the substrate underlying the lower basin and that vertical flow along preferential pathways contributes significantly to speeding up infiltration from the basin to the underlying water table.

5.0 - WATER LEVELS DATA

5.1 Water Levels in Wells

As was done in previous SAR seasons, water levels were tracked in on-site monitoring wells L-1, L-2, and L-3. In addition, Ecology staff provided data from a well owned by the agency (referred to in the remainder of this report as the WWGRVL well). Water level data from all four wells was collected using digital transducers.

Although individual water levels differ in each of the Site wells and the WWGRVL well, all four wells display similar trends before, during, and in the case of the Site wells, after the 2009 SAR season (Figure 4). For example:

- In the two months prior to the start of the 2009 SAR season (06 March 2009), water levels in the four wells generally rose approximately 1 foot.
- The six separate recharge events comprising the 2009 SAR season are clearly seen in the hydrographs for these wells. In each, water levels began to rise within a few hours of the start of each event (less than 24 hours), and fall within a few hours of the end of each event (less than 24 hours).
- The three Site wells all show water level declines commencing at the end of the 2009 SAR season (01 June 2009) and continuing to the end of the data record for this season (late August 2009). The WWGRVL well data is incomplete and does not show the end of the SAR season.

There is an interesting anomaly in the water level data set. The WWGRVL well commonly displays higher water level elevation than the Site up-gradient well, L-1. The cause of this is unknown, but could be related to such things as an error in the elevation survey, error in the datum correction used to convert depth to water to water table elevation, and/or groundwater mounding related to seepage from the Burlingame Canal.

Off-site water level data was available for the 2009 SAR season from two wells in the Project area that WWBWC personnel had installed transducers in for their basin-wide monitoring program. These two wells are designated by WWBWC as GW 103 and GW 104. These wells are located to the northwest of the site near Frog Hollow Road (Figure 2). Hydrographs for these wells (Figure 5) show water level in GW 103 starting on 15 January 2009 and in GW 104 starting on 26 March 2009. Before testing began the water level at GW 103 was slowly rising and continued to rise after the start of testing on 06 March. GW 104 water level shows a slight rise in water level in early April after the start of testing. Unfortunately, groundwater pumping, in or near both of these wells which began in mid-April, impacts the static level in them. This readily can be seen in the rapid, repeated water level drops on the hydrographs for these wells (Figure 5). These pumping effects make it difficult to assess the impact of SAR operations on those more distant wells after the start of this pumping.

5.2 Mud Creek Stage

Water level, or stage, was also tracked in Mud Creek at one location for the 2009 recharge season; the culvert where Frog Hollow Road crosses the stream. The Frog

Hollow Road site is approximately two miles northwest, and down-gradient, of the Site and it is used to monitor stream levels that may possibly be influenced by Locher Road SAR. Figure 6 shows the stage data recorded by the transducer installed at this location. This data has not been converted to flow volume as a rating curve has not been constructed for this location. In addition, changes in stage have not been checked against such factors as vegetation growth, siltation, and human factors impacting water level. Given these limitations, this stage data is used to provide a general guide to estimate potential relative changes in stream flow before, during, and after the 2009 SAR season.

Mud Creek stage at Frog Hollow Road is variable (Figure 6). Generally it is increasing before the first event of the 2009 SAR season. During the first through fourth events, stage varies, rising and falling. Events 1 and 4 seem to be associated with the greatest stage drops, while events 2 and 3 occur during rises in stage. During and after the fourth event stream stage continues to decline until the start of the fifth event. Stage then begins to increase near the start of the fifth SAR event and continues to rise until SAR shutdown on 01June 2009. Approximately the same time the 2009 SAR season ends, stage also decreases. In addition, the stage decrease seen on 18 April 2009 is coincident with increased groundwater pumping recorded in off-site well GW 104. Given these observations, it is possible, although not certain, that stage changes at Frog Hollow Road might be tied to Locher Road SAR.

6.0 - WATER QUALITY

This section summarizes the results of water quality sampling and analysis done during the 2009 SAR season. Water quality samples were collected from the three Site monitoring wells (L-1, L-2, and L-3), Burlingame Canal at the turn out to the Site, and Mud Creek at Locher Road and at Frog Hollow Road.

6.1 Field and Basic Water Quality

Water quality data for the 2009, 2008, and 2007 SAR seasons are listed in Table 3 and 2009 data is summarized in this section. Complete laboratory results, including laboratory QA records, are reproduced in Appendix A.

For this summary variation in individual parameters during the 2009 SAR season are reviewed individually, with the review focusing on how measured concentrations varied

during the 2009 SAR season. It should be noted, prior to continuing with this review of water quality, that several problems encountered during the SAR season are manifest in the data. Pre-season source water sampling was not done because water was not flowing in the Burlingame Canal on scheduled sampling days. Temperature data was not reported because of problems with field equipment. A post season sampling event was not done because the sampler was unavailable and did not report this fact.

General observations with respect to basic and field water quality during the 2009 SAR season are summarized as follows:

- Pre-season pH for source water was higher than 7.0, while groundwater was less than 7.0 (Figure 7). Mud Creek surface was not sampled during the 2009 SAR season. Groundwater pH was consistently less than 7.0, and showed little variation. This highest groundwater pH during the 2009 SAR season generally was in Well L-1, up-gradient of the Site. The 11.94 pH measured in source water in March 2009 is assumed to be an error, not corrected or rechecked by the sampler while in the field. Source water pH measured later in the 2009 SAR season was similar to groundwater pH, less than 7.0.
- Electrical conductivity (EC) in pre-season groundwater, both up- and down-gradient, was between 125 and 418 micro Siemens per centimeter (mS/cm), with L-1 generally higher than L-2 and L-3 (Figure 8). Source water EC for the 2009 SAR season shows the most variation, although the high measurement on 12 March is, like that for the corresponding pH measurement assumed to be an error. Through the 2009 SAR season wells L-1 and L-2, up-gradient and down-gradient respectively, show the highest groundwater measurements.
- Pre-season hardness values range from a low of 53.7 mg/L in down-gradient well L-3, to a high of 161 mg/L in up-gradient well L-1 (Figure 9). Source water hardness in the pre-season was slightly less than measured in well L-1. During the 2009 SAR the highest hardness seen was in well L-1, which increased from 150 mg/L to 172 mg/L. The lowest hardness seen during the season was in source water, between 20.8 and 37.5 mg/L, and well L-3 between 44.0 and 50.5 mg/L.
- Nitrate-N concentrations in source water and groundwater prior to the start of the 2009 SAR season was less than 6.08 mg/L with up-gradient well L-1 displaying

the highest concentration (Figure 10). Source water nitrate-N during this period was less than 2.57. During the 2009 SAR season source water and groundwater nitrate-N concentrations in well L-3 were less than 2.05 mg/L. Wells L-1 and L-2 differ from this, displaying a marked increase in nitrate-N concentrations in the April and May samples.

- Total dissolved solids (TDS) in pre-season source and groundwater varied from lows of 145 to 169 mg/L in down-gradient groundwater (well L-3) up to highs of 257 to 259 mg/L in up-gradient groundwater (well L-1) (Figure 11). During the 2009 SAR season well L-3 continued to display the lowest groundwater concentrations while the highest values were shared by wells L-1 and L-2. With the exception of the March 2009 sample, source water hardness of 52 and 61 mg/L were the lowest measured for the season. Although we are not certain, we suspect the March 2009 data point an error, like we suspect for pH and EC.
- The trend seen in the chloride data (Figure 12) closely mimics those seen in the TDS data. Groundwater chloride is highest in well L-1 and L-2 through the pre-season and during the season, and lowest in well L-3. Source water is low during the season except for the March 2009 sample which, like it is in pH, EC, and TDS, appears to be anomalously elevated.
- Soluble reactive phosphorus (SRP) concentrations in groundwater and source water ranged between 0.17 and 0.23 mg/L prior of the 2009 SAR season, and between 0.06 and 0.27 mg/L during the season. Before and during the 2009 SAR season source water concentrations generally are less than groundwater concentrations.

Basic water quality parameters summarized above are interpreted to show that SAR activities at the Site did not degrade groundwater quality during the 2009 SAR season. This data, especially the fact that up-gradient groundwater concentrations in most parameters are higher than down-gradient groundwater concentrations and source water, suggests SAR operations at the Site may lead to reductions in parameter concentrations as recharge water is added to the aquifer underlying the Site.

6.2 SOC Water Quality

Three groups of chemicals comprise the SOC analytes for this project: carbonates, SOC's, and herbicides (Table 4). Sampling for these chemicals was done three times prior to the start of the 2009 SAR season, and once following the start of the season. The pre-season sampling events were on 28 October 2008, 19 December 2008, and 12 February 2009. The one sampling event during the season was on 12 March 2009. Sampling and analysis for the three SOC chemical groups on these events were as follows:

- Only carbonates were sampled and analyzed on 28 October 2008 from groundwater.
- All chemical categories were sampled and analyzed for on 16 December 2008 and 12 February 2009 in groundwater. Carbonates in well L-1 were not done.
- For the final sampling event, 12 March 2009, carbonates were sampled for in wells L-2 and L-3 and source water. No sampling was done for SOC's, and herbicides were sampled in all wells and source water.

We have no explanation for this consistency in sampling. Analytical results for this 2009 SAR season sampling is presented in Table 4 and summarized as follows:

- Bromacil was detected, but at extremely low concentrations, in the up-gradient well L-1 in the 16 December 2008 and 12 February 2009 samples. It was not detected in the other wells.
- Atrazine also was detected in well L-1 in the 12 February 2009 sample. It was not detected in the other two wells.
- Dacthal (DCPA) was detected in source water in the 12 March 2009 sample, but not in the wells.

A few SOC and related compounds were detected in up-gradient groundwater and source water before and during the 2009 SAR season. Their inconsistent occurrence, both temporally and spatially, and low concentrations are interpreted to suggest these detections represent very intermittent background conditions and that SAR at the Site is not contributing them to groundwater.

7.0 - COMPARISONS BETWEEN 2007, 2008 AND 2009 SAR SEASONS

This section presents preliminary qualitative comparisons between data collected and observations made during the 2007 and 2008 SAR seasons and the recently completed, 2009 SAR season. In particular:

- The 2009 SAR season was longer than the 2007 and 2008 seasons. Like the 2008 SAR season, it was periodically interrupted because of flow conditions in the Walla Walla River.
- During the 2007 SAR season the recharging capacity of the Site was approximately 1 acre-foot/day. For the 2008 SAR season following the expansion of the lower basin late in the season, average daily infiltration rates increased to approximately 2.4 acre-feet/day. During the 2009 SAR season average daily infiltration rates were 3.3 acre-feet/day. This three-fold increase in recharge capacity corresponded to an approximately four-fold increase in the size of the lower basin between the 2007 and 2009 SAR seasons.
- Water levels in down-gradient wells L-2 and L-3 rose almost 5 feet during the 2009 SAR season, several feet more than the 1.5 to 2.0 foot rise seen during the 2008 and 2007 SAR seasons.
- Field, basic water, and SOC water quality parameters for source water and groundwater during the 2009 SAR season appear to be similar to the 2008 and 2007 seasons. There were concentration fluctuations in basic and field parameters constituents, but no significant changes readily attributed to Site SAR activities.

8.0 - SUMMARY AND RECOMMENDATIONS

8.1 Summary

This report presents the results of the Locher Road 2009 SAR season and preliminary interpretations of some of the data collected to-date. This project is being done in a

continuing effort to evaluate the feasibility of using SAR to help restore depleted shallow alluvial aquifer groundwater levels, improve flow into spring-fed creeks, and increase base flow to streams. SAR at the Site was permitted under a temporary seasonal permit granted by the ECOLOGY. This temporary permit authorizes SAR activity for a single season and specifies operating and monitoring conditions.

The 2009 SAR season began on 06 March 2009 and ended on 01 June 2009. Because of operational restrictions tied to Walla Walla River flow levels specified in the temporary permit, SAR activities in the 2009 SAR season were broken into six separate events. A total of approximately 175.83 acre-feet of water was recharged to the alluvial aquifer during the 56 operational days of the 2009 SAR season.

The alluvial aquifer beneath the Site did respond to SAR activities, rising and falling as the recharge rate increased and decreased. It is not known exactly how far the water table response to 2009 SAR season activities extended away from the Site. Off site wells from which water level data was collected were pumping, or being influenced by pumping wells late in the 2009 SAR season, making an assessment of water table impact distally from the Site problematic. Following the end of the SAR season, water levels in the Site wells began to fall within one to two days of the end of operations.

Based on the field, basic water quality, and SOC parameters measured to-date, SAR activities at the Site are interpreted to have not degraded groundwater quality in the area. This data does suggest a high degree of hydraulic continuity between local surface and groundwater. Much of the impact to groundwater at the Site by surface water appears to be occurring up-gradient of the Site. A few SOC's have been detected intermittently. However, the timing of these detections suggests that they were not caused by SAR operations and the measured concentrations represent background concentrations related to off-site activities.

8.2 Recommendations

Based on the results of the 2009 SAR season described in this report, there are several recommendations for changes to Site operation and monitoring for the 2009/2010 SAR season. These include:

- Conduct an aquifer test in a proposed new, purpose-built test well, and use this data to further constrain aquifer properties and SAR impact on the aquifer in the

project area. It is our understanding that such a well will be drilled late in 2009 and tested in early 2010.

- Over the past few years the WWBWC, working cooperatively with ECOLOGY, has installed several groundwater monitoring wells in the vicinity of the Site. Data from these wells, as was done with GW-103 and GW-104, should be incorporated into the Locher Road SAR project for the 2009/2010 SAR season. If done, to the extent possible given operation of these wells by their owners, it would be beneficial to minimize pumping in and near such wells during the SAR season.
- The coordinates and reference point elevation of the WWGRVL well should be done so that an accurate water level elevation may be calculated to determine if it does indeed have an alluvial aquifer water level higher than the Site wells.
- Better coordinate the activities of the consultant with the WWBWC and GFID to prevent data collection oversights, and if they occur, to identify them and quickly rectify them.
- Due to the very low levels of SOC's occurring in source water and in groundwater up-gradient of the site before, during, and after SAR done to-date, it is recommended that water quality monitoring for SOC's be discontinued. The low levels detected in relatively few SOC analytes, suggests that these results reflect background concentrations in both surface water and groundwater unassociated with SAR.

Finally, GFID is nearing completion of a Local Water Plan (LWP) for consideration by the Walla Walla Watershed Partnership. One component of this LWP, the objective of which is to give GFID more flexibility in operation while enhancing in-stream flows, focuses on increased opportunity to operate the Locher Road SAR Site. Acceptance of this portion of the LWP, not to mention the rest of it, would significantly increase the potential for doing SAR at Locher Road as it will give GFID a greater ability to deliver water to the Site.

9.0 - REFERENCES CITED

Kennedy/Jenks, 2005, Proposed monitoring and test plan, Locher Road SAR Test Site, Walla Walla County, Washington, Revision 3. Consultants report prepared for EES/HDR, 21 pgs, 1 table, 2 figures.

GSI, 2007, Results of the first season of shallow aquifer SAR testing at the Locher Road Site, Walla Walla County, Washington. Consultants report prepared for Gardena Farms Irrigation District #13 and Washington Department of Ecology, 23 pgs, 5 tables, 17 figures, 5 Appendices.

GSI, 2008, Results of the 2008 shallow aquifer recharge season at the Locher Road Site, Walla Walla County, Washington. Consultants report prepared for Gardena Farms Irrigation District #13 and Washington Department of Ecology, 10 pgs, 2 tables, 8 figures, 2 Appendices.

Event #	Start Date	End Date	Number of Days	Average Instantaneous Flow (cfs)	Total Volume Delivered (acre-feet)	Reason for Shutdown
1	3/6/2009	3/15/2009	10	1.45	26.85	Walla Walla River over 1000 cfs
2	3/19/2009	3/23/2009	5	1.93	17.40	Walla Walla River over 1000 cfs
3	3/25/2009	3/29/2009	5	1.59	12.89	Walla Walla River over 1000 cfs
4	4/17/2009	4/22/2009	6	1.51	15.85	Walla Walla River over 1000 cfs
5	4/26/2009	5/6/2009	11	1.69	34.37	Walla Walla River over 1000 cfs
6	5/13/2009	6/1/2009	19	1.79	68.47	End of Recharge Season

Table 1. Summary of the six recharge events during the 2009 SAR season.

Recharge Event #	Estimated Volume of Water in Basin in cu-ft and gal.	Estimated Time to Drain Basin in min	Infiltration Rate in ft/day	Infiltration rate by unit area (gal/sq-ft/day)
1	29,010/216,995	790	5.08	37.4
2	44,083/329,741	1330	4.4	34.6
3	45,632/341,327	1380	4.58	34.6
4	23,022/172,204	840	3.79	28.8
5	32,727/244,798	1110	4.08	30.2
6	47,180/352,906	1250	5.22	38.9

Table 2. Estimated infiltration volumes and rates at the conclusion of each of the six recharge events during the 2009 SAR season.

Sample ID	Date	Lab No.	pH	Temp. C	Electrical Conductivity (mS/cm)	Turbidity (NTU)	NO_3-N (mg/L)	Hardness (mg/L)	TDS (mg/L)	Cl (mg/L)	Soluble Reactive Phosphorous (mg/L)	COD (mg/L)	Total Coliform (per 100ml)	E-Coli (per 100ml or Absent/Present)
L-1	10/12/2006	85232					6.23	205.0	262.0	7.8	0.100	< 8.0		0
L-1	1/15/2007	86451	6.77	12.8	432	0.15	6.50	202.0	238.0	1.2	0.120	< 8.0	0	
L-1	4/4/2007	87538	7.24	13.8	401	0.89	5.68	217.0	253.0	5.0	< 0.043	< 8.0	0	0
L-1	4/12/2007	87725	7.25	13.5	393	1.92	5.19	213.0	248.0	6.5	0.090	< 8.0	0	0
L-1	4/23/2007	87918	7.17	13.9	428	0.42	4.20	624.0	247.0	7.5	0.130	< 8.0	0	0
L-1	1/23/2008	2123	7.07		388	48.6	5.28	135.0	235.0	5.8	0.360	< 8.0	0	Absent
L-1	2/13/2008	4099	7.13		384	44.4	5.55	154.0	236.0	5.6	0.360	< 8.0	0	Absent
L-1	5/27/2008	15124	7		401	0.79	5.86	156.0	262.0	6.7	0.270	ND		
L-1	10/28/2008	32780	6.81		403	0.29	6.38	158.1	265.0	3.5	0.240	ND	absent	Absent
L-1	12/16/2008	37230	6.91		396	0.7	5.85	150.0	257.0	6.1	0.190	ND	absent	Absent
L-1	2/12/2009	4470	6.78		418	1.78	6.08	161.0	259.0	6.7	0.230	ND	absent	Absent
L-1	3/12/2009	7335	6.72		335	8.12	5.21	150.0	225.0	5.9	0.220	ND	absent	Absent
L-1	4/23/2009	11906	6.71		434	15.5	16.20	167.0	279.0	9.7	0.210	ND	absent	Absent
L-1	5/28/2009	16095	6.89		431	1.3	7.07	172.0	266.0	7.3	0.270	ND	absent	Absent
L-2	10/12/2006	85233					3.27	132.0	184.0	6.4	0.140	< 8.0		0
L-2	1/15/2007	86452	7.05	11.9	281	0.67	3.63	117.0	154.0	0.8	0.130	< 4.0	0	
L-2	4/4/2007	87539	7.19	13.0	284	0.39	4.12	145.0	190.0	5.5	< 0.043	< 8.0	0	0
L-2	4/12/2007	87726	7.17	13.0	284	0.65	3.62	148.0	148.0	0.3	0.080	< 8.0	0	0
L-2	4/23/2007	87919	7.17	13.2	288	0.64	1.34	134.0	180.0	4.5	0.140	< 8.0	0	0
L-2	1/23/2008	2124	7.04		287	8.06	3.47	103.0	181.0	5.6	0.330	< 8.0	0	Present
L-2	2/13/2008	4100	7.07		284	8.65	3.50	111.7	196.0	5.5	0.330	< 8.0	0	Present
L-2	5/27/2008	15126	6.93		313	7.13	5.96	117.0	205.0	6.5	0.270	10.0		
L-2	10/28/2008	32781	6.73		291	1.79	4.25	116.0	201.0	6.2	0.240	ND	absent	absent
L-2	12/16/2008	37231	6.87		284	2.03	3.56	105.0	184.0	5.2	0.190	ND	present	absent
L-2	2/12/2009	4471	6.77		301	0.76	4.25	109.0	193.0	5.8	0.230	ND	absent	absent
L-2	3/12/2009	7336	6.59		295	2.02	5.42	118.0	196.0	6.2	0.220	ND	absent	absent
L-2	4/23/2009	11905	6.45		440	10.9	17.30	118.0	302.0	9.8	0.200	ND	absent	absent
L-2	5/28/2009	16096	6.69		422	9.13	15.40	164.0	286.0	8.9	0.260	ND	present	absent
L-3	10/12/2006													
L-3	1/15/2007	86453	6.88	10.1	202	25.00	2.86	83.4	118.0	< 0.3	0.130	< 8.0	0	
L-3	4/4/2007	87540	7.47	9.6	104	2.51	0.81	54.5	92.5	48.5	< 0.043	< 8.0	0	0
L-3	4/12/2007	87727	7.36	9.4	126	2.57	0.90	61.8	92.5	< 0.3	0.070	< 8.0	present	0
L-3	4/23/2007	87920	7.35	9.8	135	1.97	0.47	54.7	86.7	< 0.3	0.100	< 8.0	0	0
L-3	1/23/2008	2125	7.14		187	13.90	2.86	61.9	124.0	3.2	0.300	18.0	0	present
L-3	2/13/2008	4101	7.15		197	29.40	4.51	75.3	148.0	5.5	0.320	< 8.8	0	present
L-3	5/27/2008	15127	6.98		129	7.48	2.11	45.7	98.0	1.8	0.220	16.0		
L-3	10/28/2008	32782	6.75		122	3.61	0.43	46.1	94.0	1.9	0.190	ND	present	absent
L-3	12/16/2008	37232	6.91		125	0.11	1.75	53.7	145.0	2.5	0.170	ND	absent	absent
L-3	2/12/2009	4472	6.81		231	1.62	5.63	84.4	169.0	4.2	0.210	ND	absent	absent
L-3	3/12/2009	7337	6.61		136	2.01	2.05	50.5	91.0	2.2	0.170	ND	absent	absent
L-3	5/28/2009	16097	6.8		121	6.88	1.84	44.0	96.0	1.4	ND	ND	present	present

Table 3. Field and basic water quality results for 2006-2009

Sample ID	Date	Lab No.	pH	Temp. C	Electrical Conductivity (mS/cm)	Turbidity (NTU)	NO_3-N (mg/L)	Hardness (mg/L)	TDS (mg/L)	Cl (mg/L)	Soluble Reactive Phosphorous (mg/L)	COD (mg/L)	Total Coliform (per 100ml)	E-Coli (per 100ml or Absent/Present)
Mud Ck - L	10/12/2006													
Mud Ck - L	1/15/2007	86454	6.21	1.8	262	1.39	2.18	112.0	144.0	2.0	< 0.060	< 8.0	0	
Mud Ck - L	4/4/2007	87542	8.05	11.2	242	3.48	1.30	132.0	158.0	< 10.0	< 0.043	< 8.0	present	present
Mud Ck - L	4/12/2007	87729	7.70	9.6	173	1.49	0.40	95.0	118.0	< 0.3	0.100	8.0	present	present
Mud Ck - L	4/23/2007	87922	8.01	15.3	181	1.26	< 0.21	83.1	117.0	< 0.3	0.060	< 8.0	present	present
Mud Ck - L	5/27/2008	15129	7.24		162	4.95	0.57	65.0	112.0	2.9	0.180	11.0		
Mud Ck - L	3/12/2009	7340	7.62		373	2.68	2.59	142.0	216.0	7.5	0.150	ND	present	present
Mud Ck - L	4/23/2009	11903	6.94		275	0.5	0.98	114.0	163.0	5.3	0.130	ND	present	present
Mud Ck - L	5/28/2009	16099	7.25		310	0.96	1.38	126.0	198.0	6.2	0.660	ND	present	present
Mud Ck - FH	10/12/2006													
Mud Ck - FH	1/15/2007	86455	6.13	2.8	268	3.56	2.17	113.0	146.0	0.8	0.050	9.0	0	
Mud Ck - FH	4/4/2007	87541	8.28	12.6	248	1.81	1.39	130.0	165.0	11.0	< 0.043	< 8.0	present	present
Mud Ck - FH	4/12/2007	87728	7.89	10.9	175	1.89	0.52	95.5	123.0	0.7	0.040	9.0	present	present
Mud Ck - FH	4/23/2007	87921	8.16	16.5	180	1.89	0.47	82.4	113.0	5.0	0.080	10.0	present	present
Mud Ck - FH	5/27/2008	15130	7.50		298	4.11	0.87	112.0	188.0	4.6	0.240	21.0		
Mud Ck - FH	3/12/2009	7339	7.69		272	0.64	1.82	112.0	179.0	5.5	0.150	ND	present	present
Mud Ck - FH	4/23/2009	11902	7.07		363	1.04	1.56	149.0	220.0	7.4	0.160	ND	present	present
Mud Ck - FH	5/28/2009	16098	7.18		374	3.97	1.37	142.0	226.0	6.8	0.260	ND	present	present
diversion	10/12/2006													
diversion	1/15/2007													
diversion	4/4/2007	87543	8.02	9.4	95	6.28	0.38	45.2	95.0	40.0	< 0.043	< 8.0	absent	absent
diversion	4/12/2007	87730	7.77	8.0	90	4.27	0.12	44.1	65.0	2.2	0.080	12.0	present	present
diversion	4/23/2007	87923	8.17	12.7	94	6.39	4.21	31.4	73.3	39.0	< 0.043	< 8	present	present
diversion	5/27/2008	15128	7.27		50.3	17.6	0.11	18.7	54	0.6	0.12	19		
diversion	2/12/2009	4473	7.63		378	0.83	2.57	141.0	224	7.2	0.18	ND	present	absent
diversion	3/12/2009	7338	11.94		2560	21.7	0.58	37.5	826	22.0	0.06	ND	present	present
diversion	4/23/2009	11904	6.52		52.9	61.8	0.22	20.8	52	0.7	0.12	10	present	present
diversion	5/28/2009	16100	6.89		66.4	11.9	0.25	25.2	61	2.9	0.26	ND	present	absent

Table 3. Field and basic water quality results for 2006-2009 (cont.)

Date	1/15/2007	1/15/2007	1/15/2007
Well ID	L-1	L-2	L-3
Chemical			
Carbamates in Drinking water			
Carbofuran	ND	ND	ND
Oxymal	ND	ND	ND
3-Hydroxycabofuran	ND	ND	ND
Aldicarb	ND	ND	ND
Aldicarb sulfone	ND	ND	ND
Aldicarb sulfoxide	ND	ND	ND
Carbaryl	ND	ND	ND
Methomyl	ND	ND	ND
Propoxur (Baygon)	ND	ND	ND
Methiocarb	ND	ND	ND
Synthetic Organic Compounds			
Endrin	ND	ND	ND
Lindane (BHC-Gamma)	ND	ND	ND
Methoxychlor	ND	ND	ND
Alachlor	ND	ND	ND
Atrazine	ND	ND	ND
Benzo(a)pyrene	ND	ND	ND
Chlordane Technical	ND	ND	ND
Di(ethylhexyl)-Adipate	ND	ND	ND
Di(ethylhexyl)-phthalate	ND	ND	ND
Heptachlor	ND	ND	ND
Heptachlor Epoxide A&B	ND	ND	ND
Hexachlorobenzene	ND	ND	ND
Hexachlorocyclo-Pentadiene	ND	ND	ND
Simazine	ND	ND	ND
Aldrin	ND	ND	ND
Butachlor	ND	ND	ND
Dieldrin	ND	ND	ND
Metolachlor	ND	ND	ND
Metribuzin	ND	ND	ND
Propachlor	ND	ND	ND
Bromacil	**0.74**	ND	ND
Prometon	ND	ND	ND
Terbacil	ND	ND	ND
Diazinon	ND	ND	ND
EPTC	ND	ND	ND
4,4-DDD	ND	ND	ND
4,4-DDE	ND	ND	ND
4,4-DDT	ND	ND	ND
Cyanazine	ND	ND	ND
Malathion	ND	ND	ND
Trifluralin	ND	ND	ND
Napthalene	ND	ND	ND
Fluorene	ND	ND	ND
Acenaphthylene	ND	ND	ND
Acenaphthene	ND	ND	ND
Anthracene	ND	ND	ND
Benz(A)anthracene	ND	ND	ND
Benzo(B)fluoranthene	ND	ND	ND
Benzo(G,H,I)peryene	ND	ND	ND
Benzo(K)fluoranthene	ND	ND	ND
Chrysene	ND	ND	ND
Dibenzo(A,H)anthracene	ND	ND	ND
Fluoranthene	ND	ND	ND
Indeno(1,2,3-CD)pyrene	ND	ND	ND
Phenanthrene	ND	ND	ND
Pyrene	ND	ND	ND
Benzyl Butyl Phthalate	ND	ND	ND
Di-N-Butyl Phthalate	**0.95**	ND	ND
Diethyl Phthalate	ND	ND	ND
Dimethyl Phthalate	ND	ND	ND
Toxaphene	ND	ND	ND
Aroclor 1221	ND	ND	ND
Aroclor 1232	ND	ND	ND
Aroclor 1242	ND	ND	ND
Aroclor 1248	ND	ND	ND
Aroclor 1254	ND	ND	ND
Aroclor 1260	ND	ND	ND
Aroclor 1016	ND	ND	ND
Herbicides in Drinking Water			
2,4-D	ND	ND	ND
2,4,5-TP (Silvex)	ND	ND	ND
Pentachlorophenol	ND	ND	ND
Dalapon	ND	ND	ND
Dinoseb	ND	ND	ND
Picloram	ND	ND	ND
Dicamba	ND	ND	ND
2,4 DB	ND	ND	ND
2,4,5 T	ND	ND	ND
Bentazon	ND	ND	ND
Dichlorprop	ND	ND	ND
Actiflorfin	ND	ND	ND
Dacthal (DCPA)	ND	ND	ND
3,5-Dichlorobenzoic Acid	ND	ND	ND

Date	4/4/2007	4/4/2007	4/4/2007	4/4/2007
Well ID	Diversion	L-1	L-2	L-3
Chemical				
Carbamates in Drinking water				
Carbofuran	ND	ND	ND	ND
Oxymal	ND	ND	ND	ND
3-Hydroxycabofuran	ND	ND	ND	ND
Aldicarb	ND	ND	ND	ND
Aldicarb sulfone	ND	ND	ND	ND
Aldicarb sulfoxide	ND	ND	ND	ND
Carbaryl	ND	ND	ND	ND
Methomyl	ND	ND	ND	ND
Propoxur (Baygon)	ND	ND	ND	ND
Methiocarb	ND	ND	ND	ND
Synthetic Organic Compounds				
Endrin	ND	ND	ND	ND
Lindane (BHC-Gamma)	ND	ND	ND	ND
Methoxychlor	ND	ND	ND	ND
Alachlor	ND	ND	ND	ND
Atrazine	ND	ND	ND	ND
Benzo(a)pyrene	ND	ND	ND	ND
Chlordane Technical	ND	ND	ND	ND
Di(ethylhexyl)-Adipate	ND	ND	ND	ND
Di(ethylhexyl)-phthalate	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND
Heptachlor Epoxide A&B	ND	ND	ND	ND
Hexachlorobenzene	ND	ND	ND	ND
Hexachlorocyclo-Pentadiene	ND	ND	ND	ND
Simazine	ND	ND	ND	ND
Aldrin	ND	ND	ND	ND
Butachlor	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND
Metolachlor	ND	ND	ND	ND
Metribuzin	ND	ND	ND	ND
Propachlor	ND	ND	ND	ND
Bromacil	ND	**0.2**	ND	ND
Prometon	ND	ND	ND	ND
Terbacil	ND	ND	ND	ND
Diazinon	ND	ND	ND	ND
EPTC	ND	ND	ND	ND
4,4-DDD	ND	ND	ND	ND
4,4-DDE	ND	ND	ND	ND
4,4-DDT	ND	ND	ND	ND
Cyanazine	ND	ND	ND	ND
Malathion	ND	**0.4**	**0.5**	**0.3**
Trifluralin	ND	ND	ND	ND
Napthalene	ND	ND	ND	ND
Fluorene	ND	ND	ND	ND
Acenaphthylene	ND	ND	ND	ND
Acenaphthene	ND	ND	ND	ND
Anthracene	ND	ND	ND	ND
Benz(A)anthracene	ND	ND	ND	ND
Benzo(B)fluoranthene	ND	ND	ND	ND
Benzo(G,H,I)peryene	ND	ND	ND	ND
Benzo(K)fluoranthene	ND	ND	ND	ND
Chrysene	ND	ND	ND	ND
Dibenzo(A,H)anthracene	ND	ND	ND	ND
Fluoranthene	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	ND	ND	ND	ND
Phenanthrene				
Pyrene	ND	ND	ND	ND
Benzyl Butyl Phthalate	ND	ND	ND	ND
Di-N-Butyl Phthalate	ND	**0.7**	**0.7**	**0.5**
Diethyl Phthalate	ND	ND	ND	ND
Dimethyl Phthalate	ND	ND	ND	ND
Toxaphene	ND	ND	ND	ND
Aroclor 1221	ND	ND	ND	ND
Aroclor 1232	ND	ND	ND	ND
Aroclor 1242	ND	ND	ND	ND
Aroclor 1248	ND	ND	ND	ND
Aroclor 1254	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND
Aroclor 1016	ND	ND	ND	ND
Herbicides in Drinking Water				
2,4-D				
2,4,5-TP (Silvex)	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND
Dalapon	ND	ND	ND	ND
Dinoseb	ND	ND	ND	ND
Picloram	ND	ND	ND	ND
Dicamba	ND	ND	ND	ND
2,4 DB	ND	ND	ND	ND
2,4,5 T	ND	ND	ND	ND
Bentazon	ND	ND	ND	ND
Dichlorprop	ND	ND	ND	ND
Actiflorfin	ND	ND	ND	ND
Dacthal (DCPA)	**0.21**	ND	ND	ND
3,5-Dichlorobenzoic Acid	ND	ND	ND	ND

Table 4. SOC results for the 2009 season.

Date	2/13/2008	2/13/2008	2/13/2008
Well ID	L-1	L-2	L-3
Chemical			
Carbamates in Drinking water			
Carbofuran	ND	ND	ND
Oxymal	ND	ND	ND
3-Hydroxycabofuran	ND	ND	ND
Aldicarb	ND	ND	ND
Aldicarb sulfone	ND	ND	ND
Aldicarb sulfoxide	ND	ND	ND
Carbaryl	ND	ND	ND
Methomyl	ND	ND	ND
Propoxur (Baygon)	ND	ND	ND
Methiocarb	ND	ND	ND
Synthetic Organic Compounds			
Endrin	ND	ND	ND
Lindane (BHC-Gamma)	ND	ND	ND
Methoxychlor	ND	ND	ND
Alachlor	ND	ND	ND
Atrazine	ND	ND	ND
Benzo(a)pyrene	ND	ND	ND
Chlordane Technical	ND	ND	ND
Di(ethylhexyl)-Adipate	ND	ND	ND
Di(ethylhexyl)-phthalate	ND	ND	ND
Heptachlor	ND	ND	ND
Heptachlor Epoxide A&B	ND	ND	ND
Hexachlorobenzene	ND	ND	ND
Hexachlorocyclo-Pentadiene	ND	ND	ND
Simazine	ND	ND	ND
Aldrin	ND	ND	ND
Butachlor	ND	ND	ND
Dieldrin	ND	ND	ND
Metolachlor	ND	ND	ND
Metribuzin	ND	ND	ND
Propachlor	ND	ND	ND
Bromacil	**0.32**	ND	ND
Prometon	ND	ND	ND
Terbacil	ND	ND	ND
Diazinon	ND	ND	ND
EPTC	ND	ND	ND
4,4-DDD	ND	ND	ND
4,4-DDE	ND	ND	ND
4,4-DDT	ND	ND	ND
Cyanazine	ND	ND	ND
Malathion	ND	ND	ND
Trifluralin	ND	ND	ND
Napthalene	ND	ND	ND
Fluorene	ND	ND	ND
Acenaphthylene	ND	ND	ND
Acenaphthene	ND	ND	ND
Anthracene	ND	ND	ND
Benz(A)anthracene	ND	ND	ND
Benzo(B)fluoranthene	ND	ND	ND
Benzo(G,H,I)peryene	ND	ND	ND
Benzo(K)fluoranthene	ND	ND	ND
Chrysene	ND	ND	ND
Dibenzo(A,H)anthracene	ND	ND	ND
Fluoranthene	ND	ND	ND
Indeno(1,2,3-CD)pyrene	ND	ND	ND
Phenanthrene	ND	ND	ND
Pyrene	ND	ND	ND
Benzyl Butyl Phthalate	ND	ND	ND
Di-N-Butyl Phthalate	ND	ND	ND
Diethyl Phthalate	ND	ND	ND
Dimethyl Phthalate	ND	ND	ND
Toxaphene	ND	ND	ND
Aroclor 1221	ND	ND	ND
Aroclor 1232	ND	ND	ND
Aroclor 1242	ND	ND	ND
Aroclor 1248	ND	ND	ND
Aroclor 1254	ND	ND	ND
Aroclor 1260	ND	ND	ND
Aroclor 1016	ND	ND	ND
Herbicides in Drinking Water			
2,4-D	ND	ND	ND
2,4,5-TP (Silvex)	ND	ND	ND
Pentachlorophenol	ND	ND	ND
Dalapon	ND	ND	ND
Dinoseb	ND	ND	ND
Picloram	ND	ND	ND
Dicamba	ND	ND	ND
2,4 DB	ND	ND	ND
2,4,5 T	ND	ND	ND
Bentazon	ND	ND	ND
Dichlorprop	ND	ND	ND
Actiflorfin	ND	ND	ND
Dacthal (DCPA)	ND	ND	ND
3,5-Dichlorobenzoic Acid	ND	ND	ND

Date	5/27/2008	5/27/2008	5/27/2008	5/27/2008	5/27/2008	5/27/2008
Well ID	Diversion	L-1	L-2	L-3	MC-L	MC-SL
Chemical						
Carbamates in Drinking water						
Carbofuran	ND	ND	ND	ND	ND	ND
Oxymal	ND	ND	ND	ND	ND	ND
3-Hydroxycabofuran	ND	ND	ND	ND	ND	ND
Aldicarb	ND	ND	ND	ND	ND	ND
Aldicarb sulfone	ND	ND	ND	ND	ND	ND
Aldicarb sulfoxide	ND	ND	ND	ND	ND	ND
Carbaryl	ND	ND	ND	ND	ND	ND
Methomyl	ND	ND	ND	ND	ND	ND
Propoxur (Baygon)	ND	ND	ND	ND	ND	ND
Methiocarb	ND	ND	ND	ND	ND	ND
Synthetic Organic Compounds						
Endrin	ND	ND	ND	ND	ND	ND
Lindane (BHC-Gamma)	ND	ND	ND	ND	ND	ND
Methoxychlor	ND	ND	ND	ND	ND	ND
Alachlor	ND	ND	ND	ND	ND	ND
Atrazine	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND
Chlordane Technical	ND	ND	ND	ND	ND	ND
Di(ethylhexyl)-Adipate	ND	ND	ND	ND	ND	ND
Di(ethylhexyl)-phthalate	ND	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide A&B	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	ND	ND	ND	ND	ND	ND
Hexachlorocyclo-Pentadiene	ND	ND	ND	ND	ND	ND
Simazine	ND	ND	ND	ND	ND	ND
Aldrin	ND	ND	ND	ND	ND	ND
Butachlor	ND	ND	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND	ND	ND
Metolachlor	ND	ND	ND	ND	ND	ND
Metribuzin	ND	ND	ND	ND	ND	ND
Propachlor	ND	ND	ND	ND	ND	ND
Bromacil	ND	ND	ND	ND	ND	ND
Prometon	ND	ND	ND	ND	ND	ND
Terbacil	ND	ND	ND	ND	ND	ND
Diazinon	ND	ND	ND	ND	ND	ND
EPTC	ND	ND	ND	ND	ND	ND
4,4-DDD	ND	ND	ND	ND	ND	ND
4,4-DDE	ND	ND	ND	ND	ND	ND
4,4-DDT	ND	ND	ND	ND	ND	ND
Cyanazine	ND	ND	ND	ND	ND	ND
Malathion	ND	ND	ND	ND	ND	ND
Trifluralin	ND	ND	ND	ND	ND	ND
Napthalene	ND	ND	ND	ND	ND	ND
Fluorene	ND	ND	ND	ND	ND	ND
Acenaphthylene	ND	ND	ND	ND	ND	ND
Acenaphthene	ND	ND	ND	ND	ND	ND
Anthracene	ND	ND	ND	ND	ND	ND
Benz(A)anthracene	ND	ND	ND	ND	ND	ND
Benzo(B)fluoranthene	ND	ND	ND	ND	ND	ND
Benzo(G,H,I)peryene	ND	ND	ND	ND	ND	ND
Benzo(K)fluoranthene	ND	ND	ND	ND	ND	ND
Chrysene	ND	ND	ND	ND	ND	ND
Dibenzo(A,H)anthracene	ND	ND	ND	ND	ND	ND
Fluoranthene	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	ND	ND	ND	ND	ND	ND
Phenanthrene	ND	ND	ND	ND	ND	ND
Pyrene	ND	ND	ND	ND	ND	ND
Benzyl Butyl Phthalate	ND	ND	ND	ND	ND	ND
Di-N-Butyl Phthalate	ND	ND	ND	ND	ND	ND
Diethyl Phthalate	ND	ND	ND	ND	ND	ND
Dimethyl Phthalate	ND	ND	ND	ND	ND	ND
Toxaphene	ND	ND	ND	ND	ND	ND
Aroclor 1221	ND	ND	ND	ND	ND	ND
Aroclor 1232	ND	ND	ND	ND	ND	ND
Aroclor 1242	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	ND	ND	ND	ND	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND
Aroclor 1016	ND	ND	ND	ND	ND	ND
Herbicides in Drinking Water						
2,4-D						
2,4,5-TP (Silvex)	ND	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND	ND
Dalapon	ND	ND	ND	ND	ND	ND
Dinoseb	ND	ND	ND	ND	ND	ND
Picloram	ND	ND	ND	ND	ND	ND
Dicamba	ND	ND	ND	ND	ND	**0.18**
2,4 DB	ND	ND	ND	ND	ND	ND
2,4,5 T	ND	ND	ND	ND	ND	ND
Bentazon	ND	ND	ND	ND	ND	ND
Dichlorprop	ND	ND	ND	ND	ND	ND
Actiflorfin	ND	ND	ND	ND	ND	ND
Dacthal (DCPA)	**0.2**	ND	ND	ND	**0.4**	**0.2**
3,5-Dichlorobenzoic Acid	ND	ND	ND	ND	ND	ND

Table 4. SOC results for the 2009 season (cont.).

Date	10/28/2008	10/28/2008	10/28/2008
Well ID	L-1	L-2	L-3
Chemical			
Carbamates in Drinking water			
Carbofuran	ND	ND	ND
Oxymal	ND	ND	ND
3-Hydroxycabofuran	ND	ND	ND
Aldicarb	ND	ND	ND
Aldicarb sulfone	ND	ND	ND
Aldicarb sulfoxide	ND	ND	ND
Carbaryl	ND	ND	ND
Methomyl	ND	ND	ND
Propoxur (Baygon)	ND	ND	ND
Methiocarb	ND	ND	ND
Synthetic Organic Compounds			
Endrin	NS	NS	NS
Lindane (BHC-Gamma)	NS	NS	NS
Methoxychlor	NS	NS	NS
Alachlor	NS	NS	NS
Atrazine	NS	NS	NS
Benzo(a)pyrene	NS	NS	NS
Chlordane Technical	NS	NS	NS
Di(ethylhexyl)-Adipate	NS	NS	NS
Di(ethylhexyl)-phthalate	NS	NS	NS
Heptachlor	NS	NS	NS
Heptachlor Epoxide A&B	NS	NS	NS
Hexachlorobenzene	NS	NS	NS
Hexachlorocyclo-Pentadiene	NS	NS	NS
Simazine	NS	NS	NS
Aldrin	NS	NS	NS
Butachlor	NS	NS	NS
Dieldrin	NS	NS	NS
Metolachlor	NS	NS	NS
Metribuzin	NS	NS	NS
Propachlor	NS	NS	NS
Bromacil	NS	NS	NS
Prometon	NS	NS	NS
Terbacil	NS	NS	NS
Diazinon	NS	NS	NS
EPTC	NS	NS	NS
4,4-DDD	NS	NS	NS
4,4-DDE	NS	NS	NS
4,4-DDT	NS	NS	NS
Cyanazine	NS	NS	NS
Malathion	NS	NS	NS
Trifluralin	NS	NS	NS
Napthalene	NS	NS	NS
Fluorene	NS	NS	NS
Acenaphthylene	NS	NS	NS
Acenaphthene	NS	NS	NS
Anthracene	NS	NS	NS
Benz(A)anthracene	NS	NS	NS
Benzo(B)fluoranthene	NS	NS	NS
Benzo(G,H,I)peryene	NS	NS	NS
Benzo(K)fluoranthene	NS	NS	NS
Chrysene	NS	NS	NS
Dibenzo(A,H)anthracene	NS	NS	NS
Fluoranthene	NS	NS	NS
Indeno(1,2,3-CD)pyrene	NS	NS	NS
Phenanthrene	NS	NS	NS
Pyrene	NS	NS	NS
Benzyl Butyl Phthalate	NS	NS	NS
Di-N-Butyl Phthalate	NS	NS	NS
Diethyl Phthalate	NS	NS	NS
Dimethyl Phthalate	NS	NS	NS
Toxaphene	NS	NS	NS
Aroclor 1221	NS	NS	NS
Aroclor 1232	NS	NS	NS
Aroclor 1242	NS	NS	NS
Aroclor 1248	NS	NS	NS
Aroclor 1254	NS	NS	NS
Aroclor 1260	NS	NS	NS
Aroclor 1016	NS	NS	NS
Herbicides in Drinking Water			
2,4-D	NS	NS	NS
2,4,5-TP (Silvex)	NS	NS	NS
Pentachlorophenol	NS	NS	NS
Dalapon	NS	NS	NS
Dinoseb	NS	NS	NS
Picloram	NS	NS	NS
Dicamba	NS	NS	NS
2,4 DB	NS	NS	NS
2,4,5 T	NS	NS	NS
Bentazon	NS	NS	NS
Dichlorprop	NS	NS	NS
Actiflorfin	NS	NS	NS
Dacthal (DCPA)	NS	NS	NS
3,5-Dichlorobenzoic Acid	NS	NS	NS

Date	12/16/2008	12/16/2008	12/16/2008
Well ID	L-1	L-2	L-3
Chemical			
Carbamates in Drinking water			
Carbofuran	NS	ND	ND
Oxymal	NS	ND	ND
3-Hydroxycabofuran	NS	ND	ND
Aldicarb	NS	ND	ND
Aldicarb sulfone	NS	ND	ND
Aldicarb sulfoxide	NS	ND	ND
Carbaryl	NS	ND	ND
Methomyl	NS	ND	ND
Propoxur (Baygon)	NS	ND	ND
Methiocarb	NS	ND	ND
Synthetic Organic Compounds			
Endrin	ND	ND	ND
Lindane (BHC-Gamma)	ND	ND	ND
Methoxychlor	ND	ND	ND
Alachlor	ND	ND	ND
Atrazine	ND	ND	ND
Benzo(a)pyrene	ND	ND	ND
Chlordane Technical	ND	ND	ND
Di(ethylhexyl)-Adipate	ND	ND	ND
Di(ethylhexyl)-phthalate	ND	ND	ND
Heptachlor	ND	ND	ND
Heptachlor Epoxide A&B	ND	ND	ND
Hexachlorobenzene	ND	ND	ND
Hexachlorocyclo-Pentadiene	ND	ND	ND
Simazine	ND	ND	ND
Aldrin	ND	ND	ND
Butachlor	ND	ND	ND
Dieldrin	ND	ND	ND
Metolachlor	ND	ND	ND
Metribuzin	ND	ND	ND
Propachlor	ND	ND	ND
Bromacil	**0.09 ug/L J**	ND	ND
Prometon	ND	ND	ND
Terbacil	ND	ND	ND
Diazinon	ND	ND	ND
EPTC	ND	ND	ND
4,4-DDD	ND	ND	ND
4,4-DDE	ND	ND	ND
4,4-DDT	ND	ND	ND
Cyanazine	ND	ND	ND
Malathion	ND	ND	ND
Trifluralin	ND	ND	ND
Napthalene	ND	ND	ND
Fluorene	ND	ND	ND
Acenaphthylene	ND	ND	ND
Acenaphthene	ND	ND	ND
Anthracene	ND	ND	ND
Benz(A)anthracene	ND	ND	ND
Benzo(B)fluoranthene	ND	ND	ND
Benzo(G,H,I)peryene	ND	ND	ND
Benzo(K)fluoranthene	ND	ND	ND
Chrysene	ND	ND	ND
Dibenzo(A,H)anthracene	ND	ND	ND
Fluoranthene	ND	ND	ND
Indeno(1,2,3-CD)pyrene	ND	ND	ND
Phenanthrene	ND	ND	ND
Pyrene	ND	ND	ND
Benzyl Butyl Phthalate	ND	ND	ND
Di-N-Butyl Phthalate	ND	ND	ND
Diethyl Phthalate	ND	ND	ND
Dimethyl Phthalate	ND	ND	ND
Toxaphene	ND	ND	ND
Aroclor 1221	ND	ND	ND
Aroclor 1232	ND	ND	ND
Aroclor 1242	ND	ND	ND
Aroclor 1248	ND	ND	ND
Aroclor 1254	ND	ND	ND
Aroclor 1260	ND	ND	ND
Aroclor 1016	ND	ND	ND
Herbicides in Drinking Water			
2,4-D	ND	ND	ND
2,4,5-TP (Silvex)	ND	ND	ND
Pentachlorophenol	ND	ND	ND
Dalapon	ND	ND	ND
Dinoseb	ND	ND	ND
Picloram	ND	ND	ND
Dicamba	ND	ND	ND
2,4 DB	ND	ND	ND
2,4,5 T	ND	ND	ND
Bentazon	ND	ND	ND
Dichlorprop	ND	ND	ND
Actiflorfin	ND	ND	ND
Dacthal (DCPA)	ND	ND	ND
3,5-Dichlorobenzoic Acid	ND	ND	ND

J=Indicates an estimated concentration. This occurs when an analyte concentration is below the calibration curve but is above the method detection limit.

Table 4. SOC results for the 2009 season (cont.).

Date	2/12/2009	2/12/2009	2/12/2009
Well ID	L-1	L-2	L-3
Chemical			
Carbamates in Drinking water			
Carbofuran	NS	ND	ND
Oxymal	NS	ND	ND
3-Hydroxycabofuran	NS	ND	ND
Aldicarb	NS	ND	ND
Aldicarb sulfone	NS	ND	ND
Aldicarb sulfoxide	NS	ND	ND
Carbaryl	NS	ND	ND
Methomyl	NS	ND	ND
Propoxur (Baygon)	NS	ND	ND
Methiocarb	NS	ND	ND
Synthetic Organic Compounds			
Endrin	ND	ND	ND
Lindane (BHC-Gamma)	ND	ND	ND
Methoxychlor	ND	ND	ND
Alachlor	ND	ND	ND
Atrazine	**0.04 ug/L J**	ND	ND
Benzo(a)pyrene	ND	ND	ND
Chlordane Technical	ND	ND	ND
Di(ethylhexyl)-Adipate	ND	ND	ND
Di(ethylhexyl)-phthalate	ND	ND	ND
Heptachlor	ND	ND	ND
Heptachlor Epoxide A&B	ND	ND	ND
Hexachlorobenzene	ND	ND	ND
Hexachlorocyclo-Pentadiene	ND	ND	ND
Simazine	ND	ND	ND
Aldrin	ND	ND	ND
Butachlor	ND	ND	ND
Dieldrin	ND	ND	ND
Metolachlor	ND	ND	ND
Metribuzin	ND	ND	ND
Propachlor	ND	ND	ND
Bromacil	**0.21 ug/L JJ**	ND	ND
Prometon	ND	ND	ND
Terbacil	ND	ND	ND
Diazinon	ND	ND	ND
EPTC	ND	ND	ND
4,4-DDD	ND	ND	ND
4,4-DDE	ND	ND	ND
4,4-DDT	ND	ND	ND
Cyanazine	ND	ND	ND
Malathion	ND	ND	ND
Trifluralin	ND	ND	ND
Napthalene	ND	ND	ND
Fluorene	ND	ND	ND
Acenaphthylene	ND	ND	ND
Acenaphthene	ND	ND	ND
Anthracene	ND	ND	ND
Benz(A)anthracene	ND	ND	ND
Benzo(B)fluoranthene	ND	ND	ND
Benzo(G,H,I)peryene	ND	ND	ND
Benzo(K)fluoranthene	ND	ND	ND
Chrysene	ND	ND	ND
Dibenzo(A,H)anthracene	ND	ND	ND
Fluoranthene	ND	ND	ND
Indeno(1,2,3-CD)pyrene	ND	ND	ND
Phenanthrene	ND	ND	ND
Pyrene	ND	ND	ND
Benzyl Butyl Phthalate	ND	ND	ND
Di-N-Butyl Phthalate	ND	ND	ND
Diethyl Phthalate	ND	ND	ND
Dimethyl Phthalate	ND	ND	ND
Toxaphene	ND	ND	ND
Aroclor 1221	ND	ND	ND
Aroclor 1232	ND	ND	ND
Aroclor 1242	ND	ND	ND
Aroclor 1248	ND	ND	ND
Aroclor 1254	ND	ND	ND
Aroclor 1260	ND	ND	ND
Aroclor 1016	ND	ND	ND
Herbicides in Drinking Water			
2,4-D	ND	ND	ND
2,4,5-TP (Silvex)	ND	ND	ND
Pentachlorophenol	ND	ND	ND
Dalapon	ND	ND	ND
Dinoseb	ND	ND	ND
Picloram	ND	ND	ND
Dicamba	ND	ND	ND
2,4 DB	ND	ND	ND
2,4,5 T	ND	ND	ND
Bentazon	ND	ND	ND
Dichlorprop	ND	ND	ND
Actiflorfin	ND	ND	ND
Dacthal (DCPA)	ND	ND	ND
3,5-Dichlorobenzoic Acid	ND	ND	ND

Date	3/12/2009	3/12/2009	3/12/2009	3/12/2009
Well ID	L-1	L-2	L-3	Source
Chemical				
Carbamates in Drinking water				
Carbofuran	NS	ND	ND	ND
Oxymal	NS	ND	ND	ND
3-Hydroxycabofuran	NS	ND	ND	ND
Aldicarb	NS	ND	ND	ND
Aldicarb sulfone	NS	ND	ND	ND
Aldicarb sulfoxide	NS	ND	ND	NS
Carbaryl	NS	ND	ND	NS
Methomyl	NS	ND	ND	NS
Propoxur (Baygon)	NS	ND	ND	NS
Methiocarb	NS	ND	ND	NS
Synthetic Organic Compounds				
Endrin	NS	NS	NS	NS
Lindane (BHC-Gamma)	NS	NS	NS	NS
Methoxychlor	NS	NS	NS	NS
Alachlor	NS	NS	NS	NS
Atrazine	NS	NS	NS	NS
Benzo(a)pyrene	NS	NS	NS	NS
Chlordane Technical	NS	NS	NS	NS
Di(ethylhexyl)-Adipate	NS	NS	NS	NS
Di(ethylhexyl)-phthalate	NS	NS	NS	NS
Heptachlor	NS	NS	NS	NS
Heptachlor Epoxide A&B	NS	NS	NS	NS
Hexachlorobenzene	NS	NS	NS	NS
Hexachlorocyclo-Pentadiene	NS	NS	NS	NS
Simazine	NS	NS	NS	NS
Aldrin	NS	NS	NS	NS
Butachlor	NS	NS	NS	NS
Dieldrin	NS	NS	NS	NS
Metolachlor	NS	NS	NS	NS
Metribuzin	NS	NS	NS	NS
Propachlor	NS	NS	NS	NS
Bromacil	NS	NS	NS	NS
Prometon	NS	NS	NS	NS
Terbacil	NS	NS	NS	NS
Diazinon	NS	NS	NS	NS
EPTC	NS	NS	NS	NS
4,4-DDD	NS	NS	NS	NS
4,4-DDE	NS	NS	NS	NS
4,4-DDT	NS	NS	NS	NS
Cyanazine	NS	NS	NS	NS
Malathion	NS	NS	NS	NS
Trifluralin	NS	NS	NS	NS
Napthalene	NS	NS	NS	NS
Fluorene	NS	NS	NS	NS
Acenaphthylene	NS	NS	NS	NS
Acenaphthene	NS	NS	NS	NS
Anthracene	NS	NS	NS	NS
Benz(A)anthracene	NS	NS	NS	NS
Benzo(B)fluoranthene	NS	NS	NS	NS
Benzo(G,H,I)peryene	NS	NS	NS	NS
Benzo(K)fluoranthene	NS	NS	NS	NS
Chrysene	NS	NS	NS	NS
Dibenzo(A,H)anthracene	NS	NS	NS	NS
Fluoranthene	NS	NS	NS	NS
Indeno(1,2,3-CD)pyrene	NS	NS	NS	NS
Phenanthrene	NS	NS	NS	NS
Pyrene	NS	NS	NS	NS
Benzyl Butyl Phthalate	NS	NS	NS	NS
Di-N-Butyl Phthalate	NS	NS	NS	NS
Diethyl Phthalate	NS	NS	NS	NS
Dimethyl Phthalate	NS	NS	NS	NS
Toxaphene	NS	NS	NS	NS
Aroclor 1221	NS	NS	NS	NS
Aroclor 1232	NS	NS	NS	NS
Aroclor 1242	NS	NS	NS	NS
Aroclor 1248	NS	NS	NS	NS
Aroclor 1254	NS	NS	NS	NS
Aroclor 1260	NS	NS	NS	NS
Aroclor 1016	NS	NS	NS	NS
Herbicides in Drinking Water				
2,4-D	ND	ND	ND	ND
2,4,5-TP (Silvex)	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND
Dalapon	ND	ND	ND	ND
Dinoseb	ND	ND	ND	ND
Picloram	ND	ND	ND	ND
Dicamba	ND	ND	ND	ND
2,4 DB	ND	ND	ND	ND
2,4,5 T	ND	ND	ND	ND
Bentazon	ND	ND	ND	ND
Dichlorprop	ND	ND	ND	ND
Actiflorfin	ND	ND	ND	ND
Dacthal (DCPA)	ND	ND	ND	**0.34 ug/L**
3,5-Dichlorobenzoic Acid	ND	ND	ND	ND

J=Indicates an estimated concentration. This occurs when an analyte concentration is below the calibration curve but is above the method detection limit.

JJ=The amount detected is below the Method's Reporting Level but greater than the lab's Practical Quantitation Level

Table 4. SOC results for the 2009 season (cont.).

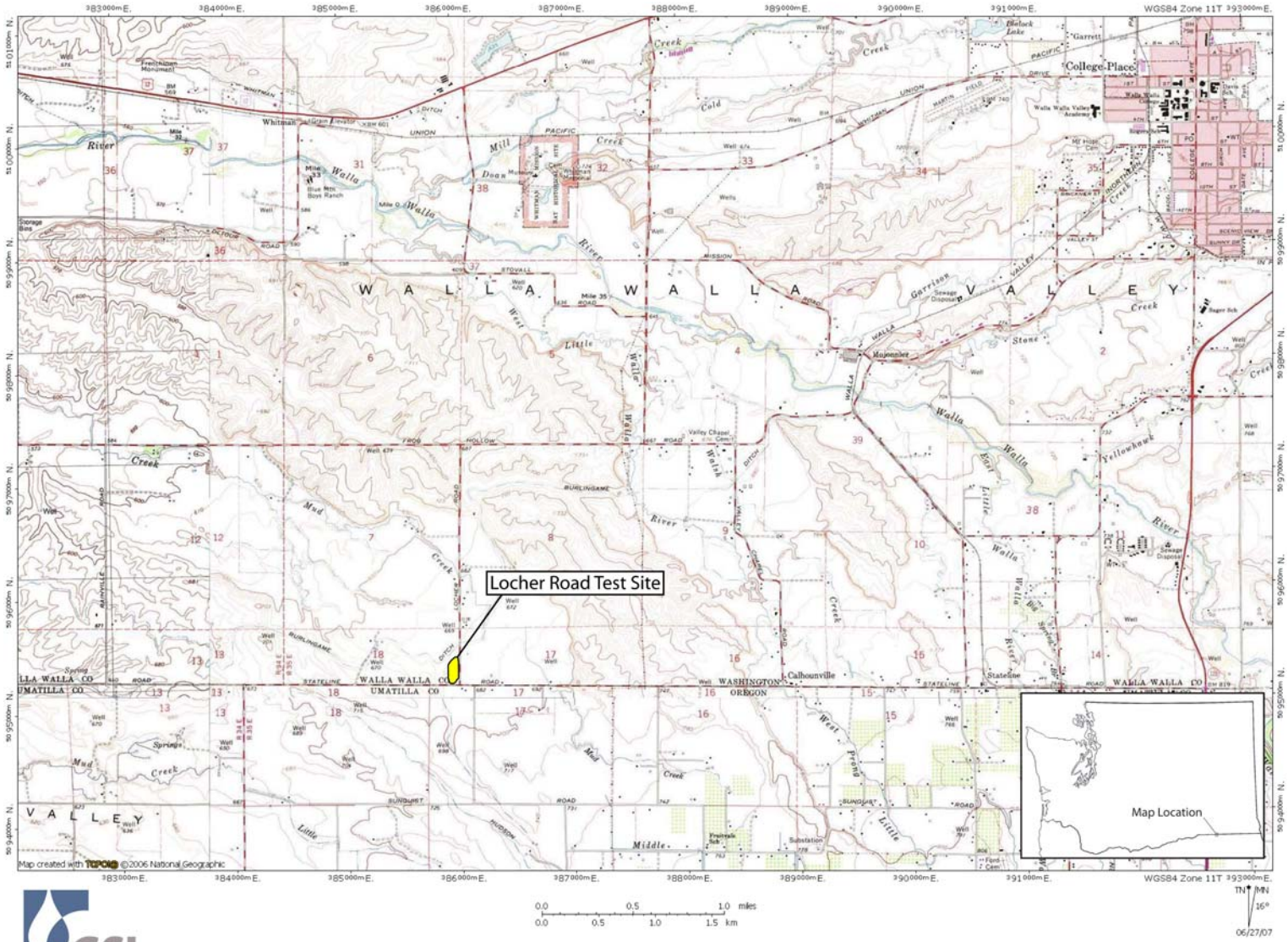

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Figure 1. Area and regional setting.

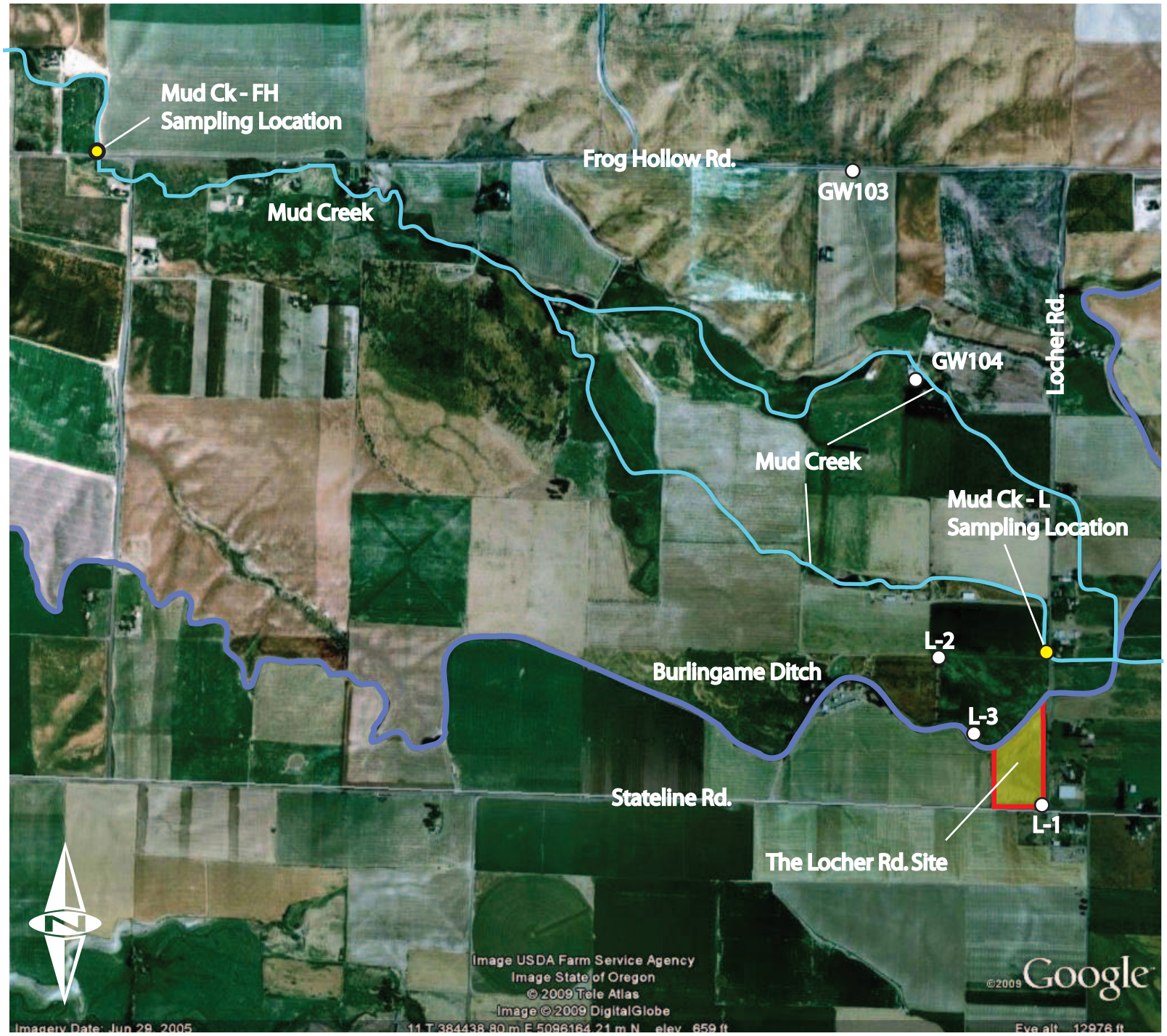

Figure 2. Local setting, site location, and layout.

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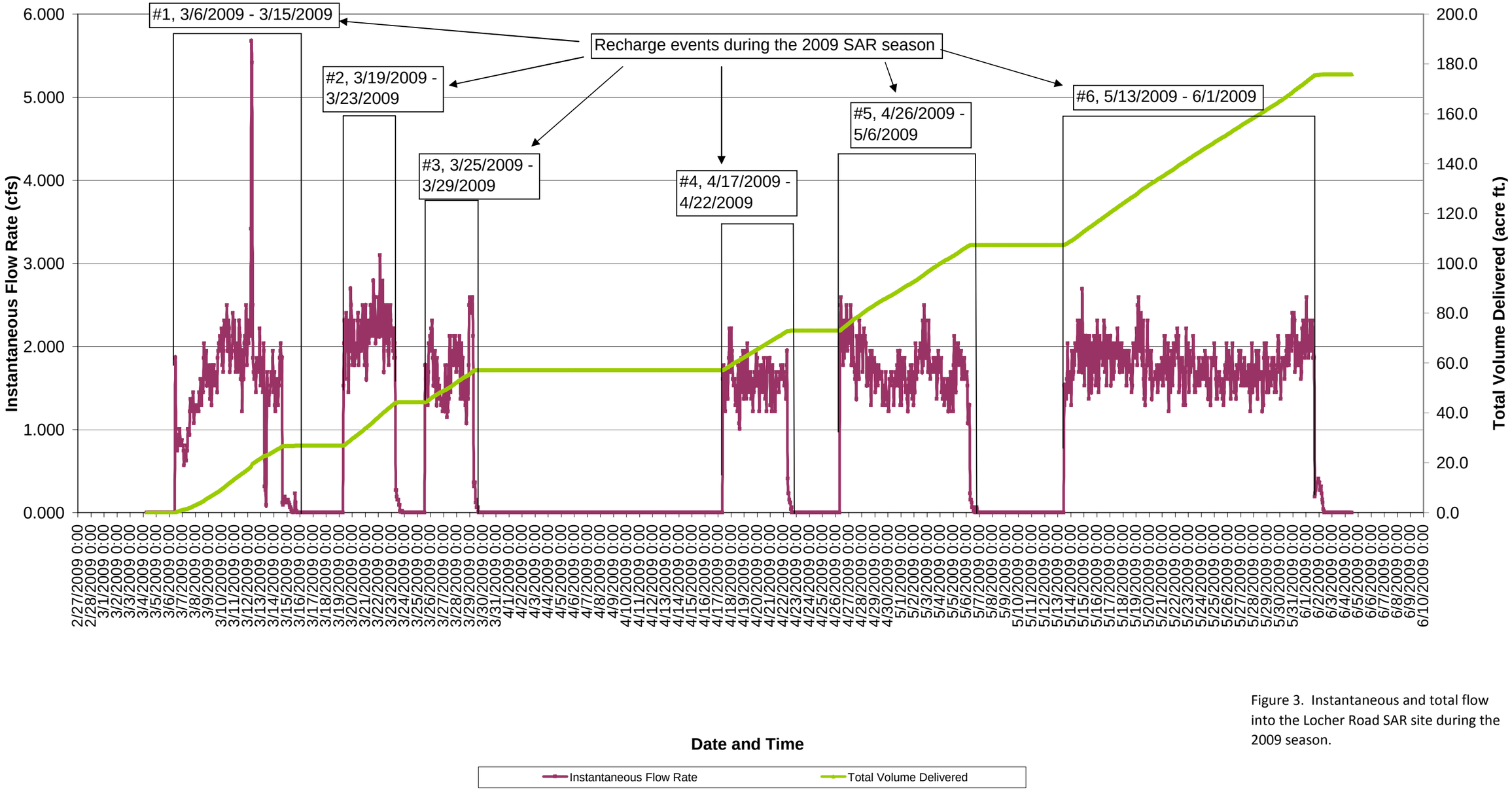

Figure 3. Instantaneous and total flow into the Locher Road SAR site during the 2009 season.

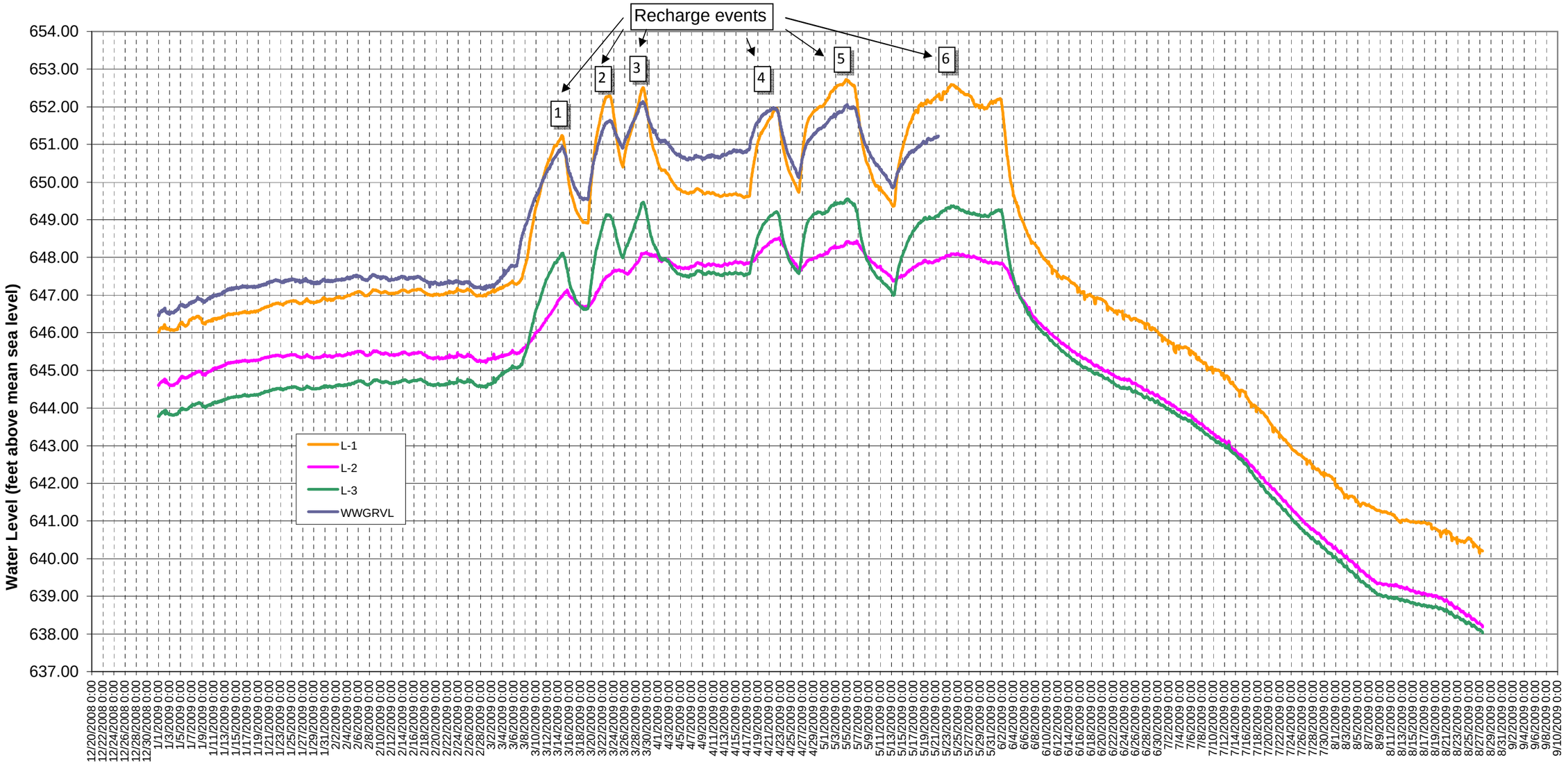

Figure 4. Water levels in Locher Road SAR site wells before, during, and after the 2009 SAR season.

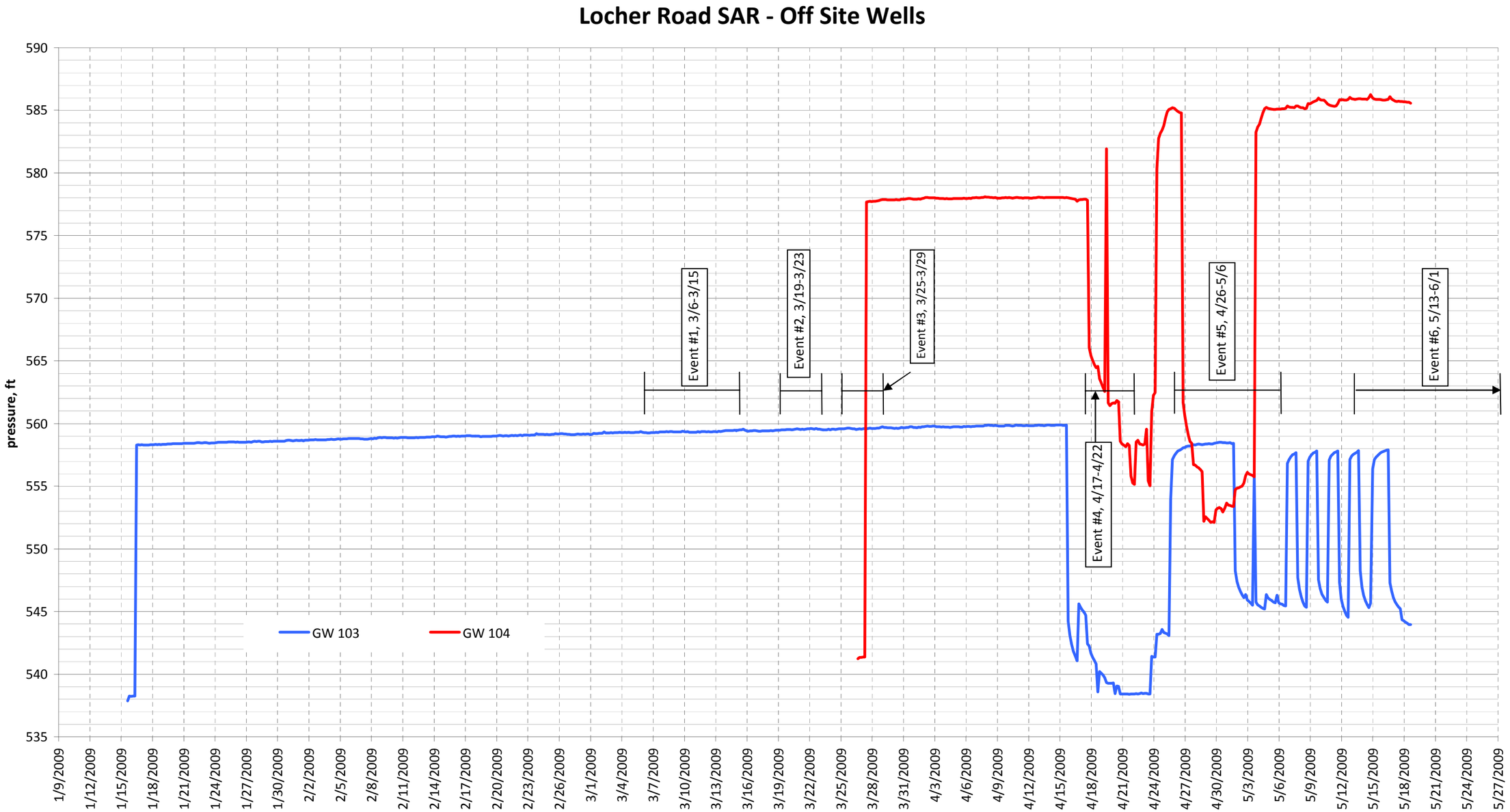

Figure 5. Water levels in Locher Road SAR offsite wells before and during the beginning of the 2009 season.

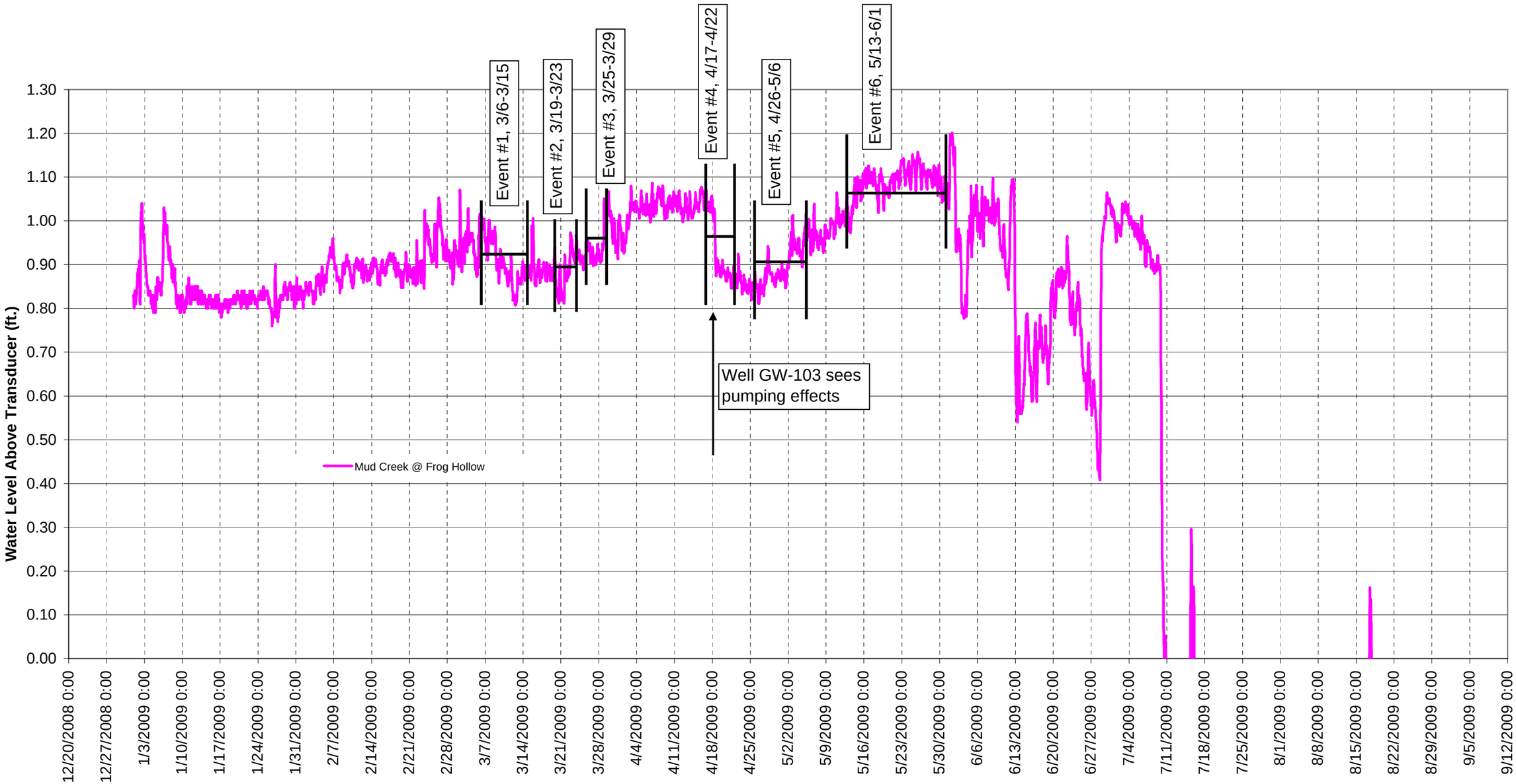

Figure 6. Depth of water at both surface water monitoring sites on Mud Creek.

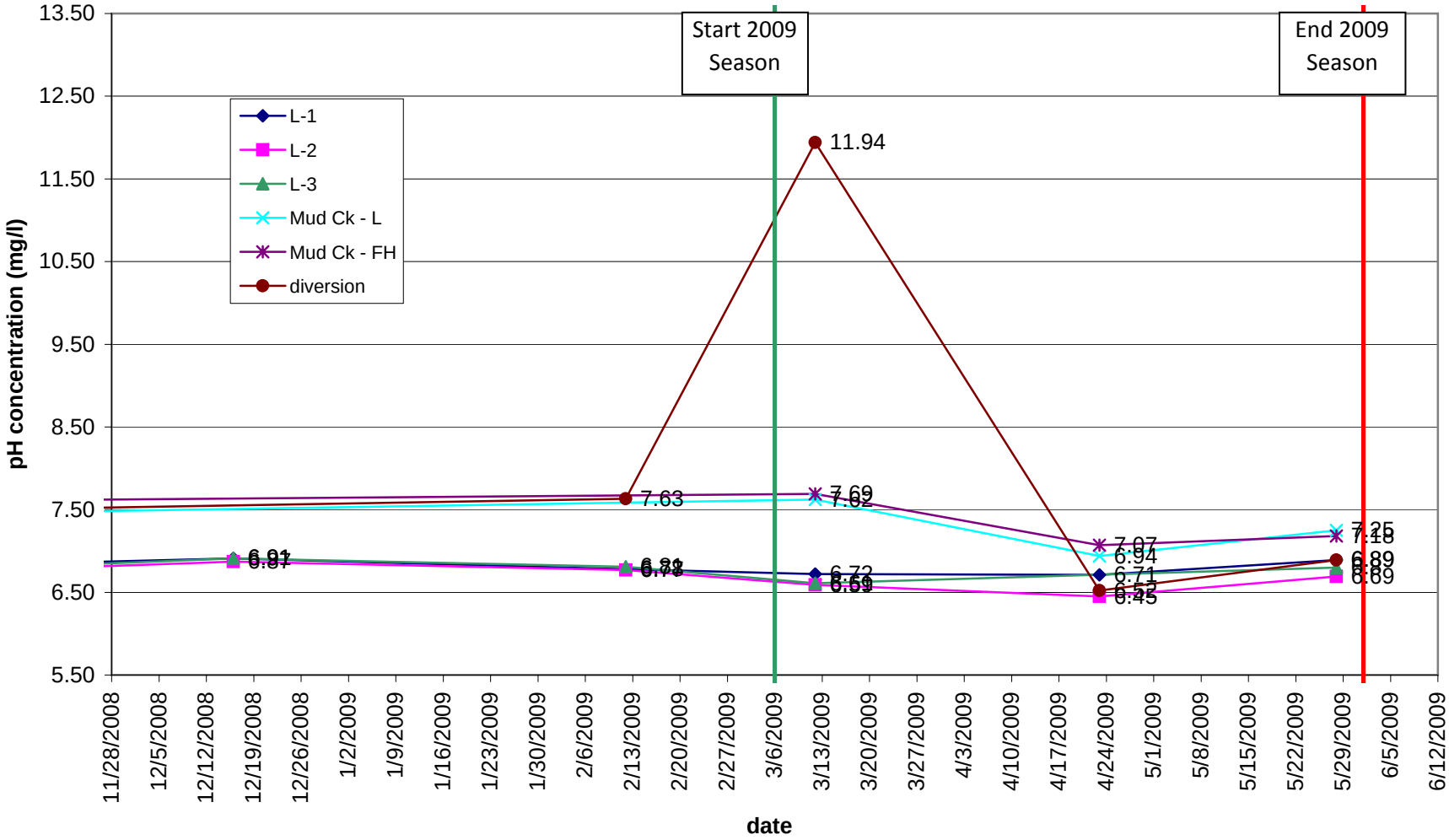

Figure 7. Groundwater and source water pH during the 2009 SAR season.

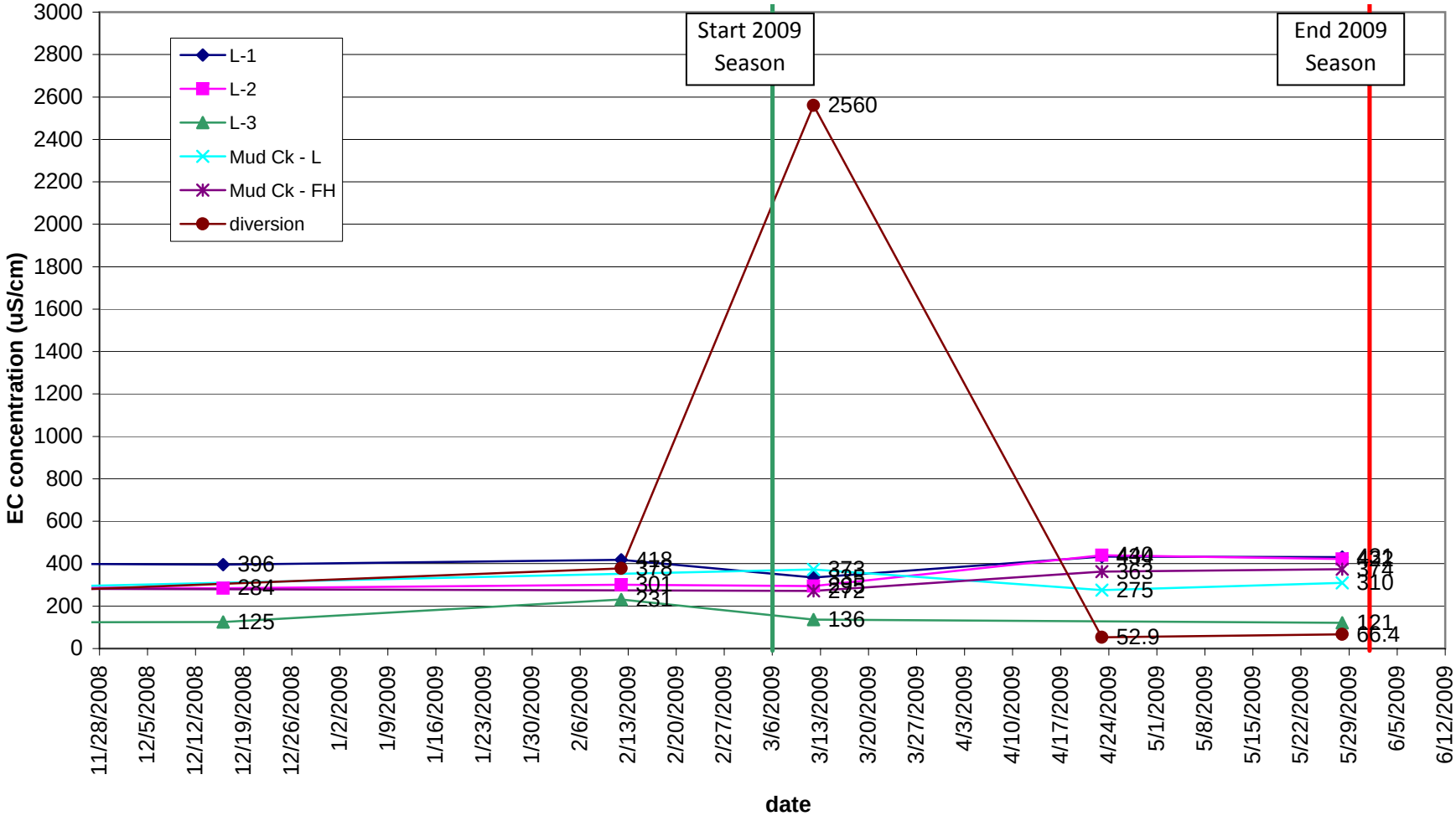

Figure 8. Groundwater and source water electrical conductivity during the 2009 SAR season.

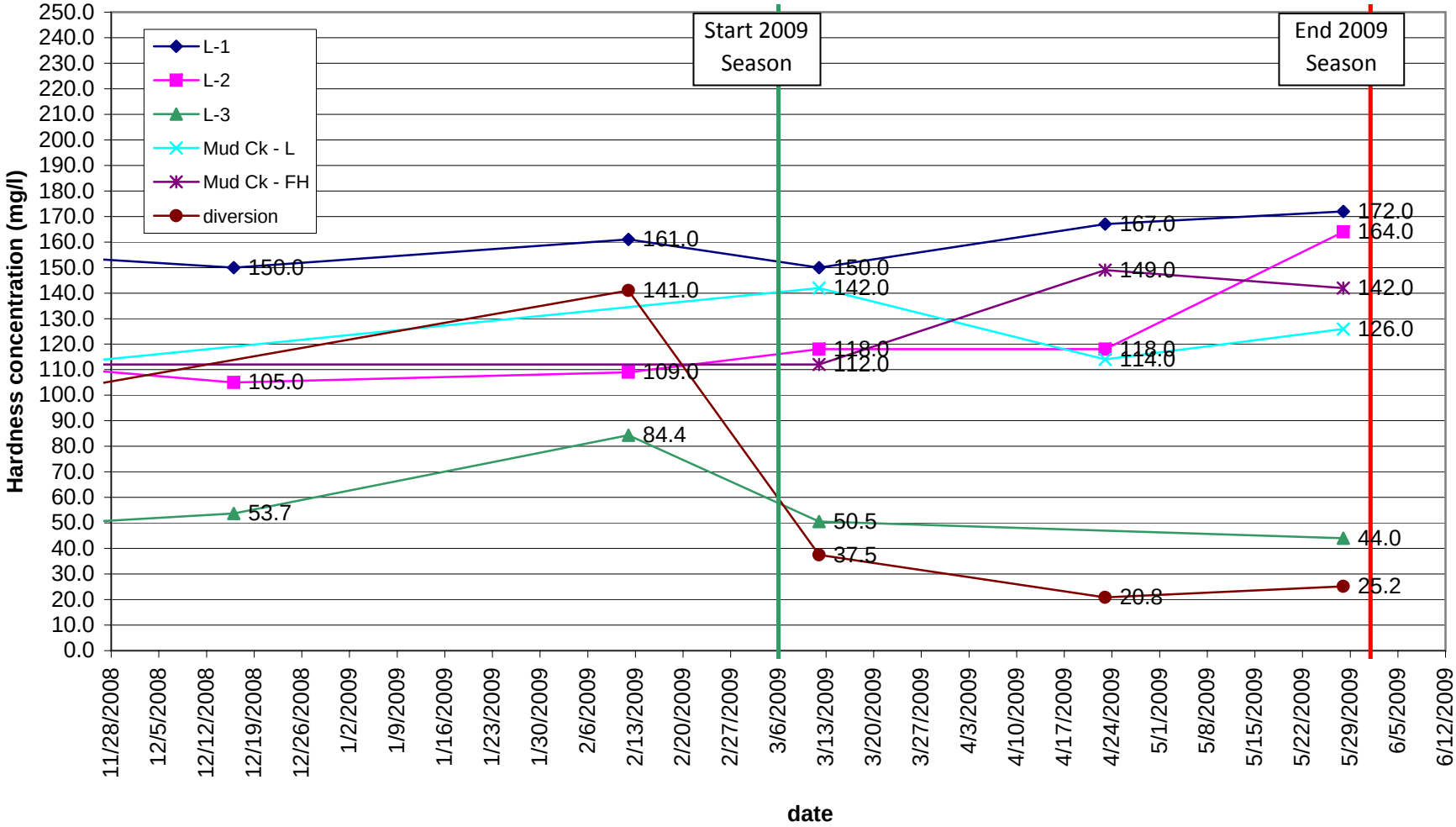

Figure 9. Groundwater and source water hardness during the 2009 SAR season.

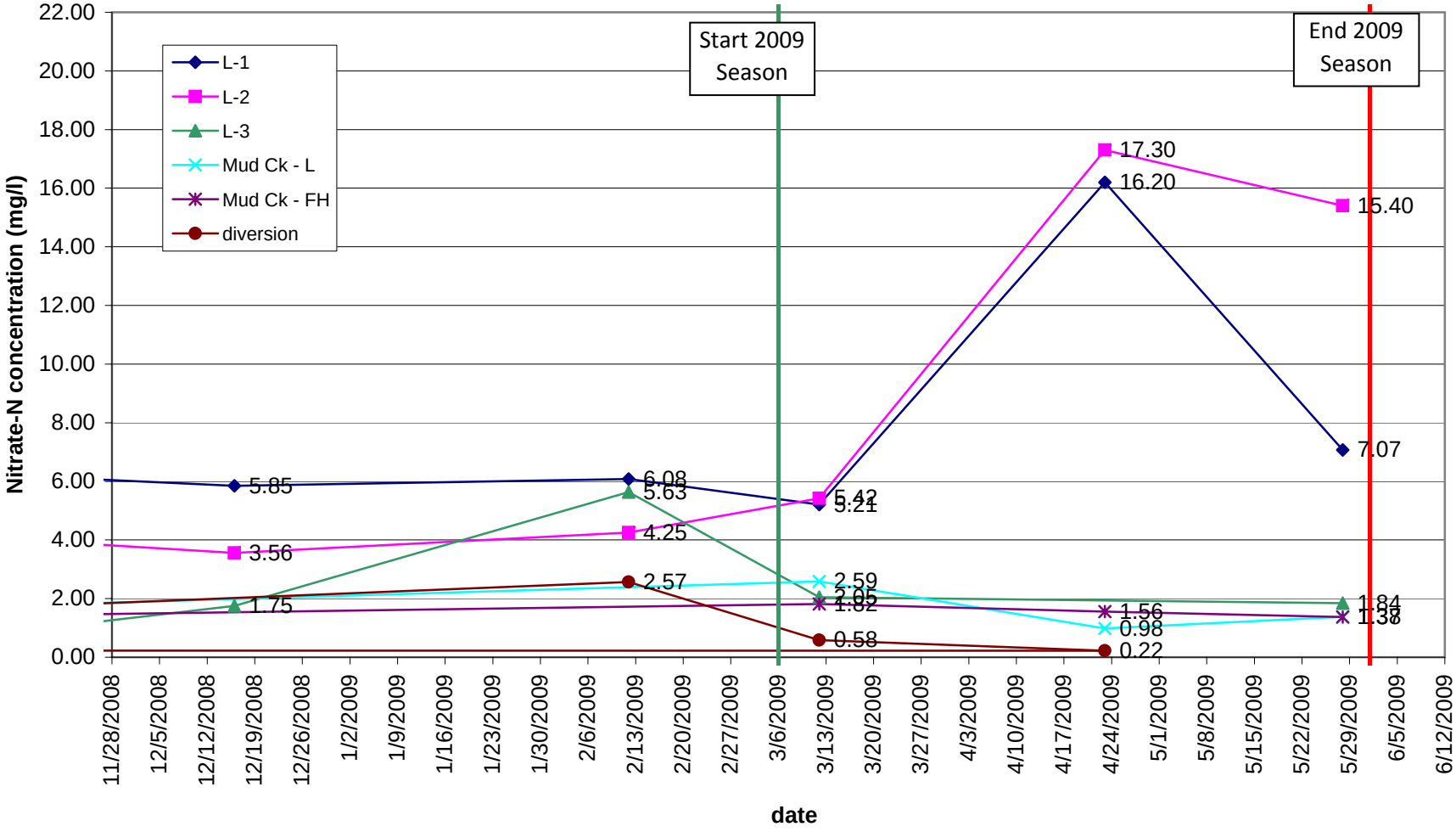

Figure 10. Groundwater and source water nitrate-N during thee 2009 SAR season.

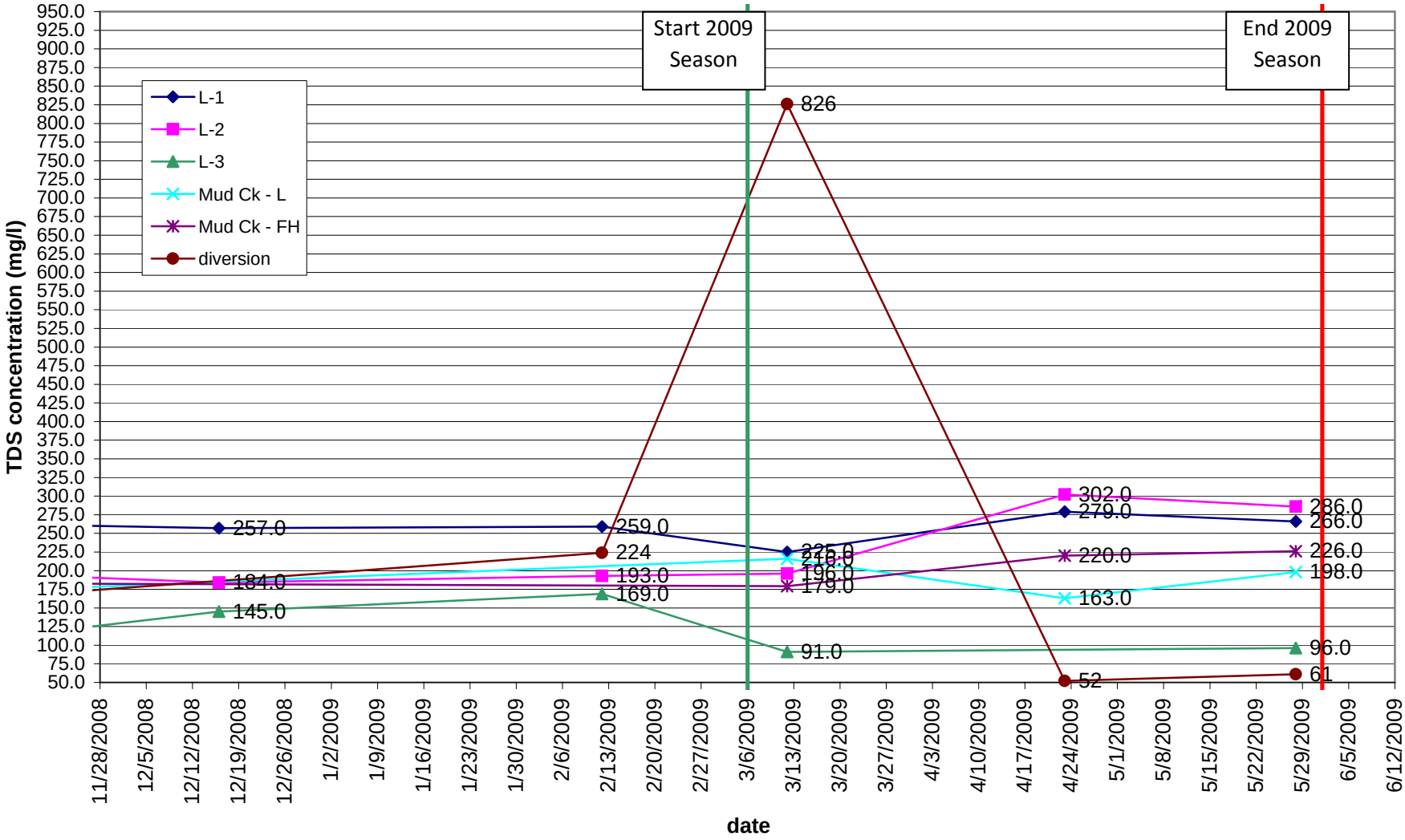

Figure 11. Groundwater and source water total dissolved solids during the 2009 SAR season.

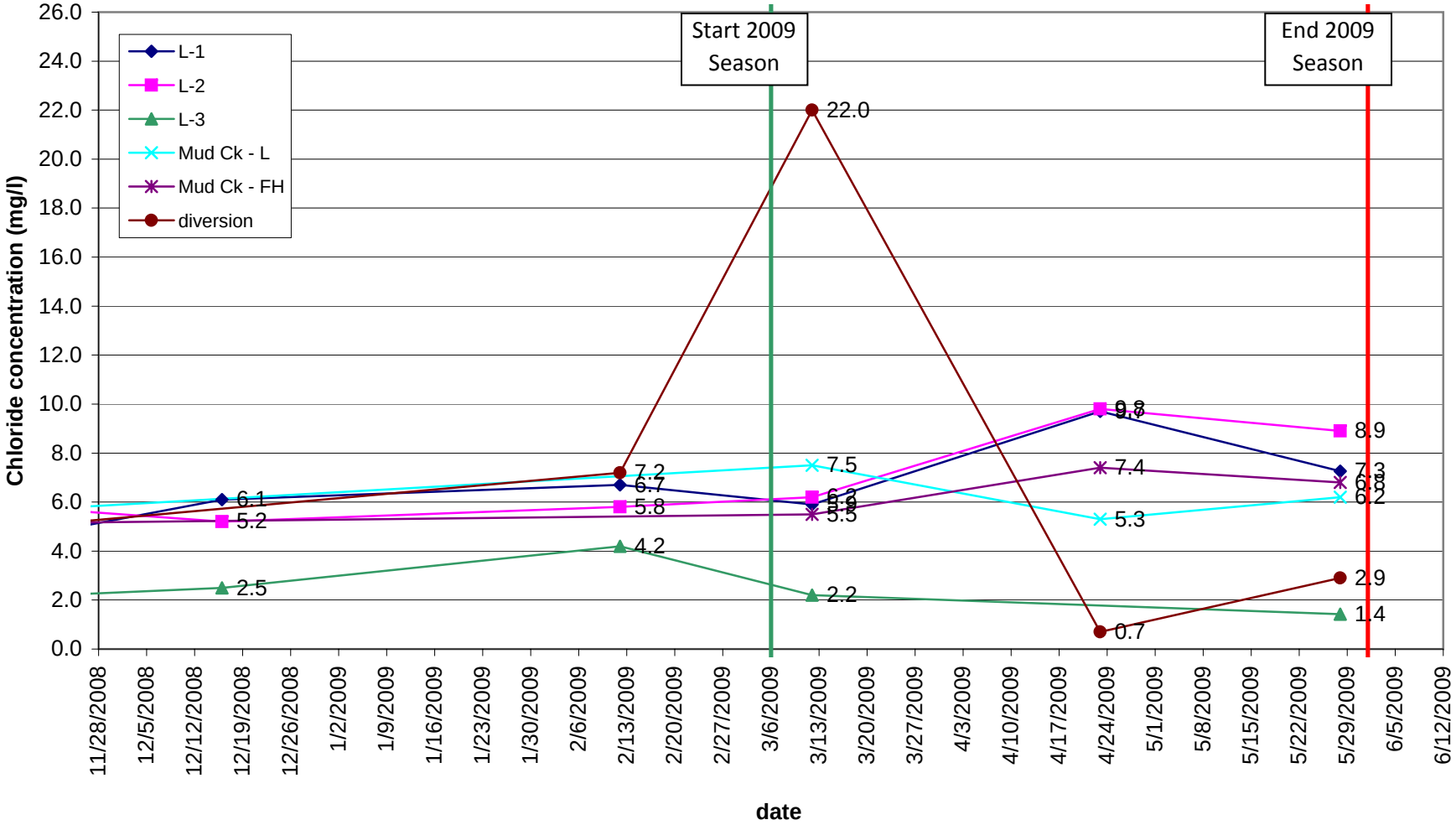

Figure 12. Groundwater and source water chloride during the 2009 SAR season.

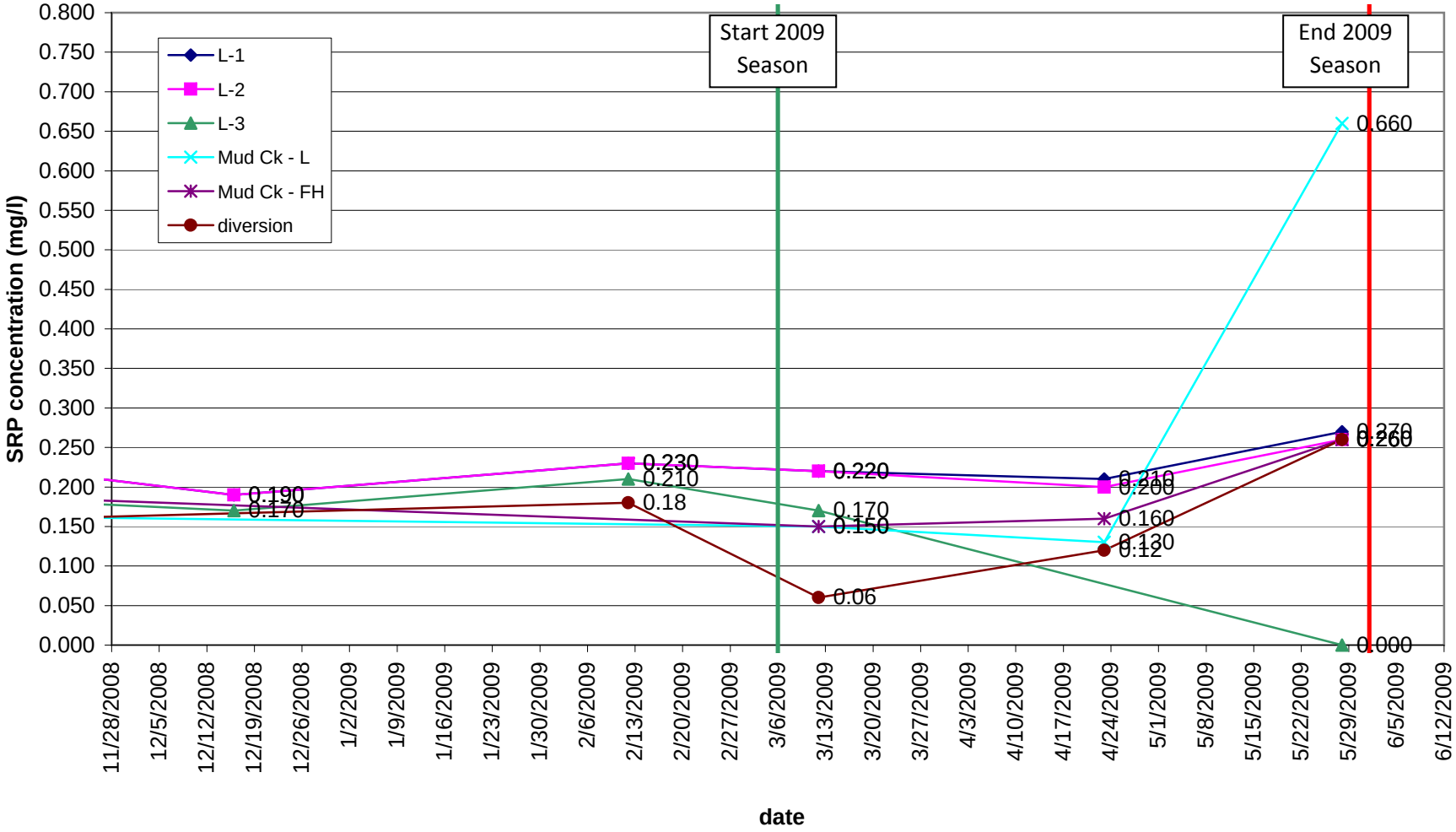

Figure 13. Groundwater and source water soluable reactive phosphorus during the 2009 SAR season.

Appendix A

EDGE ANALYTICAL LABORATORIES

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Bellingham WA | 805 Orchard Dr Suite 4 - 98225
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[redacted]

December 10, 2008

Mr. Troy Baker
Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

RE: 08-15517 - Locker/Hall-Wetland

Dear Mr. Troy Baker,

Your project: Locker/Hall-Wetland, was received on Wednesday October 29, 2008.
The following comments are reported for your project:

Samples 32783 (H-3) and 32784 (H-2) were also analyzed for PCBs and Toxaphene under method 508.1. Both sample were non-detect for these compounds. There was no charge for this analysis.

If you have questions phone me at 800 755-9295.

Respectfully Submitted,

CJ For LJH

Lawrence J Henderson, PhD
Director of Laboratories

Enclosures Data Report
QC Reports
Chain of Custody

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Data Report

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

Report Date: 11/7/2008
Reference Number: 08-15517
Project: Locker/Hall-Wetland

Collected By: Baker

Date Received: 10/29/2008
Peer Review:

Lab Number: 32780 Sample Description: L-1 - Locker obs#1 Sample Date: 10/28/2008

CAS ID#	Analyte	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comments
E-10139	HYDROGEN ION (pH)	6.81			pH Units	1.0	SM4500-H+ B	10/29/2008	MAK	PH_081029	
14797-55-8	NITRATE-N	6.38	0.100	0.015	mg/L	1.0	300.0	10/29/2008	BJ	I081029A	
16887-00-6	CHLORIDE	3.5	0.1	0.012	mg/L	1.0	300.0	10/29/2008	BJ	I081029A	
E-10173	TOTAL DISSOLVED SOLIDS	265	10	6	mg/L	1.0	SM2540 C	10/29/2008	CCN	TDS_081029	
14265-44-2	ORTHO-PHOSPHATE	0.24	0.01	0.002	mg/L	1.0	SM4500-P F	10/29/2008	SO	OPHOS-081029	
E-10184	ELECTRICAL CONDUCTIVITY	403	10		uS/cm	1.0	SM2510 B	11/3/2008	CCN	EC_081103	
E-10617	TURBIDITY	0.29	0.05	0.02	NTU	1.0	180.1	10/29/2008	MAK	TURB_081029	
15541-45-4	BROMATE	ND	0.005	0.0013	mg/L	1.0	300.1	11/4/2008	MVP	D081104A	
E-11778	HARDNESS	158.1	3.30	0.055	mg CaC(	1.0	200.7	11/3/2008	BJ	200.7-081103A	
E-10117	CHEMICAL OXYGEN DEMAND	ND	8	2	mg/L	1.0	SM5220 D	11/4/2008	MAK	COD_081104	

Lab Number: 32781 Sample Description: L-2 - Locker obs#2 Sample Date: 10/28/2008

CAS ID#	Analyte	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comments
E-10139	HYDROGEN ION (pH)	6.73			pH Units	1.0	SM4500-H+ B	10/29/2008	MAK	PH_081029	
14797-55-8	NITRATE-N	4.25	0.100	0.015	mg/L	1.0	300.0	10/29/2008	BJ	I081029A	
16887-00-6	CHLORIDE	6.2	0.1	0.012	mg/L	1.0	300.0	10/29/2008	BJ	I081029A	
E-10173	TOTAL DISSOLVED SOLIDS	201	10	6	mg/L	1.0	SM2540 C	10/29/2008	CCN	TDS_081029	
14265-44-2	ORTHO-PHOSPHATE	0.24	0.01	0.002	mg/L	1.0	SM4500-P F	10/29/2008	SO	OPHOS-081029	
E-10184	ELECTRICAL CONDUCTIVITY	291	10		uS/cm	1.0	SM2510 B	11/3/2008	CCN	EC_081103	
E-10617	TURBIDITY	1.79	0.05	0.02	NTU	1.0	180.1	10/29/2008	MAK	TURB_081029	
15541-45-4	BROMATE	ND	0.005	0.0013	mg/L	1.0	300.1	11/4/2008	MVP	D081104A	
E-11778	HARDNESS	116.0	3.30	0.055	mg CaC(	1.0	200.7	11/3/2008	BJ	200.7-081103A	
E-10117	CHEMICAL OXYGEN DEMAND	ND	8	2	mg/L	1.0	SM5220 D	11/4/2008	MAK	COD_081104	

Lab Number: 32782 Sample Description: L-3 - Locker obs#3 Sample Date: 10/28/2008

CAS ID#	Analyte	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comments
E-10139	HYDROGEN ION (pH)	6.75			pH Units	1.0	SM4500-H+ B	10/29/2008	MAK	PH_081029	
14797-55-8	NITRATE-N	0.43	0.100	0.015	mg/L	1.0	300.0	10/29/2008	BJ	I081029A	
16887-00-6	CHLORIDE	1.9	0.1	0.012	mg/L	1.0	300.0	10/29/2008	BJ	I081029A	
E-10173	TOTAL DISSOLVED SOLIDS	94	10	6	mg/L	1.0	SM2540 C	10/29/2008	CCN	TDS_081029	
14265-44-2	ORTHO-PHOSPHATE	0.19	0.01	0.002	mg/L	1.0	SM4500-P F	10/29/2008	SO	OPHOS-081029	
E-10184	ELECTRICAL CONDUCTIVITY	122	10		uS/cm	1.0	SM2510 B	11/3/2008	CCN	EC_081103	
E-10617	TURBIDITY	3.61	0.05	0.02	NTU	1.0	180.1	10/29/2008	MAK	TURB_081029	

PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.
D.F. - Dilution Factor

WSDOE Lab C1251
WSDOH Lab 046

FORM: MULT_RESULT

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CARBAMATES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

Reference Number: 08-15517

Project: Locker/Hall-Wetland
Field ID: L-1
Sample Description: Locker obs#1
Sampled By: Baker
Sample Date: 10/28/2008
Source Type:
Sampler Phone:

Lab Number: 04632780
Report Date: 11/4/2008
Date Analyzed: 10/31/2008
Extraction Date: 531_081031
Analyst: CO
Supervisor:
Analytical Method: 531.2 Carbamates

CAS	COMPOUND	RESULTS	Units	PQL	MDL	MCL	COMMENT
	EPA Regulated						
23135-22-0	OXYMAL	ND	ug/L	1.0	0.3	200	
1563-66-2	CARBOFURAN	ND	ug/L	1.0	0.2	40	
	EPA Unregulated						
1646-87-3	ALDICARB SULFOXIDE	ND	ug/L	1.0	0.3		
1646-88-4	ALDICARB SULFONE	ND	ug/L	1.0	0.3		
16752-77-5	METHOMYL	ND	ug/L	1.0	0.3		
16655-82-6	3-HYDROXYCARBOFURAN	ND	ug/L	1.0	0.3		
116-06-3	ALDICARB	ND	ug/L	1.0	0.3		
63-25-2	CARBARYL	ND	ug/L	1.0	0.2		
	State Unregulated - Other						
114-26-1	PROPOXUR (BAYGON)	ND	ug/L	1.0	0.4		
2032-65-7	METHIOCARB	ND	ug/L	1.0	0.3		

An amount of "ND" indicates that the compound was not detected above the Lab's Method Detection Limit - MDL.
MCL- Maximum Contaminant Level, maximum permissible level of a contaminant in water established by EPA, NPDWR. State Advisory Level (SAL) for Unregulated compounds.
A blank MCL or SAL value indicates a level is not currently established.
PQL - Practical Quantitation Limit is the concentration of the standard analyzed during the initial calibration.
MDL - Method Detection Limit is the lab's minimum concentration a compound can be measured and reported with 99% confidence that the compound concentration is greater than zero.
J - Estimated value.

These test results meet all the requirements of NELAC, unless otherwise stated in writing, and relate only to these samples.

FORM: SOC_GEN

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CARBAMATES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

Reference Number: 08-15517

Project: Locker/Hall-Wetland
Field ID: L-2
Sample Description: Locker obs#2
Sampled By: Baker
Sample Date: 10/28/2008
Source Type:
Sampler Phone:

Lab Number: 04632781
Report Date: 11/4/2008
Date Analyzed: 10/31/2008
Extraction Date: 531_081031
Analyst: CD
Supervisor:
Analytical Method: 531.2 Carbamates

CAS	COMPOUND	RESULTS	Units	PQL	MDL	MCL	COMMENT
	EPA Regulated						
23135-22-0	OXYMAL	ND	ug/L	1.0	0.3	200	
1563-66-2	CARBOFURAN	ND	ug/L	1.0	0.2	40	
	EPA Unregulated						
1646-87-3	ALDICARB SULFOXIDE	ND	ug/L	1.0	0.3		
1646-88-4	ALDICARB SULFONE	ND	ug/L	1.0	0.3		
16752-77-5	METHOMYL	ND	ug/L	1.0	0.3		
16655-82-6	3-HYDROXYCARBOFURAN	ND	ug/L	1.0	0.3		
116-06-3	ALDICARB	ND	ug/L	1.0	0.3		
63-25-2	CARBARYL	ND	ug/L	1.0	0.2		
	State Unregulated - Other						
114-26-1	PROPOXUR (BAYGON)	ND	ug/L	1.0	0.4		
2032-65-7	METHIOCARB	ND	ug/L	1.0	0.3		

An amount of "ND" indicates that the compound was not detected above the Lab's Method Detection Limit - MDL.
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CARBAMATES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

Reference Number: 08-15517

Project: Locker/Hall-Wetland
Field ID: L-3
Sample Description: Locker obs#3
Sampled By: Baker
Sample Date: 10/28/2008
Source Type:
Sampler Phone:

Lab Number: 04632782
Report Date: 11/4/2008
Date Analyzed: 10/31/2008
Extraction Date: 531_081031
Analyst: CO
Supervisor:
Analytical Method: 531.2 Carbamates

CAS	COMPOUND	RESULTS	Units	PQL	MDL	MCL	COMMENT
	EPA Regulated						
23135-22-0	OXYMAL	ND	ug/L	1.0	0.3	200	
1563-66-2	CARBOFURAN	ND	ug/L	1.0	0.2	40	
	EPA Unregulated						
1646-87-3	ALDICARB SULFOXIDE	ND	ug/L	1.0	0.3		
1646-88-4	ALDICARB SULFONE	ND	ug/L	1.0	0.3		
16752-77-5	METHOMYL	ND	ug/L	1.0	0.3		
16655-82-6	3-HYDROXYCARBOFURAN	ND	ug/L	1.0	0.3		
116-06-3	ALDICARB	ND	ug/L	1.0	0.3		
63-25-2	CARBARYL	ND	ug/L	1.0	0.2		
	State Unregulated - Other						
114-26-1	PROPOXUR (BAYGON)	ND	ug/L	1.0	0.4		
2032-65-7	METHIOCARB	ND	ug/L	1.0	0.3		

An amount of "ND" indicates that the compound was not detected above the Lab's Method Detection Limit - MDL.
MCL- Maximum Contaminant Level, maximum permissible level of a contaminant in water established by EPA, NPDWR. State Advisory Level (SAL) for Unregulated compounds.
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FORM: SOC_GEN

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Fortified Blank

Reference Number: 08-15517
Report Date: 12/10/08

Batch	Analyte	Result	True Value	Units	Method	% Recovery	QC Limits	Qualifier	Type*	Comment
200.7-081103A	HARDNESS	73.3	69.5	mg/L	200.7	105	80-120		LFB	
515_081031	2,4 - D	1.87	2	ug/L	515.1	94	70-130		LFB	
	2,4 - DCAA (SURR)	101		%	515.1		70-130			
	2,4 DB	7.69	8	ug/L	515.1	96	70-130			
	2,4,5 - TP (SILVEX)	0.92	1	ug/L	515.1	92	70-130			
	2,4,5 T	0.91	1	ug/L	515.1	91	70-130			
	ACIFLUORFEN	1.04	1	ug/L	515.1	104	70-130			
	BENTAZON	1.79	2	ug/L	515.1	90	70-130			
	CHLORAMBEN	0.73	1	ug/L	515.1	73	70-130			
	DALAPON	10.1	13	ug/L	515.1	78	70-130			
	DICAMBA	0.89	1	ug/L	515.1	89	70-130			
	DICHLORPROP	2.63	3	ug/L	515.1	88	70-130			
	DINOSEB	1.74	2	ug/L	515.1	87	70-130			
	PENTACHLOROPHENOL	0.88	1	ug/L	515.1	88	70-130			
	PICLORAM	0.91	1	ug/L	515.1	91	70-130			
	TOTAL (DCPA & Metabolites)	0.87	1	ug/L	515.1	87	70-130			
525_081105	1,3-DIMETHYL-2-NITROBENZENE (Surr)	79		%	525.2		70-130		LFB	
	4,4-DDD	1.2	1	ug/L	525.2	120	70-130			
	4,4-DDE	1.12	1	ug/L	525.2	112	70-130			
	4,4-DDT	1.09	1	ug/L	525.2	109	70-130			
	BISPHENOL-A	4.1	5	ug/L	525.2	82	85-115			
	DIAZINON	0.9	1	ug/L	525.2	90	70-130			
	LINDANE (BHC - GAMMA)	1.01	1	ug/L	525.2	101	70-130			
	PERYLENE-D12 (Surr)	94		%	525.2		70-130			
	PYRENE-D10 (Surr)	89		%	525.2		70-130			
	SIMAZINE	0.97	1	ug/L	525.2	97	70-130			
	TRIPHENYLPHOSPHATE (Surr)	120		%	525.2		70-130			
525X_081105	1-NAPHTHALENEACETAMIDE	2.07	2	ug/L	525.2	104	70-130		LFB	
	CHLORPYRIFOS	1.05	1	ug/L	525.2	105	70-130			
	DICOFOL	2.57	2	ug/L	525.2	129	70-130			

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

QCS: Quality Control Sample, a solution containing known concentrations of method analytes which is used to fortify an aliquot of reagent matrix. The QCS is obtained from an external source and is used to check lab performance.

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Fortified Blank

Reference Number: 08-15517
Report Date: 12/10/08

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
525X_081105	FENARIMOL	1.29	1	ug/L	525.2	129	70-130		LFB	
	HEXAZINONE	1.26	1	ug/L	525.2	126	70-130			
	MALATHION	1.04	1	ug/L	525.2	104	70-130			
	METALAXYL	2.26	2	ug/L	525.2	113	70-130			
	METHIDATHINON	2.92	2	ug/L	525.2	146	85-115	HR		
	MEVINPHOS	1.12	1	ug/L	525.2	112	70-130			
	MYCLOBUTANIL	2.43	2	ug/L	525.2	122	85-115			
	NAPROPAMIDE	1.16	1	ug/L	525.2	116	70-130			
	PARATHION-ETHYL	1.05	1	ug/L	525.2	105	70-130			
	PHOSMET	2.68	2	ug/L	525.2	134	70-130	HR		
	PROPARGITE	2.23	2	ug/L	525.2	112	85-115			
	TRIADIMEFON	1.05	1	ug/L	525.2	105	70-130			
	TRIFLUMIZOLE	1.35	2	ug/L	525.2	68	85-115	N1		
531_081031	3-HYDROXYCARBOFURAN	8	10	ug/L	531.2	80	70-130		LFB	
	ALDICARB	7.9	10	ug/L	531.2	79	70-130			
	ALDICARB SULFONE	8.1	10	ug/L	531.2	81	70-130			
	ALDICARB SULFOXIDE	8.4	10	ug/L	531.2	84	70-130			
	BDMC (SURR)	85		%	531.2		70-130			
	CARBARYL	10	10	ug/L	531.2	100	70-130			
	CARBOFURAN	8	10	ug/L	531.2	80	70-130			
	METHIOCARB	7.9	10	ug/L	531.2	79	70-130			
	METHOMYL	9.8	10	ug/L	531.2	98	70-130			
	OXYMAL	8	10	ug/L	531.2	80	70-130			
	PROPOXUR (BAYGON)	7.3	10	ug/L	531.2	73	70-130			
COD_081104	CHEMICAL OXYGEN DEMAND	49	50	mg/L	SM5220 D	98	80-120		LFB	
OPHOS-081029	ORTHO-PHOSPHATE	1.02	1.00	mg/L	SM4500-P F	102	70-130		LFB	
tds_081029	TOTAL DISSOLVED SOLIDS	494	500	mg/L	SM2540 C	99	80-120		LFB	
tds_081029	TOTAL DISSOLVED SOLIDS	496	500	mg/L	SM2540 C	99	80-120		LFB	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

QCS: Quality Control Sample, a solution containing known concentrations of method analytes which is used to fortify an aliquot of reagent matrix. The QCS is obtained from an external source and is used to check lab performance.

LFB: Laboratory Fortified Blank, an aliquot of reagent matrix to which known quantities of method analytes are added in the lab. The LFB is analyzed exactly like a sample, and its purpose is to determine whether method performance is within accepted control limits.

MB or LRB: Method Blank or Laboratory Reagent Blank, an aliquot of reagent matrix is analyzed exactly like a sample, and its purpose is to determine if there is background contamination.

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Fortified Blank

Reference Number: 08-15517
Report Date: 12/10/08

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
tds_081029	TOTAL DISSOLVED SOLIDS	498	500	mg/L	SM2540 C	100	80-120		LFB	
tds_081029	TOTAL DISSOLVED SOLIDS	500	500	mg/L	SM2540 C	100	80-120		LFB	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Low Level Laboratory Fortified Blank

Reference Number: 08-15517
Report Date: 12/10/08

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
531_081031	3-HYDROXYCARBOFURAN	0.6	1	ug/L	531.2	60	50-150		LFBD	
	ALDICARB	0.8	1	ug/L	531.2	80	50-150			
	ALDICARB SULFONE	0.6	1	ug/L	531.2	60	50-150			
	ALDICARB SULFOXIDE	0.8	1	ug/L	531.2	80	50-150			
	BDMC (SURR)	79		%	531.2		50-150			
	CARBARYL	0.8	1	ug/L	531.2	80	50-150			
	CARBOFURAN	0.6	1	ug/L	531.2	60	50-150			
	METHIOCARB	0.6	1	ug/L	531.2	60	50-150			
	METHOMYL	0.7	1	ug/L	531.2	70	50-150			
	OXYMAL	1	1	ug/L	531.2	100	50-150			
	PROPOXUR (BAYGON)	0.6	1	ug/L	531.2	60	50-150			

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

QCS: Quality Control Sample, a solution containing known concentrations of method analytes which is used to fortify an aliquot of reagent matrix. The QCS is obtained from an external source and is used to check lab performance.

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EDGE ANALYTICAL LABORATORIES

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Bellingham WA | 805 Orchard Dr Suite 4 - 98225
Microbiology | 360.671.0688 • 360.671.1577fax

SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Reagent Blank

Reference Number: 08-15517
Report Date: 12/10/08

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
200.7-081103A	HARDNESS	ND		mg/L	200.7		10.00000		LRB	
COD_081104	CHEMICAL OXYGEN DEMAND	ND		mg/L	SM5220 D		4.00000		LRB	
D081104A	BROMATE	ND		mg/L	300.1		0.00500		LRB	
I081029A	CHLORIDE	ND		mg/L	300.0		0.10000		LRB	
	NITRATE-N	ND		mg/L	300.0		0.10000			
OPHOS-081029	ORTHO-PHOSPHATE	ND		mg/L	SM4500-P F		0.10000		LRB	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Method Blank

Reference Number: 08-15517
Report Date: 12/10/08

Batch	Analyte	Result	True Value	Units	Method	% Recovery	QC Limits	Qualifier	Type*	Comment
200.7-081103A	HARDNESS	ND		mg/L	200.7		0.82000		MB	
515_081031	2,4 - D	ND		ug/L	515.1		0.05000		MB	
	2,4 - DCAA (SURR)	96		%	515.1					
	2,4 DB	ND		ug/L	515.1		0.25000			
	2,4,5 - TP (SILVEX)	ND		ug/L	515.1		0.10000			
	2,4,5 T	ND		ug/L	515.1		0.10000			
	ACIFLUORFEN	ND		ug/L	515.1		0.50000			
	BENTAZON	ND		ug/L	515.1		0.12000			
	CHLORAMBEN	ND		ug/L	515.1		0.20000			
	DALAPON	ND		ug/L	515.1		0.50000			
	DCPA (ACID METABOLITES)	ND		ug/L	515.1		0.10000			
	DICAMBA	ND		ug/L	515.1		0.05000			
	DICHLORPROP	ND		ug/L	515.1		0.12000			
	DINOSEB	ND		ug/L	515.1		0.10000			
	PENTACHLOROPHENOL	ND		ug/L	515.1		0.02000			
	PICLORAM	ND		ug/L	515.1		0.05000			
	TOTAL (DCPA & Metabolites)	ND		ug/L	515.1		0.02000			
525_081105	1,3-DIMETHYL-2-NITROBENZENE (Surr)	80		%	525.2				MB	
	4,4-DDD	ND		ug/L	525.2		0.05000			
	4,4-DDE	ND		ug/L	525.2		0.05000			
	4,4-DDT	ND		ug/L	525.2		0.05000			
	BISPHENOL-A	ND		ug/L	525.2		1.00000			
	DIAZINON	ND		ug/L	525.2		0.05000			
	LINDANE (BHC - GAMMA)	ND		ug/L	525.2		0.02000			
	PERYLENE-D12 (Surr)	85		%	525.2					
	PYRENE-D10 (Surr)	91		%	525.2					
	SIMAZINE	ND		ug/L	525.2		0.02000			
	TRIPHENYLPHOSPHATE (Surr)	117		%	525.2					
525X_081105	1-NAPHTHALENEACETAMIDE	ND		ug/L	525.2		0.10000		MB	
	AZINPHOS-METHYL	ND		ug/L	525.2		0.00000			

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Method Blank

Reference Number: 08-15517
Report Date: 12/10/08

Batch	Analyte	Result	True Value	Units	Method	% Recovery	QC Limits	Qualifier	Type*	Comment
525X_081105	CHLORPYRIFOS	ND		ug/L	525.2		0.00000		MB	
	DICOFOL	ND		ug/L	525.2		0.00000			
	DIMETHOATE	ND		ug/L	525.2		0.00000			
	FENARIMOL	ND		ug/L	525.2		0.00000			
	HEXAZINONE	ND		ug/L	525.2		0.00000			
	MALATHION	ND		ug/L	525.2		0.05000			
	METALAXYL	ND		ug/L	525.2		0.10000			
	METHIDATHINON	ND		ug/L	525.2		0.50000			
	METHYL PARATHION	ND		ug/L	525.2		0.00000			
	MEVINPHOS	ND		ug/L	525.2		0.00000			
	MYCLOBUTANIL	ND		ug/L	525.2		0.50000			
	NAPROPAMIDE	ND		ug/L	525.2		0.00000			
	PARATHION-ETHYL	ND		ug/L	525.2		0.05000			
	PHOSMET	ND		ug/L	525.2		0.10000			
	PROPARGITE	ND		ug/L	525.2		0.00000			
	TRIADIMEFON	ND		ug/L	525.2		0.00000			
	TRIFLUMIZOLE	ND		ug/L	525.2		1.00000			
531_081031	3-HYDROXYCARBOFURAN	ND		ug/L	531.2		0.50000		MB	
	ALDICARB	ND		ug/L	531.2		0.25000			
	ALDICARB SULFONE	ND		ug/L	531.2		0.40000			
	ALDICARB SULFOXIDE	ND		ug/L	531.2		0.25000			
	BDMC (SURR)	110		%	531.2		0.00000			
	CARBARYL	ND		ug/L	531.2		0.50000			
	CARBOFURAN	ND		ug/L	531.2		0.45000			
	METHIOCARB	ND		ug/L	531.2		1.00000			
	METHOMYL	ND		ug/L	531.2		0.25000			
	OXYMAL	ND		ug/L	531.2		1.00000			
	PROPOXUR (BAYGON)	ND		ug/L	531.2		0.25000			
ec_081103	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
ec_081103	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
ec_081103	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Method Blank

Reference Number: 08-15517
Report Date: 12/10/08

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
ec_081103	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
OPHOS-081029	ORTHO-PHOSPHATE	ND		mg/L	SM4500-P F		0.10000		MB	
tds_081029	TOTAL DISSOLVED SOLIDS	ND		mg/L	SM2540 C		2.50000		MB	
tds_081029	TOTAL DISSOLVED SOLIDS	ND		mg/L	SM2540 C		2.50000		MB	
tds_081029	TOTAL DISSOLVED SOLIDS	ND		mg/L	SM2540 C		2.50000		MB	
tds_081029	TOTAL DISSOLVED SOLIDS	ND		mg/L	SM2540 C		2.50000		MB	
turb_081029	TURBIDITY	ND		NTU	180.1		0.02000		MB	

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Quality Control Sample

Reference Number: 08-15517
Report Date: 12/10/08

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
200.7-081103A	HARDNESS	133	132.3	mg/L	200.7	101	80-120		QCS	
COD_081104	CHEMICAL OXYGEN DEMAND	125	133	mg/L	SM5220 D	94	80-120		QCS	
D081104A	BROMATE	0.0181	0.0182	mg/L	300.1	99	75-125		QCS	
ec_081103	ELECTRICAL CONDUCTIVITY	158	150.5	uS/cm	SM2510 B	105	80-120		QCS	
ec_081103	ELECTRICAL CONDUCTIVITY	158	150.5	uS/cm	SM2510 B	105	80-120		QCS	
ec_081103	ELECTRICAL CONDUCTIVITY	158	150.5	uS/cm	SM2510 B	105	80-120		QCS	
ec_081103	ELECTRICAL CONDUCTIVITY	158	150.5	uS/cm	SM2510 B	105	80-120		QCS	
I081029A	CHLORIDE	30.4	30.0	mg/L	300.0	101	80-120		QCS	
	NITRATE-N	2.58	2.50	mg/L	300.0	103	80-120			
OPHOS-081029	ORTHO-PHOSPHATE	0.47	0.49	mg/L	SM4500-P F	96	70-130		QCS	
ph_081029	HYDROGEN ION (pH)	7.97	8.00	pH Units	SM4500-H+ B	100	80-120		QCS	
ph_081029	HYDROGEN ION (pH)	8.05	8.00	pH Units	SM4500-H+ B	101	80-120		QCS	
turb_081029	TURBIDITY	0.95	1.00	NTU	180.1	95	70-130		QCS	

*Notation:

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QUALITY CONTROL REPORT

Duplicate and Matrix Spike/Matrix Spike Duplicate Report

Reference Number: 08-15517
Report Date: 12/10/2008

Duplicate

Batch	Sample	Analyte	Result	Duplicate Result	Units	%RPD	Limits	QC Qualifier	Comments
200.7-081103A									
	32853	HARDNESS	161	158	mg CaCO3/L	1.9	0-45	DUP	
	32892	HARDNESS	89.4	89.8	mg/L	0.4	0-45	DUP	
525_081105									
COD_081104									
	33136	CHEMICAL OXYGEN DEMAND	13	15	mg/L	14.3	0-45	DUP	
	33163	CHEMICAL OXYGEN DEMAND	9	9	mg/L	0.0	0-45	DUP	
D081104A									
	32565	BROMATE	0.0130	0.0126	mg/L	3.1	0-30	DUP	
EC_081103									
	32571	ELECTRICAL CONDUCTIVITY	514	512	uS/cm	0.4	0-45	DUP	
	32782	ELECTRICAL CONDUCTIVITY	122	122	uS/cm	0.0	0-45	DUP	
	33010	ELECTRICAL CONDUCTIVITY	7440	7390	uS/cm	0.7	0-45	DUP	
I081029A									
	32775	NITRATE-N	10.8	10.8	mg/L	0.0	0-45	DUP	
	32775	CHLORIDE	7.1	7.1	mg/L	0.0	0-45	DUP	
	32817	CHLORIDE	68	68	mg/L	0.0	0-45	DUP	
	32853	CHLORIDE	1.7	1.8	mg/L	5.7	0-45	DUP	
OPHOS-081029									
	32784	ORTHO-PHOSPHATE	0.25	0.24	mg/L	4.1	0-50	DUP	
PH_081029									
	32784	HYDROGEN tON (pH)	6.38	6.42	pH Units	0.6	0-45	DUP	
TDS_081029									
	32571	TOTAL DISSOLVED SOLIDS	516	519	mg/L	0.6	0-45	DUP	
	32762	TOTAL DISSOLVED SOLIDS	95	99	mg/L	4.1	0-45	DUP	
	32817	TOTAL DISSOLVED SOLIDS	554	552	mg/L	0.4	0-45	DUP	
TURB_081029									

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Duplicate

Batch	Sample	Analyte	Result	Duplicate Result	Units	%RPD	Limits	QC Qualifier	Comments
	32853	TURBIDITY	0.10	0.11	NTU	9.5	0-50	DUP	

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

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EDGE ANALYTICAL LABORATORIES

Matrix Spike

Batch	Sample	Analyte	Result	Spike Result	Duplicate Spike Result	Spike Conc	Units	Percent Recovery MS	Percent Recovery MSD	Limits	%RPD	Limits	QC Qualifier	Comments
200.7-081103A														
	32853	HARDNESS	161	230	229	69.5	mg CaCO3/L	99	98	80-120	1.5	0-60		LFM
	32892	HARDNESS	89.4	158	162	69.5	mg/L	99	104	80-120	5.7	0-60		LFM
515_081031														
	29825	2,4 - D	ND	1.69		2	ug/L	85	NA	65-135	NA	0-60		LFM
	29825	2,4,5 - TP (SILVEX)	ND	0.88		1	ug/L	88	NA	65-135	NA	0-60		LFM
	29825	PENTACHLOROPHENOL	ND	0.78		1	ug/L	78	NA	65-135	NA	0-60		LFM
	29825	DALAPON	ND	10.4		13	ug/L	80	NA	65-135	NA	0-60		LFM
	29825	DINOSEB	ND	1.66		2	ug/L	83	NA	65-135	NA	0-60		LFM
	29825	PICLORAM	ND	1.13		1	ug/L	113	NA	65-135	NA	0-60		LFM
	29825	DICAMBA	ND	0.83		1	ug/L	83	NA	65-135	NA	0-60		LFM
	29825	TOTAL (DCPA & Metabolites)	ND	0.9		1	ug/L	90	NA	65-135	NA	0-60		LFM
	29825	2,4 DB	ND	7.9		8	ug/L	99	NA	65-135	NA	0-60		LFM
	29825	2,4,5 T	ND	0.93		1	ug/L	93	NA	65-135	NA	0-60		LFM
	29825	BENTAZON	ND	1.77		2	ug/L	89	NA	65-135	NA	0-60		LFM
	29825	DICHLORPROP	ND	2.52		3	ug/L	84	NA	65-135	NA	0-60		LFM
	29825	ACIFLUORFEN	ND	1		1	ug/L	100	NA	65-135	NA	0-60		LFM
	29825	CHLORAMBEN	ND	0.75		1	ug/L	75	NA	65-135	NA	0-50		LFM
	29825	2,4 - DCAA (SURR)	105	98			%		NA	70-130	NA	0-60		LFM
	32909	2,4 - D	ND	1.75		2	mg/L	88	NA	65-135	NA	0-60		LFM
	32909	2,4,5 - TP (SILVEX)	ND	0.82		1	mg/L	82	NA	65-135	NA	0-60		LFM
	32909	PENTACHLOROPHENOL	ND	0.78		1	ug/L	78	NA	65-135	NA	0-60		LFM
	32909	DALAPON	ND	10.4		13	mg/L	80	NA	65-135	NA	0-60		LFM
	32909	DINOSEB	ND	1.59		2	mg/L	80	NA	65-135	NA	0-60		LFM
	32909	PICLORAM	ND	0.92		1	mg/L	92	NA	65-135	NA	0-60		LFM
	32909	DICAMBA	ND	0.86		1	ug/L	86	NA	65-135	NA	0-60		LFM
	32909	TOTAL (DCPA & Metabolites)	ND	0.9		1	ug/L	90	NA	65-135	NA	0-60		LFM
	32909	2,4 DB	ND	7.37		8	ug/L	92	NA	65-135	NA	0-60		LFM
	32909	2,4,5 T	ND	0.83		1	ug/L	83	NA	65-135	NA	0-60		LFM
	32909	BENTAZON	ND	1.8		2	ug/L	90	NA	65-135	NA	0-60		LFM
	32909	DICHLORPROP	ND	2.41		3	ug/L	80	NA	65-135	NA	0-60		LFM
	32909	ACIFLUORFEN	ND	0.92		1	ug/L	92	NA	65-135	NA	0-60		LFM
	32909	CHLORAMBEN	ND	0.73		1	ug/L	73	NA	65-135	NA	0-50		LFM
	32909	2,4 - DCAA (SURR)	95	89			%		NA	70-130	NA	0-60		LFM
525_081105														
	32424	BISPHENOL-A	ND	5		5	ug/L	100	NA	70-130	NA	0-50		LFM

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

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Matrix Spike

Batch	Sample	Analyte	Result	Spike Result	Duplicate Spike Result	Spike Conc	Units	Percent Recovery MS	Percent Recovery MSD	Limits	%RPD	Limits	QC Qualifier	Comments
	32424	SIMAZINE	ND	1		1	ug/L	100	NA	70-130	NA	0-60	LFM	
	32424	DIAZINON	ND	0.93		1	ug/L	93	NA	70-130	NA	0-60	LFM	
	32424	LINDANE (BHC - GAMMA)	ND	0.97		1	ug/L	97	NA	70-130	NA	0-60	LFM	
	32424	4,4-DDD	ND	1.15		1	ug/L	115	NA	70-130	NA	0-60	LFM	
	32424	4,4-DDE	ND	1.12		1	ug/L	112	NA	70-130	NA	0-60	LFM	
	32424	4,4-DDT	ND	1.1		1	ug/L	110	NA	70-130	NA	0-60	LFM	
	32424	MALATHION	ND	1.23		1	ug/L	123	NA	70-130	NA	0-60	LFM	
	32424	PARATHION-ETHYL	ND	1.3		1	ug/L	130	NA	70-130	NA	0-60	LFM	
	32424	1,3-DIMETHYL-2-NITROBENZENE (Surr	80	79			%		NA	70-130	NA	0-60	LFM	
	32424	PYRENE-D10 (Surr)	90	90			%		NA	70-130	NA	0-60	LFM	
	32424	PERYLENE-D12 (Surr)	91	99			%		NA	70-130	NA	0-60	LFM	
	32424	TRIPHENYLPHOSPHATE (Surr)	120	121			%		NA	70-130	NA	0-60	LFM	
525X_081105														
	32424	PROPARGITE	ND	2.4		2	ug/L	120	NA	70-130	NA	0-50	LFM	
	32424	METALAXYL	ND	2.28		2	ug/L	114	NA	70-130	NA	0-50	LFM	
	32424	NAPROPAMIDE	ND	1.16		1	ug/L	116	NA	70-130	NA	0-50	LFM	
	32424	1-NAPHTHALENEACETAMIDE	ND	2.26		2	ug/L	113	NA	70-130	NA	0-50	LFM	
	32424	FENARIMOL	ND	1.58		1	ug/L	158	NA	70-130	NA	0-50	LFM	
	32424	MEVINPHOS	ND	1.16		1	ug/L	116	NA	70-130	NA	0-50	LFM	
	32424	CHLORPYRIFOS	ND	1.08		1	ug/L	108	NA	70-130	NA	0-50	LFM	
	32424	DICOFOL	ND	3.06		2	ug/L	153	NA	70-130	NA	0-50	HR LFM	
	32424	MALATHION	ND	1.15		1	ug/L	115	NA	70-130	NA	0-60	LFM	
	32424	PARATHION-ETHYL	ND	1.13		1	ug/L	113	NA	70-130	NA	0-60	LFM	
	32424	PHOSMET	ND	3		2	ug/L	150	NA	70-130	NA	0-50	HR LFM	
	32424	TRIADIMEFON	ND	1.18		1	ug/L	118	NA	70-130	NA	0-50	LFM	
	32424	TRIFLUMIZOLE	ND	0.77		2	ug/L	39	NA	70-130	NA	0-50	N1 LFM	
	32424	METHIDATHINON	ND	3.02		2	ug/L	151	NA	70-130	NA	0-50	HR LFM	
	32424	MYCLOBUTANIL	ND	2.5		2	ug/L	125	NA	70-130	NA	0-50	LFM	
	32424	HEXAZINONE	ND	1.29		1	ug/L	129	NA	70-130	NA	0-50	LFM	
531_081031														
	31657	OXYMAL	ND	14.3	13	15	mg/L	95	87	70-130	9.5	0-50	LFM	
	31657	CARBOFURAN	ND	14	12.7	15	mg/L	93	85	70-130	9.7	0-50	LFM	
	31657	ALDICARB SULFOXIDE	ND	15.6	14.7	15	mg/L	104	98	70-130	5.9	0-50	LFM	
	31657	ALDICARB SULFONE	ND	13.9	13.6	15	mg/L	93	91	70-130	2.2	0-50	LFM	
	31657	METHOMYL	ND	13.7	13	15	ug/L	91	87	70-130	5.2	0-50	LFM	
	31657	3-HYDROXYCARBOFURAN	ND	13.6	12.2	15	ug/L	91	81	70-130	10.9	0-50	LFM	

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Matrix Spike

Batch	Sample	Analyte	Result	Spike Result	Duplicate Spike Result	Spike Conc	Units	Percent Recovery MS	Percent Recovery MSD	Limits	%RPD	Limits	QC Qualifier	Comments
	31657	ALDICARB	ND	12.8	11.9	15	mg/L	85	79	70-130	7.3	0-50	LFM	
	31657	CARBARYL	ND	15.1	14.8	15	ug/L	101	99	70-130	2.0	0-50	LFM	
	31657	PROPOXUR (BAYGON)	ND	12.9	12	15	ug/L	86	80	70-130	7.2	0-50	LFM	
	31657	METHIOCARB	ND	13.4	11.7	15	ug/L	89	78	70-130	13.5	0-50	LFM	
	31657	BDMC (SURR)	77	98			%		NA	70-130	NA	0-50	LFM	
	32780	OXYMAL	ND	10.5		10	ug/L	105	NA	70-130	NA	0-50	LFM	
	32780	CARBOFURAN	ND	9.2		10	ug/L	92	NA	70-130	NA	0-50	LFM	
	32780	ALDICARB SULFOXIDE	ND	11.7		10	ug/L	117	NA	70-130	NA	0-50	LFM	
	32780	ALDICARB SULFONE	ND	10.7		10	ug/L	107	NA	70-130	NA	0-50	LFM	
	32780	METHOMYL	ND	10.2		10	ug/L	102	NA	70-130	NA	0-50	LFM	
	32780	3-HYDROXYCARBOFURAN	ND	9.4		10	ug/L	94	NA	70-130	NA	0-50	LFM	
	32780	ALDICARB	ND	9.4		10	ug/L	94	NA	70-130	NA	0-50	LFM	
	32780	CARBARYL	ND	11.3		10	ug/L	113	NA	70-130	NA	0-50	LFM	
	32780	PROPOXUR (BAYGON)	ND	8.5		10	ug/L	85	NA	70-130	NA	0-50	LFM	
	32780	METHIOCARB	ND	8.7		10	ug/L	87	NA	70-130	NA	0-50	LFM	
	32780	BDMC (SURR)	83	76			%		NA	70-130	NA	0-50	LFM	
COD_081104														
	32782	CHEMICAL OXYGEN DEMAND	ND	45	47	50	mg/L	90	94	80-120	4.3	0-60	LFM	
	32820	CHEMICAL OXYGEN DEMAND	ND	54	53	50	mg/L	108	106	80-120	1.9	0-60	LFM	
	33136	CHEMICAL OXYGEN DEMAND	13	67	66	50	mg/L	108	106	80-120	1.9	0-60	LFM	
	33163	CHEMICAL OXYGEN DEMAND	9	63	61	50	mg/L	108	104	80-120	3.8	0-60	LFM	
	33171	CHEMICAL OXYGEN DEMAND	ND	47	49	50	mg/L	94	98	80-120	4.2	0-60	LFM	
D081104A														
	31652	BROMATE	ND	0.010		0.010	mg/L	100		75-125	NA	0-60	LFM	
I081029A														
	32775	NITRATE-N	10.8	30.1		20.00	mg/L	97	NA	80-120	NA	0-60	LFM	
	32775	CHLORIDE	7.1	28.5		20.00	mg/L	107	NA	80-120	NA	0-60	LFM	
	32817	CHLORIDE	68	69		1.00	mg/L	100	NA	80-120	NA	0-60	LFM	
	32853	NITRATE-N	ND	1.09		1.00	mg/L	109	NA	80-120	NA	0-60	LFM	
	32853	CHLORIDE	1.7	2.7		1.00	mg/L	100	NA	80-120	NA	0-60	LFM	
OPHOS-081029														
	32784	ORTHO-PHOSPHATE	0.25	1.26	1.30	1.00	mg/L	101	105	70-130	3.9	0-50	LFM	

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

EDGE ANALYTICAL LABORATORIES

Qualifier Definitions

Reference Number: 08-15517
Report Date: 12/10/08

Qualifier	Definition
B1	The source of the contamination has been identified as a contaminate in the lab purified water. Data for this compound is suspect if reported.
HR	High QCS recovery due to increased detector response No sample dectections, therefore, no further action taken for this analysis set.
ME	Matrix spike shows a possible matrix induced bias. The LFB was within acceptance limits, results for this compound are suspect.
N1	Acceptance limits have not been established, the limits listed are for guidance only.

Note: Some qualifier definitions found on this page may pertain to results or QC data which are not printed with this report.

EDGE ANALYTICAL LABORATORIES

QUALITY CONTROL REPORT
SURROGATE REPORT

Reference Number: 08-15517
Report Date: 12/10/08

Lab No	Analyte	Result	Qualifier	Units	Method	Limit
531_081031						
32780	BDMC (SURR)	83		%	531.2	
531_081031						
32781	BDMC (SURR)	79		%	531.2	
531_081031						
32782	BDMC (SURR)	75		%	531.2	
515_081031						
32783	2,4 - DCAA (SURR)	96		%	515.1	Acceptance Range is 70 - 130%
525_081105						
32783	1,3-DIMETHYL-2-NITROBENZENE (Surr)	79		%	525.2	Acceptance Range is 70% to 130%
	PYRENE-D10 (Surr)	90		%		Acceptance Range is 70% to 130%
	PERYLENE-D12 (Surr)	84		%		Acceptance Range is 70% to 130%
	TRIPHENYLPHOSPHATE (Surr)	114		%		Acceptance Range is 70% to 130%
531_081031						
32783	BDMC (SURR)	75		%	531.2	
515_081031						
32784	2,4 - DCAA (SURR)	94		%	515.1	Acceptance Range is 70 - 130%
525_081105						
32784	1,3-DIMETHYL-2-NITROBENZENE (Surr)	80		%	525.2	Acceptance Range is 70% to 130%
	PYRENE-D10 (Surr)	89		%		Acceptance Range is 70% to 130%
	PERYLENE-D12 (Surr)	82		%		Acceptance Range is 70% to 130%
	TRIPHENYLPHOSPHATE (Surr)	113		%		Acceptance Range is 70% to 130%
531_081031						
32784	BDMC (SURR)	81		%	531.2	

*Notation:

A surrogate is a pure compound added to a sample in the laboratory just before processing so that the overall efficiency of a method can be determined.

The Acceptance Limits (or Control Limits) approximate a 99% confidence interval around the mean recovery.

Page_____ of_____

4,495

Chain of Custody / Analysis Request (Please complete all applicable shaded sections)

Report to:	Walla Walla Basin Watershed Cour	Bill to:	Walla Walla Basin Watershed Counc
Ship Address:	810 S Main Street	Address:	810 S Main Street
City:	Milton-Freewa St: OR Zip: 97862	City:	Milton-Freewa St: OR Zip: 97862
Attn:	~~Bob Bower~~ Troy Baker	Phone:	FAX:
Phone:	541.938-2170 FAX:	P.O.#:	Attn:
Email:		☐ Visa ☐ M/C ☐ A/E	Expires /
Project	Locher/Hall-Wentland/[redacted]	Card#:	

For Lab Use Only
Ref #

Check Regulatory Program
- ☐ Safe Drinking Water Act
- ☐ Clean Water Act
- ☐ RCRA / CERCLA
- ☒ Other

ANALYTICAL LABORATORIES
1620 S. Walnut St.
Burlington, WA 98233
1.800.755.9295

805 W. Orchard Dr. Suite 4
Bellingham, WA 98225

Analyses Requested (Hall Wentland only)

CO004495

Instructions
1. Use one line per sample **(Location)**.
2. Be specific in analysis requests.
3. Check off analyses to be performed for each sample Location.
4. Enter number of containers.

Turn Around Time Required
- ☒ Standard
- ☐ Half-time (50% surcharge)
- ☐ Quickest (100% surcharge)
- ☐ Emergency (Phone Call Req.)

	Field ID	Location	Grab/ Comp	Matrix	Date	Time	Nitrate	TDS, Cl, O-Phos,pH,Turb,Ec	Hardness	COD	Bromate	525(Hexazinone)	531	515	Number of Containers	Special Instructions Conditions on Receipt
1	[redacted]															
2	H[redacted]															
3							☐	☐	☐	☐	☐	☐	☐	☐		
4	L-1	locher OBS #1	✓	—	10/28/08	8:50	☒	☒	☒	☒	☒	[redacted]	☒	☐	6	NO 525
5	L-2	Locher obs #2	✓	—	10/28/08	9:40	☒	☒	☒	☒	☒	[redacted]	☒	☐	6	ND 525
6	L-3	Locher OBS #3	✓	✓	10/28/08	10:00	☒	☒	☒	☒	☒	[redacted]	☒	☐	6	NO 525
7	H-3	Hall-Wentland #3	✓	✓	10/28/08	10:40	☒	☒	☒	☒	☒	☒	☒	☒	7	
8	H-2	Hall-Wentland #2	✓	✓	10/28/08	11:25	☒	☒	☒	☒	☒	☒	☒	☒	7	
9							☐	☐	☐	☐	☐	☐	☐	☐		
10							☐	☐	☐	☐	☐	☐	☐	☐		

Sampled by: [redacted] Baker Phone: 938-2170 FAX: — Email: ~~Bob Bower~~ troy.baker@wwbwc.org Total Containers

Sample Receipt Request (Must include FAX or Email) ☐

Relinquished by	Date	Time	Received by	Date	Time
			ONY	10/29/08	855

UPS

	Yes	No	N/A
Custody seals intact			
Sample temp 5 C satisfactory			
Samples received intact			
Chain of custody & labels agree			

08-15517
32780 - 32784

08-15517

EDGE ANALYTICAL LABORATORIES

Burlington WA | 1620 S Walnut St - 98233
Corporate Office | 800.755.9295 • 360.757.1400 • 360.757.1402fax
Bellingham WA | 805 Orchard Dr Suite 4 - 98225
Microbiology | 360.671.0688 • 360.671.1577fax

[redacted]

January 28, 2009

Mr. Troy Baker
Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

RE: 08-17751 - Locher Road Recharge Sites/Hall Wetland

Dear Mr. Troy Baker,

Your project: Locher Road Recharge Sites/Hall Wetland, was received on Wednesday December 17, 2008. The following comments are reported for your project:

Sample 37231 - BisPhenol-A was detected in the EPA Method 525.2 analysis, estimated at 1.7 ug/L.

If you have questions phone me at 800 755-9295.

Respectfully Submitted,

Lawrence J Henderson, PhD
Director of Laboratories

Enclosures Data Report

EDGE ANALYTICAL LABORATORIES

Burlington WA (Corporate Office) | 1620 S Walnut St - 98233 | 800.755.9295 • 360.757.1400 • 360.757.1402fax
Bellingham WA (Microbiology) | 805 Orchard Dr Suite 4 - 98225 | 360.671.0688 • 360.671.1577fax

Data Report

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

Reference Number: **08-17751**
Project: Locher Road Recharge Sites/Hall W
Report Date: 1/28/09
Date Received: 12/17/08
Peer Review:

Sample Description: L-1 - Locher Rd
Lab Number: 37230
Sample Date: 12/16/08
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
E-10139	HYDROGEN ION (pH)	6.91			pH Units	1	SM4500-H+ B	12/17/08	MAK	PH_081217	
14797-55-8	NITRATE-N	5.85	0.100	0.015	mg/L	1	300.0	12/17/08	BJ	I081217A	
16887-00-6	CHLORIDE	6.1	0.1	0.012	mg/L	1	300.0	12/17/08	BJ	I081217A	
E-10173	TOTAL DISSOLVED SOLIDS	257	10	6	mg/L	1	SM2540 C	12/19/08	CCN	TDS_081219	
14265-44-2	ORTHO-PHOSPHATE	0.19	0.01	0.002	mg/L	1	SM4500-P F	12/17/08	SO	OPHOS-081217	
E-10184	ELECTRICAL CONDUCTIVITY	396	10		uS/cm	1	SM2510 B	12/23/08	CCN	EC_081223	
E-10617	TURBIDITY	0.70	0.05	0.02	NTU	1	180.1	12/17/08	MAK	TURB_081217	
15541-45-4	BROMATE	ND	0.005	0.0016	mg/L	1	300.1	12/30/08	MVP	D081230A	
E-11778	HARDNESS	150	3.30	0.055	mg CaCO3/L	1	200.7	12/23/08	BJ	200.7-081223A	
E-10117	CHEMICAL OXYGEN DEMAND	ND	8	2	mg/L	1	SM5220 D	12/29/08	MAK	COD_081229	

Sample Description: L-2 - Locher Rd
Lab Number: 37231
Sample Date: 12/16/08
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
E-10139	HYDROGEN ION (pH)	6.87			pH Units	1	SM4500-H+ B	12/17/08	MAK	PH_081217	
14797-55-8	NITRATE-N	3.56	0.100	0.015	mg/L	1	300.0	12/17/08	BJ	I081217A	
16887-00-6	CHLORIDE	5.2	0.1	0.012	mg/L	1	300.0	12/17/08	BJ	I081217A	
E-10173	TOTAL DISSOLVED SOLIDS	184	10	6	mg/L	1	SM2540 C	12/19/08	CCN	TDS_081219	
14265-44-2	ORTHO-PHOSPHATE	0.19	0.01	0.002	mg/L	1	SM4500-P F	12/17/08	SO	OPHOS-081217	
E-10184	ELECTRICAL CONDUCTIVITY	284	10		uS/cm	1	SM2510 B	12/23/08	CCN	EC_081223	
E-10617	TURBIDITY	2.03	0.05	0.02	NTU	1	180.1	12/17/08	MAK	TURB_081217	
15541-45-4	BROMATE	ND	0.005	0.0016	mg/L	1	300.1	12/30/08	MVP	D081230A	
E-11778	HARDNESS	105	3.30	0.055	mg CaCO3/L	1	200.7	12/23/08	BJ	200.7-081223A	
E-10117	CHEMICAL OXYGEN DEMAND	ND	8	2	mg/L	1	SM5220 D	12/29/08	MAK	COD_081229	

Notes:

ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.
PQL = Practical Quantitation Limit is the lowest level that can be acheived within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor

If you have any questions concerning this report contact us at the above phone number.

Form: cRslt_2.rpt

Reference Number: 08-17751
Report Date: 1/28/09

Data Report

Sample Description: L-3 - Locher Rd
Lab Number: 37232

Sample Date: 12/16/08
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
E-10139	HYDROGEN ION (pH)	6.91			pH Units	1	SM4500-H+ B	12/17/08	MAK	PH_081217	
14797-55-8	NITRATE-N	2.11	0.100	0.015	mg/L	1	300.0	12/17/08	BJ	I081217A	
16887-00-6	CHLORIDE	2.2	0.1	0.012	mg/L	1	300.0	12/17/08	BJ	I081217A	
E-10173	TOTAL DISSOLVED SOLIDS	125	10	6	mg/L	1	SM2540 C	12/19/08	CCN	TDS_081219	
14265-44-2	ORTHO-PHOSPHATE	0.15	0.01	0.002	mg/L	1	SM4500-P F	12/17/08	SO	OPHOS-081217	
E-10184	ELECTRICAL CONDUCTIVITY	149	10		uS/cm	1	SM2510 B	12/23/08	CCN	EC_081223	
E-10617	TURBIDITY	4.32	0.05	0.02	NTU	1	180.1	12/17/08	MAK	TURB_081217	
15541-45-4	BROMATE	ND	0.005	0.0016	mg/L	1	300.1	12/30/08	MVP	D081230A	
E-11778	HARDNESS	53.7	3.30	0.055	mg CaCO3/L	1	200.7	12/23/08	BJ	200.7-081223A	
E-10117	CHEMICAL OXYGEN DEMAND	ND	8	2	mg/L	1	SM5220 D	12/29/08	MAK	COD_081229	

EDGE ANALYTICAL LABORATORIES

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Bellingham WA | 805 Orchard Dr Suite 4 - 98225
Microbiology | 360.671.0688 • 360.671.1577fax

SYNTHETIC ORGANIC COMPOUNDS (SOC) REPORT

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

System Name:
System ID Number:
DOH Source Number:
Multiple Sources:
Sample Type:
Sample Purpose: Investigative or Other
Sample Location: Locher Rd
County:
Sampled By: Unknown
Sampler Phone:

Reference Number: 08-17751
Project: Locher Road Recharge Sites/Ha

Field ID: L-1
Lab Number: 046-37230
Date Collected: 12/16/08 10:45
Date Extracted: 525_081222
Date Analyzed: 12/23/08
Report Date: 1/28/09
Analyst: CO
Peer Review: PM

EPA Method 525.2 For State Drinking Water Compliance

DOH#	COMPOUNDS	RESULTS	UNITS	SRL	Trigger	MCL	COMMENT
	EPA Regulated						
33	ENDRIN	ND	ug/L	0.02	0.02	2	
34	LINDANE (BHC - GAMMA)	ND	ug/L	0.04	0.04	0.2	
35	METHOXYCHLOR	ND	ug/L	0.2	0.2	40	
117	ALACHLOR	ND	ug/L	0.4	0.4	2	
119	ATRAZINE	ND	ug/L	0.2	0.2	3	
120	BENZO(A)PYRENE	ND	ug/L	0.04	0.04	0.2	
122	CHLORDANE, TECHNICAL	ND	ug/L	0.4	0.4	2	
124	DI(ETHYLHEXYL)-ADIPATE	ND	ug/L	1.3	1.3	400	
125	DI(ETHYLHEXYL)-PHTHALATE	ND	ug/L	1.3	1.3	6	
126	HEPTACHLOR	ND	ug/L	0.08	0.08	0.4	
127	HEPTACHLOR EPOXIDE	ND	ug/L	0.04	0.04	0.2	
128	HEXACHLOROBENZENE	ND	ug/L	0.2	0.2	1	
129	HEXACHLOROCYCLO-PENTADIENE	ND	ug/L	0.2	0.2	50	
133	SIMAZINE	ND	ug/L	0.15	0.15	4	
134	PENTACHLOROPHENOL	ND	ug/L	0.4	0.08	1	
	EPA Unregulated						
118	ALDRIN	ND	ug/L	0.2	0.2		
121	BUTACHLOR	ND	ug/L	0.4	0.4		
123	DIELDRIN	ND	ug/L	0.2	0.2		
130	METOLACHLOR	ND	ug/L	1.0	1.0		
131	METRIBUZIN	ND	ug/L	0.2	0.2		
132	PROPACHLOR	ND	ug/L	0.2	0.2		
	PROMETON	ND	ug/L	0.1			
179	BROMACIL	0.09 J	ug/L	0.2	0.2		Field dup - 0.09 ug/L

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): Indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC

SYNTHETIC ORGANIC COMPOUNDS (SOC) REPORT

DOH#	COMPOUNDS	RESULTS	UNITS	SRL	Trigger	MCL	COMMENT
190	TERBACIL	ND	ug/L	0.2	0.2		
202	DIAZINON	ND	ug/L	0.2	0.2		Unstable in Acidified Sample Matrix
208	EPTC	ND	ug/L	0.3	0.3		
232	4,4-DDD	ND	ug/L	0.2	0.2		
233	4,4-DDE	ND	ug/L	0.2	0.2		
234	4,4-DDT	ND	ug/L	0.2	0.2		
236	CYANAZINE	ND	ug/L	0.2	0.2		
239	MALATHION	ND	ug/L	0.2	0.2		
240	PARATHION	ND	ug/L	0.2	0.2		
243	TRIFLURALIN	ND	ug/L	0.2	0.2		
	- PAHs						
96	NAPTHALENE	ND	ug/L	0.1	0.1		
254	FLUORENE	ND	ug/L	0.2	0.2		
245	ACENAPHTHENE	ND	ug/L	0.2	0.2		
246	ANTHRACENE	ND	ug/L	0.2	0.2		
247	BENZ(A)ANTHRACENE	ND	ug/L	0.1	0.1		
249	BENZO(G,H,I)PERYLENE	ND	ug/L	0.2	0.2		
251	CHRYSENE	ND	ug/L	0.2	0.2		
252	DIBENZO(A,H)ANTHRACENE	ND	ug/L	0.2	0.2		
253	FLUORANTHENE	ND	ug/L	0.2	0.2		
255	INDENO(1,2,3-CD)PYRENE	ND	ug/L	0.2	0.2		
256	PHENANTHRENE	ND	ug/L	0.2	0.2		
	- Phthalates						
258	BENZYL BUTYL PHTHALATE	ND	ug/L	0.6	0.6		
259	DI-N-BUTYL PHTHALATE	ND	ug/L	0.6	0.6		
260	DIETHYL PHTHALATE	ND	ug/L	0.6	0.6		
261	DIMETHYL PHTHALATE	ND	ug/L	0.6	0.6		
	Other Compounds						
0	HEXAZINONE (Velpar)	ND	ug/L	0.1			

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): Indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC

EDGE ANALYTICAL LABORATORIES

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Bellingham WA | 805 Orchard Dr Suite 4 - 98225
Microbiology | 360.671.0688 • 360.671.1577fax

SYNTHETIC ORGANIC COMPOUNDS (SOC) REPORT

Client Name: Walla Walla Basin Watershe
810 S Main Street
Milton-Freewater, OR 97862

System Name:
System ID Number:
DOH Source Number:
Multiple Sources:
Sample Type:
Sample Purpose: Investigative or Other
Sample Location: Locher Rd
County:
Sampled By: Unknown
Sampler Phone:

Reference Number: 08-17751
Project: Locher Road Recharge Sites/Ha

Field ID: L-2
Lab Number: 046-37231
Date Collected: 12/16/08 10:45
Date Extracted: 525_081222
Date Analyzed: 12/23/08
Report Date: 1/7/09
Analyst: CO
Peer Review:

EPA Method 525.2 For State Drinking Water Compliance

DOH#	COMPOUNDS	RESULTS	UNITS	SRL	Trigger	MCL	COMMENT
	EPA Regulated						
33	ENDRIN	ND	ug/L	0.02	0.02	2	
34	LINDANE (BHC - GAMMA)	ND	ug/L	0.04	0.04	0.2	
35	METHOXYCHLOR	ND	ug/L	0.2	0.2	40	
117	ALACHLOR	ND	ug/L	0.4	0.4	2	
119	ATRAZINE	ND	ug/L	0.2	0.2	3	
120	BENZO(A)PYRENE	ND	ug/L	0.04	0.04	0.2	
122	CHLORDANE, TECHNICAL	ND	ug/L	0.4	0.4	2	
124	DI(ETHYLHEXYL)-ADIPATE	ND	ug/L	1.3	1.3	400	
125	DI(ETHYLHEXYL)-PHTHALATE	ND	ug/L	1.3	1.3	6	
126	HEPTACHLOR	ND	ug/L	0.08	0.08	0.4	
127	HEPTACHLOR EPOXIDE	ND	ug/L	0.04	0.04	0.2	
128	HEXACHLOROBENZENE	ND	ug/L	0.2	0.2	1	
129	HEXACHLOROCYCLO-PENTADIENE	ND	ug/L	0.2	0.2	50	
133	SIMAZINE	ND	ug/L	0.15	0.15	4	
134	PENTACHLOROPHENOL	ND	ug/L	0.4	0.08	1	screening only / compliance by 515.1
	EPA Unregulated						
118	ALDRIN	ND	ug/L	0.2	0.2		
121	BUTACHLOR	ND	ug/L	0.4	0.4		
123	DIELDRIN	ND	ug/L	0.2	0.2		
130	METOLACHLOR	ND	ug/L	1.0	1.0		
131	METRIBUZIN	ND	ug/L	0.2	0.2		
132	PROPACHLOR	ND	ug/L	0.2	0.2		
	State Unregulated - Other						
179	BROMACIL	ND	ug/L	0.2	0.2		
190	TERBACIL	ND	ug/L	0.2	0.2		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): Indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: VOC

EDGE ANALYTICAL LABORATORIES

Reference Number: 08-17751
Lab Number: 046-37231
Report Date: 1/7/09 8:06

SYNTHETIC ORGANIC COMPOUNDS (SOC) REPORT

DOH#	COMPOUNDS	RESULTS	UNITS	SRL	Trigger	MCL	COMMENT
202	DIAZINON	ND	ug/L	0.2	0.2		Unstable in Acidified Sample Matrix
208	EPTC	ND	ug/L	0.3	0.3		
232	4,4-DDD	ND	ug/L	0.2	0.2		
233	4,4-DDE	ND	ug/L	0.2	0.2		
234	4,4-DDT	ND	ug/L	0.2	0.2		
236	CYANAZINE	ND	ug/L	0.2	0.2		Qualitative Analysis Only
239	MALATHION	ND	ug/L	0.2	0.2		
240	PARATHION	ND	ug/L	0.2	0.2		
243	TRIFLURALIN	ND	ug/L	0.2	0.2		
	- PAHs						
96	NAPTHALENE	ND	ug/L	0.1	0.1		
254	FLUORENE	ND	ug/L	0.2	0.2		
244	ACENAPHTHYLENE	ND	ug/L	0.2	0.2		
245	ACENAPHTHENE	ND	ug/L	0.2	0.2		
246	ANTHRACENE	ND	ug/L	0.2	0.2		
247	BENZ(A)ANTHRACENE	ND	ug/L	0.1	0.1		
248	BENZO(B)FLUORANTHENE	ND	ug/L	0.2	0.2		
249	BENZO(G,H,I)PERYLENE	ND	ug/L	0.2	0.2		
250	BENZO(K)FLUORANTHENE	ND	ug/L	0.2	0.2		
251	CHRYSENE	ND	ug/L	0.2	0.2		
252	DIBENZO(A,H)ANTHRACENE	ND	ug/L	0.2	0.2		
253	FLUORANTHENE	ND	ug/L	0.2	0.2		
255	INDENO(1,2,3-CD)PYRENE	ND	ug/L	0.2	0.2		
256	PHENANTHRENE	ND	ug/L	0.2	0.2		
257	PYRENE	ND	ug/L	0.2	0.2		
	- Phthalates						
258	BENZYL BUTYL PHTHALATE	ND	ug/L	0.6	0.6		
259	DI-N-BUTYL PHTHALATE	ND	ug/L	0.6	0.6		
260	DIETHYL PHTHALATE	ND	ug/L	0.6	0.6		
261	DIMETHYL PHTHALATE	ND	ug/L	0.6	0.6		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: VOC

EDGE ANALYTICAL LABORATORIES

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Bellingham WA | 805 Orchard Dr Suite 4 - 98225
Microbiology | 360.671.0688 • 360.671.1577fax

SYNTHETIC ORGANIC COMPOUNDS (SOC) REPORT

Client Name: Walla Walla Basin Watershe
810 S Main Street
Milton-Freewater, OR 97862

System Name:
System ID Number:
DOH Source Number:
Multiple Sources:
Sample Type:
Sample Purpose: Investigative or Other
Sample Location: Locher Rd
County:
Sampled By: Unknown
Sampler Phone:

Reference Number: 08-17751
Project: Locher Road Recharge Sites/H

Field ID: L-3
Lab Number: 046-37232
Date Collected: 12/16/08 10:25
Date Extracted: 525_081222
Date Analyzed: 12/23/08
Report Date: 12/31/08
Analyst: CO
Peer Review:

EPA Method 525.2 For State Drinking Water Compliance

DOH#	COMPOUNDS	RESULTS	UNITS	SRL	Trigger	MCL	COMMENT
	EPA Regulated						
33	ENDRIN	ND	ug/L	0.02	0.02	2	
34	LINDANE (BHC - GAMMA)	ND	ug/L	0.04	0.04	0.2	
35	METHOXYCHLOR	ND	ug/L	0.2	0.2	40	
117	ALACHLOR	ND	ug/L	0.4	0.4	2	
119	ATRAZINE	ND	ug/L	0.2	0.2	3	
120	BENZO(A)PYRENE	ND	ug/L	0.04	0.04	0.2	
122	CHLORDANE, TECHNICAL	ND	ug/L	0.4	0.4	2	
124	DI(ETHYLHEXYL)-ADIPATE	ND	ug/L	1.3	1.3	400	
125	DI(ETHYLHEXYL)-PHTHALATE	ND	ug/L	1.3	1.3	6	
126	HEPTACHLOR	ND	ug/L	0.08	0.08	0.4	
127	HEPTACHLOR EPOXIDE	ND	ug/L	0.04	0.04	0.2	
128	HEXACHLOROBENZENE	ND	ug/L	0.2	0.2	1	
129	HEXACHLOROCYCLO-PENTADIENE	ND	ug/L	0.2	0.2	50	
133	SIMAZINE	ND	ug/L	0.15	0.15	4	
134	PENTACHLOROPHENOL	ND	ug/L	0.4	0.08	1	
	EPA Unregulated						
118	ALDRIN	ND	ug/L	0.2	0.2		
121	BUTACHLOR	ND	ug/L	0.4	0.4		
123	DIELDRIN	ND	ug/L	0.2	0.2		
130	METOLACHLOR	ND	ug/L	1.0	1.0		
131	METRIBUZIN	ND	ug/L	0.2	0.2		
132	PROPACHLOR	ND	ug/L	0.2	0.2		
	State Unregulated - Other						
179	BROMACIL	ND	ug/L	0.2	0.2		
190	TERBACIL	ND	ug/L	0.2	0.2		

NOTES:
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FORM: VOC

SYNTHETIC ORGANIC COMPOUNDS (SOC) REPORT

DOH#	COMPOUNDS	RESULTS	UNITS	SRL	Trigger	MCL	COMMENT
202	DIAZINON	ND	ug/L	0.2	0.2		Unstable in Acidified Sample Matrix
208	EPTC	ND	ug/L	0.3	0.3		
232	4,4-DDD	ND	ug/L	0.2	0.2		
233	4,4-DDE	ND	ug/L	0.2	0.2		
234	4,4-DDT	ND	ug/L	0.2	0.2		
236	CYANAZINE	ND	ug/L	0.2	0.2		
239	MALATHION	ND	ug/L	0.2	0.2		
240	PARATHION	ND	ug/L	0.2	0.2		
243	TRIFLURALIN	ND	ug/L	0.2	0.2		
	- PAHs						
96	NAPTHALENE	ND	ug/L	0.1	0.1		
254	FLUORENE	ND	ug/L	0.2	0.2		
245	ACENAPHTHENE	ND	ug/L	0.2	0.2		
246	ANTHRACENE	ND	ug/L	0.2	0.2		
247	BENZ(A)ANTHRACENE	ND	ug/L	0.1	0.1		
249	BENZO(G,H,I)PERYLENE	ND	ug/L	0.2	0.2		
251	CHRYSENE	ND	ug/L	0.2	0.2		
252	DIBENZO(A,H)ANTHRACENE	ND	ug/L	0.2	0.2		
253	FLUORANTHENE	ND	ug/L	0.2	0.2		
255	INDENO(1,2,3-CD)PYRENE	ND	ug/L	0.2	0.2		
256	PHENANTHRENE	ND	ug/L	0.2	0.2		
	- Phthalates						
258	BENZYL BUTYL PHTHALATE	ND	ug/L	0.6	0.6		
259	DI-N-BUTYL PHTHALATE	ND	ug/L	0.6	0.6		
260	DIETHYL PHTHALATE	ND	ug/L	0.6	0.6		
261	DIMETHYL PHTHALATE	ND	ug/L	0.6	0.6		

NOTES:
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Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
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FORM: VOC

EDGE ANALYTICAL LABORATORIES

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Bellingham WA (Microbiology) | 805 Orchard Dr Suite 4 - 98225 | 360.671.0688 • 360.671.1577fax

WSDOE Lab C1251

DATA REPORT

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

Reference Number: 08-17751
Project: Locher Road Recharge Sites

Lab Number: 37230
Field ID: L-1
Sample Description: Locher Rd
Matrix: Water
Sample Date: 12/16/08
Extraction Date: 12/22/08
Extraction Method: 3535

Report Date: 1/6/09
Date Analyzed: 12/23/08
Analyst: CO
Peer Review: PM
Analytical Method: 525.2
Batch: 525X_081222

CAS	Compound	RESULT	Flag	UNITS	PQL	MDL	D.F.	COMMENT
	Other Compounds							
51235-04-	HEXAZINONE (Velpar)	ND		ug/L	0.1	0.1^	1.00	

Notes:

Flags are data qualifiers. If there are data qualifiers on your report definitions can be found on an accompanying sheet.
ND - Indicates the compound was not detected above the PQL or MDL.
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor.

If you have any questions concerning this report contact at the above phone number.

EDGE ANALYTICAL LABORATORIES

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360.671.0688 • 360.671.1577fax

WSDOE Lab C1251

DATA REPORT

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

Reference Number: **08-17751**
Project: Locher Road Recharge Sites

Lab Number: 37231
Field ID: L-2
Sample Description: Locher Rd
Matrix: Water
Sample Date: 12/16/08
Extraction Date: 12/22/08
Extraction Method: 3535

Report Date: 1/6/09
Date Analyzed: 12/23/08
Analyst: CO
Peer Review: JM
Analytical Method: 525.2
Batch: 525X_081222

CAS	Compound	RESULT	Flag	UNITS	PQL	MDL	D.F.	COMMENT
	Other Compounds							
51235-04-	HEXAZINONE (Velpar)	ND		ug/L	0.1	0.1^	1.00	

Notes:

Flags are data qualifiers. If there are data qualifiers on your report definitions can be found on an accompanying sheet.
ND - indicates the compound was not detected above the PQL or MDL.
PQL = Practical Quantitation Limit is the lowest level that can be acheived within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor.

If you have any questions concerning this report contact at the above phone number.

Form: c508.rpt

EDGE ANALYTICAL LABORATORIES

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WSDOE Lab C1251

DATA REPORT

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

Reference Number: **08-17751**
Project: Locher Road Recharge Sites

Lab Number: 37232
Field ID: L-3
Sample Description: Locher Rd
Matrix: Water
Sample Date: 12/16/08
Extraction Date: 12/22/08
Extraction Method: 3535

Report Date: 1/6/09
Date Analyzed: 12/23/08
Analyst: CO
Peer Review: JM
Analytical Method: 525.2
Batch: 525X_081222

CAS	Compound	RESULT	Flag	UNITS	PQL	MDL	D.F.	COMMENT
	Other Compounds							
51235-04-	HEXAZINONE (Velpar)	**ND**		ug/L	0.1	0.1^	1.00	

Notes:

Flags are data qualifiers. If there are data qualifiers on your report definitions can be found on an accompanying sheet.
ND - Indicates the compound was not detected above the PQL or MDL.
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor.

If you have any questions concerning this report contact at the above phone number.

EDGE ANALYTICAL LABORATORIES

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HERBICIDES IN DRINKING WATER

Client Name: Walla Walla Basin Watershe
810 S Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L-1
Sample Description: Locher Rd
Sampled By: Unknown
Sample Date: 12/16/08
Source Type:
Sampler Phone:

Reference Number: 08-17751
Project: Locher Road Recharge Sites/H

Lab Number: 37230
Report Date: 1/6/09
Date Analyzed: 12/31/08
Date Extracted: 515_081222
Analyst: CO
Peer Review: PM
Analytical Method: 515.1
Chlorophenoxy Herbicides

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
94-75-7	2,4 - D	ND	ug/L	0.2	0.11	70	
93-72-1	2,4,5 - TP (SILVEX)	ND	ug/L	0.1	0.02	50	
87-86-5	PENTACHLOROPHENOL	ND	ug/L	0.1	0.044	1	
75-99-0	DALAPON	ND	ug/L	1.3	0.80	200	
88-85-7	DINOSEB	ND	ug/L	0.2	0.16	7	
1918-02-1	PICLORAM	ND	ug/L	0.1	0.089	500	
EPA Unregulated							
1918-00-9	DICAMBA	ND	ug/L	0.1	0.045		
State Unregulated							
1861-32-1	TOTAL (DCPA & Metabolites)	ND	ug/L	0.1	0.089		
E-14028	DCPA (ACID METABOLITES)	ND	ug/L	0.1	0.1		
94-82-6	2,4 DB	ND	ug/L	0.8	0.10		
93-76-5	2,4,5 T	ND	ug/L	0.1	0.044		
25057-89-0	BENTAZON	ND	ug/L	0.2	0.067		
120-36-5	DICHLORPROP	ND	ug/L	0.3	0.089		
50594-66-6	ACIFLUORFEN	ND	ug/L	0.1	0.089		
133-90-4	CHLORAMBEN	ND	ug/L	0.2	0.2		
51-36-5	3,5 - DICHLOROBENZOIC ACID	ND	ug/L	0.1	0.044		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC_gen.rpt

EDGE ANALYTICAL LABORATORIES

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Bellingham WA | 805 Orchard Dr Suite 4 - 98225
Microbiology | 360.671.0688 • 360.671.1577fax

HERBICIDES IN DRINKING WATER

Client Name: Walla Walla Basin Watershe
810 S Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L-2
Sample Description: Locher Rd
Sampled By: Unknown
Sample Date: 12/16/08
Source Type:
Sampler Phone:

Reference Number: 08-17751
Project: Locher Road Recharge Sites/Ha

Lab Number: 37231
Report Date: 1/6/09
Date Analyzed: 12/31/08
Date Extracted: 515_081222
Analyst: CO
Peer Review:
Analytical Method: 515.1
Chlorophenoxy Herbicides

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
94-75-7	2,4 - D	ND	ug/L	0.2	0.11	70	
93-72-1	2,4,5 - TP (SILVEX)	ND	ug/L	0.1	0.02	50	
87-86-5	PENTACHLOROPHENOL	ND	ug/L	0.1	0.044	1	
75-99-0	DALAPON	ND	ug/L	1.3	0.80	200	
88-85-7	DINOSEB	ND	ug/L	0.2	0.16	7	
1918-02-1	PICLORAM	ND	ug/L	0.1	0.069	500	
EPA Unregulated							
1918-00-9	DICAMBA	ND	ug/L	0.1	0.045		
State Unregulated							
1861-32-1	TOTAL (DCPA & Metabolites)	ND	ug/L	0.1	0.089		
E-14028	DCPA (ACID METABOLITES)	ND	ug/L	0.1	0.1		
94-82-6	2,4 DB	ND	ug/L	0.8	0.10		
93-76-5	2,4,5 T	ND	ug/L	0.1	0.044		
25057-89-0	BENTAZON	ND	ug/L	0.2	0.067		
120-36-5	DICHLORPROP	ND	ug/L	0.3	0.089		
50594-66-6	ACIFLUORFEN	ND	ug/L	0.1	0.089		
133-90-4	CHLORAMBEN	ND	ug/L	0.2	0.2		
51-36-5	3,5 - DICHLOROBENZOIC ACID	ND	ug/L	0.1	0.044		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
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Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): Indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC_gen.rpt

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Bellingham WA | 805 Orchard Dr Suite 4 - 98225
Microbiology | 360.671.0688 • 360.671.1577fax

HERBICIDES IN DRINKING WATER

Client Name: Walla Walla Basin Watershe
810 S Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L-3
Sample Description: Locher Rd
Sampled By: Unknown
Sample Date: 12/16/08
Source Type:
Sampler Phone:

Reference Number: 08-17751
Project: Locher Road Recharge Sites/Ha

Lab Number: 37232
Report Date: 1/6/09
Date Analyzed: 12/31/08
Date Extracted: 515_081222
Analyst: CO
Peer Review:
Analytical Method: 515.1
Chlorophenoxy Herbicides

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
94-75-7	2,4 - D	ND	ug/L	0.2	0.11	70	
93-72-1	2,4,5 - TP (SILVEX)	ND	ug/L	0.1	0.02	50	
87-86-5	PENTACHLOROPHENOL	ND	ug/L	0.1	0.044	1	
75-99-0	DALAPON	ND	ug/L	1.3	0.80	200	
88-85-7	DINOSEB	ND	ug/L	0.2	0.16	7	
1918-02-1	PICLORAM	ND	ug/L	0.1	0.089	500	
EPA Unregulated							
1918-00-9	DICAMBA	ND	ug/L	0.1	0.045		
State Unregulated							
1861-32-1	TOTAL (DCPA & Metabolites)	0.2	ug/L	0.1	0.089		
94-82-6	2,4 DB	ND	ug/L	0.8	0.10		
93-76-5	2,4,5 T	ND	ug/L	0.1	0.044		
25057-89-0	BENTAZON	ND	ug/L	0.2	0.067		
120-36-5	DICHLORPROP	ND	ug/L	0.3	0.089		
50594-66-6	ACIFLUORFEN	ND	ug/L	0.1	0.089		
133-90-4	CHLORAMBEN	ND	ug/L	0.2	0.2		
51-36-5	3,5 - DICHLOROBENZOIC ACID	ND	ug/L	0.1	0.044		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC_gen.rpt

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Bellingham WA (Microbiology) | 805 Orchard Dr Suite 4 - 98225
360.671.0688 • 360.671.1577fax

CARBAMATES IN DRINKING WATER

Client Name: Walla Walla Basin Watershe
810 S Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L-2
Sample Description: Locher Rd
Sampled By: Unknown
Sample Date: 12/16/08
Source Type:
Sampler Phone:

Reference Number: 08-17751
Project: Locher Road Recharge Sites/Ha

Lab Number: 37231
Report Date: 12/22/08
Date Analyzed: 12/17/08
Date Extracted: 531_081217
Analyst: CO
Peer Review:
Analytical Method: 531.2
Carbamates

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
23135-22-0	OXYMAL	ND	ug/L	1.0	0.3	200	
1563-66-2	CARBOFURAN	ND	ug/L	1.0	0.2	40	
EPA Unregulated							
1646-87-3	ALDICARB SULFOXIDE	ND	ug/L	1.0	0.3		
1646-88-4	ALDICARB SULFONE	ND	ug/L	1.0	0.3		
16752-77-5	METHOMYL	ND	ug/L	1.0	0.3		
16655-82-6	3-HYDROXYCARBOFURAN	ND	ug/L	1.0	0.3		
116-06-3	ALDICARB	ND	ug/L	1.0	0.3		
63-25-2	CARBARYL	ND	ug/L	1.0	0.2		
State Unregulated - Other							
114-26-1	PROPOXUR (BAYGON)	ND	ug/L	1.0	0.4		
2032-65-7	METHIOCARB	ND	ug/L	1.0	0.3		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC_gen.rpt

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CARBAMATES IN DRINKING WATER

Client Name: Walla Walla Basin Watershe
810 S Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L-3
Sample Description: Locher Rd
Sampled By: Unknown
Sample Date: 12/16/08
Source Type:
Sampler Phone:

Reference Number: 08-17751
Project: Locher Road Recharge Sites/Ha

Lab Number: 37232
Report Date: 12/22/08
Date Analyzed: 12/17/08
Date Extracted: 531_081217
Analyst: CG
Peer Review:
Analytical Method: 531.2
Carbamates

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
23135-22-0	OXYMAL	ND	ug/L	1.0	0.3	200	
1563-66-2	CARBOFURAN	ND	ug/L	1.0	0.2	40	
EPA Unregulated							
1646-87-3	ALDICARB SULFOXIDE	ND	ug/L	1.0	0.3		
1646-88-4	ALDICARB SULFONE	ND	ug/L	1.0	0.3		
16752-77-5	METHOMYL	ND	ug/L	1.0	0.3		
16655-82-6	3-HYDROXYCARBOFURAN	ND	ug/L	1.0	0.3		
116-06-3	ALDICARB	ND	ug/L	1.0	0.3		
63-25-2	CARBARYL	ND	ug/L	1.0	0.2		
State Unregulated - Other							
114-26-1	PROPOXUR (BAYGON)	ND	ug/L	1.0	0.4		
2032-65-7	METHIOCARB	ND	ug/L	1.0	0.3		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SDC_gen.rpt

EDGE ANALYTICAL LABORATORIES

QUALITY CONTROL REPORT
SURROGATE REPORT

Reference Number: 08-17751
Report Date: 01/28/09

Lab No	Analyte	Result	Qualifier	Units	Method	Limit
515_081222						
37230	2,4 - DCAA (SURR)	94		%	515.1	Acceptance Range is 70 - 130%
525_081222						
37230	1,3-DIMETHYL-2-NITROBENZENE (Surr)	109		%	525.2	Acceptance Range is 70% to 130%
	PYRENE-D10 (Surr)	93		%		Acceptance Range is 70% to 130%
	PERYLENE-D12 (Surr)	109		%		Acceptance Range is 70% to 130%
	TRIPHENYLPHOSPHATE (Surr)	106		%		Acceptance Range is 70% to 130%
515_081222						
37231	2,4 - DCAA (SURR)	94		%	515.1	Acceptance Range is 70 - 130%
525_081222						
37231	1,3-DIMETHYL-2-NITROBENZENE (Surr)	109		%	525.2	Acceptance Range is 70% to 130%
	PYRENE-D10 (Surr)	93		%		Acceptance Range is 70% to 130%
	PERYLENE-D12 (Surr)	102		%		Acceptance Range is 70% to 130%
	TRIPHENYLPHOSPHATE (Surr)	107		%		Acceptance Range is 70% to 130%
531_081217						
37231	BDMC (SURR)	118		%	531.2	
515_081222						
37232	2,4 - DCAA (SURR)	88		%	515.1	Acceptance Range is 70 - 130%
525_081222						
37232	1,3-DIMETHYL-2-NITROBENZENE (Surr)	103		%	525.2	Acceptance Range is 70% to 130%
	PYRENE-D10 (Surr)	92		%		Acceptance Range is 70% to 130%
	PERYLENE-D12 (Surr)	109		%		Acceptance Range is 70% to 130%
	TRIPHENYLPHOSPHATE (Surr)	110		%		Acceptance Range is 70% to 130%
531_081217						
37232	BDMC (SURR)	110		%	531.2	
515_081222						
37233	2,4 - DCAA (SURR)	97		%	515.1	Acceptance Range is 70 - 130%
525_081222						
37233	1,3-DIMETHYL-2-NITROBENZENE (Surr)	99		%	525.2	Acceptance Range is 70% to 130%
	PYRENE-D10 (Surr)	94		%		Acceptance Range is 70% to 130%
	PERYLENE-D12 (Surr)	102		%		Acceptance Range is 70% to 130%
	TRIPHENYLPHOSPHATE (Surr)	104		%		Acceptance Range is 70% to 130%
531_081217						
37233	BDMC (SURR)	116		%	531.2	
515_081222						
37234	2,4 - DCAA (SURR)	91		%	515.1	Acceptance Range is 70 - 130%
525_081222						
37234	1,3-DIMETHYL-2-NITROBENZENE (Surr)	102		%	525.2	Acceptance Range is 70% to 130%
	PYRENE-D10 (Surr)	92		%		Acceptance Range is 70% to 130%
	PERYLENE-D12 (Surr)	99		%		Acceptance Range is 70% to 130%
	TRIPHENYLPHOSPHATE (Surr)	109		%		Acceptance Range is 70% to 130%
531_090113						
37234	BDMC (SURR)	107		%	531.2	
515_081222						
37235	2,4 - DCAA (SURR)	95		%	515.1	Acceptance Range is 70 - 130%
525_081222						
37235	1,3-DIMETHYL-2-NITROBENZENE (Surr)	106		%	525.2	Acceptance Range is 70% to 130%
	PYRENE-D10 (Surr)	88		%		Acceptance Range is 70% to 130%
	PERYLENE-D12 (Surr)	103		%		Acceptance Range is 70% to 130%
	TRIPHENYLPHOSPHATE (Surr)	106		%		Acceptance Range is 70% to 130%
531_090113						
37235	BDMC (SURR)	117		%	531.2	

*Notation:

A surrogate is a pure compound added to a sample in the laboratory just before processing so that the overall efficiency of a method can be determined.

The Acceptance Limits (or Control Limits) approximate a 99% confidence interval around the mean recovery.

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Fortified Blank

Reference Number: 08-17751
Report Date: 01/28/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
200.7-081223A	HARDNESS	71.3	69.5	mg/L	200.7	103	80-120		LFB	
515_081222	2,4 - D	1.61	2	ug/L	515.1	81	70-130		LFB	
	2,4 - DCAA (SURR)	100		%	515.1		70-130			
	2,4 DB	7.25	8	ug/L	515.1	91	70-130			
	2,4,5 - TP (SILVEX)	0.88	1	ug/L	515.1	88	70-130			
	2,4,5 T	0.79	1	ug/L	515.1	79	70-130			
	ACIFLUORFEN	0.72	1	ug/L	515.1	72	70-130			
	BENTAZON	1.7	2	ug/L	515.1	85	70-130			
	CHLORAMBEN	0.98	1	ug/L	515.1	98	70-130			
	DALAPON	15.3	13	ug/L	515.1	118	70-130			
	DICAMBA	0.86	1	ug/L	515.1	86	70-130			
	DICHLORPROP	2.63	3	ug/L	515.1	88	70-130			
	DINOSEB	1.69	2	ug/L	515.1	85	70-130			
	PENTACHLOROPHENOL	0.92	1	ug/L	515.1	92	70-130			
	PICLORAM	0.97	1	ug/L	515.1	97	70-130			
	TOTAL (DCPA & Metabolites)	1.34	1	ug/L	515.1	134	70-130	HQ		
525_081222	1,3-DIMETHYL-2-NITROBENZENE (Surr)	100		%	525.2		70-130		LFB	
	4,4-DDD	1	1	ug/L	525.2	100	70-130			
	4,4-DDD	1	1	ug/L	525.2	100	70-130			
	4,4-DDE	1	1	ug/L	525.2	100	70-130			
	4,4-DDE	1	1	ug/L	525.2	100	70-130			
	4,4-DDT	1.12	1	ug/L	525.2	112	70-130			
	4,4-DDT	1.12	1	ug/L	525.2	112	70-130			
	ACENAPHTHYLENE	1.11	1	ug/L	525.2	111	70-130			
	ALACHLOR	2.27	2	ug/L	525.2	114	70-130			
	ALDRIN	0.98	1	ug/L	525.2	98	70-130			
	ANTHRACENE	1.06	1	ug/L	525.2	106	70-130			
	ATRAZINE	2.35	2	ug/L	525.2	118	70-130			
	BENZ(A)ANTHRACENE	1.09	1	ug/L	525.2	109	70-130			
	BENZO(A)PYRENE	0.96	1	ug/L	525.2	96	70-130			
	BENZO(B)FLUORANTHENE	1.05	1	ug/L	525.2	105	70-130			
	BENZO(G,H,I)PERYLENE	0.82	1	ug/L	525.2	82	70-130			

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

QCS: Quality Control Sample, a solution containing known concentrations of method analytes which is used to fortify an aliquot of reagent matrix. The QCS is obtained from an external source and is used to check lab performance.

LFB: Laboratory Fortified Blank, an aliquot of reagent matrix to which known quantities of method analytes are added in the lab. The LFB is analyzed exactly like a sample, and its purpose is to determine whether method performance is within accepted control limits.

MB or LRB: Method Blank or Laboratory Reagent Blank, an aliquot of reagent matrix is analyzed exactly like a sample, and its purpose is to determine if there is background contamination.

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Fortified Blank

Reference Number: 08-17751
Report Date: 01/28/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
525_081222	BENZO(K)FLUORANTHENE	1.04	1	ug/L	525.2	104	70-130		LFB	
	BENZYL BUTYL PHTHALATE	1.14	1	ug/L	525.2	114	70-130			
	BROMACIL	1.05	1	ug/L	525.2	105	70-130			
	BUTACHLOR	1.13	1	ug/L	525.2	113	70-130			
	CHLORDANE, TECHNICAL	1.04	1	ug/L	525.2	104	70-130			
	CHRYSENE	1.09	1	ug/L	525.2	109	70-130			
	CYANAZINE	2.13	2	ug/L	525.2	107	70-130			
	DI(ETHYLHEXYL)-ADIPATE	1.09	1	ug/L	525.2	109	70-130			
	DI(ETHYLHEXYL)-PHTHALATE	1.4	1	ug/L	525.2	140	70-130	AC		
	DIAZINON	3.12	3	ug/L	525.2	104	70-130			
	DIAZINON	3.12	3	ug/L	525.2	104	70-130			
	DIBENZO(A,H)ANTHRACENE	0.92	1	ug/L	525.2	92	70-130			
	DIELDRIN	1.18	1	ug/L	525.2	118	70-130			
	DIETHYL PHTHALATE	1.2	1	ug/L	525.2	120	70-130			
	DIMETHYL PHTHALATE	1.11	1	ug/L	525.2	111	70-130			
	DI-N-BUTYL PHTHALATE	1.15	1	ug/L	525.2	115	70-130			
	ENDRIN	1.06	1	ug/L	525.2	106	70-130			
	EPTC	1.14	1	ug/L	525.2	114	70-130			
	FLUORENE	1.16	1	ug/L	525.2	116	70-130			
	HEPTACHLOR	1.02	1	ug/L	525.2	102	70-130			
	HEPTACHLOR EPOXIDE	1.11	1	ug/L	525.2	111	70-130			
	HEXACHLOROBENZENE	1.12	1	ug/L	525.2	112	70-130			
	HEXACHLOROCYCLO-PENTADIENE	1.13	1	ug/L	525.2	113	70-130			
	INDENO(1,2,3-CD)PYRENE	0.91	1	ug/L	525.2	91	70-130			
	LINDANE (BHC - GAMMA)	1.01	1	ug/L	525.2	101	70-130			
	LINDANE (BHC - GAMMA)	1.01	1	ug/L	525.2	101	70-130			
	MALATHION	2.15	2	ug/L	525.2	108	70-130			
	MALATHION	2.15	2	ug/L	525.2	108	70-130			
	METHOXYCHLOR	1.09	1	ug/L	525.2	109	70-130			
	METOLACHLOR	1.15	1	ug/L	525.2	115	70-130			
	METRIBUZIN	0.82	1	ug/L	525.2	82	70-130			
	PARATHION	2.39	2	ug/L	525.2	120	70-130			
	PARATHION-ETHYL	2.39	2	ug/L	525.2	120	70-130			
	PENTACHLOROPHENOL	4.99	4	ug/L	525.2	125	70-130			
	PERYLENE-D12 (Surr)	95		%	525.2		70-130			
	PHENANTHRENE	1.11	1	ug/L	525.2	111	70-130			

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

QCS: Quality Control Sample, a solution containing known concentrations of method analytes which is used to fortify an aliquot of reagent matrix. The QCS is obtained from an external source and is used to check lab performance.

LFB: Laboratory Fortified Blank, an aliquot of reagent matrix to which known quantities of method analytes are added in the lab. The LFB is analyzed exactly like a sample, and its purpose is to determine whether method performance is within accepted control limits.

MB or LRB: Method Blank or Laboratory Reagent Blank, an aliquot of reagent matrix is analyzed exactly like a sample, and its purpose is to determine if there is background contamination.

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Fortified Blank

Reference Number: 08-17751
Report Date: 01/28/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
525_081222	PROPACHLOR	1.21	1	ug/L	525.2	121	70-130		LFB	
	PYRENE	1.11	1	ug/L	525.2	111	70-130			
	PYRENE-D10 (Surr)	90		%	525.2		70-130			
	SIMAZINE	1.04	1	ug/L	525.2	104	70-130			
	SIMAZINE	1.04	1	ug/L	525.2	104	70-130			
	TERBACIL	1.07	1	ug/L	525.2	107	70-130			
	TRIFLURALIN	1.15	1	ug/L	525.2	115	70-130			
	TRIPHENYLPHOSPHATE (Surr)	105		%	525.2		70-130			
525X_081222	1-NAPHTHALENEACETAMIDE	2.1	2	ug/L	525.2	105	70-130		LFB	
	AZINPHOS-METHYL	1.1	1	ug/L	525.2	110	70-130			
	CHLORPYRIFOS	3.6	3	ug/L	525.2	120	70-130			
	DICOFOL	3.5	3	ug/L	525.2	117	70-130			
	DIMETHOATE	0.7	1	ug/L	525.2	70	70-130			
	FENARIMOL	1.9	2	ug/L	525.2	95	70-130			
	HEXAZINONE	1	1	ug/L	525.2	100	70-130			
	HEXAZINONE (Velpar)	1	1	ug/L	525.2	100	70-130			
	METALAXYL	2.2	2	ug/L	525.2	110	70-130			
	METHIDATHINON	3.4	2	ug/L	525.2	170	85-115			
	METHYL PARATHION	1.6	2	ug/L	525.2	80	70-130			
	MEVINPHOS	2.5	2	ug/L	525.2	125	70-130			
	MYCLOBUTANIL	2.4	2	ug/L	525.2	120	85-115			
	NAPROPAMIDE	1.08	1	ug/L	525.2	108	70-130			
	PHOSMET	3.3	2	ug/L	525.2	165	70-130	N1		
	PROPARGITE	3.5	2	ug/L	525.2	175	85-115	N1		
	TRIADIMEFON	2.45	2	ug/L	525.2	123	70-130			
	TRIFLUMIZOLE	2.3	2	ug/L	525.2	115	85-115			
525X_081222	1-NAPHTHALENEACETAMIDE	2.5	2	ug/L	525.2	125	70-130		LFB	
	AZINPHOS-METHYL	1.5	1	ug/L	525.2	150	70-130	HQ		
	CHLORPYRIFOS	3.7	3	ug/L	525.2	123	70-130			
	DICOFOL	3.5	3	ug/L	525.2	117	70-130			
	DIMETHOATE	0.8	1	ug/L	525.2	80	70-130			
	FENARIMOL	2.3	2	ug/L	525.2	115	70-130			
	HEXAZINONE	1.2	1	ug/L	525.2	120	70-130			
	HEXAZINONE (Velpar)	1.2	1	ug/L	525.2	120	70-130			

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

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EDGE ANALYTICAL LABORATORIES

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Corporate Office | 800.755.9295 • 360.757.1400 • 360.757.1402fax
Bellingham WA | 805 Orchard Dr Suite 4 - 98225
Microbiology | 360.671.0688 • 360.671.1577fax

SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Fortified Blank

Reference Number: 08-17751
Report Date: 01/28/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
525X_081222	METALAXYL	2.3	2	ug/L	525.2	115	70-130		LFB	
	METHIDATHINON	3.8	2	ug/L	525.2	190	85-115	N1		
	METHYL PARATHION	1.6	2	ug/L	525.2	80	70-130			
	MEVINPHOS	2.8	2	ug/L	525.2	140	70-130	HQ		
	MYCLOBUTANIL	2.7	2	ug/L	525.2	135	85-115	N1		
	NAPROPAMIDE	1.1	1	ug/L	525.2	110	70-130			
	PHOSMET	3.3	2	ug/L	525.2	165	70-130	N1		
	PROPARGITE	3.5	2	ug/L	525.2	175	85-115	N1		
	TRIADIMEFON	2.3	2	ug/L	525.2	115	70-130			
	TRIFLUMIZOLE	2.3	2	ug/L	525.2	115	85-115			
531_081217	3-HYDROXYCARBOFURAN	11.4	10	ug/L	531.2	114	70-130		LFB	
	ALDICARB	11.3	10	ug/L	531.2	113	70-130			
	ALDICARB SULFONE	11.2	10	ug/L	531.2	112	70-130			
	ALDICARB SULFOXIDE	10.8	10	ug/L	531.2	108	70-130			
	BDMC (SURR)	101		%	531.2		70-130			
	CARBARYL	11.3	10	ug/L	531.2	113	70-130			
	CARBOFURAN	10.4	10	ug/L	531.2	104	70-130			
	METHIOCARB	10.4	10	ug/L	531.2	104	70-130			
	METHOMYL	11	10	ug/L	531.2	110	70-130			
	OXYMAL	10.6	10	ug/L	531.2	106	70-130			
	PROPOXUR (BAYGON)	11.1	10	ug/L	531.2	111	70-130			
531_081217	3-HYDROXYCARBOFURAN	17.4	20	ug/L	531.2	87	70-130		LFB	
	ALDICARB	18	20	ug/L	531.2	90	70-130			
	ALDICARB SULFONE	17.7	20	ug/L	531.2	89	70-130			
	ALDICARB SULFOXIDE	17.6	20	ug/L	531.2	88	70-130			
	BDMC (SURR)	97		%	531.2		70-130			
	CARBARYL	18.5	20	ug/L	531.2	93	70-130			
	CARBOFURAN	16.9	20	ug/L	531.2	85	70-130			
	METHIOCARB	19.5	20	ug/L	531.2	98	70-130			
	METHOMYL	18	20	ug/L	531.2	90	70-130			
	OXYMAL	17.3	20	ug/L	531.2	87	70-130			
	PROPOXUR (BAYGON)	18.1	20	ug/L	531.2	91	70-130			

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Fortified Blank

Reference Number: 08-17751
Report Date: 01/28/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
531_090113	BDMC (SURR)	113		%	531.2		70-130		LFB	
531_090113	3-HYDROXYCARBOFURAN	21.6	20	ug/L	531.2	108	70-130		LFB	
	ALDICARB	21.6	20	ug/L	531.2	108	70-130			
	ALDICARB SULFONE	21.2	20	ug/L	531.2	106	70-130			
	ALDICARB SULFOXIDE	21.3	20	ug/L	531.2	107	70-130			
	BDMC (SURR)	89		%	531.2		70-130			
	CARBARYL	21.2	20	ug/L	531.2	106	70-130			
	CARBOFURAN	19.6	20	ug/L	531.2	98	70-130			
	METHIOCARB	17.3	20	ug/L	531.2	87	70-130			
	METHOMYL	21.7	20	ug/L	531.2	109	70-130			
	OXYMAL	20.6	20	ug/L	531.2	103	70-130			
	PROPOXUR (BAYGON)	21.1	20	ug/L	531.2	106	70-130			
COD_081229	CHEMICAL OXYGEN DEMAND	55	50	mg/L	SM5220 D	110	80-120		LFB	
OPHOS-081217	ORTHO-PHOSPHATE	1.01	1.00	mg/L	SM4500-P F	101	70-130		LFB	
tds_081219	TOTAL DISSOLVED SOLIDS	514	500	mg/L	SM2540 C	103	80-120		LFB	
tds_081219	TOTAL DISSOLVED SOLIDS	500	500	mg/L	SM2540 C	100	80-120		LFB	
tds_081219	TOTAL DISSOLVED SOLIDS	494	500	mg/L	SM2540 C	99	80-120		LFB	
tds_081219	TOTAL DISSOLVED SOLIDS	472	500	mg/L	SM2540 C	94	80-120		LFB	

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Low Level Laboratory Fortified Blank

Reference Number: 08-17751
Report Date: 01/28/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
531_081217	3-HYDROXYCARBOFURAN	0.73	1	ug/L	531.2	73	50-150		LFBD	
	ALDICARB	0.99	1	ug/L	531.2	99	50-150			
	ALDICARB SULFONE	0.95	1	ug/L	531.2	95	50-150			
	ALDICARB SULFOXIDE	0.86	1	ug/L	531.2	86	50-150			
	BDMC (SURR)	91		%	531.2		50-150			
	CARBARYL	1.1	1	ug/L	531.2	110	50-150			
	CARBOFURAN	0.89	1	ug/L	531.2	89	50-150			
	METHIOCARB	1.1	1	ug/L	531.2	110	50-150			
	METHOMYL	0.81	1	ug/L	531.2	81	50-150			
	OXYMAL	0.96	1	ug/L	531.2	96	50-150			
	PROPOXUR (BAYGON)	0.99	1	ug/L	531.2	99	50-150			
531_090113	3-HYDROXYCARBOFURAN	1.1	1	ug/L	531.2	110	50-150		LFBD	
	ALDICARB	1.16	1	ug/L	531.2	116	50-150			
	ALDICARB SULFONE	0.95	1	ug/L	531.2	95	50-150			
	ALDICARB SULFOXIDE	0.97	1	ug/L	531.2	97	50-150			
	BDMC (SURR)	113		%	531.2		50-150			
	CARBARYL	1.16	1	ug/L	531.2	116	50-150			
	CARBOFURAN	0.96	1	ug/L	531.2	96	50-150			
	METHIOCARB	1.13	1	ug/L	531.2	113	50-150			
	METHOMYL	1	1	ug/L	531.2	100	50-150			
	OXYMAL	0.93	1	ug/L	531.2	93	50-150			
	PROPOXUR (BAYGON)	0.95	1	ug/L	531.2	95	50-150			

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Reagent Blank

Reference Number: 08-17751
Report Date: 01/28/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	QC Limits	Qualifier	Type*	Comment
200.7-081223A	HARDNESS	ND		mg/L	200.7		10.00000		LRB	
COD_081229	CHEMICAL OXYGEN DEMAND	ND		mg/L	SM5220 D		4.00000		LRB	
D081230A	BROMATE	ND		mg/L	300.1		0.00500		LRB	
I081217A	CHLORIDE	ND		mg/L	300.0		0.10000		LRB	
	NITRATE-N	ND		mg/L	300.0		0.10000			
OPHOS-081217	ORTHO-PHOSPHATE	ND		mg/L	SM4500-P F		0.10000		LRB	
TURB_081217	TURBIDITY	ND		NTU	180.1		0.02000		LRB	

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Method Blank

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Report Date: 01/28/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
200.7-081223A	HARDNESS	ND		mg/L	200.7		0.82000		MB	
515_081222	2,4 - D	ND		ug/L	515.1		0.05000		MB	
	2,4 - DCAA (SURR)	95		%	515.1					
	2,4 DB	ND		ug/L	515.1		0.25000			
	2,4,5 - TP (SILVEX)	ND		ug/L	515.1		0.10000			
	2,4,5 T	ND		ug/L	515.1		0.10000			
	ACIFLUORFEN	ND		ug/L	515.1		0.50000			
	BENTAZON	ND		ug/L	515.1		0.12000			
	CHLORAMBEN	ND		ug/L	515.1		0.20000			
	DALAPON	ND		ug/L	515.1		0.50000			
	DCPA (ACID METABOLITES)	ND		ug/L	515.1		0.10000			
	DICAMBA	ND		ug/L	515.1		0.05000			
	DICHLORPROP	ND		ug/L	515.1		0.12000			
	DINOSEB	ND		ug/L	515.1		0.10000			
	PENTACHLOROPHENOL	ND		ug/L	515.1		0.02000			
	PICLORAM	ND		ug/L	515.1		0.05000			
	TOTAL (DCPA & Metabolites)	ND		ug/L	515.1		0.02000			
525_081222	1,3-DIMETHYL-2-NITROBENZENE (Surr)	106		%	525.2				MB	
	4,4-DDD	ND		ug/L	525.2		0.05000			
	4,4-DDD	ND		ug/L	525.2		0.05000			
	4,4-DDE	ND		ug/L	525.2		0.05000			
	4,4-DDE	ND		ug/L	525.2		0.05000			
	4,4-DDT	ND		ug/L	525.2		0.05000			
	4,4-DDT	ND		ug/L	525.2		0.05000			
	ACENAPHTHENE	ND		ug/L	525.2		0.05000			
	ALACHLOR	ND		ug/L	525.2		0.02000			
	ALDRIN	ND		ug/L	525.2		0.05000			
	ANTHRACENE	ND		ug/L	525.2		0.05000			
	ATRAZINE	ND		ug/L	525.2		0.02000			
	BENZ(A)ANTHRACENE	ND		ug/L	525.2		0.02000			
	BENZO(A)PYRENE	ND		ug/L	525.2		0.02000			
	BENZO(B)FLUORANTHENE	ND		ug/L	525.2		0.05000			

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Method Blank

Reference Number: 08-17751
Report Date: 01/28/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	QC Limits	Qualifier	Type*	Comment
525_081222	BENZO(G,H,I)PERYLENE	ND		ug/L	525.2		0.05000		MB	
	BENZO(K)FLUORANTHENE	ND		ug/L	525.2		0.05000			
	BENZYL BUTYL PHTHALATE	ND		ug/L	525.2		0.60000			
	BROMACIL	ND		ug/L	525.2		0.05000			
	BUTACHLOR	ND		ug/L	525.2		0.10000			
	CHLORDANE, TECHNICAL	ND		ug/L	525.2		0.02000			
	CHRYSENE	ND		ug/L	525.2		0.05000			
	CYANAZINE	ND		ug/L	525.2		0.05000			
	DI(ETHYLHEXYL)-ADIPATE	ND		ug/L	525.2		0.02000			
	DI(ETHYLHEXYL)-PHTHALATE	ND		ug/L	525.2		0.60000			
	DIAZINON	ND		ug/L	525.2		0.05000			
	DIAZINON	ND		ug/L	525.2		0.05000			
	DIBENZO(A,H)ANTHRACENE	ND		ug/L	525.2		0.05000			
	DIELDRIN	ND		ug/L	525.2		0.05000			
	DIETHYL PHTHALATE	ND		ug/L	525.2		0.60000			
	DIMETHYL PHTHALATE	ND		ug/L	525.2		0.60000			
	DI-N-BUTYL PHTHALATE	ND		ug/L	525.2		0.60000			
	ENDRIN	ND		ug/L	525.2		0.02000			
	EPTC	ND		ug/L	525.2		0.07000			
	FLUORANTHENE	ND		ug/L	525.2		0.05000			
	FLUORENE	ND		ug/L	525.2		0.05000			
	HEPTACHLOR	ND		ug/L	525.2		0.02000			
	HEPTACHLOR EPOXIDE	ND		ug/L	525.2		0.02000			
	HEXACHLOROBENZENE	ND		ug/L	525.2		0.02000			
	HEXACHLOROCYCLO-PENTADIENE	ND		ug/L	525.2		0.02000			
	INDENO(1,2,3-CD)PYRENE	ND		ug/L	525.2		0.05000			
	LINDANE (BHC - GAMMA)	ND		ug/L	525.2		0.02000			
	LINDANE (BHC - GAMMA)	ND		ug/L	525.2		0.02000			
	MALATHION	ND		ug/L	525.2		0.05000			
	MALATHION	ND		ug/L	525.2		0.05000			
	METHOXYCHLOR	ND		ug/L	525.2		0.02000			
	METOLACHLOR	ND		ug/L	525.2		0.25000			
	METRIBUZIN	ND		ug/L	525.2		0.05000			
	NAPTHALENE	ND		ug/L	525.2		0.02000			
	PARATHION	ND		ug/L	525.2		0.05000			
	PARATHION-ETHYL	ND		ug/L	525.2		0.05000			

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Method Blank

Reference Number: 08-17751
Report Date: 01/28/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	QC Limits	Qualifier	Type*	Comment
525_081222	PENTACHLOROPHENOL	ND		ug/L	525.2		0.04000		MB	
	PERYLENE-D12 (Surr)	100		%	525.2					
	PHENANTHRENE	ND		ug/L	525.2		0.05000			
	PROPACHLOR	ND		ug/L	525.2		0.05000			
	PYRENE	ND		ug/L	525.2		0.05000			
	PYRENE-D10 (Surr)	94		%	525.2					
	SIMAZINE	ND		ug/L	525.2		0.02000			
	SIMAZINE	ND		ug/L	525.2		0.02000			
	TERBACIL	ND		ug/L	525.2		0.05000			
	TRIFLURALIN	ND		ug/L	525.2		0.05000			
	TRIPHENYLPHOSPHATE (Surr)	107		%	525.2					
525X_081222	1-NAPHTHALENEACETAMIDE	ND		ug/L	525.2		0.10000		MB	
	AZINPHOS-METHYL	ND		ug/L	525.2		0.00000			
	CHLORPYRIFOS	ND		ug/L	525.2		0.00000			
	DICOFOL	ND		ug/L	525.2		0.00000			
	DIMETHOATE	ND		ug/L	525.2		0.00000			
	FENARIMOL	ND		ug/L	525.2		0.00000			
	HEXAZINONE	ND		ug/L	525.2		0.00000			
	HEXAZINONE (Velpar)	ND		ug/L	525.2		0.02000			
	METALAXYL	ND		ug/L	525.2		0.10000			
	METHIDATHINON	ND		ug/L	525.2		0.50000			
	METHYL PARATHION	ND		ug/L	525.2		0.00000			
	MEVINPHOS	ND		ug/L	525.2		0.00000			
	MYCLOBUTANIL	ND		ug/L	525.2		0.50000			
	NAPROPAMIDE	ND		ug/L	525.2		0.00000			
	PHOSMET	ND		ug/L	525.2		0.10000			
	PROPARGITE	ND		ug/L	525.2		0.00000			
	TRIADIMEFON	ND		ug/L	525.2		0.00000			
	TRIFLUMIZOLE	ND		ug/L	525.2		1.00000			
531_081217	3-HYDROXYCARBOFURAN	ND		ug/L	531.2		0.50000		MB	
	ALDICARB	ND		ug/L	531.2		0.25000			
	ALDICARB SULFONE	ND		ug/L	531.2		0.40000			

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Method Blank

Reference Number: 08-17751
Report Date: 01/28/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	QC Limits	Qualifier	Type*	Comment
531_081217	ALDICARB SULFOXIDE	ND		ug/L	531.2		0.25000		MB	
	BDMC (SURR)	96		%	531.2		0.00000			
	CARBARYL	ND		ug/L	531.2		0.50000			
	CARBOFURAN	ND		ug/L	531.2		0.45000			
	METHIOCARB	ND		ug/L	531.2		1.00000			
	METHOMYL	ND		ug/L	531.2		0.25000			
	OXYMAL	ND		ug/L	531.2		1.00000			
	PROPOXUR (BAYGON)	ND		ug/L	531.2		0.25000			
531_090113	3-HYDROXYCARBOFURAN	ND		ug/L	531.2		0.50000		MB	
	ALDICARB	ND		ug/L	531.2		0.25000			
	ALDICARB SULFONE	ND		ug/L	531.2		0.40000			
	ALDICARB SULFOXIDE	ND		ug/L	531.2		0.25000			
	BDMC (SURR)	121		%	531.2		0.00000			
	CARBARYL	ND		ug/L	531.2		0.50000			
	CARBOFURAN	ND		ug/L	531.2		0.45000			
	METHIOCARB	ND		ug/L	531.2		1.00000			
	METHOMYL	ND		ug/L	531.2		0.25000			
	OXYMAL	ND		ug/L	531.2		1.00000			
	PROPOXUR (BAYGON)	ND		ug/L	531.2		0.25000			
ec_081223	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
ec_081223	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
ec_081223	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
ec_081223	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
OPHOS-081217	ORTHO-PHOSPHATE	ND		mg/L	SM4500-P F		0.10000		MB	
tds_081219	TOTAL DISSOLVED SOLIDS	ND		mg/L	SM2540 C		2.50000		MB	
tds_081219	TOTAL DISSOLVED SOLIDS	ND		mg/L	SM2540 C		2.50000		MB	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

QCS: Quality Control Sample, a solution containing known concentrations of method analytes which is used to fortify an aliquot of reagent matrix. The QCS is obtained from an external source and is used to check lab performance.

LFB: Laboratory Fortified Blank, an aliquot of reagent matrix to which known quantities of method analytes are added in the lab. The LFB is analyzed exactly like a sample, and its purpose is to determine whether method performance is within accepted control limits.

MB or LRB: Method Blank or Laboratory Reagent Blank, an aliquot of reagent matrix is analyzed exactly like a sample, and its purpose is to determine if there is background contamination.

EDGE ANALYTICAL LABORATORIES

Burlington WA | 1620 S Walnut St - 98233
Corporate Office | 800.755.9295 • 360.757.1400 • 360.757.1402fax
Bellingham WA | 805 Orchard Dr Suite 4 - 98225
Microbiology | 360.671.0688 • 360.671.1577fax

SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Method Blank

Reference Number: 08-17751
Report Date: 01/28/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
tds_081219	TOTAL DISSOLVED SOLIDS	ND		mg/L	SM2540 C		2.50000		MB	
tds_081219	TOTAL DISSOLVED SOLIDS	ND		mg/L	SM2540 C		2.50000		MB	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

QCS: Quality Control Sample, a solution containing known concentrations of method analytes which is used to fortify an aliquot of reagent matrix. The QCS is obtained from an external source and is used to check lab performance.

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Quality Control Sample

Reference Number: 08-17751
Report Date: 01/28/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
200.7-081223A	HARDNESS	131	132.3	mg/L	200.7	99	80-120		QCS	
531_061217	3-HYDROXYCARBOFURAN	41.2	40	ug/L	531.2	103	70-130		QCS	
	ALDICARB	37.5	37.3	ug/L	531.2	101	70-130			
	ALDICARB SULFONE	41.2	44.9	ug/L	531.2	92	70-130			
	ALDICARB SULFOXIDE	43.2	40.2	ug/L	531.2	107	70-130			
	BDMC (SURR)	96		%	531.2		70-130			
	CARBARYL	47	46	ug/L	531.2	102	70-130			
	CARBOFURAN	60.6	60.9	ug/L	531.2	100	70-130			
	METHIOCARB	119.1	121	ug/L	531.2	98	70-130			
	METHOMYL	61.3	61.4	ug/L	531.2	100	70-130			
	OXYMAL	52.7	59.9	ug/L	531.2	88	70-130			
	PROPOXUR (BAYGON)	100	96.7	ug/L	531.2	103	70-130			
COD_081229	CHEMICAL OXYGEN DEMAND	89	92	mg/L	SM5220 D	97	80-120		QCS	
D081230A	BROMATE	0.0187	0.0182	mg/L	300.1	103	75-125		QCS	
ec_081223	ELECTRICAL CONDUCTIVITY	158	150.5	uS/cm	SM2510 B	105	80-120		QCS	
ec_081223	ELECTRICAL CONDUCTIVITY	157	150.5	uS/cm	SM2510 B	104	80-120		QCS	
ec_081223	ELECTRICAL CONDUCTIVITY	159	150.5	uS/cm	SM2510 B	106	80-120		QCS	
ec_081223	ELECTRICAL CONDUCTIVITY	157	150.5	uS/cm	SM2510 B	104	80-120		QCS	
I081217A	CHLORIDE	28.6	30.0	mg/L	300.0	95	80-120		QCS	
	NITRATE-N	2.53	2.50	mg/L	300.0	101	80-120			
OPHOS-081217	ORTHO-PHOSPHATE	0.47	0.49	mg/L	SM4500-P F	96	70-130		QCS	

*Notation:

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NA = Indicates % Recovery could not be calculated.

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Quality Control Sample

Reference Number: 08-17751
Report Date: 01/28/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
TURB_081217	TURBIDITY	0.98	1.00	NTU	180.1	98	70-130		QCS	

*Notation:

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QUALITY CONTROL REPORT

Duplicate and Matrix Spike/Matrix Spike Duplicate Report

Reference Number: 08-17751
Report Date: 1/28/2009

Duplicate

Batch	Sample	Analyte	Result	Duplicate Result	Units	%RPD	Limits	QC Qualifier	Comments
200.7-081223A									
	37079	HARDNESS	119	117	mg CaCO3/L	1.7	0-45	DUP	
	37234	HARDNESS	74.0	73.5	mg CaCO3/L	0.7	0-45	DUP	
515_081222									
	37091	DCPA (ACID METABOLITES)	1.2	0.8ML	ug/L	40.0	0-50	DUP	
	37091	2,4 - DCAA (SURR)	95	72	%	27.5	0-45	DUP	
525_081222									
	36873	1,3-DIMETHYL-2-NITROBENZENE (Surr	100	102	%	2.0	0-45	DUP	
	36873	PYRENE-D10 (Surr)	93	93	%	0.0	0-45	DUP	
	36873	PERYLENE-D12 (Surr)	103	110	%	6.6	0-45	DUP	
	36873	TRIPHENYLPHOSPHATE (Surr)	107	105	%	1.9	0-45	DUP	
	37230	BROMACIL	0.09	0.09	ug/L	0.0	0-45	DUP	
COD_081229									
D081230A									
EC_081223									
	37233	ELECTRICAL CONDUCTIVITY	171	167	uS/cm	2.4	0-45	DUP	
	37385	ELECTRICAL CONDUCTIVITY	181	181	uS/cm	0.0	0-45	DUP	
	37476	ELECTRICAL CONDUCTIVITY	16.8	16.7	uS/cm	0.6	0-45	DUP	
I081217A									
	37252	CHLORIDE	30	30	mg/L	0.0	0-45	DUP	
	37278	NITRATE-N	0.77	0.8	mg/L	3.8	0-45	DUP	
OPHOS-081217									
	37235	ORTHO-PHOSPHATE	0.16	0.16	mg/L	0.0	0-50	DUP	
PH_081217									
	37235	HYDROGEN ION (pH)	6.58	6.54	pH Units	0.6	0-45	DUP	
TDS_081219									
	37058	TOTAL DISSOLVED SOLIDS	305	311	mg/L	1.9	0-45	DUP	

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Duplicate

Batch	Sample	Analyte	Result	Duplicate Result	Units	%RPD	Limits	QC Qualifier	Comments
	37177	TOTAL DISSOLVED SOLIDS	274	267	mg/L	2.6	0-45	DUP	
	37331	TOTAL DISSOLVED SOLIDS	166	156	mg/L	6.2	0-45	DUP	
TURB_081217									
	37215	TURBIDITY	5.78	5.84	NTU	1.0	0-50	DUP	

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Matrix Spike

Batch	Sample	Analyte	Result	Spike Result	Duplicate Spike Result	Spike Conc	Units	Percent Recovery MS	Percent Recovery MSD	Limits	%RPD	Limits	QC Qualifier	Comments
200.7-081223A														
	37079	HARDNESS	119	186	185	69.5	mg CaCO3/L	96	95	80-120	1.5	0-60		LFM
	37234	HARDNESS	74.0	142	141	69.5	mg CaCO3/L	98	96	80-120	1.5	0-60		LFM
515_081222														
	37077	2,4 - D	ND	1.88		2	mg/L	94	NA	65-135	NA	0-60		LFM
	37077	2,4,5 - TP (SILVEX)	ND	1.03		1	mg/L	103	NA	65-135	NA	0-60		LFM
	37077	PENTACHLOROPHENOL	ND	1.01		1	ug/L	101	NA	65-135	NA	0-60		LFM
	37077	DALAPON	ND	13		13	mg/L	100	NA	65-135	NA	0-60		LFM
	37077	DINOSEB	ND	2.09		2	mg/L	105	NA	65-135	NA	0-60		LFM
	37077	PICLORAM	ND	0.88		1	mg/L	88	NA	65-135	NA	0-60		LFM
	37077	DICAMBA	ND	0.97		1	ug/L	97	NA	65-135	NA	0-60		LFM
	37077	TOTAL (DCPA & Metabolites)	ND	1.13		1	ug/L	113	NA	65-135	NA	0-60		LFM
	37077	2,4 DB	ND	8		8	ug/L	100	NA	65-135	NA	0-60		LFM
	37077	2,4,5 T	ND	0.95		1	ug/L	95	NA	65-135	NA	0-60		LFM
	37077	BENTAZON	ND	2.18		2	ug/L	109	NA	65-135	NA	0-60		LFM
	37077	DICHLORPROP	ND	3.03		3	ug/L	101	NA	65-135	NA	0-60		LFM
	37077	ACIFLUORFEN	ND	1.01		1	ug/L	101	NA	65-135	NA	0-60		LFM
	37077	CHLORAMBEN	ND	1.34		1	ug/L	134	NA	65-135	NA	0-50		LFM
	37077	2,4 - DCAA (SURR)	92	95			%		NA	70-130	NA	0-60		LFM
	37079	2,4 - D	ND	1.65		2	mg/L	83	NA	65-135	NA	0-60		LFM
	37079	2,4,5 - TP (SILVEX)	ND	0.93		1	mg/L	93	NA	65-135	NA	0-60		LFM
	37079	PENTACHLOROPHENOL	ND	0.94		1	ug/L	94	NA	65-135	NA	0-60		LFM
	37079	DALAPON	ND	11.6		13	mg/L	89	NA	65-135	NA	0-60		LFM
	37079	DINOSEB	ND	1.74		2	mg/L	87	NA	65-135	NA	0-60		LFM
	37079	PICLORAM	ND	0.65		1	mg/L	65	NA	65-135	NA	0-60		LFM
	37079	DICAMBA	ND	0.85		1	ug/L	85	NA	65-135	NA	0-60		LFM
	37079	TOTAL (DCPA & Metabolites)	ND	1.44		1	ug/L	144	NA	65-135	NA	0-60	HQ	LFM
	37079	2,4 DB	ND	7.39		8	ug/L	92	NA	65-135	NA	0-60		LFM
	37079	2,4,5 T	ND	0.81		1	ug/L	81	NA	65-135	NA	0-60		LFM
	37079	BENTAZON	ND	1.7		2	ug/L	85	NA	65-135	NA	0-60		LFM
	37079	DICHLORPROP	ND	2.7		3	ug/L	90	NA	65-135	NA	0-60		LFM
	37079	ACIFLUORFEN	ND	0.71		1	ug/L	71	NA	65-135	NA	0-60		LFM
	37079	CHLORAMBEN	ND	0.91		1	ug/L	91	NA	65-135	NA	0-50		LFM
	37079	2,4 - DCAA (SURR)	94	98			%		NA	70-130	NA	0-60		LFM
525_081222														
	37231	ENDRIN	ND	1		1	ug/L	100	NA	70-130	NA	0-60		LFM

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NA = Indicates %RPD could not be calculated

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EDGE ANALYTICAL LABORATORIES

Matrix Spike

Batch	Sample	Analyte	Result	Spike Result	Duplicate Spike Result	Spike Conc	Units	Percent Recovery MS	Percent Recovery MSD	Limits	%RPD	Limits	QC Qualifier	Comments
	37231	LINDANE (BHC - GAMMA)	ND	1.08		1	ug/L	108	NA	70-130	NA	0-60	LFM	
	37231	METHOXYCHLOR	ND	1.15		1	ug/L	115	NA	70-130	NA	0-60	LFM	
	37231	ALACHLOR	ND	2.13		2	ug/L	107	NA	70-130	NA	0-60	LFM	
	37231	ATRAZINE	ND	2.35		2	ug/L	118	NA	70-130	NA	0-60	LFM	
	37231	BENZO(A)PYRENE	ND	0.87		1	ug/L	87	NA	70-130	NA	0-60	LFM	
	37231	CHLORDANE, TECHNICAL	ND	1.06		1	ug/L	106	NA	70-130	NA	0-60	LFM	
	37231	DI(ETHYLHEXYL)-ADIPATE	ND	0.82		1	ug/L	82	NA	70-130	NA	0-60	LFM	
	37231	DI(ETHYLHEXYL)-PHTHALATE	ND	0.85		1	ug/L	85	NA	70-130	NA	0-60	LFM	
	37231	HEPTACHLOR	ND	1.03		1	ug/L	103	NA	70-130	NA	0-60	LFM	
	37231	HEPTACHLOR EPOXIDE	ND	1.09		1	ug/L	109	NA	70-130	NA	0-50	LFM	
	37231	HEXACHLOROBENZENE	ND	1.04		1	ug/L	104	NA	70-130	NA	0-60	LFM	
	37231	HEXACHLOROCYCLO-PENTADIENE	ND	0.99		1	ug/L	99	NA	70-130	NA	0-60	LFM	
	37231	SIMAZINE	ND	1.18		1	ug/L	118	NA	70-130	NA	0-60	LFM	
	37231	PENTACHLOROPHENOL	ND	3.67		4	ug/L	92	NA	70-130	NA	0-50	LFM	
	37231	ALDRIN	ND	1.04		1	ug/L	104	NA	70-130	NA	0-60	LFM	
	37231	BUTACHLOR	ND	1.09		1	ug/L	109	NA	70-130	NA	0-60	LFM	
	37231	DIELDRIN	ND	1.07		1	ug/L	107	NA	70-130	NA	0-60	LFM	
	37231	METOLACHLOR	ND	1.11		1	ug/L	111	NA	70-130	NA	0-60	LFM	
	37231	METRIBUZIN	ND	0.81		1	ug/L	81	NA	70-130	NA	0-60	LFM	
	37231	PROPACHLOR	ND	1.28		1	ug/L	128	NA	70-130	NA	0-60	LFM	
	37231	BISPHENOL-A	ND	5.2		5	ug/L	104	NA	70-130	NA	0-50	LFM	
	37231	BROMACIL	ND	1.06		1	ug/L	106	NA	70-130	NA	0-60	LFM	
	37231	TERBACIL	ND	1.02		1	ug/L	102	NA	70-130	NA	0-60	LFM	
	37231	DIAZINON	ND	3.42		3	ug/L	114	NA	70-130	NA	0-60	LFM	
	37231	SIMAZINE	ND	1.18		1	ug/L	118	NA	70-130	NA	0-60	LFM	
	37231	EPTC	ND	1.14		1	ug/L	114	NA	70-130	NA	0-60	LFM	
	37231	DIAZINON	ND	3.42		3	ug/L	114	NA	70-130	NA	0-60	LFM	
	37231	4,4-DDD	ND	1		1	ug/L	100	NA	70-130	NA	0-60	LFM	
	37231	4,4-DDE	ND	0.92		1	ug/L	92	NA	70-130	NA	0-60	LFM	
	37231	LINDANE (BHC - GAMMA)	ND	1.08		1	ug/L	108	NA	70-130	NA	0-60	LFM	
	37231	4,4-DDT	ND	1		1	ug/L	100	NA	70-130	NA	0-60	LFM	
	37231	CYANAZINE	ND	2.4		2	ug/L	120	NA	70-130	NA	0-60	LFM	
	37231	MALATHION	ND	2.06		2	ug/L	103	NA	70-130	NA	0-60	LFM	
	37231	PARATHION	ND	2.24		2	ug/L	112	NA	70-130	NA	0-60	LFM	
	37231	TRIFLURALIN	ND	1.04		1	ug/L	104	NA	70-130	NA	0-60	LFM	
	37231	4,4-DDD	ND	1		1	ug/L	100	NA	70-130	NA	0-60	LFM	

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EDGE ANALYTICAL LABORATORIES

Matrix Spike

Batch	Sample	Analyte	Result	Spike Result	Duplicate Spike Result	Spike Conc	Units	Percent Recovery MS	Percent Recovery MSD	Limits	%RPD	Limits	QC Qualifier		Comments
	37231	4,4-DDE	ND	0.92		1	ug/L	92	NA	70-130	NA	0-60		LFM	
	37231	4,4-DDT	ND	1		1	ug/L	100	NA	70-130	NA	0-60		LFM	
	37231	MALATHION	ND	2.06		2	ug/L	103	NA	70-130	NA	0-60		LFM	
	37231	PARATHION-ETHYL	ND	2.24		2	ug/L	112	NA	70-130	NA	0-60		LFM	
	37231	FLUORENE	ND	1.09		1	ug/L	109	NA	70-130	NA	0-60		LFM	
	37231	ACENAPHTHYLENE	ND	1.07		1	ug/L	107	NA	70-130	NA	0-60		LFM	
	37231	ANTHRACENE	ND	1.05		1	ug/L	105	NA	70-130	NA	0-60		LFM	
	37231	BENZ(A)ANTHRACENE	ND	1.04		1	ug/L	104	NA	70-130	NA	0-60		LFM	
	37231	BENZO(B)FLUORANTHENE	ND	0.89		1	ug/L	89	NA	70-130	NA	0-60		LFM	
	37231	BENZO(G,H,I)PERYLENE	ND	0.54		1	ug/L	54	NA	70-130	NA	0-60	ME	LFM	
	37231	BENZO(K)FLUORANTHENE	ND	0.89		1	ug/L	89	NA	70-130	NA	0-60		LFM	
	37231	CHRYSENE	ND	1.05		1	ug/L	105	NA	70-130	NA	0-60		LFM	
	37231	DIBENZO(A,H)ANTHRACENE	ND	0.63		1	ug/L	63	NA	70-130	NA	0-60	ME	LFM	
	37231	INDENO(1,2,3-CD)PYRENE	ND	0.54		1	ug/L	54	NA	70-130	NA	0-60	ME	LFM	
	37231	PHENANTHRENE	ND	1.09		1	ug/L	109	NA	70-130	NA	0-60		LFM	
	37231	PYRENE	ND	1.06		1	ug/L	106	NA	70-130	NA	0-60		LFM	
	37231	BENZYL BUTYL PHTHALATE	ND	1.05		1	ug/L	105	NA	70-130	NA	0-60		LFM	
	37231	DI-N-BUTYL PHTHALATE	ND	1.15		1	ug/L	115	NA	70-130	NA	0-60		LFM	
	37231	DIETHYL PHTHALATE	ND	1.45		1	ug/L	145	NA	70-130	NA	0-60	B5	LFM	
	37231	DIMETHYL PHTHALATE	ND	1.08		1	ug/L	108	NA	70-130	NA	0-60		LFM	
	37231	1,3-DIMETHYL-2-NITROBENZENE (Surr	109	104			%		NA	70-130	NA	0-60		LFM	
	37231	PYRENE-D10 (Surr)	93	92			%		NA	70-130	NA	0-60		LFM	
	37231	PERYLENE-D12 (Surr)	102	98			%		NA	70-130	NA	0-60		LFM	
	37231	TRIPHENYLPHOSPHATE (Surr)	107	108			%		NA	70-130	NA	0-60		LFM	
525X_081222															
	37231	HEXAZINONE	ND	1.2		1	ug/L	120	NA	70-130	NA	0-50		LFM	
	37231	HEXAZINONE (Velpar)	ND	1.2		1	ug/L	120	NA	70-130	NA	0-60		LFM	
531_081217															
	36873	OXYMAL	ND	10.5	11	10	ug/L	105	110	70-130	4.7	0-50		LFM	
	36873	CARBOFURAN	ND	10.4	10.5	10	ug/L	104	105	70-130	1.0	0-50		LFM	
	36873	ALDICARB SULFOXIDE	ND	10.6	11.6	10	ug/L	106	116	70-130	9.0	0-50		LFM	
	36873	ALDICARB SULFONE	ND	10.8	11.7	10	ug/L	108	117	70-130	8.0	0-50		LFM	
	36873	METHOMYL	ND	10.6	11.4	10	ug/L	106	114	70-130	7.3	0-50		LFM	
	36873	3-HYDROXYCARBOFURAN	ND	10.9	11	10	ug/L	109	110	70-130	0.9	0-50		LFM	
	36873	ALDICARB	ND	11.1	10.9	10	ug/L	111	109	70-130	1.8	0-50		LFM	
	36873	CARBARYL	ND	11	11.2	10	ug/L	110	112	70-130	1.8	0-50		LFM	

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

EDGE ANALYTICAL LABORATORIES

Matrix Spike

Batch	Sample	Analyte	Result	Spike Result	Duplicate Spike Result	Spike Conc	Units	Percent Recovery MS	Percent Recovery MSD	Limits	%RPD	Limits	QC Qualifier		Comments
	36873	PROPOXUR (BAYGON)	ND	11.1	11.1	10	ug/L	111	111	70-130	0.0	0-50		LFM	
	36873	METHIOCARB	ND	11.1	11.1	10	ug/L	111	111	70-130	0.0	0-50		LFM	
	36873	BDMC (SURR)	101	103	100		%		NA	70-130	NA	0-50		LFM	
	37232	OXYMAL	ND	11.5	11.1	10	ug/L	115	111	70-130	3.5	0-50		LFM	
	37232	CARBOFURAN	ND	10.4	11.5	10	ug/L	104	115	70-130	10.0	0-50		LFM	
	37232	ALDICARB SULFOXIDE	ND	12.1	11.9	10	ug/L	121	119	70-130	1.7	0-50		LFM	
	37232	ALDICARB SULFONE	ND	12.2	11.9	10	ug/L	122	119	70-130	2.5	0-50		LFM	
	37232	METHOMYL	ND	12.2	11.7	10	ug/L	122	117	70-130	4.2	0-50		LFM	
	37232	3-HYDROXYCARBOFURAN	ND	11.8	11.7	10	ug/L	118	117	70-130	0.9	0-50		LFM	
	37232	ALDICARB	ND	12	11.7	10	ug/L	120	117	70-130	2.5	0-50		LFM	
	37232	CARBARYL	ND	12.1	12.4	10	ug/L	121	124	70-130	2.4	0-50		LFM	
	37232	PROPOXUR (BAYGON)	ND	11.7	12.2	10	ug/L	117	122	70-130	4.2	0-50		LFM	
	37232	METHIOCARB	ND	11.5	11	10	ug/L	115	110	70-130	4.4	0-50		LFM	
	37232	BDMC (SURR)	110	105	109		%		NA	70-130	NA	0-50		LFM	
531_090113															
	37742	OXYMAL	ND	11.5	11.8	10	ug/L	115	118	70-130	2.6	0-50		LFM	
	37742	CARBOFURAN	ND	11.1	11	10	ug/L	111	110	70-130	0.9	0-50		LFM	
	37742	ALDICARB SULFOXIDE	ND	11.7	12.1	10	ug/L	117	121	70-130	3.4	0-50		LFM	
	37742	ALDICARB SULFONE	ND	12.1	11.7	10	ug/L	121	117	70-130	3.4	0-50		LFM	
	37742	METHOMYL	ND	12.1	11.9	10	ug/L	121	119	70-130	1.7	0-50		LFM	
	37742	3-HYDROXYCARBOFURAN	ND	11.8	11.1	10	ug/L	118	111	70-130	6.1	0-50		LFM	
	37742	ALDICARB	ND	11.7	11.7	10	ug/L	117	117	70-130	0.0	0-50		LFM	
	37742	CARBARYL	ND	11.7	11.7	10	ug/L	117	117	70-130	0.0	0-50		LFM	
	37742	PROPOXUR (BAYGON)	ND	11.8	11.8	10	ug/L	118	116	70-130	1.7	0-50		LFM	
	37742	METHIOCARB	ND	10.9	11.5	10	ug/L	109	115	70-130	5.4	0-50		LFM	
	37742	BDMC (SURR)	103	102	110		%		NA	70-130	NA	0-50		LFM	
COD_081229															
	37235	CHEMICAL OXYGEN DEMAND	ND	55	55	50	mg/L	110	110	80-120	0.0	0-60		LFM	
D081230A															
	37233	BROMATE	ND	0.0096		0.010	mg/L	96	NA	75-125	NA	0-60		LFM	
	37255	BROMATE	ND	0.0106		0.010	mg/L	106	NA	75-125	NA	0-60		LFM	
I081217A															
	37252	NITRATE-N	ND	1.04		1.00	mg/L	104	NA	80-120	NA	0-60		LFM	
	37252	CHLORIDE	30	31		1.00	mg/L	100	NA	80-120	NA	0-60		LFM	
	37278	NITRATE-N	0.77	2.84		1.00	mg/L	207	NA	80-120	NA	0-60	M	LFM	Chlorinated

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

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Only Duplicate sample with detections are listed in this report

Matrix Spike

Batch	Sample	Analyte	Result	Spike Result	Duplicate Spike Result	Spike Conc	Units	Percent Recovery MS	Percent Recovery MSD	Limits	%RPD	Limits	QC Qualifier	Comments
OPHOS-081217														
	37235	ORTHO-PHOSPHATE	0.16	1.20	1.20	1.00	mg/L	104	104	70-130	0.0	0-50	LFM	

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Qualifier Definitions

Reference Number: 08-17751
Report Date: 01/28/09

Qualifier	Definition
AC	Ambient contamination during fortification of samples.
B5	The compound was detected in the sample below the State Reporting Limit, result is biased high.
HQ	High QCS recovery due to increased detector response of the sample extract. The continuing calibration checks are within acceptance limits.
J	Indicates an estimated concentration. This occurs when an analyte concentration is below the calibration curve but is above the method detection limit.
M	Matrix induced bias assumed.
ME	Matrix spike shows a possible matrix induced bias. The LFB was within acceptance limits, results for this compound are suspect.
ML	Indicates mechanical loss during extraction.
N1	Acceptance limits have not been established, the limits listed are for guidance only.
S	Spiking amount was lower than the 5:1 spike to background (sample amount) basis for performance criteria. The reported criteria does not apply due to increased errors in measurement of both sample and spike concentration.

Note: Some qualifier definitions found on this page may pertain to results or QC data which are not printed with this report.

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Microbiology | 360.671.0688 • 360.671.1577fa

[redacted]

March 5, 2009

Mr. Troy Baker
Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

RE: 09-02151 - Locher Road Recharge Sites

Dear Mr. Troy Baker,

Your project: Locher Road Recharge Sites, was received on Friday February 13, 2009.
All samples were analyzed within the accepted holding times, were appropriately preserved and were analyzed according to approved analytical protocols. The quality control data was within laboratory acceptance limits, unless specified in the QA reports.

If you have questions phone me at 800 755-9295.

Respectfully Submitted,

Lawrence J Henderson, PhD
Director of Laboratories

Enclosures Data Report
QC Reports
Chain of Custody

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Microbiology | 360.671.0688 • 360.671.1577...

Data Report

Client Name: Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

Reference Number: **09-02151**
Project: Locher Road Recharge Sites
Report Date: 3/5/09
Date Received: 2/13/09
Peer Review: dh

Sample Description: L1 - Locher 1
Lab Number: 4470
Sample Date: 2/12/09
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
15541-45-4	BROMATE	ND	0.005	0.0016	mg/L	1	300.1	3/4/09	MVP	D090304A	
E-11778	HARDNESS	161	3.30	0.055	mg CaCO3/L	1	200.7	2/16/09	BJ	200.7-090216A	
14797-55-8	NITRATE-N	6.08	0.100	0.015	mg/L	1	300.0	2/13/09	BJ	I090213A	
E-10117	CHEMICAL OXYGEN DEMAND	ND	8.0	2.47	mg/L	1	SM5220 D	2/16/09	MAK	COD_090216	
E-10173	TOTAL DISSOLVED SOLIDS	259	10	6	mg/L	1	SM2540 C	2/18/09	CCN	TDS_090218	
16887-00-6	CHLORIDE	6.7	0.1	0.012	mg/L	1	300.0	2/13/09	BJ	I090213A	
14265-44-2	ORTHO-PHOSPHATE	0.23	0.01	0.002	mg/L	1	SM4500-P F	2/13/09	SO	OPHOS-090213	
E-10139	HYDROGEN ION (pH)	6.78			pH Units	1	SM4500-H+ B	2/13/09	CCN	PH_090213	
E-10617	TURBIDITY	1.78	0.05	0.03	NTU	1	180.1	2/13/09	CCN	TURB_090213	
E-10184	ELECTRICAL CONDUCTIVITY	418	10		uS/cm	1	SM2510 B	2/16/09	CCN	EC_090216	

Sample Description: L2 - Locher 2
Lab Number: 4471
Sample Date: 2/12/09
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
15541-45-4	BROMATE	ND	0.005	0.0016	mg/L	1	300.1	3/4/09	MVP	D090304A	
E-11778	HARDNESS	109	3.30	0.055	mg CaCO3/L	1	200.7	2/16/09	BJ	200.7-090216A	
14797-55-8	NITRATE-N	4.25	0.100	0.015	mg/L	1	300.0	2/14/09	BJ	I090213A	
E-10117	CHEMICAL OXYGEN DEMAND	ND	8.0	2.47	mg/L	1	SM5220 D	2/16/09	MAK	COD_090216	
E-10173	TOTAL DISSOLVED SOLIDS	193	10	6	mg/L	1	SM2540 C	2/18/09	CCN	TDS_090218	
16887-00-6	CHLORIDE	5.8	0.1	0.012	mg/L	1	300.0	2/13/09	BJ	I090213A	
14265-44-2	ORTHO-PHOSPHATE	0.23	0.01	0.002	mg/L	1	SM4500-P F	2/13/09	SO	OPHOS-090213	
E-10139	HYDROGEN ION (pH)	6.77			pH Units	1	SM4500-H+ B	2/13/09	CCN	PH_090213	
E-10617	TURBIDITY	0.76	0.05	0.03	NTU	1	180.1	2/13/09	CCN	TURB_090213	
E-10184	ELECTRICAL CONDUCTIVITY	301	10		uS/cm	1	SM2510 B	2/16/09	CCN	EC_090216	

Notes:
ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.
PQL = Practical Quantitation Limit is the lowest level that can be acheived within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor

If you have any questions concerning this report contact us at the above phone number.

Form: cRatl_2.rpt

Reference Number: **09-02151**
Report Date: 3/5/09

Data Report

Sample Description: L3 - Locher 3
Lab Number: 4472
Sample Date: 2/12/09
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
15541-45-4	BROMATE	ND	0.005	0.0016	mg/L	1	300.1	3/4/09	MVP	D090304A	
E-11778	HARDNESS	84.4	3.30	0.055	mg CaCO3/L	1	200.7	2/16/09	BJ	200.7-090216A	
14797-55-8	NITRATE-N	5.36	0.100	0.015	mg/L	1	300.0	2/14/09	BJ	I090213A	
E-10117	CHEMICAL OXYGEN DEMAND	ND	8.0	2.47	mg/L	1	SM5220 D	2/16/09	MAK	COD_090216	
E-10173	TOTAL DISSOLVED SOLIDS	169	10	6	mg/L	1	SM2540 C	2/18/09	CCN	TDS_090218	
16887-00-6	CHLORIDE	4.2	0.1	0.012	mg/L	1	300.0	2/13/09	BJ	I090213A	
14265-44-2	ORTHO-PHOSPHATE	0.21	0.01	0.002	mg/L	1	SM4500-P F	2/13/09	SO	OPHOS-090213	
E-10139	HYDROGEN ION (pH)	6.81			pH Units	1	SM4500-H+ B	2/13/09	CCN	PH_090213	
E-10617	TURBIDITY	1.62	0.05	0.03	NTU	1	180.1	2/13/09	CCN	TURB_090213	
E-10184	ELECTRICAL CONDUCTIVITY	231	10		uS/cm	1	SM2510 B	2/16/09	CCN	EC_090216	

Sample Description: LSW1 - Locher SW1
Lab Number: 4473
Sample Date: 2/12/09
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
15541-45-4	BROMATE	ND	0.005	0.0016	mg/L	1	300.1	3/4/09	MVP	D090304A	
E-11778	HARDNESS	141	3.30	0.055	mg CaCO3/L	1	200.7	2/16/09	BJ	200.7-090216A	
14797-55-8	NITRATE-N	2.57	0.100	0.015	mg/L	1	300.0	2/14/09	BJ	I090213A	
E-10117	CHEMICAL OXYGEN DEMAND	ND	8.0	2.47	mg/L	1	SM5220 D	2/16/09	MAK	COD_090216	
E-10173	TOTAL DISSOLVED SOLIDS	224	10	6	mg/L	1	SM2540 C	2/18/09	CCN	TDS_090218	
16887-00-6	CHLORIDE	7.2	0.1	0.012	mg/L	1	300.0	2/13/09	BJ	I090213A	
14265-44-2	ORTHO-PHOSPHATE	0.18	0.01	0.002	mg/L	1	SM4500-P F	2/13/09	SO	OPHOS-090213	
E-10139	HYDROGEN ION (pH)	7.63			pH Units	1	SM4500-H+ B	2/13/09	CCN	PH_090213	
E-10617	TURBIDITY	0.83	0.05	0.03	NTU	1	180.1	2/13/09	CCN	TURB_090213	
E-10184	ELECTRICAL CONDUCTIVITY	378	10		uS/cm	1	SM2510 B	2/16/09	CCN	EC_090216	

Notes:
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PQL = Practical Quantitation Limit is the lowest level that can be acheived within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor

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HERBICIDES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L1
Sample Description: Locher 1
Sampled By: Unknown
Sample Date: 2/12/09
Source Type:
Sampler Phone:

Reference Number: 09-02151
Project: Locher Road Recharge Sites

Lab Number: 04470
Report Date: 2/26/09
Date Analyzed: 02/20/09
Date Extracted: 515.4_090219
Analyst: CO
Peer Review:
Analytical Method: 515.4
Herbicides in Drinking Water

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
94-75-7	2,4 - D	ND	ug/L	0.5	0.2	70	
93-72-1	2,4,5 - TP (SILVEX)	ND	ug/L	0.25	0.04	50	
87-86-5	PENTACHLOROPHENOL	ND	ug/L	0.25	0.05	1	
75-99-0	DALAPON	ND	ug/L	3.25	0.9	200	
88-85-7	DINOSEB	ND	ug/L	0.5	0.2	7	
1918-02-1	PICLORAM	ND	ug/L	0.25	0.07	500	
Other							
E-14028	DCPA (ACID METABOLITES)	ND	ug/L	0.25	0.1		
1918-00-9	DICAMBA	ND	ug/L	0.25	0.05		
94-82-6	2,4 DB	ND	ug/L	2			
93-76-5	2,4,5 T	ND	ug/L	0.25	0.04		
25057-89-0	BENTAZON	ND	ug/L	0.5	0.2		
120-36-5	DICHLORPROP	ND	ug/L	0.75	0.5		
50594-66-6	ACIFLUORFEN	ND	ug/L	0.25	0.1		
51-36-5	3,5 - DICHLOROBENZOIC ACID	ND	ug/L	0.25	0.2		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC_gen.rpt

EDGE ANALYTICAL LABORATORIES

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HERBICIDES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L2
Sample Description: Locher 2
Sampled By: Unknown
Sample Date: 2/12/09
Source Type:
Sampler Phone:

Reference Number: 09-02151
Project: Locher Road Recharge Sites

Lab Number: 04471
Report Date: 2/26/09
Date Analyzed: 02/20/09
Date Extracted: 515.4_090219
Analyst: CO
Peer Review:
Analytical Method: 515.4
Herbicides in Drinking Water

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
94-75-7	2,4 - D	ND	ug/L	0.5	0.2	70	
93-72-1	2,4,5 - TP (SILVEX)	ND	ug/L	0.25	0.04	50	
87-86-5	PENTACHLOROPHENOL	ND	ug/L	0.25	0.05	1	
75-99-0	DALAPON	ND	ug/L	3.25	0.9	200	
88-85-7	DINOSEB	ND	ug/L	0.5	0.2	7	
1918-02-1	PICLORAM	ND	ug/L	0.25	0.07	500	
Other							
E-14028	DCPA (ACID METABOLITES)	ND	ug/L	0.25	0.1		
1918-00-9	DICAMBA	ND	ug/L	0.25	0.05		
94-82-6	2,4 DB	ND	ug/L				qualitative analysis
93-76-5	2,4,5 T	ND	ug/L	0.25	0.04		
25057-89-0	BENTAZON	ND	ug/L	0.5	0.2		
120-36-5	DICHLORPROP	ND	ug/L	0.75	0.5		
50594-66-6	ACIFLUORFEN	ND	ug/L	0.25	0.1		
51-36-5	3,5 - DICHLOROBENZOIC ACID	ND	ug/L	0.25	0.2		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

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FORM: SOC_gen.rpt

EDGE ANALYTICAL LABORATORIES

Burlington WA | 1620 S Walnut St - 98233
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Bellingham WA | 805 Orchard Dr Suite 4 - 98225
Microbiology | 360.671.0688 • 360.671.1577fax

HERBICIDES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L3
Sample Description: Locher 3
Sampled By: Unknown
Sample Date: 2/12/09
Source Type:
Sampler Phone:

Reference Number: 09-02151
Project: Locher Road Recharge Sites

Lab Number: 04472
Report Date: 2/26/09
Date Analyzed: 02/20/09
Date Extracted: 515x4_090219
Analyst: CO
Peer Review:
Analytical Method: 515.4
Herbicides in Drinking Water

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
94-75-7	2,4 - D	ND	ug/L	0.5	0.2	70	
93-72-1	2,4,5 - TP (SILVEX)	ND	ug/L	0.25	0.04	50	
87-86-5	PENTACHLOROPHENOL	ND	ug/L	0.25	0.05	1	
75-99-0	DALAPON	ND	ug/L	3.25	0.9	200	
88-85-7	DINOSEB	ND	ug/L	0.5	0.2	7	
1918-02-1	PICLORAM	ND	ug/L	0.25	0.07	500	
Other							
E-14028	DCPA (ACID METABOLITES)	ND	ug/L	0.25	0.1		
1918-00-9	DICAMBA	ND	ug/L	0.25	0.05		
94-82-6	2,4 DB	ND	ug/L				qualitative analysis
93-76-5	2,4,5 T	ND	ug/L	0.25	0.04		
25057-89-0	BENTAZON	ND	ug/L	0.5	0.2		
120-36-5	DICHLORPROP	ND	ug/L	0.75	0.5		
50594-66-6	ACIFLUORFEN	ND	ug/L	0.25	0.1		
51-36-6	3,5 - DICHLOROBENZOIC ACID	ND	ug/L	0.25	0.2		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
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SYNTHETIC ORGANIC COMPOUNDS (SOC) REPORT

Client Name: Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L1
Sample Description: Locher 1
Sampled By: Unknown
Sample Date: 2/12/09
Source Type:
Sampler Phone:

Reference Number: 09-02151
Project: Locher Road Recharge Sites

Lab Number: 04470
Report Date: 2/24/09
Date Analyzed: 02/19/09
Date Extracted: 525_090217
Analyst: CG
Peer Review:
Analytical Method: 525.2
Synthetic Organics

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
72-20-8	ENDRIN	ND	ug/L	0.1	0.030	2	
58-89-9	LINDANE (BHC - GAMMA)	ND	ug/L	0.1	0.028	0.2	
72-43-5	METHOXYCHLOR	ND	ug/L	0.1	0.015	40	
15972-60-8	ALACHLOR	ND	ug/L	0.1	0.044	2	
1912-24-9	ATRAZINE	0.04 J	ug/L	0.1	0.030	3	
50-32-8	BENZO(A)PYRENE	ND	ug/L	0.1	0.012	0.2	
57-74-9	CHLORDANE, TECHNICAL	ND	ug/L	0.1	0.3	2	
103-23-1	DI(ETHYLHEXYL)-ADIPATE	ND	ug/L	0.1	0.022	400	
117-81-7	DI(ETHYLHEXYL)-PHTHALATE	ND	ug/L	0.1	0.063	6	
76-44-8	HEPTACHLOR	ND	ug/L	0.1	0.022	0.4	
1024-57-3	HEPTACHLOR EPOXIDE	ND	ug/L	0.1	0.02	0.2	
118-74-1	HEXACHLOROBENZENE	ND	ug/L	0.1	0.025	1	
77-47-4	HEXACHLOROCYCLO-PENTADIENE	ND	ug/L	0.1	0.024	50	
122-34-9	SIMAZINE	ND	ug/L	0.1	0.030	4	
87-86-5	PENTACHLOROPHENOL	ND	ug/L	0.4	0.08	1	screening only / compliance by 515.1
EPA Unregulated							
309-00-2	ALDRIN	ND	ug/L	0.1	0.022		
23184-66-9	BUTACHLOR	ND	ug/L	0.1	0.024		
60-57-1	DIELDRIN	ND	ug/L	0.1	0.031		
51218-45-2	METOLACHLOR	ND	ug/L	0.1	0.024		
21087-64-9	METRIBUZIN	ND	ug/L	0.1	0.030		
1918-16-7	PROPACHLOR	ND	ug/L	0.1	0.031		
State Unregulated - Other							
314-40-9	BROMACIL	0.21 JJ	ug/L	0.1	0.031		

NOTES:
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SYNTHETIC ORGANIC COMPOUNDS (SOC) REPORT

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
5902-51-2	TERBACIL	ND	ug/L	0.1	0.043		
333-41-5	DIAZINON	ND	ug/L	0.1	0.035		Unstable in Acidified Sample Matrix
759-94-4	EPTC	ND	ug/L	0.1	0.028		
72-54-8	4,4-DDD	ND	ug/L	0.1	0.024		
72-55-9	4,4-DDE	ND	ug/L	0.1	0.024		
50-29-3	4,4-DDT	ND	ug/L	0.1	0.022		
21725-46-2	CYANAZINE	ND	ug/L	0.1	0.13		Qualitative Analysis Only
121-75-5	MALATHION	ND	ug/L	0.1	0.015		
56-38-2	PARATHION	ND	ug/L	0.1	0.022		
1582-09-8	TRIFLURALIN	ND	ug/L	0.1	0.024		
- PAHs							
91-20-3	NAPTHALENE	ND	ug/L	0.1	0.1^		
86-73-7	FLUORENE	ND	ug/L	0.1	0.026		
208-96-8	ACENAPHTHYLENE	ND	ug/L	0.1	0.025		
83-32-9	ACENAPHTHENE	ND	ug/L	0.1	0.1^		
120-12-7	ANTHRACENE	ND	ug/L	0.1	0.012		
56-55-3	BENZ(A)ANTHRACENE	ND	ug/L	0.1	0.012		
205-99-2	BENZO(B)FLUORANTHENE	ND	ug/L	0.1	0.025		
191-24-2	BENZO(G,H,I)PERYLENE	ND	ug/L	0.1	0.025		
207-08-9	BENZO(K)FLUORANTHENE	ND	ug/L	0.1	0.022		
218-01-9	CHRYSENE	ND	ug/L	0.1	0.022		
53-70-3	DIBENZO(A,H)ANTHRACENE	ND	ug/L	0.1	0.024		
206-44-0	FLUORANTHENE	ND	ug/L	0.1	0.1^		
193-39-5	INDENO(1,2,3-CD)PYRENE	ND	ug/L	0.1	0.040		
85-01-8	PHENANTHRENE	ND	ug/L	0.1	0.015		
129-00-0	PYRENE	ND	ug/L	0.1	0.022		
- Phthalates							
85-68-7	BENZYL BUTYL PHTHALATE	ND	ug/L	0.1	0.022		
84-74-2	DI-N-BUTYL PHTHALATE	ND	ug/L	0.1	0.085		
84-66-2	DIETHYL PHTHALATE	ND	ug/L	0.1	0.044		
131-11-3	DIMETHYL PHTHALATE	ND	ug/L	0.1	0.015		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
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SYNTHETIC ORGANIC COMPOUNDS (SOC) REPORT

Client Name: Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L2
Sample Description: Locher 2
Sampled By: Unknown
Sample Date: 2/12/09
Source Type:
Sampler Phone:

Reference Number: 09-02151
Project: Locher Road Recharge Sites

Lab Number: 04471
Report Date: 2/24/09
Date Analyzed: 02/19/09
Date Extracted: 525_090217
Analyst: CO
Peer Review:
Analytical Method: 525.2
Synthetic Organics

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
72-20-8	ENDRIN	ND	ug/L	0.1	0.030	2	
58-89-9	LINDANE (BHC - GAMMA)	ND	ug/L	0.1	0.028	0.2	
72-43-5	METHOXYCHLOR	ND	ug/L	0.1	0.015	40	
15972-60-8	ALACHLOR	ND	ug/L	0.1	0.044	2	
1912-24-9	ATRAZINE	ND	ug/L	0.1	0.030	3	
50-32-8	BENZO(A)PYRENE	ND	ug/L	0.1	0.012	0.2	
57-74-9	CHLORDANE, TECHNICAL	ND	ug/L	0.1	0.3	2	
103-23-1	DI(ETHYLHEXYL)-ADIPATE	ND	ug/L	0.1	0.022	400	
117-81-7	DI(ETHYLHEXYL)-PHTHALATE	ND	ug/L	0.1	0.063	6	
76-44-8	HEPTACHLOR	ND	ug/L	0.1	0.022	0.4	
1024-57-3	HEPTACHLOR EPOXIDE	ND	ug/L	0.1	0.02	0.2	
118-74-1	HEXACHLOROBENZENE	ND	ug/L	0.1	0.025	1	
77-47-4	HEXACHLOROCYCLO-PENTADIENE	ND	ug/L	0.1	0.024	50	
122-34-9	SIMAZINE	ND	ug/L	0.1	0.030	4	
87-86-5	PENTACHLOROPHENOL	ND	ug/L	0.4	0.08	1	screening only / compliance by 515.1
EPA Unregulated							
309-00-2	ALDRIN	ND	ug/L	0.1	0.022		
23184-66-9	BUTACHLOR	ND	ug/L	0.1	0.024		
60-57-1	DIELDRIN	ND	ug/L	0.1	0.031		
51218-45-2	METOLACHLOR	ND	ug/L	0.1	0.024		
21087-64-9	METRIBUZIN	ND	ug/L	0.1	0.030		
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State Unregulated - Other							
314-40-9	BROMACIL	ND	ug/L	0.1	0.031		

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21725-46-2	CYANAZINE	ND	ug/L	0.1	0.13		Qualitative Analysis Only
121-75-5	MALATHION	ND	ug/L	0.1	0.015		
56-38-2	PARATHION	ND	ug/L	0.1	0.022		
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218-01-9	CHRYSENE	ND	ug/L	0.1	0.022		
53-70-3	DIBENZO(A,H)ANTHRACENE	ND	ug/L	0.1	0.024		
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85-01-8	PHENANTHRENE	ND	ug/L	0.1	0.015		
129-00-0	PYRENE	ND	ug/L	0.1	0.022		
- Phthalates							
85-68-7	BENZYL BUTYL PHTHALATE	ND	ug/L	0.1	0.022		
84-74-2	DI-N-BUTYL PHTHALATE	ND	ug/L	0.1	0.085		
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SYNTHETIC ORGANIC COMPOUNDS (SOC) REPORT

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810 South Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L3
Sample Description: Locher 3
Sampled By: Unknown
Sample Date: 2/12/09
Source Type:
Sampler Phone:

Reference Number: 09-02151
Project: Locher Road Recharge Sites

Lab Number: 04472
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218-01-9	CHRYSENE	ND	ug/L	0.1	0.022		
53-70-3	DIBENZO(A,H)ANTHRACENE	ND	ug/L	0.1	0.024		
206-44-0	FLUORANTHENE	ND	ug/L	0.1	0.1^		
193-39-5	INDENO(1,2,3-CD)PYRENE	ND	ug/L	0.1	0.040		
85-01-8	PHENANTHRENE	ND	ug/L	0.1	0.015		
129-00-0	PYRENE	ND	ug/L	0.1	0.022		
- Phthalates							
85-68-7	BENZYL BUTYL PHTHALATE	ND	ug/L	0.1	0.022		
84-74-2	DI-N-BUTYL PHTHALATE	ND	ug/L	0.1	0.085		
84-66-2	DIETHYL PHTHALATE	ND	ug/L	0.1	0.044		
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SYNTHETIC ORGANIC COMPOUNDS (SOC) REPORT

Client Name: Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L1
Sample Description: Locher 1
Sampled By: Unknown
Sample Date: 2/12/09
Source Type:
Sampler Phone:

Reference Number: 09-02151
Project: Locher Road Recharge Sites

Lab Number: 04470
Report Date: 2/24/09
Date Analyzed: 02/17/09
Date Extracted: 508_090217
Analyst: GEB
Peer Review:
Analytical Method: 508.1
Synthetic Organics

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
PCBs/Toxaphene							
1336-36-3	PCBS (Total Aroclors)	ND	ug/L	0.2		0.5	
11104-28-2	AROCLOR 1221	ND	ug/L	0.1	0.1^		
11141-16-5	AROCLOR 1232	ND	ug/L	0.1	0.1^		
53469-21-9	AROCLOR 1242	ND	ug/L	0.1	0.1^		
12672-29-6	AROCLOR 1248	ND	ug/L	0.1	0.1^		
11097-69-1	AROCLOR 1254	ND	ug/L	0.1	0.1^		
11096-82-5	AROCLOR 1260	ND	ug/L	0.1	0.08		
12674-11-2	AROCLOR 1016	ND	ug/L	0.1	0.1		
8001-35-2	TOXAPHENE	ND	ug/L	1	0.5	3	

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC_gen.rpt

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Bellingham WA (Microbiology) | 805 Orchard Dr Suite 4 - 98225
360.671.0688 • 360.671.1577fax

SYNTHETIC ORGANIC COMPOUNDS (SOC) REPORT

Client Name: Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L2
Sample Description: Locher 2
Sampled By: Unknown
Sample Date: 2/12/09
Source Type:
Sampler Phone:

Reference Number: 09-02151
Project: Locher Road Recharge Sites

Lab Number: 04471
Report Date: 2/24/09
Date Analyzed: 02/17/09
Date Extracted: 508_090217
Analyst: GEB
Peer Review:
Analytical Method: 508.1
Synthetic Organics

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
PCBs/Toxaphene							
1336-36-3	PCBS (Total Aroclors)	ND	ug/L	0.2		0.5	
11104-28-2	AROCLOR 1221	ND	ug/L	0.1	0.1^		
11141-16-5	AROCLOR 1232	ND	ug/L	0.1	0.1^		
53469-21-9	AROCLOR 1242	ND	ug/L	0.1	0.1^		
12672-29-6	AROCLOR 1248	ND	ug/L	0.1	0.1^		
11097-69-1	AROCLOR 1254	ND	ug/L	0.1	0.1^		
11096-82-5	AROCLOR 1260	ND	ug/L	0.1	0.08		
12674-11-2	AROCLOR 1016	ND	ug/L	0.1	0.1		
8001-35-2	TOXAPHENE	ND	ug/L	1	0.5	3	

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

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FORM: SOC_gen.rpt

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SYNTHETIC ORGANIC COMPOUNDS (SOC) REPORT

Client Name: Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L3
Sample Description: Locher 3
Sampled By: Unknown
Sample Date: 2/12/09
Source Type:
Sampler Phone:

Reference Number: 09-02151
Project: Locher Road Recharge Sites

Lab Number: 04472
Report Date: 2/24/09
Date Analyzed: 02/17/09
Date Extracted: 508_090217
Analyst: GEB
Peer Review:
Analytical Method: 508.1
Synthetic Organics

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
PCBs/Toxaphene							
1336-36-3	PCBS (Total Aroclors)	ND	ug/L	0.2		0.5	
11104-28-2	AROCLOR 1221	ND	ug/L	0.1	0.1^		
11141-16-5	AROCLOR 1232	ND	ug/L	0.1	0.1^		
53469-21-9	AROCLOR 1242	ND	ug/L	0.1	0.1^		
12672-29-6	AROCLOR 1248	ND	ug/L	0.1	0.1^		
11097-69-1	AROCLOR 1254	ND	ug/L	0.1	0.1^		
11096-82-5	AROCLOR 1260	ND	ug/L	0.1	0.08		
12674-11-2	AROCLOR 1016	ND	ug/L	0.1	0.1		
8001-35-2	TOXAPHENE	ND	ug/L	1	0.5	3	

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): Indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC_gen.rpt

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CARBAMATES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L1
Sample Description: Locher 1
Sampled By: Unknown
Sample Date: 2/12/09
Source Type:
Sampler Phone:

Reference Number: 09-02151
Project: Locher Road Recharge Sites

Lab Number: 04470
Report Date: 2/24/09
Date Analyzed: 02/19/09
Date Extracted: 531_090219
Analyst: CO
Peer Review: JM
Analytical Method: 531.2
Carbamates

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
23135-22-0	OXYMAL	ND	ug/L	1.0	0.3	200	
1563-66-2	CARBOFURAN	ND	ug/L	1.0	0.2	40	
EPA Unregulated							
1646-87-3	ALDICARB SULFOXIDE	ND	ug/L	1.0	0.3		
1646-88-4	ALDICARB SULFONE	ND	ug/L	1.0	0.3		
16752-77-5	METHOMYL	ND	ug/L	1.0	0.3		
16655-82-6	3-HYDROXYCARBOFURAN	ND	ug/L	1.0	0.3		
116-06-3	ALDICARB	ND	ug/L	1.0	0.3		
63-25-2	CARBARYL	ND	ug/L	1.0	0.2		
State Unregulated - Other							
114-26-1	PROPOXUR (BAYGON)	ND	ug/L	1.0	0.4		
2032-65-7	METHIOCARB	ND	ug/L	1.0	0.3		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
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CARBAMATES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

Project:
Field ID: L2
Sample Description: Locher 2
Sampled By: Unknown
Sample Date: 2/12/09
Source Type:
Sampler Phone:

Reference Number: 09-02151
Project: Locher Road Recharge Sites

Lab Number: 04471
Report Date: 2/24/09
Date Analyzed: 02/19/09
Date Extracted: 531_090219
Analyst: CO
Peer Review: DM
Analytical Method: 531.2
Carbamates

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
23135-22-0	OXYMAL	ND	ug/L	1.0	0.3	200	
1563-66-2	CARBOFURAN	ND	ug/L	1.0	0.2	40	
EPA Unregulated							
1646-87-3	ALDICARB SULFOXIDE	ND	ug/L	1.0	0.3		
1646-88-4	ALDICARB SULFONE	ND	ug/L	1.0	0.3		
16752-77-5	METHOMYL	ND	ug/L	1.0	0.3		
16655-82-6	3-HYDROXYCARBOFURAN	ND	ug/L	1.0	0.3		
116-06-3	ALDICARB	ND	ug/L	1.0	0.3		
63-25-2	CARBARYL	ND	ug/L	1.0	0.2		
State Unregulated - Other							
114-26-1	PROPOXUR (BAYGON)	ND	ug/L	1.0	0.4		
2032-65-7	METHIOCARB	ND	ug/L	1.0	0.3		

NOTES:
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CARBAMATES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L3
Sample Description: Locher 3
Sampled By: Unknown
Sample Date: 2/12/09
Source Type:
Sampler Phone:

Reference Number: 09-02151
Project: Locher Road Recharge Sites

Lab Number: 04472
Report Date: 2/24/09
Date Analyzed: 02/19/09
Date Extracted: 531_090219
Analyst: CO
Peer Review:
Analytical Method: 531.2
Carbamates

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
23135-22-0	OXYMAL	ND	ug/L	1.0	0.3	200	
1563-66-2	CARBOFURAN	ND	ug/L	1.0	0.2	40	
EPA Unregulated							
1646-87-3	ALDICARB SULFOXIDE	ND	ug/L	1.0	0.3		
1646-88-4	ALDICARB SULFONE	ND	ug/L	1.0	0.3		
16752-77-5	METHOMYL	ND	ug/L	1.0	0.3		
16655-82-6	3-HYDROXYCARBOFURAN	ND	ug/L	1.0	0.3		
116-06-3	ALDICARB	ND	ug/L	1.0	0.3		
63-25-2	CARBARYL	ND	ug/L	1.0	0.2		
State Unregulated - Other							
114-26-1	PROPOXUR (BAYGON)	ND	ug/L	1.0	0.4		
2032-65-7	METHIOCARB	ND	ug/L	1.0	0.3		

NOTES:
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FORM: SOC_gen.rpt

EDGE ANALYTICAL LABORATORIES

QUALITY CONTROL REPORT
SURROGATE REPORT

Reference Number: 09-02151
Report Date: 03/05/09

Lab No	Analyte	Result	Qualifier	Units	Method	Limit
508_090217						
4470	TETRACHLORO-M-XYLENE (SURR)	116		%	508.1	Acceptance Limits 70%-130%
525_090217						
4470	1,3-DIMETHYL-2-NITROBENZENE (Surr)	98		%	525.2	Acceptance Range is 70% to 130%
	PYRENE-D10 (Surr)	92		%		Acceptance Range is 70% to 130%
	PERYLENE-D12 (Surr)	105		%		Acceptance Range is 70% to 130%
	TRIPHENYLPHOSPHATE (Surr)	93		%		Acceptance Range is 70% to 130%
515.4_090219						
4470	2,4 - DCAA (SURR)	87		%	515.4	Acceptance Range is 70 - 130%
531_090219						
4470	BDMC (SURR)	103		%	531.2	
508_090217						
4471	TETRACHLORO-M-XYLENE (SURR)	82		%	508.1	Acceptance Limits 70%-130%
525_090217						
4471	1,3-DIMETHYL-2-NITROBENZENE (Surr)	96		%	525.2	Acceptance Range is 70% to 130%
	PYRENE-D10 (Surr)	91		%		Acceptance Range is 70% to 130%
	PERYLENE-D12 (Surr)	105		%		Acceptance Range is 70% to 130%
	TRIPHENYLPHOSPHATE (Surr)	89		%		Acceptance Range is 70% to 130%
515.4_090219						
4471	2,4 - DCAA (SURR)	78		%	515.4	Acceptance Range is 70 - 130%
531_090219						
4471	BDMC (SURR)	111		%	531.2	
508_090217						
4472	TETRACHLORO-M-XYLENE (SURR)	80		%	508.1	Acceptance Limits 70%-130%
525_090217						
4472	1,3-DIMETHYL-2-NITROBENZENE (Surr)	96		%	525.2	Acceptance Range is 70% to 130%
	PYRENE-D10 (Surr)	91		%		Acceptance Range is 70% to 130%
	PERYLENE-D12 (Surr)	104		%		Acceptance Range is 70% to 130%
	TRIPHENYLPHOSPHATE (Surr)	99		%		Acceptance Range is 70% to 130%
515.4_090219						
4472	2,4 - DCAA (SURR)	84		%	515.4	Acceptance Range is 70 - 130%
531_090219						
4472	BDMC (SURR)	121		%	531.2	

*Notation:

A surrogate is a pure compound added to a sample in the laboratory just before processing so that the overall efficiency of a method can be determined.

The Acceptance Limits (or Control Limits) approximate a 99% confidence interval around the mean recovery.

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Fortified Blank

Reference Number: 09-02151
Report Date: 03/05/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
200.7-090216A	HARDNESS	70	69.5	mg/L	200.7	101	80-120		LFB	
508_090217	AROCLOR 1260	1.5	2	ug/L	508.1	75	60-140		LFB	
	TETRACHLORO-M-XYLENE (SURR)	74		%	508.1		70-130			
515.4_090219	2,4 - D	7.8	10	ug/L	515.4	78	70-130		LFB	
	2,4 - DCAA (SURR)	89		%	515.4		70-130			
	2,4 DB	33.4	40	ug/L	515.4	84	70-130			
	2,4,5 - TP (SILVEX)	4.3	5	ug/L	515.4	86	70-130			
	2,4,5 T	4.4	5	ug/L	515.4	88	70-130			
	ACIFLUORFEN	4.2	5	ug/L	515.4	84	70-130			
	BENTAZON	9	10	ug/L	515.4	90	70-130			
	DALAPON	52.3	65	ug/L	515.4	80	70-130			
	DCPA (ACID METABOLITES)	3.5	5	ug/L	515.4	70	70-130			
	DICAMBA	4.3	5	ug/L	515.4	86	70-130			
	DICHLORPROP	11.7	15	ug/L	515.4	78	70-130			
	DINOSEB	8.9	10	ug/L	515.4	89	70-130			
	PENTACHLOROPHENOL	4.6	5	ug/L	515.4	92	70-130			
	PICLORAM	4.5	5	ug/L	515.4	90	70-130			
515.4_090219	2,4 - D	4	5	ug/L	515.4	80	70-130		LFB	
	2,4 - DCAA (SURR)	81		%	515.4		70-130			
	2,4 DB	18.2	20	ug/L	515.4	91	70-130			
	2,4,5 - TP (SILVEX)	2.4	2.5	ug/L	515.4	96	70-130			
	2,4,5 T	2.4	2.5	ug/L	515.4	96	70-130			
	ACIFLUORFEN	2.4	2.5	ug/L	515.4	96	70-130			
	BENTAZON	4.8	5	ug/L	515.4	96	70-130			
	DALAPON	28.7	32.5	ug/L	515.4	88	70-130			
	DCPA (ACID METABOLITES)	2.6	2.5	ug/L	515.4	104	70-130			
	DICAMBA	2.5	2.5	ug/L	515.4	100	70-130			
	DICHLORPROP	6.35	7.2	ug/L	515.4	88	70-130			
	DINOSEB	4.9	5	ug/L	515.4	98	70-130			
	PENTACHLOROPHENOL	2.6	2.5	ug/L	515.4	104	70-130			
	PICLORAM	2.7	2.5	ug/L	515.4	108	70-130			

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

QCS: Quality Control Sample, a solution containing known concentrations of method analytes which is used to fortify an aliquot of reagent matrix. The QCS is obtained from an external source and is used to check lab performance.

LFB: Laboratory Fortified Blank, an aliquot of reagent matrix to which known quantities of method analytes are added in the lab. The LFB is analyzed exactly like a sample, and its purpose is to determine whether method performance is within accepted control limits.

MB or LRB: Method Blank or Laboratory Reagent Blank, an aliquot of reagent matrix is analyzed exactly like a sample, and its purpose is to determine if there is background contamination.

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Fortified Blank

Reference Number: 09-02151
Report Date: 03/05/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
525_090217	1,3-DIMETHYL-2-NITROBENZENE (Surr)	97		%	525.2		70-130		LFB	
	4,4-DDD	1.05	1	ug/L	525.2	105	70-130			
	4,4-DDE	0.98	1	ug/L	525.2	98	70-130			
	4,4-DDT	1.02	1	ug/L	525.2	102	70-130			
	ACENAPHTHYLENE	10.1	1	ug/L	525.2	1,010	70-130			
	ALACHLOR	2.12	2	ug/L	525.2	106	70-130			
	ALDRIN	0.97	1	ug/L	525.2	97	70-130			
	ANTHRACENE	0.98	1	ug/L	525.2	98	70-130			
	ATRAZINE	2.2	2	ug/L	525.2	110	70-130			
	BENZ(A)ANTHRACENE	1.05	1	ug/L	525.2	105	70-130			
	BENZO(A)PYRENE	1.15	1	ug/L	525.2	115	70-130			
	BENZO(B)FLUORANTHENE	1.27	1	ug/L	525.2	127	70-130			
	BENZO(G,H,I)PERYLENE	0.96	1	ug/L	525.2	96	70-130			
	BENZO(K)FLUORANTHENE	1.04	1	ug/L	525.2	104	70-130			
	BENZYL BUTYL PHTHALATE	1.13	1	ug/L	525.2	113	70-130			
	BROMACIL	1.07	1	ug/L	525.2	107	70-130			
	BUTACHLOR	1.2	1	ug/L	525.2	120	70-130			
	CHLORDANE, TECHNICAL	0.77	1	ug/L	525.2	77	70-130			
	CHRYSENE	1.04	1	ug/L	525.2	104	70-130			
	CYANAZINE	2.46	2	ug/L	525.2	123	70-130			
	DI(ETHYLHEXYL)-ADIPATE	1.2	1	ug/L	525.2	120	70-130			
	DI(ETHYLHEXYL)-PHTHALATE	1.38	1	ug/L	525.2	138	70-130	B5		
	DIAZINON	3.19	3	ug/L	525.2	106	70-130			
	DIBENZO(A,H)ANTHRACENE	1.09	1	ug/L	525.2	109	70-130			
	DIELDRIN	1.17	1	ug/L	525.2	117	70-130			
	DIETHYL PHTHALATE	1.08	1	ug/L	525.2	108	70-130			
	DIMETHYL PHTHALATE	1	1	ug/L	525.2	100	70-130			
	DI-N-BUTYL PHTHALATE	1.08	1	ug/L	525.2	108	70-130			
	ENDRIN	1.02	1	ug/L	525.2	102	70-130			
	EPTC	1.01	1	ug/L	525.2	101	70-130			
	FLUORENE	1.04	1	ug/L	525.2	104	70-130			
	HEPTACHLOR	1.02	1	ug/L	525.2	102	70-130			
	HEPTACHLOR EPOXIDE	1.08	1	ug/L	525.2	108	70-130			
	HEXACHLOROBENZENE	0.89	1	ug/L	525.2	89	70-130			
	HEXACHLOROCYCLO-PENTADIENE	0.96	1	ug/L	525.2	96	70-130			

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

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EDGE ANALYTICAL LABORATORIES

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Corporate Office | 800.755.9295 • 360.757.1400 • 360.757.1402fax
Bellingham WA | 805 Orchard Dr Suite 4 - 98225
Microbiology | 360.671.0688 • 360.671.1577fax

SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Fortified Blank

Reference Number: 09-02151
Report Date: 03/05/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
525_090217	INDENO(1,2,3-CD)PYRENE	1.19	1	ug/L	525.2	119	70-130		LFB	
	LINDANE (BHC - GAMMA)	0.97	1	ug/L	525.2	97	70-130			
	MALATHION	2.62	3	ug/L	525.2	87	70-130			
	METHOXYCHLOR	1.3	1	ug/L	525.2	130	70-130			
	METOLACHLOR	1.13	1	ug/L	525.2	113	70-130			
	METRIBUZIN	0.86	1	ug/L	525.2	86	70-130			
	PARATHION	2.17	2	ug/L	525.2	109	70-130			
	PENTACHLOROPHENOL	3.87	4	ug/L	525.2	97	70-130			
	PERYLENE-D12 (Surr)	106		%	525.2		70-130			
	PHENANTHRENE	0.98	1	ug/L	525.2	98	70-130			
	PROPACHLOR	1.09	1	ug/L	525.2	109	70-130			
	PYRENE	0.97	1	ug/L	525.2	97	70-130			
	PYRENE-D10 (Surr)	94		%	525.2		70-130			
	SIMAZINE	1.08	1	ug/L	525.2	108	70-130			
	TERBACIL	1.32	1	ug/L	525.2	132	70-130	HQ		
	TRIFLURALIN	1.02	1	ug/L	525.2	102	70-130			
	TRIPHENYLPHOSPHATE (Surr)	93		%	525.2		70-130			
531_090219	3-HYDROXYCARBOFURAN	5.7	5	ug/L	531.2	114	70-130		LFB	
	ALDICARB	5.4	5	ug/L	531.2	108	70-130			
	ALDICARB SULFONE	5.6	5	ug/L	531.2	112	70-130			
	ALDICARB SULFOXIDE	5.5	5	ug/L	531.2	110	70-130			
	BDMC (SURR)	94		%	531.2		70-130			
	CARBARYL	5.2	5	ug/L	531.2	104	70-130			
	CARBOFURAN	5.3	5	ug/L	531.2	106	70-130			
	METHIOCARB	5.3	5	ug/L	531.2	106	70-130			
	METHOMYL	5.1	5	ug/L	531.2	102	70-130			
	OXYMAL	5	5	ug/L	531.2	100	70-130			
	PROPOXUR (BAYGON)	5.5	5	ug/L	531.2	110	70-130			
531_090219	3-HYDROXYCARBOFURAN	22.7	20	ug/L	531.2	114	70-130		LFB	
	ALDICARB	19.7	20	ug/L	531.2	99	70-130			
	ALDICARB SULFONE	21.9	20	ug/L	531.2	110	70-130			
	ALDICARB SULFOXIDE	22.4	20	ug/L	531.2	112	70-130			
	BDMC (SURR)	107		%	531.2		70-130			
	CARBARYL	19.7	20	ug/L	531.2	99	70-130			

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Fortified Blank

Reference Number: 09-02151
Report Date: 03/05/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
531_090219	CARBOFURAN	21.2	20	ug/L	531.2	106	70-130		LFB	
	METHIOCARB	20.4	20	ug/L	531.2	102	70-130			
	METHOMYL	22.7	20	ug/L	531.2	114	70-130			
	OXYMAL	22.5	20	ug/L	531.2	113	70-130			
	PROPOXUR (BAYGON)	21	20	ug/L	531.2	105	70-130			
COD_090216	CHEMICAL OXYGEN DEMAND	47	50	mg/L	SM5220 D	94	80-120		LFB	
OPHOS-090213	ORTHO-PHOSPHATE	1.00	1.00	mg/L	SM4500-P F	100	70-130		LFB	
TDS_090218	TOTAL DISSOLVED SOLIDS	494	500	mg/L	SM2540 C	99	80-120		LFB	
TDS_090218	TOTAL DISSOLVED SOLIDS	480	500	mg/L	SM2540 C	96	80-120		LFB	

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Low Level Laboratory Fortified Blank

Reference Number: 09-02151
Report Date: 03/05/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
515.4_090219	2,4 - D	0.32	0.5	ug/L	515.4	64	50-150		LFBD	
	2,4 - DCAA (SURR)	87		%	515.4		70-130			
	2,4 DB	1.1	2	ug/L	515.4	55	50-150			
	2,4,5 - TP (SILVEX)	0.25	0.25	ug/L	515.4	100	50-150			
	2,4,5 T	0.2	0.25	ug/L	515.4	80	50-150			
	ACIFLUORFEN	0.26	0.25	ug/L	515.4	104	50-150			
	BENTAZON	0.52	0.5	ug/L	515.4	104	50-150			
	DALAPON	3.9	3.25	ug/L	515.4	120	50-150			
	DCPA (ACID METABOLITES)	0.2	0.25	ug/L	515.4	80	50-150			
	DICAMBA	0.26	0.25	ug/L	515.4	104	50-150			
	DICHLORPROP	0.7	0.75	ug/L	515.4	93	50-150			
	DINOSEB	0.48	0.5	ug/L	515.4	96	50-150			
	PENTACHLOROPHENOL	0.23	0.25	ug/L	515.4	92	50-150			
	PICLORAM	0.22	0.25	ug/L	515.4	88	50-150			
531_090219	3-HYDROXYCARBOFURAN	1.1	1	ug/L	531.2	110	50-150		LFBD	
	ALDICARB	0.78	1	ug/L	531.2	78	50-150			
	ALDICARB SULFONE	1	1	ug/L	531.2	100	50-150			
	ALDICARB SULFOXIDE	0.71	1	ug/L	531.2	71	50-150			
	BDMC (SURR)	120		%	531.2		50-150			
	CARBARYL	1.05	1	ug/L	531.2	105	50-150			
	CARBOFURAN	1.3	1	ug/L	531.2	130	50-150			
	METHIOCARB	1.3	1	ug/L	531.2	130	50-150			
	METHOMYL	0.8	1	ug/L	531.2	80	50-150			
	OXYMAL	0.95	1	ug/L	531.2	95	50-150			
	PROPOXUR (BAYGON)	1.1	1	ug/L	531.2	110	50-150			

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Reagent Blank

Reference Number: 09-02151
Report Date: 03/05/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
200.7-090216A	HARDNESS	ND		mg/L	200.7		10.0000		LRB	
COD_090216	CHEMICAL OXYGEN DEMAND	ND		mg/L	SM5220 D		4.00000		LRB	
D090304A	BROMATE	ND		mg/L	300.1		0.00500		LRB	
I090213A	CHLORIDE	ND		mg/L	300.0		0.10000		LRB	
	NITRATE-N	ND		mg/L	300.0		0.10000			
OPHOS-090213	ORTHO-PHOSPHATE	ND		mg/L	SM4500-P F		0.10000		LRB	

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Method Blank

Reference Number: 09-02151
Report Date: 03/05/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery Limits	QC Qualifier Type*	Comment
200.7-090216A	HARDNESS	ND		mg/L	200.7	0.82000	MB	
508_090217	AROCLOR 1016	ND		ug/L	508.1	0.02000	MB	
	AROCLOR 1221	ND		ug/L	508.1	0.12000		
	AROCLOR 1232	ND		ug/L	508.1	0.02000		
	AROCLOR 1242	ND		ug/L	508.1	0.02000		
	AROCLOR 1248	ND		ug/L	508.1	0.02000		
	AROCLOR 1254	ND		ug/L	508.1	0.02000		
	AROCLOR 1260	ND		ug/L	508.1	0.02000		
	TETRACHLORO-M-XYLENE (SURR)	82		%	508.1	0.00000		
515.4_090219	2,4 - D	ND		ug/L	515.4	0.10000	MB	
	2,4 - DCAA (SURR)	98		%	515.4			
	2,4 DB	ND		ug/L	515.4	0.60000		
	2,4,5 - TP (SILVEX)	ND		ug/L	515.4	0.08000		
	2,4,5 T	ND		ug/L	515.4	0.08000		
	ACIFLUORFEN	ND		ug/L	515.4	0.08000		
	BENTAZON	ND		ug/L	515.4	0.10000		
	DALAPON	ND		ug/L	515.4	1.00000		
	DCPA (ACID METABOLITES)	ND		ug/L	515.4	0.08000		
	DICAMBA	ND		ug/L	515.4	0.08000		
	DICHLORPROP	ND		ug/L	515.4	0.20000		
	DINOSEB	ND		ug/L	515.4	0.10000		
	PENTACHLOROPHENOL	ND		ug/L	515.4	0.08000		
	PICLORAM	ND		ug/L	515.4	0.08000		
525_090217	1,3-DIMETHYL-2-NITROBENZENE (Surr)	99		%	525.2		MB	
	4,4-DDD	ND		ug/L	525.2	0.05000		
	4,4-DDE	ND		ug/L	525.2	0.05000		
	4,4-DDT	ND		ug/L	525.2	0.05000		
	ACENAPHTHENE	ND		ug/L	525.2	0.05000		
	ALACHLOR	ND		ug/L	525.2	0.02000		
	ALDRIN	ND		ug/L	525.2	0.05000		

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Method Blank

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525_090217	ANTHRACENE	ND		ug/L	525.2		0.05000		MB	
	ATRAZINE	ND		ug/L	525.2		0.02000			
	BENZ(A)ANTHRACENE	ND		ug/L	525.2		0.02000			
	BENZO(A)PYRENE	ND		ug/L	525.2		0.02000			
	BENZO(B)FLUORANTHENE	ND		ug/L	525.2		0.05000			
	BENZO(G,H,I)PERYLENE	ND		ug/L	525.2		0.05000			
	BENZO(K)FLUORANTHENE	ND		ug/L	525.2		0.05000			
	BENZYL BUTYL PHTHALATE	ND		ug/L	525.2		0.60000			
	BROMACIL	ND		ug/L	525.2		0.05000			
	BUTACHLOR	ND		ug/L	525.2		0.10000			
	CHLORDANE, TECHNICAL	ND		ug/L	525.2		0.02000			
	CHRYSENE	ND		ug/L	525.2		0.05000			
	CYANAZINE	ND		ug/L	525.2		0.05000			
	DI(ETHYLHEXYL)-ADIPATE	ND		ug/L	525.2		0.02000			
	DI(ETHYLHEXYL)-PHTHALATE	0.39		ug/L	525.2		0.60000			Lab BKG avg 0.2 ppb
	DIAZINON	ND		ug/L	525.2		0.05000			
	DIBENZO(A,H)ANTHRACENE	ND		ug/L	525.2		0.05000			
	DIELDRIN	ND		ug/L	525.2		0.05000			
	DIETHYL PHTHALATE	ND		ug/L	525.2		0.60000			
	DIMETHYL PHTHALATE	ND		ug/L	525.2		0.60000			
	DI-N-BUTYL PHTHALATE	ND		ug/L	525.2		0.60000			
	ENDRIN	ND		ug/L	525.2		0.02000			
	EPTC	ND		ug/L	525.2		0.07000			
	FLUORANTHENE	ND		ug/L	525.2		0.05000			
	FLUORENE	ND		ug/L	525.2		0.05000			
	HEPTACHLOR	ND		ug/L	525.2		0.02000			
	HEPTACHLOR EPOXIDE	ND		ug/L	525.2		0.02000			
	HEXACHLOROBENZENE	ND		ug/L	525.2		0.02000			
	HEXACHLOROCYCLO-PENTADIENE	ND		ug/L	525.2		0.02000			
	INDENO(1,2,3-CD)PYRENE	ND		ug/L	525.2		0.05000			
	LINDANE (BHC - GAMMA)	ND		ug/L	525.2		0.02000			
	MALATHION	ND		ug/L	525.2		0.05000			
	METHOXYCHLOR	ND		ug/L	525.2		0.02000			
	METOLACHLOR	ND		ug/L	525.2		0.25000			
	METRIBUZIN	ND		ug/L	525.2		0.05000			
	NAPTHALENE	ND		ug/L	525.2		0.02000			

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Method Blank

Reference Number: 09-02151
Report Date: 03/05/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	QC Limits	Qualifier	Type*	Comment
525_090217	PARATHION	ND		ug/L	525.2		0.05000		MB	
	PENTACHLOROPHENOL	ND		ug/L	525.2		0.04000			
	PERYLENE-D12 (Surr)	106		%	525.2					
	PHENANTHRENE	ND		ug/L	525.2		0.05000			
	PROPACHLOR	ND		ug/L	525.2		0.05000			
	PYRENE	ND		ug/L	525.2		0.05000			
	PYRENE-D10 (Surr)	92		%	525.2					
	SIMAZINE	ND		ug/L	525.2		0.02000			
	TERBACIL	ND		ug/L	525.2		0.05000			
	TRIFLURALIN	ND		ug/L	525.2		0.05000			
	TRIPHENYLPHOSPHATE (Surr)	93		%	525.2					
531_090219	3-HYDROXYCARBOFURAN	ND		ug/L	531.2		0.50000		MB	
	ALDICARB	ND		ug/L	531.2		0.25000			
	ALDICARB SULFONE	ND		ug/L	531.2		0.40000			
	ALDICARB SULFOXIDE	ND		ug/L	531.2		0.25000			
	BDMC (SURR)	114		%	531.2		0.00000			
	CARBARYL	ND		ug/L	531.2		0.50000			
	CARBOFURAN	ND		ug/L	531.2		0.45000			
	METHIOCARB	ND		ug/L	531.2		1.00000			
	METHOMYL	ND		ug/L	531.2		0.25000			
	OXYMAL	ND		ug/L	531.2		1.00000			
	PROPOXUR (BAYGON)	ND		ug/L	531.2		0.25000			
ec_090216	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
ec_090216	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
ec_090216	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
ec_090216	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
OPHOS-090213	ORTHO-PHOSPHATE	ND		mg/L	SM4500-P F		0.10000		MB	

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Method Blank

Reference Number: 09-02151
Report Date: 03/05/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
TDS_090218	TOTAL DISSOLVED SOLIDS	ND		mg/L	SM2540 C		2.50000		MB	
TDS_090218	TOTAL DISSOLVED SOLIDS	ND		mg/L	SM2540 C		2.50000		MB	
TDS_090218	TOTAL DISSOLVED SOLIDS	ND		mg/L	SM2540 C		2.50000		MB	
turb_090213	TURBIDITY	ND		NTU	180.1		0.02000		MB	

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Microbiology | 360.671.0688 • 360.671.1577fax

SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Quality Control Sample

Reference Number: 09-02151
Report Date: 03/05/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
200.7-090216A	HARDNESS	130	132.3	mg/L	200.7	98	80-120		QCS	
531_090219	3-HYDROXYCARBOFURAN	45.1	40	ug/L	531.2	113	70-130		QCS	
	ALDICARB	37.4	37.3	ug/L	531.2	100	70-130			
	ALDICARB SULFONE	46.3	40.2	ug/L	531.2	115	70-130			
	ALDICARB SULFOXIDE	50.3	44.9	ug/L	531.2	112	70-130			
	BDMC (SURR)	114		%	531.2		70-130			
	CARBARYL	43.4	46	ug/L	531.2	94	70-130			
	CARBOFURAN	68.2	60.9	ug/L	531.2	112	70-130			
	METHIOCARB	128	121	ug/L	531.2	106	70-130			
	METHOMYL	67.2	61.4	ug/L	531.2	109	70-130			
	OXYMAL	65.6	59.9	ug/L	531.2	110	70-130			
	PROPOXUR (BAYGON)	100	96.7	ug/L	531.2	103	70-130			
COD_090216	CHEMICAL OXYGEN DEMAND	87	92	mg/L	SM5220 D	95	80-120		QCS	
D090304A	BROMATE	0.0166	0.0157	mg/L	300.1	106	75-125		QCS	
ec_090216	ELECTRICAL CONDUCTIVITY	161	150.5	uS/cm	SM2510 B	107	80-120		QCS	
ec_090216	ELECTRICAL CONDUCTIVITY	161	150.5	uS/cm	SM2510 B	107	80-120		QCS	
ec_090216	ELECTRICAL CONDUCTIVITY	162	150.5	uS/cm	SM2510 B	108	80-120		QCS	
ec_090216	ELECTRICAL CONDUCTIVITY	162	150.5	uS/cm	SM2510 B	108	80-120		QCS	
I090213A	CHLORIDE	30.7	30.0	mg/L	300.0	102	80-120		QCS	
	NITRATE-N	2.44	2.50	mg/L	300.0	98	80-120			
OPHOS-090213	ORTHO-PHOSPHATE	0.47	0.49	mg/L	SM4500-P F	96	70-130		QCS	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

QCS: Quality Control Sample, a solution containing known concentrations of method analytes which is used to fortify an aliquot of reagent matrix. The QCS is obtained from an external source and is used to check lab performance.

LFB: Laboratory Fortified Blank, an aliquot of reagent matrix to which known quantities of method analytes are added in the lab. The LFB is analyzed exactly like a sample, and its purpose is to determine whether method performance is within accepted control limits.

MB or LRB: Method Blank or Laboratory Reagent Blank, an aliquot of reagent matrix is analyzed exactly like a sample, and its purpose is to determine if there is background contamination.

EDGE ANALYTICAL LABORATORIES

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Quality Control Sample

Reference Number: 09-02151
Report Date: 03/05/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
turb_090213	TURBIDITY	0.99	1.00	NTU	180.1	99	70-130		QCS	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

QCS: Quality Control Sample, a solution containing known concentrations of method analytes which is used to fortify an aliquot of reagent matrix. The QCS is obtained from an external source and is used to check lab performance.

LFB: Laboratory Fortified Blank, an aliquot of reagent matrix to which known quantities of method analytes are added in the lab. The LFB is analyzed exactly like a sample, and its purpose is to determine whether method performance is within accepted control limits.

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QUALITY CONTROL REPORT

Duplicate and Matrix Spike/Matrix Spike Duplicate Report

Reference Number: 09-02151
Report Date: 3/5/2009

Duplicate

Batch	Sample	Analyte	Result	Duplicate Result	Units	%RPD	Limits	QC Qualifier	Comments
200.7-090216A									
	4316	HARDNESS	19.3	19.2	mg CaCO3/L	0.5	0-45	DUP	
525_090217									
	3913	ATRAZINE	0.05	0.05	ug/L	0.0	0-45	DUP	
	4470	ATRAZINE	0.04	0.03	ug/L	28.6	0-45	DUP	
	4470	BROMACIL	0.21	0.17	ug/L	21.1	0-45	DUP	
	4470	1,3-DIMETHYL-2-NITROBENZENE (Surr	98	96	%	2.1	0-45	DUP	
	4470	PYRENE-D10 (Surr)	92	91	%	1.1	0-45	DUP	
	4470	PERYLENE-D12 (Surr)	105	109	%	3.7	0-45	DUP	
	4470	TRIPHENYLPHOSPHATE (Surr)	93	93	%	0.0	0-45	DUP	
COD_090216									
	4483	CHEMICAL OXYGEN DEMAND	14	16	mg/L	13.3	0-45	DUP	
D090304A									
EC_090216									
	4313	ELECTRICAL CONDUCTIVITY	183	181	uS/cm	1.1	0-45	DUP	
	4471	ELECTRICAL CONDUCTIVITY	301	300	uS/cm	0.3	0-45	DUP	
	4506	ELECTRICAL CONDUCTIVITY	164	163	uS/cm	0.6	0-45	DUP	
I090213A									
	4455	NITRATE-N	0.29	0.25	mg/L	14.8	0-45	DUP	
	4455	CHLORIDE	1.7	1.7	mg/L	0.0	0-45	DUP	
	4483	NITRATE-N	0.9	0.91	mg/L	1.1	0-45	DUP	
	4483	CHLORIDE	2.3	2.3	mg/L	0.0	0-45	DUP	
	4506	NITRATE-N	0.1	0.09	mg/L	10.5	0-45	DUP	
	4506	CHLORIDE	7.6	7.6	mg/L	0.0	0-45	DUP	
OPHOS-090213									
	4483	ORTHO-PHOSPHATE	0.24	0.24	mg/L	0.0	0-50	DUP	
PH_090213									

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Duplicate

Batch	Sample	Analyte	Result	Duplicate Result	Units	%RPD	Limits	QC Qualifier	Comments
	4378	HYDROGEN ION (pH)	5.94	5.97	pH Units	0.5	0-45	DUP	
	4482	HYDROGEN ION (pH)	6.50	6.55	pH Units	0.8	0-45	DUP	
	4506	HYDROGEN ION (pH)	8.02	8.06	pH Units	0.5	0-45	DUP	
TDS_090218									
	4508	TOTAL DISSOLVED SOLIDS	90	88	mg/L	2.2	0-45	DUP	
TURB_090213									
	4482	TURBIDITY	4.53	4.86	NTU	7.0	0-50	DUP	
	4506	TURBIDITY	0.23	0.23	NTU	0.0	0-50	DUP	

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EDGE ANALYTICAL LABORATORIES

Matrix Spike

Batch	Sample	Analyte	Result	Spike Result	Duplicate Spike Result	Spike Conc	Units	Percent Recovery MS	Percent Recovery MSD	Limits	%RPD	Limits	QC Qualifier	Comments
200.7-090216A														
	4237	HARDNESS	ND	71.6	70.9	69.5	mg CaCO3/L	103	102	80-120	1.0	0-60	LFM	
	4316	HARDNESS	19.3	89.3	88.7	69.5	mg CaCO3/L	101	100	80-120	0.9	0-60	LFM	
515.4_090219														
	4470	2,4 - D	ND	4.45	4.4	5	ug/L	89	88	70-130	1.1	0-50	LFM	
	4470	2,4,5 - TP (SILVEX)	ND	2.65	2.7	2.5	ug/L	106	108	70-130	1.9	0-50	LFM	
	4470	PENTACHLOROPHENOL	ND	2.8	2.8	2.5	ug/L	112	112	70-130	0.0	0-50	LFM	
	4470	DALAPON	ND	30.4	31.3	32.5	ug/L	94	96	70-130	2.9	0-50	LFM	
	4470	DINOSEB	ND	5.3	5.3	5	ug/L	106	106	70-130	0.0	0-50	LFM	
	4470	PICLORAM	ND	2.7	2.9	2.5	ug/L	108	116	70-130	7.1	0-50	LFM	
	4470	DICAMBA	ND	2.7	2.7	2.5	ug/L	108	108	70-130	0.0	0-50	LFM	
	4470	DCPA (ACID METABOLITES)	ND	2.3	2.1	2.5	ug/L	92	84	70-130	9.1	0-50	LFM	
	4470	2,4 DB	ND	19.6	19.7	20	ug/L	98	99	70-130	0.5	0-50	LFM	
	4470	2,4,5 T	ND	2.7	2.7	2.5	ug/L	108	108	70-130	0.0	0-50	LFM	
	4470	BENTAZON	ND	4.8	5.4	5	ug/L	96	108	70-130	11.8	0-50	LFM	
	4470	DICHLORPROP	ND	7	7.1	7.2	ug/L	97	99	70-130	1.4	0-50	LFM	
	4470	ACIFLUORFEN	ND	2.6	2.65	2.5	ug/L	104	106	70-130	1.9	0-50	LFM	
	4470	2,4 - DCAA (SURR)	87	81	80		%		NA	70-130	NA	0-50	LFM	
525_090217														
	3079	ENDRIN	ND	0.96		1	ug/L	96	NA	70-130	NA	0-60	LFM	
	3079	LINDANE (BHC - GAMMA)	ND	1.01		1	ug/L	101	NA	70-130	NA	0-60	LFM	
	3079	METHOXYCHLOR	ND	1.12		1	ug/L	112	NA	70-130	NA	0-60	LFM	
	3079	ALACHLOR	ND	2.07		2	ug/L	104	NA	70-130	NA	0-60	LFM	
	3079	ATRAZINE	ND	2.28		2	ug/L	114	NA	70-130	NA	0-60	LFM	
	3079	BENZO(A)PYRENE	ND	1.19		1	ug/L	119	NA	70-130	NA	0-60	LFM	
	3079	CHLORDANE, TECHNICAL	ND	0.85		1	ug/L	85	NA	70-130	NA	0-60	LFM	
	3079	DI(ETHYLHEXYL)-ADIPATE	ND	1.27		1	ug/L	127	NA	70-130	NA	0-60	LFM	
	3079	DI(ETHYLHEXYL)-PHTHALATE	ND	1.14		1	ug/L	114	NA	70-130	NA	0-60	LFM	
	3079	HEPTACHLOR	ND	1.08		1	ug/L	108	NA	70-130	NA	0-60	LFM	
	3079	HEPTACHLOR EPOXIDE	ND	1.2		1	ug/L	120	NA	70-130	NA	0-50	LFM	
	3079	HEXACHLOROBENZENE	ND	0.96		1	ug/L	96	NA	70-130	NA	0-60	LFM	
	3079	HEXACHLOROCYCLO-PENTADIENE	ND	1.05		1	ug/L	105	NA	70-130	NA	0-60	LFM	
	3079	SIMAZINE	ND	1.13		1	ug/L	113	NA	70-130	NA	0-60	LFM	
	3079	PENTACHLOROPHENOL	ND	3.98		4	ug/L	100	NA	70-130	NA	0-50	LFM	
	3079	ALDRIN	ND	1.04		1	ug/L	104	NA	70-130	NA	0-60	LFM	
	3079	BUTACHLOR	ND	1.16		1	ug/L	116	NA	70-130	NA	0-60	LFM	

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Reference Number: 09-02151
Report Date: 3/5/2009

Matrix Spike

Batch	Sample	Analyte	Result	Spike Result	Duplicate Spike Result	Spike Conc	Units	Percent Recovery MS	Percent Recovery MSD	Limits	%RPD	Limits	QC Qualifier		Comments
	3079	DIELDRIN	ND	1.09		1	ug/L	109	NA	70-130	NA	0-60		LFM	
	3079	METOLACHLOR	ND	1.12		1	ug/L	112	NA	70-130	NA	0-60		LFM	
	3079	METRIBUZIN	ND	1.05		1	ug/L	105	NA	70-130	NA	0-60		LFM	
	3079	PROPACHLOR	ND	1.17		1	ug/L	117	NA	70-130	NA	0-60		LFM	
	3079	BROMACIL	ND	1.11		1	ug/L	111	NA	70-130	NA	0-60		LFM	
	3079	TERBACIL	ND	1.37		1	ug/L	137	NA	70-130	NA	0-60	HQ	LFM	
	3079	DIAZINON	ND	3.47		3	ug/L	116	NA	70-130	NA	0-60		LFM	
	3079	EPTC	ND	1.01		1	ug/L	101	NA	70-130	NA	0-60		LFM	
	3079	4,4-DDD	ND	1.09		1	ug/L	109	NA	70-130	NA	0-60		LFM	
	3079	4,4-DDE	ND	1		1	ug/L	100	NA	70-130	NA	0-60		LFM	
	3079	4,4-DDT	ND	1.09		1	ug/L	109	NA	70-130	NA	0-60		LFM	
	3079	CYANAZINE	ND	2.43		2	ug/L	122	NA	70-130	NA	0-60		LFM	
	3079	MALATHION	ND	2.71		3	ug/L	90	NA	70-130	NA	0-60		LFM	
	3079	PARATHION	ND	2.3		2	ug/L	115	NA	70-130	NA	0-60		LFM	
	3079	TRIFLURALIN	ND	1.07		1	ug/L	107	NA	70-130	NA	0-60		LFM	
	3079	FLUORENE	ND	1.13		1	ug/L	113	NA	70-130	NA	0-60		LFM	
	3079	ACENAPHTHYLENE	ND	1.08		1	ug/L	108	NA	70-130	NA	0-60		LFM	
	3079	ANTHRACENE	ND	0.98		1	ug/L	98	NA	70-130	NA	0-60		LFM	
	3079	BENZ(A)ANTHRACENE	ND	1.05		1	ug/L	105	NA	70-130	NA	0-60		LFM	
	3079	BENZO(B)FLUORANTHENE	ND	1.05		1	ug/L	105	NA	70-130	NA	0-60		LFM	
	3079	BENZO(G,H,I)PERYLENE	ND	1		1	ug/L	100	NA	70-130	NA	0-60		LFM	
	3079	BENZO(K)FLUORANTHENE	ND	1.01		1	ug/L	101	NA	70-130	NA	0-60		LFM	
	3079	CHRYSENE	ND	1.09		1	ug/L	109	NA	70-130	NA	0-60		LFM	
	3079	DIBENZO(A,H)ANTHRACENE	ND	1.13		1	ug/L	113	NA	70-130	NA	0-60		LFM	
	3079	INDENO(1,2,3-CD)PYRENE	ND	1.21		1	ug/L	121	NA	70-130	NA	0-60		LFM	
	3079	PHENANTHRENE	ND	1.03		1	ug/L	103	NA	70-130	NA	0-60		LFM	
	3079	PYRENE	ND	1.01		1	ug/L	101	NA	70-130	NA	0-60		LFM	
	3079	BENZYL BUTYL PHTHALATE	ND	1.14		1	ug/L	114	NA	70-130	NA	0-60		LFM	
	3079	DI-N-BUTYL PHTHALATE	ND	1.09		1	ug/L	109	NA	70-130	NA	0-60		LFM	
	3079	DIETHYL PHTHALATE	ND	1.16		1	ug/L	116	NA	70-130	NA	0-60		LFM	
	3079	DIMETHYL PHTHALATE	ND	1.1		1	ug/L	110	NA	70-130	NA	0-60		LFM	
	3079	1,3-DIMETHYL-2-NITROBENZENE (Surr	93	94			%		NA	70-130	NA	0-60		LFM	
	3079	PYRENE-D10 (Surr)	93	93			%		NA	70-130	NA	0-60		LFM	
	3079	PERYLENE-D12 (Surr)	107	106			%		NA	70-130	NA	0-60		LFM	
	3079	TRIPHENYLPHOSPHATE (Surr)	93	96			%		NA	70-130	NA	0-60		LFM	

531_090219

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Reference Number: 09-02151
Report Date: 3/5/2009

ANALYTICAL LABORATORIES

Matrix Spike

Batch	Sample	Analyte	Result	Spike Result	Duplicate Spike Result	Spike Conc	Units	Percent Recovery MS	Percent Recovery MSD	Limits	%RPD	Limits	QC Qualifier		Comments
	4470	OXYMAL	ND	13.7	14.8	15	ug/L	91	99	70-130	7.7	0-50		LFM	
	4470	CARBOFURAN	ND	12.8	13.4	15	ug/L	85	89	70-130	4.6	0-50		LFM	
	4470	ALDICARB SULFOXIDE	ND	13	14.6	15	ug/L	87	97	70-130	11.6	0-50		LFM	
	4470	ALDICARB SULFONE	ND	12.4	14	15	ug/L	83	93	70-130	12.1	0-50		LFM	
	4470	METHOMYL	ND	13	14.5	15	ug/L	87	97	70-130	10.9	0-50		LFM	
	4470	3-HYDROXYCARBOFURAN	ND	12.8	14.2	15	ug/L	85	95	70-130	10.4	0-50		LFM	
	4470	ALDICARB	ND	12.6	13.3	15	ug/L	84	89	70-130	5.4	0-50		LFM	
	4470	CARBARYL	ND	11.7	12.3	15	ug/L	78	82	70-130	5.0	0-50		LFM	
	4470	PROPOXUR (BAYGON)	ND	12.6	13	15	ug/L	84	87	70-130	3.1	0-50		LFM	
	4470	METHIOCARB	ND	12.3	13.2	15	ug/L	82	88	70-130	7.1	0-50		LFM	
	4470	BDMC (SURR)	103	106	109		%		NA	70-130	NA	0-50		LFM	
COD_090216															
	4483	CHEMICAL OXYGEN DEMAND	14	63	65	50	mg/L	98	102	80-120	4.0	0-60		LFM	
D090304A															
	4480	BROMATE	ND	0.011		0.010	mg/L	110	NA	75-125	NA	0-60		LFM	
	5536	BROMATE	ND	0.0094		0.010	mg/L	94	NA	75-125	NA	0-60		LFM	
I090213A															
	4455	NITRATE-N	0.29	1.24		1.00	mg/L	95	NA	80-120	NA	0-60		LFM	
	4455	CHLORIDE	1.7	2.75		1.00	mg/L	105	NA	80-120	NA	0-60		LFM	
	4483	NITRATE-N	0.9	19.9		20.00	mg/L	95	NA	80-120	NA	0-60		LFM	
	4483	CHLORIDE	2.3	21.8		20.00	mg/L	98	NA	80-120	NA	0-60		LFM	
	4506	NITRATE-N	0.1	1.08		1.00	mg/L	98	NA	80-120	NA	0-60		LFM	
	4506	CHLORIDE	7.6	8.4		1.00	mg/L	80	NA	80-120	NA	0-60	S	LFM	
OPHOS-090213															
	4483	ORTHO-PHOSPHATE	0.24	1.25	1.26	1.00	mg/L	101	102	70-130	1.0	0-50		LFM	

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Qualifier Definitions

Reference Number: 09-02151
Report Date: 03/05/09

Qualifier	Definition
B5	The compound was detected in the sample below the State Reporting Limit, result is biased high.
HQ	High QCS recovery due to increased detector response of the sample extract. The continuing calibration checks are within acceptance limits.
J	Indicates an estimated concentration. This occurs when an analyte concentration is below the calibration curve but is above the method detection limit.
JJ	The amount detected is below the Method's Reporting Level but greater then the lab's Practical Quantitation Level.
M	Matrix induced bias assumed.
Q1	Acceptance limits do not apply. This compound is only qualitatively identified by the method.
S	Spiking amount was lower than the 5:1 spike to background (sample amount) basis for performance criteria. The reported criteria does not apply due to increased errors in measurement of both sample and spike concentration.

Note: Some qualifier definitions found on this page may pertain to results or QC data which are not printed with this report.

Page_____ of_____

Chain of Custody / Analysis Request (Please complete all applicable shaded sections)

7096

Report to:	Walla Walla Basin Watershed Cour	Bill to:	Walla Walla Basin Watershed Counc
Ship Address:	810 S Main Street	Address:	810 South Main Street
City:	Milton-Freewa St: OR Zip: 97862	City:	Milton-Freewa St: OR Zip: 97862
Attn:	Troy Baker	Phone:	FAX:
Phone:	541 938-2170 FAX:	P.O.#:	Attn:
Email:	Troy.Baker@NWBNL.org	☐ Visa ☐ M/C ☐ A/E	Expires /
Project:	Locher Road Recharge Sites	Card#:	

For Lab Use Only
Ref #

Check Regulatory Program
- ☐ Safe Drinking Water Act
- ☐ Clean Water Act
- ☐ RCRA / CERCLA
- ☐ Other

EDGE ANALYTICAL LABORATORIES
1620 S. Walnut St.
Burlington, WA 98233
1.800.755.9295

805 W. Orchard Dr. Suite 4
Bellingham, WA 98225

Instructions

1. Use one line per sample Location.
2. Be specific in analysis requests.
3. *(NEW)* **List each metal individually** *(NEW)*
4. Check off analyses to be performed for each sample Loaction.
5. Enter number of containers.

Turn Around Time Required
- ☐ Standard
- ☐ Half-time (50% surcharge)
- ☐ Quickest (100% surcharge) Phone Call Req.
- ☐ Emergency (Phone Call Req.)

Analyses Requested

CO007096

	Field ID	Location	Grab/ Comp.	Sample Matrix*	Date	Time	Bromate	Hardness	NO3, COD	SOC Package	TDS, Cl, O-Phos,pH,Turb,Ec				Number of Containers	Special Instructions Conditions on Receipt
1	L1	Locher 1			2/12	8am	☒	☒	☒	☒	☒	☐	☐	☐	9	
2	L2	Locher 2			2/12	8:50 am	☒	☒	☒	☒	☒	☐	☐	☐	9	
3	L3	LOcher 3			2/12	8:45 am	☒	☒	☒	☒	☒	☐	☐	☐	9	
4	LSW1	LocherSW1			2/12	9am	☒	☒	☒	☒	☒	☐	☐	☐	9	
5							☐	☐	☐	☐	☐	☐	☐	☐		
6							☐	☐	☐	☐	☐	☐	☐	☐		
7							☐	☐	☐	☐	☐	☐	☐	☐		
8							☐	☐	☐	☐	☐	☐	☐	☐		
9							☐	☐	☐	☐	☐	☐	☐	☐		
10							☐	☐	☐	☐	☐	☐	☐	☐		
Sampled by:		Phone:		FAX:					Email:						Total Containers	

09-02151
4470 - 4473

09-02151

Sample Receipt Request (Must include FAX or Email) ☐

* **W** - water **SW** - surface water **WW** - waste water **OL** - oil
DW - drinking water **GW** - Ground water **S** - soil Other_____

Relinquished by	Date	Time	Received by	Date	Time
Troy Baker	2/12/09	11:00		2.13.09	7.00

	Yes	No	N/A
Custody seals intact UPS	☐	☐	☐
Sample temp 0 C satisfactory	☐	☐	☐
Samples received intact	☐	☐	
Chain of custody & labels agree	☐	☐	

FORM: COC 01-05-2009

NO SOC for LSW1 - Site per Troy Baker HH

EDGE ANALYTICAL LABORATORIES

Burlington WA | 1620 S Walnut St - 98233
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Microbiology | 360.671.0688 • 360.671.1577fax

Data Report

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

Reference Number: **09-03591**
Project: Locher Road Recharge Sites
Report Date: 3/18/09
Date Received: 3/13/09
Peer Review:

Sample Description: L1 - Locher Road 1
Lab Number: 7335
Sample Date: 3/12/09
Collected By: Baker

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
14797-55-8	**NITRATE-N**	5.21	0.100	0.015	mg/L	1	300.0	3/13/09	BJ	I090313A	
E-10173	**TOTAL DISSOLVED SOLIDS**	225	10	6	mg/L	1	SM2540 C	3/16/09	CCN	TDS_090316	
16887-00-6	**CHLORIDE**	5.9	20	0.012	mg/L	1	300.0	3/13/09	BJ	I090313A	
14265-44-2	**ORTHO-PHOSPHATE**	0.22	0.01	0.002	mg/L	1	SM4500-P F	3/13/09	SO	OPHOS-090313	
E-10139	**HYDROGEN ION (pH)**	6.72			pH Units	1	SM4500-H+ B	3/13/09	CCN	PH_090313	
E-10617	**TURBIDITY**	8.12	0.05	0.03	NTU	1	180.1	3/13/09	CCN	TURB_090313	
E-10184	**ELECTRICAL CONDUCTIVITY**	355	10		uS/cm	1	SM2510 B	3/16/09	CCN	EC_090316	
E-11778	**HARDNESS**	150	3.30	0.055	mg CaCO3/L	1	200.7	3/16/09	BJ	200.7-090316A	
E-10117	**CHEMICAL OXYGEN DEMAND**	ND	8	2.47	mg/L	1	SM5220 D	3/16/09	MAK	COD_090316	
15541-45-4	**BROMATE**	ND	0.005	0.00118	mg/L	1	300.1	3/17/09	MVP	D090317A	

Sample Description: L2 - Locher Road 2
Lab Number: 7336
Sample Date: 3/12/09
Collected By: Baker

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
14797-55-8	**NITRATE-N**	5.42	0.100	0.015	mg/L	1	300.0	3/13/09	BJ	I090313A	
E-10173	**TOTAL DISSOLVED SOLIDS**	196	10	6	mg/L	1	SM2540 C	3/16/09	CCN	TDS_090316	
16887-00-6	**CHLORIDE**	6.2	20	0.012	mg/L	1	300.0	3/13/09	BJ	I090313A	
14265-44-2	**ORTHO-PHOSPHATE**	0.22	0.01	0.002	mg/L	1	SM4500-P F	3/13/09	SO	OPHOS-090313	
E-10139	**HYDROGEN ION (pH)**	6.59			pH Units	1	SM4500-H+ B	3/13/09	CCN	PH_090313	
E-10617	**TURBIDITY**	2.02	0.05	0.03	NTU	1	180.1	3/13/09	CCN	TURB_090313	
E-10184	**ELECTRICAL CONDUCTIVITY**	295	10		uS/cm	1	SM2510 B	3/16/09	CCN	EC_090316	
E-11778	**HARDNESS**	118	3.30	0.055	mg CaCO3/L	1	200.7	3/16/09	BJ	200.7-090316A	
E-10117	**CHEMICAL OXYGEN DEMAND**	ND	8	2.47	mg/L	1	SM5220 D	3/16/09	MAK	COD_090316	
15541-45-4	**BROMATE**	ND	0.005	0.00118	mg/L	1	300.1	3/17/09	MVP	D090317A	

Sample Description: L3 - Locher Road 3
Lab Number: 7337
Sample Date: 3/12/09
Collected By: Baker

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment

Notes:
ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.
PQL = Practical Quantitation Limit is the lowest level that can be acheived within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor

If you have any questions concerning this report contact us at the above phone number.

Form: cRslt_2.rpt

Reference Number: **09-03591**
Report Date: 3/18/09

Data Report

14797-55-8	**NITRATE-N**	2.05	0.100	0.015	mg/L	1	300.0	3/13/09	BJ	I090313A
E-10173	**TOTAL DISSOLVED SOLIDS**	91	10	6	mg/L	1	SM2540 C	3/16/09	CCN	TDS_090316
16887-00-6	**CHLORIDE**	2.2	20	0.012	mg/L	1	300.0	3/13/09	BJ	I090313A
14265-44-2	**ORTHO-PHOSPHATE**	0.17	0.01	0.002	mg/L	1	SM4500-P F	3/13/09	SO	OPHOS-090313
E-10139	**HYDROGEN ION (pH)**	6.61			pH Units	1	SM4500-H+ B	3/13/09	CCN	PH_090313
E-10617	**TURBIDITY**	2.01	0.05	0.03	NTU	1	180.1	3/13/09	CCN	TURB_090313
E-10184	**ELECTRICAL CONDUCTIVITY**	136	10		uS/cm	1	SM2510 B	3/16/09	CCN	EC_090316
E-11778	**HARDNESS**	50.5	3.30	0.055	mg CaCO3/L	1	200.7	3/16/09	BJ	200.7-090316A
E-10117	**CHEMICAL OXYGEN DEMAND**	ND	8	2.47	mg/L	1	SM5220 D	3/16/09	MAK	COD_090316
15541-45-4	**BROMATE**	ND	0.005	0.00118	mg/L	1	300.1	3/17/09	MVP	D090317A

Sample Description: IN1 - Locher Road In
Lab Number: 7338
Sample Date: 3/12/09
Collected By: Baker

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
14797-55-8	**NITRATE-N**	0.58	0.100	0.015	mg/L	1	300.0	3/13/09	BJ	I090313A	
E-10173	**TOTAL DISSOLVED SOLIDS**	826	10	6	mg/L	1	SM2540 C	3/16/09	CCN	TDS_090316	
16887-00-6	**CHLORIDE**	22	20	0.012	mg/L	1	300.0	3/13/09	BJ	I090313A	
14265-44-2	**ORTHO-PHOSPHATE**	0.06	0.01	0.002	mg/L	1	SM4500-P F	3/13/09	SO	OPHOS-090313	
E-10139	**HYDROGEN ION (pH)**	11.94			pH Units	1	SM4500-H+ B	3/13/09	CCN	PH_090313	
E-10617	**TURBIDITY**	21.7	0.05	0.03	NTU	1	180.1	3/13/09	CCN	TURB_090313	
E-10184	**ELECTRICAL CONDUCTIVITY**	2560	100		uS/cm	10	SM2510 B	3/16/09	CCN	EC_090316	
E-11778	**HARDNESS**	37.5	3.30	0.055	mg CaCO3/L	1	200.7	3/16/09	BJ	200.7-090316A	
E-10117	**CHEMICAL OXYGEN DEMAND**	ND	8	2.47	mg/L	1	SM5220 D	3/16/09	MAK	COD_090316	
15541-45-4	**BROMATE**	ND	0.005	0.00118	mg/L	1	300.1	3/17/09	MVP	D090317A	

Sample Description: MC1 - Mudcreek 1
Lab Number: 7339
Sample Date: 3/12/09
Collected By: Baker

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
14797-55-8	**NITRATE-N**	1.82	0.100	0.015	mg/L	1	300.0	3/13/09	BJ	I090313A	
E-10173	**TOTAL DISSOLVED SOLIDS**	179	10	6	mg/L	1	SM2540 C	3/16/09	CCN	TDS_090316	
16887-00-6	**CHLORIDE**	5.5	20	0.012	mg/L	1	300.0	3/13/09	BJ	I090313A	
14265-44-2	**ORTHO-PHOSPHATE**	0.15	0.01	0.002	mg/L	1	SM4500-P F	3/13/09	SO	OPHOS-090313	
E-10139	**HYDROGEN ION (pH)**	7.69			pH Units	1	SM4500-H+ B	3/13/09	CCN	PH_090313	
E-10617	**TURBIDITY**	0.64	0.05	0.03	NTU	1	180.1	3/13/09	CCN	TURB_090313	
E-10184	**ELECTRICAL CONDUCTIVITY**	272	10		uS/cm	1	SM2510 B	3/16/09	CCN	EC_090316	
E-11778	**HARDNESS**	112	3.30	0.055	mg CaCO3/L	1	200.7	3/16/09	BJ	200.7-090316A	
E-10117	**CHEMICAL OXYGEN DEMAND**	ND	8	2.47	mg/L	1	SM5220 D	3/16/09	MAK	COD_090316	
15541-45-4	**BROMATE**	ND	0.005	0.00118	mg/L	1	300.1	3/17/09	MVP	D090317A	

Notes:

ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.
PQL = Practical Quantitation Limit is the lowest level that can be acheived within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor

Reference Number: **09-03591**
Report Date: 3/18/09

Data Report

Sample Description: MC2 - Mudcreek 2 | Sample Date: 3/12/09
Lab Number: 7340 | Collected By: Baker

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
14797-55-8	**NITRATE-N**	2.59	0.100	0.015	mg/L	1	300.0	3/14/09	BJ	I090313A	
E-10173	**TOTAL DISSOLVED SOLIDS**	216	10	6	mg/L	1	SM2540 C	3/16/09	CCN	TDS_090316	
16887-00-6	**CHLORIDE**	7.5	20	0.012	mg/L	1	300.0	3/13/09	BJ	I090313A	
14265-44-2	**ORTHO-PHOSPHATE**	0.15	0.01	0.002	mg/L	1	SM4500-P F	3/13/09	SO	OPHOS-090313	
E-10139	**HYDROGEN ION (pH)**	7.62			pH Units	1	SM4500-H+ B	3/13/09	CCN	PH_090313	
E-10617	**TURBIDITY**	2.68	0.05	0.03	NTU	1	180.1	3/13/09	CCN	TURB_090313	
E-10184	**ELECTRICAL CONDUCTIVITY**	373	10		uS/cm	1	SM2510 B	3/16/09	CCN	EC_090316	
E-11778	**HARDNESS**	142	3.30	0.055	mg CaCO3/L	1	200.7	3/16/09	BJ	200.7-090316A	
E-10117	**CHEMICAL OXYGEN DEMAND**	ND	8	2.47	mg/L	1	SM5220 D	3/16/09	MAK	COD_090316	
15541-45-4	**BROMATE**	ND	0.005	0.00118	mg/L	1	300.1	3/17/09	MVP	D090317A	

Notes:

ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.
PQL = Practical Quantitation Limit is the lowest level that can be acheived within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor

EDGE ANALYTICAL LABORATORIES

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Bellingham WA | 805 Orchard Dr Suite 4 - 98225
Microbiology | 360.671.0688 • 360.671.1577fax

HERBICIDES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L1
Sample Description: Locher Road 1
Sampled By: Baker
Sample Date: 3/12/09
Source Type:
Sampler Phone:

Reference Number: 09-03591
Project: Locher Road Recharge Sites

Lab Number: 07335
Report Date: 4/15/09
Date Analyzed: 03/14/09
Date Extracted: 515.4_090313
Analyst: CO
Peer Review:
Analytical Method: 515.4
Herbicides in Drinking Water

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
94-75-7	2,4 - D	**ND**	ug/L	0.5	0.2	70	
93-72-1	2,4,5 - TP (SILVEX)	**ND**	ug/L	0.25	0.04	50	
87-86-5	PENTACHLOROPHENOL	**ND**	ug/L	0.25	0.05	1	
75-99-0	DALAPON	**ND**	ug/L	3.25	0.9	200	
88-85-7	DINOSEB	**ND**	ug/L	0.5	0.2	7	
1918-02-1	PICLORAM	**ND**	ug/L	0.25	0.07	500	
Other							
E-14028	DCPA (ACID METABOLITES)	**ND**	ug/L	0.25	0.1		
1918-00-9	DICAMBA	**ND**	ug/L	0.25	0.05		
94-82-6	2,4 DB	**ND**	ug/L	2			
93-76-5	2,4,5 T	**ND**	ug/L	0.25	0.04		
25057-89-0	BENTAZON	**ND**	ug/L	0.5	0.2		
120-36-5	DICHLORPROP	**ND**	ug/L	0.75	0.5		
50594-66-6	ACIFLUORFEN	**ND**	ug/L	0.25	0.1		
51-36-5	3,5 - DICHLOROBENZOIC ACID	**ND**	ug/L	0.25	0.2		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC_gen.rpt

EDGE ANALYTICAL LABORATORIES

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Bellingham WA | 805 Orchard Dr Suite 4 - 98225
Microbiology | 360.671.0688 • 360.671.1577fax

HERBICIDES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L2
Sample Description: Locher Road 2
Sampled By: Baker
Sample Date: 3/12/09
Source Type:
Sampler Phone:

Reference Number: 09-03591
Project: Locher Road Recharge Sites

Lab Number: 07336
Report Date: 4/15/09
Date Analyzed: 03/14/09
Date Extracted: 515.4_090313
Analyst: CO
Peer Review:
Analytical Method: 515.4
Herbicides in Drinking Water

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
94-75-7	2,4 - D	**ND**	ug/L	0.5	0.2	70	
93-72-1	2,4,5 - TP (SILVEX)	**ND**	ug/L	0.25	0.04	50	
87-86-5	PENTACHLOROPHENOL	**ND**	ug/L	0.25	0.05	1	
75-99-0	DALAPON	**ND**	ug/L	3.25	0.9	200	
88-85-7	DINOSEB	**ND**	ug/L	0.5	0.2	7	
1918-02-1	PICLORAM	**ND**	ug/L	0.25	0.07	500	
Other							
E-14028	DCPA (ACID METABOLITES)	**ND**	ug/L	0.25	0.1		
1918-00-9	DICAMBA	**ND**	ug/L	0.25	0.05		
94-82-6	2,4 DB	**ND**	ug/L	2			
93-76-5	2,4,5 T	**ND**	ug/L	0.25	0.04		
25057-89-0	BENTAZON	**ND**	ug/L	0.5	0.2		
120-36-5	DICHLORPROP	**ND**	ug/L	0.75	0.5		
50594-66-6	ACIFLUORFEN	**ND**	ug/L	0.25	0.1		
51-36-5	3,5 - DICHLOROBENZOIC ACID	**ND**	ug/L	0.25	0.2		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC_gen.rpt

EDGE ANALYTICAL LABORATORIES

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HERBICIDES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

Project::
Field ID: L3
Sample Description: Locher Road 3
Sampled By: Baker
Sample Date: 3/12/09
Source Type:
Sampler Phone:

Reference Number: 09-03591
Project: Locher Road Recharge Sites

Lab Number: 07337
Report Date: 4/15/09
Date Analyzed: 03/14/09
Date Extracted: 515.4_090313
Analyst: CO
Peer Review:
Analytical Method: 515.4
Herbicides in Drinking Water

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
94-75-7	2,4 - D	**ND**	ug/L	0.5	0.2	70	
93-72-1	2,4,5 - TP (SILVEX)	**ND**	ug/L	0.25	0.04	50	
87-86-5	PENTACHLOROPHENOL	**ND**	ug/L	0.25	0.05	1	
75-99-0	DALAPON	**ND**	ug/L	3.25	0.9	200	
88-85-7	DINOSEB	**ND**	ug/L	0.5	0.2	7	
1918-02-1	PICLORAM	**ND**	ug/L	0.25	0.07	500	
Other							
E-14028	DCPA (ACID METABOLITES)	**ND**	ug/L	0.25	0.1		
1918-00-9	DICAMBA	**ND**	ug/L	0.25	0.05		
94-82-6	2,4 DB	**ND**	ug/L	2			
93-76-5	2,4,5 T	**ND**	ug/L	0.25	0.04		
25057-89-0	BENTAZON	**ND**	ug/L	0.5	0.2		
120-36-5	DICHLORPROP	**ND**	ug/L	0.75	0.5		
50594-66-6	ACIFLUORFEN	**ND**	ug/L	0.25	0.1		
51-36-5	3,5 - DICHLOROBENZOIC ACID	**ND**	ug/L	0.25	0.2		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC_gen.rpt

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HERBICIDES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

Project::
Field ID: IN1
Sample Description: Locher Road In
Sampled By: Baker
Sample Date: 3/12/09
Source Type:
Sampler Phone:

Reference Number: 09-03591
Project: Locher Road Recharge Sites

Lab Number: 07338
Report Date: 4/15/09
Date Analyzed: 03/14/09
Date Extracted: 515.4_090313
Analyst: CO
Peer Review:
Analytical Method: 515.4
Herbicides in Drinking Water

CAS	COMPOUND	RESULTS	UNITS	PQL	MDL	MCL	COMMENT
EPA Regulated							
94-75-7	2,4 - D	**ND**	ug/L	0.5	0.2	70	
93-72-1	2,4,5 - TP (SILVEX)	**ND**	ug/L	0.25	0.04	50	
87-86-5	PENTACHLOROPHENOL	**ND**	ug/L	0.25	0.05	1	
75-99-0	DALAPON	**ND**	ug/L	3.25	0.9	200	
88-85-7	DINOSEB	**ND**	ug/L	0.5	0.2	7	
1918-02-1	PICLORAM	**ND**	ug/L	0.25	0.07	500	
Other							
E-14028	DCPA (ACID METABOLITES)	**0.34**	ug/L	0.25	0.1		
1918-00-9	DICAMBA	**ND**	ug/L	0.25	0.05		
94-82-6	2,4 DB	**ND**	ug/L	2			qualitative analysis
93-76-5	2,4,5 T	**ND**	ug/L	0.25	0.04		
25057-89-0	BENTAZON	**ND**	ug/L	0.5	0.2		
120-36-5	DICHLORPROP	**ND**	ug/L	0.75	0.5		
50594-66-6	ACIFLUORFEN	**ND**	ug/L	0.25	0.1		
51-36-5	3,5 - DICHLOROBENZOIC ACID	**ND**	ug/L	0.25	0.2		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC_gen.rpt

EDGE ANALYTICAL LABORATORIES

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Corporate Office | 800.755.9295 • 360.757.1400 • 360.757.1402fax
Bellingham WA | 805 Orchard Dr Suite 4 - 98225
Microbiology | 360.671.0688 • 360.671.1577fax

HERBICIDES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

System Name:
System ID Number:
DOH Source Number:
Multiple Sources:
Sample Type:
Sample Purpose: Investigative or Other
Sample Location: Locher Road 1
County:
Sampled By: Baker
Sampler Phone:

Reference Number: 09-03591
Project: Locher Road Recharge Sites

Field ID: L1
Lab Number: 046-07335
Date Collected: 3/12/09 00:00
Date Extracted: 515.4_090313
Date Analyzed: 03/14/09
Report Date: 3/19/09
Analyst: CO
Peer Review:

EPA Method 515.4 For State Drinking Water Compliance

DOH#	COMPOUNDS	RESULTS	UNITS	SRL	Trigger	MCL	COMMENT
	EPA Regulated						
37	2,4 - D	ND	ug/L	0.5	0.2	70	
38	2,4,5 - TP (SILVEX)	ND	ug/L	1.0	0.4	50	
134	PENTACHLOROPHENOL	ND	ug/L	0.2	0.08	1	
137	DALAPON	ND	ug/L	5	2	200	
139	DINOSEB	ND	ug/L	1.0	0.4	7	
140	PICLORAM	ND	ug/L	0.5	0.2	500	
	Other						
138	DICAMBA	ND	ug/L	0.2	0.2		
225	DCPA (ACID METABOLITES)	ND	ug/L	0.1	0.1		
135	2,4 DB	ND	ug/L	1.0	1.0		
136	2,4,5 T	ND	ug/L	0.4	0.4		
220	BENTAZON	ND	ug/L	0.5	0.5		
221	DICHLORPROP	ND	ug/L	0.5	0.5		
223	ACIFLUORFEN	ND	ug/L	2.0	2.0		
226	3,5 - DICHLOROBENZOIC ACID	ND	ug/L	0.5	0.5		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC

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Bellingham WA | 805 Orchard Dr Suite 4 - 98225
Microbiology | 360.671.0688 • 360.671.1577fax

HERBICIDES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

System Name:
System ID Number:
DOH Source Number:
Multiple Sources:
Sample Type:
Sample Purpose: Investigative or Other
Sample Location: Locher Road 2
County:
Sampled By: Baker
Sampler Phone:

Reference Number: 09-03591
Project: Locher Road Recharge Sites

Field ID: L2
Lab Number: 046-07336
Date Collected: 3/12/09 00:00
Date Extracted: 515.4_090313
Date Analyzed: 03/14/09
Report Date: 3/19/09
Analyst: CO
Peer Review:

EPA Method 515.4 For State Drinking Water Compliance

DOH#	COMPOUNDS	RESULTS	UNITS	SRL	Trigger	MCL	COMMENT
	EPA Regulated						
37	2,4 - D	ND	ug/L	0.5	0.2	70	
38	2,4,5 - TP (SILVEX)	ND	ug/L	1.0	0.4	50	
134	PENTACHLOROPHENOL	ND	ug/L	0.2	0.08	1	
137	DALAPON	ND	ug/L	5	2	200	
139	DINOSEB	ND	ug/L	1.0	0.4	7	
140	PICLORAM	ND	ug/L	0.5	0.2	500	
	Other						
138	DICAMBA	ND	ug/L	0.2	0.2		
225	DCPA (ACID METABOLITES)	ND	ug/L	0.1	0.1		
135	2,4 DB	ND	ug/L	1.0	1.0		
136	2,4,5 T	ND	ug/L	0.4	0.4		
220	BENTAZON	ND	ug/L	0.5	0.5		
221	DICHLORPROP	ND	ug/L	0.5	0.5		
223	ACIFLUORFEN	ND	ug/L	2.0	2.0		
226	3,5 - DICHLOROBENZOIC ACID	ND	ug/L	0.5	0.5		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

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HERBICIDES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

System Name:
System ID Number:
DOH Source Number:
Multiple Sources:
Sample Type:
Sample Purpose: Investigative or Other
Sample Location: Locher Road 3
County:
Sampled By: Baker
Sampler Phone:

Reference Number: 09-03591
Project: Locher Road Recharge Sites

Field ID: L3
Lab Number: 046-07337
Date Collected: 3/12/09 00:00
Date Extracted: 515.4_090313
Date Analyzed: 03/14/09
Report Date: 3/19/09
Analyst: CO
Peer Review:

EPA Method 515.4 For State Drinking Water Compliance

DOH#	COMPOUNDS	RESULTS	UNITS	SRL	Trigger	MCL	COMMENT
	EPA Regulated						
37	2,4 - D	ND	ug/L	0.5	0.2	70	
38	2,4,5 - TP (SILVEX)	ND	ug/L	1.0	0.4	50	
134	PENTACHLOROPHENOL	ND	ug/L	0.2	0.08	1	
137	DALAPON	ND	ug/L	5	2	200	
139	DINOSEB	ND	ug/L	1.0	0.4	7	
140	PICLORAM	ND	ug/L	0.5	0.2	500	
	Other						
138	DICAMBA	ND	ug/L	0.2	0.2		
225	DCPA (ACID METABOLITES)	ND	ug/L	0.1	0.1		
135	2,4 DB	ND	ug/L	1.0	1.0		
136	2,4,5 T	ND	ug/L	0.4	0.4		
220	BENTAZON	ND	ug/L	0.5	0.5		
221	DICHLORPROP	ND	ug/L	0.5	0.5		
223	ACIFLUORFEN	ND	ug/L	2.0	2.0		
226	3,5 - DICHLOROBENZOIC ACID	ND	ug/L	0.5	0.5		

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC

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CARBAMATES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

System Name:
System ID Number:
DOH Source Number:
Multiple Sources:
Sample Type:
Sample Purpose: Investigative or Other
Sample Location: Locher Road 2
County:
Sampled By: Baker
Sampler Phone:

Reference Number: 09-03591
Project: Locher Road Recharge Sites

Field ID: L2
Lab Number: -07336
Date Collected: 3/12/09 00:00
Date Extracted: 531_090313
Date Analyzed: 03/13/09
Report Date: 3/18/09
Analyst: CO
Peer Review:

EPA Method 531.2 For State Drinking Water Compliance

DOH#	COMPOUNDS	RESULTS	UNITS	SRL	Trigger	MCL	COMMENT
	EPA Regulated						
148	OXYMAL	ND	ug/L	4.0	4.0	200	
146	CARBOFURAN	ND	ug/L	1.8	1.8	40	
	EPA Unregulated						
144	ALDICARB SULFOXIDE	ND	ug/L	1.0	1.0		
143	ALDICARB SULFONE	ND	ug/L	1.6	1.6		
147	METHOMYL	ND	ug/L	1.0	1.0		
141	3-HYDROXYCARBOFURAN	ND	ug/L	2.0	2.0		
142	ALDICARB	ND	ug/L	1.0	1.0		
145	CARBARYL	ND	ug/L	2.0	2.0		
	State Unregulated - Other						
326	PROPOXUR (BAYGON)	ND	ug/L	1.0			
327	METHIOCARB	ND	ug/L	4.0			

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC

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CARBAMATES IN DRINKING WATER

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

System Name:
System ID Number:
DOH Source Number:
Multiple Sources:
Sample Type:
Sample Purpose: Investigative or Other
Sample Location: Locher Road 3
County:
Sampled By: Baker
Sampler Phone:

Reference Number: 09-03591
Project: Locher Road Recharge Sites

Field ID: L3
Lab Number: -07337
Date Collected: 3/12/09 00:00
Date Extracted: 531_090313
Date Analyzed: 03/13/09
Report Date: 3/18/09
Analyst: CO
Peer Review:

EPA Method 531.2 For State Drinking Water Compliance

DOH#	COMPOUNDS	RESULTS	UNITS	SRL	Trigger	MCL	COMMENT
	EPA Regulated						
148	OXYMAL	ND	ug/L	4.0	4.0	200	
146	CARBOFURAN	ND	ug/L	1.8	1.8	40	
	EPA Unregulated						
144	ALDICARB SULFOXIDE	ND	ug/L	1.0	1.0		
143	ALDICARB SULFONE	ND	ug/L	1.6	1.6		
147	METHOMYL	ND	ug/L	1.0	1.0		
141	3-HYDROXYCARBOFURAN	ND	ug/L	2.0	2.0		
142	ALDICARB	ND	ug/L	1.0	1.0		
145	CARBARYL	ND	ug/L	2.0	2.0		
	State Unregulated - Other						
326	PROPOXUR (BAYGON)	ND	ug/L	1.0			
327	METHIOCARB	ND	ug/L	4.0			

NOTES:
If a compound is detected > or = to the State Reporting Level, SRL, specified increased monitoring frequencies may occur per DOH.
MCL (Maximum Contaminant Level) maximum permissible level of a contaminant in water established by EPA; Federal Action Levels are 0.015 mg/L for Lead and 1.3 mg/L for Copper. Sodium has a recommended limit of 20 mg/L. A blank MCL value indicates a level is not currently established.
Trigger Level: DOH Drinking Water Response level. Systems with compounds detected in excess of this level are required to take additional samples. Contact your regional DOH office.
ND (Not Detected): indicates that the parameter was not detected above the State Reporting Limit (SRL).

If you have any questions concerning this report contact at the above phone number.

FORM: SOC

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May 8, 2009

Mr. Troy Baker
Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

RE: 09-05772 - Locher Road and Hall-W[redacted]

Dear Mr. Troy Baker,

Your project: Locher Road and Hall-We[redacted]nd Recharge Sites, was received on Friday April 24, 2009.
All samples were analyzed within the accepted holding times, were appropriately preserved and were analyzed according to approved analytical protocols. The quality control data was within laboratory acceptance limits, unless specified in the QA reports.

If you have questions phone me at 800 755-9295.

Respectfully Submitted,

Lawrence J Henderson, PhD
Director of Laboratories

Enclosures Data Report

EDGE ANALYTICAL LABORATORIES

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Data Report

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

Reference Number: **09-05772**
Project: Locher Road and Hall-Wentland Re
Report Date: 5/8/09
Date Received: 4/24/09
Peer Review:

Sample Description: MC1 - Mud Creek 1
Lab Number: 11902
Sample Date: 4/23/09
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
E-10139	**HYDROGEN ION (pH)**	7.07			pH Units	1	SM4500-H+ B	4/24/09	MAK	PH_090424	
E-10617	**TURBIDITY**	1.04	0.05	0.02	NTU	1	180.1	4/24/09	MAK	TURB_090424	
14797-55-8	**NITRATE-N**	1.56	0.100	0.015	mg/L	1	300.0	4/25/09	BJ	I090424A	
16887-00-6	**CHLORIDE**	7.4	20	0.012	mg/L	1	300.0	4/24/09	BJ	I090424A	
E-10173	**TOTAL DISSOLVED SOLIDS**	220	10	6	mg/L	1	SM2540 C	4/28/09	CCN	TDS_090428	
14265-44-2	**ORTHO-PHOSPHATE**	0.16	0.01	0.002	mg/L	1	SM4500-P F	4/24/09	SO	OPHOS-090424	
E-10184	**ELECTRICAL CONDUCTIVITY**	363	10		uS/cm	1	SM2510 B	4/24/09	CCN	EC_090424	
15541-45-4	**BROMATE**	ND	0.005	0.00046	mg/L	1	300.1	4/29/09	MVP	D090429A	
E-11778	**HARDNESS**	149	3.30	0.055	mg CaCO3/L	1	200.7	4/27/09	BJ	200.7-090427A	
E-10117	**CHEMICAL OXYGEN DEMAND**	ND	8.0	2.47	mg/L	1	SM5220 D	5/7/09	MAK	COD_090507	

Sample Description: MC2 - Mud Creek 2
Lab Number: 11903
Sample Date: 4/23/09
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
E-10139	**HYDROGEN ION (pH)**	6.94			pH Units	1	SM4500-H+ B	4/24/09	MAK	PH_090424	
E-10617	**TURBIDITY**	0.50	0.05	0.02	NTU	1	180.1	4/24/09	MAK	TURB_090424	
14797-55-8	**NITRATE-N**	0.98	0.100	0.015	mg/L	1	300.0	4/25/09	BJ	I090424A	
16887-00-6	**CHLORIDE**	5.3	20	0.012	mg/L	1	300.0	4/24/09	BJ	I090424A	
E-10173	**TOTAL DISSOLVED SOLIDS**	163	10	6	mg/L	1	SM2540 C	4/28/09	CCN	TDS_090428	
14265-44-2	**ORTHO-PHOSPHATE**	0.13	0.01	0.002	mg/L	1	SM4500-P F	4/24/09	SO	OPHOS-090424	
E-10184	**ELECTRICAL CONDUCTIVITY**	275	10		uS/cm	1	SM2510 B	4/24/09	CCN	EC_090424	
15541-45-4	**BROMATE**	ND	0.005	0.00046	mg/L	1	300.1	4/29/09	MVP	D090429A	
E-11778	**HARDNESS**	114	3.30	0.055	mg CaCO3/L	1	200.7	4/27/09	BJ	200.7-090427A	
E-10117	**CHEMICAL OXYGEN DEMAND**	ND	8.0	2.47	mg/L	1	SM5220 D	5/7/09	MAK	COD_090507	

Sample Description: SW1 - Source Water 1
Lab Number: 11904
Sample Date: 4/23/09
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment

Notes:
ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.
PQL = Practical Quantitation Limit is the lowest level that can be acheived within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor

If you have any questions concerning this report contact us at the above phone number.

Reference Number: **09-05772**
Report Date: 5/8/09

Data Report

E-10139	**HYDROGEN ION (pH)**	6.52			pH Units	1	SM4500-H+ B	4/24/09	MAK	PH_090424
E-10617	**TURBIDITY**	61.8	0.50	0.02	NTU	10	180.1	4/24/09	MAK	TURB_090424
14797-55-8	**NITRATE-N**	0.22	0.100	0.015	mg/L	1	300.0	4/25/09	BJ	I090424A
16887-00-6	**CHLORIDE**	0.7	20	0.012	mg/L	1	300.0	4/24/09	BJ	I090424A
E-10173	**TOTAL DISSOLVED SOLIDS**	52	10	6	mg/L	1	SM2540 C	4/28/09	CCN	TDS_090428
14265-44-2	**ORTHO-PHOSPHATE**	0.12	0.01	0.005	mg/L	1	SM4500-P F	4/24/09	SO	OPHOS-090424
E-10184	**ELECTRICAL CONDUCTIVITY**	52.9	10		uS/cm	1	SM2510 B	4/24/09	CCN	EC_090424
15541-45-4	**BROMATE**	ND	0.005	0.00046	mg/L	1	300.1	4/29/09	MVP	D090429A
E-11778	**HARDNESS**	20.8	3.30	0.055	mg CaCO3/L	1	200.7	4/27/09	BJ	200.7-090427A
E-10117	**CHEMICAL OXYGEN DEMAND**	10	8.0	2.47	mg/L	1	SM5220 D	5/7/09	MAK	COD_090507

Sample Description: L2 - Locher Road 2
Lab Number: 11905
Sample Date: 4/23/09
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
E-10139	**HYDROGEN ION (pH)**	6.45			pH Units	1	SM4500-H+ B	4/24/09	CCN	PH_090424	
E-10617	**TURBIDITY**	10.9	0.05	0.02	NTU	1	180.1	4/24/09	MAK	TURB_090424	
14797-55-8	**NITRATE-N**	17.3	0.100	0.015	mg/L	1	300.0	4/25/09	BJ	I090424A	
16887-00-6	**CHLORIDE**	9.8	20	0.012	mg/L	1	300.0	4/24/09	BJ	I090424A	
E-10173	**TOTAL DISSOLVED SOLIDS**	302	10	6	mg/L	1	SM2540 C	4/28/09	CCN	TDS_090428	
14265-44-2	**ORTHO-PHOSPHATE**	0.20	0.01	0.002	mg/L	1	SM4500-P F	4/24/09	SO	OPHOS-090424	
E-10184	**ELECTRICAL CONDUCTIVITY**	440	10		uS/cm	1	SM2510 B	4/24/09	CCN	EC_090424	
15541-45-4	**BROMATE**	ND	0.005	0.00046	mg/L	1	300.1	4/29/09	MVP	D090429A	
E-11778	**HARDNESS**	118	3.30	0.055	mg CaCO3/L	1	200.7	4/27/09	BJ	200.7-090427A	
E-10117	**CHEMICAL OXYGEN DEMAND**	ND	8.0	2.47	mg/L	1	SM5220 D	5/7/09	MAK	COD_090507	

Sample Description: L1 - Locher Road 1
Lab Number: 11906
Sample Date: 4/23/09
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
E-10139	**HYDROGEN ION (pH)**	6.71			pH Units	1	SM4500-H+ B	4/24/09	CCN	PH_090424	
E-10617	**TURBIDITY**	15.5	0.05	0.02	NTU	1	180.1	4/24/09	MAK	TURB_090424	
14797-55-8	**NITRATE-N**	16.2	0.100	0.015	mg/L	1	300.0	4/25/09	BJ	I090424A	
16887-00-6	**CHLORIDE**	9.7	20	0.012	mg/L	1	300.0	4/24/09	BJ	I090424A	
E-10173	**TOTAL DISSOLVED SOLIDS**	279	10	6	mg/L	1	SM2540 C	4/28/09	CCN	TDS_090428	
14265-44-2	**ORTHO-PHOSPHATE**	0.21	0.01	0.002	mg/L	1	SM4500-P F	4/24/09	SO	OPHOS-090424	
E-10184	**ELECTRICAL CONDUCTIVITY**	434	10		uS/cm	1	SM2510 B	4/24/09	CCN	EC_090424	
15541-45-4	**BROMATE**	ND	0.005	0.00046	mg/L	1	300.1	4/29/09	MVP	D090429A	
E-11778	**HARDNESS**	167	3.30	0.055	mg CaCO3/L	1	200.7	4/27/09	BJ	200.7-090427A	
E-10117	**CHEMICAL OXYGEN DEMAND**	ND	8.0	2.47	mg/L	1	SM5220 D	5/7/09	MAK	COD_090507	

Notes:
ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.
PQL = Practical Quantitation Limit is the lowest level that can be acheived within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor

EDGE ANALYTICAL LABORATORIES

Burlington WA | 1620 S Walnut St - 98233
Corporate Office | 800.755.9295 • 360.757.1400 • 360.757.1402fax
Bellingham WA | 805 Orchard Dr Suite 4 - 98225
Microbiology | 360.671.0688 • 360.671.1577fax

SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Fortified Blank

Reference Number: 09-05772
Report Date: 05/08/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
200.7-090427A	HARDNESS	73.3	69.5	mg/L	200.7	105	80-120		LFB	
COD_090507	CHEMICAL OXYGEN DEMAND	55	50	mg/L	SM5220 D	110	80-120		LFB	
OPHOS-090424	ORTHO-PHOSPHATE	1.01	1.00	mg/L	SM4500-P F	101	70-130		LFB	
tds_090428	TOTAL DISSOLVED SOLIDS	504	500	mg/L	SM2540 C	101	80-120		LFB	
tds_090428	TOTAL DISSOLVED SOLIDS	512	500	mg/L	SM2540 C	102	80-120		LFB	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

QCS: Quality Control Sample, a solution containing known concentrations of method analytes which is used to fortify an aliquot of reagent matrix. The QCS is obtained from an external source and is used to check lab performance.

LFB: Laboratory Fortified Blank, an aliquot of reagent matrix to which known quantities of method analytes are added in the lab. The LFB is analyzed exactly like a sample, and its purpose is to determine whether method performance is within accepted control limits.

MB or LRB: Method Blank or Laboratory Reagent Blank, an aliquot of reagent matrix is analyzed exactly like a sample, and its purpose is to determine if there is background contamination.

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Reagent Blank

Reference Number: 09-05772
Report Date: 05/08/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
200.7-090427A	HARDNESS	ND		mg/L	200.7		10.0000(		LRB	
COD_090507	CHEMICAL OXYGEN DEMAND	ND		mg/L	SM5220 D		4.00000		LRB	
D090429A	BROMATE	ND		mg/L	300.1		0.00500		LRB	
I090424A	CHLORIDE	ND		mg/L	300.0		0.10000		LRB	
	NITRATE-N	ND		mg/L	300.0		0.10000			
OPHOS-090424	ORTHO-PHOSPHATE	ND		mg/L	SM4500-P F		0.10000		LRB	
TURB_090424	TURBIDITY	ND		NTU	180.1		0.02000		LRB	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

QCS: Quality Control Sample, a solution containing known concentrations of method analytes which is used to fortify an aliquot of reagent matrix. The QCS is obtained from an external source and is used to check lab performance.

LFB: Laboratory Fortified Blank, an aliquot of reagent matrix to which known quantities of method analytes are added in the lab. The LFB is analyzed exactly like a sample, and its purpose is to determine whether method performance is within accepted control limits.

MB or LRB: Method Blank or Laboratory Reagent Blank, an aliquot of reagent matrix is analyzed exactly like a sample, and its purpose is to determine if there is background contamination.

FORM: QC Independent

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Microbiology | 360.671.0688 • 360.671.1577fax

SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Method Blank

Reference Number: 09-05772
Report Date: 05/08/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits	QC Qualifier	Type*	Comment
200.7-090427A	HARDNESS	ND		mg/L	200.7		0.82000		MB	
ec_090424	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
ec_090424	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
ec_090424	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
ec_090424	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
ec_090424	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
ec_090424	ELECTRICAL CONDUCTIVITY	ND		uS/cm	SM2510 B		2.50000		MB	
OPHOS-090424	ORTHO-PHOSPHATE	ND		mg/L	SM4500-P F		0.10000		MB	
tds_090428	TOTAL DISSOLVED SOLIDS	ND		mg/L	SM2540 C		2.50000		MB	
tds_090428	TOTAL DISSOLVED SOLIDS	ND		mg/L	SM2540 C		2.50000		MB	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

QCS: Quality Control Sample, a solution containing known concentrations of method analytes which is used to fortify an aliquot of reagent matrix. The QCS is obtained from an external source and is used to check lab performance.

LFB: Laboratory Fortified Blank, an aliquot of reagent matrix to which known quantities of method analytes are added in the lab. The LFB is analyzed exactly like a sample, and its purpose is to determine whether method performance is within accepted control limits.

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Quality Control Sample

Reference Number: 09-05772
Report Date: 05/08/09

Batch	Analyte	Result	True Value	Units	Method	% Recovery	QC Limits	Qualifier	Type*	Comment
200.7-090427A	HARDNESS	135	132.3	mg/L	200.7	102	80-120		QCS	
COD_090507	CHEMICAL OXYGEN DEMAND	94	92	mg/L	SM5220 D	102	80-120		QCS	
D090429A	BROMATE	0.0155	0.0157	mg/L	300.1	99	75-125		QCS	
ec_090424	ELECTRICAL CONDUCTIVITY	155	150.1	uS/cm	SM2510 B	103	80-120		QCS	
ec_090424	ELECTRICAL CONDUCTIVITY	154	150.1	uS/cm	SM2510 B	103	80-120		QCS	
ec_090424	ELECTRICAL CONDUCTIVITY	154	150.1	uS/cm	SM2510 B	103	80-120		QCS	
ec_090424	ELECTRICAL CONDUCTIVITY	150	150.1	uS/cm	SM2510 B	100	80-120		QCS	
ec_090424	ELECTRICAL CONDUCTIVITY	152	150.1	uS/cm	SM2510 B	101	80-120		QCS	
ec_090424	ELECTRICAL CONDUCTIVITY	154	150.1	uS/cm	SM2510 B	103	80-120		QCS	
I090424A	CHLORIDE	29	30.0	mg/L	300.0	97	80-120		QCS	
	NITRATE-N	2.42	2.50	mg/L	300.0	97	80-120			
OPHOS-090424	ORTHO-PHOSPHATE	0.45	0.49	mg/L	SM4500-P F	92	70-130		QCS	
TURB_090424	TURBIDITY	0.95	1.00	NTU	180.1	95	70-130		QCS	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

QCS: Quality Control Sample, a solution containing known concentrations of method analytes which is used to fortify an aliquot of reagent matrix. The QCS is obtained from an external source and is used to check lab performance.

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FORM: QC Independent

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Microbiology | 360.671.0688 • 360.671.1577fax

QUALITY CONTROL REPORT

Duplicate and Matrix Spike/Matrix Spike Duplicate Report

Reference Number: 09-05772

Report Date: 5/8/2009

Duplicate

Batch	Sample	Analyte	Result	Duplicate Result	Units	%RPD	Limits	QC Qualifier	Comments
200.7-090427A									
	11461	HARDNESS	142	143	mg CaCO3/L	**0.7**	0-45		DUP
	11780	HARDNESS	155	155	mg CaCO3/L	**0.0**	0-45		DUP
COD_090507									
	12748	CHEMICAL OXYGEN DEMAND	3600	3500	mg/L	**2.8**	0-45		DUP
D090429A									
EC_090424									
	11460	ELECTRICAL CONDUCTIVITY	363	362	uS/cm	**0.3**	0-45		DUP
	11561	ELECTRICAL CONDUCTIVITY	779	780	uS/cm	**0.1**	0-45		DUP
	11627	ELECTRICAL CONDUCTIVITY	386	401	uS/cm	**3.8**	0-45		DUP
	11903	ELECTRICAL CONDUCTIVITY	275	272	uS/cm	**1.1**	0-45		DUP
	11942	ELECTRICAL CONDUCTIVITY	367	362	uS/cm	**1.4**	0-45		DUP
I090424A									
	11797	CHLORIDE	0.6	0.6	mg/L	**0.0**	0-45		DUP
	11864	CHLORIDE	18	18	mg/L	**0.0**	0-45		DUP
	11934	CHLORIDE	15	15	mg/L	**0.0**	0-45		DUP
	11942	CHLORIDE	7.4	7.4	mg/L	**0.0**	0-45		DUP
OPHOS-090424									
	11910	ORTHO-PHOSPHATE	0.16	0.16	mg/L	**0.0**	0-50		DUP
PH_090424									
	11911	HYDROGEN ION (pH)	6.05	6.03	pH Units	**0.3**	0-45		DUP
TDS_090428									
TURB_090424									
	11911	TURBIDITY	284	280	NTU	**1.4**	0-50		DUP
	11934	TURBIDITY	0.68	0.71	NTU	**4.3**	0-50		DUP

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Reference Number: 09-05772
Report Date: 5/8/2009

EDGE ANALYTICAL LABORATORIES

Matrix Spike

Batch	Sample	Analyte	Result	Spike Result	Duplicate Spike Result	Spike Conc	Units	Percent Recovery MS	Percent Recovery MSD	Limits	%RPD	Limits	QC Qualifier	Comments
200.7-090427A														
	11461	HARDNESS	142	210	211	69.5	mg CaCO3/L	**98**	**99**	80-120	**1.5**	0-60		LFM
	11780	HARDNESS	155	225	223	69.5	mg CaCO3/L	**101**	**98**	80-120	**2.9**	0-60		LFM
COD_090507														
	11907	CHEMICAL OXYGEN DEMAND	ND	45	48	50	mg/L	**90**	**96**	80-120	**6.5**	0-60		LFM
	12313	CHEMICAL OXYGEN DEMAND	ND	49	49	50	mg/L	**98**	**98**	80-120	**0.0**	0-60		LFM
	12748	CHEMICAL OXYGEN DEMAND	3600	5900	5900	2500	mg/L	**92**	**92**	80-120	**0.0**	0-60		LFM
D090429A														
	11629	BROMATE	ND	0.0087		0.010	mg/L	**87**	**NA**	75-125	**NA**	0-60		LFM
	11909	BROMATE	ND	0.0107		0.010	mg/L	**107**	**NA**	75-125	**NA**	0-60		LFM
I090424A														
	11797	CHLORIDE	0.6	20.1		20.00	mg/L	**98**	**NA**	80-120	**NA**	0-60		LFM
	11864	NITRATE-N	ND	1.08		1.00	mg/L	**108**	**NA**	80-120	**NA**	0-60		LFM
	11934	NITRATE-N	ND	1.05		1.00	mg/L	**105**	**NA**	80-120	**NA**	0-60		LFM
	11942	NITRATE-N	ND	18.8		20.00	mg/L	**94**	**NA**	80-120	**NA**	0-60		LFM
	11942	CHLORIDE	7.4	26.3		20.00	mg/L	**95**	**NA**	80-120	**NA**	0-60		LFM
OPHOS-090424														
	11910	ORTHO-PHOSPHATE	0.16	1.17	1.19	1.00	mg/L	**101**	**103**	70-130	**2.0**	0-50		LFM

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Chain of Custody / Analysis Request (Please complete all applicable shaded sections)

7616

EDGE ANALYTICAL LABORATORIES
1620 S. Walnut St.
Burlington, WA 98233
1.800.755.9295

805 W. Orchard Dr. Suite 4
Bellingham, WA 98225

Report to: Walla Walla Basin Watershed Cour	Bill to: Walla Walla Basin Watershed Counc	For Lab Use Only	
Ship Address: 810 S Main Street	Address: 810 South Main Street	Ref #	
City: Milton-Freewa St: OR Zip: 97862	City: Milton-Freewa St: OR Zip: 97862	Check Regulatory Program	
Attn: Troy Baker	Phone: FAX:	☐ Safe Drinking Water Act	
Phone: 541 938-2170 FAX:	P.O.#: Attn:	☐ Clean Water Act	
Email: troy.baker@wwbwc.org	☐ Visa ☐ M/C ☐ A/E Expires /	☐ RCRA / CERCLA	
Project: Hall-Wentland Recharge Sites Lacher Road and	Card#:	☐ Other	

Analyses Requested

Instructions
1. Use one line per sample Location.
2. Be specific in analysis requests.
3. *(NEW)* **List each metal individually** *(NEW)*
4. Check off analyses to be performed for each sample Loaction.
5. Enter number of containers.

Turn Around Time Required
- ☐ Standard
- ☐ Half-time (50% surcharge)
- ☐ Quickest (100% surcharge) Phone Call Req.
- ☐ Emergency (Phone Call Req.)

CO007616

	Field ID	Location	Grab/ Comp.	Sample Matrix*	Date	Time	Bromate	Hardness	NO3, COD	TDS, Cl, O-Phos,pH,Turb,Ec					Number of Containers	Special Instructions Conditions on Receipt
1	MW1	Muckleer 1			4/23	8:35	☒	☒	☒	☒	☐	☐	☐	☐	1	
2	MW2	Mud Creek 2			4/23	8:40	☒	☒	☒	☒	☐	☐	☐	☐	4	
3	SW1	Source water 1			4/23	8:50	☒	☒	☒	☒	☐	☐	☐	☐	4	
4	L2	Lacher Road 2			4/23	8:55	☒	☒	☒	☒	☐	☐	☐	☐	4	
5	L1	Lacher Road 1			4/23	9:26	☒	☒	☒	☒	☐	☐	☐	☐	4	
6	HW3	Hall Wentland 3			4/23	9:55	☒	☒	☒	☒	☐	☐	☐	☐	4	
7	HW1	Hall Wentland 1			4/23	10:05	☒	☒	☒	☒	☐	☐	☐	☐	4	Bromate lid of in cooler
8	HW2	Hall Wentland 2			4/23	10:25	☒	☒	☒	☒	☐	☐	☐	☐	4	
9	HWSW1	Hall Wentland Source water			4/23	10:30	☒	☒	☒	☒	☐	☐	☐	☐	4	
10							☐									
Sampled by:		Phone:		FAX:											Total Containers	

09-05772

Sample Receipt Request (Must include FAX or Email) ☐

* **W** - water **SW** - surface water **OL** - oil
DW - drinking water **GW** - Ground water **S** - soil Other_____

UPS

Relinquished by	Date	Time	Received by	Date	Time
Troy Baker	4/23/09	11:45	[illegible]	4/24/09	0835

	Yes	No	N/A
Custody seals intact	☐	☐	☒
Sample temp 2 C satisfactory	☐	☐	☐
Samples received intact	☒	☐	
Chain of custody & labels agree	☒	☐	

FORM COC 01-06-2009

09-05772

EDGE ANALYTICAL LABORATORIES

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Data Report

Client Name: Walla Walla Basin Watershed Council
810 S Main Street
Milton-Freewater, OR 97862

Reference Number: **09-07745**
Project: Locher Road Recharge Sites and Hi
Report Date: 6/11/09
Date Received: 5/29/09
Peer Review:

Sample Description: L-1 - Locher Rd. 1 Well
Lab Number: 16095
Sample Date: 5/28/09
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
E-10139	**HYDROGEN ION (pH)**	6.89			pH Units	1	SM4500-H+ B	5/29/09	MAK	PH_090529	
E-10617	**TURBIDITY**	1.30	0.05	0.02	NTU	1	180.1	5/29/09	MAK	TURB_090529	
14797-55-8	**NITRATE-N**	7.07	0.100	0.015	mg/L	1	300.0	5/29/09	BJ	I090529A	
16887-00-6	**CHLORIDE**	7.26	0.1	0.012	mg/L	1	300.0	5/29/09	BJ	I090529A	
E-10173	**TOTAL DISSOLVED SOLIDS**	266	10		mg/L	1	SM2540 C	6/3/09	CCN	TDS_090603	
14265-44-2	**ORTHO-PHOSPHATE**	0.27	0.01	0.002	mg/L	1	SM4500-P F	5/29/09	SO	OPHOS-090529B	
E-10184	**ELECTRICAL CONDUCTIVITY**	431	10		uS/cm	1	SM2510 B	6/3/09	CCN	EC_090603	
15541-45-4	**BROMATE**	ND	0.005	0.0016	mg/L	1	300.1	6/1/09	MVP	D090601A	
E-11778	**HARDNESS**	172	3.30	0.055	mg CaCO3/L	1	200.7	6/1/09	BJ	200.7-090601B	
E-10117	**CHEMICAL OXYGEN DEMAND**	ND	8.0	2.47	mg/L	1	SM5220 D	6/2/09	MAK	COD_090602	

Sample Description: L-2 - Locher Rd. 2 Well
Lab Number: 16096
Sample Date: 5/28/09
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
E-10139	**HYDROGEN ION (pH)**	6.69			pH Units	1	SM4500-H+ B	5/29/09	MAK	PH_090529	
E-10617	**TURBIDITY**	9.13	0.05	0.02	NTU	1	180.1	5/29/09	MAK	TURB_090529	
14797-55-8	**NITRATE-N**	15.4	0.100	0.015	mg/L	1	300.0	5/30/09	BJ	I090529A	
16887-00-6	**CHLORIDE**	8.9	0.1	0.012	mg/L	1	300.0	5/29/09	BJ	I090529A	
E-10173	**TOTAL DISSOLVED SOLIDS**	286	10		mg/L	1	SM2540 C	6/3/09	CCN	TDS_090603	
14265-44-2	**ORTHO-PHOSPHATE**	0.26	0.01	0.002	mg/L	1	SM4500-P F	5/29/09	SO	OPHOS-090529B	
E-10184	**ELECTRICAL CONDUCTIVITY**	422	10		uS/cm	1	SM2510 B	6/3/09	CCN	EC_090603	
15541-45-4	**BROMATE**	ND	0.005	0.0016	mg/L	1	300.1	6/1/09	MVP	D090601A	
E-11778	**HARDNESS**	164	3.30	0.055	mg CaCO3/L	1	200.7	6/1/09	BJ	200.7-090601B	
E-10117	**CHEMICAL OXYGEN DEMAND**	ND	8.0	2.47	mg/L	1	SM5220 D	6/2/09	MAK	COD_090602	

Sample Description: L-3 - Locher Rd. 3 Well
Lab Number: 16097
Sample Date: 5/28/09
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment

Notes:
ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.
PQL = Practical Quantitation Limit is the lowest level that can be acheived within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor

If you have any questions concerning this report contact us at the above phone number.

Reference Number: **09-07745**
Report Date: 6/11/09

Data Report

E-10139	**HYDROGEN ION (pH)**	6.80			pH Units	1	SM4500-H+ B	5/29/09	MAK	PH_090529
E-10617	**TURBIDITY**	6.88	0.05	0.02	NTU	1	180.1	5/29/09	MAK	TURB_090529
14797-55-8	**NITRATE-N**	1.84	0.100	0.015	mg/L	1	300.0	5/30/09	BJ	I090529A
16887-00-6	**CHLORIDE**	1.42	0.1	0.012	mg/L	1	300.0	5/29/09	BJ	I090529A
E-10173	**TOTAL DISSOLVED SOLIDS**	96	10		mg/L	1	SM2540 C	6/3/09	CCN	TDS_090603
14265-44-2	**ORTHO-PHOSPHATE**	ND	0.01	0.002	mg/L	1	SM4500-P F	5/29/09	SO	OPHOS-090529B
E-10184	**ELECTRICAL CONDUCTIVITY**	121	10		uS/cm	1	SM2510 B	6/3/09	CCN	EC_090603
15541-45-4	**BROMATE**	ND	0.005	0.0016	mg/L	1	300.1	6/1/09	MVP	D090601A
E-11778	**HARDNESS**	44.0	3.30	0.055	mg CaCO3/L	1	200.7	6/1/09	BJ	200.7-090601B
E-10117	**CHEMICAL OXYGEN DEMAND**	ND	8.0	2.47	mg/L	1	SM5220 D	6/2/09	MAK	COD_090602

Sample Description: SW-1 - Locher Rd. SW 1
Lab Number: 16098
Sample Date: 5/28/09
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
E-10139	**HYDROGEN ION (pH)**	7.18			pH Units	1	SM4500-H+ B	5/29/09	MAK	PH_090529	
E-10617	**TURBIDITY**	3.97	0.05	0.02	NTU	1	180.1	5/29/09	MAK	TURB_090529	
14797-55-8	**NITRATE-N**	1.37	0.100	0.015	mg/L	1	300.0	5/30/09	BJ	I090529A	
16887-00-6	**CHLORIDE**	6.8	0.1	0.012	mg/L	1	300.0	5/29/09	BJ	I090529A	
E-10173	**TOTAL DISSOLVED SOLIDS**	226	10		mg/L	1	SM2540 C	6/3/09	CCN	TDS_090603	
14265-44-2	**ORTHO-PHOSPHATE**	0.26	0.01	0.002	mg/L	1	SM4500-P F	5/29/09	SO	OPHOS-090529B	
E-10184	**ELECTRICAL CONDUCTIVITY**	374	10		uS/cm	1	SM2510 B	6/3/09	CCN	EC_090603	
15541-45-4	**BROMATE**	ND	0.005	0.0016	mg/L	1	300.1	6/1/09	MVP	D090601A	
E-11778	**HARDNESS**	142	3.30	0.055	mg CaCO3/L	1	200.7	6/1/09	BJ	200.7-090601B	
E-10117	**CHEMICAL OXYGEN DEMAND**	ND	8.0	2.47	mg/L	1	SM5220 D	6/2/09	MAK	COD_090602	

Sample Description: SW-2 - Locher Rd. SW 2
Lab Number: 16099
Sample Date: 5/28/09
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
E-10139	**HYDROGEN ION (pH)**	7.25			pH Units	1	SM4500-H+ B	5/29/09	MAK	PH_090529	
E-10617	**TURBIDITY**	0.96	0.05	0.02	NTU	1	180.1	5/29/09	MAK	TURB_090529	
14797-55-8	**NITRATE-N**	1.38	0.100	0.015	mg/L	1	300.0	5/30/09	BJ	I090529A	
16887-00-6	**CHLORIDE**	6.2	0.1	0.012	mg/L	1	300.0	5/29/09	BJ	I090529A	
E-10173	**TOTAL DISSOLVED SOLIDS**	198	10		mg/L	1	SM2540 C	6/3/09	CCN	TDS_090603	
14265-44-2	**ORTHO-PHOSPHATE**	0.66	0.01	0.002	mg/L	1	SM4500-P F	5/29/09	SO	OPHOS-090529B	
E-10184	**ELECTRICAL CONDUCTIVITY**	310	10		uS/cm	1	SM2510 B	6/3/09	CCN	EC_090603	
15541-45-4	**BROMATE**	ND	0.005	0.0016	mg/L	1	300.1	6/1/09	MVP	D090601A	
E-11778	**HARDNESS**	126	3.30	0.055	mg CaCO3/L	1	200.7	6/1/09	BJ	200.7-090601B	
E-10117	**CHEMICAL OXYGEN DEMAND**	ND	8.0	2.47	mg/L	1	SM5220 D	6/2/09	MAK	COD_090602	

Notes:

ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.
PQL = Practical Quantitation Limit is the lowest level that can be acheived within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor

EDGE ANALYTICAL LABORATORIES

Reference Number: **09-07745**
Report Date: 6/11/09

Data Report

Sample Description: L-INT - Locher Rd. Intake
Lab Number: 16100

Sample Date: 5/28/09
Collected By: Unknown

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
E-10139	**HYDROGEN ION (pH)**	6.89			pH Units	1	SM4500-H+ B	5/29/09	MAK	PH_090529	
E-10617	**TURBIDITY**	11.9	0.05	0.02	NTU	1	180.1	5/29/09	MAK	TURB_090529	
14797-55-8	**NITRATE-N**	0.25	0.100	0.015	mg/L	1	300.0	5/30/09	BJ	I090529A	
16887-00-6	**CHLORIDE**	0.74	0.1	0.012	mg/L	1	300.0	5/29/09	BJ	I090529A	
E-10173	**TOTAL DISSOLVED SOLIDS**	61	10		mg/L	1	SM2540 C	6/3/09	CCN	TDS_090603	
14265-44-2	**ORTHO-PHOSPHATE**	0.14	0.01	0.002	mg/L	1	SM4500-P F	5/29/09	SO	OPHOS-090529B	
E-10184	**ELECTRICAL CONDUCTIVITY**	66.4	10		uS/cm	1	SM2510 B	6/3/09	CCN	EC_090603	
15541-45-4	**BROMATE**	ND	0.005	0.0016	mg/L	1	300.1	6/9/09	MVP	D090609A	
E-11778	**HARDNESS**	25.2	3.30	0.055	mg CaCO3/L	1	200.7	6/1/09	BJ	200.7-090601B	
E-10117	**CHEMICAL OXYGEN DEMAND**	ND	8.0	2.47	mg/L	1	SM5220 D	6/2/09	MAK	COD_090602	