Recology
Hay Road
WASTE ZERO

July 29, 2011

Ms. Mary Boyd
California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670-6114

Re: Transmittal Letter for First Semi-Annual, Annual 2011 Monitoring Report, Recology Hay Road, Solano County, California

Dear Ms. Boyd:

Enclosed is the above-referenced report. This transmittal letter includes the information required by Section E.2 *Reporting Requirements* of WDR/MRP Order R5-2008-0118.

No violations have been noted since the last report was submitted. However, there are results of note and these will be investigated further (see text below).

Wells G-8 and G-9 were sampled for barium to monitor potential changes following the EMP, which was submitted in June 2011. Barium continued to be above the concentration limits. The installation of landfill gas extraction in DM-1 is expected to reduce the barium in groundwater.

Other than nitrate in wells 4B and G-13, in the western area, no other inorganic concentration limits were exceeded. As a result of these nitrate concentrations, both wells will be re-sampled within 30 days.

Two VOCs (acetone and toluene) were detected at estimated trace concentrations and one VOC (2-butanone) was detected in well 4B.[1] Acetone was detected in the method blank at essentially the same concentration as well 4B. The acetone detection in well 4B is considered a false-positive result. Two re-samples were obtained from well 4B during the last two weeks of July. In the re-samples only a trace concentration of toluene was detected; acetone and 2-butanone were not detected. Because this is a single trace VOC detection, no further action is necessary at this time. Note that a landfill gas extraction system was installed in disposal module DM-1; well 4B is located adjacent to the southeast corner of DM-1. The addition of landfill gas extraction from DM-1 is anticipated to reduce the potential for VOC impacts to groundwater near DM-1.

No VOCs were detected in any other western area well.

[1] Recology, July 7, 2011, *Notification of Volatile Organic Compound Detections in Groundwater Monitoring Well 4B, Recology Hay Road, Solano County, California*.

WP-9.1 Corrective Action Monitoring Evaluation

Throughout the monitoring period, the leachate levels in S-9.1A and S-9.1B were maintained at levels below 1 foot. The water levels in the pan lysimeters remained below 0.2 feet throughout the monitoring period. Therefore, no water was removed from the pan lysimeters.

Approximately 461,000 gallons of groundwater were extracted during this monitoring period using well G-22. The average groundwater extraction rate was over 1.5 gallons per minute, which is the design extraction rate for the corrective action well. The nitrate concentration in well G-21 was equivalent to the concentration limit in second quarter, which indicates that the corrective actions have been effective at reducing the nitrate concentrations in well G-21.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Sincerely,
Recology Hay Road

Greg Pryor
Regional Landfill Manager

FIRST SEMI-ANNUAL 2011 MONITORING REPORT

RECOLOGY HAY ROAD

First Semi-annual 2011 Monitoring Report, Solano County, California

Submitted To: Recology Hay Road
6426 Hay Road
Vacaville, CA 95687

Submitted By: Golder Associates Inc.
425 Lakeside Drive
Sunnyvale, CA 94085

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(1) Copy – Mary Boyd, RWQCB Central Valley Region
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(1) Copy – Greg Pryor, Recology Hay Road
(1) Copy – Ed Padilla, Solano County
(1) Copy – Golder Associates Inc.

July 29, 2011 **Project No. 053-7444-11**

A world of capabilities delivered locally

Golder Associates

RECOLOGY HAY ROAD

First Semi-annual 2011 Monitoring Report, Solano County, California

Submitted To:

Recology Hay Road
6426 Hay Road
Vacaville, CA 95687

Submitted By:

Golder Associates Inc.
425 Lakeside Drive
Sunnyvale, CA 94085

GOLDER ASSOCIATES INC.

ORIGINAL SIGNED BY

Kris H. Johnson, C.E.G. 1763
Senior Consultant

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1.0 INTRODUCTION

On behalf of Recology Hay Road (formerly Norcal Waste Systems Hay Road Landfill, Inc), Golder Associates Inc. is submitting this report, which presents the results of groundwater, vadose zone, surface water, leak detection, and landfill gas monitoring conducted at the Landfill (Figure 1) during the first and second quarter 2011 monitoring period. Results of the monitoring program, including groundwater flow and elevation data, sampling methods, analytical data, waste monitoring, and standard observations are included. The sampling and analysis program (Table 1) was performed in accordance with the Waste Discharge Requirements (WDRs) Order No. R5-2008-0188, adopted by the Regional Water Quality Control Board (RWQCB) Central Valley Region in December 2008.

2.0 SITE BACKGROUND

The Landfill consists of two Class III Landfills (Landfill 1 [LF-1] and Landfill 2 [LF-2]) and one Class II Landfill (Landfill 3 [LF-3]). LF-1 and LF-2 have one disposal module (DM) each (DM-1 and DM-2.1, respectively). LF-3 will have a total of 15 disposal modules when completed. Currently, DM-2.2 (comprised of 2.2A and 2.2B), DM-3, DM-4, DM-5, DM-11.1, and DM-11.2 are the only active disposal modules in LF-3. DM-9.1 (referred to as WP-9.1 in the WDR), comprised of 9.1A and 9.1B, is used for storing sludge. A Land Treatment Unit (LTU) is used for drying the sludge prior to re-use on site. Figure 2 shows the locations of these disposal modules.

The sediments beneath the site consist of sandy clay and silt, hundreds of feet thick, which locally contain zones of fine sand. Hydraulically, the sediments behave as one low-permeability groundwater body. The top of the groundwater body (i.e., the water table) occurs at a depth ranging from 5 to 15 feet beneath most of the site. Generally, groundwater flows slowly from the northwest to the southeast, following the regional direction of groundwater flow. Horizontal groundwater flow is more dominant than vertical flow, due to the clayey interbedded nature of the sediments, and is demonstrated by the similar water levels exhibited by wells that monitor different depth ranges.[1] Operation of a groundwater drain and dewatering of the borrow pit have significantly altered the movement of shallow groundwater beneath most of the site. Extraction of groundwater has created a cone of depression nearly one-quarter of a mile in diameter. Figures 2 and 3, groundwater contour maps based on first and second quarter groundwater elevations, shows the altered pattern of groundwater movement, and the locations of the groundwater drain and the borrow pit.

Groundwater monitoring has been conducted at the site since 1986. High concentrations of inorganic constituents in groundwater in the eastern area of the site were evaluated in 1995.[2] The conclusion of the groundwater quality evaluation was that high concentrations of dissolved inorganic constituents occur

[1] Einarson Geoscience, Inc. *Geology and Hydrogeology, B&J Drop Box Sanitary Landfill, Solano County*. February 1995.

[2] Einarson Geoscience, Inc. *Spatial Variability of Inorganic Constituents in Groundwater, B&J Drop Box Sanitary Landfill*. November 1995.

naturally in groundwater in the eastern area of the Landfill, and are generally coincident with the occurrence of Younger alluvium at the ground surface.

2.1 Corrective Action Monitoring Programs

There are two areas of the landfill that are currently operating under a corrective action monitoring program (CAP). These two areas are DM-11 and WP-9.1. In addition, two other areas of the landfill, DM-5.1 and DM-2.2A, were investigated for indications of a release. Each area is summarized below.

The Landfill has a targeted landfill gas (LFG) collection and control system that began operation on March 4, 2009. The LFG system consists of an enclosed flare, thirty eight (38) LFG extraction wells and ten (10) leachate sump risers outfitted for LFG extraction (see Figure 2 for LFG extraction well locations).

2.1.1 DM-11 Corrective Action Monitoring

Water was observed in pan lysimeter PL-11.1 (located beneath DM-11) in July 1999 and several VOCs were detected. An initial EFS was submitted to the RWQCB in August 2000.[3] Water was first detected in PL-11.2 (located beneath DM-11.2) in April 2000 and several VOCs were also detected in pan lysimeter PL-11.2. An EMP was submitted in August 2000.[4]

The extent of impact from the water and VOCs detected in PL-11.1 and PL-11.2 was evaluated.[5] Soil gas sampling showed that landfill gas was detected in one location along the southern edge of DM-2.1. In addition, VOCs were detected in a gas sample collected from within the PL-11.1 riser. The water levels in each pan lysimeter showed increases with seasonal rain events. No water appeared to be entering the pan lysimeters during relatively dry months.

Corrective action measures were implemented, including covering the exposed edges of the landfill module liner system with plastic sheeting to reduce the possibility of surface water from entering the capillary break layer. A change to the water quality monitoring program was proposed, making PL-11.1 and PL-11.2 part of the corrective action monitoring program. It was proposed that when water with VOCs is no longer entering the pan lysimeters, PL-11.1 and PL-11.2 would return to the detection monitoring program.

Additional information has been provided to the RWQCB regarding the release to PL-11.1 and PL-11.2.[6,7] To address concerns regarding landfill gas migration from the landfill based on the presence of landfill

[3] Conor Pacific/EFW. *Engineering Feasibility Study for Pan Lysimeter PL-11.1, B&J Drop Box Sanitary Landfill, Solano County, California*. August 11, 2000.

[4] Conor Pacific/EFW. *Amendment to Report of Waste Discharge and Establishment of Evaluation Monitoring Program. Pan Lysimeter PL-11.2, B&J Drop Box Sanitary Landfill, Solano County, California*. August 8, 2000.

[5] Conor Pacific, *Engineering Feasibility Study for Disposal Modules 11.1 and 11.2, B&J Drop Box Sanitary Landfill, Solano County, California*, May 30, 2001.

[6] Conor Pacific, *Revised Engineering Feasibility Study for Disposal Modules 11.1 and 11.2, Hay Road Landfill, Solano County, California*, February 8, 2002.

gas found in the pan lysimeters and soil adjacent to DM-2.1, a revised landfill gas monitoring plan was developed for the site.[8]

In 2003, the Landfill evaluated the occurrence of landfill gas and assessed if gas constituents could migrate to waters of the State and cause a condition of nuisance, degradation, contamination or pollution, consistent with the requirements in the Landfill WDRs.[9] The conclusions of the assessment report showed that gas constituents would not be expected to cause a condition of nuisance, degradation, contamination, or pollution in groundwater. A report to further explore landfill gas constituents was submitted on October 29, 2004 to the RWQCB that addressed the VOCs detected in the gas probes and pan lysimeters.[10] A corrective action plan to address the landfill gas issues was submitted at the end of May 2005.[11] The LFG collection system was installed, partially, to control the landfill gas in the DM-11 area.

2.1.2 WP-9.1 Corrective Action Monitoring

Water was detected in the pan lysimeters (PL-9.1A and B) located beneath WP-9.1 in July 2000 and elevated concentrations of nitrate/nitrite as nitrogen (as N) were detected in water samples from both pan lysimeters.[12] An EMP was submitted to the RWQCB in July 2001.[13] The results of the EMP were presented in an EFS, resulting in corrective actions to prevent surface water and leachate leakage from entering the Module 9.1 capillary break and pan lysimeters.[14] These corrective actions included: (1) repair of the landfill liner hole found during a leak detection survey, and (2) covering the exposed edges of the landfill module liner system with plastic sheeting to reduce the possibility of surface water entering the capillary break layer.

As a result of elevated nitrate concentrations in detection monitoring well G-21, additional work was performed to investigate both the nature and extent of the release to the unsaturated zone and groundwater.[15] Investigations were performed to complete the definition of the impact to groundwater

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[7] Conor Pacific, *Addendum to Revised Engineering Feasibility Study for Disposal Modules 11.1 and 11.2, Hay Road Landfill*, May 9, 2002.

[8] Conor Pacific, *Proposed Modifications to Perimeter Landfill Gas Monitoring System, Norcal Waste Systems Hay Road Landfill Inc., Solano County, California*, January 10, 2003.

[9] Geomatrix Consultants, Inc. *VOC Migration Assessment for Disposal Modules DM-11.1 and DM-11.2, Norcal Waste Systems Hay Road Landfill, Inc.* September 15, 2003.

[10] Geomatrix Consultants, October 29, 2004, *Amended Report of Waste Discharge for an Evaluation Monitoring Program for the Hay Road Landfill.*

[11] Geomatrix Consultants, May 31, 2005, *Amended Report of Waste Discharge Proposing Corrective Action*, *Hay Road Landfill, Vacaville, California*

[12] Conor Pacific/EFW. *Third Quarter 2000 Monitoring Report, B&J Drop Box Sanitary Landfill, Solano County, California*. October 2000.

[13] Conor Pacific/EFW, *Amendment to Report of Waste Discharge and Establishment of Evaluation Monitoring Program, Pan Lysimeters PL-9.1A and PL-9.1B, B&J Drop Box Sanitary Landfill, Solano County, California.* June 7, 2001.

[14] Conor Pacific, *Engineering Feasibility Study for Disposal Module 9.1, B&J Drop Box Sanitary Landfill, Solano County, California*, September 7, 2001.

[15] Conor Pacific, *Revised Engineering Feasibility Study for Disposal Module 9.1, Norcal Waste Systems, Inc. Hay Road Landfill,*

and corrective actions were recommended.[16] An addendum to the EFS for WP-9.1 was prepared to address RWQCB comments on the EFS.[17] The corrective actions for WP-9.1 included excavation of nitrate-impacted soil, installation of a liner on the perimeter berm that was connected to the base liner to prevent water infiltration into the capillary break layer, the operations layer was retrofitted to enhance leachate movement through the operations layer, and ongoing groundwater extraction to control the nitrate-impacts to groundwater. The groundwater extraction well (G-22) and two additional monitoring wells (G-23 and G-24) were installed June 2003 to evaluate the effectiveness of the groundwater extraction in the next deeper sand layer and the downgradient edge of the plume.[18] Approximately 1,500 cu. yds. of nitrate-impacted soil was excavated and removed in October 2002.

2.1.3 Disposal Module 2.2A and Pan Lysimeter PL-2.2A

Water was detected in PL-2.2A in April 2004 and four VOCs were detected at trace concentrations. The concentrations of inorganic parameters in the pan lysimeter water were much lower than the leachate concentrations, and the ionic character of the water in the pan lysimeter differed from the overlying leachate sump, indicating that the source of the water in the pan lysimeter was not likely leachate.[19] As a continued corrective action measure, any water that enters the pan lysimeters is pumped out immediately. In addition, the targeted LFG collection system has reduced VOCs within the pan lysimeters.

2.1.4 Disposal Module 5.1A and Pan Lysimeter PL-5.1A

Water was detected in PL-5.1A in January 2005 and VOCs were detected in the water sample from PL-5.1A. The concentrations of inorganic parameters in the pan lysimeter water are much lower than the leachate concentrations, and the ionic character of the water in the pan lysimeter differed from the overlying leachate sump, indicating that the source of the water in the pan lysimeter is not likely leachate.[20] As a continued corrective action measure, any water that enters the pan lysimeters is pumped out immediately. The LFG collection system was installed, partially, to control the landfill gas in the DM-11 area and has reduced VOCs within the pan lysimeters.

2.1.5 Disposal Module 5.1B and Pan Lysimeter PL-5.1B

Water was detected in PL-5.1B in April 2004 and VOCs were detected in the water sample from PL-5.1B. With the exception of tetrachloroethene, the VOCs detected in PL-5.1B were detected in the overlying

Solano County, California, May 9, 2002.

[16] Conor Pacific, *Revised Engineering Feasibility Study for Waste Pile 9.1, Norcal Waste Systems Hay Road Landfill Inc., Solano County, California,* November 14, 2002

[17] Conor Pacific, *Addendum to Revised Engineering Feasibility Study for Waste Pile 9.1, Norcal Waste Systems Hay Road Landfill Inc., Solano County, California,* January 15, 2003.

[18] Conor Pacific, *Installation of Corrective Action Wells G-22, G-23, and G-24 for Waste Pile 9.1, Norcal Waste Systems Hay Road Landfill Inc., Solano County, California,* July 30, 2003.

[19] Golder Associates Inc., *Investigation For Pan Lysimeters PL-2.2A, PL-5.1A, and PL-5.1B, Norcal Waste Systems Hay Road Landfill Inc., Solano County*, California, July 18, 2005.

[20] Golder Associates Inc., *Investigation For Pan Lysimeters PL-2.2A, PL-5.1A, and PL-5.1B, Norcal Waste Systems Hay Road Landfill Inc., Solano County*, California, July 18, 2005.

leachate sump, S-5.1B. Concentrations detected in the PL-5.1B sample were roughly one-half of those detected in the leachate sample. The concentrations of inorganic parameters in the pan lysimeter water are also much lower than the leachate concentrations and the ionic character of the water in the pan lysimeter differed from the overlying leachate sump, indicating that the source of the water in the pan lysimeter is not likely leachate.[21] As a continued corrective action measure, any water that enters the pan lysimeters is pumped out immediately. In addition, the targeted LFG collection system has reduced VOCs within the pan lysimeters.

3.0 GROUNDWATER ELEVATION AND FLOW

During first and second quarters, groundwater elevations were measured on March 22 and May 31, 2011. Water levels were measured in all site wells according to the general protocol described in Golder's Groundwater Sampling and Laboratory Procedures, and were recorded with the time of measurement on a water level data sheet (Appendix A). To calculate groundwater elevations, the water levels were subtracted from the top-of-casing elevations, which have been surveyed to mean sea level (MSL) (Table 2). Groundwater elevations are approximately ½ to 3 feet higher than the same period last year, and are about are about 1 to 6 feet higher than fourth quarter 2010. Historical hydrographs are included in Appendix C.

Groundwater elevations, flow direction, gradient, and velocity are in accordance with historical observations. Groundwater elevation contours are shown on Figures 2 and 3. The steepest gradient is in the western portion of the landfill, where groundwater movement is influenced by the borrow pit and groundwater drain, and is calculated to be 0.015. In the eastern portion of the site, where the effects of groundwater extraction are less significant, the gradient is calculated to be approximately 0.002. The gradient in the eastern portion of the site is generally representative of the regional groundwater gradient.

3.1 Groundwater Velocity

Using the calculated gradients, the hydraulic conductivity, and the estimated effective porosity of the water-bearing zone, the approximate groundwater seepage velocity can be calculated using Darcy's Law. Based on results of field hydraulic testing in previous investigations, an average hydraulic conductivity of 5×10^{-3} centimeters per second (cm/s) is used for calculating groundwater velocity in the sandy sediments beneath the site. An effective porosity value of 0.15 for the sandy zones is assumed. Groundwater seepage velocity for the sandy sediments near the borrow pit is calculated to be 5×10^{-4} cm/s (500 feet per year [ft/yr]). At the eastern portion of the site, where the gradient is more natural, groundwater seepage velocity in sandy sediments is calculated to be 5.9×10^{-5} cm/s (61 ft/yr).

[21] Golder Associates Inc., *Investigation For Pan Lysimeters PL-2.2A, PL-5.1A, and PL-5.1B, Norcal Waste Systems Hay Road Landfill Inc., Solano County*, California, July 18, 2005.

For estimating the groundwater seepage velocity for the fine-grained sediments beneath the site (sandy silts and clays), a conductivity value of 4.7×10^{-5} cm/s is taken from published literature about the site's regional hydrogeology. An effective porosity value of 0.3 for the fine-grained zones is assumed. Groundwater seepage velocity for the fine-grained sediments in the area near the active extraction is calculated to be 2.4×10^{-6} cm/s (3 ft/yr). At the eastern portion of the site, where the gradient is more natural, groundwater seepage velocity is calculated to be 2.7×10^{-7} cm/s (less than one ft/yr).

3.2 Disposal Module/Groundwater Separation

Reporting of the separation between groundwater and the lowest point of each disposal module is required in WDR R5-2003-0118. The lowest point of each disposal module is the leachate sump. Table 3 presents each module sump elevation, the estimated groundwater elevation at each sump interpolated from the groundwater contour maps, and the elevation differences between the sump and groundwater. Note that the groundwater elevations represent piezometric elevations and the actual separation between the sump and where groundwater would be encountered below the sump may be greater.

4.0 SAMPLING AND ANALYSIS PROGRAM

A summary of the current sampling and analysis program, based on MRP R5-2008-0188, is presented in Table 1; all monitoring points are shown on Figure 2. The monitoring program consists of groundwater detection monitoring, unsaturated zone monitoring, landfill gas monitoring, leachate monitoring, leak detection monitoring, and surface water monitoring.

4.1 Groundwater Monitoring

The groundwater monitoring network consists of 28 shallow monitoring wells, sampled semi-annually. The wells are divided by the area of the landfill they monitor, western and eastern areas. In addition, there are four corrective action wells (G-21, G-22, G-23, and G-24) that are monitored quarterly.

Wells in the western area of the Landfill (G-1, G-2, G-6, G-8, G-9, G-10M or G-10R, G-11, G-11M or G-11R, G-12, G-13, G-17, G-27 [replaces G-10], 4B, MW-4, and P-1 are used for monitoring modules in the western part of the site (DM-1, DM-2.1, DM-2.2, DM-11.1, and DM-11.2).

The following sampling decision protocol was established in the *Amended ROWD Proposing Changes to the Detection Monitoring Program*[22] to identify and sample the monitoring well with the best possibility of identifying a potential release from the landfill in the well G-10 and G-11 areas. The well sampling protocol is outlined below:

- Well G-27 will be sampled in place of well G-10, because the well will monitor the same depth zone, but inside the slurry wall.

[22] Golder Associates Inc., *Amended ROWD Proposing Changes to the Detection Monitoring Program, Norcal Waste Systems Hay Road Landfill Inc.* May 31, 2005.

- Well G-10M will be sampled in place of well G-10R, because the well will be screened in a shallower permeable layer.
- Well G-10R will only be sampled if well G-10M is dry as a result of low groundwater levels.
- The two shallowest wells with groundwater in the multiple depth wells G-11, G-11M, and G-11R will be sampled. Therefore, if wells G-11 and G-11M have sufficient groundwater to sample, then well G-11R will not be sampled.

Due to the spatial variability of groundwater beneath the site and the influence of the borrow pit dewatering, intrawell comparisons are used for statistical evaluation of monitoring data. Three methods are used to evaluate the analytical results: statistical, non-statistical, and graphical. The monitoring parameters are evaluated using statistical methods (nitrate/nitrite as nitrogen, arsenic, and chromium) or non-statistical methods (volatile organic compounds). Field parameters and supplemental parameters (chloride, sulfate, total dissolved solids, and the remaining major anions and cations [calcium, magnesium, potassium, sodium, and alkalinity]) are evaluated using graphical methods for water quality trends and ion balance (annual Piper diagram).

Wells in the eastern area of the Landfill (G-4R, G-6, G-14, G-16, G-17, G-18, G-19R, G-20, G-25, G-26, G-28, G-29, and G-30) are used for monitoring the eastern part of the site (DM-3.1, DM-4.1, DM-5.1, DM-5.2, DM-9.1[WP-9.1], and LTU).

Because the groundwater flow in the eastern area of the site is influenced by the regional gradient, interwell comparisons are used for statistical evaluation of monitoring data. For the eastern area, wells G-4R, G-6, G-17, and G-18 are used as background wells. Statistical data evaluation methods (nitrate/nitrite as nitrogen, arsenic, and chromium) are used in the eastern area, with lead and biosolids parameters added to the statistical evaluations. Field parameters and supplemental parameters (chloride, sulfate, total dissolved solids, and the remaining major anions and cations) are evaluated annually using graphical methods for water quality trends and ion balance (annual Piper diagram).

4.2 Unsaturated Zone Monitoring

Suction lysimeter VZ-2.1, the unsaturated zone monitoring point for LF-2, is sampled semi-annually. Pan lysimeters PL-2.2A, PL-2.2B, PL-5.1A, PL-5.1B, PL-9.1A, PL-9.1B, PL-11.1 and PL-11.2 provide monitoring access to the secondary drainage layer (capillary break) under the corresponding disposal modules. Pan lysimeters PL-3.1, PL-3.2, PL-3.3, PL-4.1, and PL-5.2 provide monitoring access below the leak detection sumps. According to the MRP, most pan lysimeters, which are installed beneath leachate sumps, are checked for liquid semi-annually, and sampled if sufficient liquid is present. Landfill staff check the pan lysimeters for liquid monthly. As part of corrective action monitoring, liquid levels in pan lysimeters PL-9.1A, PL-9.1B, PL-11.1, and PL-11.2 are measured weekly. Pressure transducers, which can measure the height of water above the transducer, are installed in all pan lysimeters to provide a

more reliable measurement of the amount of water in each pan lysimeter (transducers were installed in newly constructed PL-3.2, LD-3.2, PL-3.3, and PL-3.3 in January 2011).

LTU unsaturated zone monitoring is conducted by obtaining one soil sample per acre of LTU used. Soil samples are obtained at a depth of 5- to 6-feet below ground surface. Background soil samples are obtained at the beginning of the sludge drying season, prior to the start of sludge application in May or June. Detection soil samples are obtained at approximately the same locations at the end of the drying season, after sludge is removed in October. If sufficient moisture is present in the soil samples, pore water is extracted for laboratory analyses of monitoring parameters. If sufficient moisture is not present, then the soil samples undergo soluble threshold limit concentration (STLC) extraction prior to laboratory analyses for monitoring parameters. The eastern LTU area (located between WP-9.1 and DM-5.2) is currently being clean closed prior to construction of DM-6.

4.3 Landfill Gas Monitoring

Landfill gas probes and all pan lysimeters and leak detection sumps are monitored semi-annually for methane, carbon dioxide, oxygen, and for organic vapors using field instruments. If, during the semiannual monitoring, greater than 1 percent methane or organic vapors are detected (concentration >1 ppm on field instrument) a gas sample is obtained and submitted for laboratory analysis of VOCs using EPA Method TO-15. Note that the perimeter landfill gas probes are monitored quarterly for landfill gas migration.

4.4 Leachate Monitoring

Leachate is sampled annually at 15 sumps (S-1, S-2.1, S-2.2A, S-2.2B, S-3.1, S-3.2, S-3.3, S-4.1, S-5.1A, S-5.1B, S-5.2, S-9.1A, S-9.1B, S-11.1, and S-11.2), which collect leachate from their respective disposal modules. In addition, leachate wells LW-1, LW-2, and LW-3, located in DM-1, are checked for leachate and sampled if sufficient leachate is available. Landfill staff check the sump levels at least monthly. As part of corrective action monitoring, liquid levels in sumps S-9.1A, S-9.1B, S-11.1, and S-11.2 are measured at least weekly by Landfill staff. Pressure transducers, which can measure the height of water above the transducer, are installed in all sumps to provide a more reliable measurement of the amount of leachate in each sump (transducers were installed in newly constructed S-3.2 and S-3.3 in January 2011).

4.5 Surface Water Monitoring

Background monitoring point SW-4 is located in the A-1 Channel approximately 600 feet upstream of the Landfill drainage discharge point (Figure 2). Former background surface water monitoring point SW-3 was moved further upstream to the south side of the culvert that carries the A-1 Channel under Hay Road (Figure 2) and has been added to the monitoring program to provide a better background monitoring point upstream of SW-4. Location SW-5 monitors the bird sanctuary pond, which is primarily made up of

surface water run-off from the site and discharge from the borrow pit dewatering. Location SW-7 monitors the A-1 Channel after the site discharge point.

Surface water locations are sampled semi-annually. The list of parameters and the laboratory method used for each analysis is included in Table 1.

4.5.1 Compost Area Pond

The compost area pond is located east of the compost area and south of WP-9.1 (Figure 2). The pond is sampled twice during the wet season for the parameters listed in Table 1. This sampling location was added when WDR No. R5-2008-0188 was adopted.

4.6 Methods

Samples were collected according to the protocol described in the Groundwater Sampling and Laboratory Procedures[23] and the Site Specific Sampling and Analysis Plan,[24] with one exception regarding the collection of groundwater well samples, which is further described below. Details of well purging method, field parameter measurement, and sample collection at each sampling point are included on the water sample field data sheets in Appendix A. Field measurements of pH, specific conductance, temperature, and turbidity were taken and recorded on water sample field data sheets.

An alternative sampling procedure, utilizing dedicated tubing and a peristaltic pump, was proposed to reduce the turbidity of groundwater samples.[25] A combination of peristaltic pump (for low-flow purging and sampling for inorganic parameters) and disposable bailer (for VOC samples) were used to obtain water samples from the majority of the monitoring wells. Monitoring wells located near the borrow pit with water levels too deep to utilize a peristaltic pump were purged using a portable electric submersible pump. As a result of using this alternate sampling procedure, the turbidity values for the groundwater well samples were reduced significantly. Continued use of the peristaltic pump for groundwater well purging is recommended to maintain low turbidity values. Note that the depth to water in some wells (G-9, G-10M, G-11M, and G-11R) is too deep to use the peristaltic pump. Well 4B has insufficient water to use the peristaltic pump and was sampled using a disposable bailer.

Samples were properly preserved and stored on the day of sampling. Chain-of-custody documentation accompanied the samples through collection and delivery to the analytical laboratory. Analyses were performed by BC Laboratories of Bakersfield, CA, a California state-certified analytical laboratory (CA ELAP Certificate Number 1186). Certified analytical reports are located in Appendix B.

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[23] Conor Pacific, *Second Semi-Annual and 2001 Annual Monitoring Report, Hay Road Landfill, Solano County, California*, January 30, 2002.

[24] Conor Pacific, *Revised Site Specific Sampling and Analysis Plan, Hay Road Landfill, Solano County, California*, April 2002.

[25] Golder Associates Inc., February 12, 2010, *RWQCB Comments On Monitoring Reports, Recology Hay Road, Solano County, California.*

4.7 Quality Control

As a field QA/QC measure, an equipment blank was collected during the sampling event using organic-free water supplied by the laboratory. The equipment blank was analyzed for VOCs by EPA Method 8260. Four VOCs were found in the equipment blank, but were not detected in any of the field samples. N-Propylbenzene and tetrachloroethene were detected at trace concentrations of 0.21µg/l and 0.34 µg/l, respectively; chloroform and 1,2,4-trimethylbenzene were detected at concentrations of 0.53 µg/l and 1.2 µg/l, respectively.

Laboratory analyses generally occurred within recommended holding times and within laboratory quality control standards. Method blanks are expected to be non-detect, and the detection of an analyte in a method blank indicates laboratory sample contamination. Acetone was detected in the method blank associated with the sample from well 4B, which also had acetone at essentially the same concentration. The acetone detection in well 4B is considered a false-positive result. Trace concentrations of some inorganic parameters were detected in laboratory method blanks, but did not affect any site sample results.

5.0 MONITORING RESULTS

5.1 Groundwater Monitoring

Groundwater analytical results from first and second quarter 2011 are summarized in Tables 4, 6, 7 and 8. To evaluate groundwater quality, concentration limits for the monitoring parameters are compared to the analytical results. The concentration limits have been calculated using analytical data through second quarter 2011 for the western area (Table 4) and the eastern area (Tables 6 and 7). The concentration limits were calculated using intrawell (western area) or interwell (eastern area) tolerance limits at 95% confidence and 95% coverage. Analytical results for this quarter with respect to the concentration limits are discussed below for the two landfill areas.

5.1.1 Western Landfill Area

Western area monitoring wells were sampled in May 2011. The disposal modules monitored in the western area include DM-1, DM-2.1, DM-2.2, DM-11.1 and DM-11.2. Samples from all wells were analyzed for routine monitoring parameters.

Two VOCs (acetone and toluene) were detected at estimated trace concentrations and one VOC (2-butanone) was detected in well 4B.[26] Acetone was detected in the method blank at essentially the same concentration as well 4B. The acetone detection in well 4B is considered a false-positive result. Two re-samples were obtained from well 4B during the last two weeks of July. In the re-samples only a

[26] Recology, July 7, 2011, *Notification of Volatile Organic Compound Detections in Groundwater Monitoring Well 4B, Recology Hay Road, Solano County, California.*

trace concentration of toluene was detected; acetone and 2-butanone were not detected. The acetone and 2-butanone detections were not confirmed. Because this is a single trace VOC detection, no further action is necessary at this time. No other VOCs were detected in any other western area well.

Nitrate was detected above the concentration limits in wells 4B and G-13 at 7.8 mg/l and 5.6 mg/l, respectively. Both nitrate detections are significantly higher than historical results. The wells will be re-sampled to confirm these detections. No other inorganic concentration limits were exceeded in western area wells.

Barium was analyzed for in wells G-8 and G-9 to track the previous detections above the concentration limits. An EMP for wells G-8 and G-9 was submitted in June 2011 that concluded the increased barium concentrations were the result of landfill gas migration from DM-1. [27] The installation of landfill gas extraction wells in DM-1 are anticipated to reduce the barium concentrations.

Increasing trends were observed for inorganic constituents in several of the western area wells (Table 5). Most of the increasing trends can be attributed to the flow of groundwater with higher dissolved concentrations toward the area of borrow pit dewatering. As stated in previous monitoring reports, the higher concentrations of inorganic constituents in groundwater in the eastern area of the site are believed to be a result of spatial variability. Operation of the groundwater drain and dewatering of the borrow pit have significantly altered the movement of shallow groundwater beneath most of the site, causing groundwater to flow from the east (area of higher dissolved inorganics) toward the west. Note that there are increasing trends for bicarbonate alkalinity in several wells adjacent to DM-1; wells 4B, G-8, and G-9. Landfill gas is often associated with increases in bicarbonate alkalinity in groundwater. As stated above, landfill gas extraction wells were installed in DM-1 at the end of May 2011 and should reduce the impact from landfill gas migration.

5.1.2 Eastern Landfill Area

The groundwater monitoring network for the eastern area consists of background wells G-4R, G-6, G-17, and G-18, and downgradient wells G-14, G-16, G-19R, G-20, G-21, G-25, G-26, G-28, G-29, and G-30. Each downgradient well is located directly downgradient of leachate sumps (wells G-16, G-19R, G-20, G-21, G-25 and G-28), or the LTU (wells G-14 and G-26).

[27] Golder Associates Inc., June 21, 2011, *Amendment to Report of Waste Discharge and Establishment of Evaluation Monitoring Program for Dissolved Barium Detections in Monitoring Wells G-8 and G-9, Recology Hay Road, Vacaville, California.*

5.1.2.1 Background Wells

Background wells G-4R, G-6, G-17, and G-18 were sampled in May 2011 for routine monitoring parameters. Well G-18 was also sampled in March 2011 as part of the EMP[28] for nitrate/nitrite as N concentration limit exceedances detected during second quarter 2009 (Table 6). The sample results are discussed below. In general, the composition of the groundwater from the eastern area background wells is typical of the high TDS groundwater defined in the 1995 *Spatial Variability Report*.[29]

Interwell concentration limits were then calculated using pooled data from the four background wells. To minimize the influence of the abundant historical data from well G-6, only data obtained from the past ten years of monitoring was used (2001 - 2011). Concentration limits are presented on Tables 6 and 7.

The groundwater samples obtained from wells G-4R and G-18 had nitrate/nitrite as N concentrations above the concentration limit of 5 mg/l. EMPs were previously prepared for each well, and recommendations were made to monitor each well quarterly for nitrate/nitrite as N, unless the nitrate/nitrite as N concentration drops below the concentration limit.[30] Then, the well(s) should return to routine semi-annual monitoring. If the nitrate/nitrite concentrations as N remain elevated or increase, then a schedule to complete an EFS will be submitted to the RWQCB. The recent nitrate results in both wells G-4R and G-18 are lower than the nitrate concentrations from 2010. Note that improvements were made to the site surface water drainages in the area of each of these wells. The drainage improvements are anticipated to reduce nitrate concentrations in runoff and reduce the opportunity for surface water to infiltrate in the area of these wells and result in increased nitrate concentrations.

No other inorganic concentration limits were exceeded. No VOCs were detected in any of the eastern area background wells.

5.1.2.2 Detection Monitoring Wells

The eastern area detection wells were sampled in May and June 2011, and samples were analyzed for routine monitoring parameters (Table 7). Well G-14 also was sampled for nitrate in first and second quarter as part of the EFS[31] for nitrate/nitrite as N concentration limit exceedances.

The nitrate/nitrite as N concentrations in well G-14 were above the concentration limit in the first and second quarter samples. Corrective actions have been implemented to address the nitrate detected in well G-14 over the past two years, including:

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[28] Golder Associates Inc., *Amendment to Report of Waste Discharge and Establishment of Evaluation Monitoring Program for Nitrate Detections in Monitoring Wells G-4R and G-18, Recology Hay Road, Solano County, California*, October 12, 2009.

[29] Einarson Geoscience, Inc. November 1995.

[30] Golder Associates Inc., *Amendment to Report of Waste Discharge and Establishment of Evaluation Monitoring Program for Nitrate Detections in Monitoring Wells G-4R and G-18, Recology Hay Road, Solano County, California*, October 12, 2009.

[31] Golder Associates Inc., *Engineering Feasibility Study for Nitrate Detections in Monitoring Well G-14, Recology Hay Road, Solano County, California*, October 12, 2009.

- raising the top of casing of well G-14,
- re-grading the immediate area to reduce ponding of surface water runoff,
- to reduce the nitrate concentration in runoff from the LTU area, the upper 4 to 6 inches of soil from the LTU was removed and replaced with clean soil from the site borrow pit, and
- approximately 16,000 cubic yards of dried sludge[32] stored adjacent to well G-14 was removed for placement as operations layer in new landfill modules DM-3.2 and DM-3.3.

In addition, the eastern portion of the LTU is currently being clean closed, which includes excavation of LTU-impacted soil. Disposal module DM-6 will be constructed in the former LTU footprint. Monitoring well G-14 was properly destroyed in July 2011, because the well is in the DM-6 footprint. The well will be replaced by a new monitoring well to be constructed along the southern edge of DM-6.

There was a single VOC detection in one eastern area well (tert-butyl alcohol in well G-29). Two re-samples were obtained from well G-29 during the last two weeks of July 2011. The re-samples confirmed the tert-butyl alcohol detection. No other VOCs were detected in any of the other eastern area wells.

5.1.2.3 Corrective Action Monitoring Wells

Corrective action wells G-21, G-22, G-23, and G-24 were sampled quarterly. The nature and extent of elevated nitrate concentrations in groundwater downgradient of WP-9.1 and well G-21 was previously defined and corrective actions were implemented.[33] A groundwater extraction well (G-22) was installed adjacent to well G-21 in June 2003 to control the migration of nitrate-impacted groundwater. In addition, a deeper corrective action monitoring well (G-23) and a downgradient corrective action monitoring well (G-24) were installed in June 2003. Monitoring well G-24 was properly destroyed in July 2011, because the well is in the DM-6 footprint.

Analytical results from these wells are presented in Table 8. Well G-21 had nitrate concentrations of 7.1 and 5.0 mg/l during first and second quarters, respectively. The second quarter nitrate concentration in well G-21 is equivalent to the concentration limit, indicating that the corrective actions have effectively reduced nitrate concentrations in well G-21. The extraction well (G-22) had nitrate concentrations of 64 and 23 mg/l. The deeper well (G-23) had low nitrate concentrations (2.0 mg/l and 1.8 mg/l, respectively), indicating that the nitrate contamination has remained shallow. The downgradient well (G-24) had concentrations of 34 and 19 mg/l. These wells (except for well G-24) will continue to be sampled quarterly to monitor the effectiveness of the corrective actions.

During January through June 2011, approximately 461,000 gallons of groundwater were extracted from well G-22. The groundwater extraction rate was approximately 1.8 gallons per minute, which is

[32] Based on projected sludge/soil mix rate for the site admixed operations layer.

[33] Conor Pacific, November 14, 2002 and Conor Pacific, *Addendum to Revised Engineering Feasibility Study for Waste Pile 9.1, Norcal Waste Systems Hay Road Landfill Inc., Solano County, California,* January 15, 2003.

equivalent to the design extraction rate for the corrective action well. The water was transported to the City of Vacaville's waste water treatment plant for disposal.

5.2 Vadose Zone and Leak Detection Sump Monitoring

Vadose zone monitoring consists of suction lysimeter monitoring (VZ-2.1), pan lysimeter monitoring (PL-2.2A, PL-2.2B, PL-3.1, PL-3.2, PL-3.3, PL-4.1, PL-5.1A, PL-5.1B, PL-5.2, PL-9.1A, PL-9.1B, PL-11.1, and PL-11.2), and soil sampling at the Land Treatment Unit. Leak detection sump monitoring is performed at LD-3.1, LD-3.2, LD-3.3, LD-4.1, and LD-5.2. Analytical results are summarized in Tables 9 and 10.

5.2.1 Suction Lysimeter Monitoring

Suction lysimeter VZ-2.1, which monitors the unsaturated zone beneath DM-2.1, was dry and no sample was obtained.

5.2.2 Pan Lysimeter and Leak Detection Sump Monitoring

Pan lysimeters, which are installed beneath leachate sumps, provide monitoring access to the secondary drainage layer (capillary break) under the disposal modules, with the exception of PL-3.1, PL-3.2, PL-3.3, PL-4.1, and PL-5.2, which were constructed to provide monitoring access below the leak detection sumps. The liquid level is checked semi-annually by Golder Associates, and sampled if sufficient liquid is present. Landfill staff check the pan lysimeters for liquid at least monthly, and as part of corrective action monitoring, liquid levels in pan lysimeters PL-9.1A, PL-9.1B, PL-11.1, and PL-11.2 are measured at least weekly by Landfill staff. In addition to routine monitoring, if increases in water levels are observed in a previously dry pan lysimeter, then the water in the pan lysimeter is sampled and analyzed for routine monitoring parameters. Any liquid that is pumped from the pan lysimeters is recorded by Landfill staff. A field log of depth to liquid measurements or height of water above the transducers, and pumping data is provided in Appendix A.

5.2.2.1 PL-2.2A and PL-2.2B

Pan lysimeters PL-2.2A and PL-2.2B had insufficient water to obtain samples. The water levels in PL-2.2A and PL-2.2B remained at minimum levels throughout the monitoring period.

5.2.2.2 PL-3.1, PL-3.2, PL-3.3, LD-3.1, LD-3.2, and LD-3.3

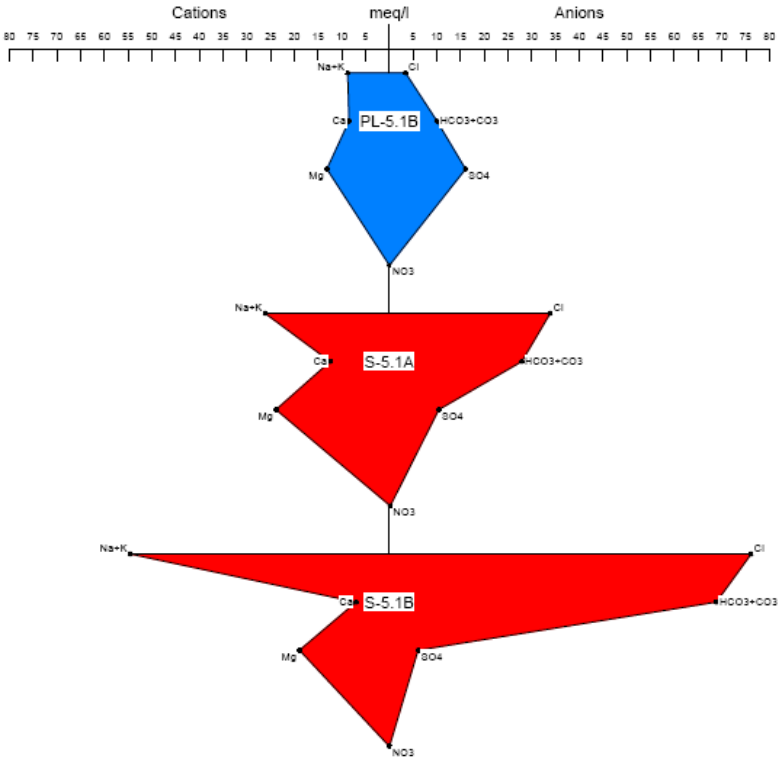
PL-3.1, PL-3.2, PL-3.3, LD-3.1, LD-3.2 and LD-3.3 had insufficient water to obtain a sample. The water levels remained at minimum levels throughout the monitoring period.

5.2.2.3 PL-4.1 and LD-4.1

PL-4.1 and LD-4.1 had insufficient water to obtain a sample. The water level in PL-4.1 and LD-4.1 remained at minimum levels throughout the monitoring period.

5.2.2.4 PL-5.1A and PL-5.1B

PL-5.1A was dry and no sample was obtained. PL-5.1B was sampled for routine monitoring parameters on June 8, 2011. The water in PL-5.1A and PL-5.1B remained at minimum levels throughout the monitoring period. One VOC was detected at a trace concentration in PL-5.1B (tetrachloroethene); however, as noted previously, the equipment blank also contained tetrachloroethene. The concentrations of most inorganic parameters in PL-5.1B are much lower than the leachate concentrations in the overlying sumps (S-5.1A and S-5.1B), indicating that the source of the water in the pan lysimeter is not likely leachate. In addition, Stiff diagrams of the pan lysimeter and overlying leachate sump samples (from fourth quarter 2010) have distinct shapes that also show the water in the pan lysimeter to be ionically distinct from the overlying leachate (see Stiff diagrams below).



Stiff Diagrams for PL-5.1B, S-5.1A, and S-5.1B (Fourth Quarter 2010)

5.2.2.5 PL-5.2 and LD-5.2

Throughout the monitoring period, PL-5.2 and LD-5.2 were dry and no samples were collected. The water levels in PL-5.2 remained at minimum levels throughout the monitoring period (Appendix A).

5.2.2.6 PL-9.1A and PL-9.1B

Pan lysimeter PL-9.1A was sampled and PL-9.1B was dry and no sample was obtained. The water levels in PL-9.1A and PL-9.1B remained minimal throughout the monitoring period. Results are summarized on Table 10.

The total nitrogen (ammonia, nitrate, or TKN) concentrations in the PL-9.1A water sample are lower than historical concentrations. All inorganic compounds in PL-9.1A have downward trends or no trend (see trend analysis results in Appendix C). Note that an upward trend was calculated for arsenic, but this is due to older detections and arsenic has not been detected in PL-9.1A since 2009.

5.2.2.7 PL-11.1 and PL-11.2

Liquid was detected in PL-11.1 and PL-11.2 and sampled on June 8, 2011. Water levels in PL-11.1 and PL-11.2 were high in January and March 2011 (following high amounts of rainfall) and water was pumped from each pan lysimeter (4,200 and 5,465 gallons, respectively). After March 30th the water levels remained at minimum levels throughout the monitoring period.

No VOCs were detected in PL-11.1 and six VOCs (5 at trace concentrations) were detected in the PL-11.2 sample. The concentrations of inorganic monitoring parameters are similar to previous monitoring results. All of the VOCs detected in PL-11.2 have statistically significant downward trends or do not exhibit a statistically significant trend (Appendix C).

5.2.3 Land Treatment Unit

Unsaturated zone monitoring was conducted for the LTU in May 2011. Background borings were drilled and soil samples were collected before the drying season (prior to sludge application). Soil samples were obtained at a depth of 5.5 to 6 feet at ten locations beneath the LTU area; soil sample locations are shown on Figure 4. Soil samples were analyzed for routine monitoring parameters. Because there was insufficient moisture in the samples to perform pore water extraction, analyses were performed on the soil samples using the STLC extraction method (soluble threshold limit concentration extraction).

Concentration limits for routine monitoring parameters were calculated using pooled data from all of the background samples obtained in May 2011 (Table 10). Post-drying soil sample analytical results (to be collected in October 2011) will be compared to the calculated concentration limits. Note that the eastern portion of the LTU is being clean closed prior to construction of DM-6.

5.3 Landfill Gas Monitoring

Landfill gas probes and all pan lysimeters and leak detection sumps were monitored in second quarter for methane, carbon dioxide, oxygen, and organic vapors using field instruments (see field sheets in Appendix A). Results are summarized in Table 11. Perimeter landfill gas probes were monitored in both first and second quarters.

During the first semi-annual monitoring period, methane was detected above 1 percent at two sample points, GP-3A and GP-21S. GP-3A is a probe located immediately south of DM-2.2 and there is a perimeter probe (GP-11) at the property line to the south. No methane was detected in GP-11. Methane was detected in GP-21S during first quarter 2011. A remediation plan was submitted to Solano County and to CalRecycle that included installation of landfill gas extraction wells in DM-1.[34] The LFG extraction wells were installed in May and no methane was detected in GP-21S in June 2011.

LD-3.1 and PL-11.2 had methane concentrations greater than 1 percent. As a result of these measurements, samples were obtained at each location for quantification of VOCs using EPA Method TO-15 (Table 11). Several VOCs were detected in each sample. Further adjustments will be made to the landfill gas extraction system in the area of LD-3.1 and PL-11.2.

5.4 Surface Water Monitoring

Surface water monitoring locations, SW-3, SW-4, SW-5, and SW-7, were sampled in June 2011. Analytical results are summarized in Table 12. Concentration limits have been calculated as interpoint tolerance limits at 95% confidence and 95% coverage using historical data from upstream location SW-4 through second quarter 2011 (Table 12).

No inorganic monitoring parameters were detected above their respective concentration limits. No VOCs were detected in any of the surface water samples.

5.4.1 Compost Area Pond

The compost area pond was not sampled during this monitoring period due to a sampling error. The pond will be sampled during third quarter 2011.

5.5 Leachate Monitoring

Leachate monitoring is conducted annually during the second semi-annual monitoring event. Transducers are installed in all site leachate sumps and the height of water above the transducer (approximate sump bottom) for leachate sumps are collected at least monthly (at least weekly in sumps overlying pan lysimeters in corrective action) by Landfill staff (Appendix A). Measurements taken by Landfill staff are recorded on field logs, copies of which are included in Appendix A. Maximum monthly measurements are included in Table 13. Table 13 and the field logs include the height (feet) of leachate above the pressure transducer.

[34] Golder Associates Inc., April 12, 2011, *Work Plan for Landfill Gas Migration Remediation at Perimeter Probe GP-21S, Recology Hay Road, Vacaville, California.*

5.5.1 Leachate Extraction

The leachate sumps (S-1, S-2.1, S-2.2A, S-2.2B, S-3.1, S-4.1, S-5.1A, S-5.1B, S-5.2, S-9.1A, S-9.1B, S-11.1, and S-11.2) are equipped with pumping systems that require ten inches of fluid to operate. When present, liquid is extracted from the leachate sumps and is either used as dust control on the lined portions of the Landfill or is transported to the City of Vacaville's wastewater treatment plant.

Leachate extraction volumes, rates, and leachate levels in each sump are summarized in Table 13. Leachate volume measurements are recorded when leachate is removed from the leachate storage tanks and therefore the values on Table 13 do not necessarily correspond to when the leachate was pumped out of a specific sump. Approximately 4,222,700 gallons of leachate were removed from the Landfill. The volume of leachate is higher than normal, likely due to nearly 1 million gallons extracted from newly constructed DM-3.2 and DM-3.3. The leachate was discharged to the Vacaville Wastewater Treatment Facility.

5.5.2 Effectiveness of the Leachate Monitoring and Control Facilities

To evaluate the effectiveness of leachate removal, leachate levels in the sumps are monitored by landfill personnel using pressure transducers. Measurements are recorded on field logs, copies of which are included in Appendix A. The field logs include the maximum allowable depth of leachate in accordance with the WDR specifications. Leachate measurements indicate that the leachate levels in the sumps were in compliance during first and second quarters, except for S-11.1 and S-11.2 for less than one week in January and S-11.2 for less than one week in March. Both instances followed large rainfall events, and the leachate levels were below 1 foot when monitored during the following week. No evidence of a leachate release or leachate seeps were identified. As the leachate depths were maintained at appropriate levels, the drainage layers are not clogged, and no leachate releases or seeps were identified, the leachate control facilities appear to have been functioning properly and effectively.

5.5.3 Effectiveness of the Run-off/run-on Control Facilities

Surface water run-on does not occur at the landfill, as the site is located on flat topography. Precipitation or run-off that comes in contact with an active area of the landfill containing waste is directed to the leachate collection recovery system (LCRS) using earthen berms and drains constructed in the operations layer.

Surface water run-off that results from precipitation on covered portions of the Landfill and around the Landfill is routed via drainage ditches to the bird sanctuary pond. Standard observation logs provided by Landfill personnel indicate that no impacts to receiving waters were observed, and no evidence of liquid leaving or entering the perimeter of the waste unit was recorded. Therefore, run-off controls were effective during this monitoring period.

6.0 OPERATIONS MONITORING

The following operations monitoring data have been provided by Landfill staff. The annual storm water monitoring report is included in Appendix D.

6.1 Landfill

During first and second quarter 2011, weekly standard observations were conducted by Landfill staff for the waste management unit (WMU), perimeter of the WMU, and receiving waters. Standard observation records are included in Appendix A. Evidence of erosion or daylighted refuse was noted for DM-3.1 in February; this area was repaired. No other issues were reported on the observation forms. Run-off control facilities throughout the landfill were effectively conveying storm water to designated discharge points.

Based on daily scale readings, a total of 103,768 tons of refuse (not including diverted materials) were disposed of at a minimum elevation of ~23 feet MSL. The refuse was placed in DM-3.2 and DM-3.3. In addition, 10,350 tons of asbestos were placed in DM-1. The waste placement area is shown on site maps included in Appendix A.

6.2 Waste Pile (DM-9.1 [WP-9.1])

In the waste pile (DM-9.1 [WP-9.1]), 34,785 wet tons of de-watered sewage sludge were placed. The moisture content was 80% to 85%. At the end of June 2011, the waste pile had 5% capacity remaining.

6.3 Land Treatment Unit

The following monitoring information was recorded by Landfill staff regarding sludge placement in the LTU during May through June 2011.

- Sludge depth: 8 to 12 inches
- Quantity discharged: 16,569 wet tons, or 18,411 cubic yards
- Location: entire LTU and top of DM-5
- Quantity removed: 3,899 tons, or 4,332 cubic yards
- Moisture content: approximately 10 - 15 percent
- Disposition: stockpiled
- Final sludge depth: 0 inches
- Total drying cycles: 3 cycles
- Cumulative LTU area covered: 7 acres

6.4 Borrow Pit

From May through June 2011 approximately 74,561,900 gallons of groundwater were extracted from the borrow pit. The extracted groundwater was used for dust control, composting operations and discharged to the A-1 Channel under NPDES permit R5-2008-0081-043, until NPDES permit R5-2008-0082-019 was issued on May 19, 2011. Quarterly NPDES monitoring reports are submitted to the RWQCB, separately.

7.0 SUMMARY

A summary of key monitoring results obtained in first half of 2011 is presented below.

7.1 Routine Monitoring Summary

The following were noted for routine monitoring locations:

- Wells G-8 and G-9 continued to have dissolved barium above the concentrations limit. These barium detections are thought to be a result of landfill gas migration. Landfill gas extraction wells were recently installed in DM-1 and the barium concentrations are expected to decline as the gas extraction become effective.
- The groundwater samples obtained from background wells G-4R and G-18, and detection well G-14 continued to have nitrate/nitrite as N concentrations above the concentration limit. EMPs were submitted and corrective actions have been implemented.
- Wells G-13 and 4B had nitrate concentrations above their respective concentration limits. The wells will be re-sampled to confirm the detections.
- There were no other concentration limit exceedances in the monitoring wells.
- Two VOCs (acetone and toluene) were detected at estimated trace concentrations and one VOC (2-butanone) was detected in well 4B. The well was re-sampled; only a trace concentration of toluene was detected, therefore no action is necessary.
- Tert-butyl alcohol was detected in well G-29. The well was re-sampled; tert-butyl alcohol was detected in the re-samples. An EMP will be prepared for submittal to the RWQCB.
- No other VOCs were detected in the western and eastern area monitoring wells.
- Wells G-14 and G-24 were properly destroyed to allow for construction of DM-6.
- Methane was detected above 1 percent at two sample points, GP-3A and GP-21S. GP-3A is a probe located immediately south of DM-2.2 and there is a perimeter probe (GP-11) at the property line to the south. No methane was detected in GP-11. Methane was detected in GP-21S during first quarter 2011. A remediation plan was submitted to Solano County and to CalRecycle that included installation of landfill gas extraction wells in DM-1. The LFG extraction wells were installed in May and no methane was detected in GP-21S in June 2011.
- Methane was detected above 1 percent in LD-3.1 and PL-11.2; TO-15 analyses were performed and detected several VOCs.

7.2 Corrective Action Monitoring Summary

Corrective actions have been implemented at DM-11 and WP-9.1 to prevent water (leachate and/or surface water) from entering the capillary break layer and pan lysimeters. Groundwater extraction downgradient of WP-9.1 began in June 2003. The following evaluates the monitoring data with respect to the effectiveness of the corrective actions to control releases from the landfill.

7.2.1 DM-11 Corrective Action Evaluation

- The leachate levels were above 1 foot in S-11.1 and S-11.2 in January and S-11.2 in March. Both instances followed large rainfall events, and the leachate levels were below

1 foot when monitored during the following week and for the remainder of the monitoring period.

- The water levels in PL-11.1 and PL-11.2 were high in January and March 2011 (following high amounts of rainfall) and water was pumped from each pan lysimeter (4,200 and 5,465 gallons, respectively). After March 30th the water levels remained at minimum levels throughout the monitoring period
- No VOCs were detected in PL-11.1 and six VOCs (5 at trace concentrations) were detected in the PL-11.2 sample. The concentrations of inorganic monitoring parameters are similar to previous monitoring results. All of the VOCs detected in PL-11.2 have statistically significant downward trends or do not exhibit a statistically significant trend.

7.2.2 WP-9.1 Corrective Action Monitoring Evaluation

- Throughout the monitoring period, the leachate levels in S-9.1A and S-9.1B were maintained at levels below 1 foot
- The water levels in the pan lysimeters remained below 0.2 feet throughout the monitoring period. Therefore, no water was removed from the pan lysimeters.
- Approximately 461,000 gallons of groundwater were extracted during this monitoring period using well G-22. The groundwater extraction rate was 1.8 gallons per minute, which is the design extraction rate for the corrective action well.

7.2.3 Landfill Gas Collection System

The Landfill has a landfill gas (LFG) collection and control system that has been designed and operated to control landfill gas migration. The system began operation in March 2009 and was expanded into DM-1 in May 2011. The LFG system consists of an enclosed flare, thirty eight (38) extraction wells, and ten (10) leachate sump risers (see Figure 2 for LFG extraction well locations).

TABLES

Table 1
Sampling and Analysis Program Summary
Recology Hay Road WDR/MRP R5-2008-0188

Parameters	Monitoring Points											
	Groundwater			Leachate[d]		Vadose Zone			Landfill Gas	Surface Water		Leak Det.
	Western Area	Eastern Area										
	G-1, 2, 6, 8, 9, 10(M&R)[l], 11(M&R)[l], 12, 13, 27, 4B, P-1[i] and MW-4	G-4R*, 6*, 14, 16, 17*, 18*, 19R, 20, 21, 25, 26, 28, 29, and 30	Corrective Action G-21, 22, 23, and 24	S-1, S-2.1, S-2.2A, S-2.2B, S-3.1, S-3.2, S-3.3, S-4.1, S-5.1A,S-5.1B, S-5.2, S-11.1, S-11.2 LW-1, 2, 3[p]	S-9.1A S-9.1B[c]	PL-2.2A, 2.2B, PL-3.1 PL-4.1, PL-5.1A PL-5.1B, PL-5.2 PL-11.1, 11.2 VZ-2.1	PL-9.1A PL-9.1B	LTU[f] UZ-1 to UZ-10	GP-1, 6, 7, GP-9 thru 21 PL's LD-3.1, -3.2 -3.3, -4.1 -5.2	SW-3, SW-4, SW-5, SW-7	Compost Area Pond	LD-3.1 LD-3.2 LD-3.3 LD-4.1 LD-5.2
Field Parameters												
Depth to Water	Q	Q	Q	M	W	M	W	-	-	-	-	SA
Volume Pumped	-	-	-	M	M	M	W	-	-	-	-	-
Flow Rate	-	-	-	M	M	M	-	-	-	-	-	-
Turbidity	SA	SA	Q	-	-	-	-	-	-	SA	Twice[n]	-
pH	SA	SA	Q	A	A	SA	SA	Twice[e]	-	SA	Twice	-
Specific Conductance	SA	SA	Q	A	A	SA	SA	-	-	SA	Twice	-
Temperature	SA	SA	Q	-	-	-	-	-	-	SA	-	-
Methane, CO_2, oxygen, organic vapors	-	-	-	-	-	-	-	-	SA[j]	-	-	-
Monitoring Parameters												
Total Dissolved Solids (EPA 160.1)	SA	SA	-	A	A	SA	SA	-	-	SA	Twice	SA
Chloride (EPA 300.0)	SA	SA	-	A	A	SA	SA	Twice	-	SA	Twice	SA
Sulfate (EPA 375.4)	SA	SA	-	A	A	SA	SA	Twice	-	SA	Twice	-
Nitrate + Nitrite as Nitrogen (EPA 353.2)	SA	SA	Q	A	A	SA	SA	Twice	-	SA	Twice	-
Arsenic (EPA 7061)	SA	SA	-	-	A	-	SA	A	-	SA	-	-
Chromium (EPA 6010)	SA	SA	-	-	A	-	SA	A	-	SA	-	-
Lead (EPA 7421)	-	SA	-	-	A	-	SA	A	-	SA	Twice	-
Calcium, dissolved (EPA 6010)	A	A	-	A	A	A	A	-	-	5 years	-	-
Magnesium, dissolved (EPA 6010)	A	A	-	A	A	A	A	-	-	5 years	-	-
Potassium, dissolved (EPA 6010)	A	A	-	A	A	A	A	-	-	5 years	-	-
Sodium, dissolved (EPA 6010)	A	A	-	A	A	A	A	-	-	5 years	-	-
Bicarbonate Alkalinity (EPA 310)	SA	SA	-	A	A	SA	SA	-	-	5 years	-	SA
Carbonate Alkalinity (EPA 310)	SA	SA	-	A	A	SA	SA	-	-	5 years	-	-
Ammonia-Nitrogen (EPA 4500-NH_3)	5 years	SA	-	A	A	5 years	SA	Twice	-	SA	Twice	-
Nitrite-Nitrogen (EPA 300)	5 years	5 years	-	A	A	5 years	SA	Twice	-	SA	Twice	-
Total Kjeldahl Nitrogen (EPA 4500)	5 years	SA	-	A	A	5 years	SA	Twice	-	SA	Twice	-
Total Suspended Solids (EPA 160.2)	-	-	-	-	-	-	-	-	-	SA	-	-
Total Fixed Dissolved Solids	-	-	-	-	-	-	-	-	-	-	Twice	-
Total Phosphorus	-	-	-	-	-	-	-	-	-	-	Twice	-
VOCs (EPA 8260, App. I)	SA	SA	-	A	A	SA	SA	-	-	SA	-	-
VOCs (TO-15)	-	-	-	-	-	SA	SA	-	SA[j]	-	-	-

See notes on page 2 of table.

Table 1
Sampling and Analysis Program Summary
Recology Hay Road WDR/MRP R5-2008-0188

Parameters	Monitoring Points											
	Groundwater			Leachate[d]		Vadose Zone			Landfill Gas	Surface Water		Leak Det.
	Western Area	Eastern Area										
	G-1, 2, 6, 8, 9, 10(M&R)[l], 11(M&R)[l], 12, 13, 27, 4B, P-1[i] and MW-4	G-4R*, 6*, 14, 16, 17*, 18*, 19R, 20, 21, 25, 26, 28, 29, and 30	Corrective Action G-21, 22, 23, and 24	S-1, S-2.1, S-2.2A, S-2.2B, S-3.1, S-3.2, S-3.3, S-4.1, S-5.1A,S-5.1B, S-5.2, S-11.1, S-11.2 LW-1, 2, 3[b]	S-9.1A S-9.1B[c]	PL-2.2A, 2.2B, PL-3.1 PL-4.1, PL-5.1A PL-5.1B, PL-5.2 PL-11.1, 11.2 VZ-2.1	PL-9.1A PL-9.1B	LTU[f] UZ-1 to UZ-10	GP-1, 6, 7, GP-9 thru 21 PL's LD-3.1, -3.2 -3.3, -4.1 -5.2	SW-3, SW-4, SW-5, SW-7	Compost Area Pond	LD-3.1 LD-3.2 LD-3.3 LD-4.1 LD-5.2
(continued)												
Constituents of Concern												
General Minerals												
Bicarbonate & Carbonate(EPA 2310B)	5 years	5 years	-	5 years	5 years	5 years	5 years	5 years	-	5 years		-
Anions (Ca, Mg, K, Na) (EPA 200/300)	5 years	5 years	-	5 years	5 years	5 years	5 years	5 years	-	5 years		-
Phosphate (EPA 300)	5 years	5 years	-	5 years	5 years	5 years	5 years	5 years	-	5 years		-
Biosolids Parameters												
Fecal Coliform (EPA 9221B)	5 years	5 years	-	5 years	5 years	5 years	5 years	5 years	-	5 years		-
Total Alkalinity (EPA 2310B)	5 years	5 years	-	5 years	5 years	5 years	5 years	5 years	-	5 years		-
Total Organic Carbon (EPA 415.1)	5 years	5 years	-	5 years	5 years	5 years	5 years	5 years	-	5 years		-
Inorganics												
Metals (EPA 6010 or 7000 series)	5 years	5 years	-	5 years	5 years	5 years	5 years	5 years	-	5 years		-
Cyanide (EPA 9010)	5 years	5 years	-	5 years	5 years	5 years	5 years	5 years	-	5 years		-
Sulfide (EPA 9030)	5 years	5 years	-	5 years	5 years	5 years	5 years	5 years	-	5 years		-
Other Parameters												
Phosphorous (EPA 365.3)	5 years	5 years	-	5 years	5 years	5 years	5 years	5 years	-	5 years		-
VOCs (EPA 8260, App. II)	5 years	5 years	-	5 years	5 years	5 years	5 years	5 years	-	5 years		-
SVOCs (EPA 8270, App. II)	5 years	5 years	-	5 years	5 years	5 years	5 years	5 years	-	5 years		-
Organophosphorus Pesticides (EPA 8141)	5 years	5 years	-	5 years	5 years	5 years	5 years	5 years	-	5 years		-
Chlorophenoxy Herbicides (EPA 8151)	5 years	5 years	-	5 years	5 years	5 years	5 years	5 years	-	5 years		-
PCBs (EPA 8082)	5 years	5 years	-	5 years	5 years	5 years	5 years	5 years	-	5 years		

Program summary per Monitoring and Reporting Program No. R5-2008-0188
SA = Semi-annually; A = Annually; M = Monthly: W = Weekly; NA = Not Applicable; Twice = twice per year.
Semi-annual monitoring is conducted during second and fourth quarters. Annual monitoring is completed during the fourth quarter.
Metals include: Al, Sb, Ba, Be, Cd, Cr, Co, Cu, Fe, Mn, Ag, Sn, V, Zn, As, Pb, Hg, Ni, Se, Tl.
Next five-year COC sampling and analysis event scheduled for Fourth Quarter 2015.
Groundwater, vadose zone, and leachate samples for metals to be filtered and reported as dissolved concentrations.
* Eastern Area background wells
VOCs = volatile organic compounds
SVOCs = semi-volatile organic compounds

b. Attempt to sample any leachate in the leachate wells LW-1, LW-2, and LW-3.
d. Leachate detected in a previously dry sump or seep shall be sampled for COCs.
e. Soil samples taken before sludge drying season and after drying season.
f. Soil samples analyzed using WET extraction if soil pore water samples cannot be extracted from soil.
i. Well P-1 has replaced damaged well MW-3 as a detection monitoring point.
j. If >1ppm organic vapors detected, obtain gas sample for VOC analysis (TO-15).
k. If liquid present in leak detection sump, analyze for TDS, Cl, bicarbonate.
l. G-27 replaced G-10, G-10M replaced G-10R if water to sample,
two shallowest wells with water sampled for G-11, G-11M, and G-11R
m. Pan lysimeters for DM-11.1 and DM-11.2 are monitored weekly for depth and volumes pumped.
n. Twice annually during the wet season.

Table 2
Groundwater Elevations
First and Second Quarter 2011
Recology Hay Road

Well or Piezometer Number	Top of Casing Elevation (feet, MSL)	Depth to Groundwater (feet)	Groundwater Elevation (feet, MSL)	Depth to Groundwater (feet)	Groundwater Elevation (feet, MSL)
		March 22, 2011		May 31, 2011	
G-1	24.63	5.20	19.43	5.70	18.93
G-2	22.57	3.45	19.12	4.24	18.33
G-4R	27.53	5.85	21.68	7.51	20.02
G-5R	26.48	3.67	22.81	4.86	21.62
G-6*	26.05	2.30	23.75	3.65	22.40
G-7	29.57	6.12	23.45	8.17	21.40
G-8	31.78	11.07	20.71	13.68	18.10
G-9	32.01	24.53	7.48	27.65	4.36
G-10	34.68	23.48	11.20	26.18	8.50
G-10R	33.49	25.25	8.24	27.40	6.09
G-10M	34.82	26.45	8.37	29.02	5.80
G-11	32.05	22.51	9.54	22.53	9.52
G-11R	32.15	24.26	7.89	23.96	8.19
G-11M	32.14	23.73	8.41	23.65	8.49
G-12	30.77	18.03	12.74	13.56	17.21
G-13	27.51	11.43	16.08	9.87	17.64
G-14*	26.44	7.10	19.34	8.73	17.71
G-16	22.23	5.65	16.58	6.90	15.33
G-17	25.95	6.65	19.30	8.03	17.92
G-18	25.65	7.67	17.98	9.15	16.50
G-19R	25.57	5.85	19.72	7.56	18.01
G-20	23.72	7.52	16.20	8.31	15.41
G-21	25.47	6.43	19.04	7.98	17.49
G-22	27.05	10.12	16.93	11.20	15.85
G-23	26.80	7.54	19.26	8.78	18.02
G-24	26.40	6.83	19.57	8.30	18.10
G-25	22.47	6.13	16.34	7.24	15.23
G-26	25.67	5.54	20.13	7.43	18.24
G-27	26.60	17.60	9.00	19.38	7.22
G-28	23.04	7.19	15.85	8.07	14.97
G-29	21.46	6.48	14.98	6.97	14.49
G-30	23.58	5.32	18.26	5.83	17.75
I-6	29.82	NM	NM	NM	NM
I-7	29.46	6.50	22.96	8.38	21.08
MW-4	21.15	6.54	14.61	8.54	12.61
MW-5	21.73	3.29	18.44	5.60	16.13
MW-6	22.08	3.75	18.33	5.87	16.21
MW-7	20.20	2.91	17.29	4.02	16.18
MW-8	19.93	2.50	17.43	3.65	16.28
MW-92-1	39.04	21.39	17.65	23.38	15.66
A-1	33.91	13.11	20.80	15.76	18.15
D-1	32.74	12.09	20.65	14.69	18.05
D-2	25.78	4.89	20.89	7.36	18.42
D-3	25.63	7.74	17.89	9.65	15.98
D-4	20.11	5.34	14.77	6.97	13.14
D-5	21.94	3.78	18.16	5.65	16.29
D-6	21.51	4.29	17.22	5.45	16.06
D-7	26.04	6.81	19.23	9.30	16.74
4B	25.65	6.55	19.10	8.58	17.07
P-1	25.03	3.98	21.05	6.57	18.46

NM = Not measured, well not accessible.
* = well top of casing elevation changed, re-surveyed in July 2010.

Table 3
Separation of Groundwater From Lowest Point of Landfill Modules
First and Second Quarter 2011
Recology Hay Road

Module	Sump Elevation (feet-MSL)	March 22, 2011 Groundwater Elevation (feet-MSL)	March 22, 2011 Approximate Separation (feet)	May 31, 2011 Groundwater Elevation (feet-MSL)	May 31, 2011 Approximate Separation (feet)	WDR Required Separation (feet)
1	7	7	0	4	3	5
2.1	24	16	8	16	8	3
2.2A	26	9	17	9	17	2.5
2.2B	26	13	13	16	10	2.5
3.1	22	16	6	15	7	2.5
3.2	20	16	4	15	5	2.5
3.3	21	18	3	18	3	2.5
4.1	20	16	4	15	5	2.5
5.1A	24	16	8	15	9	2.5
5.1B	24	16	8	15	9	2.5
5.2	22	18	4	17	5	2.5
9.1A	25	21	4	19	6	2.5
9.1B	25	20	5	18	7	2.5
11.1	25	17	8	18	7	2.5
11.2	25	19	6	19	6	2.5

Notes:
Sump and groundwater elevations rounded to nearest foot.
Groundwater elevations from Figures 2 and 3 of this report.
Groundwater elevations are piezometric heads, so actual separation may be greater.
Information required per section D.1. of MRP R5-2008-0188.

Table 4
Groundwater Analytical Results Western Detection Wells
First and Second Quarter 2011
Recology Hay Road

Sample Designation		G-1	*Conc.*	G-2	*Conc.*	G-8	G-8	*Conc.*	G-9	G-9	*Conc.*	G-27	*Conc.*	G-10M	Conc.
Sampling Date		6/6/11	*Limits*	6/6/11	*Limits*	3/4/11	6/8/11	*Limits*	3/4/11	6/8/11	*Limits*	6/8/11	*Limits*	6/6/11	Limits
Field Parameters	*Units*														
pH	std. units	7.51	-	7.37	-	7.31	7.45	-	6.97	6.45	-	7.12	-	7.17	-
Specific Conductance	µmhos/cm	1320	-	4123	-	1875	1777	-	1876	1751	-	1482	-	1720	-
Temperature	°C	16.9	-	16.2	-	18.1	18.7	-	20.1	23.0	-	19.1	-	17.2	-
Turbidity	NTU	3	-	2	-	1	2	-	1	7	-	2	-	2	-
Monitoring Parameters															
Arsenic, dissolved	mg/L	<0.0075	*NE*	<0.0075	*NE*	-	<0.0075	*NE*	-	<0.0075	*NE*	<0.0075	*NE*	<0.0075	*NE*
Barium, dissolved	mg/L	NR	-	NR	-	0.48	0.46	-	0.56	0.54	-	NR	-	NR	-
Lead, dissolved	mg/L	0.0056 t	-	<0.0050	-	-	0.0068 t	-	-	0.0051 t	-	0.0078 t	-	0.0055 t	-
Bicarbonate Alkalinity	mg/L	360	-	820	-	-	630	-	-	720	-	330	-	460	-
Carbonate Alkalinity	mg/L	<8.2	-	<8.2	-	-	<8.2	-	-	<8.2	-	<8.2	-	<8.2	-
Chloride	mg/L	180	-	560	-	-	220	-	-	190	-	280	-	280	-
Chromium, dissolved	mg/L	0.0014 t	-	<0.0010	*NE*	-	NA	*NE*	-	NA	*NE*	NA	*NE*	<0.0010	*NE*
Nitrate/Nitrite as N	mg/L	1.0	*24*	<0.010	*0.7*	-	0.42	*6.1*	-	0.023 t	*3.9*	3.3	*4.1*	1.1	*2.0*
Sulfate as SO4	mg/L	50	-	710	-	-	84	-	-	7.0	-	36	-	49	-
Total Dissolved Solids	mg/L	780	-	2,800	-	-	1,100	-	-	1100	-	1,000	-	1100	-
Volatile Organic Compounds															
Acetone	µg/l	<4.6	*NE*	<4.6	*ND*	NA	<4.6	*ND*	NA	<4.6	*ND*	<4.6	*ND*	<4.6	*ND*
Toluene	µg/l	<0.093	*ND*	<0.093	*ND*	NA	<0.093	*ND*	NA	<0.093	*ND*	<0.093	*ND*	<0.093	*ND*
2-butanone	µg/l	<2.5	*ND*	<2.5	*ND*	NA	<2.5	*ND*	NA	<2.5	*ND*	<2.5	*ND*	<2.5	*ND*

All other VOCs below method detection limits.

mg/l - milligrams per liter (parts per million)
µg/l - micrograms per liter (parts per billion)
µmhos/cm - micromhos per centimeter at 25 °C
NTU - nephelometric turbidity units
t - trace, estimated value between the method detection limit and the reporting limit.
NR - not required
NA - not analyzed
NE - None established; insufficient data or too few detections.
ND - Non-detect; there have been no previous detections of this parameter.
Concentration limits calculated using historical data through second quarter 2011 with intrawell tolerance limits at 95% confidence and 95% coverage.

Table 4 (continued)
Groundwater Analytical Results Western Detection Wells
First and Second Quarter 2011
Recology Hay Road

Sample Designation		G-11	*Conc.*	G-11M	*Conc.*	G-12	*Conc.*	G-13	*Conc.*	P-1	*Conc.*	MW-4	*Conc.*	4B	*Conc.*
Sampling Date		6/8/11	*Limits*	6/6/11	*Limits*	6/6/11	*Limits*	6/6/11	*Limits*	6/8/11	*Limits*	6/8/11	*Limits*	6/7/11	*Limits*
Field Parameters	*Units*														
pH	std. units	7.23	-	7.29	-	7.53	-	7.47	-	6.77	-	7.37	-	7.39	-
Specific Conductance	µmhos/cm	1579	-	1077	-	1010	-	1307	-	2501	-	2303	-	5190	-
Temperature	°C	19.0	-	17.9	-	16.8	-	16.8	-	19.5	-	19.4	-	17.9	-
Turbidity	NTU	7	-	9	-	3	-	4	-	1	-	1	-	9	-
Monitoring Parameters															
Arsenic, dissolved	mg/L	<0.0075	*NE*	<0.0075	*NE*	<0.0075	*NE*	<0.0075	*NE*	<0.0075	*NE*	<0.0075	*NE*	<0.0075	*NE*
Barium, dissolved	mg/L	NR	-	NR	-	NR	-	NR	-	NR	-	NR	-	NR	-
Lead, dissolved	mg/L	0.0075 t	-	<0.0050	-	<0.0050	-	0.0050 t	-	<0.0050	-	<0.0050	-	0.0082 t	-
Bicarbonate Alkalinity	mg/L	520	-	390	-	310	-	320	-	580	-	490	-	790	-
Carbonate Alkalinity	mg/L	<8.2	-	<8.2	-	<8.2	-	<8.2	-	<8.2	-	<8.2	-	<8.2	-
Chloride	mg/L	210	-	110	-	130	-	180	-	400	-	440	-	900	-
Chromium, dissolved	mg/L	NA	*NE*	0.0016 t	*NE*	<0.0010	*NE*	<0.0010	*NE*	NA	*NE*	NA	*NE*	<0.0010	*NE*
Nitrate/Nitrite as N	mg/L	2.2	*24*	1.7	*28*	0.67	*5.0*	5.6	*4.5*	0.86	*1.5*	0.82	*8.3*	7.8	*4.4*
Sulfate as SO4	mg/L	57	-	29	-	31	-	91	-	260	-	120	-	800	-
Total Dissolved Solids	mg/L	1,000	-	680	-	600	-	850	-	1,700	-	1700	-	3700	-
Volatile Organic Compounds															
Acetone	µg/l	<4.6	*ND*	<4.6	*ND*	<4.6	*ND*	<4.6	*ND*	<4.6	*ND*	<4.6	*ND*	5.4*t (<4.6,xx)[1]	*ND*
Toluene	µg/l	<0.093	*NE*	<0.093	*ND*	<0.093	*ND*	<0.093	*ND*	<0.093	*ND*	<0.093	*ND*	0.33 t (0.12t, xx)	*ND*
2-butanone	µg/l	<2.5	*ND*	<2.5	*ND*	<2.5	*ND*	<2.5	*ND*	<2.5	*ND*	<2.5	*ND*	15 (<2.5, xx)	*ND*

All other VOCs below method detection limits.

* - detected in laboratory method blank at similar concentration
mg/l - milligrams per liter (parts per million)
µg/l - micrograms per liter (parts per billion)
µmhos/cm - micromhos per centimeter at 25 °C
NTU - nephelometric turbidity units
t - trace, estimated value between the method detection limit and the reporting limit.
NE - None established; insufficient data or too few detections.
ND - Non-detect; there have been no previous detections of this parameter.
Concentration limits calculated using historical data through second quarter 2011 with intrawell tolerance limits at 95% confidence and 95% coverage.
1 - re-sample results in parentheses

Table 5
Groundwater Concentration Trends Western Detection Wells
First and Second Quarter 2011
Recology Hay Road

Sample Designation	G-1	G-2	G-6	G-8	G-9	G-27	G-10M
pH	-	-	-	-	Downward	-	Downward
Specific Conductance	-	Downward	-	Upward	-	-	-
Arsenic, Dissolved	NA	ND	NA	NA	NA	NA	Downward
Bicarbonate Alkalinity	Upward	Upward	-	Upward	Upward	-	-
Chloride	-	Downward	Downward	Upward	-	-	Downward
Chromium, Dissolved	Downward	ND	NA	NA	ND	NA	NA
Nitrate/Nitrite as N	Downward	NA	-	-	NA	Upward	-
Sulfate as SO4	-	Downward	-	Upward	Downward	Downward	Downward
Total Dissolved Solids	-	Downward	Upward	Upward	Upward	-	-

Sample Designation	G-11M	G-11R	G-12	G-13	MW-4	P-1	4B
pH	-	-	-	-	-	Downward	-
Specific Conductance	-	-	-	Downward	Downward	-	-
Arsenic, Dissolved	NA	NA	NA	ND	NA	NA	NA
Bicarbonate Alkalinity	-	Downward	-	-	Downward	-	Upward
Chloride	-	Upward	Downward	Downward	-	Downward	-
Chromium, Dissolved	NA	ND	NA	NA	NA	NA	NA
Nitrate/Nitrite as N	Upward	Upward	-	-	Downward	-	-
Sulfate as SO4	Downward	Downward	Downward	Downward	Upward	-	-
Total Dissolved Solids	-	-	-	-	-	-	Upward

Trend analysis covering the previous 5 years (2006-2011).

Downward: Statistically significant decreasing trend.

Upward Statistically significant increasing trend.

Dash indicates no significant trend.

NA - Not analyzed because less than 4 values have been obtained, or less than 4 detected values.

ND - Not detected during time period analyzed.

Table 6
Groundwater Analytical Results Eastern Background Wells
First and Second Quarter 2011
Recology Hay Road

Sample Designation		G-4R	G-6	G-17	G-18		*Concentration*
Sampling Date		6/2/11	6/2/11	6/1/11	3/22/11	6/1/11	*Limit*
Field Parameters	*Units*						
pH	std. units	7.33	7.40	7.16	7.11	7.35	-
Specific Conductance	µmhos/cm	3856	1670	2760	2942	2857	-
Temperature	°C	19.6	18.9	16.6	16.7	17.1	-
Turbidity	NTU	4	3	2	1	1	-
Biosolids Parameters							
Ammonia as N	mg/l	<0.025	<0.025	0.030 t	-	<0.025	*1.0*
Arsenic, dissolved	mg/L	<0.0075	<0.0075	<0.0075	-	<0.0075	*0.052*
Bicarbonate Alkalinity	mg/l	630	600	460	-	410	-
Carbonate Alkalinity	mg/l	<8.2	<8.2	<8.2	-	<8.2	-
Chloride	mg/l	620	120	500	-	590	-
Chromium, dissolved	mg/L	<0.0010	<0.0010	0.0011 t	-	0.0033 t	*NE*
Lead, dissolved	mg/L	0.0055 t	0.0081 t	0.0093 t	-	0.0053 t	*NE*
Nitrate/Nitrite as N	mg/l	**7.8**	3.2	3.3	**9.6**	**8.4**	*5*
Sulfate as SO4	mg/l	500	140	280	-	160	-
Total Dissolved Solids	mg/l	2600	1100	1700	-	1600	-
Total Kjeldahl Nitrogen	mg/l	0.21	0.16 t	<0.056	-	<0.11	*5.6*
Volatile Organic Compounds							
All VOCs below method detection lim		ND	ND	ND	NA	ND	*ND*

mg/l - milligrams per liter (parts per million)
µg/l - micrograms per liter (parts per billion)
µmhos/cm - micromhos per centimeter at 25˚C
NTU - nephelometric turbidity units
t - trace, estimated value between the method detection limit and the reporting limit.
Bold values exceed concentration limits
NA - Not analyzed
NE - None established; insufficient data or too few detections.
Concentration limits calculated using pooled data from background wells obtained during 2001 - 2011.
Elevated nitrate/nitrite as N concentrations in background wells excluded from concentration limit calculation.

Table 7
Groundwater Analytical Results Eastern Detection Wells
First and Second Quarter 2011
Recology Hay Road

Sample Designation		G-14*		G-16	G-19R	G-20	G-21*		G-25	G-26	G-28	G-29	G-30	*Concentration*
Sampling Date		3/22/11	5/31/11	6/1/11	6/2/11	6/1/11	3/22/11	5/31/11	6/1/11	6/1/11	6/1/11	6/2/11	6/2/11	*Limit*
Field Parameters	*Units*													
pH	std. units	7.48	6.80	7.28	7.43	7.41	7.22	7.17	7.41	7.41	7.40	7.91	7.59	-
Specific Conductance	µmhos/cm	4170	4124	3854	3945	1961	2391	2424	2598	2361	3782	2064	2039	-
Temperature	°C	19.0	16.9	16.5	18.7	16.4	17.4	17.1	16.3	17.3	17.1	17.2	17.7	-
Turbidity	NTU	1	1	1	5	1	1	1	1	1	1	2	2	-
Monitoring Parameters														
Ammonia as N	mg/l	NA	<0.025	<0.025	<0.025	0.050	NA	<0.025	<0.025	<0.025	<0.025	<0.025	0.025 t	*1.0*
Arsenic, dissolved	mg/L	NA	<0.0075	<0.0075	0.0083 t	<0.0075	NA	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	<0.0075	*0.05*
Bicarbonate Alkalinity	mg/l	NA	430	330	440	330	NA	410	340	480	460	670	580	-
Carbonate Alkalinity	mg/l	NA	<8.2	<8.2	<8.2	<8.2	NA	<8.2	<8.2	<8.2	<8.2	<8.2	<8.2	-
Chloride	mg/l	NA	490	960	740	360	NA	440	560	350	740	240	220	-
Chromium, dissolved	mg/L	NA	<0.0010	0.0041 t	<0.0010	<0.0010	NA	<0.0010	<0.0010	<0.0010	0.0021 t	<0.0010	0.0019 t	*NE*
Lead, dissolved	mg/L	NA	0.0072 t	<0.0050	<0.0050	<0.0050	NA	0.0084 t	<0.0050	0.0088 t	0.0084 t	<0.0050	<0.0050	*NE*
Nitrate/Nitrite as N	mg/l	**210**	**150**	3.2	3.1	0.43	**7.1**	5.0	2.7	3.9	2.1	<0.010	0.041 t	*5*
Sulfate as SO4	mg/l	NA	440	320	520	110	NA	220	190	240	460	79	170	-
Total Dissolved Solids	mg/l	NA	2700	2200	2500	1100	NA	1600	1600	1600[1]	2500	1200	1200	-
Total Kjeldahl Nitrogen	mg/l	NA	1.3	<0.11	<0.056	<0.11	NA	<0.056	<0.056	<0.11	<0.11	<0.056	<0.056	*5.6*
Volatile Organic Compounds														
tert-Butyl alcohol	µg/l	NA	<9.4	<9.4	<9.4	<9.4	NA	<9.4	<9.4	<9.4	<9.4	46 (38/XX)[2]	<9.4	*ND*
All other VOCs below MDLs.		NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	*ND*

mg/l - milligrams per liter (parts per million)
µg/l - micrograms per liter (parts per billion)
µmhos/cm - micromhos per centimeter at 25 °C
NTU - Nephelometric Turbidity Units
NA - not analyzed
NE - None established; insufficient data or too few detections.
Concentration limits calculated using pooled data from background wells obtained during 2001 - 2011.
* Wells G-14 and G-21 sampled quarterly for evaluation of nitrate concentrations.
[1] The TDS was reanalyzed past holding time-original result does not compare to EC.
2 Re-sample results in parentheses

NA - not analyzed
t - trace, estimated value between the method detection limit and the reporting limit.
Bold values exceed calculated concentration limit.

Table 8
Groundwater Analytical Results Corrective Action Wells
First and Second Quarter 2011
Recology Hay Road

Sample Designation		G-21		Extraction Well G-22		Deep Well G-23		Downgradient Well G-24		*Concentration Limit*
Sampling Date		3/22/11	5/31/11	3/22/11	5/31/11	3/22/11	5/31/11	3/22/11	5/31/11	
Field Parameters	*Units*									
pH	std. units	7.22	7.17	7.30	7.47	7.22	7.04	7.24	7.22	-
Specific Conductance	µmhos/cm	2391	2424	2226	2406	2294	2327	2844	2742	-
Temperature	°C	17.4	17.1	16.2	16.5	17.0	17.2	16.8	16.1	-
Turbidity	NTU	1	1	1	5	1	2	2	1	-
Corrective Action Monitoring Parameter										
Nitrate/Nitrite as N	mg/l	**7.1**	5.0	**64**	**23**	2.0	1.8	**34**	**19**	*5*

Extraction Well G-22		January	February	March	April	May	June	Total
Volume Pumped*	gallons	86,000	90,500	94,500	109,500	19,000	61,500	461,000
Average Extraction Rate	gpd	2,774	3,232	3,048	3,650	613	2,050	2,533
	gpm	1.9	2.2	2.1	2.5	0.4	1.4	1.8

mg/l - milligrams per liter (parts per million)
µmhos/cm - micromhos per centimeter at 25 °C
NTU - Nephelometric Turbidity Units
µg/l - micrograms per liter (parts per billion)
gpd = gallons per day
* - note that volume pumped can be derived from tanker truck volumes removed, which can result in skewed volumes from month to month
Well G-22 is the corrective action groundwater extraction well.
Well G-23 is the corrective action monitoring well installed in the next deeper sand layer adjacent to G-21.
Well G-24 is the corrective action monitoring well approximately 200-feet downgradient of G-21.
Bold values exceed concentration limits.

Table 9
Unsaturated Zone Analytical Results
First and Second Quarter 2011
Recology Hay Road

Sample Designation		VZ-2.1	PL-2.2A	PL-2.2B	PL-3.1	LD-3.1	PL-3.2	LD-3.2	LD-3.3	PL-3.3
Sampling Date		6/8/11	6/6/11	6/6/11	6/2/11	6/2/11	6/2/11	6/2/11	6/2/11	6/2/11
Field Parameters	*Units*									
pH	std. units	*dry*	*dry*	*dry*	*dry*	*dry*	*dry*	*dry*	*dry*	*dry*
Specific Conductance	µmhos/cm	-	-	-	-	-	-	-	-	-
Temperature	°C	-	-	-	-	-	-	-	-	-
Turbidity	NTU	-	-	-	-	-	-	-	-	-
Monitoring Parameters										
Arsenic, dissolved	mg/L	-	-	-	-	-	-	-	-	-
Chromium, dissolved	mg/L	-	-	-	-	-	-	-	-	-
Lead, dissolved	mg/L	-	-	-	-	-	-	-	-	-
Bicarbonate Alkalinity	mg/l	-	-	-	-	-	-	-	-	-
Carbonate Alkalinity	mg/l	-	-	-	-	-	-	-	-	-
Chloride	mg/l	-	-	-	-	-	-	-	-	-
Nitrate/Nitrite as N	mg/l	-	-	-	-	-	-	-	-	-
Sulfate as SO4	mg/l	-	-	-	-	-	-	-	-	-
Total Dissolved Solids	mg/l	-	-	-	-	-	-	-	-	-
Total Kjeldahl Nitrogen	mg/l	-	-	-	-	-	-	-	-	-
Ammonia as N	mg/l	-	-	-	-	-	-	-	-	-
Nitrite as N	mg/l	-	-	-	-	-	-	-	-	-
VOCs by EPA Method 8260										
Benzene	µg/l	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	µg/l	-	-	-	-	-	-	-	-	-
cis-1,2-Dichloroethene	µg/l	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	µg/l	-	-	-	-	-	-	-	-	-
Tetrachloroethene	µg/l	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/l	-	-	-	-	-	-	-	-	-

All other VOCs below method detection limits.

VZ-2.1, PL-2.2A, PL-2.2B, PL-3.1, PL-3.2, PL-3.3, LD-3.1, LD-3.2, LD-3.3, LD-4.1, PL-5.2, and LD-5.2 were dry, no samples collected.
t - Trace concentrations detected between the reporting limit and the detection limit. Results should be considered estimates only.
NR - Not required
NA - Not analyzed; insufficient sample volume
mg/l - milligrams per liter (parts per million)
µg/l - micrograms per liter (parts per billion)
µmhos/cm - micromhos per centimeter at 25 °C
NTU - Nephelometric Turbidity Units

Table 9 (continued)
Unsaturated Zone Analytical Results
First and Second Quarter 2011
Recology Hay Road

Sample Designation		PL-4.1	LD-4.1	PL-5.1A	PL-5.1B	PL-5.2	LD-5.2	PL-9.1A	PL-9.1B	PL-11.1	PL-11.2
Sampling Date		6/2/11	6/2/11	6/2/11	6/8/11	6/2/11	6/2/11	6/8/11	6/8/11	6/8/11	6/8/11
Field Parameters	*Units*										
pH	std. units	*dry*	*dry*	*dry*	7.09	*dry*	*dry*	7.25	*dry*	*NM*	*7.06*
Specific Conductance	µmhos/cm	-	-	-	2120	-	-	1,130	-	2,160	4,190
Temperature	°C	-	-	-	26.1	-	-	19.1	-	25.0	24.7
Turbidity	NTU	-	-	-	12	-	-	18	-	682	16
Monitoring Parameters											
Arsenic, dissolved	mg/L	-	-	-	NR	-	-	<0.0075	-	NR	NR
Chromium, dissolved	mg/L	-	-	-	NR	-	-	0.0047 t	-	NR	NR
Lead, dissolved	mg/L	-	-	-	NR	-	-	<0.0050	-	NR	NR
Bicarbonate Alkalinity	mg/l	-	-	-	510	-	-	460	-	670	1300
Carbonate Alkalinity	mg/l	-	-	-	<8.2	-	-	<8.2	-	36	<8.2
Chloride	mg/l	-	-	-	170	-	-	47	-	200	440
Nitrate/Nitrite as N	mg/l	-	-	-	1.9	-	-	5.8	-	0.26	<0.010
Sulfate as SO4	mg/l	-	-	-	400	-	-	62	-	140	460
Total Dissolved Solids	mg/l	-	-	-	1500	-	-	750	-	1400	2900
Total Kjeldahl Nitrogen	mg/l	-	-	-	NR	-	-	0.54	-	NR	NR
Ammonia as N	mg/l	-	-	-	NR	-	-	<0.025	-	NR	NR
Nitrite as N	mg/l	-	-	-	NR	-	-	<0.0081	-	NR	NR
VOCs by EPA Method 8260											
Benzene	µg/l	-	-	-	<0.083	-	-	<0.083	-	<0.083	0.34 t
1,1-Dichloroethane	µg/l	-	-	-	<0.11	-	-	<0.11	-	<0.11	0.31 t
cis-1,2-Dichloroethene	µg/l	-	-	-	<0.085	-	-	<0.085	-	<0.085	0.20 t
Methyl tert-butyl ether	µg/l	-	-	-	<0.11	-	-	<0.11	-	<0.11	1.8
Tetrachloroethene	µg/l	-	-	-	0.16 t	-	-	<0.13	-	<0.13	0.13 t
Vinyl chloride	µg/l	-	-	-	<0.12	-	-	<0.12	-	<0.12	0.39 t

All other VOCs below method detection limits.

VZ-2.1, PL-2.2A, PL-2.2B, PL-3.1, PL-3.2, PL-3.3, LD-3.1,
t - Trace concentrations detected between the reporting lir
NR - Not required
NA - Not analyzed; insufficient sample volume
mg/l - milligrams per liter (parts per million)
µg/l - micrograms per liter (parts per billion)
µmhos/cm - micromhos per centimeter at 25 °C
NTU - Nephelometric Turbidity Units

Table 10
LTU Sludge Drying Area Soil Sample Analytical Results
First and Second Quarter 2011
Recology Hay Road

Sample Designation		UZ-1	UZ-2	UZ-3	UZ-4	UZ-5	UZ-6	UZ-7	UZ-8	UZ-9	UZ-10	*Concentration*
Sampling Date		5/4/11	5/4/11	5/4/11	5/4/11	5/4/11	5/4/11	5/4/11	5/4/11	5/4/11	5/4/11	*Limit*
Monitoring												
Parameters	*Unit*											
pH	std. units	8.70	9.12	8.76	8.63	8.74	8.56	8.66	8.59	8.96	8.14	*9.5 - 8.0*
% Moisture	%	26.6	21.6	27.5	25.0	28.2	23.5	21.9	26.4	32.0	22.3	-
Chloride	mg/l	4.3	4.1	3.4	7.9	7.6	16	7.7	2.0	4.5	3.7	*17*
Sulfate as SO_4	mg/l	14	5.9	5.1	13	18	17	38	11	29	14	*41*
Ammonia as N	mg/l	0.12	0.085	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	*0.16*
Nitrate as N	mg/l	0.17	0.22	0.70	0.70	0.43	0.24	0.15	1.6	0.040 t	0.056 t	*2*
Nitrite as N	mg/l	0.016 t	0.022 t	0.012 t	0.018 t	0.034 t	0.021 t	0.039 t	0.015 t	0.033 t	0.018 t	*0.2*
TKN	mg/l	1.2	0.91	1.0	1.1	1.1	1.0	1.2	1.2	1.1	1.1	*1.4*

t - Trace concentrations detected between the reporting limit and the detection limit. Results should be considered estimates only.
mg/l - milligrams per liter
mg/kg - milligrams per kilograms
TKN - Total Kjeldahl Nitrogen
ND = Non-detect; there have been no previous detections of this parameter.
NE = None established; insufficient data or too few detections.
Concentration limit calculated using all analytical results from April 29, 2005 samples, ND = detection limit, NE (80) = not established (maximum background concentration).

Table 11
Landfill Gas Monitoring
First and Second Quarter 2011
Recology Hay Road

Sample Designation	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Organic Vapors (ppm)	EPA TO-15 Analysis
GP-1	3/10/11	0.0	2.1	9.0	NR	NR
	6/14-16/11	0.1	1.9	18.2	0.0	NA
GP-2	3/10/11	NM	NM	NM	NR	NR
	6/14-16/11	0.3	1.5	12.1	NR	NA
GP-3A	2/1/11	2.2	7.2	0.0	NR	NR
	6/14-16/11	1.1	2.9	8.6	NR	NA
GP-3B	2/1/11	0.0	0.0	20.6	NR	NR
	6/14-16/11	0.0	7.0	6.2	NR	NA
GP-4A	2/1/11	0.0	3.9	5.4	NR	NR
	6/14-16/11	0.1	0.5	13.6	NR	NA
GP-4B	2/1/11	0.0	3.5	18.7	NR	NR
	6/14-16/11	0.1	0.3	16.9	NR	NA
GP-5A	2/1/11	0.2	9.0	0.0	NR	NR
	6/14-16/11	0.2	3.5	8.3	NR	NA
GP-5B	2/1/11	0.0	0.3	10.9	NR	NR
	6/14-16/11	0.0	0.0	14.5	NR	NA
GP-6	3/10/11	0.0	0.0	20.6	NR	NR
	6/14-16/11	0.0	0.0	16.4	0.0	NA
GP-7	3/10/11	0.0	0.3	21.3	NR	NR
	6/14-16/11	0.0	1.6	17.0	0.0	NA
GP-9	3/10/11	0.0	0.6	17.1	NR	NR
	6/14-16/11	0.0	0.3	19.9	0.0	NA
GP-10	3/10/11	0.0	1.1	17.5	NR	NR
	6/14-16/11	0.2	1.0	16.3	0.0	NA
GP-11	3/10/11	0.0	0.3	17.7	NR	NR
	6/14-16/11	0.1	0.2	17.0	0.0	NA
GP-12	3/10/11	0.3	0.7	20.1	NR	NR
	6/14-16/11	0.0	0.0	20.4	0.0	NA
GP-13	3/10/11	0.0	0.7	20.1	NR	NR
	6/14-16/11	0.0	0.1	20.7	0.0	NA
GP-14	3/10/11	0.0	0.5	17.8	NR	NR
	6/14-16/11	0.0	0.6	18.0	0.0	NA
GP-15	3/10/11	0.0	0.3	14.8	NR	NR
	6/14-16/11	0.1	0.4	15.7	0.0	NA
GP-16	3/10/11	0.0	0.4	20.6	NR	NR
	6/14-16/11	0.0	0.0	16.2	0.0	NA
GP-17	3/10/11	0.0	0.8	20.7	NR	NR
	6/14-16/11	0.0	0.0	16.1	0.0	NA
GP-18	3/10/11	0.0	0.9	17.0	NR	NR
	6/14-16/11	0.1	0.6	13.9	0.0	NA
GP-19	3/10/11	0.0	2.3	13.2	NR	NR
	6/14-16/11	0.0	1.8	8.7	0.0	NA
GP-20S	3/10/11	0.0	2.8	13.1	NR	NR
	6/14-16/11	0.0	3.2	14.5	0.0	NA
GP-20D	3/10/11	0.0	4.3	3.2	NR	NR
	6/14-16/11	0.0	3.2	4.4	0.0	NA
GP-21S	3/10/11	14.2	3.5	0.0	NR	NR
	6/14-16/11	0.0	4.2	6.7	0.0	NR
GP-21D	3/10/11	0.3	4.1	2.5	NR	NR
	6/14-16/11	0.0	2.7	3.6	0.2	NA

ppm = parts per million
NR = not required
NM = not measured
NA = not analyzed, organic vapor field measurement < 1 ppm.
EPA TO-15 analysis if organic vapor field measurement > 1 ppm.

Table 11 (continued)
Landfill Gas Monitoring
First and Second Quarter 2011
Recology Hay Road

Sample Designation	Date	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Organic Vapors (ppm)	EPA TO-15 Analysis
LD-3.1	6/16/11	4.3	3.0	16.4	0.0	see below
LD-3.2	6/16/11	0.7	0.6	15.2	0.0	NA
LD-3.3	6/16/11	0.0	0.0	20.5	0.0	NA
LD-4.1	6/16/11	0.0	0.0	20.4	0.0	NA
LD-5.2	6/16/11	0.0	0.0	20.6	0.0	NA
PL-2.2A	6/16/11	0.0	0.0	20.8	0.0	NA
PL-2.2B	6/16/11	0.0	0.0	20.7	0.0	NA
PL-3.1	6/16/11	0.0	0.0	20.6	0.0	NA
PL-3.2	6/16/11	0.0	0.0	20.2	0.0	NA
PL-3.3	6/16/11	0.0	0.0	20.5	0.0	NA
PL-4.1	6/16/11	0.0	0.1	20.3	0.0	NA
PL-5.1A	6/16/11	0.0	0.0	20.6	0.0	NA
PL-5.1B	6/16/11	0.0	0.0	20.5	0.0	NA
PL-5.2	6/16/11	0.1	0.0	20.5	0.0	NA
PL-9.1A	6/16/11	0.0	3.1	15.0	0.7	NA
PL-9.1B	6/16/11	0.0	3.3	13.1	0.5	NA
PL-11.1	6/16/11	0.0	0.0	20.6	0.0	NA
PL-11.2	6/16/11	2.5	11.3	5.4	0.0	see below

* = location re-sampled on 12/27/10 and no organic vapors were detected

Volatile Organic Compounds by EPA Method TO-15

Sample Designation	units	LD-3.1 6/24/11	PL-11.2 6/24/11
Acetone	ppbv	24	57
Benzene	ppbv	0.82	4.8
Chloroethane	ppbv	<3.0	26
cis-1,2-Dichloroethene	ppbv	<0.74	13
Cyclohexane	ppbv	11	39
1,1-Dichloroethane	ppbv	0.84	26
1,1-Dichloroethene	ppbv	<0.74	2.4
2-Butanone (MEK)	ppbv	5.1	5.1
Heptane	ppbv	8.6	<0.72
Hexane	ppbv	8.6	62
Methyl tert-butyl ether	ppbv	<0.74	20
Tetrachloroethene	ppbv	6.7	12
Tetrahydrofuran	ppbv	15	9.7
trans-1,2-Dichloroethene	ppbv	<0.74	3.0
Trichloroethene	ppbv	0.90	4.7
Toluene	ppbv	2.6	0.84
Freon® 11	ppbv	8.8	<0.72
Freon® 12	ppbv	8.9	<0.72
Freon® 114	ppbv	<0.74	5.5
m,p-Xylene	ppbv	1.8	<0.72
o-Xylene	ppbv	0.88	<0.72
2,2,4-Trimethylpentane	ppbv	8.3	130
Vinyl chloride	ppbv	2.5	160

ppbv - part per billion by volume

Table 12
Surface Water Analytical Results
First and Second Quarter 2011
Recology Hay Road

Sample Designation Sampling Date		SW-3 6/13/11	SW-4 6/13/11	SW-5 6/13/11	SW-7 6/13/11	*Surface Water Concentration Limit*	Compost Area Pond
Field Parameters	*Units*						
pH	std. units	7.92	7.22	7.76	7.87	*6.6-9.4*	NA
Specific Conductance	µmhos/cm	2486	2470	977	1101	*3,276*	NA
Temperature	°C	22.8	29.7	23.7	24.2	-	NA
Turbidity	NTU	48	62	14	21	-	NA
Monitoring Parameters							
Ammonia as N	mg/l	0.033 t	0.18	<0.025	0.026 t	*0.8*	NA
Arsenic, dissolved	mg/L	0.011 t	0.012 t	<0.0098	<0.0098	*0.08*	NA
Chloride	mg/l	430	490	130	140	*731*	NA
Chromium, dissolved	mg/L	0.0018 t	0.015	0.0032 t	0.0016 t	*0.01*	NA
Lead, dissolved	mg/L	0.0072 t	0.010 t	0.0061 t	<0.0050	*NE*	NA
Nitrate/Nitrite as N	mg/l	0.24	0.063 t	0.012 t	0.011 t	*13*	NA
Nitrite as N	mg/l	0.0095 t	0.036 t	<0.0081	0.0090 t	*2.0*	NA
Sulfate as SO4	mg/l	180	200	23	33	*261*	NA
Total Dissolved Solids	mg/l	1600	1400	560	640	*1983*	NA
Total Kjeldahl Nitrogen	mg/l	1.4	2.3	0.47	1.0	*4.6*	NA
Total Suspended Solids	mg/l	30	99	6.7	29	*291*	NA
Volatile Organic Compounds							
All VOCs below method detection limits.		ND	ND	ND	ND	*ND*	NA

mg/l - milligrams per liter (parts per million)
µmhos/cm - micromhos per centimeter at 25 °C
NTU - Nephelometric Turbidity Units
µg/l - micrograms per liter (parts per billion)
t - Trace concentrations detected between the reporting limit and the detection limit. Results should be considered estimates only.
Concentration limits calculated using upstream location SW-4, through fourth quarter 2010.
NE - None established; insufficient data or too few detections.
ND - Non-detect

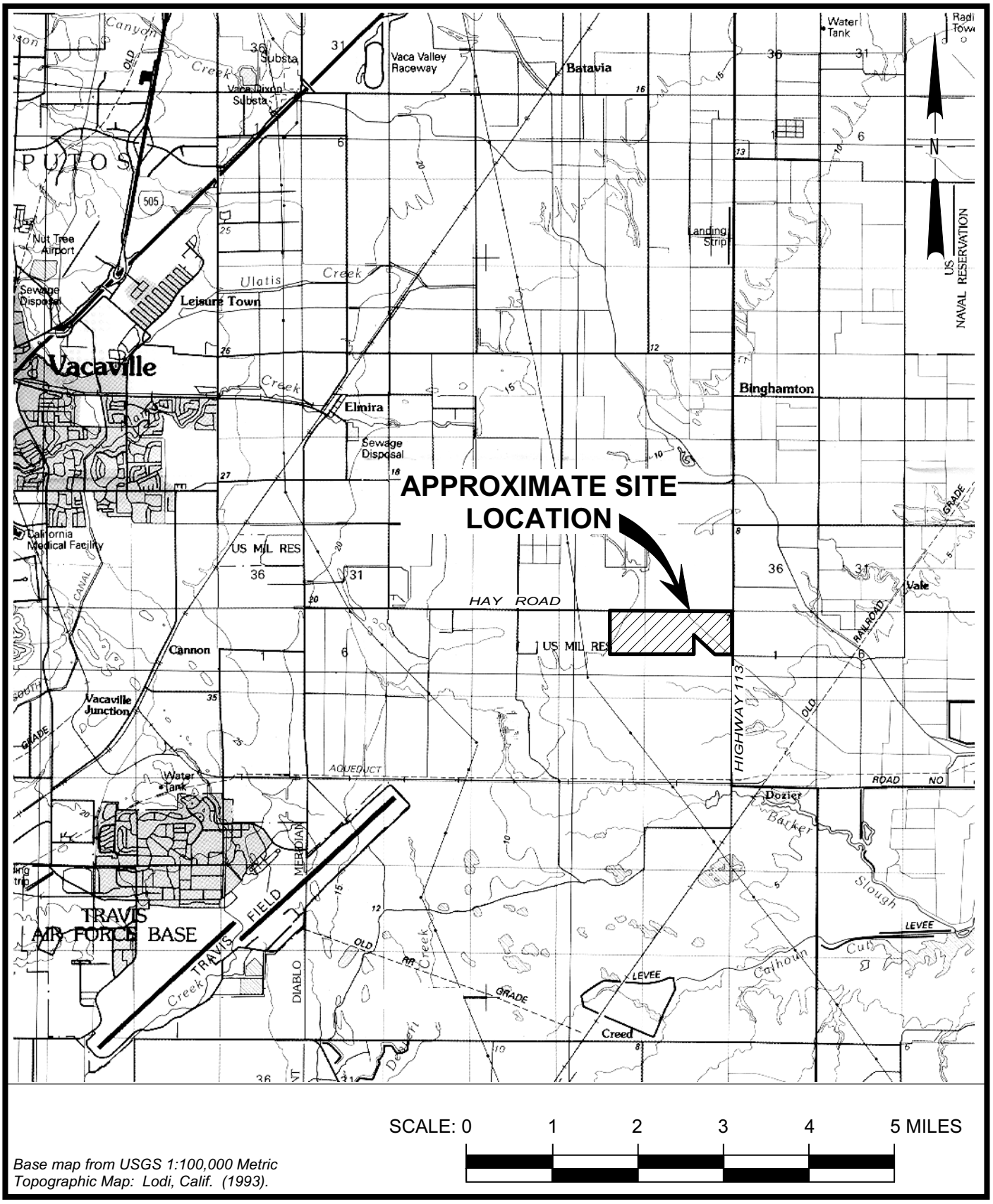
NA = not analyzed due to sample error

Table 13
Leachate Pumping Record
First and Second Quarter 2011
Recology Hay Road

Sump	January	February	March	April	May	June	Total
Gallons pumped							
S-1	132,500	121,000	215,000	188,000	99,000	104,000	859,500
S-2.1	64,000	36,500	118,000	92,500	16,000	30,000	357,000
S-2.2A	8,000	13,200	3,000	5,600	4,500	4,500	38,800
S-2.2B	14,400	21,000	23,200	23,600	10,800	13,200	106,200
S-3.1	150,000	2,500	9,000	2,500	0	4,000	168,000
S-3.2	100,000	4,500	17,500	7,000	0	12,000	141,000
S-3.3	329,500	121,000	206,000	52,000	0	2,000	710,500
S-4.1	44,000	18,000	38,500	25,000	31,000	10,500	167,000
S-5.1A	71,000	11,500	78,800	34,500	6,000	3,000	204,800
S-5.1B	33,000	12,000	41,700	8,000	4,000	3,000	101,700
S-5.2	90,000	26,500	106,700	12,000	6,000	5,000	246,200
S-9.1A	58,500	39,000	87,500	32,500	8,000	24,000	249,500
S-9.1B	16,000	7,000	24,500	36,000	28,000	12,000	123,500
S-11.1	116,600	35,800	117,400	82,300	5,100	2,800	360,000
S-11.2	103,000	55,500	110,500	96,000	13,000	11,000	389,000
Gallons pumped per day (calculated from total gallons pumped each month above)							Average
S-1	4,274	4,321	6,935	6,267	3,194	3,467	4,775
S-2.1	2,065	1,304	3,806	3,083	516	1,000	1,983
S-2.2A	258	471	97	187	145	150	216
S-2.2B	465	750	748	787	348	440	590
S-3.1	4,839	89	290	83	0	133	933
S-3.2	3,226	161	565	233	0	400	783
S-3.3	10,629	4,321	6,645	1,733	0	67	3,947
S-4.1	1,419	643	1,242	833	1,000	350	928
S-5.1A	2,290	411	2,542	1,150	194	100	1,138
S-5.1B	1,065	429	1,345	267	129	100	565
S-5.2	2,903	946	3,442	400	194	167	1,368
S-9.1A	1,887	1,393	2,823	1,083	258	800	1,386
S-9.1B	516	250	790	1,200	903	400	686
S-11.1	3,761	1,279	3,787	2,743	165	93	2,000
S-11.2	3,323	1,982	3,565	3,200	419	367	2,161
Maximum Monthly Liquid Level (feet above pressure transducer)							Target (ft)
S-1	1.7	1.9	1.9	1.9	2.0	2.0	NA
S-2.1	1.3	0.7	1.3	1.0	1.2	0.9	<1
S-2.2A	0.5	0.3	0.5	0.5	0.5	0.4	<1
S-2.2B	0.6	0.5	0.5	0.4	0.3	0.4	<1
S-3.1	0.3	0.6	0.5	0.3	0.3	0.3	<1
S-3.2	0.7	0.2	0.4	0.4	0.4	0.5	<1
S-3.3	0.8	0.8	0.5	0.4	0.3	0.3	<1
S-4.1	0.8	0.8	2.0	2.3	0.5	0.3	<1
S-5.1A	0.7	0.5	0.9	0.5	0.6	0.5	<1
S-5.1B	0.8	0.4	0.5	0.5	0.6	0.5	<1
S-5.2	0.5	0.4	0.6	0.5	0.4	0.3	<1
S-9.1A	0.7	0.5	0.4	0.4	0.7	0.6	<1
S-9.1B	0.5	0.3	0.8	0.4	0.4	0.4	<1
S-11.1	1.22	0.6	0.9	0.6	0.4	0.4	<1
S-11.2	1.58	0.9	1.7	0.9	0.6	0.7	<1
Borrow Pit							Total
Discharged (gallons)	0	0	0	0	15,840,000	58,721,900	74,561,900
Days of Evaporator Use	0	0	0	0	0	0	0

Notes: Volumes are based on storage tank readings or tanker truck loads.
NA = not applicable

FIGURES



Base map from USGS 1:100,000 Metric Topographic Map: Lodi, Calif. (1993).

Golder Associates

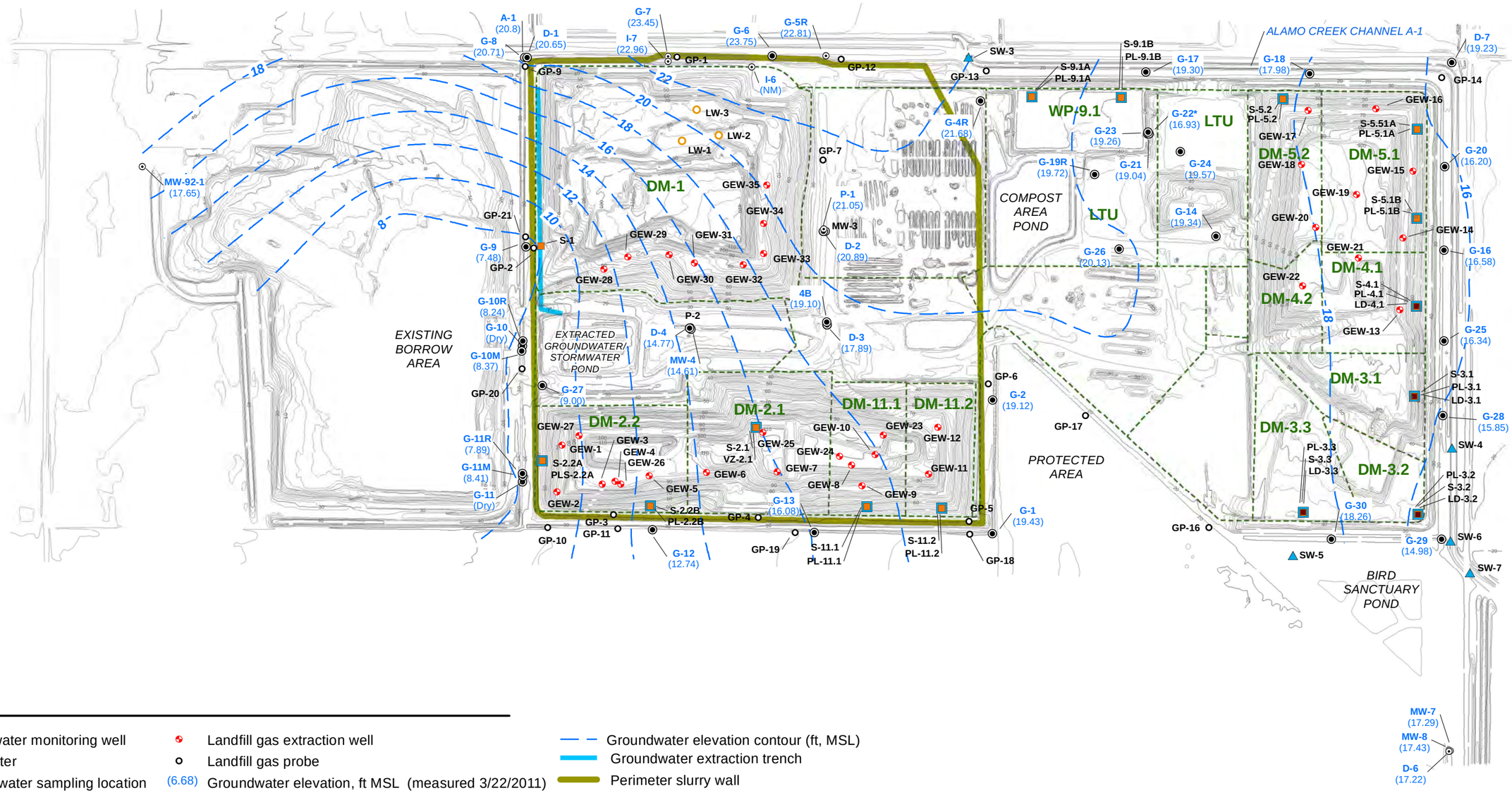
MONITORING AND REPORTING PROGRAM
HAY ROAD LANDFILL
SOLANO COUNTY, CALIFORNIA

SITE LOCATION

FIGURE
1

PROJECT NO.
053-7444

G:\053-7444\FIGURES\SITELOC.DSF 5/23/05



LEGEND

- Groundwater monitoring well
- Piezometer
- Surface water sampling location
- Leachate sump
- Lysimeter
- Leak detection sump
- Leachate well
- Landfill gas extraction well
- Landfill gas probe
- (6.68) Groundwater elevation, ft MSL (measured 3/22/2011)
- NM = not measured
- * Well G-22 is active groundwater extraction well.
- Deep wells (D-) not used in contouring.
- Groundwater elevation contour (ft, MSL)
- Groundwater extraction trench
- Perimeter slurry wall
- Existing Disposal Module Limit/Phase (DM-)

(Locations of Wells MW-5 and D-5 are approximately 1,500 feet southwest of MW-7.)

REFERENCES

Site topography (April 26, 2011)

N

0 250 500
Feet

Golder Associates
Sunnyvale, CA

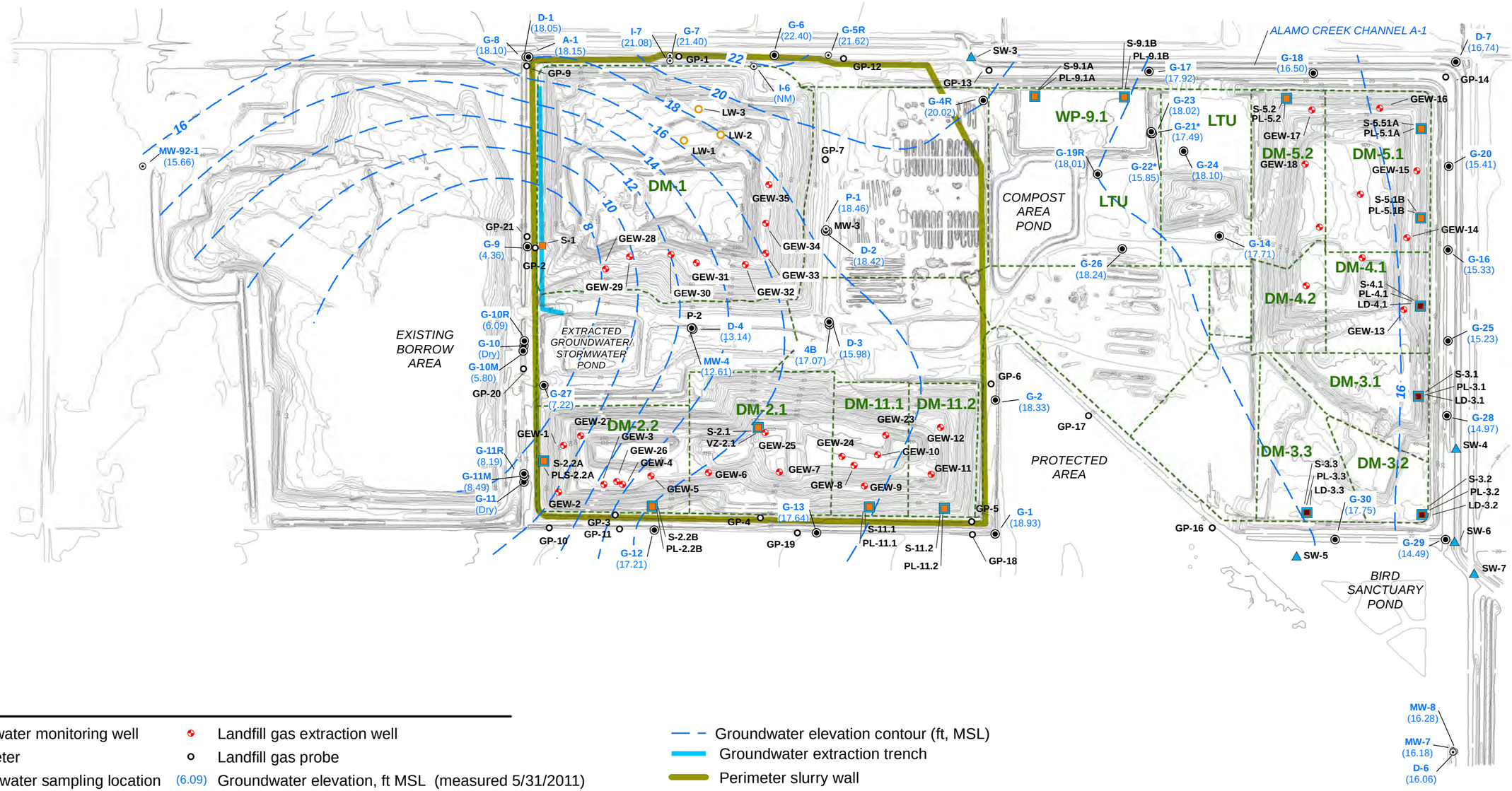
SCALE	AS SHOWN
DATE	7/1/2011
DESIGN	DLM
GIS	DLM
CHECK	KJ
REVIEW	KJ
FILE No.	
PROJECT No.	053-7444-11
REV.	0

RECOLOGY HAY ROAD
SOLANO COUNTY, CALIFORNIA

GROUNDWATER ELEVATION CONTOURS
MARCH 2011

FIGURE **2**

Path: G:\GIS\Sites\Recology_Hay_Road\mxd\HayRd_gwe_1Q2011.mxd



LEGEND

- Groundwater monitoring well
- Piezometer
- Surface water sampling location
- Leachate sump
- Lysimeter
- Leak detection sump
- Leachate well
- Landfill gas extraction well
- Landfill gas probe
- (6.09) Groundwater elevation, ft MSL (measured 5/31/2011)
- NM = not measured
- * Well G-22 is active groundwater extraction well.
- * Well G-21 not included in countouring (influenced by pumping).
- Deep wells (D-) not used in contouring.
- Groundwater elevation contour (ft, MSL)
- Groundwater extraction trench
- Perimeter slurry wall
- Existing Disposal Module Limit/Phase (DM-)

(Locations of Wells MW-5 and D-5 are approximately 1,500 feet southwest of MW-7.)

REFERENCES

Site topography (April 26, 2011)

N

0 250 500
Feet

Golder Associates
Sunnyvale, CA

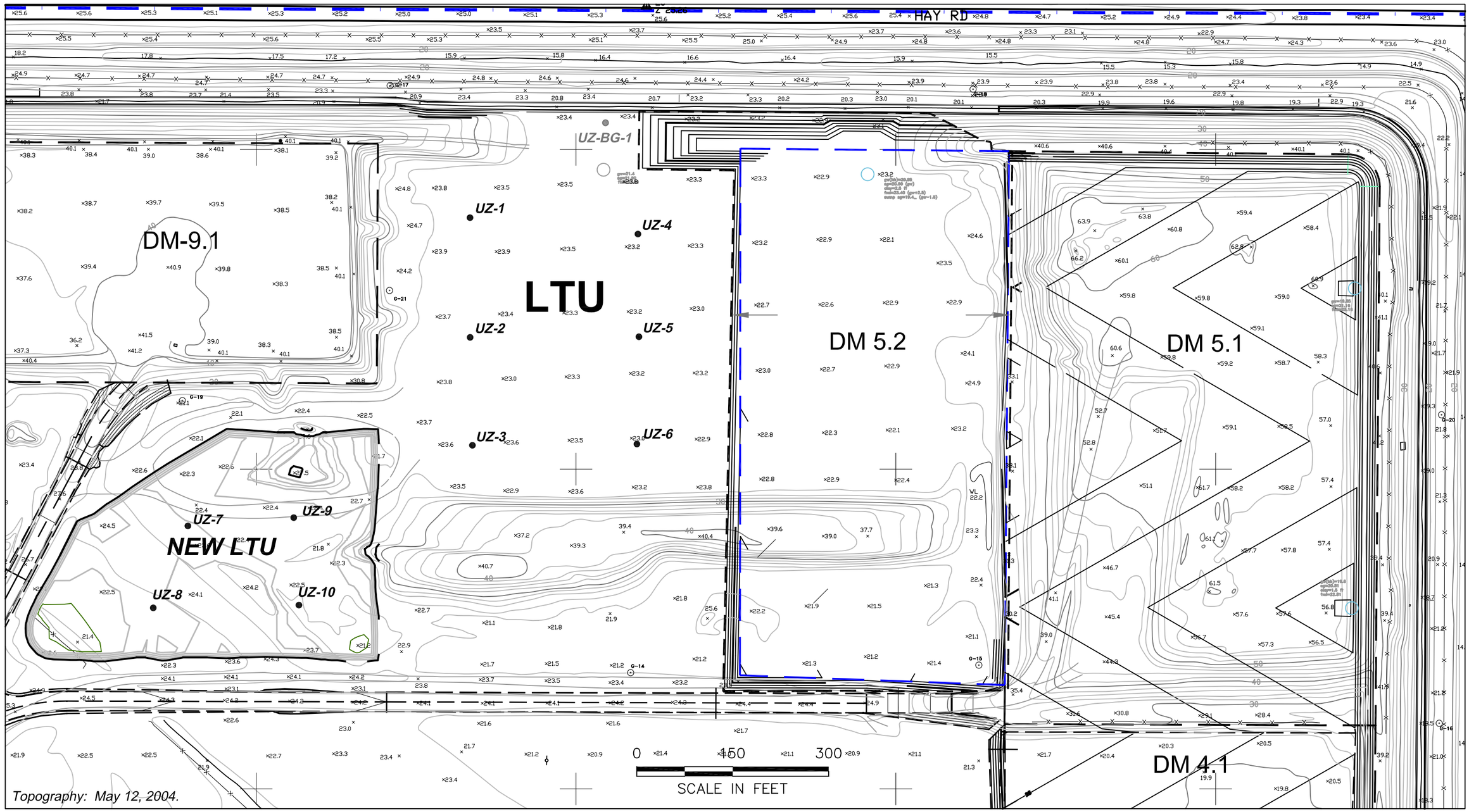
SCALE	AS SHOWN
DATE	7/1/2011
DESIGN	DLM
GIS	DLM
CHECK	KJ
REVIEW	KJ
FILE No.	
PROJECT No.	053-7444-11
REV.	0

RECOLOGY HAY ROAD
SOLANO COUNTY, CALIFORNIA

GROUNDWATER ELEVATION CONTOURS
MAY 2011

FIGURE 3

Path: G:\GIS\Sites\Recology_Hay_Road\mxd\HayRd_gwe_2Q2011.mxd



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EXPLANATION

UZ-10 ● LTU detection soil sampling location

DATE	7/26/05
DWN	KMM
APP	KHJ
REV	0
PROJECT NO.	053-7444

FIGURE 4
LAND TREATMENT UNIT
HAY ROAD LANDFILL
SOLANO COUNTY, CALIFORNIA
SOIL SAMPLE LOCATIONS

Dimscale: 100 Ltscale: 100 Psltscale: 1=1
G:\053-7444\FIGURES\LTU sampleloc 2004.DWG 7/26/05

APPENDIX A

WATER AND LEACHATE LEVEL DATA SHEETS, WATER SAMPLE FIELD DATA SHEETS, STANDARD OBSERVATIONS, AND LANDFILL MONITORING RECORDS

WATER LEVEL DATA SHEET
Golder Associates

Project: Recology Hay Road
Project No.:053-7444-11
Date(s): 3-22-11
Name: Steve Giacomini / Rob. McCarthy
Weather: ptly. Cloudy, cool, wet Sounder #: 26106

Well	Date	Time	DTW (TOC)	Total Depth	Meas. By	Comments
A-1	3-22-11	1137	13.11	45.6	SG	
G-1		1449	5.20	40.4	SG	
G-2		1344	3.45	26.4	SG	
G-4R		1234	5.85	27.6	SG	
G-6		1142	2.30	37.7	SG	
G-5R		1043	3.67	28.6	SG	
G-7		1050	6.12	21.6	SG	
G-8		1135	11.07	24.4	SG	
G-9		1418	24.53	37.7	SG	
G-10		1415	23.48	28.8	SG	
G-10R		1413	25.25	22.9	SG	
G-10M		1411	26.45	36.9	SG	
G-11		1428	22.51	26.7	SG	
G-11R		1426	24.26	75.6	SG	
G-11M		1423	23.73	37.4	SG	
G-12		1433	18.03	29.7	SG	
G-13		1445	11.43	29.6	SG	
G-14		1340	7.10	27.3	RM	
G-16		1314	5.65	32.8	SG	
G-17		1120	6.65	27.3	RM	
G-18		1130	7.67	22.3	RM	
G-19R		1241	5.95	25.5	SG	
G-20		1318	7.52	42.6	SG	
G-21		1225	6.43	21.9	RM	
G-22		1230	10.12	27.5	RM	pump running
G-23		1208	7.54	47.7	RM	
G-24		1255	6.83	27.1	RM	
G-25		1310	6.13	21.9	SG	
G-26		1245	5.54	27.6	SG	
G-27		1410	17.60	30.5	SG	
G-28		1306	7.19	33.0	SG	
G-29		1301	6.48	22.1	SG	
G-30		1256	5.32	21.2	SG	
I-6						
I-7		1047	6.50	29.4	SG	
MW-4		1405	6.54	29.9	SG	
MW-5		1156	3.29	41.9	SG	
MW-6		1158	3.75	41.6	SG	
MW-7		1214	2.91	40.7	SG	
MW-8		1212	2.50	40.4	SG	
MW92-1		1125	21.39	54.9	SG	
D-1		1139	12.09	66.2	SG	
D-2		1356	4.89	69.2	SG	
D-3		1352	7.74	63.6	SG	
D-4		~~1403~~	~~3.98~~ SG	~~22.5~~ 67.2	SG	DTW = 5.34 @ 1403 SG
D-5		1200	3.78	66.9	SG	
D-6		1209	4.29	66.8	SG	
D-7		1147	6.81	67.5	SG	
4B		1350	6.55	12.2	SG	
P-1		1354	3.98	22.5	SG	
P-2		1407	7.24	9.2	SG	
LW-1		1445	69.98	71.9	RM	
LW-2		1450	64.27	64.5	RM	
LW-3		1455	47.22	49.1	RM	

I:BJD/106/WTRLVL.xls.xls

WATER LEVEL DATA SHEET
Golder Associates

Project: Recology Hay Road
Project No.:053-7444-11
Date(s): 5/31/11
Name: Steve Giacomini / R. McCarthy
Weather: Cloudy, cool Sounder #: 26106

Well	Date	Time	DTW (TOC)	Total Depth	Meas. By	Comments
A-1	5/31/11	1221	15.76	45.6	SG	
G-1		1317	5.70	40.4	S	
G-2		1248	4.24	26.4	SG	
G-4R		1343	7.51	27.6	S	
G-6		1340	3.65	37.7	SG	
G-5R		1210	4.86	28.6	"	
G-7		1215	8.17	21.4	SG	
G-8		1219	13.68	24.4	SG	
G-9		1226	27.65	37.4	SG	
G-10		1231	26.18	28.8	SG	
G-10R		1233	27.40	72.9	SG	
G-10M		1229	29.02	36.9	SG	
G-11		1332	22.53	26.6	S	
G-11R		1334	23.96	75.6	SG	
G-11M		1336	23.65	37.4	SG	
G-12		1308	13.56	29.7	SG	
G-13		1313	9.87	29.6	SG	
G-14		1152	8.73	30.2	S	
G-16		1408	6.90	32.8	S	
G-17		1352	8.03	27.3	SG	
G-18		1357	9.15	22.3	S	
G-19R		1148	7.56	25.5	SG	
G-20		1405	8.31	42.6	S	
G-21		1224	7.98	21.9	RM	
G-22		1250	11.20	27.5		
G-23		1210	8.78	47.5		
G-24		1310	8.30	27.2		
G-25		1422	7.24	21.9	SG	
G-26		1155	7.43	27.6	SG	
G-27		1236	19.38	30.5	S	
G-28		1413	8.07	32.5	S	
G-29		1524	6.97	22.1	SG	
G-30		1520	5.83	21.2	SG	
~~I-6~~						
I-7		1212	8.38	29.4	S	
MW-4		1241	8.54	29.9	S	
MW-5		1440	5.60	41.9	SG	
MW-6		1442	5.87	41.6	SG	
MW-7		1451	4.02	40.7	SG	
MW-8		1453	3.65	40.8	SG	
MW92-1		1510	23.38	54.9	S	
D-1		1223	14.69	66.2	SG	
D-2		1205	7.36	69.2	S	
D-3		1201	9.65	63.6	S	
D-4		1239	6.97	67.2	S	
D-5		1444	5.65	66.9	S	
D-6		1447	5.45	66.8	SG	
D-7		1502	9.30	67.5	S	
4B		1159	8.58	12.2	S	
P-1		1203	6.57	22.5	S	
P-2		1243	Dry	9.2	S	
LW-1		1420	69.24	61.8	RM	
LW-2		1445	Dry	NM		
LW-3		1355	47.02	NM		

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-8
PROJECT NO: 053-7444-10
SAMPLED BY: R. McCARTHY
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater X Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 ____ 4 X 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): —
Screen Length (ft): —
Depth to Water (ft): 12.44
Total Volume Purged (ml): 3600 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump X Tubing Types DEDICATED Other ____
Purge Water Containment: DRUM - GRAND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1132	300 ml/min	12.44	17.8	6.74	1875	2.24	~~100~~ 2	-4.1	
1135	300	12.44	18.0	7.23	1874	0.99	1.0	-10.4	
1138	↓	12.44	18.1	7.27	1874	0.93	1	-10.9	
1141	↓	12.44	18.1	7.31	1875	0.94	1	-12.1	
1145	SAMPLE TAKEN								

Field Measurement Devices: Horiba ____ YSI X LaMotte ____ Other ____

REMARKS:
CAL pH 7.0, 10
EC 2060 µS

SIGNATURE: [signature]
DATE: 3/4/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-9
PROJECT NO: 053-7444-10
SAMPLED BY: R. McCarthy
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater _____ Leachate _____ Other _____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 ____ 4 X 4.5 ____ 6 ____ 8 ____ Other _____

Well Total Depth (ft): —
Screen Length (ft): —
Depth to Water (ft): 26.76
Total Volume Purged (ml): 2700

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump _____ Bladder Pump _____
Dedicated _____ Peristaltic Pump X Tubing Types DEDICATED Other _____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other _____ Time: _____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1157	START	PURGE							
1200	300	26.76	20.1	~~1875~~ 6.93	1875	0.57	2	-110.1	
1203	↓	26.76	20.2	6.93	1876	0.50	1	-112.2	
1206	↓	26.76	20.1	6.97	1876	0.47	1	-113.4	
1210	SAMPLE TAKEN								

Field Measurement Devices: Horiba _____ YSI X LaMotte _____ Other _____

REMARKS: _____

SIGNATURE: _____ **DATE:** 3/4/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
PROJECT NO: 053-7444-10
CLIENT: Recology
SAMPLE TYPE: Groundwater X Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 X 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

SAMPLE ID: G-14
SAMPLED BY: R. McCarthy
REGULATORY AGENCY: CVRWQCB

Well Total Depth (ft): 27.3
Screen Length (ft): ____
Depth to Water (ft): 7.10
Total Volume Purged (ml): 2,000 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump X Tubing Types DEDICATED Other ____
Purge Water Containment: None - Ground
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1345	200	START PURGE							
1348	200	7.11	19.0	7.50	4072	0.58	2	-74.1	clear
1351	200	7.11	19.0	7.48	4147	0.54	1	-76.3	" "
1354	200	7.11	19.0	7.48	4170	0.50	1	-73.6	" "
1355	*SAMPLE TAKEN*								

Field Measurement Devices: Horiba ____ YSI X LaMotte ____ Other ____

REMARKS: ____

SIGNATURE: [signature] **DATE:** 3/22/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
PROJECT NO: 053-7444-10
CLIENT: Recology
SAMPLE TYPE: Groundwater X Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 X 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

SAMPLE ID: G-18
SAMPLED BY: R. McCarthy
REGULATORY AGENCY: CVRWQCB

Well Total Depth (ft): 22.3
Screen Length (ft): ____
Depth to Water (ft): 7.67
Total Volume Purged (ml): 2,750 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump X Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1137	250.	START	PURGE						
1139	250	7.71	16.6	7.02	2954	0.95	2	-27.4	clear
1142	250	7.70	16.7	7.06	2942	0.62	1	-46.4	" "
1145	250	7.70	16.7	7.10	2942	0.59	1	-49.8	" "
1148	250	7.70	16.7	7.11	2942	0.57	1	-50.4	" "
1150	*SAMPLE TAKEN*								

Field Measurement Devices: Horiba ____ YSI X LaMotte ____ Other ____

REMARKS:
CAL. pH, 4.0, 7.0
EC 2000 µS.

SIGNATURE: [signature] **DATE:** 3/22/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
PROJECT NO: 053-7444-10
CLIENT: Recology

SAMPLE ID: G-21
SAMPLED BY: R. McCarthy
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater X Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 X 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 21.9
Screen Length (ft): ____
Depth to Water (ft): 6.43
Total Volume Purged (ml): 2,500 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump X Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1230	250	START	PURGE						
1233	250	6.46	17.5	7.25	2388	0.53	1	-68.4	clear
1236	250	6.47	17.5	7.19	2390	0.50	1	-70.8	" "
1239	250	6.46	17.4	7.22	2391	0.49	1	-72.6	" "
1240	* SAMPLE TAKEN *								

Field Measurement Devices: Horiba ____ YSI X LaMotte ____ Other ____

REMARKS: ____

SIGNATURE: [signature] **DATE:** 3/22/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G1-22
PROJECT NO: 053-7444-10
SAMPLED BY: R. McCARTH
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater X Surface Water ____ Leachate ____ Treatment System ____ Other ____

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 X 8 ____ Other ____
GALLONS PER LINEAR FOOT: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 27.5
Volume in Casing (gal): ~~____~~
Depth to Water (ft): 10.12
Calculated Purge (volumes / gal.): ~~____~~
Height of Water Column (ft): —
Actual Pre-Sampling Purge (gal): ~~____~~

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer ____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump ____ Dedicated ____ Other ____
Purge Water Containment: ____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
	PUMP ON; GRAB SAMPLE TAKEN							

Purge Date: —

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer X
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump ____ Dedicated ____ Other ____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	~~Other~~ ORP
1250	16.2	2226	7.30	1.24	clear	1	-44.5

Sheen: NONE Odor: NONE Sample Date: ____

Field Measurement Devices: Horiba ____ Omega ____ QuickCheck ____ D.O. Test Kit ____ YSI X LaMotte ____

REMARKS: ____

SIGNATURE: [signature] **DATE:** 3/22/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
PROJECT NO: 053-7444-10
CLIENT: Recology
SAMPLE TYPE: Groundwater ✗ Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 ✗ 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

SAMPLE ID: G-23
SAMPLED BY: R. McCarthy
REGULATORY AGENCY: CVRWQCB

Well Total Depth (ft): 47.7
Screen Length (ft): ____
Depth to Water (ft): 7.54
Total Volume Purged (ml): 3,600 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump ✗ Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1213	300	START PURGE							
1216	300	7.58	17.4	7.22	2302	0.37	1	-80.1	clear
1219	300	7.60	17.1	7.22	2295	0.26	1	-80.9	" "
1222	300	7.60	17.0	7.22	2294	0.22	1	-87.6	" "
1225	* SAMPLE TAKEN *								

Field Measurement Devices: Horiba ____ YSI ✗ LaMotte ____ Other ____

REMARKS: ____

SIGNATURE: ____ **DATE:** 3/22/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
PROJECT NO: 053-7444-10
CLIENT: Recology

SAMPLE ID: G-24
SAMPLED BY: R. McCarthy
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater X Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 X 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 27.1 Screen Length (ft): ____
Depth to Water (ft): 6.83 Total Volume Purged (ml): ____

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump X Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1300	250	START	PURGE						
1303	250	6.85	16.7	7.28	2816	0.39	2	-87.8	clear
1306	250	6.85	16.8	7.23	2843	0.37	2	-89.3	" "
1309	250	6.85	16.8	7.24	2844	0.32	2	-92.9	" "
1310	*SAMPLE TAKEN*								

Field Measurement Devices: Horiba ____ YSI X LaMotte ____ Other ____

REMARKS: ____

SIGNATURE: [signature] **DATE:** 3/22/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: S-3.2
PROJECT NO: 053-7444-10
SAMPLED BY: R. McCarthy
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater ____ Surface Water ____ Leachate X Treatment System ____ Other ____

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): ____ Volume in Casing (gal): ____
Depth to Water (ft): ____ Calculated Purge (volumes / gal.): ____
Height of Water Column (ft): ____ Actual Pre-Sampling Purge (gal): ____

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer ____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump ____ Dedicated ____ Other ____
Purge Water Containment: ____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
	GRAB SAMPLE TAKEN							

Purge Date: ____

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer ____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump ____ Dedicated ____ Other discharge port

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	~~Other~~ ORP
1430	19.5	9949	7.04	1.20	yellowish	23	-116.9

Sheen: ____ Odor: ____ Sample Date: 3-22-11

Field Measurement Devices: Horiba ____ Omega ____ QuickCheck ____ D.O. Test Kit ____ YSI X LaMotte ____

REMARKS: ____

SIGNATURE: [signature] **DATE:** 3/22/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: LTU RUNOFF SE
PROJECT NO: 053-7444-10
SAMPLED BY: R. McCarthy
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater ____ Surface Water X Leachate ____ Treatment System ____ Other ____

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): ____ Volume in Casing (gal): ____
Depth to Water (ft): ____ Calculated Purge (volumes / gal.): ____
Height of Water Column (ft): ____ Actual Pre-Sampling Purge (gal): ____

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer ____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump ____ Dedicated ____ Other ____
Purge Water Containment: ____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
		GRAB	SAMPLE	TAKEN				

Purge Date: ____

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer ____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump ____ Dedicated ____ Other ____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	~~Other~~ ORP
1415	19.6	6351	7.42	9.42	yellowish	5	21.3

Sheen: NONE Odor: NONE Sample Date: 3/22/11

Field Measurement Devices: Horiba ____ Omega ____ QuickCheck ____ D.O. Test Kit ____ YSI X LaMotte ____

REMARKS: ____

SIGNATURE: ____ **DATE:** 3/22/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: STORMWATER POND
PROJECT NO: 053-7444-11
SAMPLED BY: R. MCCREMY
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater _____ Surface Water X Leachate _____ Treatment System _____ Other _____

CASING DIAMETER (OD-inches): 3/4 ___ 1 ___ 2 ___ 4 ___ 4.5 ___ 6 ___ 8 ___ Other ___
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): _____ Volume in Casing (gal): _____
Depth to Water (ft): _____ Calculated Purge (volumes / gal.): _____
Height of Water Column (ft): _____ Actual Pre-Sampling Purge (gal): _____

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer _____ Teflon Bailer _____ PVC Bailer _____ Disp. Bailer _____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump _____ Electric Submersible Pump _____ Dedicated _____ Other _____
Purge Water Containment: _____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer _____ Teflon Bailer _____ PVC Bailer _____ Disp. Bailer _____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump _____ Electric Submersible Pump _____ Dedicated _____ Other _____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
0930	15.7	2270	7.57	1.78	clear	17.3	208.6

Sheen: NONE Odor: NONE Sample Date: 6/2/11

Field Measurement Devices: Horiba _____ Omega _____ QuickCheck _____ D.O. Test Kit _____ YSI X LaMotte _____

REMARKS: _____

SIGNATURE: _____ **DATE:** 6/2/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-1
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCARTHY
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater X Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 ____ 4 X 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 40.4
Screen Length (ft): ____
Depth to Water (ft): 5.42
Total Volume Purged (ml): 4,800

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump X Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1159	START	PURGE							
1204	300	5.46	17.0	7.51	1356	0.94	4	136.0	clear
1207	300	5.46	17.0	7.50	1326	0.87	3	130.7	" "
1210	300	5.46	16.9	7.51	1320	0.87	3	124.4	" "
1215	SAMPLE	TAKEN							
		VOC'S SAMPLED w/		DISP BAILER					

Field Measurement Devices: Horiba ____ YSI X LaMotte ____ Other Oakton

REMARKS: ____

SIGNATURE: [signature] **DATE:** 6/6/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-2
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCARTHY
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater x Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 ____ 4 x 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 26.4
Screen Length (ft): ____
Depth to Water (ft): 3.93
Total Volume Purged (ml): 6,000

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump x Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GRAVEL
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1045	START PURGE								
1050	300	3.95	16.4	7.23	4043	0.42	2	157.0	clear
1053	300	3.95	16.3	7.34	4107	0.19	2	137.6	" "
1056	300	3.95	16.3	7.36	4121	0.14	2	134.6	" "
1059	300	3.95	16.2	7.37	4123	0.16	2	137.1	" "
1105	SAMPLE	TAKEN							
		VOC'S SAMPLED	w/	DISP BAILER					

Field Measurement Devices: Horiba ____ YSI ____ LaMotte ____ Other ____
REMARKS: ____

SIGNATURE: ____ **DATE:** 6/6/11

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Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: 4B
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomin
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater X Surface Water ___ Leachate ___ Treatment System ___ Other ___
CASING DIAMETER (OD-inches): 3/4 ___ 1 ___ 2 ___ 4 X 4.5 ___ 6 ___ 8 ___ Other ___
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 12.2	Volume in Casing (gal): 2.4
Depth to Water (ft): 8.60	Calculated Purge (volumes / gal.): 7.2
Height of Water Column (ft): 3.60	Actual Pre-Sampling Purge (gal): 2.4

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer ___ Teflon Bailer ___ PVC Bailer ___ Disp. Bailer X
PVC Hand Pump ___ Peristaltic Pump ___ Centrifugal Pump ___ Bladder Pump ___
Pneumatic Displacement Pump ___ Electric Submersible Pump ___ Dedicated ___ Other ___
Purge Water Containment: None / ground
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ___

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
1315	2.4	16.3	4090	7.73	Brown	moderate	/	well dry

Purge Date: 6/6/11

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer ___ Teflon Bailer ___ PVC Bailer ___ Disp. Bailer + (12')
PVC Hand Pump ___ Peristaltic Pump ___ Centrifugal Pump ___ Bladder Pump ___
Pneumatic Displacement Pump ___ Electric Submersible Pump ___ Dedicated ___ Other ___

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1200	17.9	5190	7.39	NM*	Lt Brown tint	9	

Sheen: none Odor: none Sample Date: 6/7/11

Field Measurement Devices: Horiba/U5 ___ Omega ___ QuickCheck ___ D.O. Test Kit ___ YSI ___ LaMotte ___

REMARKS: Well dry @ 2.4 gallons purged @ 1315 on 6/6/11.
Allowed well to recharge overnight. DTW = 8.65' 6/7/11 @ 1155
HS CAL - 6/7/11 1110: pH = 7.03, 4.00; EC = 0, 2060; TURB = 0; DO = Auto; Temp = 18.0°C

SIGNATURE: SL **DATE:** 6/7/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

Location: Hay Rd Lab

Sample ID: MW-4

Project No.: 053-7444-11

Sampled By: R. McCarthy

Client: Pacificorp

Sample type: Groundwater X Leachate ____ Other ____

Casing diameter: 3/4" ____ 1" ____ 2" X 4" ____ 4.5" ____ 6" ____ 8" ____ Other ____

Well Total Depth (ft): 29.9

Screen Length (ft): ____

Depth to Water (ft): 8.53

Total Volume Purged (ml): 5,700 ml

PURGE / SAMPLE:

Device (Depth of Intake from TOC): Bladder Pump ____ Peristaltic Pump X Dedicated ____

Electric Submersible Pump ____ Tubing Types Dedicated Other ____

Purge Water Containment: None - Ground

Field Measurement Device: Horiba ____ YSI X LaMotte ____ Other Oakton

QC Samples Collected at this Well: QCEB-____ QCAB-____ DUP-____ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µmhos @ 25°C)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1416	Start Purge								
1421	300	8.55	19.3	7.35	2308	0.39	2	-25.1	clear
1424	300	8.56	19.3	7.32	2309	0.18	1	-39.8	" "
1427	300	8.56	19.4	7.36	2306	0.12	1	-42.2	" "
1430	300	8.56	19.4	7.37	2305	0.11	1	-43.4	" "
1435	Sample	Taken							
		VOC's sampled w/ Disp Bailer							

REMARKS: ____

SIGNATURE: [signature]

SAMPLE DATE: 6/8/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
PROJECT NO: 053-7444-11
CLIENT: Recology
SAMPLE TYPE: Groundwater ✓ Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 ✓ 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

SAMPLE ID: G-4R
SAMPLED BY: R. McCarthy
REGULATORY AGENCY: CVRWQCB

Well Total Depth (ft): 27.6
Screen Length (ft): ____
Depth to Water (ft): 7.35
Total Volume Purged (ml): 6,000

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump ✓ Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1300	START	PURGE							
1305	300	7.40	19.4	7.34	3840	0.23	5	82.3	clear
1308	300	7.38	19.5	7.34	3852	0.16	4	77.3	clear
1311	300	7.38	19.6	7.33	3856	0.14	4	79.5	clear
1320	SAMPLE	TAKEN							
		VOC'S SAMPLED w/		DISP BAILER					

Field Measurement Devices: Horiba ____ YSI ✓ LaMotte ____ Other Oakton

REMARKS: ____

SIGNATURE: [signature] **DATE:** 6/2/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G1-6
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCarthy
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater _____ Leachate _____ Other _____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 ____ 4 X 4.5 ____ 6 ____ 8 ____ Other _____

Well Total Depth (ft): 37.7
Screen Length (ft): _____
Depth to Water (ft): 3.34
Total Volume Purged (ml): 5,400ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump _____ Bladder Pump _____
Dedicated _____ Peristaltic Pump X Tubing Types DEDICATED Other _____
Purge Water Containment: NON-GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other _____ Time: _____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1342	START	PURGE							
1347	300	3.34	19.2	7.44	1688	0.25	4	40.9	clear
1350	300	3.34	19.0	7.43	1674	0.12	3	34.5	" "
1353	300	3.34	18.9	7.40	1670	0.18	3	34.6	" "
1400	SAMPLE	TAKEN							
		VOC'S	SAMPLED	W/ DISP	BAILER				

Field Measurement Devices: Horiba _____ YSI X LaMotte _____ Other Oakton

REMARKS: _____

SIGNATURE: [signature] **DATE:** 6/2/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

Location: HAY Rd

Sample ID: G-8

Project No.: 053-7444-11

Sampled By: R. McCARTHY

Client: RECOLOGY

Sample type: Groundwater x Leachate ____ Other ____

Casing diameter: 3/4" ____ 1" ____ 2" ____ 4" ✓ 4.5" ____ 6" ____ 8" ____ Other ____

Well Total Depth (ft): 24.3

Screen Length (ft): ____

Depth to Water (ft): 13.71

Total Volume Purged (ml): 5,100 ml

PURGE / SAMPLE:

Device (Depth of Intake from TOC): Bladder Pump ____ Peristaltic Pump ✓ Dedicated ____

Electric Submersible Pump ____ Tubing Types DEDICATED Other ____

Purge Water Containment: NONE-GROUND

Field Measurement Device: Horiba ____ YSI x LaMotte ____ Other Oakton

QC Samples Collected at this Well: QCEB-____ QCAB-____ DUP-____ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µmhos @ 25°C)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1218	START PURGE								
1223	300	13.78	18.7	7.24	1775	0.45	3	54.0	clear
1226	300	13.79	18.7	7.51	1778	0.26	2	47.6	
1229	300	13.77	18.7	7.49	1775	0.24	2	45.3	
1232	300	13.76	18.7	7.45	1777	0.24	2	41.6	
1235	SAMPLE	TAKEN							
		VOC'S SAMPLED w/ DISP			BAILER				

REMARKS: ____

SIGNATURE: [signature]

SAMPLE DATE: 6/8/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

Location: HAY RD. LANDFILL

Sample ID: G-9

Project No.: 053-7444-4

Sampled By: R. McCARTHY

Client: RECOLOGY

Sample type: Groundwater ✓ Leachate _____ Other _____

Casing diameter: 3/4" _____ 1" _____ 2" _____ 4" X 4.5" _____ 6" _____ 8" _____ Other _____

Well Total Depth (ft): 37.4

Screen Length (ft): _____

Depth to Water (ft): 27.74

Total Volume Purged (ml): 6,300 ml

PURGE / SAMPLE:

Device (Depth of Intake from TOC): Bladder Pump _____ Peristaltic Pump X Dedicated _____

Electric Submersible Pump _____ Tubing Types DEDICATED Other _____

Purge Water Containment: NONE - GROUND

Field Measurement Device: Horiba _____ YSI X LaMotte _____ Other Oakton

QC Samples Collected at this Well: QCEB-_____ QCAB-_____ DUP-_____ Other _____ Time: _____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µmhos @ 25°C)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1254	START PURGE								
1300	300	27.82	23.2	6.36	1758	0.32	39	-102.1	particulates
1303	300	27.88	23.2	6.45	1756	0.36	13	-114.5	light
1306	300	27.88	23.1	6.49	1756	0.33	9	-140.9	clear
1309	300	27.88	23.0	6.49	1756	0.32	7	-145.8	clear
1312	300	27.88	23.0	6.45	1751	0.29	7	-146.7	clear
1315	SAMPLE	TAKEN							
		VOC'S SAMPLED W/		DISP BAILER					

REMARKS: _____

SIGNATURE: [signature]

SAMPLE DATE: 6/8/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

Location: Recovery Hay Rd.
Sample ID: CR-10M
Project No.: 053-7444-11
Sampled By: R. McCarthy
Client: Revolon
Sample type: Groundwater ✓ Leachate ____ Other ____
Casing diameter: 3/4" ____ 1" ____ 2" X 4" ____ 4.5" ____ 6" ____ 8" ____ Other ____

Well Total Depth (ft): 37.0
Screen Length (ft): ____
Depth to Water (ft): 29.42
Total Volume Purged (ml): 6,000 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Bladder Pump ____ Peristaltic Pump X Dedicated ____
Electric Submersible Pump ____ Tubing Types Dedicated Other ____
Purge Water Containment: None - Ground
Field Measurement Device: Horiba ____ YSI X LaMotte ____ Other Oakton
QC Samples Collected at this Well: QCEB-____ QCAB-____ DUP-____ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µmhos @ 25°C)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1455	Start Purge								
1500	300	29.43	17.3	7.17	1711	0.33	2	133.1	clear
1503	300	29.43	17.2	7.17	1715	0.25	2	117.5	
1506	300	29.43	17.2	7.17	1717	0.24	2	111.3	
1509	300	29.43	17.2	7.17	1720	0.22	2	110.7	
1515	Sample Taken								
	VOC's	Sampled w/ Disp Bailer							

REMARKS: ____

SIGNATURE: [signature] **SAMPLE DATE:** 6/6/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

Location: Recology May Road

Sample ID: G-11

Project No.: 053-7444-11

Sampled By: R McCarthy

Client: Recology

Sample type: Groundwater x Leachate ____ Other ____

Casing diameter: 3/4" ____ 1" ____ 2" ____ 4" x 4.5" ____ 6" ____ 8" ____ Other ____

Well Total Depth (ft): 26.6

Screen Length (ft): ____

Depth to Water (ft): 22.78

Total Volume Purged (ml): 6,600 ml

PURGE / SAMPLE:

Device (Depth of Intake from TOC): Bladder Pump ____ Peristaltic Pump x (25') Dedicated ____

Electric Submersible Pump ____ Tubing Types ~~1/4~~ 1/4" PE Other ____

Purge Water Containment: None - Ground

Field Measurement Device: Horiba ____ YSI x LaMotte ____ Other Oakton

QC Samples Collected at this Well: QCEB-____ QCAB-____ DUP-____ Other ____ Time: QCEB-1 @ 1135

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µmhos @ 25°C)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1128	START	PURGE							
1135	300	22.83	19.1	7.29	1579	1.19	19	163.3	slightly cloudy
1138	300	22.85	19.1	7.28	1580	1.19	10	161.5	clear
1141	300	22.85	19.1	7.24	1583	1.20	7	155.7	" "
1144	300	22.85	19.0	7.23	1579	1.21	7	153.1	" "
1150	SAMPLE	TAKEN							
		VOC'S	SAMPLED	w/ DOP	BAILER				

REMARKS: CAL: pH 4.0 7.0
EC 2000

SIGNATURE: [signature] **SAMPLE DATE:** 6/8/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G1 - 11M
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCARTHY
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater X Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 X 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 87.4
Screen Length (ft): ____
Depth to Water (ft): 23.80
Total Volume Purged (ml): 6,600 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump X Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1408	START	PURGE							
1416	250	23.82	18.2	7.31	1078	0.93	27	127.1	cloudy
1419	250	23.82	18.0	7.30	1078	0.61	17	120.4	" "
1422	250	23.82	17.9	7.29	1079	0.57	9	110.8	" "
1425	250	23.82	17.9	7.29	1078	0.57	9	105.7	" "
1428	250	23.82	17.9	7.29	1077	0.57	9	105.3	" "
1430	SAMPLE TAKEN								
		VOC'S	SAMPLED	W/ DISP	BAILER				

Field Measurement Devices: Horiba ____ YSI ✓ LaMotte ____ Other Oakton

REMARKS: ____

SIGNATURE: [signature] **DATE:** 6/6/4

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-12
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCarthy
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater ✓ Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 ____ 4 ✓ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 29.7
Screen Length (ft): ____
Depth to Water (ft): 12.98
Total Volume Purged (ml): 4,500 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump ✓ Tubing Types Dedicated Other ____
Purge Water Containment: None - Ground
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1315	Start	Purge							
1320	300	13.01	16.7	7.55	1019	1.38	3	152.6	clear
1323	300	13.00	16.7	7.54	1014	1.32	3	144.8	clear
1326	300	13.00	16.8	7.53	1010	1.29	3	143.9	clear
1330	Sample	taken							
		VOC's sampled w/		Disp Bailer					

Field Measurement Devices: Horiba ____ YSI ✓ LaMotte ____ Other Oakton

REMARKS: ____

SIGNATURE: [signature] **DATE:** 6/6/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-13
PROJECT NO: 053-7444-11
SAMPLED BY: P. McCARTHY
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater ✓ Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 ____ 4 ✓ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): ____ Screen Length (ft): ____
Depth to Water (ft): 9.87 Total Volume Purged (ml): 3,900 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump ✓ Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1237	START	PURGE							
1242	300	9.90	16.7	7.50	1310	1.34	5	141.1	clear
1245	300	9.90	16.7	7.48	1315	1.31	4	138.2	clear
1248	300	9.90	16.8	7.47	1307	1.28	4	134.6	clear
1250	SAMPLE	TAKEN							
		VOC'S SAMPLED w/		DISP BAILER					

Field Measurement Devices: Horiba ____ YSI ✓ LaMotte ____ Other Oakton

REMARKS: ____

SIGNATURE: [signature] **DATE:** 6/6/11

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Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-14
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCarthy
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater x Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 x 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 27.3
Screen Length (ft): ____
Depth to Water (ft): 8.63
Total Volume Purged (ml): 4,500 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump x Tubing Types DEDICATED Other ____
Purge Water Containment: Down - Ground
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1515	300	START	PURGE						
1518	300	8.70	16.9	6.69	4120	0.51	2	164.6	clear
1521	↓	8.71	16.9	6.78	4125	0.42	1	162.1	↓
1524	↓	8.70	16.9	6.80	4124	0.39	1	160.6	↓
1530	SAMPLE	TAKEN							

Field Measurement Devices: Horiba ____ YSI x LaMotte ____ Other ____

REMARKS: ____

SIGNATURE: [signature] **DATE:** 5/31/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-16
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCARTHY
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater X Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 X 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 32.8
Screen Length (ft): ____
Depth to Water (ft): 6.81
Total Volume Purged (ml): 4,500

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump X Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1145	START	PURGE							
1150	300	6.82	16.2	7.28	3821	0.57	1	170.4	clear
1153	300	6.82	16.4	7.29	3847	0.24	1	160.9	clear
1156	300	6.82	16.5	7.28	3854	0.18	1	143.2	" "
1200	SAMPLE TAKEN								
		VOC'S	SAMPLED	W/ DISP	BAILER				

Field Measurement Devices: Horiba ____ YSI X LaMotte ____ Other Oakton

REMARKS: ____

SIGNATURE: [signature] **DATE:** 6/1/11

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Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-17
PROJECT NO: 053-7444-11
SAMPLED BY: R McCARTHY
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater ✓ Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 ✓ 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 27.3
Screen Length (ft): ~~5,400 ml~~
Depth to Water (ft): 7.83
Total Volume Purged (ml): 5,400 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump ✓ Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
0927	START PURGE								
0930	300	7.90	16.7	6.94	2708	0.69	2	267.6	clear
0933	300	7.90	16.7	7.11	2738	0.43	2	250.1	" "
0936	300	7.89	16.7	7.15	2751	0.87	2	238.5	" "
0939	300	7.88	16.6	7.16	2760	0.86	2	236.1	" "
0945	SAMPLE TAKEN								
		VOC'S	SAMPLED	w/ DISP	BAILER				

Field Measurement Devices: Horiba ____ YSI ✓ LaMotte ____ Other Oakton

REMARKS: CAL pH 4.0, 7.0
EC 2060

SIGNATURE: [signature] **DATE:** 6/1/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-18
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCarthy
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater X Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 X 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 22.3
Screen Length (ft): ~~4,500~~
Depth to Water (ft): 8.90
Total Volume Purged (ml): 4,500 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump X Tubing Types DEDICATED Other ____
Purge Water Containment: DONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1010	START	PURGE							
1014	300	8.97	17.3	7.41	2868	0.52	1	118.3	clear
1017	?	8.96	17.1	7.39	2850	0.21	1	98.1	" "
1020	↓	8.96	17.1	7.35	2857	0.19	1	93.9	" "
1025	SAMPLE	TAKEN							
		VOC'S	SAMPLED	w/	DISP	BAILER			

Field Measurement Devices: Horiba ____ YSI X LaMotte ____ Other CELTON

REMARKS:

SIGNATURE: [signature] **DATE:** 6/1/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-19R
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCarthy
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater X Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 X 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 25.5
Screen Length (ft): ____
Depth to Water (ft): 7.42
Total Volume Purged (ml): 4,800 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump X Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1224	START	PURGE							
1229	300	7.49	18.7	7.49	3898	0.29	6	66.1	clear
1232	300	7.47	18.9	7.43	3932	0.20	5	63.1	clear
1235	300	7.47	18.7	7.43	3945	0.18	5	61.6	clear
1240	SAMPLE	TAKEN							
		VOC's	SAMPLED	W/	DISP	BAILER			

Field Measurement Devices: Horiba ____ YSI X LaMotte ____ Other Oakton

REMARKS: ____

SIGNATURE: [signature] **DATE:** 6/2/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-20
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCARTHY
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater X Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 X 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 42.6
Screen Length (ft): ____
Depth to Water (ft): 8.20
Total Volume Purged (ml): 4,500 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump X Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1055	START	PURGE							
1059	300	~~10.6~~ 8.28	16.6	7.51	1997	0.40	1	138.8	clear
1102	300	8.27	16.4	7.46	1959	0.26	1	127.7	" "
1105	300	8.27	16.4	7.41	1954	0.21	1	126.8	" "
1108	300	8.27	16.4	7.41	1961	0.20	1	124.1	" "
1110	SAMPLE	TAKEN							
		VOC'S	SAMPLED	w/	DISP	BAILER			

Field Measurement Devices: Horiba ____ YSI X LaMotte ____ Other ____

REMARKS: ____

SIGNATURE: [signature] **DATE:** 6/1/14

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-21
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCarthy
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater ✓ Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 ✓ 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 21.9
Screen Length (ft): ____
Depth to Water (ft): 7.98
Total Volume Purged (ml): 4,800

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump ✓ Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1224	START PURGE								
1227	250	8.01	17.1	7.24	2410	0.32	1	207.1	clear
1230	250	8.00	17.1	7.18	2417	0.16	1	191.2	" "
1233	250	8.00	17.1	7.17	2424	0.14	1	183.1	" "
1240	SAMPLE TAKEN								

Field Measurement Devices: Horiba ____ YSI ✓ LaMotte ____ Other ____
REMARKS: ____

SIGNATURE: [signature] **DATE:** 5/31/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-22
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCarthy
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater X Surface Water ____ Leachate ____ Treatment System ____ Other ____

CASING DIAMETER (OD-inches):	3/4	1	2	4	4.5	6	8	Other
GALLONS PER LINEAR FOOT :	(0.02)	(0.04)	(0.17)	(0.66) X	(0.83)	(1.5)	(2.6)	

Well Total Depth (ft): ____
Volume in Casing (gal): ____
Depth to Water (ft): 11.20
Calculated Purge (volumes / gal.): ____
Height of Water Column (ft): ____
Actual Pre-Sampling Purge (gal): ____

PURGE:

Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer ____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump ____ Dedicated ____ Other ____
Purge Water Containment: ____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
	GRAB SAMPLE TAKEN; DEDICATED PUMP ON							

Purge Date: ____

SAMPLE:

Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer X
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump ____ Dedicated ____ Other ____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other ORP
1300	16.5	2406	7.47	0.75	clear	5	203.1

Sheen: ____ Odor: ____ Sample Date: ____

Field Measurement Devices: Horiba ____ Omega ____ QuickCheck ____ D.O. Test Kit ____ YSI X LaMotte ____

REMARKS: ____

SIGNATURE: ____ **DATE:** 5/31/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-23
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCarthy
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater x Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 x 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 47.5
Screen Length (ft): ____
Depth to Water (ft): 8.78
Total Volume Purged (ml): 2400 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump x Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1208	START	PURGE							
1211	200	8.82	17.16	6.93	2330	0.47	3	236.4	clear
1214	↓	8.85	17.2	7.00	2330	0.33	2	226.4	" "
1217	↓	8.82	17.2	7.04	2327	0.32	2	216.1	" "
1220	SAMPLE TAKEN								

Field Measurement Devices: Horiba ____ YSI x LaMotte ____ Other ____

REMARKS: CAL pH 4.0, 7.0
EC 2060 µS

SIGNATURE: [signature] **DATE:** 3/31/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-24
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCARTHY
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater ✓ Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 ✓ 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 27.2
Screen Length (ft): ____
Depth to Water (ft): 8.30
Total Volume Purged (ml): 3600 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump ✓ Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1328	300	START	PURGE						
1331	↓	8.39	16.1	7.24	2738	0.68	1	174.0	clear
1334		8.40	16.1	7.22	2741	0.23	1	171.1	" "
1337		8.40	16.1	7.22	2742	0.22	1	170.6	" "
1340	SAMPLE TAKEN								

Field Measurement Devices: Horiba ____ YSI ✓ LaMotte ____ Other ____

REMARKS: ____

SIGNATURE: [signature] **DATE:** 5/31/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-25
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCarthy
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater ✓ Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 ✗ 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 21.9
Screen Length (ft): ____
Depth to Water (ft): 7.24
Total Volume Purged (ml): 4,500 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump ✗ Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1255	START	PURGE							
1300	800	7.29	16.3	7.48	2613	0.70	2	133.4	clear
1303	300	7.30	16.3	7.42	2600	0.31	1	118.3	clear
1306	300	7.29	16.3	7.41	2594	0.24	1	107.3	clear
1309	300	7.29	16.3	7.41	2598	0.23	1	105.2	clear
1310	SAMPLE	TAKEN							
		VOC'S	SAMPLED	W/	DISP	BAILER			

Field Measurement Devices: Horiba ____ YSI X LaMotte ____ Other ____
REMARKS: ____

SIGNATURE: [signature] **DATE:** 6/1/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-26
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCarthy
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater X Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 X 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 27.6
Screen Length (ft): ____
Depth to Water (ft): 7.38
Total Volume Purged (ml): 4,800 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump X Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1419	START	PURGE							
1423	300	7.42	17.6	7.49	2372	0.24	2	108.6	clear
1426	↓	7.42	17.4	7.42	2365	0.17	1	91.2	" "
1429	↓	7.40	17.3	7.41	2361	0.12	1	89.6	" "
1435	SAMPLE	TAKEN							
		VOC'S	SAMPLED	w/	DISP	BAILER			

Field Measurement Devices: Horiba ____ YSI X LaMotte ____ Other ____

REMARKS: ____

SIGNATURE: [signature] **DATE:** 6/1/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

Location: HAY RD. LANDFILL

Sample ID: G-27

Project No.: 053-7444-11

Sampled By: R McCarthy

Client: RECOLOGY

Sample type: Groundwater ✓ Leachate ____ Other ____

Casing diameter: 3/4" ____ 1" ____ 2" ✓ 4" ____ 4.5" ____ 6" ____ 8" ____ Other ____

Well Total Depth (ft): 30.5

Screen Length (ft): ____

Depth to Water (ft): 19.52

Total Volume Purged (ml): 5,100

PURGE / SAMPLE:

Device (Depth of Intake from TOC): Bladder Pump ____ Peristaltic Pump ✓ Dedicated ____

Electric Submersible Pump ____ Tubing Types DEDICATED Other ____

Purge Water Containment: ____

Field Measurement Device: Horiba ____ YSI ✓ LaMotte ____ Other Oakton

QC Samples Collected at this Well: QCEB-____ QCAB-____ DUP-____ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µmhos @ 25°C)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1343	START	PURGE							
1348	300	19.61	19.1	6.79	1485	0.82	2	-31.0	clear
1351	300	19.60	19.1	7.07	1481	0.63	2	-39.0	
1354	300	19.60	19.1	7.05	1481	0.58	2	-43.3	
1357	300	19.60	19.1	7.12	1482	0.56	2	-45.7	
1400	SAMPLE	TAKEN							
		VOC'S SAMPLED W/ DISP BAILER							

REMARKS: ____

SIGNATURE: [signature]

SAMPLE DATE: 6/8/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-28
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCARTHY
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater X Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 X 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 32.5
Screen Length (ft): ____
Depth to Water (ft): 7.94
Total Volume Purged (ml): 6,000 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump X Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1330	START	PURGE							
1335	300	8.01	17.2	7.41	3766	0.45	1	116.8	clear
1338	300	8.00	17.2	7.40	3777	0.18	1	114.1	?
1341	300	8.00	17.1	7.40	3782	0.10	1	110.0	↓
1350	SAMPLE	TAKEN							
		VOC'S SAMPLED W/		DISP BAILER					

Field Measurement Devices: Horiba ____ YSI X LaMotte ____ Other ____
REMARKS: ____

SIGNATURE: ____ **DATE:** 6/1/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-29
PROJECT NO: 053-7444-11
SAMPLED BY: R. McCarthy
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater _____ Leachate _____ Other _____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 x 4 ____ 4.5 ____ 6 ____ 8 ____ Other _____

Well Total Depth (ft): 22.1
Screen Length (ft): _____
Depth to Water (ft): 6.74
Total Volume Purged (ml): 5,100 ml

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump _____ Bladder Pump _____
Dedicated _____ Peristaltic Pump x Tubing Types DEDICATED Other _____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other _____ Time: _____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1048	START	PURGE							
1053	300	6.89	16.9	7.80	2051	1.73	3	194.0	clear
1056	300	6.89	17.0	7.90	2052	1.76	2	177.8	" "
1059	300	6.92	17.2	7.91	2061	1.80	2	169.5	" "
1102	300	6.92	17.2	7.91	2064	1.82	2	168.5	" "
1105	SAMPLE TAKEN								
		VOC'S	SAMPLED	W/ DISP	BAILER				

Field Measurement Devices: Horiba _____ YSI x LaMotte _____ Other Oakton

REMARKS: _____

SIGNATURE: _____ **DATE:** 6/2/12

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: G-30
PROJECT NO: 053-7444-11
SAMPLED BY: R McCARTHY
CLIENT: Recology
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater ✗ Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 ✗ 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): 21.2
Screen Length (ft): ____
Depth to Water (ft): 5.89
Total Volume Purged (ml): 6,000

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated ____ Peristaltic Pump ✗ Tubing Types DEDICATED Other ____
Purge Water Containment: NONE - GROUND
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1135	START	PURGE							
1140	300	5.90	17.4	7.62	2049	0.81	3	108.9	clear
1143	300	5.90	17.5	7.59	2042	0.19	2	82.5	" "
1146	300	5.90	17.7	7.58	2040	0.17	2	79.7	" "
1149	300	5.90	17.7	7.59	2039	0.17	2	78.0	" "
1155	SAMPLE TAKEN								

Field Measurement Devices: Horiba ____ YSI ____ LaMotte ____ Other ____
REMARKS: ____

SIGNATURE: [signature] **DATE:** 6/2/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

Location: HAY Rd. LANDFILL

Sample ID: P-1

Project No.: 053-7444-11

Sampled By: R. McCARTHY

Client: RECOLOGY

Sample type: Groundwater X Leachate ____ Other ____

Casing diameter: 3/4" ____ 1" ____ 2" ____ 4" ____ 4.5" ____ 6" X 8" ____ Other ____

Well Total Depth (ft): 22.5

Screen Length (ft): ____

Depth to Water (ft): 6.36

Total Volume Purged (ml): 7,200 ml

PURGE / SAMPLE:

Device (Depth of Intake from TOC): Bladder Pump ____ Peristaltic Pump X Dedicated ____

Electric Submersible Pump ____ Tubing Types DEDICATED Other ____

Purge Water Containment: NONE - GROUND

Field Measurement Device: Horiba ____ YSI X LaMotte ____ Other Oakton

QC Samples Collected at this Well: QCEB-____ QCAB-____ DUP-____ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µmhos @ 25°C)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1451	START PURGE								
1453	300	6.42	19.1	6.83	2518	0.51	1	-6.6	clear
1458	300	6.41	19.3	6.78	2508	0.24	1	-22.8	" "
1501	300	6.41	19.5	6.72	2500	0.18	1	-24.5	" "
1504	300	6.41	19.5	6.75	2500	0.12	1	-25.3	" "
1507	300	6.41	19.5	6.77	2501	0.11	1	-27.6	" "
1515	SAMPLE	TAKEN							
		VOC'S SAMPLED W/ DISP BAILER							

REMARKS: ____

SIGNATURE: [signature]

SAMPLE DATE: 6/8/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: PL-2.2A
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other PAN LYS.

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"

GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): NM
Volume in Casing (gal): /
Depth to Water (ft): Y
Calculated Purge (volumes / gal.): /
Height of Water Column (ft): 0.00
Actual Pre-Sampling Purge (gal): /

PURGE:

Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____
Purge Water Containment: _____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:

Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen: _____ Odor: _____ Sample Date: _____

Field Measurement Devices: Horiba _____ Omega _____ QuickCheck _____ D.O. Test Kit _____ YSI_____ LaMotte____

REMARKS: NO LIQUID DETECTED.
TURNED Dedicated pump "ON" - NO FLOW
PAN Lysimeter Dry - No samples

SIGNATURE: _____ **DATE:** 6/6/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: PL-2.2B
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other pan lys.

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"

GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): NM	Volume in Casing (gal):
Depth to Water (ft):	Calculated Purge (volumes / gal.):
Height of Water Column (ft): 0.00	Actual Pre-Sampling Purge (gal):

PURGE:

Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____
Purge Water Containment: _____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:

Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen: _____ Odor: _____ Sample Date: _____

Field Measurement Devices: Horiba _____ Omega _____ QuickCheck _____ D.O. Test Kit _____ YSI_____ LaMotte____

REMARKS: No liquid detected. pan lysimeter dry
No samples

SIGNATURE: SG **DATE:** 6/6/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: PL-3.1
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other PAN LYS.

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): NM
Volume in Casing (gal): /
Depth to Water (ft): ↓
Calculated Purge (volumes / gal.): /
Height of Water Column (ft): 0.00
Actual Pre-Sampling Purge (gal): _____

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____
Purge Water Containment: _____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen: _____ Odor: _____ Sample Date: _____

Field Measurement Devices: Horiba _____ Omega _____ QuickCheck _____ D.O. Test Kit _____ YSI_____ LaMotte____

REMARKS: NO LIQUID DETECTED - PAN LYSIMETER DRY
NO SAMPLES

SIGNATURE: [signature] **DATE:** 6/2/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: PL-3.2
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater ____ Surface Water ____ Leachate ____ Treatment System ____ Other PAN LYS.

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"

GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft):	Volume in Casing (gal):
Depth to Water (ft):	Calculated Purge (volumes / gal.):
Height of Water Column (ft): 0.00	Actual Pre-Sampling Purge (gal):

PURGE:

Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____

Purge Water Containment: ____

Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: ____

SAMPLE:

Device (Depth of Intake from TOC): S.S. Bailer____ Teflon Bailer____ PVC Bailer____ Disp. Bailer____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump____ Electric Submersible Pump____ Dedicated____ Other____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen: ____ Odor: ____ Sample Date: ____

Field Measurement Devices: Horiba ____ Omega ____ QuickCheck ____ D.O. Test Kit ____ YSI ____ LaMotte ____

REMARKS: No Liquid Detected - Sample Location Dry - No Samples

SIGNATURE: SG **DATE:** 6/21/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: PL-3.3
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other PAN Lysimeter

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"

GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): NM	Volume in Casing (gal):
Depth to Water (ft): 6	Calculated Purge (volumes / gal.):
Height of Water Column (ft): 0.00	Actual Pre-Sampling Purge (gal):

PURGE:

Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Purge Water Containment: _____

Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:

Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen: _____ Odor: _____ Sample Date: _____

Field Measurement Devices: Horiba ____ Omega ____ QuickCheck ____ D.O. Test Kit ____ YSI ____ LaMotte ____

REMARKS: NO Liquid detected.
Sample Location Dry - No sample

SIGNATURE: [signature] **DATE:** 6/2/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: PL-4.1
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other PAN LYS

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): NM
Depth to Water (ft): NM
Height of Water Column (ft): 0.00
Volume in Casing (gal): _____
Calculated Purge (volumes / gal.): _____
Actual Pre-Sampling Purge (gal): _____

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____
Purge Water Containment: _____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen: _____ Odor: _____ Sample Date: _____

Field Measurement Devices: Horiba _____ Omega _____ QuickCheck _____ D.O. Test Kit _____ YSI_____ LaMotte____

REMARKS: No liquid detected - PAN LYSIMETER DRY
NO SAMPLES

SIGNATURE: [signature] **DATE:** 6/2/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: PL-5.1A
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other PAN LYS.

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"

GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): NM
Volume in Casing (gal): _____
Depth to Water (ft):)
Calculated Purge (volumes / gal.): _____
Height of Water Column (ft): 0.00
Actual Pre-Sampling Purge (gal): _____

PURGE:

Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Purge Water Containment: _____

Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:

Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen: _____ Odor: _____ Sample Date: _____

Field Measurement Devices: Horiba ____ Omega ____ QuickCheck ____ D.O. Test Kit ____ YSI ____ LaMotte ____

REMARKS: NO Liquid DETECTED. STARTED Dedicated pump - NO Liquid pumped
PAN LYSIMETER DRY - NO SAMPLES

SIGNATURE: [signature] **DATE:** 6/2/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: PL-5-1B
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other PANELS
CASING DIAMETER (OD-inches): 3/4 ___ 1 ___ 2 ___ 4 ___ 4.5 ___ 6 ___ 8 ___ Other 1.24
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): /
Volume in Casing (gal): /
Depth to Water (ft): /
Calculated Purge (volumes / gal.): /
Height of Water Column (ft): 0.00
Actual Pre-Sampling Purge (gal): /

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer _____ Teflon Bailer _____ PVC Bailer _____ Disp. Bailer _____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump _____ Electric Submersible Pump _____ Dedicated _____ Other _____
Purge Water Containment: _____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer _____ Teflon Bailer _____ PVC Bailer _____ Disp. Bailer _____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump _____ Electric Submersible Pump ✓ Dedicated ✓ Other _____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1430	26.1	2120	7.09	4.55	Colorless	12	

Sheen: none Odor: None Sample Date: 6/8/11

Field Measurement Devices: Horiba HS Omega ____ QuickCheck ____ D.O. Test Kit ____ YSI ____ LaMotte ____

REMARKS: Collected grab sample from pump discharge hose after turning pump on.

SIGNATURE: [signature] **DATE:** 6/8/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: PL-5.2
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other PAN LYS

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): NM	Volume in Casing (gal):
Depth to Water (ft): λ	Calculated Purge (volumes / gal.):
Height of Water Column (ft): 0.00	Actual Pre-Sampling Purge (gal):

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____
Purge Water Containment: _____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen: _____ Odor: _____ Sample Date: _____

Field Measurement Devices: Horiba _____ Omega _____ QuickCheck _____ D.O. Test Kit _____ YSI _____ LaMotte _____

REMARKS: NO LIQUID DETECTED - PAN LYSIMETER DRY
NO-SAMPLES

SIGNATURE: [signature] **DATE:** 6/2/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: PL-9.1A
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater ____ Surface Water ____ Leachate ____ Treatment System ____ Other PAN WES

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): NM
Volume in Casing (gal): ____
Depth to Water (ft): ↓
Calculated Purge (volumes / gal.): ____
Height of Water Column (ft): 0.00
Actual Pre-Sampling Purge (gal): ____

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer ____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump ____ Dedicated ____ Other ____
Purge Water Containment: ____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: ____

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer ____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump X Dedicated X Other ____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1445	19.1	1130	7.25	5.83	Colorless	18	

Sheen: none
Odor: ____
Sample Date: 6/8/11

Field Measurement Devices: Horiba H5 Omega ____ QuickCheck ____ D.O. Test Kit ____ YSI ____ LaMotte ____

REMARKS: Used Gollee generator to power dedicated pump.
Collected grab samples

SIGNATURE: [signature]
DATE: 6/8/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: PL-9.1B
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other PAN LYS

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"

GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): NM	Volume in Casing (gal):
Depth to Water (ft): ↓	Calculated Purge (volumes / gal.):
Height of Water Column (ft): 0.00	Actual Pre-Sampling Purge (gal):

PURGE:

Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Purge Water Containment: _____

Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:

Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen: _____ Odor: _____ Sample Date: _____

Field Measurement Devices: Horiba _____ Omega _____ QuickCheck _____ D.O. Test Kit _____ YSI_____ LaMotte____

REMARKS: No Liquid DETECTED STARTED pump - No Liquid pumped - PAN LYSIMETER DRY - NO Samples

SIGNATURE: S. [signature] **DATE:** 6/2/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: PL-11.1
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other PANLYSO.
CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft):	Volume in Casing (gal):
Depth to Water (ft):	Calculated Purge (volumes / gal.):
Height of Water Column (ft): 0.00	Actual Pre-Sampling Purge (gal):

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____
Purge Water Containment: _____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump ✗ Dedicated ✗ Other_____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1400	25.0	2160		1.22	Black	682	

Sheen: None Odor: Moderate Sample Date: 6/8/11

Field Measurement Devices: Horiba HS Omega ____ QuickCheck ____ D.O. Test Kit ____ YSI____ LaMotte____

REMARKS: Turned Dedicated pump on - Low Flow from discharge hose
Collected grab sample.
- collected all samples from Discharge hose

+5 cal 6/8/11 @ 1350: pH = 7.01, 4.00; EC = 9, 2060; TURB = 0; DO = Auto; Temp = 21.5°C

SIGNATURE: _____ **DATE:** 6/8/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: PL-11.2
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other PAN GWS
CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): _____ Volume in Casing (gal): _____
Depth to Water (ft): _____ Calculated Purge (volumes / gal.): _____
Height of Water Column (ft): 0-00 Actual Pre-Sampling Purge (gal): _____

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____
Purge Water Containment: _____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump ✗ Dedicated ✗ Other_____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1415	24.7	4190	7.06	1.20	colorless	16	

Sheen: none Odor: none Sample Date: 6/8/11

Field Measurement Devices: Horiba #5 Omega ____ QuickCheck ____ D.O. Test Kit ____ YSI____ LaMotte____

REMARKS: Collected grab sample from pump discharge hose.
(Started pump by turning control switch to "ON")

SIGNATURE: [signature] **DATE:** 6/8/11

Golder Associates

LYSIMETER SAMPLE FIELD DATA

LOCATION: Hay Road Landfill

SAMPLE ID: VZ-2-1

PROJECT NO: 053-7444-11

VACUUM BY: S. Giacomini

CLIENT NAME Norcal

SAMPLED BY: J

Date	Time	Cup (A or B)	Soil Moisture	Vacuum Reading (Centibars)	Liquid Removed (Milliliters)	Vacuum Applied (Centibars)
5/31/11	1255	A		Ø	—	70
5/31/11	1258	B	—	—	—	—
6/8/11	1345	A	NM	5	<5	—

SAMPLE FIELD PARAMETERS:

Date	Time	Odor	pH (units)	E.C. (umhos/cm@25C)	Temperature (C)	Other

LYSIMETER INTEGRITY: A- B=P/N, Green=S / B- Green=P/N Black=S Lock No: 046 C

REMARKS: Cup B- Not holding Vacuum.

Lysimeter only spit out a few drops of liquid

used compressed Nitrogen to apply pressure

SIGNATURE: [signature]

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: LD-3.1
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other LEAK DETECT

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"

GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): NM	Volume in Casing (gal):
Depth to Water (ft):	Calculated Purge (volumes / gal.):
Height of Water Column (ft): 0.00	Actual Pre-Sampling Purge (gal):

PURGE:

Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Purge Water Containment: _____

Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:

Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen: _____ Odor: _____ Sample Date: _____

Field Measurement Devices: Horiba _____ Omega _____ QuickCheck _____ D.O. Test Kit _____ YSI_____ LaMotte____

REMARKS: NO LIQUID DETECTED -
pump control showing low level - 0 liquid pumping

SIGNATURE: S. [signature] **DATE:** 6/2/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: LD-3.2
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other LEAK Detect

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): NM
Depth to Water (ft): ↓
Height of Water Column (ft): 0.00
Volume in Casing (gal): /
Calculated Purge (volumes / gal.): /
Actual Pre-Sampling Purge (gal): _____

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____
Purge Water Containment: _____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen: _____ Odor: _____ Sample Date: _____

Field Measurement Devices: Horiba _____ Omega _____ QuickCheck _____ D.O. Test Kit _____ YSI_____ LaMotte____

REMARKS: pump control showing low level. NO LIQUID DETECTED
NO LIQUID pumping - sample location DRY - NO SAMPLES

SIGNATURE: [signature] **DATE:** 6/2/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: LD-3.3
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other LEAK DETECT

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): NM
Volume in Casing (gal): ____
Depth to Water (ft): ↓
Calculated Purge (volumes / gal.): ____
Height of Water Column (ft): 0.00
Actual Pre-Sampling Purge (gal): ____

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____
Purge Water Containment: _____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen: _____ Odor: _____ Sample Date: _____

Field Measurement Devices: Horiba _____ Omega _____ QuickCheck _____ D.O. Test Kit _____ YSI _____ LaMotte _____

REMARKS: Low level indicator on on pump control Box.
No Liquid detected - No Liquid pumping
Sample location only - No samples

SIGNATURE: _____ **DATE:** 6/2/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: LD-4.1
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other LEAK Detect

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"

GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): NM	Volume in Casing (gal):
Depth to Water (ft):	Calculated Purge (volumes / gal.):
Height of Water Column (ft): 0.00	Actual Pre-Sampling Purge (gal):

PURGE:

Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Purge Water Containment: _____

Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:

Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen: _____ Odor: _____ Sample Date: _____

Field Measurement Devices: Horiba _____ Omega _____ QuickCheck _____ D.O. Test Kit _____ YSI _____ LaMotte _____

REMARKS: NO LIQUID DETECTED - LEAK DETECT RISER DRY
No samples

SIGNATURE: [signature] **DATE:** 6/2/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: LD-5-2
PROJECT NO: 053-7444-11
SAMPLED BY: S. Giacomini
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other LEAK Detect

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other 12"
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): NM
Volume in Casing (gal): /
Depth to Water (ft): 1
Calculated Purge (volumes / gal.): /
Height of Water Column (ft): 0.00
Actual Pre-Sampling Purge (gal): /

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____
Purge Water Containment: _____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: _____

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer_____ Teflon Bailer_____ PVC Bailer_____ Disp. Bailer_____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump_____ Electric Submersible Pump_____ Dedicated_____ Other_____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other

Sheen: _____ Odor: _____ Sample Date: _____

Field Measurement Devices: Horiba _____ Omega _____ QuickCheck _____ D.O. Test Kit _____ YSI_____ LaMotte_____

REMARKS: NO LIQUID Detected - LEAK Detect Sample location Dry
No Samples

SIGNATURE: _____ **DATE:** 6/2/11

Golder Associates

WATER SAMPLE FIELD DATA

Location:Recology Hay Road _____ Sample ID: Sw-3

Project No.:053-7444-11 _____ Sampled By: R. McCarthy

Client:Recology _____

Sample Type: Groundwater _____ Surface Water X Leachate _____ Treatment System _____ Other _____

Casing Diameter: 3/4"____ 1"____ 2"____ 4"____ 4.5"____ 6"____ 8"____ Other_____

Gallons per Linear Foot: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): _____ Volume in Casing (gal): _____

Depth to Water (ft): _____ Calculated Purge Volume (gal.): _____

Height of Water Column (ft): _____

PURGE:

Device (Depth of Intake from TOC): Bladder Pump _____ Peristaltic Pump _____ Disp Bailer _____

Electric Submersible Pump _____ Dedicated _____ Other _____

Purge Water Containment: _____

Field Measurement Device: Horiba _____ YSI X LaMotte_____ Other_____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
	GRAB SAMPLE TAKEN; NO PURGE							

Purge Date: _____

SAMPLE:

Device (Depth of Intake from TOC): Bladder Pump _____ Peristaltic Pump _____ Disp Bailer X

Electric Submersible Pump _____ Dedicated _____ Other _____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1330	22.8	2486	7.92	0.81	Clear	48	

Sheen: _____ Odor: _____

QC Samples Collected at this Well: QCEB-_____ QCAB-_____ DUP-_____ Other _____ Time:_____

REMARKS: _____

SIGNATURE: [signature] **SAMPLE DATE:** 6/13/11

Golder Associates

WATER SAMPLE FIELD DATA

Location:Recology Hay Road _____ Sample ID: SW-4

Project No.:053-7444-11 _____ Sampled By: R. McCarthy

Client:Recology _____

Sample Type: Groundwater _____ Surface Water X Leachate _____ Treatment System _____ Other _____

Casing Diameter: 3/4"____ 1"____ 2"____ 4"____ 4.5"____ 6"____ 8"____ Other_____

Gallons per Linear Foot: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): _____ Volume in Casing (gal): _____

Depth to Water (ft): _____ Calculated Purge Volume (gal.): _____

Height of Water Column (ft): _____

PURGE:

Device (Depth of Intake from TOC): Bladder Pump _____ Peristaltic Pump _____ Disp Bailer _____

Electric Submersible Pump _____ Dedicated _____ Other _____

Purge Water Containment: _____

Field Measurement Device: Horiba _____ YSI X LaMotte_____ Other_____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
	GRAB SAMPLE TAKEN; NO PURGE							

Purge Date: —

SAMPLE:

Device (Depth of Intake from TOC): Bladder Pump _____ Peristaltic Pump _____ Disp Bailer X

Electric Submersible Pump _____ Dedicated _____ Other _____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1350	29.7	2470	7.22	1.19	clear	62	

Sheen: None Odor: None

QC Samples Collected at this Well: QCEB-_____ QCAB-_____ DUP-_____ Other _____ Time: ~~1350~~

REMARKS: _____

SIGNATURE: [signature] **SAMPLE DATE:** 6/13/11

Golder Associates

WATER SAMPLE FIELD DATA

Location: Recology Hay Road _____ Sample ID: SW-5

Project No.:053-7444-11 _____ Sampled By: R. McCarthy

Client:Recology _____

Sample Type: Groundwater _____ Surface Water _____ Leachate _____ Treatment System _____ Other _____

Casing Diameter: 3/4"____ 1"____ 2"____ 4"____ 4.5"____ 6"____ 8"____ Other_____

Gallons per Linear Foot: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): _____ Volume in Casing (gal): _____

Depth to Water (ft): _____ Calculated Purge Volume (gal.): _____

Height of Water Column (ft): _____

PURGE:

Device (Depth of Intake from TOC): Bladder Pump _____ Peristaltic Pump _____ Disp Bailer _____

Electric Submersible Pump _____ Dedicated _____ Other _____

Purge Water Containment: _____

Field Measurement Device: Horiba _____ YSI X LaMotte _____ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
	NO	PURGE	, GRAB	SAMPLE				

Purge Date: _____

SAMPLE:

Device (Depth of Intake from TOC): Bladder Pump _____ Peristaltic Pump _____ Disp Bailer X

Electric Submersible Pump _____ Dedicated _____ Other _____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1315	23.7	977	7.76	0.62	clear	14	

Sheen: None Odor: No

QC Samples Collected at this Well: QCEB-_____ QCAB-_____ DUP-_____ Other _____ Time: 1315

REMARKS: _____

SIGNATURE: _____ **SAMPLE DATE:** 6/13/11

Golder Associates

WATER SAMPLE FIELD DATA

Location:Recology Hay Road _____ Sample ID: SW-7

Project No.:053-7444-11 _____ Sampled By: R. McCarthy

Client:Recology _____

Sample Type: Groundwater _____ Surface Water X Leachate _____ Treatment System _____ Other _____

Casing Diameter: 3/4"____ 1"____ 2"____ 4"____ 4.5"____ 6"____ 8"____ Other_____

Gallons per Linear Foot: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): _____ Volume in Casing (gal): _____

Depth to Water (ft): _____ Calculated Purge Volume (gal.): _____

Height of Water Column (ft): _____

PURGE:

Device (Depth of Intake from TOC): Bladder Pump _____ Peristaltic Pump _____ Disp Bailer _____

Electric Submersible Pump _____ Dedicated _____ Other _____

Purge Water Containment: _____

Field Measurement Device: Horiba _____ YSI X LaMotte_____ Other_____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
	GRAB SAMPLE TAKEN, NO PURGE							

Purge Date: _____

SAMPLE:

Device (Depth of Intake from TOC): Bladder Pump _____ Peristaltic Pump _____ Disp Bailer X

Electric Submersible Pump _____ Dedicated _____ Other _____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1410	24.2	1101	7.87	2.46	clear	21	

Sheen: None Odor: None

QC Samples Collected at this Well: QCEB-_____ QCAB-_____ DUP-_____ Other _____ Time:_____

REMARKS: _____

SIGNATURE: [signature] **SAMPLE DATE:** 6/13/11

Golder Associates

LOW-FLOW WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
PROJECT NO: 053-7444-11
CLIENT: Recology

SAMPLE ID: G-29
SAMPLED BY: S. Giacomini
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater X Leachate ____ Other ____
CASING DIAMETER (ID-inches): 3/4 ____ 1 ____ 2 X 4 ____ 4.5 ____ 6 ____ 8 ____ Other ____

Well Total Depth (ft): NM
Screen Length (ft): NM
Depth to Water (ft): 6.91'
Total Volume Purged (ml): ____

PURGE / SAMPLE:
Device (Depth of Intake from TOC): Electric Submersible Pump ____ Bladder Pump ____
Dedicated X Peristaltic Pump X Tubing Types 1/4" Other ____
Purge Water Containment: ____
QC Samples Collected at this Well: EB-___ FB-___ DUP-___ Other ____ Time: ____

TIME (2400 Hr)	RATE (ml/min)	DTW (ft)	Temp. (°C)	pH (std. units)	EC (µS@ 25°C)	DO (mg/l)	Turbidity (NTU)	ORP (mV)	Color / Odor Comments
1156	115	6.91							Begin Pumping
1203		7.23	21.3	7.86	2113	0.98	0	141.3	Flow cell full obtained flow data
1206		7.21	21.8	7.86	2108	1.17	0	137.0	
1209		7.18	22.0	7.88	2104	1.63	0	133	
1212		7.18	22.1	7.88	2103	1.72	0	132	
1215		7.18	22.2	7.89	2100	.78	0	131	End purge
(1220)	NA	NM	Sample using Disposable Bailer						

Field Measurement Devices: Horiba ____ YSI ____ LaMotte ____ Other ____

REMARKS: Purged / Low Flow using peristaltic pump until parameters stable
Used disposable bailer to collect VOC samples

SIGNATURE: SG
DATE: 7-20-11

C:\Users\sgiacomini\Documents\projects\Hay Road Lf\lowflow-2007.doc

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
PROJECT NO: 053-7444-10
CLIENT: ~~Norcal~~ RECOLOGY

SAMPLE ID: 4B
SAMPLED BY: S. Giacomini
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater ____ Surface Water ____ Leachate ____ Treatment System ____ Other ____

CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 X 4.5 ____ 6 ____ 8 ____ Other ____
GALLONS PER LINEAR FOOT: (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): 12.2
Depth to Water (ft): 8.98
Height of Water Column (ft): 3.22

Volume in Casing (gal): 2.2
Calculated Purge (volumes / gal.): 6.4
Actual Pre-Sampling Purge (gal): 2.2

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer X
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump ____ Dedicated ____ Other ____
Purge Water Containment: NONE/GROUND
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
1333	2.2	19.6	4370	7.62	Brown	moderate		

Purge Date: 7/19/11

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer X (11')
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump ____ Dedicated ____ Other ____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1130	20.2	5050	7.36	NM	LT Brown	41	

Sheen: none Odor: none Sample Date: 7-20-11

Field Measurement Devices: Horiba HS Omega ____ QuickCheck ____ D.O. Test Kit ____ YSI ____ LaMotte ____

REMARKS: WELL DRY @ 2.2 gal purged @ 1333.
Allowed well to recharge overnight to 9.05' DTW @ 1125

SIGNATURE: [signature] **DATE:** 7/20/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
PROJECT NO: 053-7444-10
CLIENT: Norcal

SAMPLE ID: LTU RUNOFF SE
SAMPLED BY: R. McCarthy
REGULATORY AGENCY: CVRWQCB

SAMPLE TYPE: Groundwater _____ Surface Water X Leachate _____ Treatment System _____ Other _____

CASING DIAMETER (OD-inches): 3/4 ___ 1 ___ 2 ___ 4 ___ 4.5 ___ 6 ___ 8 ___ Other ___
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): _____ Volume in Casing (gal): _____
Depth to Water (ft): _____ Calculated Purge (volumes / gal.): _____
Height of Water Column (ft): _____ Actual Pre-Sampling Purge (gal): _____

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer _____ Teflon Bailer _____ PVC Bailer _____ Disp. Bailer _____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump _____ Electric Submersible Pump _____ Dedicated _____ Other _____
Purge Water Containment: _____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other _____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation
		GRAB	SAMPLE	TAKEN				

Purge Date: _____

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer _____ Teflon Bailer _____ PVC Bailer _____ Disp. Bailer _____
PVC Hand Pump _____ Peristaltic Pump _____ Centrifugal Pump _____ Bladder Pump _____
Pneumatic Displacement Pump _____ Electric Submersible Pump _____ Dedicated _____ Other _____

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	~~Other~~ ORP
1415	19.6	6351	7.42	9.42	yellowish	5	21.3

Sheen: NONE Odor: NONE Sample Date: 3/22/11

Field Measurement Devices: Horiba ____ Omega ____ QuickCheck ____ D.O. Test Kit ____ YSI X LaMotte ____

REMARKS: _____

SIGNATURE: _____ **DATE:** 3/22/11

Golder Associates

WATER SAMPLE FIELD DATA

LOCATION: Recology Hay Road
SAMPLE ID: LTU Runoff
PROJECT NO: 053-7444-10
SAMPLED BY: S. Lucum. r
CLIENT: Norcal
REGULATORY AGENCY: CVRWQCB
SAMPLE TYPE: Groundwater ____ Surface Water X Leachate ____ Treatment System ____ Other ____
CASING DIAMETER (OD-inches): 3/4 ____ 1 ____ 2 ____ 4 ____ 4.5 ____ 6 ____ 8 ____ Other drainage
GALLONS PER LINEAR FOOT : (0.02) (0.04) (0.17) (0.66) (0.83) (1.5) (2.6)

Well Total Depth (ft): NA
Volume in Casing (gal): NA
Depth to Water (ft): /
Calculated Purge (volumes / gal.): /
Height of Water Column (ft): /
Actual Pre-Sampling Purge (gal): /

PURGE:
Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer ____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump ____ Dedicated ____ Other ____
Purge Water Containment: ____
Field QC Samples Collected at this Well (Equipment or Field Blank): EB-___ FB-___ Other ____

Time (2400 Hr)	Volume (gallons)	Temp. (°C)	Elec. Conductivity (µmhos/cm)	pH (std. units)	Color (visual)	Turbidity (visual)	Other	Observation

Purge Date: ____

SAMPLE:
Device (Depth of Intake from TOC): S.S. Bailer ____ Teflon Bailer ____ PVC Bailer ____ Disp. Bailer ____
PVC Hand Pump ____ Peristaltic Pump ____ Centrifugal Pump ____ Bladder Pump ____
Pneumatic Displacement Pump ____ Electric Submersible Pump ____ Dedicated ____ Other Direct fill

Time (2400 Hr)	Temp. (°C)	Electrical Conductivity (µmhos/cm)	pH (std. units)	Dissolved Oxygen (mg/l)	Color (visual)	Turbidity (NTU)	Other
1235	14.6	2160	9.42	13.11	Yellow/Brown	28	/

Sheen: none Odor: none Sample Date: 3/2/11

Field Measurement Devices: Horiba ____ Omega ____ QuickCheck ____ D.O. Test Kit ____ YSI ____ LaMotte ____

REMARKS: Collected grab sample of Run off from LTU area. collected sample from culvert discharge on North side of LTU where runoff was present

SIGNATURE: SL **DATE:** 3/2/11

Landfill Gas Migration Monitoring
Recology Hay Road

DATE/TIME: 12/14/11				PROJECT NUMBER: 103-97257			
TECHNICIAN: R. McCarthy				WEATHER/TEMP: Sunny / Hot			
EQUIPMENT: Gem 2000 Mini Rae 3000				BAROMETRIC PRESSURE:			
Well ID	Time	CH_4 (% by vol)	CO_2 (% by vol)	O_2 (% by vol)	Balance (% by vol)	Pressure ("w.c.)	Comments VOC
INTERIOR							
GP-2	1307	0.3	1.5	12.1	86.1	+0.01	0.0
GP-3A (deep)	1345	1.1	2.9	8.6	87.4	+0.04	0.0
GP-3B (shallow)	1342	0.0	7.0	6.2	86.8	0.0	0.0
GP-4A (deep)	1350	0.1	0.5	13.6	85.8	0.0	0.0
GP-4B (shallow)	1353	0.1	0.3	16.9	82.7	0.02	0.0
GP-5A (deep)	1409	0.2	3.5	8.3	88.0	+0.01	0.0
GP-5B (shallow)	1406	0.0	0.0	14.5	85.5	+0.03	0.0
PERIMETER							
GP-1	1236	0.1	1.9	18.2	79.8	+0.01	0.0
GP-6	1440	0.0	0.0	16.4	83.6	-0.89	0.0 NEGATIVE REL PRESSURE
GP-7	0905	0.0	1.6	17.0	81.4	+0.01	0.0
GP-9	1245	0.0	0.3	19.9	79.8	+0.02	0.0
GP-10	1329	0.2	1.0	16.3	82.4	+0.04	0.0
GP-11	1338	0.1	0.2	17.0	82.7	0.0	0.0
GP-12	1134	0.0	0.0	20.4	79.6	+0.01	0.0
GP-13	0848	0.0	0.1	20.7	79.1	0.0	0.0
GP14	0855	0.0	6.6	18.0	81.4	+0.04	0.0
GP-15	1514	0.1	0.4	15.7	83.8	0.0	0.0
GP-16	1455	0.0	0.0	16.2	83.8	+0.04	0.0
GP-17	1448	0.0	0.0	16.1	83.9	+0.16	0.0
GP-18	1419	0.1	0.6	13.9	85.4	+1.89	0.0
GP-19	1421	0.0	1.8	8.7	89.5	+0.01	0.0
GP-20S	1310	0.0	3.2	14.5	82.3	+0.02	0.0
GP-20D	1315	0.0	3.2	4.4	92.4	+0.01	0.0
GP-21S	1250	0.0	4.2	6.7	89.1	+0.02	0.0
GP-21D	1255	0.0	2.7	3.6	93.6	-0.47	0.2 NEGATIVE REL. PRESSURE
STRUCTURES							
Scalehouse	1140	0.0	0.0	20.8	79.2	—	0.0
Office Trailer	1132	0.0	0.0	20.8	79.2	—	0.0
Maintenance Shop	1134	0.0	0.0	20.8	79.2	—	0.0
Composting Shop	1136	0.0	0.0	20.8	79.2	—	0.0
Breakroom	1143	0.0	0.0	20.8	79.2	—	0.0
Leachate SS-2.2	1351	0.0	0.0	20.8	79.2	—	0.0
Leachate SS-3.1	1348	0.0	0.0	20.8	79.2	—	~~0.0~~
Leachate SS-4.1	1356	0.0	0.0	20.8	79.2	—	~~0.0~~
Leachate SS-5.1	1040	0.0	0.0	20.8	79.2	—	~~0.~~
Leachate SS-5.2	1045	0.0	0.0	20.8	79.2		0.0
Leachate SS-9.1	1052	0.0	0.0	20.8	79.2	—	0.0
Leachate SS-11	1411	0.0	0.0	20.8	79.2	—	~~0.0~~

NOTES: All monitoring parameters listed above are required by regulations, permits, or regulatory agencies for the perimeter probes and structures but not for the interior probes. Monitoring is required at least quarterly.

Record the GEM calibration information on the GEM calibration form. Provide it with this sheet to the Compliance Specialist.

Measure the static pressure on the probe prior to obtaining a gas quality reading. Evacuate 1 probe casing or achieve a stable reading before recording. Refer to the purge time table to determine how long it will take to evacuate 1 casing volume.

Exceedances at perimeter probes (i.e., 5% methane by volume or greater) or structures (1.25% methane or greater) require IMMEDIATE reporting to the Compliance Specialist as they also require IMMEDIATE reporting to the LEA by telephone or email and a written report to the LEA within 7 days.

Weather data can be obtained from the internet if not recorded in the field.

Golder Associates

LANDFILL GAS MONITORING DATA SHEET
GOLDER ASSOCIATES

Project: Recology Hay Road
Project No.: ~~09397525~~ 103-97257
Date: 6/14/11 + 6/16/11
Technician: R. McCarthy
Sampling Equipment: MINI RAE 3000

Sampling Point	Time	VOC (ppm)	Comments
office trailer	1132	0.0	
scale house	1140	0.0	
Maint. Shop	1134	0.0	
Break Room Trailer	1143	0.0	
Composting Shop	1136	0.0	
Solar shed 2.2	1354	0.0	
Solar shed 3.1	1348	0.0	
solar shed 3.2-3.3	1350	0.0	
Solar shed 4.1	1356	0.0	
Solar shed 5.1	1040	0.0	
Solar shed 5.2	1045	0.0	
Solar shed 9.1	1052	0.0	
Solar shed 11	1411	0.0	

NOTES:

LANDFILL GAS MONITORING DATA SHEET
GOLDER ASSOCIATES

Project: Recology Hay Road

Project No.: ~~09397525~~ 103-97757

Date: 6/16/11

Technician: R. McCarthy

Sampling Equipment: Gem 2000, Mini RAE

Sampling Point	Time	VOC (ppm)	METHANE (%)	CO_2 (%)	O_2 (%)	Comments
PL-2.2A	0933	0.0	0.0	0.0	20.8	
PL-2.2B	0938	0.0	0.0	0.0	20.7	
PL-3.1	1017	0.0	0.0	0.0	20.6	
PL-3.2	1006	0.0	0.0	0.0	20.2	
PL-3.3	0956	0.0	0.0	0.0	20.5	
PL-4.1	1023	0.0	0.0	0.1	20.3	
PL-5.1A	1031	0.0	0.0	0.0	20.6	
PL-5.1B	1027	0.0	0.0	0.0	20.5	
PL-5.2	1036	0.0	0.1	0.0	20.5	
PL-9.1A	1050	0.7	0.0	3.1	15.0	
PL-9.1B	1045	0.5	0.0	3.3	13.1	
PL-11.1	0945	0.0	0.0	0.0	20.6	
PL-11.2	0952	0.0	2.5	11.3	5.4	
LD-3.1	1015	0.0	4.3	3.0	16.4	
LD-3.2	1010	0.0	0.7	0.6	15.2	
LD-3.3	1000	0.0	0.0	0.0	20.5	
LD-4.1	1019	0.0	0.0	0.0	20.4	
LD-5.2	1038	0.0	0.0	0.0	20.6	

NOTES:

LANDFILL GAS MONITORING DATA SHEET
GOLDER ASSOCIATES

Project: Recology Hay Road

Project No.: ~~09397525~~ 103-97257

Date: 6/14/11

Technician: R. McCARTHY

Sampling Equipment: GEM 2000

Sampling Point	Time	VOC (ppm)	Comments
GP-1	1236	0.0	
GP-6	1440	0.0	
GP-7	0905	0.0	MONITORED ON 6/16/11
GP-9	1245	0.0	
GP-10	1324	0.0	
GP-11	1333	0.0	
GP-12	1134	0.0	MONITORED ON 6/16/11
GP-13	0848	0.0	" "
GP-14	0855	0.0	" "
GP-15	1514	0.0	
GP-16	1455	0.0	
GP-17	1448	0.0	
GP-18	1419	0.0	
GP-19	1427	0.0	
GP-20S	1310	0.0	
GP-20D	1315	0.0	
GP-21S	1250	0.0	
GP-21D	1255	0.0	

NOTES:

DAILY ACTIVITY LOG

SITE NAME: RHH

DATE: 6/14/11 **ARRIVAL TIME ON SITE:** 1000

PURPOSE: LFG - DM-1 **PROJECT/PHASE #:** 103-97257

GOLDER PERSONNEL: R. McCARTHY

EQUIPMENT USED: Gem 2000
VELOCICALC
MAGNEHELIC

SUMMARY OF WORK COMPLETED

Start Time	Stop Time	Activity					Routine	Nonroutine	
~~LW-2~~		CH_4	CO_2	O_2	BAL	DIFF PRESS	H_2S ppm	Rel PRESS	TEMP
LW-2	1200	67.1	32.1	0.0	0.8	0.0	—	* -0.01	100°F
LW-1	1150	67.2	34.9	0.0	0.0	0.02	—	-0.05	94°F
		H_2S ppm							
Crew -	20 :	> 2000 ppm							
Crew -	22 :	~ 1850 ppm							

COORDINATION AND COMMUNICATION:

CLIENT CONTACT AT CHECK-IN: _____

SPECIAL ACTIVITIES/SERVICES REQUESTED: _____

CLIENT CONTACT AT CHECKOUT: _____

COPY OF DAILY ACTIVITY LOG LEFT ON-SITE yes/no WITH: _____

Landfill Gas Migration Monitoring
Recology Hay Road

DATE/TIME: 3/10/11				**TECHNICIAN:** R. McCarthy		
EQUIPMENT: GEM 2000				**WEATHER:** Windy + Cloudy		
TEMPERATURE: 50's				**BAROMETRIC PRESSURE:** —		
Well ID	Time	CH_4 (% by vol)	CO_2 (% by vol)	O_2 (% by vol)	Pressure ("w.c.)	Comments
INTERIOR	1222	0.4	~~4.6~~ 5.1	8.8	+0.37	
~~GP-2~~	~~1107~~	~~0.0~~	~~2.1~~	~~9.0~~	~~+0.02~~	
~~GP-3~~						
~~GP-4~~						
~~GP-5~~						
PERIMETER						
GP-1	1107	0.0	2.1	9.0	+0.02	
GP-6	1320	0.0	0.0	20.6	+0.03	* Monitored on 3/14
GP-7	1411	0.0	0.3	21.3	0.00	
GP-9	1120	0.0	0.6	17.1	0.00	
GP-10	1241	0.0	1.1	17.5	+0.02	
GP-11	1247	0.0	0.3	17.7	+0.06	
GP-12	1350	0.3	0.7	20.1	+0.09	* Monitored on 3/14
GP-13	1137	0.0	0.7	20.1	+0.07	
GP14	1151	0.0	0.5	17.8	+0.04	
GP-15	1342	0.0	0.3	14.8	+0.01	
GP-16	1359	0.0	0.4	20.6	+0.05	
GP-17	1333	0.0	0.8	20.7	+0.04	
GP-18	1305	0.0	0.9	17.0	+0.67	
GP-19	1312	0.0	2.3	13.2	+0.11	
GP-20S	1228	0.0	2.8	13.1	+0.01	
GP-20D	1232	0.0	4.3	3.2	+0.02	
GP21S	1213	14.2	3.5	0.0	0.00	
GP-21D	1218	0.3	4.1	2.5	-2.84	
STRUCTURES						
Scalehouse	1520	0.0	0.0	20.8	—	
Office Trailer	1515	0.0	0.0	20.8	—	
Maintenance Shop	1500	0.0	0.0	20.8	—	
Composting Shop	1506	0.0	0.0	20.8	—	
Breakroom	1510	0.0	0.0	20.8	—	
~~Leachate SS-2.2~~	1250	0.0	0.0	20.8	—	
~~Leachate SS-3.1~~	1455	0.0	0.0	20.8	—	
~~Leachate SS-4.1~~	1448	0.0	0.0	20.8	—	
~~Leachate SS-5.1~~	1440	0.0	0.0	20.8	—	
~~Leachate SS-5.2~~	1432	0.0	0.0	20.8	—	
~~Leachate SS-9.1~~	1253	0.0	0.0	20.8	—	
Leachate SS-11	1258	0.0	0.0	20.8	—	

NOTES: All monitoring parameters listed above as "REPORTED" are required by regulations, permits, or regulatory agencies. Monitoring is required quarterly, or more frequently to protect public health or the environment. Evacuate 1 probe casing or achieve stable reading before recording. Calculate purge time based on probe depth, casing diameter, and pump rate. Provide GEM calibration sheet / information.

Exceedances at REPORTED probes (i.e., 5% methane by volume or greater) or structures (1.25% methane or greater) require immediate reporting to the Compliance Specialist as they also require immediate reporting to the LEA by telephone or email and a written report to the LEA within 7 days.

Operations Data

Recology Hay Road

First Semi-Annual 2011

Asbestos Disposal	10,349.97 tons in DM-1
Refuse Disposal	103,767.76 tons in DM's 3.2 and 3.3
Lowest waste placement	23.16 ft msl

Waste Pile Data

Type of Material	dewatered sludges
Quantity Discharged	34784.71 tons or 38649.67 cubic yards
Moisture Content	80-85 percent
Capacity Remaining	0-5 %

Land Treatment Unit

Initial Depth	8-12 inches
Number of lifts	May 1 lift
	June 2 lifts
Quantity Discharged	May 5523 tons or 6137 cubic yards
	June 11,046 tons or 12,274 cubic yards
Location	Entire LTU and top of Disposal Module 5
Quantity Removed	May 1300 tons or 1444 cubic yards

	June –2599 tons or 2888 cubic yards
Moisture Content	10-15 percent
Disposition	Stockpiled
Final Sludge Depth	0 inches
Area Covered	7 acres
Total Drying cycles	3
Cumulative LTU	7 acres

Leachate Pumping Data
Norcal Waste Systems Hay Road Landfill
First Semi-Annual 2011

Sump	Mod.1	2.2 A	2.2B	2.1	11.1	11.2	9.1A	9.1B	5.1A	5.1B	5.2	4.1	3.1	3.2	3.3
January Total	132,500	8000	14,400	64,000	116600	103000	58500	16000	71000	33000	90000	44000	150000	100000	329500
Gallons per Day	4274	258	465	2065	3762	3323	1887	516	2290	1065	2903	1419	4838	3225	10629
Depth of Water	1.70	0.50	0.60	1.30	1.22	1.58	0.70	0.50	0.70	0.80	0.50	0.80	0.30	0.70	0.80
Febraury Total	121,000	13200	21,000	36500	35800	55500	39000	7000	11500	12000	26500	18000	2500	4500	121000
Gallons per Day	4321	471	750	1304	1278	1982	1392	250	411	429	946	642	89	161	4321
Depth of Water	1.9	0.30	0.50	0.70	0.60	0.90	0.50	0.30	0.50	0.40	0.40	0.80	0.60	0.20	0.80
March Total	215000	3000	23200	118,000	117400	110500	87500	24500	78800	41700	106700	38500	9000	17500	206000
Gallons per Day	6935	97	748	3806	3787	3565	2823	790	2541	1345	3442	1242	290	565	6645
Depth of Water	1.9	0.50	0.50	1.30	9.00	1.70	0.40	0.80	0.90	0.50	0.60	2.00	0.50	0.40	0.50
April Total	188000	5600	23600	92500	82300	96000	32500	36000	34500	8000	12000	25000	2500	7000	52000
Gallons per Day	6267	187	787	3083	2743	3200	1083	1200	1150	267	400	833	83	233	1733
Depth of Water	1.9	0.50	0.40	1.00	0.60	0.90	0.40	0.40	0.50	0.50	0.50	2.30	0.30	0.40	0.40
May Total	99000	4500	10,800	16000	5100	13000	8000	28000	6000	4000	6000	31000	0	0	0
Gallons per Day	3194	145	348	516	165	419	258	903	194	129	194	1000	0	0	0
Depth of Water	2.00	0.50	0.30	1.20	0.40	0.60	0.70	0.40	0.60	0.60	0.40	0.50	0.30	0.40	0.30
June Total	104000	4500	13,200	30,000	2,800	11000	24,000	12000	3000	3000	5000	10500	4000	12000	2000
Gallons per Day	3467	150	440	1000	93	367	800	400	100	100	167	350	133	400	67
Depth of Water	2.00	0.40	0.40	0.90	0.40	0.70	0.60	0.40	0.50	0.50	0.30	0.30	0.30	0.50	0.30

Depths to water in feet

	Jan	Feb	Mar	Apr	May	June	Total
GR-22	86,000	90,500	94,500	109,500	19,000	61,500	461,000
Borrow Pit	0	0	0	0	15,840,000	58,721,900	74,561,900

APPENDIX B

CERTIFIED ANALYTICAL REPORT COVER SHEETS (CARS ON ATTACHED CD)

Date of Report: 03/25/2011

Kris Johnson

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

RE:	Hay Road LF
BC Work Order:	1103573
Invoice ID:	B097612

Enclosed are the results of analyses for samples received by the laboratory on 3/4/2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Linda Phoudamneun

Contact Person: Linda Phoudamneun
Client Service Rep

Authorized Signature

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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1103573-01 Hay Road LF, LTU Runoff, LTU Runoff, 3/2/2011 12:35:00PM						
Nitrate/Nitrite as N	140	5.0	0.50	mg/L	EPA-353.2	A01
Total Kjeldahl Nitrogen	24	2.5	0.70	mg/L	EPA-351.2	
Ammonia as N	0.53	0.050	0.025	mg/L	EPA-350.1	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Golder Associates

Golder Associates
CHAIN OF CUSTODY

Page 1 of 1
Quotation No.

PROJECT NO.: 053-7444-10
SITE NAME: Recology - Hay Road
SAMPLER(S): Steve Giacomini (printed) (signature)
CONTRACT LABORATORY: BC Labs
TURN-AROUND TIME: Standard

ANALYSES: TKN, NH3-N, NO3NO2-N
1103573

EDD required? ☒ Yes ☐ No
EDF required? ☐ Yes ☒ No

Sample I.D.	Lab I.D.	Collection Date	Collection Time	Matrix	Depth	Container Info: Type/Vol.	Filter	Preserv.	Cont. Qty.	Remarks
LTU Runoff		3-2-11	1235	water		PE 16oz	N	H2SO4	1	

CHK BY: SDU
DISTRIBUTION: WM
SUB-OUT ☐

Relinquished by: (signature)	Received by: (signature)	Date/Time:
Steve Giacomini	Kris Johnson	3/4/11 1240
Kris Johnson 3-4-11	[illegible]	3-4-11, 1445
[illegible]	M. Ottoman	3/4/11 1810

SEND RESULTS TO:
Attn: Kris Johnson
Golder Associates Inc.
425 Lakeside Drive
Sunnyvale, CA 94085
Phone (408) 220-9223
Fax (408) 220-9224

white: lab copy yellow: project file

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Chain of Custody and Cooler Receipt Form for 1103573 Page 2 of 2

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 Of 1

Submission #: 1103573

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.95 Container: PIPE Thermometer ID: 163
Temperature: A 1.1 °C / C 1.1 °C

Date/Time 3-4-11 1805
Analyst Init MIM

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS	A									
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:
Sample Numbering Completed By: MA Date/Time: 3/6/11 @1415
A = Actual L = Corrected

[H:\DOCS\WP80\LAB DOCS\FORMS\SAMREC3.WPD]

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 03/25/2011 12:19
Project: Hay Road LF
Project Number: 053-7444-10
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1103573-01	**COC Number:**	---	**Receive Date:**	03/04/2011 18:10
	Project Number:	Hay Road LF	**Sampling Date:**	03/02/2011 12:35
	Sampling Location:	LTU Runoff	**Sample Depth:**	---
	Sampling Point:	LTU Runoff	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): LTU Runoff	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 03/25/2011 12:19
Project: Hay Road LF
Project Number: 053-7444-10
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1103573-01 | **Client Sample Name:** Hay Road LF, LTU Runoff, LTU Runoff, 3/2/2011 12:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate/Nitrite as N	**140**	**mg/L**	**5.0**	**0.50**	**EPA-353.2**	**ND**	**A01**	1
Total Kjeldahl Nitrogen	**24**	**mg/L**	**2.5**	**0.70**	**EPA-351.2**	**ND**		2
Ammonia as N	**0.53**	**mg/L**	**0.050**	**0.025**	**EPA-350.1**	**ND**		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-353.2	03/10/11	03/10/11 10:08	SDU	SC-1	50	BUC0791
2	EPA-351.2	03/14/11	03/18/11 17:23	SDU	SC-1	12.500	BUC1018
3	EPA-350.1	03/14/11	03/14/11 21:14	SDU	SC-1	1	BUC1048

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 03/25/2011 12:19 Project: Hay Road LF Project Number: 053-7444-10 Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUC0791						
Nitrate/Nitrite as N	BUC0791-BLK1	ND	mg/L	0.10	0.010	
QC Batch ID: BUC1018						
Total Kjeldahl Nitrogen	BUC1018-BLK1	ND	mg/L	0.20	0.056	
QC Batch ID: BUC1048						
Ammonia as N	BUC1048-BLK1	ND	mg/L	0.050	0.025	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 03/25/2011 12:19
Project: Hay Road LF
Project Number: 053-7444-10
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUC0791										
Nitrate/Nitrite as N	BUC0791-BS1	LCS	2.0712	2.0000	mg/L	104		90 - 110		
QC Batch ID: BUC1018										
Total Kjeldahl Nitrogen	BUC1018-BS1	LCS	2.0636	2.0000	mg/L	103		85 - 115		
QC Batch ID: BUC1048										
Ammonia as N	BUC1048-BS1	LCS	0.92650	1.0000	mg/L	92.6		90 - 110		

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 03/25/2011 12:19
Project: Hay Road LF
Project Number: 053-7444-10
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUC0791	Used client sample: N										
Nitrate/Nitrite as N	DUP	1103558-13	ND	ND		mg/L			10		
	MS	1103558-13	ND	2.1577	2.1053	mg/L		102		90 - 110	
	MSD	1103558-13	ND	2.1360	2.1053	mg/L	1.0	101	10	90 - 110	
QC Batch ID: BUC1018	Used client sample: Y - Description: G-15, 03/03/2011 09:34										
Total Kjeldahl Nitrogen	DUP	1103599-01	ND	ND		mg/L			20		
	MS	1103599-01	ND	1.7056	2.0000	mg/L		85.3		80 - 120	
	MSD	1103599-01	ND	1.4107	2.0000	mg/L	18.9	70.5	20	80 - 120	Q03
QC Batch ID: BUC1048	Used client sample: N										
Ammonia as N	DUP	1103641-01	0.88470	0.89590		mg/L	1.3		10		
	MS	1103641-01	0.88470	1.9864	1.1111	mg/L		99.2		90 - 110	
	MSD	1103641-01	0.88470	1.9748	1.1111	mg/L	0.6	98.1	10	90 - 110	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 03/25/2011 12:19 Project: Hay Road LF Project Number: 053-7444-10 Project Manager: Kris Johnson

Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.
Q03	Matrix spike recovery(s) is(are) not within the control limits.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
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Date of Report: 03/17/2011

Kris Johnson

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

RE:	Hay Road LF
BC Work Order:	1104056
Invoice ID:	B097119

Enclosed are the results of analyses for samples received by the laboratory on 3/11/2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Linda Phoudamneun

Contact Person: Linda Phoudamneun
Client Service Rep

Authorized Signature

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Executive Summary - Detections

Constituent		Result	PQL	MDL	Units	Method	Lab Quals
1104056-01	**Hay Road LF, G-8, G-8, 3/4/2011 11:45:00AM**						
Dissolved Barium		0.48	0.010	0.0012	mg/L	EPA-6010B	
1104056-02	**Hay Road LF, G-9, G-9, 3/4/2011 12:10:00PM**						
Dissolved Barium		0.56	0.010	0.0012	mg/L	EPA-6010B	

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Golder Associates 1104056

Golder Associates
CHAIN OF CUSTODY

Page 1 of 1
Quotation No.

PROJECT NO.: 053-7444-11
SITE NAME: Recovery Hay Rd.
SAMPLER(S): R. McCarthy (printed) (signature)
CONTRACT LABORATORY: BC LABS
TURN-AROUND TIME: STANDARD

ANALYSES: Metals BARIUM ONLY

EDD required? ☑ Yes ☐ No
EDF required? ☑ Yes ☐ No

Sample I.D.	Lab I.D.	Collection Date	Collection Time	Matrix	Depth	Container Info: Type/Vol.	Filter	Preserv.	Metals BARIUM ONLY	Cont. Qty.	Remarks
						16oz poly	Y	HNO3			
G-8	-1	3/4/11	1145	W					1	1	
G-9	-2	3/4/11	1210	W					1	1	

CHK BY DISTRIBUTION
SUB-OUT

Relinquished by: (signature)	Received by: (signature)	Date/Time:
	Ross Dickey	3-11-11 1014
Ross Dickey 3-11-11	R L Ruyle	3-11-11 1700
R L Ruyle 3-11-11		3-11-11 2010

SEND RESULTS TO:
Attn: Kris Johnson
Golder Associates Inc.
425 Lakeside Drive
Sunnyvale, CA 94085
Phone (408) 220-9223
Fax (408) 220-9224

white: lab copy yellow: project file

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Chain of Custody and Cooler Receipt Form for 1104056 Page 2 of 2

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 of 2

Submission #: 11-04056

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ | Containers ☐ Intact? Yes ☐ No ☐ | None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.95 Container: PPG Thermometer ID: 163 Date/Time 3-3-11
Temperature: A 2.5 °C / C 2.5 °C Analyst Init MM 2010

SAMPLE CONTAINERS	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS	A	A								
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments: -1 description said G-9 @ 1145. and -2 said G-9 with no Time.
Sample Numbering Completed By: CMM Date/Time: 3/14/11 0950 (M:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD)
A = Actual / C = Corrected

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 03/17/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1104056-01	**COC Number:**	---	**Receive Date:**	03/11/2011 20:10
	Project Number:	Hay Road LF	**Sampling Date:**	03/04/2011 11:45
	Sampling Location:	G-8	**Sample Depth:**	---
	Sampling Point:	G-8	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-8	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1104056-02	**COC Number:**	---	**Receive Date:**	03/11/2011 20:10
	Project Number:	Hay Road LF	**Sampling Date:**	03/04/2011 12:10
	Sampling Location:	G-9	**Sample Depth:**	---
	Sampling Point:	G-9	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-9	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 03/17/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1104056-01 | **Client Sample Name:** Hay Road LF, G-8, G-8, 3/4/2011 11:45:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Barium	**0.48**	**mg/L**	**0.010**	**0.0012**	**EPA-6010B**	**ND**		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	03/04/11	03/16/11 09:33	ARD	PE-OP1	1	BUC1117

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 03/17/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1104056-02 | **Client Sample Name:** Hay Road LF, G-9, G-9, 3/4/2011 12:10:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Barium	**0.56**	**mg/L**	**0.010**	**0.0012**	**EPA-6010B**	**ND**		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	03/04/11	03/16/11 09:35	ARD	PE-OP1	1	BUC1117

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 03/17/2011 12:56 Project: Hay Road LF Project Number: 053-7444-11 Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUC1117						
Dissolved Barium	BUC1117-BLK1	ND	mg/L	0.010	0.0012	

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 03/17/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUC1117										
Dissolved Barium	BUC1117-BS1	LCS	0.41678	0.40000	mg/L	104		85 - 115		

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 03/17/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUC1117	Used client sample: N										
Dissolved Barium	DUP	1104089-01	0.15490	0.15770		mg/L	1.8		20		
	MS	1104089-01	0.15490	0.57759	0.40816	mg/L		104		75 - 125	
	MSD	1104089-01	0.15490	0.57389	0.40816	mg/L	0.6	103	20	75 - 125	

Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 03/17/2011 12:56 Project: Hay Road LF Project Number: 053-7444-11 Project Manager: Kris Johnson

Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
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Date of Report: 04/06/2011

Kris Johnson

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

RE:	Hay Road LF
BC Work Order:	1104854
Invoice ID:	B098128

Enclosed are the results of analyses for samples received by the laboratory on 3/29/2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Linda Phoudamneun

Contact Person: Linda Phoudamneun
Client Service Rep

Authorized Signature

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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1104854-01	**Recology Hay Road LF, LTU Runoff SE, LTU Runoff SE, 3/22/2011 2:15:00PM**					
Nitrate/Nitrite as N	540	40	4.0	mg/L	EPA-353.2	A01

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Golder Associates

Golder Associates
CHAIN OF CUSTODY

1104854

Page 1 of ___
Quotation No. ___

PROJECT NO.: 053-7444-10
SITE NAME: Recology - Hay Rd
SAMPLER(S): R. McCarthy (printed) ___ (signature)
CONTRACT LABORATORY: BC Labs
TURN-AROUND TIME: Standard

ANALYSES: Wg TNG-N

EDD required? ☒ Yes ☐ No
EDF required? ☐ Yes ☒ No

Sample I.D.	Lab I.D.	Collection Date	Collection Time	Matrix	Depth	Container Info: Type/Vol.	Filter	Preserv.	Wg TNG-N	Cont. Qty.	Remarks
						1L Poly	N	HNO3			
LTU Runoff SE-1		3-22-11	1415	WATER					1	1	

CHK BY ___ DISTRIBUTION ___ SUB-OUT ☐

Relinquished by: (signature)	Received by: (signature)	Date/Time:
SL	Ross Dickey	3-29-11 1215
Ross Dickey 3-29-11	R L Runyan	3-29-11 1810
R L Runyan 3-29-11 2110	[signature]	3-29-11 2110

SEND RESULTS TO:
Attn: Kris Johnson
Golder Associates Inc.
425 Lakeside Drive
Sunnyvale, CA 94085
Phone (408) 220-9223
Fax (408) 220-9224

white: lab copy yellow: project file

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Chain of Custody and Cooler Receipt Form for 1104854 Page 2 of 2

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 Of 1

Submission #: 1104854

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.95 Container: QTPE Thermometer ID: 163 Date/Time 3/29/11
Temperature: A 1.9 °C / C 1.9 °C Analyst Init MM 2110

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE	A									
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
500ml EPA 547										
500ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:
Sample Numbering Completed By: KDW Date/Time: 3/29/11 2217
A = Actual / C = Corrected
[H:\DOCS\WP60\LAB_DOCS\FORMS\SAMREC2.WPD]

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/06/2011 11:36
Project: Hay Road LF
Project Number: 053-7444-10
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1104854-01	**COC Number:**	---	**Receive Date:**	03/29/2011 21:10
	Project Number:	Recology Hay Road LF	**Sampling Date:**	03/22/2011 14:15
	Sampling Location:	LTU Runoff SE	**Sample Depth:**	---
	Sampling Point:	LTU Runoff SE	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): LTU Runoff SE	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/06/2011 11:36
Project: Hay Road LF
Project Number: 053-7444-10
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1104854-01 | **Client Sample Name:** Recology Hay Road LF, LTU Runoff SE, LTU Runoff SE, 3/22/2011 2:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate/Nitrite as N	**540**	**mg/L**	**40**	**4.0**	**EPA-353.2**	**ND**	**A01**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-353.2	04/05/11	04/05/11 16:33	SDU	SC-1	400	BUD0171

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 04/06/2011 11:36 Project: Hay Road LF Project Number: 053-7444-10 Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUD0171						
Nitrate/Nitrite as N	BUD0171-BLK1	ND	mg/L	0.10	0.010	

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/06/2011 11:36
Project: Hay Road LF
Project Number: 053-7444-10
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUD0171										
Nitrate/Nitrite as N	BUD0171-BS1	LCS	2.0247	2.0000	mg/L	101		90 - 110		

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/06/2011 11:36
Project: Hay Road LF
Project Number: 053-7444-10
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUD0171	Used client sample: N										
Nitrate/Nitrite as N	DUP	1105085-01	0.040700	0.037400		mg/L	8.5		10		J
	MS	1105085-01	0.040700	2.1557	2.1053	mg/L		100		90 - 110	
	MSD	1105085-01	0.040700	2.1324	2.1053	mg/L	1.1	99.4	10	90 - 110	

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 04/06/2011 11:36 Project: Hay Road LF Project Number: 053-7444-10 Project Manager: Kris Johnson

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.

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Date of Report: 04/06/2011

Kris Johnson

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

RE:	Hay Road LF
BC Work Order:	1104856
Invoice ID:	B098126

Enclosed are the results of analyses for samples received by the laboratory on 3/29/2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Linda Phoudamneun

Contact Person: Linda Phoudamneun
Client Service Rep

Authorized Signature

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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1104856-01	**Recology Hay Road LF, G-14, G-14, 3/22/2011 1:55:00PM**					
Nitrate/Nitrite as N	210	10	1.0	mg/L	EPA-353.2	A01
1104856-02	**Recology Hay Road LF, G-18, G-18, 3/22/2011 11:50:00AM**					
Nitrate/Nitrite as N	9.6	0.50	0.050	mg/L	EPA-353.2	A01
1104856-03	**Recology Hay Road LF, G-21, G-21, 3/22/2011 11:40:00AM**					
Nitrate/Nitrite as N	7.1	0.50	0.050	mg/L	EPA-353.2	A01
1104856-04	**Recology Hay Road LF, G-22, G-22, 3/22/2011 12:50:00PM**					
Nitrate/Nitrite as N	64	2.5	0.25	mg/L	EPA-353.2	A01
1104856-05	**Recology Hay Road LF, G-23, G-23, 3/22/2011 12:25:00PM**					
Nitrate/Nitrite as N	2.0	0.10	0.010	mg/L	EPA-353.2	
1104856-06	**Recology Hay Road LF, G-24, G-24, 3/22/2011 1:10:00PM**					
Nitrate/Nitrite as N	34	2.5	0.25	mg/L	EPA-353.2	A01

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Golder Associates

Golder Associates
CHAIN OF CUSTODY

1104856

Page 1 of 1
Quotation No.

PROJECT NO.: 053-7444-11
SITE NAME: Recology - Hay Rd.
SAMPLER(S): R. McCarthy (printed) (signature)
CONTRACT LABORATORY: BC LABS
TURN-AROUND TIME: Standard

ANALYSES: $NO_3 + NO_2 - N$

EDD required? ☒ Yes ☐ No
EDF required? ☒ Yes ☐ No

Sample I.D.	Lab I.D.	Collection Date	Collection Time	Matrix	Depth	Container Info: Type/Vol.	Filter	Preserv.	$NO_3 + NO_2 - N$	Cont. Qty.	Remarks
G-14	-1	3-22-11	1355	WATER	✓				1	1	Report trace
G-18	-2	↓	1150	↓					1	1	
G-21	-3		1240						1	1	
G-22	-4		1250						1	1	
G-23	-5		1225						1	1	
G-24	-6		1310						1	1	

CHK BY DISTRIBUTION SUB-OUT

Relinquished by: (signature)	Received by: (signature)	Date/Time:
SL	Ross Widley	3-29-11 1215
Ross Widley 3-29-11	R Chung	3-29-11 1810
R Chung 3-29-11	[illegible]	3-29-11 2110

SEND RESULTS TO:
Attn: Kris Johnson
Golder Associates Inc.
425 Lakeside Drive
Sunnyvale, CA 94085
Phone (408) 220-9223
Fax (408) 220-9224

white: lab copy yellow: project file

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4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com

Chain of Custody and Cooler Receipt Form for 1104856 Page 2 of 2

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 of 1

Submission #: 1104856

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.95 Container: QTPE Thermometer ID: 163
Temperature: A 1.9 °C / C 1.9 °C
Date/Time 3/29/11
Analyst Init MM 2110

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE	A	A	A	A	A	A				
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:
Sample Numbering Completed By: [illegible] Date/Time: 3/29/11 2017
A = Actual / C = Corrected
[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/06/2011 11:36
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1104856-01	**COC Number:**	---	**Receive Date:**	03/29/2011 21:10
	Project Number:	Recology Hay Road LF	**Sampling Date:**	03/22/2011 13:55
	Sampling Location:	G-14	**Sample Depth:**	---
	Sampling Point:	G-14	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-14	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1104856-02	**COC Number:**	---	**Receive Date:**	03/29/2011 21:10
	Project Number:	Recology Hay Road LF	**Sampling Date:**	03/22/2011 11:50
	Sampling Location:	G-18	**Sample Depth:**	---
	Sampling Point:	G-18	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-18	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1104856-03	**COC Number:**	---	**Receive Date:**	03/29/2011 21:10
	Project Number:	Recology Hay Road LF	**Sampling Date:**	03/22/2011 11:40
	Sampling Location:	G-21	**Sample Depth:**	---
	Sampling Point:	G-21	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-21	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/06/2011 11:36
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1104856-04	**COC Number:**	---	**Receive Date:**	03/29/2011 21:10
	Project Number:	Recology Hay Road LF	**Sampling Date:**	03/22/2011 12:50
	Sampling Location:	G-22	**Sample Depth:**	---
	Sampling Point:	G-22	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-22	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1104856-05	**COC Number:**	---	**Receive Date:**	03/29/2011 21:10
	Project Number:	Recology Hay Road LF	**Sampling Date:**	03/22/2011 12:25
	Sampling Location:	G-23	**Sample Depth:**	---
	Sampling Point:	G-23	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-23	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1104856-06	**COC Number:**	---	**Receive Date:**	03/29/2011 21:10
	Project Number:	Recology Hay Road LF	**Sampling Date:**	03/22/2011 13:10
	Sampling Location:	G-24	**Sample Depth:**	---
	Sampling Point:	G-24	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-24	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/06/2011 11:36
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1104856-01 | **Client Sample Name:** Recology Hay Road LF, G-14, G-14, 3/22/2011 1:55:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate/Nitrite as N	**210**	**mg/L**	**10**	**1.0**	**EPA-353.2**	**ND**	**A01**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-353.2	04/05/11	04/05/11 16:15	SDU	SC-1	100	BUD0171

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/06/2011 11:36
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1104856-02 | **Client Sample Name:** Recology Hay Road LF, G-18, G-18, 3/22/2011 11:50:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate/Nitrite as N	**9.6**	**mg/L**	**0.50**	**0.050**	**EPA-353.2**	**ND**	**A01**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-353.2	04/05/11	04/05/11 15:53	SDU	SC-1	5	BUD0171

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/06/2011 11:36
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1104856-03 | **Client Sample Name:** Recology Hay Road LF, G-21, G-21, 3/22/2011 11:40:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate/Nitrite as N	**7.1**	**mg/L**	**0.50**	**0.050**	**EPA-353.2**	**ND**	**A01**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-353.2	04/05/11	04/05/11 16:17	SDU	SC-1	5	BUD0171

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/06/2011 11:36
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1104856-04 | **Client Sample Name:** Recology Hay Road LF, G-22, G-22, 3/22/2011 12:50:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate/Nitrite as N	**64**	**mg/L**	**2.5**	**0.25**	**EPA-353.2**	**ND**	**A01**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-353.2	04/05/11	04/05/11 16:19	SDU	SC-1	25	BUD0171

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/06/2011 11:36
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1104856-05 | **Client Sample Name:** Recology Hay Road LF, G-23, G-23, 3/22/2011 12:25:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate/Nitrite as N	**2.0**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-353.2	04/05/11	04/05/11 15:56	SDU	SC-1	1	BUD0171

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/06/2011 11:36
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1104856-06 | **Client Sample Name:** Recology Hay Road LF, G-24, G-24, 3/22/2011 1:10:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate/Nitrite as N	**34**	**mg/L**	**2.5**	**0.25**	**EPA-353.2**	**ND**	**A01**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-353.2	04/05/11	04/05/11 16:21	SDU	SC-1	25	BUD0171

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/06/2011 11:36
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUD0171						
Nitrate/Nitrite as N	BUD0171-BLK1	ND	mg/L	0.10	0.010	

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/06/2011 11:36
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUD0171										
Nitrate/Nitrite as N	BUD0171-BS1	LCS	2.0247	2.0000	mg/L	101		90 - 110		

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/06/2011 11:36
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUD0171	Used client sample: N										
Nitrate/Nitrite as N	DUP	1105085-01	0.040700	0.037400		mg/L	8.5		10		J
	MS	1105085-01	0.040700	2.1557	2.1053	mg/L		100		90 - 110	
	MSD	1105085-01	0.040700	2.1324	2.1053	mg/L	1.1	99.4	10	90 - 110	

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 04/06/2011 11:36 Project: Hay Road LF Project Number: 053-7444-11 Project Manager: Kris Johnson

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.

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Date of Report: 05/23/2011

Kris Johnson

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Project: Hay Road LF
BC Work Order: 1107099
Invoice ID: B100829

Enclosed are the results of analyses for samples received by the laboratory on 5/4/2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Linda Phoudamneun

Contact Person: Linda Phoudamneun
Client Service Rep

Authorized Signature

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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1107099-01 Recology Hay Road, UZ-1, UZ-1, 5/4/2011 11:34:00AM						
Moisture	26.6	0.05	0.05	%	Calc	
pH	8.70	0.05	0.05	pH Units	EPA-9045	pH1:1
pH Measurement Temperature	21.4	0.1	0.1	C	EPA-9045	
Solids	73.4	0.05	0.05	%	SM-2540G	
Chloride	4.3	0.50	0.050	mg/L	EPA-300.0 (Mod. STLC)	
Nitrate as N	0.17	0.10	0.014	mg/L	EPA-300.0 (Mod. STLC)	
Sulfate	14	1.0	0.10	mg/L	EPA-300.0 (Mod. STLC)	
Ammonia as N	0.12	0.050	0.025	mg/L	EPA-350.1 (Mod. STLC)	
Nitrite as N	0.016	0.050	0.0081	mg/L	EPA-353.2 (Mod. STLC)	J
Total Kjeldahl Nitrogen	1.2	0.20	0.056	mg/L	EPA-351.2 (Mod. STLC)	
1107099-02 Recology Hay Road, UZ-2, UZ-2, 5/4/2011 11:49:00AM						
Moisture	21.6	0.05	0.05	%	Calc	
pH	9.12	0.05	0.05	pH Units	EPA-9045	pH1:1
pH Measurement Temperature	22.2	0.1	0.1	C	EPA-9045	
Solids	78.4	0.05	0.05	%	SM-2540G	
Chloride	4.1	0.50	0.050	mg/L	EPA-300.0 (Mod. STLC)	
Nitrate as N	0.22	0.10	0.014	mg/L	EPA-300.0 (Mod. STLC)	
Sulfate	5.9	1.0	0.10	mg/L	EPA-300.0 (Mod. STLC)	
Ammonia as N	0.085	0.050	0.025	mg/L	EPA-350.1 (Mod. STLC)	
Nitrite as N	0.022	0.050	0.0081	mg/L	EPA-353.2 (Mod. STLC)	J
Total Kjeldahl Nitrogen	0.91	0.20	0.056	mg/L	EPA-351.2 (Mod. STLC)	
1107099-03 Recology Hay Road, UZ-3, UZ-3, 5/4/2011 12:05:00PM						
Moisture	27.5	0.05	0.05	%	Calc	
pH	8.76	0.05	0.05	pH Units	EPA-9045	pH1:1
pH Measurement Temperature	22.1	0.1	0.1	C	EPA-9045	
Solids	72.5	0.05	0.05	%	SM-2540G	
Chloride	3.4	0.50	0.050	mg/L	EPA-300.0 (Mod. STLC)	
Nitrate as N	0.70	0.10	0.014	mg/L	EPA-300.0 (Mod. STLC)	
Sulfate	5.1	1.0	0.10	mg/L	EPA-300.0 (Mod. STLC)	

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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1107099-03 Recology Hay Road, UZ-3, UZ-3, 5/4/2011 12:05:00PM						
Nitrite as N	0.012	0.050	0.0081	mg/L	EPA-353.2 (Mod. STLC)	J
Total Kjeldahl Nitrogen	1.0	0.20	0.056	mg/L	EPA-351.2 (Mod. STLC)	
1107099-04 Recology Hay Road, UZ-4, UZ-4, 5/4/2011 12:46:00PM						
Moisture	25.0	0.05	0.05	%	Calc	
pH	8.63	0.05	0.05	pH Units	EPA-9045	pH1:1
pH Measurement Temperature	22.0	0.1	0.1	C	EPA-9045	
Solids	75.0	0.05	0.05	%	SM-2540G	
Chloride	7.9	0.50	0.050	mg/L	EPA-300.0 (Mod. STLC)	
Nitrate as N	0.70	0.10	0.014	mg/L	EPA-300.0 (Mod. STLC)	
Sulfate	13	1.0	0.10	mg/L	EPA-300.0 (Mod. STLC)	
Nitrite as N	0.018	0.050	0.0081	mg/L	EPA-353.2 (Mod. STLC)	J
Total Kjeldahl Nitrogen	1.1	0.20	0.056	mg/L	EPA-351.2 (Mod. STLC)	
1107099-05 Recology Hay Road, UZ-5, UZ-5, 5/4/2011 12:35:00PM						
Moisture	28.2	0.05	0.05	%	Calc	
pH	8.74	0.05	0.05	pH Units	EPA-9045	pH1:1
pH Measurement Temperature	22.2	0.1	0.1	C	EPA-9045	
Solids	71.8	0.05	0.05	%	SM-2540G	
Chloride	7.6	0.50	0.050	mg/L	EPA-300.0 (Mod. STLC)	
Nitrate as N	0.43	0.10	0.014	mg/L	EPA-300.0 (Mod. STLC)	
Sulfate	18	1.0	0.10	mg/L	EPA-300.0 (Mod. STLC)	
Nitrite as N	0.034	0.050	0.0081	mg/L	EPA-353.2 (Mod. STLC)	J
Total Kjeldahl Nitrogen	1.1	0.20	0.056	mg/L	EPA-351.2 (Mod. STLC)	
1107099-06 Recology Hay Road, UZ-6, UZ-6, 5/4/2011 12:20:00PM						
Moisture	23.5	0.05	0.05	%	Calc	
pH	8.56	0.05	0.05	pH Units	EPA-9045	pH1:1
pH Measurement Temperature	22.2	0.1	0.1	C	EPA-9045	
Solids	76.5	0.05	0.05	%	SM-2540G	
Chloride	16	0.50	0.050	mg/L	EPA-300.0 (Mod. STLC)	
Nitrate as N	0.24	0.10	0.014	mg/L	EPA-300.0 (Mod. STLC)	

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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1107099-06 Recology Hay Road, UZ-6, UZ-6, 5/4/2011 12:20:00PM						
Sulfate	17	1.0	0.10	mg/L	EPA-300.0 (Mod. STLC)	
Nitrite as N	0.021	0.050	0.0081	mg/L	EPA-353.2 (Mod. STLC)	J
Total Kjeldahl Nitrogen	1.0	0.20	0.056	mg/L	EPA-351.2 (Mod. STLC)	
1107099-07 Recology Hay Road, UZ-7, UZ-7, 5/4/2011 1:25:00PM						
Moisture	21.9	0.05	0.05	%	Calc	
pH	8.66	0.05	0.05	pH Units	EPA-9045	pH1:1
pH Measurement Temperature	22.5	0.1	0.1	C	EPA-9045	
Solids	78.1	0.05	0.05	%	SM-2540G	
Chloride	7.7	0.50	0.050	mg/L	EPA-300.0 (Mod. STLC)	
Nitrate as N	0.15	0.10	0.014	mg/L	EPA-300.0 (Mod. STLC)	
Sulfate	38	1.0	0.10	mg/L	EPA-300.0 (Mod. STLC)	
Nitrite as N	0.039	0.050	0.0081	mg/L	EPA-353.2 (Mod. STLC)	J
Total Kjeldahl Nitrogen	1.2	0.20	0.056	mg/L	EPA-351.2 (Mod. STLC)	
1107099-08 Recology Hay Road, UZ-8, UZ-8, 5/4/2011 1:17:00PM						
Moisture	26.4	0.05	0.05	%	Calc	
pH	8.59	0.05	0.05	pH Units	EPA-9045	pH1:1
pH Measurement Temperature	23.4	0.1	0.1	C	EPA-9045	
Solids	73.6	0.05	0.05	%	SM-2540G	
Chloride	2.0	0.50	0.050	mg/L	EPA-300.0 (Mod. STLC)	
Nitrate as N	1.6	0.10	0.014	mg/L	EPA-300.0 (Mod. STLC)	
Sulfate	11	1.0	0.10	mg/L	EPA-300.0 (Mod. STLC)	
Nitrite as N	0.015	0.050	0.0081	mg/L	EPA-353.2 (Mod. STLC)	J
Total Kjeldahl Nitrogen	1.2	0.20	0.056	mg/L	EPA-351.2 (Mod. STLC)	
1107099-09 Recology Hay Road, UZ-9, UZ-9, 5/4/2011 12:56:00PM						
Moisture	32.0	0.05	0.05	%	Calc	
pH	8.96	0.05	0.05	pH Units	EPA-9045	pH1:1
pH Measurement Temperature	22.7	0.1	0.1	C	EPA-9045	
Solids	68.0	0.05	0.05	%	SM-2540G	
Chloride	4.5	0.50	0.050	mg/L	EPA-300.0 (Mod. STLC)	

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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1107099-09 Recology Hay Road, UZ-9, UZ-9, 5/4/2011 12:56:00PM						
Nitrate as N	0.040	0.10	0.014	mg/L	EPA-300.0 (Mod. STLC)	J
Sulfate	29	1.0	0.10	mg/L	EPA-300.0 (Mod. STLC)	
Nitrite as N	0.033	0.050	0.0081	mg/L	EPA-353.2 (Mod. STLC)	J
Total Kjeldahl Nitrogen	1.1	0.20	0.056	mg/L	EPA-351.2 (Mod. STLC)	
1107099-10 Recology Hay Road, UZ-10, UZ-10, 5/4/2011 1:06:00PM						
Moisture	22.3	0.05	0.05	%	Calc	
pH	8.14	0.05	0.05	pH Units	EPA-9045	pH1:1
pH Measurement Temperature	22.5	0.1	0.1	C	EPA-9045	
Solids	77.7	0.05	0.05	%	SM-2540G	
Chloride	3.7	0.50	0.050	mg/L	EPA-300.0 (Mod. STLC)	
Nitrate as N	0.056	0.10	0.014	mg/L	EPA-300.0 (Mod. STLC)	J
Sulfate	14	1.0	0.10	mg/L	EPA-300.0 (Mod. STLC)	
Nitrite as N	0.018	0.050	0.0081	mg/L	EPA-353.2 (Mod. STLC)	J
Total Kjeldahl Nitrogen	1.1	0.20	0.056	mg/L	EPA-351.2 (Mod. STLC)	

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Golder Associates 11-07099

Golder Associates
CHAIN OF CUSTODY

Page ___ of ___
Quotation No._____

PROJECT NO.: 053-7444-11
SITE NAME: Recovery Hay Road
SAMPLER(S): R. McCarthy (printed) (signature)
CONTRACT LABORATORY: BC Labs
TURN-AROUND TIME: Standard

EDD required? [X] Yes [ ] No
EDF required? [X] Yes [ ] No

ANALYSES

Sample I.D.	Lab I.D.	Collection Date	Collection Time	Matrix	Depth	Container Info	pH (9045C)	SPLC Chloride (300)	SPLC Sulfate (300)	SPLC Nitrate, Nitrite (300)	Ammonia as N (350.1, 350.3)	TKN (351.2)	% Soil Moisture (2540G)	Cont. Qty.	Remarks
Type/Vol.							Tube	Tube	Tube	Tube	Tube	Tube	Tube		
Filter							N	N	N	N	N	N	N		
Preserv.							—	—	—	—	—	—	—		
UZ-1	-1	5/4/11	1134	Soil	5.5'-6.0'		x	x	x	x	x	x	x	1	
UZ-2	-2		1149				x	x	x	x	x	x	x	1	
UZ-3	-3		1205				x	x	x	x	x	x	x	1	
UZ-4	-4		1246				x	x	x	x	x	x	x	1	
UZ-5	-5		1235				x	x	x	x	x	x	x	1	
UZ-6	-6		1220				x	x	x	x	x	x	x	1	
UZ-7	-7		1325				x	x	x	x	x	x	x	1	
UZ-8	-8		1317				x	x	x	x	x	x	x	1	
UZ-9	-9		1256				x	x	x	x	x	x	x	1	
UZ-10	-10		1306				x	x	x	x	x	x	x	1	

CHK BY [ ] DISTRIBUTION [ ] SUB-OUT [ ]

Relinquished by: (signature)	Received by: (signature)	Date/Time:
[signature]	[signature]	5-4-11 1448
[signature] 5-4-11	[signature]	5-4-11 1815
[signature] 5-4-11 2105	[signature]	5-4-11 2105

SEND RESULTS TO:
Attn: Kris Johnson
Golder Associates Inc.
425 Lakeside Drive
Sunnyvale, CA 94085
Phone (408) 220-9223
Fax (408) 220-9224

white: lab copy yellow: project file

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4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com

Chain of Custody and Cooler Receipt Form for 1107099 Page 2 of 2

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 Of 1

Submission #: 1107099 | 11-07099

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ | Containers ☐ Intact? Yes ☐ No ☐ | None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.95 Container: Qte Thermometer ID: 163 Date/Time 5-4-11

Temperature: A 3.6 °C / C 3.6 °C Analyst Init JNW 2133

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
1oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE plastic	A	A	A	A	A	A	A	A	A	A
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:
Sample Numbering Completed By: CHM Date/Time: 5/6/11 1510
A = Actual I C = Corrected
[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1107099-01	**COC Number:**	---	**Receive Date:**	05/04/2011 21:05
	Project Number:	Recology Hay Road	**Sampling Date:**	05/04/2011 11:34
	Sampling Location:	UZ-1	**Sample Depth:**	---
	Sampling Point:	UZ-1	**Lab Matrix:**	Solids
	Sampled By:	GAMV	**Sample Type:**	Soil
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): UZ-1	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1107099-02	**COC Number:**	---	**Receive Date:**	05/04/2011 21:05
	Project Number:	Recology Hay Road	**Sampling Date:**	05/04/2011 11:49
	Sampling Location:	UZ-2	**Sample Depth:**	---
	Sampling Point:	UZ-2	**Lab Matrix:**	Solids
	Sampled By:	GAMV	**Sample Type:**	Soil
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): UZ-2	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1107099-03	**COC Number:**	---	**Receive Date:**	05/04/2011 21:05
	Project Number:	Recology Hay Road	**Sampling Date:**	05/04/2011 12:05
	Sampling Location:	UZ-3	**Sample Depth:**	---
	Sampling Point:	UZ-3	**Lab Matrix:**	Solids
	Sampled By:	GAMV	**Sample Type:**	Soil
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): UZ-3	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Sunnyvale, CA 94085

Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1107099-04	**COC Number:**	---	**Receive Date:**	05/04/2011 21:05
	Project Number:	Recology Hay Road	**Sampling Date:**	05/04/2011 12:46
	Sampling Location:	UZ-4	**Sample Depth:**	---
	Sampling Point:	UZ-4	**Lab Matrix:**	Solids
	Sampled By:	GAMV	**Sample Type:**	Soil
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): UZ-4	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1107099-05	**COC Number:**	---	**Receive Date:**	05/04/2011 21:05
	Project Number:	Recology Hay Road	**Sampling Date:**	05/04/2011 12:35
	Sampling Location:	UZ-5	**Sample Depth:**	---
	Sampling Point:	UZ-5	**Lab Matrix:**	Solids
	Sampled By:	GAMV	**Sample Type:**	Soil
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): UZ-5	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1107099-06	**COC Number:**	---	**Receive Date:**	05/04/2011 21:05
	Project Number:	Recology Hay Road	**Sampling Date:**	05/04/2011 12:20
	Sampling Location:	UZ-6	**Sample Depth:**	---
	Sampling Point:	UZ-6	**Lab Matrix:**	Solids
	Sampled By:	GAMV	**Sample Type:**	Soil
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): UZ-6	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1107099-07	**COC Number:**	---	**Receive Date:**	05/04/2011 21:05
	Project Number:	Recology Hay Road	**Sampling Date:**	05/04/2011 13:25
	Sampling Location:	UZ-7	**Sample Depth:**	---
	Sampling Point:	UZ-7	**Lab Matrix:**	Solids
	Sampled By:	GAMV	**Sample Type:**	Soil
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): UZ-7	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1107099-08	**COC Number:**	---	**Receive Date:**	05/04/2011 21:05
	Project Number:	Recology Hay Road	**Sampling Date:**	05/04/2011 13:17
	Sampling Location:	UZ-8	**Sample Depth:**	---
	Sampling Point:	UZ-8	**Lab Matrix:**	Solids
	Sampled By:	GAMV	**Sample Type:**	Soil
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): UZ-8	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1107099-09	**COC Number:**	---	**Receive Date:**	05/04/2011 21:05
	Project Number:	Recology Hay Road	**Sampling Date:**	05/04/2011 12:56
	Sampling Location:	UZ-9	**Sample Depth:**	---
	Sampling Point:	UZ-9	**Lab Matrix:**	Solids
	Sampled By:	GAMV	**Sample Type:**	Soil
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): UZ-9	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Sunnyvale, CA 94085

Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1107099-10	**COC Number:**	---	**Receive Date:**	05/04/2011 21:05
	Project Number:	Recology Hay Road	**Sampling Date:**	05/04/2011 13:06
	Sampling Location:	UZ-10	**Sample Depth:**	---
	Sampling Point:	UZ-10	**Lab Matrix:**	Solids
	Sampled By:	GAMV	**Sample Type:**	Soil
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): UZ-10	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Chemical Analysis

BCL Sample ID: 1107099-01 | **Client Sample Name:** Recology Hay Road, UZ-1, UZ-1, 5/4/2011 11:34:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Moisture	**26.6**	**%**	**0.05**	**0.05**	**Calc**	**ND**		1
pH	**8.70**	**pH Units**	**0.05**	**0.05**	**EPA-9045**		**pH1:1**	2
pH Measurement Temperature	**21.4**	**C**	**0.1**	**0.1**	**EPA-9045**			2
Solids	**73.4**	**%**	**0.05**	**0.05**	**SM-2540G**			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Calc	05/06/11	05/17/11 13:51	TMS	Calc	1	BUE0449
2	EPA-9045	05/12/11	05/12/11 07:45	RML	B360	1	BUE0816
3	SM-2540G	05/09/11	05/09/11 11:00	DIW	MANUAL	1	BUE0644

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Modified WET Test (STLC)

BCL Sample ID: 1107099-01 | **Client Sample Name:** Recology Hay Road, UZ-1, UZ-1, 5/4/2011 11:34:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	**4.3**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**0.16**		1
Nitrate as N	**0.17**	**mg/L**	**0.10**	**0.014**	**EPA-300.0**	**ND**		1
Sulfate	**14**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		1
Ammonia as N	**0.12**	**mg/L**	**0.050**	**0.025**	**EPA-350.1**	**ND**		2
Nitrite as N	**0.016**	**mg/L**	**0.050**	**0.0081**	**EPA-353.2**	**ND**	**J**	3
Total Kjeldahl Nitrogen	**1.2**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/13/11	05/13/11 12:17	LD1	IC1	1	BUE1133
2	EPA-350.1	05/18/11	05/18/11 09:28	SDU	SC-1	1	BUE1151
3	EPA-353.2	05/13/11	05/13/11 07:29	TDC	KONE-1	1	BUE0999
4	EPA-351.2	05/13/11	05/16/11 16:00	SDU	SC-1	1	BUE0946

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Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Chemical Analysis

BCL Sample ID: 1107099-02 | **Client Sample Name:** Recology Hay Road, UZ-2, UZ-2, 5/4/2011 11:49:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Moisture	**21.6**	**%**	**0.05**	**0.05**	**Calc**	**ND**		1
pH	**9.12**	**pH Units**	**0.05**	**0.05**	**EPA-9045**		**pH1:1**	2
pH Measurement Temperature	**22.2**	**C**	**0.1**	**0.1**	**EPA-9045**			2
Solids	**78.4**	**%**	**0.05**	**0.05**	**SM-2540G**			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Calc	05/06/11	05/17/11 13:51	TMS	Calc	1	BUE0449
2	EPA-9045	05/12/11	05/12/11 07:45	RML	B360	1	BUE0816
3	SM-2540G	05/09/11	05/09/11 11:00	DIW	MANUAL	1	BUE0644

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Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Modified WET Test (STLC)

BCL Sample ID: 1107099-02 | **Client Sample Name:** Recology Hay Road, UZ-2, UZ-2, 5/4/2011 11:49:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	**4.1**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**0.16**		1
Nitrate as N	**0.22**	**mg/L**	**0.10**	**0.014**	**EPA-300.0**	**ND**		1
Sulfate	**5.9**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		1
Ammonia as N	**0.085**	**mg/L**	**0.050**	**0.025**	**EPA-350.1**	**ND**		2
Nitrite as N	**0.022**	**mg/L**	**0.050**	**0.0081**	**EPA-353.2**	**ND**	**J**	3
Total Kjeldahl Nitrogen	**0.91**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/13/11	05/13/11 13:11	LD1	IC1	1	BUE1133
2	EPA-350.1	05/18/11	05/18/11 09:32	SDU	SC-1	1	BUE1151
3	EPA-353.2	05/13/11	05/13/11 07:29	TDC	KONE-1	1	BUE0999
4	EPA-351.2	05/13/11	05/16/11 15:21	SDU	SC-1	1	BUE0946

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Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Chemical Analysis

BCL Sample ID: 1107099-03 | **Client Sample Name:** Recology Hay Road, UZ-3, UZ-3, 5/4/2011 12:05:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Moisture	**27.5**	**%**	**0.05**	**0.05**	**Calc**	**ND**		1
pH	**8.76**	**pH Units**	**0.05**	**0.05**	**EPA-9045**		**pH1:1**	2
pH Measurement Temperature	**22.1**	**C**	**0.1**	**0.1**	**EPA-9045**			2
Solids	**72.5**	**%**	**0.05**	**0.05**	**SM-2540G**			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Calc	05/06/11	05/17/11 13:51	TMS	Calc	1	BUE0449
2	EPA-9045	05/12/11	05/12/11 07:45	RML	B360	1	BUE0816
3	SM-2540G	05/09/11	05/09/11 11:00	DIW	MANUAL	1	BUE0644

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Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Modified WET Test (STLC)

BCL Sample ID: 1107099-03 | **Client Sample Name:** Recology Hay Road, UZ-3, UZ-3, 5/4/2011 12:05:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	**3.4**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**0.16**		1
Nitrate as N	**0.70**	**mg/L**	**0.10**	**0.014**	**EPA-300.0**	**ND**		1
Sulfate	**5.1**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		1
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		2
Nitrite as N	**0.012**	**mg/L**	**0.050**	**0.0081**	**EPA-353.2**	**ND**	**J**	3
Total Kjeldahl Nitrogen	**1.0**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/13/11	05/13/11 13:25	LD1	IC1	1	BUE1133
2	EPA-350.1	05/18/11	05/18/11 09:33	SDU	SC-1	1	BUE1151
3	EPA-353.2	05/13/11	05/13/11 07:29	TDC	KONE-1	1	BUE0999
4	EPA-351.2	05/13/11	05/16/11 15:23	SDU	SC-1	1	BUE0946

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Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Chemical Analysis

BCL Sample ID: 1107099-04 | **Client Sample Name:** Recology Hay Road, UZ-4, UZ-4, 5/4/2011 12:46:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Moisture	**25.0**	**%**	**0.05**	**0.05**	**Calc**	**ND**		1
pH	**8.63**	**pH Units**	**0.05**	**0.05**	**EPA-9045**		**pH1:1**	2
pH Measurement Temperature	**22.0**	**C**	**0.1**	**0.1**	**EPA-9045**			2
Solids	**75.0**	**%**	**0.05**	**0.05**	**SM-2540G**			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Calc	05/06/11	05/17/11 13:51	TMS	Calc	1	BUE0449
2	EPA-9045	05/12/11	05/12/11 07:45	RML	B360	1	BUE0816
3	SM-2540G	05/09/11	05/09/11 11:00	DIW	MANUAL	1	BUE0644

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Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Modified WET Test (STLC)

BCL Sample ID: 1107099-04 | **Client Sample Name:** Recology Hay Road, UZ-4, UZ-4, 5/4/2011 12:46:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	**7.9**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**0.16**		1
Nitrate as N	**0.70**	**mg/L**	**0.10**	**0.014**	**EPA-300.0**	**ND**		1
Sulfate	**13**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		1
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		2
Nitrite as N	**0.018**	**mg/L**	**0.050**	**0.0081**	**EPA-353.2**	**ND**	**J**	3
Total Kjeldahl Nitrogen	**1.1**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/13/11	05/13/11 13:38	LD1	IC1	1	BUE1133
2	EPA-350.1	05/18/11	05/18/11 09:35	SDU	SC-1	1	BUE1151
3	EPA-353.2	05/13/11	05/13/11 07:29	TDC	KONE-1	1	BUE0999
4	EPA-351.2	05/13/11	05/16/11 15:25	SDU	SC-1	1	BUE0946

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Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Chemical Analysis

BCL Sample ID: 1107099-05 | **Client Sample Name:** Recology Hay Road, UZ-5, UZ-5, 5/4/2011 12:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Moisture	**28.2**	**%**	**0.05**	**0.05**	**Calc**	**ND**		1
pH	**8.74**	**pH Units**	**0.05**	**0.05**	**EPA-9045**		**pH1:1**	2
pH Measurement Temperature	**22.2**	**C**	**0.1**	**0.1**	**EPA-9045**			2
Solids	**71.8**	**%**	**0.05**	**0.05**	**SM-2540G**			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Calc	05/06/11	05/17/11 13:51	TMS	Calc	1	BUE0449
2	EPA-9045	05/12/11	05/12/11 07:45	RML	B360	1	BUE0816
3	SM-2540G	05/09/11	05/09/11 11:00	DIW	MANUAL	1	BUE0644

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Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Modified WET Test (STLC)

BCL Sample ID: 1107099-05 | **Client Sample Name:** Recology Hay Road, UZ-5, UZ-5, 5/4/2011 12:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	**7.6**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**0.16**		1
Nitrate as N	**0.43**	**mg/L**	**0.10**	**0.014**	**EPA-300.0**	**ND**		1
Sulfate	**18**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		1
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		2
Nitrite as N	**0.034**	**mg/L**	**0.050**	**0.0081**	**EPA-353.2**	**ND**	**J**	3
Total Kjeldahl Nitrogen	**1.1**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/13/11	05/13/11 13:52	LD1	IC1	1	BUE1133
2	EPA-350.1	05/18/11	05/18/11 09:37	SDU	SC-1	1	BUE1151
3	EPA-353.2	05/13/11	05/13/11 07:29	TDC	KONE-1	1	BUE0999
4	EPA-351.2	05/13/11	05/16/11 15:26	SDU	SC-1	1	BUE0946

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Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Chemical Analysis

BCL Sample ID: 1107099-06 | **Client Sample Name:** Recology Hay Road, UZ-6, UZ-6, 5/4/2011 12:20:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Moisture	**23.5**	**%**	**0.05**	**0.05**	**Calc**	**ND**		1
pH	**8.56**	**pH Units**	**0.05**	**0.05**	**EPA-9045**		**pH1:1**	2
pH Measurement Temperature	**22.2**	**C**	**0.1**	**0.1**	**EPA-9045**			2
Solids	**76.5**	**%**	**0.05**	**0.05**	**SM-2540G**			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Calc	05/06/11	05/17/11 13:51	TMS	Calc	1	BUE0449
2	EPA-9045	05/12/11	05/12/11 07:45	RML	B360	1	BUE0816
3	SM-2540G	05/09/11	05/09/11 11:00	DIW	MANUAL	1	BUE0644

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Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Modified WET Test (STLC)

BCL Sample ID: 1107099-06 | **Client Sample Name:** Recology Hay Road, UZ-6, UZ-6, 5/4/2011 12:20:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	**16**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**0.16**		1
Nitrate as N	**0.24**	**mg/L**	**0.10**	**0.014**	**EPA-300.0**	**ND**		1
Sulfate	**17**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		1
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		2
Nitrite as N	**0.021**	**mg/L**	**0.050**	**0.0081**	**EPA-353.2**	**ND**	**J**	3
Total Kjeldahl Nitrogen	**1.0**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/13/11	05/13/11 14:32	LRS	IC1	1	BUE1133
2	EPA-350.1	05/18/11	05/18/11 09:37	SDU	SC-1	1	BUE1151
3	EPA-353.2	05/13/11	05/13/11 07:32	TDC	KONE-1	1	BUE0999
4	EPA-351.2	05/13/11	05/16/11 15:27	SDU	SC-1	1	BUE0946

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Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Chemical Analysis

BCL Sample ID: 1107099-07 | **Client Sample Name:** Recology Hay Road, UZ-7, UZ-7, 5/4/2011 1:25:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Moisture	**21.9**	**%**	**0.05**	**0.05**	**Calc**	**ND**		1
pH	**8.66**	**pH Units**	**0.05**	**0.05**	**EPA-9045**		**pH1:1**	2
pH Measurement Temperature	**22.5**	**C**	**0.1**	**0.1**	**EPA-9045**			2
Solids	**78.1**	**%**	**0.05**	**0.05**	**SM-2540G**			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Calc	05/06/11	05/17/11 13:51	TMS	Calc	1	BUE0449
2	EPA-9045	05/12/11	05/12/11 07:45	RML	B360	1	BUE0816
3	SM-2540G	05/09/11	05/09/11 11:00	DIW	MANUAL	1	BUE0644

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Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Modified WET Test (STLC)

BCL Sample ID: 1107099-07 | **Client Sample Name:** Recology Hay Road, UZ-7, UZ-7, 5/4/2011 1:25:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	**7.7**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**0.16**		1
Nitrate as N	**0.15**	**mg/L**	**0.10**	**0.014**	**EPA-300.0**	**ND**		1
Sulfate	**38**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		1
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		2
Nitrite as N	**0.039**	**mg/L**	**0.050**	**0.0081**	**EPA-353.2**	**ND**	**J**	3
Total Kjeldahl Nitrogen	**1.2**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/13/11	05/13/11 14:46	LRS	IC1	1	BUE1133
2	EPA-350.1	05/18/11	05/18/11 09:39	SDU	SC-1	1	BUE1151
3	EPA-353.2	05/13/11	05/13/11 07:32	TDC	KONE-1	1	BUE0999
4	EPA-351.2	05/13/11	05/16/11 15:28	SDU	SC-1	1	BUE0946

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Chemical Analysis

BCL Sample ID: 1107099-08 | **Client Sample Name:** Recology Hay Road, UZ-8, UZ-8, 5/4/2011 1:17:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Moisture	**26.4**	**%**	**0.05**	**0.05**	**Calc**	**ND**		1
pH	**8.59**	**pH Units**	**0.05**	**0.05**	**EPA-9045**		**pH1:1**	2
pH Measurement Temperature	**23.4**	**C**	**0.1**	**0.1**	**EPA-9045**			2
Solids	**73.6**	**%**	**0.05**	**0.05**	**SM-2540G**			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Calc	05/06/11	05/17/11 13:51	TMS	Calc	1	BUE0449
2	EPA-9045	05/12/11	05/12/11 07:45	RML	B360	1	BUE0816
3	SM-2540G	05/09/11	05/09/11 11:00	DIW	MANUAL	1	BUE0644

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Modified WET Test (STLC)

BCL Sample ID: 1107099-08 | **Client Sample Name:** Recology Hay Road, UZ-8, UZ-8, 5/4/2011 1:17:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	**2.0**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**0.16**		1
Nitrate as N	**1.6**	**mg/L**	**0.10**	**0.014**	**EPA-300.0**	**ND**		1
Sulfate	**11**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		1
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		2
Nitrite as N	**0.015**	**mg/L**	**0.050**	**0.0081**	**EPA-353.2**	**ND**	**J**	3
Total Kjeldahl Nitrogen	**1.2**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/13/11	05/13/11 14:59	LRS	IC1	1	BUE1133
2	EPA-350.1	05/18/11	05/18/11 09:39	SDU	SC-1	1	BUE1151
3	EPA-353.2	05/13/11	05/13/11 07:32	TDC	KONE-1	1	BUE0999
4	EPA-351.2	05/13/11	05/16/11 15:28	SDU	SC-1	1	BUE0946

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Chemical Analysis

BCL Sample ID: 1107099-09 | **Client Sample Name:** Recology Hay Road, UZ-9, UZ-9, 5/4/2011 12:56:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Moisture	**32.0**	**%**	**0.05**	**0.05**	**Calc**	**ND**		1
pH	**8.96**	**pH Units**	**0.05**	**0.05**	**EPA-9045**		**pH1:1**	2
pH Measurement Temperature	**22.7**	**C**	**0.1**	**0.1**	**EPA-9045**			2
Solids	**68.0**	**%**	**0.05**	**0.05**	**SM-2540G**			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Calc	05/06/11	05/17/11 13:51	TMS	Calc	1	BUE0449
2	EPA-9045	05/12/11	05/12/11 07:45	RML	B360	1	BUE0816
3	SM-2540G	05/09/11	05/09/11 11:00	DIW	MANUAL	1	BUE0644

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Golder Associates
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Sunnyvale, CA 94085

Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Modified WET Test (STLC)

BCL Sample ID: 1107099-09 | **Client Sample Name:** Recology Hay Road, UZ-9, UZ-9, 5/4/2011 12:56:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	**4.5**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**0.16**		1
Nitrate as N	**0.040**	**mg/L**	**0.10**	**0.014**	**EPA-300.0**	**ND**	**J**	1
Sulfate	**29**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		1
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		2
Nitrite as N	**0.033**	**mg/L**	**0.050**	**0.0081**	**EPA-353.2**	**ND**	**J**	3
Total Kjeldahl Nitrogen	**1.1**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/13/11	05/13/11 15:13	LRS	IC1	1	BUE1133
2	EPA-350.1	05/18/11	05/18/11 09:40	SDU	SC-1	1	BUE1151
3	EPA-353.2	05/13/11	05/13/11 07:32	TDC	KONE-1	1	BUE0999
4	EPA-351.2	05/13/11	05/16/11 15:30	SDU	SC-1	1	BUE0946

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Sunnyvale, CA 94085

Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Chemical Analysis

BCL Sample ID: 1107099-10 | **Client Sample Name:** Recology Hay Road, UZ-10, UZ-10, 5/4/2011 1:06:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Moisture	**22.3**	**%**	**0.05**	**0.05**	**Calc**	**ND**		1
pH	**8.14**	**pH Units**	**0.05**	**0.05**	**EPA-9045**		**pH1:1**	2
pH Measurement Temperature	**22.5**	**C**	**0.1**	**0.1**	**EPA-9045**			2
Solids	**77.7**	**%**	**0.05**	**0.05**	**SM-2540G**			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Calc	05/06/11	05/17/11 13:51	TMS	Calc	1	BUE0449
2	EPA-9045	05/12/11	05/12/11 07:45	RML	B360	1	BUE0816
3	SM-2540G	05/09/11	05/09/11 11:00	DIW	MANUAL	1	BUE0644

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Modified WET Test (STLC)

BCL Sample ID: 1107099-10 | **Client Sample Name:** Recology Hay Road, UZ-10, UZ-10, 5/4/2011 1:06:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	**3.7**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**0.16**		1
Nitrate as N	**0.056**	**mg/L**	**0.10**	**0.014**	**EPA-300.0**	**ND**	**J**	1
Sulfate	**14**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		1
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		2
Nitrite as N	**0.018**	**mg/L**	**0.050**	**0.0081**	**EPA-353.2**	**ND**	**J**	3
Total Kjeldahl Nitrogen	**1.1**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/13/11	05/13/11 15:26	LRS	IC1	1	BUE1133
2	EPA-350.1	05/18/11	05/18/11 09:41	SDU	SC-1	1	BUE1151
3	EPA-353.2	05/13/11	05/13/11 07:33	TDC	KONE-1	1	BUE0999
4	EPA-351.2	05/13/11	05/16/11 15:30	SDU	SC-1	1	BUE0946

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 05/23/2011 16:20 Project: Hay Road LF Project Number: 053-7444-07 Project Manager: Kris Johnson

Chemical Analysis

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUE0449						
Moisture	BUE0449-BLK1	ND	%	0.05	0.05	

Golder Associates
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Sunnyvale, CA 94085

Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Chemical Analysis

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUE0816										
pH	BUE0816-BS1	LCS	7.0300		pH Units			95 - 105		

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Chemical Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUE0644	Used client sample: N										
Solids	DUP	1106093-02	5.2900	5.4400		%	2.8		20		
QC Batch ID: BUE0816	Used client sample: Y - Description: UZ-1, 05/04/2011 11:34										
pH	DUP	1107099-01	8.7020	8.7010		pH Units	0.0		20		

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Modified WET Test (STLC)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUE0946						
Total Kjeldahl Nitrogen	BUE0946-BLK1	ND	mg/L	0.20	0.056	
QC Batch ID: BUE0999						
Nitrite as N	BUE0999-BLK1	ND	mg/L	0.050	0.0081	
QC Batch ID: BUE1133						
Chloride	BUE1133-BLK1	0.16100	mg/L	0.50	0.050	J
Nitrate as N	BUE1133-BLK1	ND	mg/L	0.10	0.014	
Sulfate	BUE1133-BLK1	ND	mg/L	1.0	0.10	
QC Batch ID: BUE1151						
Ammonia as N	BUE1151-BLK1	ND	mg/L	0.050	0.025	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Modified WET Test (STLC)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUE0946										
Total Kjeldahl Nitrogen	BUE0946-BS1	LCS	2.0352	2.0000	mg/L	102		85 - 115		
QC Batch ID: BUE0999										
Nitrite as N	BUE0999-BS1	LCS	0.52389	0.50000	mg/L	105		90 - 110		
QC Batch ID: BUE1133										
Chloride	BUE1133-BS1	LCS	101.18	100.00	mg/L	101		90 - 110		
Nitrate as N	BUE1133-BS1	LCS	4.9790	5.0000	mg/L	99.6		90 - 110		
Sulfate	BUE1133-BS1	LCS	101.90	100.00	mg/L	102		90 - 110		
QC Batch ID: BUE1151										
Ammonia as N	BUE1151-BS1	LCS	0.97960	1.0000	mg/L	98.0		90 - 110		

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Golder Associates
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Reported: 05/23/2011 16:20
Project: Hay Road LF
Project Number: 053-7444-07
Project Manager: Kris Johnson

Modified WET Test (STLC)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUE0946	Used client sample: Y - Description: UZ-1, 05/04/2011 11:34										
Total Kjeldahl Nitrogen	DUP	1107099-01	1.2015	1.0072		mg/L	17.6		20		
	MS	1107099-01	1.2015	3.2012	2.0000	mg/L		100		80 - 120	
	MSD	1107099-01	1.2015	3.0447	2.0000	mg/L	5.0	92.2	20	80 - 120	
QC Batch ID: BUE0999	Used client sample: Y - Description: UZ-1, 05/04/2011 11:34										
Nitrite as N	DUP	1107099-01	0.016267	0.016836		mg/L	3.4		20		J
	MS	1107099-01	0.016267	0.54159	0.52632	mg/L		99.8		90 - 110	
	MSD	1107099-01	0.016267	0.55285	0.52632	mg/L	2.1	102	20	90 - 110	
QC Batch ID: BUE1133	Used client sample: Y - Description: UZ-1, 05/04/2011 11:34										
Chloride	DUP	1107099-01	4.3410	4.2100		mg/L	3.1		20		
	MS	1107099-01	4.3410	106.97	101.01	mg/L		102		80 - 120	
	MSD	1107099-01	4.3410	107.45	101.01	mg/L	0.5	102	20	80 - 120	
Nitrate as N	DUP	1107099-01	0.16800	0.16500		mg/L	1.8		20		
	MS	1107099-01	0.16800	5.2737	5.0505	mg/L		101		80 - 120	
	MSD	1107099-01	0.16800	5.2778	5.0505	mg/L	0.1	101	20	80 - 120	
Sulfate	DUP	1107099-01	13.577	13.347		mg/L	1.7		20		
	MS	1107099-01	13.577	113.67	101.01	mg/L		99.1		80 - 120	
	MSD	1107099-01	13.577	115.69	101.01	mg/L	1.8	101	20	80 - 120	
QC Batch ID: BUE1151	Used client sample: Y - Description: UZ-1, 05/04/2011 11:34										
Ammonia as N	DUP	1107099-01	0.12280	0.027800		mg/L	126		20		J,Q01
	MS	1107099-01	0.12280	1.2066	1.1111	mg/L		97.5		90 - 110	
	MSD	1107099-01	0.12280	1.2263	1.1111	mg/L	1.6	99.3	20	90 - 110	

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 05/23/2011 16:20 Project: Hay Road LF Project Number: 053-7444-07 Project Manager: Kris Johnson

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
pH1:1	pH result reported on a 1:1 dilution of sample
Q01	Sample precision is not within the control limits.

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Date of Report: 06/20/2011

Kris Johnson

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Project: Hay Road LF
BC Work Order: 1108668
Invoice ID: B102451

Enclosed are the results of analyses for samples received by the laboratory on 6/2/2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Linda Phoudamneun

Contact Person: Linda Phoudamneun
Client Service Rep

Authorized Signature

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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1108668-01 Hay Road LF, G-4R, G-4R, 6/2/2011 1:20:00PM						
Bicarbonate Alkalinity as CaCO3	630	8.2	8.2	mg/L	SM-2320B	
Chloride	620	1.0	0.10	mg/L	EPA-300.0	A01
Nitrate/Nitrite as N	7.8	0.50	0.050	mg/L	EPA-353.2	A01
Sulfate	500	2.0	0.20	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	2600	100	100	mg/L	SM-2540C	
Total Kjeldahl Nitrogen	0.21	0.20	0.056	mg/L	EPA-351.2	
Dissolved Lead	0.0055	0.050	0.0050	mg/L	EPA-6010B	J
1108668-02 Hay Road LF, G-6, G-6, 6/2/2011 2:00:00PM						
Bicarbonate Alkalinity as CaCO3	600	8.2	8.2	mg/L	SM-2320B	
Chloride	120	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	3.2	0.10	0.010	mg/L	EPA-353.2	
Sulfate	140	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	1100	50	50	mg/L	SM-2540C	
Total Kjeldahl Nitrogen	0.16	0.20	0.056	mg/L	EPA-351.2	J
Dissolved Lead	0.0081	0.050	0.0050	mg/L	EPA-6010B	J

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GW

Golder Associates 11-08668

Golder Associates
CHAIN OF CUSTODY

Page ___ of ___
Quotation No._____

PROJECT NO.: 053-7444-11
SITE NAME: Recology - Hay Rd.
SAMPLER(S): R. McCarthy (printed) (signature)
CONTRACT LABORATORY: BC LABS
TURN-AROUND TIME: Standard

EDD required? ☒ Yes ☐ No
EDF required? ☒ Yes ☐ No

ANALYSES

Sample I.D.	Lab I.D.	Collection Date	Collection Time	Matrix	Depth	Container Info: Type/Vol.	Filter	Preserv.	EPA 8260	BOD Short List	TDS, Cl, SO4, Carbonate, Bicarb.	NO3+NO2-N, TKN, Ammonia-N	As, Cr, Pb	NO3+NO2-N	As, Cr	Cont. Qty.	Remarks
						Type/Vol.	Filter	Preserv.	VOA 40ml	PE 16oz	PE 16oz	PE 16oz		PE 2oz	PE 16oz		
G-4R	-1	6/2/11	1320	W			N	HCl	3	1	1	1				6	Report Trace For 8260
G-6	-2	6/2/11	1400	W			N	none	3	1	1	1					

CHK BY ☒ SUB-OUT ☐

Relinquished by: (signature)	Received by: (signature)	Date/Time:
[signature]	[signature]	6.2.11 1428
[signature] 6.2.11	[signature]	6.2.11 1840
[signature] 6.2.11	[signature]	6.2.11 2210

SEND RESULTS TO:
Attn: Kris Johnson
Golder Associates Inc.
425 Lakeside Drive
Sunnyvale, CA 94085
Phone (408) 220-9223
Fax (408) 220-9224

white: lab copy yellow: project file

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4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com

Chain of Custody and Cooler Receipt Form for 1108668 Page 2 of 3

C LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 Of 1

ubmission #: 11-08668

SHIPPING INFORMATION
ederal Express ☐ UPS ☐ Hand Delivery ☐
C Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

ustody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

ll samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received
☑ YES ☐ NO

Emissivity: 0.98 Container: Dipe Thermometer ID: #03
Temperature: A 2.2 °C / C 2.0 °C

Date/Time 6-2-11 2230
Analyst Init JNW

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
T GENERAL MINERAL/ GENERAL PHYSICAL										
T PE UNPRESERVED	B									
T INORGANIC CHEMICAL METALS										
T INORGANIC CHEMICAL METALS	C									
T CYANIDE										
T NITROGEN FORMS	D									
T TOTAL SULFIDE										
0z. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A, 3									
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:
Sample Numbering Completed By: [illegible] Date/Time: 6/3/11 0937
A = Actual / C = Corrected
[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

Chain of Custody and Cooler Receipt Form for 1108668 Page 3 of 3

BC LABORATORIES, INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 2 Of 2

Submission #: 11-08668

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.98 Container: Pipe Thermometer ID: 1103
Temperature: A 1.8 °C / C 1.6 °C

Date/Time 10-2-11 2230
Analyst Init JNW

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED		B								
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS		C								
PT CYANIDE										
PT NITROGEN FORMS		D								
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	( )	A ( ) 3	( )	( )	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:
Sample Numbering Completed By: [signature] Date/Time: 10/3/11 0937
A = Actual / C = Corrected

(H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD)

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1108668-01	**COC Number:**	---	**Receive Date:**	06/02/2011 22:10
	Project Number:	Hay Road LF	**Sampling Date:**	06/02/2011 13:20
	Sampling Location:	G-4R	**Sample Depth:**	---
	Sampling Point:	G-4R	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-4R	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1108668-02	**COC Number:**	---	**Receive Date:**	06/02/2011 22:10
	Project Number:	Hay Road LF	**Sampling Date:**	06/02/2011 14:00
	Sampling Location:	G-6	**Sample Depth:**	---
	Sampling Point:	G-6	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-6	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108668-01 | **Client Sample Name:** Hay Road LF, G-4R, G-4R, 6/2/2011 1:20:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108668-01 | **Client Sample Name:** Hay Road LF, G-4R, G-4R, 6/2/2011 1:20:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	0.23		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108668-01 | **Client Sample Name:** Hay Road LF, G-4R, G-4R, 6/2/2011 1:20:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	103	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	100	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.8	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/10/11	06/11/11 14:11	MGC	MS-V5	1	BUF0632

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108668-01 | **Client Sample Name:** Hay Road LF, G-4R, G-4R, 6/2/2011 1:20:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**630**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**620**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**0.53**	**A01**	2
Nitrate/Nitrite as N	**7.8**	**mg/L**	**0.50**	**0.050**	**EPA-353.2**	**ND**	**A01**	3
Sulfate	**500**	**mg/L**	**2.0**	**0.20**	**EPA-300.0**	**0.54**	**A01**	2
Total Dissolved Solids @ 180 C	**2600**	**mg/L**	**100**	**100**	**SM-2540C**	**ND**		4
Total Kjeldahl Nitrogen	**0.21**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		5
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/06/11	06/06/11 12:59	RML	MET-1	2	BUF0329
2	EPA-300.0	06/07/11	06/07/11 21:15	LRS	IC1	2	BUF0387
3	EPA-353.2	06/09/11	06/09/11 16:55	SDU	SC-1	5	BUF0556
4	SM-2540C	06/06/11	06/06/11 14:30	JES2	MANUAL	10	BUF0339
5	EPA-351.2	06/07/11	06/08/11 15:28	SDU	SC-1	1	BUF0380
6	EPA-350.1	06/07/11	06/08/11 08:54	SDU	SC-1	1	BUF0452

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1108668-01 | **Client Sample Name:** Hay Road LF, G-4R, G-4R, 6/2/2011 1:20:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	ND		1
Dissolved Lead	**0.0055**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	**ND**	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/02/11	06/07/11 12:55	ARD	PE-OP1	1	BUF0367

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108668-02 | **Client Sample Name:** Hay Road LF, G-6, G-6, 6/2/2011 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108668-02 | **Client Sample Name:** Hay Road LF, G-6, G-6, 6/2/2011 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	0.23		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108668-02 | **Client Sample Name:** Hay Road LF, G-6, G-6, 6/2/2011 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	102	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	98.3	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	95.7	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/10/11	06/11/11 13:44	MGC	MS-V5	1	BUF0632

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108668-02 | **Client Sample Name:** Hay Road LF, G-6, G-6, 6/2/2011 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**600**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**120**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**0.26**		2
Nitrate/Nitrite as N	**3.2**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**		3
Sulfate	**140**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**0.27**		2
Total Dissolved Solids @ 180 C	**1100**	**mg/L**	**50**	**50**	**SM-2540C**	**ND**		4
Total Kjeldahl Nitrogen	**0.16**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**	**J**	5
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/06/11	06/06/11 13:06	RML	MET-1	2	BUF0329
2	EPA-300.0	06/07/11	06/07/11 21:29	LRS	IC1	1	BUF0387
3	EPA-353.2	06/09/11	06/09/11 16:10	SDU	SC-1	1	BUF0556
4	SM-2540C	06/06/11	06/06/11 14:30	JES2	MANUAL	5	BUF0339
5	EPA-351.2	06/07/11	06/08/11 15:28	SDU	SC-1	1	BUF0380
6	EPA-350.1	06/07/11	06/08/11 08:55	SDU	SC-1	1	BUF0452

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Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1108668-02 | **Client Sample Name:** Hay Road LF, G-6, G-6, 6/2/2011 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	ND		1
Dissolved Lead	**0.0081**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	**ND**	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/02/11	06/07/11 12:57	ARD	PE-OP1	1	BUF0367

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0632						
Benzene	BUF0632-BLK1	ND	ug/L	1.0	0.083	
Bromobenzene	BUF0632-BLK1	ND	ug/L	1.0	0.13	
Bromochloromethane	BUF0632-BLK1	ND	ug/L	1.0	0.24	
Bromodichloromethane	BUF0632-BLK1	ND	ug/L	1.0	0.14	
Bromoform	BUF0632-BLK1	ND	ug/L	1.0	0.27	
Bromomethane	BUF0632-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BUF0632-BLK1	ND	ug/L	1.0	0.11	
sec-Butylbenzene	BUF0632-BLK1	ND	ug/L	1.0	0.15	
tert-Butylbenzene	BUF0632-BLK1	ND	ug/L	1.0	0.13	
Carbon tetrachloride	BUF0632-BLK1	ND	ug/L	1.0	0.18	
Chlorobenzene	BUF0632-BLK1	ND	ug/L	1.0	0.093	
Chloroethane	BUF0632-BLK1	ND	ug/L	1.0	0.14	
Chloroform	BUF0632-BLK1	ND	ug/L	1.0	0.12	
Chloromethane	BUF0632-BLK1	ND	ug/L	1.0	0.14	
Dibromochloromethane	BUF0632-BLK1	ND	ug/L	1.0	0.13	
1,2-Dibromo-3-chloropropane	BUF0632-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane (EDB)	BUF0632-BLK1	ND	ug/L	1.0	0.16	
Dibromomethane	BUF0632-BLK1	ND	ug/L	1.0	0.24	
1,2-Dichlorobenzene	BUF0632-BLK1	ND	ug/L	1.0	0.072	
1,3-Dichlorobenzene	BUF0632-BLK1	ND	ug/L	1.0	0.15	
1,4-Dichlorobenzene	BUF0632-BLK1	ND	ug/L	1.0	0.062	
Dichlorodifluoromethane	BUF0632-BLK1	ND	ug/L	1.0	0.099	
1,1-Dichloroethane	BUF0632-BLK1	ND	ug/L	1.0	0.11	
1,2-Dichloroethane	BUF0632-BLK1	ND	ug/L	1.0	0.17	
1,1-Dichloroethene	BUF0632-BLK1	ND	ug/L	1.0	0.18	
cis-1,2-Dichloroethene	BUF0632-BLK1	ND	ug/L	1.0	0.085	
trans-1,2-Dichloroethene	BUF0632-BLK1	ND	ug/L	1.0	0.15	
1,2-Dichloropropane	BUF0632-BLK1	ND	ug/L	1.0	0.13	
cis-1,3-Dichloropropene	BUF0632-BLK1	ND	ug/L	1.0	0.14	
trans-1,3-Dichloropropene	BUF0632-BLK1	ND	ug/L	1.0	0.079	
Ethylbenzene	BUF0632-BLK1	ND	ug/L	1.0	0.098	
Hexachlorobutadiene	BUF0632-BLK1	ND	ug/L	1.0	0.17	
Methylene chloride	BUF0632-BLK1	ND	ug/L	1.0	0.48	
Methyl t-butyl ether	BUF0632-BLK1	ND	ug/L	1.0	0.11	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0632						
Naphthalene	BUF0632-BLK1	ND	ug/L	1.0	0.36	
n-Propylbenzene	BUF0632-BLK1	ND	ug/L	1.0	0.11	
Styrene	BUF0632-BLK1	ND	ug/L	1.0	0.068	
1,1,1,2-Tetrachloroethane	BUF0632-BLK1	ND	ug/L	1.0	0.18	
1,1,2,2-Tetrachloroethane	BUF0632-BLK1	ND	ug/L	1.0	0.17	
Tetrachloroethene	BUF0632-BLK1	ND	ug/L	1.0	0.13	
Toluene	BUF0632-BLK1	ND	ug/L	1.0	0.093	
1,2,4-Trichlorobenzene	BUF0632-BLK1	ND	ug/L	1.0	0.19	
1,1,1-Trichloroethane	BUF0632-BLK1	ND	ug/L	1.0	0.11	
1,1,2-Trichloroethane	BUF0632-BLK1	ND	ug/L	1.0	0.16	
Trichloroethene	BUF0632-BLK1	ND	ug/L	1.0	0.085	
Trichlorofluoromethane	BUF0632-BLK1	ND	ug/L	1.0	0.13	
1,2,3-Trichloropropane	BUF0632-BLK1	ND	ug/L	1.0	0.24	
1,2,4-Trimethylbenzene	BUF0632-BLK1	0.23000	ug/L	1.0	0.12	J,M03
1,3,5-Trimethylbenzene	BUF0632-BLK1	ND	ug/L	1.0	0.12	
Vinyl chloride	BUF0632-BLK1	ND	ug/L	1.0	0.12	
Total Xylenes	BUF0632-BLK1	ND	ug/L	1.0	0.36	
Acetone	BUF0632-BLK1	ND	ug/L	10	4.6	
Acrylonitrile	BUF0632-BLK1	ND	ug/L	5.0	1.2	
t-Amyl Methyl ether	BUF0632-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BUF0632-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BUF0632-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BUF0632-BLK1	ND	ug/L	5.0	1.4	
Diisopropyl ether	BUF0632-BLK1	ND	ug/L	0.50	0.23	
1,4-Dioxane	BUF0632-BLK1	ND	ug/L	100	42	
Ethanol	BUF0632-BLK1	ND	ug/L	250	50	
Ethyl t-butyl ether	BUF0632-BLK1	ND	ug/L	0.50	0.18	
2-Hexanone	BUF0632-BLK1	ND	ug/L	10	3.4	
2-Butanone	BUF0632-BLK1	ND	ug/L	10	2.5	
Iodomethane	BUF0632-BLK1	ND	ug/L	2.0	0.47	
4-Methyl-2-pentanone	BUF0632-BLK1	ND	ug/L	10	2.1	
Vinyl acetate	BUF0632-BLK1	ND	ug/L	10	1.8	
1,2-Dichloroethane-d4 (Surrogate)	BUF0632-BLK1	103	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BUF0632-BLK1	98.8	%	88 - 110 (LCL - UCL)		

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 06/20/2011 15:42 Project: Hay Road LF Project Number: 053-7444-11 Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0632						
4-Bromofluorobenzene (Surrogate)	BUF0632-BLK1	97.0	%	86 - 115 (LCL - UCL)		

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUF0632										
Benzene	BUF0632-BS1	LCS	23.740	25.000	ug/L	95.0		70 - 130		
Bromodichloromethane	BUF0632-BS1	LCS	24.860	25.000	ug/L	99.4		70 - 130		
Chlorobenzene	BUF0632-BS1	LCS	22.740	25.000	ug/L	91.0		70 - 130		
Chloroethane	BUF0632-BS1	LCS	26.080	25.000	ug/L	104		70 - 130		
1,4-Dichlorobenzene	BUF0632-BS1	LCS	25.580	25.000	ug/L	102		70 - 130		
1,1-Dichloroethane	BUF0632-BS1	LCS	24.630	25.000	ug/L	98.5		70 - 130		
1,1-Dichloroethene	BUF0632-BS1	LCS	23.820	25.000	ug/L	95.3		70 - 130		
Toluene	BUF0632-BS1	LCS	23.640	25.000	ug/L	94.6		70 - 130		
Trichloroethene	BUF0632-BS1	LCS	25.360	25.000	ug/L	101		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BUF0632-BS1	LCS	9.5200	10.000	ug/L	95.2		76 - 114		
Toluene-d8 (Surrogate)	BUF0632-BS1	LCS	10.040	10.000	ug/L	100		88 - 110		
4-Bromofluorobenzene (Surrogate)	BUF0632-BS1	LCS	9.9700	10.000	ug/L	99.7		86 - 115		

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Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF0632	Used client sample: Y - Description: G-6, 06/02/2011 14:00										
Benzene	MS	1108668-02	ND	24.240	25.000	ug/L		97.0		70 - 130	
	MSD	1108668-02	ND	24.990	25.000	ug/L	3.0	100	20	70 - 130	
Bromodichloromethane	MS	1108668-02	ND	25.330	25.000	ug/L		101		70 - 130	
	MSD	1108668-02	ND	26.090	25.000	ug/L	3.0	104	20	70 - 130	
Chlorobenzene	MS	1108668-02	ND	22.960	25.000	ug/L		91.8		70 - 130	
	MSD	1108668-02	ND	22.640	25.000	ug/L	1.4	90.6	20	70 - 130	
Chloroethane	MS	1108668-02	ND	25.860	25.000	ug/L		103		70 - 130	
	MSD	1108668-02	ND	26.700	25.000	ug/L	3.2	107	20	70 - 130	
1,4-Dichlorobenzene	MS	1108668-02	ND	25.680	25.000	ug/L		103		70 - 130	
	MSD	1108668-02	ND	25.600	25.000	ug/L	0.3	102	20	70 - 130	
1,1-Dichloroethane	MS	1108668-02	ND	24.770	25.000	ug/L		99.1		70 - 130	
	MSD	1108668-02	ND	25.580	25.000	ug/L	3.2	102	20	70 - 130	
1,1-Dichloroethene	MS	1108668-02	ND	24.160	25.000	ug/L		96.6		70 - 130	
	MSD	1108668-02	ND	25.120	25.000	ug/L	3.9	100	20	70 - 130	
Toluene	MS	1108668-02	ND	24.220	25.000	ug/L		96.9		70 - 130	
	MSD	1108668-02	ND	24.690	25.000	ug/L	1.9	98.8	20	70 - 130	
Trichloroethene	MS	1108668-02	ND	25.250	25.000	ug/L		101		70 - 130	
	MSD	1108668-02	ND	25.910	25.000	ug/L	2.6	104	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1108668-02	ND	9.7100	10.000	ug/L		97.1		76 - 114	
	MSD	1108668-02	ND	9.7900	10.000	ug/L	0.8	97.9		76 - 114	
Toluene-d8 (Surrogate)	MS	1108668-02	ND	10.090	10.000	ug/L		101		88 - 110	
	MSD	1108668-02	ND	10.000	10.000	ug/L	0.9	100		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1108668-02	ND	10.010	10.000	ug/L		100		86 - 115	
	MSD	1108668-02	ND	9.5500	10.000	ug/L	4.7	95.5		86 - 115	

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0329						
Bicarbonate Alkalinity as CaCO3	BUF0329-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	BUF0329-BLK1	ND	mg/L	4.1	4.1	
QC Batch ID: BUF0339						
Total Dissolved Solids @ 180 C	BUF0339-BLK1	ND	mg/L	6.7	6.7	
QC Batch ID: BUF0380						
Total Kjeldahl Nitrogen	BUF0380-BLK1	ND	mg/L	0.20	0.056	
QC Batch ID: BUF0387						
Chloride	BUF0387-BLK1	0.26300	mg/L	0.50	0.050	J
Sulfate	BUF0387-BLK1	0.26800	mg/L	1.0	0.10	J
QC Batch ID: BUF0452						
Ammonia as N	BUF0452-BLK1	ND	mg/L	0.050	0.025	
QC Batch ID: BUF0556						
Nitrate/Nitrite as N	BUF0556-BLK1	ND	mg/L	0.10	0.010	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUF0339										
Total Dissolved Solids @ 180 C	BUF0339-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
QC Batch ID: BUF0380										
Total Kjeldahl Nitrogen	BUF0380-BS1	LCS	1.9260	2.0000	mg/L	96.3		85 - 115		
QC Batch ID: BUF0387										
Chloride	BUF0387-BS1	LCS	101.90	100.00	mg/L	102		90 - 110		
Sulfate	BUF0387-BS1	LCS	99.457	100.00	mg/L	99.5		90 - 110		
QC Batch ID: BUF0452										
Ammonia as N	BUF0452-BS1	LCS	0.98570	1.0000	mg/L	98.6		90 - 110		
QC Batch ID: BUF0556										
Nitrate/Nitrite as N	BUF0556-BS1	LCS	1.9729	2.0000	mg/L	98.6		90 - 110		

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF0329	Used client sample: Y - Description: Borrow Pit, 06/02/2011 09:15										
Bicarbonate Alkalinity as CaCO3	DUP	1108667-02	265.47	267.14		mg/L	0.6		10		
Carbonate Alkalinity as CaCO3	DUP	1108667-02	25.560	25.250		mg/L	1.2		10		
QC Batch ID: BUF0339	Used client sample: N										
Total Dissolved Solids @ 180 C	DUP	1108637-04	1480.0	1480.0		mg/L	0		10		
QC Batch ID: BUF0380	Used client sample: N										
Total Kjeldahl Nitrogen	DUP	1108524-09	0.083800	0.11980		mg/L	35.4		20		J,A02
	MS	1108524-09	0.083800	2.0869	2.0000	mg/L		100		80 - 120	
	MSD	1108524-09	0.083800	2.0547	2.0000	mg/L	1.6	98.5	20	80 - 120	
QC Batch ID: BUF0387	Used client sample: Y - Description: G-30, 06/02/2011 11:55										
Chloride	DUP	1108669-14	220.56	221.53		mg/L	0.4		10		
	MS	1108669-14	220.56	440.59	202.02	mg/L		109		80 - 120	
	MSD	1108669-14	220.56	435.14	202.02	mg/L	1.2	106	10	80 - 120	
Sulfate	DUP	1108669-14	163.22	159.47		mg/L	2.3		10		
	MS	1108669-14	163.22	380.08	202.02	mg/L		107		80 - 120	
	MSD	1108669-14	163.22	376.18	202.02	mg/L	1.0	105	10	80 - 120	
QC Batch ID: BUF0452	Used client sample: Y - Description: G-28, 06/01/2011 13:30										
Ammonia as N	DUP	1108669-06	ND	ND		mg/L			10		
	MS	1108669-06	ND	1.1218	1.1111	mg/L		101		90 - 110	
	MSD	1108669-06	ND	1.1147	1.1111	mg/L	0.6	100	10	90 - 110	
QC Batch ID: BUF0556	Used client sample: N										
Nitrate/Nitrite as N	DUP	1108649-05	0.026300	0.026800		mg/L	1.9		10		J
	MS	1108649-05	0.026300	2.1227	2.1053	mg/L		99.6		90 - 110	
	MSD	1108649-05	0.026300	2.0701	2.1053	mg/L	2.5	97.1	10	90 - 110	

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 06/20/2011 15:42 Project: Hay Road LF Project Number: 053-7444-11 Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0367						
Dissolved Arsenic	BUF0367-BLK1	ND	mg/L	0.050	0.0075	
Dissolved Chromium	BUF0367-BLK1	ND	mg/L	0.010	0.0010	
Dissolved Lead	BUF0367-BLK1	ND	mg/L	0.050	0.0050	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUF0367										
Dissolved Arsenic	BUF0367-BS1	LCS	0.20063	0.20000	mg/L	100		85 - 115		
Dissolved Chromium	BUF0367-BS1	LCS	0.20729	0.20000	mg/L	104		85 - 115		
Dissolved Lead	BUF0367-BS1	LCS	0.41397	0.40000	mg/L	103		85 - 115		

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/20/2011 15:42
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF0367	Used client sample: N										
Dissolved Arsenic	DUP	1108476-01	ND	ND		mg/L			20		
	MS	1108476-01	ND	0.21188	0.20408	mg/L		104		75 - 125	
	MSD	1108476-01	ND	0.21481	0.20408	mg/L	1.4	105	20	75 - 125	
Dissolved Chromium	DUP	1108476-01	0.0066751	0.0071782		mg/L	7.3		20		J
	MS	1108476-01	0.0066751	0.22351	0.20408	mg/L		106		75 - 125	
	MSD	1108476-01	0.0066751	0.22231	0.20408	mg/L	0.5	106	20	75 - 125	
Dissolved Lead	DUP	1108476-01	0.0072699	0.0057502		mg/L	23.3		20		J,A02
	MS	1108476-01	0.0072699	0.43763	0.40816	mg/L		105		75 - 125	
	MSD	1108476-01	0.0072699	0.43530	0.40816	mg/L	0.5	105	20	75 - 125	

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 06/20/2011 15:42 Project: Hay Road LF Project Number: 053-7444-11 Project Manager: Kris Johnson

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.
A02	The difference between duplicate readings is less than the PQL.
M03	Analyte detected in the Method Blank at a level between the PQL and the MDL.

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Date of Report: 06/27/2011

Kris Johnson

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Project: Hay Road LF
BC Work Order: 1108669
Invoice ID: B102951

Enclosed are the results of analyses for samples received by the laboratory on 6/2/2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Linda Phoudamneun

Contact Person: Linda Phoudamneun
Client Service Rep

Authorized Signature

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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1108669-01 Hay Road LF, G-17, G-17, 6/1/2011 9:45:00AM						
Bicarbonate Alkalinity as CaCO3	460	8.2	8.2	mg/L	SM-2320B	
Chloride	500	1.0	0.10	mg/L	EPA-300.0	A01
Nitrate/Nitrite as N	3.3	0.10	0.010	mg/L	EPA-353.2	
Sulfate	280	2.0	0.20	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	1700	100	100	mg/L	SM-2540C	
Ammonia as N	0.030	0.050	0.025	mg/L	EPA-350.1	J
Dissolved Chromium	0.0011	0.010	0.0010	mg/L	EPA-6010B	J
Dissolved Lead	0.0093	0.050	0.0050	mg/L	EPA-6010B	J
1108669-02 Hay Road LF, G-18, G-18, 6/1/2011 10:25:00AM						
Bicarbonate Alkalinity as CaCO3	410	8.2	8.2	mg/L	SM-2320B	
Chloride	590	1.0	0.10	mg/L	EPA-300.0	A01
Nitrate/Nitrite as N	8.4	0.50	0.050	mg/L	EPA-353.2	A01
Sulfate	160	2.0	0.20	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	1600	100	100	mg/L	SM-2540C	
Dissolved Chromium	0.0033	0.010	0.0010	mg/L	EPA-6010B	J
Dissolved Lead	0.0053	0.050	0.0050	mg/L	EPA-6010B	J
1108669-03 Hay Road LF, G-20, G-20, 6/1/2011 11:10:00AM						
Bicarbonate Alkalinity as CaCO3	330	8.2	8.2	mg/L	SM-2320B	
Chloride	360	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	0.43	0.10	0.010	mg/L	EPA-353.2	
Sulfate	110	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	1100	50	50	mg/L	SM-2540C	
Ammonia as N	0.050	0.050	0.025	mg/L	EPA-350.1	
1108669-04 Hay Road LF, G-16, G-16, 6/1/2011 12:00:00PM						
Bicarbonate Alkalinity as CaCO3	330	8.2	8.2	mg/L	SM-2320B	
Chloride	960	2.5	0.25	mg/L	EPA-300.0	A01
Nitrate/Nitrite as N	3.2	0.10	0.010	mg/L	EPA-353.2	
Sulfate	320	2.0	0.20	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	2200	100	100	mg/L	SM-2540C	
Dissolved Chromium	0.0041	0.010	0.0010	mg/L	EPA-6010B	J
1108669-05 Hay Road LF, G-25, G-25, 6/1/2011 1:10:00PM						
Bicarbonate Alkalinity as CaCO3	340	8.2	8.2	mg/L	SM-2320B	
Chloride	560	1.0	0.10	mg/L	EPA-300.0	A01
Nitrate/Nitrite as N	2.7	0.10	0.010	mg/L	EPA-353.2	
Sulfate	190	2.0	0.20	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	1600	100	100	mg/L	SM-2540C	
1108669-06 Hay Road LF, G-28, G-28, 6/1/2011 1:30:00PM						

Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1108669-06 Hay Road LF, G-28, G-28, 6/1/2011 1:30:00PM						
Bicarbonate Alkalinity as CaCO3	460	8.2	8.2	mg/L	SM-2320B	
Chloride	740	1.0	0.10	mg/L	EPA-300.0	A01
Nitrate/Nitrite as N	2.1	0.10	0.010	mg/L	EPA-353.2	
Sulfate	460	2.0	0.20	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	2500	100	100	mg/L	SM-2540C	
Dissolved Chromium	0.0021	0.010	0.0010	mg/L	EPA-6010B	J
Dissolved Lead	0.0084	0.050	0.0050	mg/L	EPA-6010B	J
1108669-07 Hay Road LF, G-26, G-26, 6/1/2011 2:35:00PM						
Bicarbonate Alkalinity as CaCO3	480	8.2	8.2	mg/L	SM-2320B	
Chloride	350	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	3.9	0.10	0.010	mg/L	EPA-353.2	
Sulfate	240	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	1600	100	100	mg/L	SM-2540C	Z1
Dissolved Lead	0.0088	0.050	0.0050	mg/L	EPA-6010B	J
1108669-08 Hay Road LF, G-29, G-29, 6/1/2011 11:05:00AM						
t-Butyl alcohol	46	10	9.4	ug/L	EPA-8260	
Bicarbonate Alkalinity as CaCO3	670	8.2	8.2	mg/L	SM-2320B	
Chloride	240	0.50	0.050	mg/L	EPA-300.0	
Sulfate	79	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	1200	100	100	mg/L	SM-2540C	
1108669-09 Hay Road LF, G-14, G-14, 5/31/2011 3:30:00PM						
Bicarbonate Alkalinity as CaCO3	430	8.2	8.2	mg/L	SM-2320B	
Chloride	490	1.0	0.10	mg/L	EPA-300.0	A01
Nitrate/Nitrite as N	150	5.0	0.50	mg/L	EPA-353.2	A01
Sulfate	440	2.0	0.20	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	2700	100	100	mg/L	SM-2540C	
Total Kjeldahl Nitrogen	1.3	0.20	0.056	mg/L	EPA-351.2	
Dissolved Lead	0.0072	0.050	0.0050	mg/L	EPA-6010B	J
1108669-10 Hay Road LF, G-23, G-23, 5/31/2011 12:20:00PM						
Nitrate/Nitrite as N	1.8	0.10	0.010	mg/L	EPA-353.2	
1108669-11 Hay Road LF, G-21, G-21, 5/31/2011 12:40:00PM						
Bicarbonate Alkalinity as CaCO3	410	8.2	8.2	mg/L	SM-2320B	
Chloride	440	1.0	0.10	mg/L	EPA-300.0	A01
Nitrate/Nitrite as N	5.0	0.50	0.050	mg/L	EPA-353.2	A01
Sulfate	220	2.0	0.20	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	1600	100	100	mg/L	SM-2540C	
Dissolved Lead	0.0084	0.050	0.0050	mg/L	EPA-6010B	J

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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1108669-12 Hay Road LF, G-22, G-22, 5/31/2011 1:00:00PM						
Nitrate/Nitrite as N	23	1.0	0.10	mg/L	EPA-353.2	A01
1108669-13 Hay Road LF, G-24, G-24, 5/31/2011 1:40:00PM						
Nitrate/Nitrite as N	19	1.0	0.10	mg/L	EPA-353.2	A01
1108669-14 Hay Road LF, G-30, G-30, 6/2/2011 11:55:00AM						
Bicarbonate Alkalinity as CaCO3	580	8.2	8.2	mg/L	SM-2320B	
Chloride	220	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	0.041	0.10	0.010	mg/L	EPA-353.2	J
Sulfate	170	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	1200	100	100	mg/L	SM-2540C	
Ammonia as N	0.025	0.050	0.025	mg/L	EPA-350.1	J
Dissolved Chromium	0.0019	0.010	0.0010	mg/L	EPA-6010B	J
1108669-15 Hay Road LF, G-19R, G-19R, 6/2/2011 12:40:00PM						
Bicarbonate Alkalinity as CaCO3	440	8.2	8.2	mg/L	SM-2320B	
Chloride	740	1.0	0.10	mg/L	EPA-300.0	A01
Nitrate/Nitrite as N	3.1	0.10	0.010	mg/L	EPA-353.2	
Sulfate	520	2.0	0.20	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	2500	100	100	mg/L	SM-2540C	
Dissolved Arsenic	0.0083	0.050	0.0075	mg/L	EPA-6010B	J

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Golder Associates 11-08669

Golder Associates
CHAIN OF CUSTODY

GW

Page ___ of ___
Quotation No. _____

PROJECT NO.: 053-7444-11
SITE NAME: Recology - Hay Rd.
SAMPLER(S): R. McCarthy (printed) (signature)
CONTRACT LABORATORY: BC LABS
TURN-AROUND TIME: Standard

EDD required? ☒ Yes ☐ No
EDF required? ☒ Yes ☐ No

ANALYSES

Sample I.D.	Lab I.D.	Collection Date	Collection Time	Matrix	Depth	Container Info: Type/Vol.	Filter	Preserv.	EPA 8260	BOD SHORT LIST	TDS, Cl, SO4, CARBONATE, Bicarb	NO3+NO2-N TKN	Ammonia-N	As, Cr, Pb	NO3+NO2-N							Cont. Qty.	Remarks
						Type/Vol.	Filter	Preserv.	VOA 40ml	PE 16oz	PE 16oz	PE 16oz			PE 2oz								
											N	N	Y		N								
									HCl	none	H_2SO_4	HNO_3			H_2SO_4								
G-17	-1	6/1/11	0945	W					3	1	1	1									6		Report TRACE
G-18	-2	6/1/11	1025	W					3	1	1	1									6		For 8260
G-20	-3	6/1/11	1110	W					3	1	1	1									6		
G-16	-4	6/1/11	1200	W					3	1	1	1									6		
G-25	-5	6/1/11	1310	W					3	1	1	1									6		
G-28	-6	6/1/11	1350	W					3	1	1	1									6		
G-26	-7	6/1/11	1435	W					3	1	1	1									6		
G-29	-8	6/2/11	1105	W					3	1	1	1									6		
G-14	-9	5/31/11	1530	W					3	1	1	1									6		
G-23	-10	5/31/11	1220	W											1						1		
G-21	-11	5/31/11	1240	W					3	1	1	1									6		
G-22	-12	5/31/11	1300	W											1						1		
G-24	-13	5/31/11	1340	W											1						1		
G-30	-14	6/2/11	1155	W					3	1	1	1									6		
G-19R	-15	6/2/11	1240	W					3	1	1	1									6		

CHK BY ☐ DISTRIBUTION ☐ SUB-OUT ☐

Relinquished by: (signature)	Received by: (signature)	Date/Time:
	Ross Dickey	6-2-11 1428
Ross Dickey 6-2-11	R. Riley	6-2-11 1840
R. Riley 6-2-11	[illegible]	6-2-11 2210

SEND RESULTS TO:
Attn: Kris Johnson
Golder Associates Inc.
425 Lakeside Drive
Sunnyvale, CA 94085
Phone (408) 220-9223
Fax (408) 220-9224

white: lab copy yellow: project file

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Chain of Custody and Cooler Receipt Form for 1108669 Page 2 of 3

C LABORATORIES INC — SAMPLE RECEIPT FORM — Rev. No. 12 06/24/08 — Page 1 Of 2

ubmission #: 1108669

SHIPPING INFORMATION
ederal Express ☐ UPS ☐ Hand Delivery ☐
C Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

ustody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

ll samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.98 Container: Pipe Thermometer ID: 103
Temperature: A 1.8 °C / C 1.6 °C

Date/Time 10-2-11 2230
Analyst Init JAW

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	4	5	6	9	10	11	12	13
T GENERAL MINERAL/ GENERAL PHYSICAL										
T PE UNPRESERVED	B	B	B	B	B	B		B		
T INORGANIC CHEMICAL METALS										
T INORGANIC CHEMICAL METALS	C	C	C	C	C	C		C		
T CYANIDE										
T NITROGEN FORMS	D	D	D	D	D	D		D		
T TOTAL SULFIDE										
02. NITRATE / NITRITE							A		A	A
T TOTAL ORGANIC CARBON										
T TOX										
T CHEMICAL OXYGEN DEMAND						D				
1A PHENOLICS										
0ml VOA VIAL TRAVEL BLANK										
0ml VOA VIAL	A 3	A 3	A 3	A 3	A 3	A 3		A 3		
)T EPA 413.1, 413.2, 418.1										
'T ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
10 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:
Sample Numbering Completed By: [illegible] Date/Time: 10/3/11 0946 (I:\DOCS\WP60\LAB_DOCS\FORMS\SAMREC2.WPD)
A = Actual / C = Corrected

Chain of Custody and Cooler Receipt Form for 1108669 Page 3 of 3

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 Of 1

Submission #: 11-0866 69

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.98 Container: Dipe Thermometer ID: 103
Temperature: A 2.2 °C / C 2.0 °C

Date/Time 11-2-11 2230
Analyst Init JNW

SAMPLE CONTAINERS	SAMPLE NUMBERS 3	7	8	14	15	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED	B	B	B	B	B					
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS	C	C	C	C	C					
PT CYANIDE										
PT NITROGEN FORMS	D	D	D	D	D					
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A 3	A 3	A 3	A 3	A 3					
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:
Sample Numbering Completed By: JAM Date/Time: 11/3/11 0946 [H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]
A = Actual / C = Corrected

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1108669-01	**COC Number:**	---	**Receive Date:**	06/02/2011 22:10
	Project Number:	Hay Road LF	**Sampling Date:**	06/01/2011 09:45
	Sampling Location:	G-17	**Sample Depth:**	---
	Sampling Point:	G-17	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-17	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1108669-02	**COC Number:**	---	**Receive Date:**	06/02/2011 22:10
	Project Number:	Hay Road LF	**Sampling Date:**	06/01/2011 10:25
	Sampling Location:	G-18	**Sample Depth:**	---
	Sampling Point:	G-18	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-18	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1108669-03	**COC Number:**	---	**Receive Date:**	06/02/2011 22:10
	Project Number:	Hay Road LF	**Sampling Date:**	06/01/2011 11:10
	Sampling Location:	G-20	**Sample Depth:**	---
	Sampling Point:	G-20	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-20	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1108669-04	**COC Number:**	---	**Receive Date:**	06/02/2011 22:10
	Project Number:	Hay Road LF	**Sampling Date:**	06/01/2011 12:00
	Sampling Location:	G-16	**Sample Depth:**	---
	Sampling Point:	G-16	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-16	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1108669-05	**COC Number:**	---	**Receive Date:**	06/02/2011 22:10
	Project Number:	Hay Road LF	**Sampling Date:**	06/01/2011 13:10
	Sampling Location:	G-25	**Sample Depth:**	---
	Sampling Point:	G-25	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-25	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1108669-06	**COC Number:**	---	**Receive Date:**	06/02/2011 22:10
	Project Number:	Hay Road LF	**Sampling Date:**	06/01/2011 13:30
	Sampling Location:	G-28	**Sample Depth:**	---
	Sampling Point:	G-28	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-28	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1108669-07	**COC Number:**	---	**Receive Date:**	06/02/2011 22:10
	Project Number:	Hay Road LF	**Sampling Date:**	06/01/2011 14:35
	Sampling Location:	G-26	**Sample Depth:**	---
	Sampling Point:	G-26	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-26	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1108669-08	**COC Number:**	---	**Receive Date:**	06/02/2011 22:10
	Project Number:	Hay Road LF	**Sampling Date:**	06/01/2011 11:05
	Sampling Location:	G-29	**Sample Depth:**	---
	Sampling Point:	G-29	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-29	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1108669-09	**COC Number:**	---	**Receive Date:**	06/02/2011 22:10
	Project Number:	Hay Road LF	**Sampling Date:**	05/31/2011 15:30
	Sampling Location:	G-14	**Sample Depth:**	---
	Sampling Point:	G-14	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-14	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1108669-10	**COC Number:**	---	**Receive Date:**	06/02/2011 22:10
	Project Number:	Hay Road LF	**Sampling Date:**	05/31/2011 12:20
	Sampling Location:	G-23	**Sample Depth:**	---
	Sampling Point:	G-23	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-23	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1108669-11	**COC Number:**	---	**Receive Date:**	06/02/2011 22:10
	Project Number:	Hay Road LF	**Sampling Date:**	05/31/2011 12:40
	Sampling Location:	G-21	**Sample Depth:**	---
	Sampling Point:	G-21	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-21	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1108669-12	**COC Number:**	---	**Receive Date:**	06/02/2011 22:10
	Project Number:	Hay Road LF	**Sampling Date:**	05/31/2011 13:00
	Sampling Location:	G-22	**Sample Depth:**	---
	Sampling Point:	G-22	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-22	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information	
1108669-13	**COC Number:** ---	**Receive Date:** 06/02/2011 22:10
	Project Number: Hay Road LF	**Sampling Date:** 05/31/2011 13:40
	Sampling Location: G-24	**Sample Depth:** ---
	Sampling Point: G-24	**Lab Matrix:** Water
	Sampled By: GAMV	**Sample Type:** Water
		Delivery Work Order:
		Global ID: L10007011530
		Location ID (FieldPoint): G-24
		Matrix: W
		Sample QC Type (SACode): CS
		Cooler ID:
1108669-14	**COC Number:** ---	**Receive Date:** 06/02/2011 22:10
	Project Number: Hay Road LF	**Sampling Date:** 06/02/2011 11:55
	Sampling Location: G-30	**Sample Depth:** ---
	Sampling Point: G-30	**Lab Matrix:** Water
	Sampled By: GAMV	**Sample Type:** Water
		Metal Analysis: 1-Field Filtered and Acidified
		Delivery Work Order:
		Global ID: L10007011530
		Location ID (FieldPoint): G-30
		Matrix: W
		Sample QC Type (SACode): CS
		Cooler ID:
1108669-15	**COC Number:** ---	**Receive Date:** 06/02/2011 22:10
	Project Number: Hay Road LF	**Sampling Date:** 06/02/2011 12:40
	Sampling Location: G-19R	**Sample Depth:** ---
	Sampling Point: G-19R	**Lab Matrix:** Water
	Sampled By: GAMV	**Sample Type:** Water
		Metal Analysis: 1-Field Filtered and Acidified
		Delivery Work Order:
		Global ID: L10007011530
		Location ID (FieldPoint): G-19R
		Matrix: W
		Sample QC Type (SACode): CS
		Cooler ID:

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-01 | **Client Sample Name:** Hay Road LF, G-17, G-17, 6/1/2011 9:45:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-01 | **Client Sample Name:** Hay Road LF, G-17, G-17, 6/1/2011 9:45:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-01 | **Client Sample Name:** Hay Road LF, G-17, G-17, 6/1/2011 9:45:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	87.3	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	98.1	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	87.2	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/08/11	06/09/11 02:00	JCC	HPCHEM	1	BUF0504

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108669-01 | **Client Sample Name:** Hay Road LF, G-17, G-17, 6/1/2011 9:45:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**460**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**500**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**	**A01**	2
Nitrate/Nitrite as N	**3.3**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**		3
Sulfate	**280**	**mg/L**	**2.0**	**0.20**	**EPA-300.0**	**ND**	**A01**	2
Total Dissolved Solids @ 180 C	**1700**	**mg/L**	**100**	**100**	**SM-2540C**	**ND**		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.056	EPA-351.2	ND		5
Ammonia as N	**0.030**	**mg/L**	**0.050**	**0.025**	**EPA-350.1**	**ND**	**J**	6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/06/11	06/06/11 13:13	RML	MET-1	2	BUF0329
2	EPA-300.0	06/07/11	06/07/11 15:24	LRS	IC1	2	BUF0386
3	EPA-353.2	06/09/11	06/09/11 16:14	SDU	SC-1	1	BUF0556
4	SM-2540C	06/07/11	06/07/11 09:45	JES2	MANUAL	10	BUF0392
5	EPA-351.2	06/07/11	06/08/11 13:26	SDU	SC-1	1	BUF0381
6	EPA-350.1	06/07/11	06/08/11 08:55	SDU	SC-1	1	BUF0452

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1108669-01 | **Client Sample Name:** Hay Road LF, G-17, G-17, 6/1/2011 9:45:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	**0.0011**	**mg/L**	**0.010**	**0.0010**	**EPA-6010B**	**ND**	**J**	1
Dissolved Lead	**0.0093**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	**ND**	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/01/11	06/07/11 15:58	ARD	PE-OP1	1	BUF0370

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-02 | **Client Sample Name:** Hay Road LF, G-18, G-18, 6/1/2011 10:25:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-02 | **Client Sample Name:** Hay Road LF, G-18, G-18, 6/1/2011 10:25:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-02 | **Client Sample Name:** Hay Road LF, G-18, G-18, 6/1/2011 10:25:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	84.4	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	99.4	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	86.7	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/08/11	06/09/11 02:21	JCC	HPCHEM	1	BUF0504

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108669-02 | **Client Sample Name:** Hay Road LF, G-18, G-18, 6/1/2011 10:25:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**410**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**590**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**	**A01**	2
Nitrate/Nitrite as N	**8.4**	**mg/L**	**0.50**	**0.050**	**EPA-353.2**	**ND**	**A01**	3
Sulfate	**160**	**mg/L**	**2.0**	**0.20**	**EPA-300.0**	**ND**	**A01**	2
Total Dissolved Solids @ 180 C	**1600**	**mg/L**	**100**	**100**	**SM-2540C**	**ND**		4
Total Kjeldahl Nitrogen	ND	mg/L	0.40	0.11	EPA-351.2	ND	A10	5
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/06/11	06/06/11 13:20	RML	MET-1	2	BUF0329
2	EPA-300.0	06/07/11	06/07/11 16:45	LRS	IC1	2	BUF0386
3	EPA-353.2	06/09/11	06/09/11 16:58	SDU	SC-1	5	BUF0556
4	SM-2540C	06/07/11	06/07/11 09:45	JES2	MANUAL	10	BUF0392
5	EPA-351.2	06/07/11	06/08/11 14:10	SDU	SC-1	2	BUF0381
6	EPA-350.1	06/07/11	06/08/11 08:57	SDU	SC-1	1	BUF0452

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1108669-02 | **Client Sample Name:** Hay Road LF, G-18, G-18, 6/1/2011 10:25:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	**0.0033**	**mg/L**	**0.010**	**0.0010**	**EPA-6010B**	**ND**	**J**	1
Dissolved Lead	**0.0053**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	**ND**	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/01/11	06/07/11 16:00	ARD	PE-OP1	1	BUF0370

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-03 | **Client Sample Name:** Hay Road LF, G-20, G-20, 6/1/2011 11:10:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-03 | **Client Sample Name:** Hay Road LF, G-20, G-20, 6/1/2011 11:10:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-03 | **Client Sample Name:** Hay Road LF, G-20, G-20, 6/1/2011 11:10:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	92.9	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	97.9	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	90.9	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/08/11	06/09/11 02:43	JCC	HPCHEM	1	BUF0504

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108669-03 | **Client Sample Name:** Hay Road LF, G-20, G-20, 6/1/2011 11:10:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**330**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**360**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**ND**		2
Nitrate/Nitrite as N	**0.43**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**		3
Sulfate	**110**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		2
Total Dissolved Solids @ 180 C	**1100**	**mg/L**	**50**	**50**	**SM-2540C**	**ND**		4
Total Kjeldahl Nitrogen	ND	mg/L	0.40	0.11	EPA-351.2	ND	A10	5
Ammonia as N	**0.050**	**mg/L**	**0.050**	**0.025**	**EPA-350.1**	**ND**		6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/06/11	06/06/11 13:26	RML	MET-1	2	BUF0329
2	EPA-300.0	06/07/11	06/07/11 16:58	LRS	IC1	1	BUF0386
3	EPA-353.2	06/09/11	06/09/11 16:16	SDU	SC-1	1	BUF0556
4	SM-2540C	06/07/11	06/07/11 09:45	JES2	MANUAL	5	BUF0392
5	EPA-351.2	06/07/11	06/08/11 14:12	SDU	SC-1	2	BUF0381
6	EPA-350.1	06/07/11	06/08/11 08:57	SDU	SC-1	1	BUF0452

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1108669-03 | **Client Sample Name:** Hay Road LF, G-20, G-20, 6/1/2011 11:10:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	ND		1
Dissolved Lead	ND	mg/L	0.050	0.0050	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/01/11	06/07/11 16:02	ARD	PE-OP1	1	BUF0370

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-04 | **Client Sample Name:** Hay Road LF, G-16, G-16, 6/1/2011 12:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-04 | **Client Sample Name:** Hay Road LF, G-16, G-16, 6/1/2011 12:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-04 | **Client Sample Name:** Hay Road LF, G-16, G-16, 6/1/2011 12:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	89.6	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	99.3	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	86.7	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/08/11	06/09/11 03:04	JCC	HPCHEM	1	BUF0504

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425 Lakeside Drive
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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108669-04 | **Client Sample Name:** Hay Road LF, G-16, G-16, 6/1/2011 12:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**330**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**960**	**mg/L**	**2.5**	**0.25**	**EPA-300.0**	**ND**	**A01**	2
Nitrate/Nitrite as N	**3.2**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**		3
Sulfate	**320**	**mg/L**	**2.0**	**0.20**	**EPA-300.0**	**ND**	**A01**	4
Total Dissolved Solids @ 180 C	**2200**	**mg/L**	**100**	**100**	**SM-2540C**	**ND**		5
Total Kjeldahl Nitrogen	ND	mg/L	0.40	0.11	EPA-351.2	ND	A10	6
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		7

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/06/11	06/06/11 13:32	RML	MET-1	2	BUF0329
2	EPA-300.0	06/07/11	06/08/11 03:20	LD1	IC1	5	BUF0386
3	EPA-353.2	06/09/11	06/09/11 16:18	SDU	SC-1	1	BUF0556
4	EPA-300.0	06/07/11	06/07/11 17:12	LRS	IC1	2	BUF0386
5	SM-2540C	06/07/11	06/07/11 09:45	JES2	MANUAL	10	BUF0392
6	EPA-351.2	06/07/11	06/08/11 14:14	SDU	SC-1	2	BUF0381
7	EPA-350.1	06/07/11	06/08/11 08:59	SDU	SC-1	1	BUF0452

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1108669-04 | **Client Sample Name:** Hay Road LF, G-16, G-16, 6/1/2011 12:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	**0.0041**	**mg/L**	**0.010**	**0.0010**	**EPA-6010B**	**ND**	**J**	1
Dissolved Lead	ND	mg/L	0.050	0.0050	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/01/11	06/07/11 16:04	ARD	PE-OP1	1	BUF0370

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-05 | **Client Sample Name:** Hay Road LF, G-25, G-25, 6/1/2011 1:10:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-05 | **Client Sample Name:** Hay Road LF, G-25, G-25, 6/1/2011 1:10:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-05 | **Client Sample Name:** Hay Road LF, G-25, G-25, 6/1/2011 1:10:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	86.1	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	98.8	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	86.3	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/08/11	06/09/11 03:25	JCC	HPCHEM	1	BUF0504

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108669-05 | **Client Sample Name:** Hay Road LF, G-25, G-25, 6/1/2011 1:10:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**340**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**560**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**	**A01**	2
Nitrate/Nitrite as N	**2.7**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**		3
Sulfate	**190**	**mg/L**	**2.0**	**0.20**	**EPA-300.0**	**ND**	**A01**	2
Total Dissolved Solids @ 180 C	**1600**	**mg/L**	**100**	**100**	**SM-2540C**	**ND**		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.056	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/06/11	06/06/11 13:39	RML	MET-1	2	BUF0329
2	EPA-300.0	06/07/11	06/07/11 17:26	LRS	IC1	2	BUF0386
3	EPA-353.2	06/09/11	06/09/11 16:19	SDU	SC-1	1	BUF0556
4	SM-2540C	06/07/11	06/07/11 09:45	JES2	MANUAL	10	BUF0392
5	EPA-351.2	06/07/11	06/08/11 14:14	SDU	SC-1	1	BUF0381
6	EPA-350.1	06/07/11	06/08/11 08:59	SDU	SC-1	1	BUF0452

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1108669-05 | **Client Sample Name:** Hay Road LF, G-25, G-25, 6/1/2011 1:10:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	ND		1
Dissolved Lead	ND	mg/L	0.050	0.0050	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/01/11	06/07/11 16:07	ARD	PE-OP1	1	BUF0370

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Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-06 | **Client Sample Name:** Hay Road LF, G-28, G-28, 6/1/2011 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-06 | **Client Sample Name:** Hay Road LF, G-28, G-28, 6/1/2011 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-06 | **Client Sample Name:** Hay Road LF, G-28, G-28, 6/1/2011 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	92.4	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	98.8	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	87.0	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/08/11	06/09/11 03:47	JCC	HPCHEM	1	BUF0504

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Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108669-06 | **Client Sample Name:** Hay Road LF, G-28, G-28, 6/1/2011 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**460**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**740**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**	**A01**	2
Nitrate/Nitrite as N	**2.1**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**		3
Sulfate	**460**	**mg/L**	**2.0**	**0.20**	**EPA-300.0**	**ND**	**A01**	2
Total Dissolved Solids @ 180 C	**2500**	**mg/L**	**100**	**100**	**SM-2540C**	**ND**		4
Total Kjeldahl Nitrogen	ND	mg/L	0.40	0.11	EPA-351.2	ND	A10	5
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/06/11	06/06/11 13:45	RML	MET-1	2	BUF0329
2	EPA-300.0	06/07/11	06/07/11 17:39	LRS	IC1	2	BUF0386
3	EPA-353.2	06/09/11	06/09/11 16:20	SDU	SC-1	1	BUF0556
4	SM-2540C	06/07/11	06/07/11 09:45	JES2	MANUAL	10	BUF0392
5	EPA-351.2	06/07/11	06/08/11 14:18	SDU	SC-1	2	BUF0381
6	EPA-350.1	06/07/11	06/08/11 08:46	SDU	SC-1	1	BUF0452

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1108669-06 | **Client Sample Name:** Hay Road LF, G-28, G-28, 6/1/2011 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	**0.0021**	**mg/L**	**0.010**	**0.0010**	**EPA-6010B**	**ND**	**J**	1
Dissolved Lead	**0.0084**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	**ND**	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/01/11	06/07/11 16:09	ARD	PE-OP1	1	BUF0370

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-07 | **Client Sample Name:** Hay Road LF, G-26, G-26, 6/1/2011 2:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-07 | **Client Sample Name:** Hay Road LF, G-26, G-26, 6/1/2011 2:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-07 | **Client Sample Name:** Hay Road LF, G-26, G-26, 6/1/2011 2:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	83.8	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	97.7	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	94.0	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/08/11	06/09/11 04:08	JCC	HPCHEM	1	BUF0504

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108669-07 | **Client Sample Name:** Hay Road LF, G-26, G-26, 6/1/2011 2:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**480**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**350**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**ND**		2
Nitrate/Nitrite as N	**3.9**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**		3
Sulfate	**240**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		2
Total Dissolved Solids @ 180 C	**1600**	**mg/L**	**100**	**100**	**SM-2540C**	**ND**	**Z1**	4
Total Kjeldahl Nitrogen	ND	mg/L	0.40	0.11	EPA-351.2	ND	A10	5
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/06/11	06/06/11 13:51	RML	MET-1	2	BUF0329
2	EPA-300.0	06/07/11	06/08/11 03:34	LD1	IC1	1	BUF0386
3	EPA-353.2	06/09/11	06/09/11 16:21	SDU	SC-1	1	BUF0556
4	SM-2540C	06/21/11	06/21/11 10:00	JES2	MANUAL	10	BUF1295
5	EPA-351.2	06/07/11	06/08/11 14:21	SDU	SC-1	2	BUF0381
6	EPA-350.1	06/07/11	06/08/11 09:02	SDU	SC-1	1	BUF0453

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1108669-07 | **Client Sample Name:** Hay Road LF, G-26, G-26, 6/1/2011 2:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	ND		1
Dissolved Lead	**0.0088**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	**ND**	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/01/11	06/07/11 16:11	ARD	PE-OP1	1	BUF0370

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-08 | **Client Sample Name:** Hay Road LF, G-29, G-29, 6/1/2011 11:05:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-08 | **Client Sample Name:** Hay Road LF, G-29, G-29, 6/1/2011 11:05:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	**46**	**ug/L**	**10**	**9.4**	**EPA-8260**	**ND**		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-08 | **Client Sample Name:** Hay Road LF, G-29, G-29, 6/1/2011 11:05:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	96.7	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	99.8	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	87.1	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/08/11	06/09/11 04:29	JCC	HPCHEM	1	BUF0504

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108669-08 | **Client Sample Name:** Hay Road LF, G-29, G-29, 6/1/2011 11:05:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**670**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**240**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**ND**		2
Nitrate/Nitrite as N	ND	mg/L	0.10	0.010	EPA-353.2	ND		3
Sulfate	**79**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		2
Total Dissolved Solids @ 180 C	**1200**	**mg/L**	**100**	**100**	**SM-2540C**	**ND**		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.056	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/06/11	06/06/11 14:25	RML	MET-1	2	BUF0330
2	EPA-300.0	06/07/11	06/08/11 03:47	LD1	IC1	1	BUF0386
3	EPA-353.2	06/09/11	06/09/11 16:25	SDU	SC-1	1	BUF0557
4	SM-2540C	06/07/11	06/07/11 09:45	JES2	MANUAL	10	BUF0392
5	EPA-351.2	06/07/11	06/08/11 13:37	SDU	SC-1	1	BUF0381
6	EPA-350.1	06/07/11	06/08/11 09:08	SDU	SC-1	1	BUF0453

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Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1108669-08 | **Client Sample Name:** Hay Road LF, G-29, G-29, 6/1/2011 11:05:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	ND		1
Dissolved Lead	ND	mg/L	0.050	0.0050	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/01/11	06/07/11 16:19	ARD	PE-OP1	1	BUF0370

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Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-09 | **Client Sample Name:** Hay Road LF, G-14, G-14, 5/31/2011 3:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-09 | **Client Sample Name:** Hay Road LF, G-14, G-14, 5/31/2011 3:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-09 | **Client Sample Name:** Hay Road LF, G-14, G-14, 5/31/2011 3:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	92.7	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	98.3	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	86.8	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/08/11	06/09/11 04:50	JCC	HPCHEM	1	BUF0504

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108669-09 | **Client Sample Name:** Hay Road LF, G-14, G-14, 5/31/2011 3:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**430**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**490**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**	**A01**	2
Nitrate/Nitrite as N	**150**	**mg/L**	**5.0**	**0.50**	**EPA-353.2**	**ND**	**A01**	3
Sulfate	**440**	**mg/L**	**2.0**	**0.20**	**EPA-300.0**	**ND**	**A01**	2
Total Dissolved Solids @ 180 C	**2700**	**mg/L**	**100**	**100**	**SM-2540C**	**ND**		4
Total Kjeldahl Nitrogen	**1.3**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		5
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/06/11	06/06/11 14:31	RML	MET-1	2	BUF0330
2	EPA-300.0	06/07/11	06/07/11 18:20	LRS	IC1	2	BUF0386
3	EPA-353.2	06/09/11	06/09/11 16:32	SDU	SC-1	50	BUF0557
4	SM-2540C	06/07/11	06/07/11 09:45	JES2	MANUAL	10	BUF0392
5	EPA-351.2	06/07/11	06/08/11 13:38	SDU	SC-1	1	BUF0381
6	EPA-350.1	06/07/11	06/08/11 09:08	SDU	SC-1	1	BUF0453

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1108669-09 | **Client Sample Name:** Hay Road LF, G-14, G-14, 5/31/2011 3:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	ND		1
Dissolved Lead	**0.0072**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	**ND**	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/01/11	06/07/11 16:21	ARD	PE-OP1	1	BUF0370

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108669-10 | **Client Sample Name:** Hay Road LF, G-23, G-23, 5/31/2011 12:20:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate/Nitrite as N	**1.8**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-353.2	06/09/11	06/09/11 16:33	SDU	SC-1	1	BUF0557

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-11 | **Client Sample Name:** Hay Road LF, G-21, G-21, 5/31/2011 12:40:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-11 | **Client Sample Name:** Hay Road LF, G-21, G-21, 5/31/2011 12:40:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-11 | **Client Sample Name:** Hay Road LF, G-21, G-21, 5/31/2011 12:40:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	90.0	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	100	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	86.9	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/08/11	06/09/11 05:12	JCC	HPCHEM	1	BUF0504

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108669-11 | **Client Sample Name:** Hay Road LF, G-21, G-21, 5/31/2011 12:40:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**410**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**440**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**	**A01**	2
Nitrate/Nitrite as N	**5.0**	**mg/L**	**0.50**	**0.050**	**EPA-353.2**	**ND**	**A01**	3
Sulfate	**220**	**mg/L**	**2.0**	**0.20**	**EPA-300.0**	**ND**	**A01**	2
Total Dissolved Solids @ 180 C	**1600**	**mg/L**	**100**	**100**	**SM-2540C**	**ND**		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.056	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/06/11	06/06/11 14:38	RML	MET-1	2	BUF0330
2	EPA-300.0	06/07/11	06/07/11 18:33	LRS	IC1	2	BUF0386
3	EPA-353.2	06/09/11	06/09/11 17:00	SDU	SC-1	5	BUF0557
4	SM-2540C	06/07/11	06/07/11 09:45	JES2	MANUAL	10	BUF0392
5	EPA-351.2	06/07/11	06/08/11 13:38	SDU	SC-1	1	BUF0381
6	EPA-350.1	06/07/11	06/08/11 09:10	SDU	SC-1	1	BUF0453

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1108669-11 | **Client Sample Name:** Hay Road LF, G-21, G-21, 5/31/2011 12:40:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	ND		1
Dissolved Lead	**0.0084**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	**ND**	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/01/11	06/07/11 16:24	ARD	PE-OP1	1	BUF0370

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108669-12 | **Client Sample Name:** Hay Road LF, G-22, G-22, 5/31/2011 1:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate/Nitrite as N	**23**	**mg/L**	**1.0**	**0.10**	**EPA-353.2**	**ND**	**A01**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-353.2	06/09/11	06/09/11 16:36	SDU	SC-1	10	BUF0557

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108669-13 | **Client Sample Name:** Hay Road LF, G-24, G-24, 5/31/2011 1:40:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate/Nitrite as N	**19**	**mg/L**	**1.0**	**0.10**	**EPA-353.2**	**ND**	**A01**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-353.2	06/09/11	06/09/11 16:37	SDU	SC-1	10	BUF0557

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-14 | **Client Sample Name:** Hay Road LF, G-30, G-30, 6/2/2011 11:55:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-14 | **Client Sample Name:** Hay Road LF, G-30, G-30, 6/2/2011 11:55:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-14 | **Client Sample Name:** Hay Road LF, G-30, G-30, 6/2/2011 11:55:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	90.8	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	99.7	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	87.6	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/08/11	06/09/11 05:33	JCC	HPCHEM	1	BUF0504

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108669-14 | **Client Sample Name:** Hay Road LF, G-30, G-30, 6/2/2011 11:55:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**580**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**220**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**0.26**		2
Nitrate/Nitrite as N	**0.041**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**	**J**	3
Sulfate	**170**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**0.27**		2
Total Dissolved Solids @ 180 C	**1200**	**mg/L**	**100**	**100**	**SM-2540C**	**ND**		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.056	EPA-351.2	ND		5
Ammonia as N	**0.025**	**mg/L**	**0.050**	**0.025**	**EPA-350.1**	**ND**	**J**	6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/06/11	06/06/11 14:44	RML	MET-1	2	BUF0330
2	EPA-300.0	06/07/11	06/08/11 04:01	LD1	IC1	1	BUF0387
3	EPA-353.2	06/09/11	06/09/11 16:38	SDU	SC-1	1	BUF0557
4	SM-2540C	06/07/11	06/07/11 09:45	JES2	MANUAL	10	BUF0393
5	EPA-351.2	06/08/11	06/09/11 09:21	SDU	SC-1	1	BUF0493
6	EPA-350.1	06/07/11	06/08/11 09:10	SDU	SC-1	1	BUF0453

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1108669-14 | **Client Sample Name:** Hay Road LF, G-30, G-30, 6/2/2011 11:55:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	**0.0019**	**mg/L**	**0.010**	**0.0010**	**EPA-6010B**	**ND**	**J**	1
Dissolved Lead	ND	mg/L	0.050	0.0050	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/02/11	06/07/11 16:26	ARD	PE-OP1	1	BUF0370

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-15 | **Client Sample Name:** Hay Road LF, G-19R, G-19R, 6/2/2011 12:40:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-15 | **Client Sample Name:** Hay Road LF, G-19R, G-19R, 6/2/2011 12:40:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1108669-15 | **Client Sample Name:** Hay Road LF, G-19R, G-19R, 6/2/2011 12:40:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	86.6	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	99.3	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	93.7	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/08/11	06/09/11 05:54	JCC	HPCHEM	1	BUF0504

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1108669-15 | **Client Sample Name:** Hay Road LF, G-19R, G-19R, 6/2/2011 12:40:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**440**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**740**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**0.53**	**A01**	2
Nitrate/Nitrite as N	**3.1**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**		3
Sulfate	**520**	**mg/L**	**2.0**	**0.20**	**EPA-300.0**	**0.54**	**A01**	2
Total Dissolved Solids @ 180 C	**2500**	**mg/L**	**100**	**100**	**SM-2540C**	**ND**		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.056	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		6

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/06/11	06/06/11 14:51	RML	MET-1	2	BUF0330
2	EPA-300.0	06/07/11	06/07/11 20:35	LRS	IC1	2	BUF0387
3	EPA-353.2	06/09/11	06/09/11 16:39	SDU	SC-1	1	BUF0557
4	SM-2540C	06/07/11	06/07/11 09:45	JES2	MANUAL	10	BUF0393
5	EPA-351.2	06/08/11	06/09/11 09:21	SDU	SC-1	1	BUF0493
6	EPA-350.1	06/07/11	06/08/11 09:11	SDU	SC-1	1	BUF0453

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1108669-15 | **Client Sample Name:** Hay Road LF, G-19R, G-19R, 6/2/2011 12:40:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	**0.0083**	**mg/L**	**0.050**	**0.0075**	**EPA-6010B**	**ND**	**J**	1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	ND		1
Dissolved Lead	ND	mg/L	0.050	0.0050	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/02/11	06/07/11 16:28	ARD	PE-OP1	1	BUF0370

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0504						
Benzene	BUF0504-BLK1	ND	ug/L	1.0	0.083	
Bromobenzene	BUF0504-BLK1	ND	ug/L	1.0	0.13	
Bromochloromethane	BUF0504-BLK1	ND	ug/L	1.0	0.24	
Bromodichloromethane	BUF0504-BLK1	ND	ug/L	1.0	0.14	
Bromoform	BUF0504-BLK1	ND	ug/L	1.0	0.27	
Bromomethane	BUF0504-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BUF0504-BLK1	ND	ug/L	1.0	0.11	
sec-Butylbenzene	BUF0504-BLK1	ND	ug/L	1.0	0.15	
tert-Butylbenzene	BUF0504-BLK1	ND	ug/L	1.0	0.13	
Carbon tetrachloride	BUF0504-BLK1	ND	ug/L	1.0	0.18	
Chlorobenzene	BUF0504-BLK1	ND	ug/L	1.0	0.093	
Chloroethane	BUF0504-BLK1	ND	ug/L	1.0	0.14	
Chloroform	BUF0504-BLK1	ND	ug/L	1.0	0.12	
Chloromethane	BUF0504-BLK1	ND	ug/L	1.0	0.14	
Dibromochloromethane	BUF0504-BLK1	ND	ug/L	1.0	0.13	
1,2-Dibromo-3-chloropropane	BUF0504-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane (EDB)	BUF0504-BLK1	ND	ug/L	1.0	0.16	
Dibromomethane	BUF0504-BLK1	ND	ug/L	1.0	0.24	
1,2-Dichlorobenzene	BUF0504-BLK1	ND	ug/L	1.0	0.072	
1,3-Dichlorobenzene	BUF0504-BLK1	ND	ug/L	1.0	0.15	
1,4-Dichlorobenzene	BUF0504-BLK1	ND	ug/L	1.0	0.062	
Dichlorodifluoromethane	BUF0504-BLK1	ND	ug/L	1.0	0.099	
1,1-Dichloroethane	BUF0504-BLK1	ND	ug/L	1.0	0.11	
1,2-Dichloroethane	BUF0504-BLK1	ND	ug/L	1.0	0.17	
1,1-Dichloroethene	BUF0504-BLK1	ND	ug/L	1.0	0.18	
cis-1,2-Dichloroethene	BUF0504-BLK1	ND	ug/L	1.0	0.085	
trans-1,2-Dichloroethene	BUF0504-BLK1	ND	ug/L	1.0	0.15	
1,2-Dichloropropane	BUF0504-BLK1	ND	ug/L	1.0	0.13	
cis-1,3-Dichloropropene	BUF0504-BLK1	ND	ug/L	1.0	0.14	
trans-1,3-Dichloropropene	BUF0504-BLK1	ND	ug/L	1.0	0.079	
Ethylbenzene	BUF0504-BLK1	ND	ug/L	1.0	0.098	
Hexachlorobutadiene	BUF0504-BLK1	ND	ug/L	1.0	0.17	
Methylene chloride	BUF0504-BLK1	ND	ug/L	1.0	0.48	
Methyl t-butyl ether	BUF0504-BLK1	ND	ug/L	1.0	0.11	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0504						
Naphthalene	BUF0504-BLK1	ND	ug/L	1.0	0.36	
n-Propylbenzene	BUF0504-BLK1	ND	ug/L	1.0	0.11	
Styrene	BUF0504-BLK1	ND	ug/L	1.0	0.068	
1,1,1,2-Tetrachloroethane	BUF0504-BLK1	ND	ug/L	1.0	0.18	
1,1,2,2-Tetrachloroethane	BUF0504-BLK1	ND	ug/L	1.0	0.17	
Tetrachloroethene	BUF0504-BLK1	ND	ug/L	1.0	0.13	
Toluene	BUF0504-BLK1	ND	ug/L	1.0	0.093	
1,2,4-Trichlorobenzene	BUF0504-BLK1	ND	ug/L	1.0	0.19	
1,1,1-Trichloroethane	BUF0504-BLK1	ND	ug/L	1.0	0.11	
1,1,2-Trichloroethane	BUF0504-BLK1	ND	ug/L	1.0	0.16	
Trichloroethene	BUF0504-BLK1	ND	ug/L	1.0	0.085	
Trichlorofluoromethane	BUF0504-BLK1	ND	ug/L	1.0	0.13	
1,2,3-Trichloropropane	BUF0504-BLK1	ND	ug/L	1.0	0.24	
1,2,4-Trimethylbenzene	BUF0504-BLK1	ND	ug/L	1.0	0.12	
1,3,5-Trimethylbenzene	BUF0504-BLK1	ND	ug/L	1.0	0.12	
Vinyl chloride	BUF0504-BLK1	ND	ug/L	1.0	0.12	
Total Xylenes	BUF0504-BLK1	ND	ug/L	1.0	0.36	
Acetone	BUF0504-BLK1	ND	ug/L	10	4.6	
Acrylonitrile	BUF0504-BLK1	ND	ug/L	5.0	1.2	
t-Amyl Methyl ether	BUF0504-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BUF0504-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BUF0504-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BUF0504-BLK1	ND	ug/L	5.0	1.4	
Diisopropyl ether	BUF0504-BLK1	ND	ug/L	0.50	0.23	
1,4-Dioxane	BUF0504-BLK1	ND	ug/L	100	42	
Ethanol	BUF0504-BLK1	ND	ug/L	250	50	
Ethyl t-butyl ether	BUF0504-BLK1	ND	ug/L	0.50	0.18	
2-Hexanone	BUF0504-BLK1	ND	ug/L	10	3.4	
2-Butanone	BUF0504-BLK1	ND	ug/L	10	2.5	
Iodomethane	BUF0504-BLK1	ND	ug/L	2.0	0.47	
4-Methyl-2-pentanone	BUF0504-BLK1	ND	ug/L	10	2.1	
Vinyl acetate	BUF0504-BLK1	ND	ug/L	10	1.8	
1,2-Dichloroethane-d4 (Surrogate)	BUF0504-BLK1	87.7	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BUF0504-BLK1	97.8	%	88 - 110 (LCL - UCL)		

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 06/27/2011 21:45 Project: Hay Road LF Project Number: 053-7444-11 Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0504						
4-Bromofluorobenzene (Surrogate)	BUF0504-BLK1	90.8	%	86 - 115 (LCL - UCL)		

Golder Associates
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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUF0504										
Benzene	BUF0504-BS1	LCS	24.270	25.000	ug/L	97.1		70 - 130		
Bromodichloromethane	BUF0504-BS1	LCS	22.950	25.000	ug/L	91.8		70 - 130		
Chlorobenzene	BUF0504-BS1	LCS	24.470	25.000	ug/L	97.9		70 - 130		
Chloroethane	BUF0504-BS1	LCS	25.460	25.000	ug/L	102		70 - 130		
1,4-Dichlorobenzene	BUF0504-BS1	LCS	23.890	25.000	ug/L	95.6		70 - 130		
1,1-Dichloroethane	BUF0504-BS1	LCS	22.320	25.000	ug/L	89.3		70 - 130		
1,1-Dichloroethene	BUF0504-BS1	LCS	24.810	25.000	ug/L	99.2		70 - 130		
Toluene	BUF0504-BS1	LCS	25.070	25.000	ug/L	100		70 - 130		
Trichloroethene	BUF0504-BS1	LCS	23.420	25.000	ug/L	93.7		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BUF0504-BS1	LCS	8.6200	10.000	ug/L	86.2		76 - 114		
Toluene-d8 (Surrogate)	BUF0504-BS1	LCS	9.8800	10.000	ug/L	98.8		88 - 110		
4-Bromofluorobenzene (Surrogate)	BUF0504-BS1	LCS	9.3800	10.000	ug/L	93.8		86 - 115		

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF0504	Used client sample: N										
Benzene	MS	1108544-01	ND	24.860	25.000	ug/L		99.4		70 - 130	
	MSD	1108544-01	ND	24.560	25.000	ug/L	1.2	98.2	20	70 - 130	
Bromodichloromethane	MS	1108544-01	ND	19.220	25.000	ug/L		76.9		70 - 130	
	MSD	1108544-01	ND	21.570	25.000	ug/L	11.5	86.3	20	70 - 130	
Chlorobenzene	MS	1108544-01	ND	24.590	25.000	ug/L		98.4		70 - 130	
	MSD	1108544-01	ND	24.660	25.000	ug/L	0.3	98.6	20	70 - 130	
Chloroethane	MS	1108544-01	ND	25.030	25.000	ug/L		100		70 - 130	
	MSD	1108544-01	ND	25.840	25.000	ug/L	3.2	103	20	70 - 130	
1,4-Dichlorobenzene	MS	1108544-01	ND	24.130	25.000	ug/L		96.5		70 - 130	
	MSD	1108544-01	ND	24.320	25.000	ug/L	0.8	97.3	20	70 - 130	
1,1-Dichloroethane	MS	1108544-01	ND	21.960	25.000	ug/L		87.8		70 - 130	
	MSD	1108544-01	ND	22.380	25.000	ug/L	1.9	89.5	20	70 - 130	
1,1-Dichloroethene	MS	1108544-01	ND	22.320	25.000	ug/L		89.3		70 - 130	
	MSD	1108544-01	ND	25.160	25.000	ug/L	12.0	101	20	70 - 130	
Toluene	MS	1108544-01	ND	25.810	25.000	ug/L		103		70 - 130	
	MSD	1108544-01	ND	25.740	25.000	ug/L	0.3	103	20	70 - 130	
Trichloroethene	MS	1108544-01	ND	23.300	25.000	ug/L		93.2		70 - 130	
	MSD	1108544-01	ND	23.770	25.000	ug/L	2.0	95.1	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1108544-01	ND	8.2900	10.000	ug/L		82.9		76 - 114	
	MSD	1108544-01	ND	7.7200	10.000	ug/L	7.1	77.2		76 - 114	
Toluene-d8 (Surrogate)	MS	1108544-01	ND	9.8800	10.000	ug/L		98.8		88 - 110	
	MSD	1108544-01	ND	9.8900	10.000	ug/L	0.1	98.9		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1108544-01	ND	9.4400	10.000	ug/L		94.4		86 - 115	
	MSD	1108544-01	ND	8.8000	10.000	ug/L	7.0	88.0		86 - 115	

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0329						
Bicarbonate Alkalinity as CaCO3	BUF0329-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	BUF0329-BLK1	ND	mg/L	4.1	4.1	
QC Batch ID: BUF0330						
Bicarbonate Alkalinity as CaCO3	BUF0330-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	BUF0330-BLK1	ND	mg/L	4.1	4.1	
QC Batch ID: BUF0381						
Total Kjeldahl Nitrogen	BUF0381-BLK1	ND	mg/L	0.20	0.056	
QC Batch ID: BUF0386						
Chloride	BUF0386-BLK1	ND	mg/L	0.50	0.050	
Sulfate	BUF0386-BLK1	ND	mg/L	1.0	0.10	
QC Batch ID: BUF0387						
Chloride	BUF0387-BLK1	0.26300	mg/L	0.50	0.050	J
Sulfate	BUF0387-BLK1	0.26800	mg/L	1.0	0.10	J
QC Batch ID: BUF0392						
Total Dissolved Solids @ 180 C	BUF0392-BLK1	ND	mg/L	6.7	6.7	
QC Batch ID: BUF0393						
Total Dissolved Solids @ 180 C	BUF0393-BLK1	ND	mg/L	6.7	6.7	
QC Batch ID: BUF0452						
Ammonia as N	BUF0452-BLK1	ND	mg/L	0.050	0.025	
QC Batch ID: BUF0453						
Ammonia as N	BUF0453-BLK1	ND	mg/L	0.050	0.025	
QC Batch ID: BUF0493						
Total Kjeldahl Nitrogen	BUF0493-BLK1	ND	mg/L	0.20	0.056	
QC Batch ID: BUF0556						
Nitrate/Nitrite as N	BUF0556-BLK1	ND	mg/L	0.10	0.010	
QC Batch ID: BUF0557						
Nitrate/Nitrite as N	BUF0557-BLK1	ND	mg/L	0.10	0.010	
QC Batch ID: BUF1295						
Total Dissolved Solids @ 180 C	BUF1295-BLK1	ND	mg/L	6.7	6.7	

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUF0381										
Total Kjeldahl Nitrogen	BUF0381-BS1	LCS	1.9549	2.0000	mg/L	97.7		85 - 115		
QC Batch ID: BUF0386										
Chloride	BUF0386-BS1	LCS	101.66	100.00	mg/L	102		90 - 110		
Sulfate	BUF0386-BS1	LCS	100.27	100.00	mg/L	100		90 - 110		
QC Batch ID: BUF0387										
Chloride	BUF0387-BS1	LCS	101.90	100.00	mg/L	102		90 - 110		
Sulfate	BUF0387-BS1	LCS	99.457	100.00	mg/L	99.5		90 - 110		
QC Batch ID: BUF0392										
Total Dissolved Solids @ 180 C	BUF0392-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
QC Batch ID: BUF0393										
Total Dissolved Solids @ 180 C	BUF0393-BS1	LCS	555.00	586.00	mg/L	94.7		90 - 110		
QC Batch ID: BUF0452										
Ammonia as N	BUF0452-BS1	LCS	0.98570	1.0000	mg/L	98.6		90 - 110		
QC Batch ID: BUF0453										
Ammonia as N	BUF0453-BS1	LCS	1.0256	1.0000	mg/L	103		90 - 110		
QC Batch ID: BUF0493										
Total Kjeldahl Nitrogen	BUF0493-BS1	LCS	1.9252	2.0000	mg/L	96.3		85 - 115		
QC Batch ID: BUF0556										
Nitrate/Nitrite as N	BUF0556-BS1	LCS	1.9729	2.0000	mg/L	98.6		90 - 110		
QC Batch ID: BUF0557										
Nitrate/Nitrite as N	BUF0557-BS1	LCS	1.9661	2.0000	mg/L	98.3		90 - 110		
QC Batch ID: BUF1295										
Total Dissolved Solids @ 180 C	BUF1295-BS1	LCS	555.00	586.00	mg/L	94.7		90 - 110		

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF0329	Used client sample: Y - Description: Borrow Pit, 06/02/2011 09:15										
Bicarbonate Alkalinity as CaCO3	DUP	1108667-02	265.47	267.14		mg/L	0.6		10		
Carbonate Alkalinity as CaCO3	DUP	1108667-02	25.560	25.250		mg/L	1.2		10		
QC Batch ID: BUF0330	Used client sample: N										
Bicarbonate Alkalinity as CaCO3	DUP	1108710-01	282.36	284.18		mg/L	0.6		10		
Carbonate Alkalinity as CaCO3	DUP	1108710-01	ND	ND		mg/L			10		
QC Batch ID: BUF0381	Used client sample: Y - Description: G-17, 06/01/2011 09:45										
Total Kjeldahl Nitrogen	DUP	1108669-01	ND	ND		mg/L			20		
	MS	1108669-01	ND	1.7421	2.0000	mg/L		87.1		80 - 120	
	MSD	1108669-01	ND	1.7216	2.0000	mg/L	1.2	86.1	20	80 - 120	
QC Batch ID: BUF0386	Used client sample: Y - Description: G-17, 06/01/2011 09:45										
Chloride	DUP	1108669-01	495.50	501.25		mg/L	1.2		10		
	MS	1108669-01	495.50	698.31	202.02	mg/L		100		80 - 120	
	MSD	1108669-01	495.50	695.24	202.02	mg/L	0.4	98.9	10	80 - 120	
Sulfate	DUP	1108669-01	282.72	284.05		mg/L	0.5		10		
	MS	1108669-01	282.72	499.64	202.02	mg/L		107		80 - 120	
	MSD	1108669-01	282.72	495.73	202.02	mg/L	0.8	105	10	80 - 120	
QC Batch ID: BUF0387	Used client sample: Y - Description: G-30, 06/02/2011 11:55										
Chloride	DUP	1108669-14	220.56	221.53		mg/L	0.4		10		
	MS	1108669-14	220.56	440.59	202.02	mg/L		109		80 - 120	
	MSD	1108669-14	220.56	435.14	202.02	mg/L	1.2	106	10	80 - 120	
Sulfate	DUP	1108669-14	163.22	159.47		mg/L	2.3		10		
	MS	1108669-14	163.22	380.08	202.02	mg/L		107		80 - 120	
	MSD	1108669-14	163.22	376.18	202.02	mg/L	1.0	105	10	80 - 120	
QC Batch ID: BUF0392	Used client sample: Y - Description: G-17, 06/01/2011 09:45										
Total Dissolved Solids @ 180 C	DUP	1108669-01	1690.0	1650.0		mg/L	2.4		10		
QC Batch ID: BUF0393	Used client sample: Y - Description: G-30, 06/02/2011 11:55										
Total Dissolved Solids @ 180 C	DUP	1108669-14	1240.0	1230.0		mg/L	0.8		10		
QC Batch ID: BUF0452	Used client sample: Y - Description: G-28, 06/01/2011 13:30										
Ammonia as N	DUP	1108669-06	ND	ND		mg/L			10		
	MS	1108669-06	ND	1.1218	1.1111	mg/L		101		90 - 110	
	MSD	1108669-06	ND	1.1147	1.1111	mg/L	0.6	100	10	90 - 110	
QC Batch ID: BUF0453	Used client sample: Y - Description: G-26, 06/01/2011 14:35										
Ammonia as N	DUP	1108669-07	ND	ND		mg/L			10		
	MS	1108669-07	ND	1.1244	1.1111	mg/L		101		90 - 110	
	MSD	1108669-07	ND	1.1084	1.1111	mg/L	1.4	99.8	10	90 - 110	

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF0493	Used client sample: N										
Total Kjeldahl Nitrogen	DUP	1108892-02	0.88360	0.89230		mg/L	1.0		20		
	MS	1108892-02	0.88360	2.7721	2.0000	mg/L		94.4		80 - 120	
	MSD	1108892-02	0.88360	2.6644	2.0000	mg/L	4.0	89.0	20	80 - 120	
QC Batch ID: BUF0556	Used client sample: N										
Nitrate/Nitrite as N	DUP	1108649-05	0.026300	0.026800		mg/L	1.9		10		J
	MS	1108649-05	0.026300	2.1227	2.1053	mg/L		99.6		90 - 110	
	MSD	1108649-05	0.026300	2.0701	2.1053	mg/L	2.5	97.1	10	90 - 110	
QC Batch ID: BUF0557	Used client sample: Y - Description: G-29, 06/01/2011 11:05										
Nitrate/Nitrite as N	DUP	1108669-08	ND	ND		mg/L			10		
	MS	1108669-08	ND	1.9352	2.1053	mg/L		91.9		90 - 110	
	MSD	1108669-08	ND	1.9705	2.1053	mg/L	1.8	93.6	10	90 - 110	
QC Batch ID: BUF1295	Used client sample: Y - Description: S-2, 06/09/2011 12:15										
Total Dissolved Solids @ 180 C	DUP	109312-01RE´	2780.0	2760.0		mg/L	0.7		10		

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Water Analysis (Metals)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0370						
Dissolved Arsenic	BUF0370-BLK1	ND	mg/L	0.050	0.0075	
Dissolved Chromium	BUF0370-BLK1	ND	mg/L	0.010	0.0010	
Dissolved Lead	BUF0370-BLK1	ND	mg/L	0.050	0.0050	

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Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUF0370										
Dissolved Arsenic	BUF0370-BS1	LCS	0.19569	0.20000	mg/L	97.8		85 - 115		
Dissolved Chromium	BUF0370-BS1	LCS	0.20333	0.20000	mg/L	102		85 - 115		
Dissolved Lead	BUF0370-BS1	LCS	0.40838	0.40000	mg/L	102		85 - 115		

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/27/2011 21:45
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF0370	Used client sample: N										
Dissolved Arsenic	DUP	1108635-01	ND	ND		mg/L			20		
	MS	1108635-01	ND	0.21345	0.20408	mg/L		105		75 - 125	
	MSD	1108635-01	ND	0.21613	0.20408	mg/L	1.2	106	20	75 - 125	
Dissolved Chromium	DUP	1108635-01	ND	ND		mg/L			20		
	MS	1108635-01	ND	0.21271	0.20408	mg/L		104		75 - 125	
	MSD	1108635-01	ND	0.21543	0.20408	mg/L	1.3	106	20	75 - 125	
Dissolved Lead	DUP	1108635-01	0.0084506	ND		mg/L			20		
	MS	1108635-01	0.0084506	0.43248	0.40816	mg/L		104		75 - 125	
	MSD	1108635-01	0.0084506	0.43396	0.40816	mg/L	0.3	104	20	75 - 125	

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 06/27/2011 21:45 Project: Hay Road LF Project Number: 053-7444-11 Project Manager: Kris Johnson

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.
A10	PQL's and MDL's were raised due to matrix interference.
Z1	The TDS was reanalyzed past holding time-original result does not compare to EC.

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Date of Report: 06/22/2011

Kris Johnson

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Project: Hay Road LF
BC Work Order: 1109063
Invoice ID: B102598

Enclosed are the results of analyses for samples received by the laboratory on 6/8/2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Linda Phoudamneun

Contact Person: Linda Phoudamneun
Client Service Rep

Authorized Signature

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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1109063-01 Recology Hay Road, PL-5.1B, PL-5.1B, 6/8/2011 2:30:00PM						
Tetrachloroethene	0.16	1.0	0.13	ug/L	EPA-8260	J
Bicarbonate Alkalinity as CaCO3	510	8.2	8.2	mg/L	SM-2320B	
Chloride	170	1.0	0.10	mg/L	EPA-300.0	A01
Nitrate/Nitrite as N	1.9	0.10	0.010	mg/L	EPA-353.2	
Sulfate	400	2.0	0.20	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	1500	50	50	mg/L	SM-2540C	
1109063-02 Recology Hay Road, PL-9.1A, PL-9.1A, 6/8/2011 2:45:00PM						
Bicarbonate Alkalinity as CaCO3	460	8.2	8.2	mg/L	SM-2320B	
Chloride	47	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	5.8	0.50	0.050	mg/L	EPA-353.2	A01
Sulfate	62	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	750	50	50	mg/L	SM-2540C	
Total Kjeldahl Nitrogen	0.54	0.20	0.056	mg/L	EPA-351.2	
Dissolved Chromium	0.0047	0.010	0.0010	mg/L	EPA-6010B	J
1109063-03 Recology Hay Road, PL-11.1, PL-11.1, 6/8/2011 2:00:00PM						
Bicarbonate Alkalinity as CaCO3	670	8.2	8.2	mg/L	SM-2320B	
Carbonate Alkalinity as CaCO3	36	8.2	8.2	mg/L	SM-2320B	
Chloride	200	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	0.26	0.10	0.010	mg/L	EPA-353.2	
Sulfate	140	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	1400	100	100	mg/L	SM-2540C	
1109063-04 Recology Hay Road, PL-11.2, PL-11.2, 6/8/2011 2:15:00PM						
Benzene	0.34	1.0	0.083	ug/L	EPA-8260	J
1,1-Dichloroethane	0.31	1.0	0.11	ug/L	EPA-8260	J
cis-1,2-Dichloroethene	0.20	1.0	0.085	ug/L	EPA-8260	J
Methyl t-butyl ether	1.8	1.0	0.11	ug/L	EPA-8260	
Tetrachloroethene	0.13	1.0	0.13	ug/L	EPA-8260	J
Vinyl chloride	0.39	1.0	0.12	ug/L	EPA-8260	J
Bicarbonate Alkalinity as CaCO3	1300	8.2	8.2	mg/L	SM-2320B	
Chloride	440	1.0	0.10	mg/L	EPA-300.0	A01
Sulfate	460	2.0	0.20	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	2900	100	100	mg/L	SM-2540C	

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Golder Associates #11-09063

Golder Associates
CHAIN OF CUSTODY

Page 1 of 1
Quotation No.

PROJECT NO.: 053-7444-11
SITE NAME: Recology Hay Rd
SAMPLER(S): S. Giacomini (printed) (signature)
CONTRACT LABORATORY: BC Labs
TURN-AROUND TIME: Standard

EDD required? ☒ Yes ☐ No
EDF required? ☒ Yes ☐ No

ANALYSES

Sample I.D.	Lab I.D.	Collection Date	Collection Time	Matrix	Depth	Container Info: Type/Vol.	Filter	Preserv.	BOD 5260 / Short List	TDS, Cl, SO4 / Carbonate, Bicarb	NO3+NO2-N	NO3+NO2-N, TKN / NH3-N	As, Cr, Pb	Nitrite-N	Nitrate	Cont. Qty.	Remarks
						Jar 4oz	PE 16oz	PE 32oz				PE 16oz	PE 16oz	PE 16oz	PE 16oz		
							N	N	N			N	Y	N	Y		
							HCl	none	H_2SO_4			H_2SO_4	HNO_3	none	HNO_3		
PL-5-1B	-1	6/8/11	1430	WATER	/				3	1	1					5	REPORT TRACE FOR 5260
PL-9-1A	-2	6/8/11	1445		/				3	1		1	1	1		7	
PL-11-1	-3	6/8/11	1400		/				3	1	1					5	
PL-11-2	-4	6/8/11	1415		/				3	1	1					5	

CHK BY DISTRIBUTION
SUB-OUT ☐

SHORT HOLDING TIME
Cr^{+6} NO_2 NO_3 OP SS
DO Cl_2 BOD MBAS COT

Relinquished by: (signature)	Received by: (signature)	Date/Time:
	Ross Dickey	6-8-11 1540
Ross Dickey 6-8-11	R Rumyal	6-8-11 1830
R Rumyal 6-8-11 2200		6-8-11 2200

SEND RESULTS TO:
Attn: Kris Johnson
Golder Associates Inc.
425 Lakeside Drive
Sunnyvale, CA 94085
Phone (408) 220-9223
Fax (408) 220-9224

white: lab copy yellow: project file

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Chain of Custody and Cooler Receipt Form for 1109063 Page 2 of 2

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 Of 1

Submission #: 11-09063

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☑ Intact? Yes ☐ No ☑ Containers ☐ Intact? Yes ☐ No ☐ None ☐ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.98 Container: pipe Thermometer ID: 1603
Temperature: A 4.0 °C / C 3.8 °C

Date/Time 6/8/11
Analyst Init JM 2300

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED	B	B,C	B	B						
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS		D								
PT CYANIDE										
PT NITROGEN FORMS		E								
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE	C		C	C						
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A 13	A 13	A 13	A 13	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:
Sample Numbering Completed By: BLT Date/Time: 6-9-11 @ 0744
A = Actual / C = Corrected

[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1109063-01	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Road	**Sampling Date:**	06/08/2011 14:30
	Sampling Location:	PL-5.1B	**Sample Depth:**	---
	Sampling Point:	PL-5.1B	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): PL-5.1B	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1109063-02	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Road	**Sampling Date:**	06/08/2011 14:45
	Sampling Location:	PL-9.1A	**Sample Depth:**	---
	Sampling Point:	PL-9.1A	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): PL-9.1A	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1109063-03	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Road	**Sampling Date:**	06/08/2011 14:00
	Sampling Location:	PL-11.1	**Sample Depth:**	---
	Sampling Point:	PL-11.1	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): PL-11.1	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1109063-04	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Road	**Sampling Date:**	06/08/2011 14:15
	Sampling Location:	PL-11.2	**Sample Depth:**	---
	Sampling Point:	PL-11.2	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): PL-11.2	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109063-01 | **Client Sample Name:** Recology Hay Road, PL-5.1B, PL-5.1B, 6/8/2011 2:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109063-01 | **Client Sample Name:** Recology Hay Road, PL-5.1B, PL-5.1B, 6/8/2011 2:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	**0.16**	**ug/L**	**1.0**	**0.13**	**EPA-8260**	**ND**	**J**	1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109063-01 | **Client Sample Name:** Recology Hay Road, PL-5.1B, PL-5.1B, 6/8/2011 2:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	105	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	99.4	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	99.7	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/17/11	06/17/11 14:05	JCC	HPCHEM	1	BUF1165

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109063-01 | **Client Sample Name:** Recology Hay Road, PL-5.1B, PL-5.1B, 6/8/2011 2:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**510**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**170**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**0.31**	**A01**	2
Nitrate/Nitrite as N	**1.9**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**		3
Sulfate	**400**	**mg/L**	**2.0**	**0.20**	**EPA-300.0**	**ND**	**A01**	2
Total Dissolved Solids @ 180 C	**1500**	**mg/L**	**50**	**50**	**SM-2540C**	**ND**		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/10/11	06/10/11 08:39	RML	MET-1	2	BUF0638
2	EPA-300.0	06/13/11	06/13/11 09:55	LD1	IC1	2	BUF0694
3	EPA-353.2	06/15/11	06/15/11 12:54	SDU	SC-1	1	BUF0934
4	SM-2540C	06/10/11	06/10/11 11:00	JES2	MANUAL	5	BUF0615

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109063-02 | **Client Sample Name:** Recology Hay Road, PL-9.1A, PL-9.1A, 6/8/2011 2:45:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109063-02 | **Client Sample Name:** Recology Hay Road, PL-9.1A, PL-9.1A, 6/8/2011 2:45:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109063-02 | **Client Sample Name:** Recology Hay Road, PL-9.1A, PL-9.1A, 6/8/2011 2:45:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	107	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	99.1	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	97.8	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/17/11	06/17/11 14:27	JCC	HPCHEM	1	BUF1165

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109063-02 | **Client Sample Name:** Recology Hay Road, PL-9.1A, PL-9.1A, 6/8/2011 2:45:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**460**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**47**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**0.16**		2
Nitrate/Nitrite as N	**5.8**	**mg/L**	**0.50**	**0.050**	**EPA-353.2**	**ND**	**A01**	3
Sulfate	**62**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		2
Total Dissolved Solids @ 180 C	**750**	**mg/L**	**50**	**50**	**SM-2540C**	**ND**		4
Total Kjeldahl Nitrogen	**0.54**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		5
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.0081	EPA-353.2	0.0089		7

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/10/11	06/10/11 08:46	RML	MET-1	2	BUF0638
2	EPA-300.0	06/13/11	06/13/11 10:49	LD1	IC1	1	BUF0694
3	EPA-353.2	06/15/11	06/15/11 13:21	SDU	SC-1	5	BUF0935
4	SM-2540C	06/10/11	06/10/11 11:00	JES2	MANUAL	5	BUF0615
5	EPA-351.2	06/13/11	06/14/11 15:50	SDU	SC-1	1	BUF0732
6	EPA-350.1	06/17/11	06/17/11 13:12	SDU	SC-1	1	BUF1115
7	EPA-353.2	06/09/11	06/09/11 11:20	TDC	KONE-1	1	BUF0618

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109063-02 | **Client Sample Name:** Recology Hay Road, PL-9.1A, PL-9.1A, 6/8/2011 2:45:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	**0.0047**	**mg/L**	**0.010**	**0.0010**	**EPA-6010B**	**0.0014**	**J**	1
Dissolved Lead	ND	mg/L	0.050	0.0050	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/08/11	06/13/11 11:32	ARD	PE-OP1	1	BUF0649

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109063-03 | **Client Sample Name:** Recology Hay Road, PL-11.1, PL-11.1, 6/8/2011 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109063-03 | **Client Sample Name:** Recology Hay Road, PL-11.1, PL-11.1, 6/8/2011 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109063-03 | **Client Sample Name:** Recology Hay Road, PL-11.1, PL-11.1, 6/8/2011 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	105	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	99.6	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.9	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/17/11	06/17/11 14:48	JCC	HPCHEM	1	BUF1165

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109063-03 | **Client Sample Name:** Recology Hay Road, PL-11.1, PL-11.1, 6/8/2011 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**670**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	**36**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Chloride	**200**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**0.16**		2
Nitrate/Nitrite as N	**0.26**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**		3
Sulfate	**140**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		2
Total Dissolved Solids @ 180 C	**1400**	**mg/L**	**100**	**100**	**SM-2540C**	**ND**		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/10/11	06/10/11 08:53	RML	MET-1	2	BUF0638
2	EPA-300.0	06/13/11	06/13/11 16:40	LRS	IC1	1	BUF0694
3	EPA-353.2	06/15/11	06/15/11 12:22	SDU	SC-1	1	BUF0935
4	SM-2540C	06/10/11	06/10/11 11:00	JES2	MANUAL	10	BUF0615

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109063-04 | **Client Sample Name:** Recology Hay Road, PL-11.2, PL-11.2, 6/8/2011 2:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**0.34**	**ug/L**	**1.0**	**0.083**	**EPA-8260**	**ND**	**J**	1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	**0.31**	**ug/L**	**1.0**	**0.11**	**EPA-8260**	**ND**	**J**	1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	**0.20**	**ug/L**	**1.0**	**0.085**	**EPA-8260**	**ND**	**J**	1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109063-04 | **Client Sample Name:** Recology Hay Road, PL-11.2, PL-11.2, 6/8/2011 2:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	**1.8**	**ug/L**	**1.0**	**0.11**	**EPA-8260**	**ND**		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	**0.13**	**ug/L**	**1.0**	**0.13**	**EPA-8260**	**ND**	**J**	1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	**0.39**	**ug/L**	**1.0**	**0.12**	**EPA-8260**	**ND**	**J**	1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109063-04 | **Client Sample Name:** Recology Hay Road, PL-11.2, PL-11.2, 6/8/2011 2:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	111	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	98.5	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	100	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/17/11	06/17/11 15:10	JCC	HPCHEM	1	BUF1165

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109063-04 | **Client Sample Name:** Recology Hay Road, PL-11.2, PL-11.2, 6/8/2011 2:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**1300**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	**ND**		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**440**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**0.31**	**A01**	2
Nitrate/Nitrite as N	ND	mg/L	0.10	0.010	EPA-353.2	ND		3
Sulfate	**460**	**mg/L**	**2.0**	**0.20**	**EPA-300.0**	**ND**	**A01**	2
Total Dissolved Solids @ 180 C	**2900**	**mg/L**	**100**	**100**	**SM-2540C**	**ND**		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/10/11	06/10/11 09:00	RML	MET-1	2	BUF0638
2	EPA-300.0	06/13/11	06/13/11 16:54	LRS	IC1	2	BUF0694
3	EPA-353.2	06/15/11	06/15/11 12:23	SDU	SC-1	1	BUF0935
4	SM-2540C	06/10/11	06/10/11 11:00	JES2	MANUAL	10	BUF0615

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF1165						
Benzene	BUF1165-BLK1	ND	ug/L	1.0	0.083	
Bromobenzene	BUF1165-BLK1	ND	ug/L	1.0	0.13	
Bromochloromethane	BUF1165-BLK1	ND	ug/L	1.0	0.24	
Bromodichloromethane	BUF1165-BLK1	ND	ug/L	1.0	0.14	
Bromoform	BUF1165-BLK1	ND	ug/L	1.0	0.27	
Bromomethane	BUF1165-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BUF1165-BLK1	ND	ug/L	1.0	0.11	
sec-Butylbenzene	BUF1165-BLK1	ND	ug/L	1.0	0.15	
tert-Butylbenzene	BUF1165-BLK1	ND	ug/L	1.0	0.13	
Carbon tetrachloride	BUF1165-BLK1	ND	ug/L	1.0	0.18	
Chlorobenzene	BUF1165-BLK1	ND	ug/L	1.0	0.093	
Chloroethane	BUF1165-BLK1	ND	ug/L	1.0	0.14	
Chloroform	BUF1165-BLK1	ND	ug/L	1.0	0.12	
Chloromethane	BUF1165-BLK1	ND	ug/L	1.0	0.14	
Dibromochloromethane	BUF1165-BLK1	ND	ug/L	1.0	0.13	
1,2-Dibromo-3-chloropropane	BUF1165-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane (EDB)	BUF1165-BLK1	ND	ug/L	1.0	0.16	
Dibromomethane	BUF1165-BLK1	ND	ug/L	1.0	0.24	
1,2-Dichlorobenzene	BUF1165-BLK1	ND	ug/L	1.0	0.072	
1,3-Dichlorobenzene	BUF1165-BLK1	ND	ug/L	1.0	0.15	
1,4-Dichlorobenzene	BUF1165-BLK1	ND	ug/L	1.0	0.062	
Dichlorodifluoromethane	BUF1165-BLK1	ND	ug/L	1.0	0.099	
1,1-Dichloroethane	BUF1165-BLK1	ND	ug/L	1.0	0.11	
1,2-Dichloroethane	BUF1165-BLK1	ND	ug/L	1.0	0.17	
1,1-Dichloroethene	BUF1165-BLK1	ND	ug/L	1.0	0.18	
cis-1,2-Dichloroethene	BUF1165-BLK1	ND	ug/L	1.0	0.085	
trans-1,2-Dichloroethene	BUF1165-BLK1	ND	ug/L	1.0	0.15	
1,2-Dichloropropane	BUF1165-BLK1	ND	ug/L	1.0	0.13	
cis-1,3-Dichloropropene	BUF1165-BLK1	ND	ug/L	1.0	0.14	
trans-1,3-Dichloropropene	BUF1165-BLK1	ND	ug/L	1.0	0.079	
Ethylbenzene	BUF1165-BLK1	ND	ug/L	1.0	0.098	
Hexachlorobutadiene	BUF1165-BLK1	ND	ug/L	1.0	0.17	
Methylene chloride	BUF1165-BLK1	ND	ug/L	1.0	0.48	
Methyl t-butyl ether	BUF1165-BLK1	ND	ug/L	1.0	0.11	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF1165						
Naphthalene	BUF1165-BLK1	ND	ug/L	1.0	0.36	
n-Propylbenzene	BUF1165-BLK1	ND	ug/L	1.0	0.11	
Styrene	BUF1165-BLK1	ND	ug/L	1.0	0.068	
1,1,1,2-Tetrachloroethane	BUF1165-BLK1	ND	ug/L	1.0	0.18	
1,1,2,2-Tetrachloroethane	BUF1165-BLK1	ND	ug/L	1.0	0.17	
Tetrachloroethene	BUF1165-BLK1	ND	ug/L	1.0	0.13	
Toluene	BUF1165-BLK1	ND	ug/L	1.0	0.093	
1,2,4-Trichlorobenzene	BUF1165-BLK1	ND	ug/L	1.0	0.19	
1,1,1-Trichloroethane	BUF1165-BLK1	ND	ug/L	1.0	0.11	
1,1,2-Trichloroethane	BUF1165-BLK1	ND	ug/L	1.0	0.16	
Trichloroethene	BUF1165-BLK1	ND	ug/L	1.0	0.085	
Trichlorofluoromethane	BUF1165-BLK1	ND	ug/L	1.0	0.13	
1,2,3-Trichloropropane	BUF1165-BLK1	ND	ug/L	1.0	0.24	
1,2,4-Trimethylbenzene	BUF1165-BLK1	ND	ug/L	1.0	0.12	
1,3,5-Trimethylbenzene	BUF1165-BLK1	ND	ug/L	1.0	0.12	
Vinyl chloride	BUF1165-BLK1	ND	ug/L	1.0	0.12	
Total Xylenes	BUF1165-BLK1	ND	ug/L	1.0	0.36	
Acetone	BUF1165-BLK1	ND	ug/L	10	4.6	
Acrylonitrile	BUF1165-BLK1	ND	ug/L	5.0	1.2	
t-Amyl Methyl ether	BUF1165-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BUF1165-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BUF1165-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BUF1165-BLK1	ND	ug/L	5.0	1.4	
Diisopropyl ether	BUF1165-BLK1	ND	ug/L	0.50	0.23	
1,4-Dioxane	BUF1165-BLK1	ND	ug/L	100	42	
Ethanol	BUF1165-BLK1	ND	ug/L	250	50	
Ethyl t-butyl ether	BUF1165-BLK1	ND	ug/L	0.50	0.18	
2-Hexanone	BUF1165-BLK1	ND	ug/L	10	3.4	
2-Butanone	BUF1165-BLK1	ND	ug/L	10	2.5	
Iodomethane	BUF1165-BLK1	ND	ug/L	2.0	0.47	
4-Methyl-2-pentanone	BUF1165-BLK1	ND	ug/L	10	2.1	
Vinyl acetate	BUF1165-BLK1	ND	ug/L	10	1.8	
1,2-Dichloroethane-d4 (Surrogate)	BUF1165-BLK1	92.5	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BUF1165-BLK1	99.2	%	88 - 110 (LCL - UCL)		

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 06/22/2011 9:08 Project: Hay Road LF Project Number: 053-7444-11 Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF1165						
4-Bromofluorobenzene (Surrogate)	BUF1165-BLK1	97.7	%	86 - 115 (LCL - UCL)		

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUF1165										
Benzene	BUF1165-BS1	LCS	27.490	25.000	ug/L	110		70 - 130		
Bromodichloromethane	BUF1165-BS1	LCS	25.200	25.000	ug/L	101		70 - 130		
Chlorobenzene	BUF1165-BS1	LCS	25.790	25.000	ug/L	103		70 - 130		
Chloroethane	BUF1165-BS1	LCS	26.470	25.000	ug/L	106		70 - 130		
1,4-Dichlorobenzene	BUF1165-BS1	LCS	23.490	25.000	ug/L	94.0		70 - 130		
1,1-Dichloroethane	BUF1165-BS1	LCS	25.900	25.000	ug/L	104		70 - 130		
1,1-Dichloroethene	BUF1165-BS1	LCS	28.080	25.000	ug/L	112		70 - 130		
Toluene	BUF1165-BS1	LCS	26.400	25.000	ug/L	106		70 - 130		
Trichloroethene	BUF1165-BS1	LCS	25.510	25.000	ug/L	102		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BUF1165-BS1	LCS	9.8900	10.000	ug/L	98.9		76 - 114		
Toluene-d8 (Surrogate)	BUF1165-BS1	LCS	10.050	10.000	ug/L	100		88 - 110		
4-Bromofluorobenzene (Surrogate)	BUF1165-BS1	LCS	9.6100	10.000	ug/L	96.1		86 - 115		

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF1165	Used client sample: Y - Description: PL-5.1B, 06/08/2011 14:30										
Benzene	MS	1109063-01	ND	25.420	25.000	ug/L		102		70 - 130	
	MSD	1109063-01	ND	25.450	25.000	ug/L	0.1	102	20	70 - 130	
Bromodichloromethane	MS	1109063-01	ND	22.480	25.000	ug/L		89.9		70 - 130	
	MSD	1109063-01	ND	22.300	25.000	ug/L	0.8	89.2	20	70 - 130	
Chlorobenzene	MS	1109063-01	ND	22.860	25.000	ug/L		91.4		70 - 130	
	MSD	1109063-01	ND	22.940	25.000	ug/L	0.3	91.8	20	70 - 130	
Chloroethane	MS	1109063-01	ND	23.950	25.000	ug/L		95.8		70 - 130	
	MSD	1109063-01	ND	24.450	25.000	ug/L	2.1	97.8	20	70 - 130	
1,4-Dichlorobenzene	MS	1109063-01	ND	20.220	25.000	ug/L		80.9		70 - 130	
	MSD	1109063-01	ND	22.780	25.000	ug/L	11.9	91.1	20	70 - 130	
1,1-Dichloroethane	MS	1109063-01	ND	23.990	25.000	ug/L		96.0		70 - 130	
	MSD	1109063-01	ND	23.680	25.000	ug/L	1.3	94.7	20	70 - 130	
1,1-Dichloroethene	MS	1109063-01	ND	25.730	25.000	ug/L		103		70 - 130	
	MSD	1109063-01	ND	26.260	25.000	ug/L	2.0	105	20	70 - 130	
Toluene	MS	1109063-01	ND	23.310	25.000	ug/L		93.2		70 - 130	
	MSD	1109063-01	ND	23.360	25.000	ug/L	0.2	93.4	20	70 - 130	
Trichloroethene	MS	1109063-01	ND	22.710	25.000	ug/L		90.8		70 - 130	
	MSD	1109063-01	ND	22.340	25.000	ug/L	1.6	89.4	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1109063-01	ND	10.860	10.000	ug/L		109		76 - 114	
	MSD	1109063-01	ND	10.190	10.000	ug/L	6.4	102		76 - 114	
Toluene-d8 (Surrogate)	MS	1109063-01	ND	10.050	10.000	ug/L		100		88 - 110	
	MSD	1109063-01	ND	9.8800	10.000	ug/L	1.7	98.8		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1109063-01	ND	9.9400	10.000	ug/L		99.4		86 - 115	
	MSD	1109063-01	ND	10.170	10.000	ug/L	2.3	102		86 - 115	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0615						
Total Dissolved Solids @ 180 C	BUF0615-BLK1	ND	mg/L	6.7	6.7	
QC Batch ID: BUF0618						
Nitrite as N	BUF0618-BLK1	0.0089040	mg/L	0.050	0.0081	J
QC Batch ID: BUF0638						
Bicarbonate Alkalinity as CaCO3	BUF0638-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	BUF0638-BLK1	ND	mg/L	4.1	4.1	
QC Batch ID: BUF0694						
Chloride	BUF0694-BLK1	0.15600	mg/L	0.50	0.050	J
Sulfate	BUF0694-BLK1	ND	mg/L	1.0	0.10	
QC Batch ID: BUF0732						
Total Kjeldahl Nitrogen	BUF0732-BLK1	ND	mg/L	0.20	0.056	
QC Batch ID: BUF0934						
Nitrate/Nitrite as N	BUF0934-BLK1	ND	mg/L	0.10	0.010	
QC Batch ID: BUF0935						
Nitrate/Nitrite as N	BUF0935-BLK1	ND	mg/L	0.10	0.010	
QC Batch ID: BUF1115						
Ammonia as N	BUF1115-BLK1	ND	mg/L	0.050	0.025	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUF0615										
Total Dissolved Solids @ 180 C	BUF0615-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
QC Batch ID: BUF0618										
Nitrite as N	BUF0618-BS1	LCS	0.53165	0.50000	mg/L	106		90 - 110		
QC Batch ID: BUF0694										
Chloride	BUF0694-BS1	LCS	101.03	100.00	mg/L	101		90 - 110		
Sulfate	BUF0694-BS1	LCS	100.63	100.00	mg/L	101		90 - 110		
QC Batch ID: BUF0732										
Total Kjeldahl Nitrogen	BUF0732-BS1	LCS	2.0686	2.0000	mg/L	103		85 - 115		
QC Batch ID: BUF0934										
Nitrate/Nitrite as N	BUF0934-BS1	LCS	2.0733	2.0000	mg/L	104		90 - 110		
QC Batch ID: BUF0935										
Nitrate/Nitrite as N	BUF0935-BS1	LCS	2.0379	2.0000	mg/L	102		90 - 110		
QC Batch ID: BUF1115										
Ammonia as N	BUF1115-BS1	LCS	1.0096	1.0000	mg/L	101		90 - 110		

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF0615	Used client sample: Y - Description: PL-5.1B, 06/08/2011 14:30										
Total Dissolved Solids @ 180 C	DUP	1109063-01	1500.0	1500.0		mg/L	0		10		
QC Batch ID: BUF0618	Used client sample: N										
Nitrite as N	DUP	1109053-01	0.0087110	0.0098190		mg/L	12.0		10		J,A02
	MS	1109053-01	0.0087110	0.55007	0.52632	mg/L		103		90 - 110	
	MSD	1109053-01	0.0087110	0.54975	0.52632	mg/L	0.1	103	10	90 - 110	
QC Batch ID: BUF0638	Used client sample: N										
Bicarbonate Alkalinity as CaCO3	DUP	109047-04RE´	119.27	119.12		mg/L	0.1		10		
Carbonate Alkalinity as CaCO3	DUP	109047-04RE´	ND	ND		mg/L			10		
QC Batch ID: BUF0694	Used client sample: Y - Description: PL-5.1B, 06/08/2011 14:30										
Chloride	DUP	1109063-01	170.53	173.30		mg/L	1.6		10		
	MS	1109063-01	170.53	382.51	202.02	mg/L		105		80 - 120	
	MSD	1109063-01	170.53	388.11	202.02	mg/L	1.5	108	10	80 - 120	
Sulfate	DUP	1109063-01	404.50	406.64		mg/L	0.5		10		
	MS	1109063-01	404.50	608.74	202.02	mg/L		101		80 - 120	
	MSD	1109063-01	404.50	606.65	202.02	mg/L	0.3	100	10	80 - 120	
QC Batch ID: BUF0732	Used client sample: N										
Total Kjeldahl Nitrogen	DUP	1108765-01	0.17560	0.20890		mg/L	17.3		20		
	MS	1108765-01	0.17560	2.2959	2.0000	mg/L		106		80 - 120	
	MSD	1108765-01	0.17560	2.2349	2.0000	mg/L	2.7	103	20	80 - 120	
QC Batch ID: BUF0934	Used client sample: N										
Nitrate/Nitrite as N	DUP	1108716-02	1.3087	1.3138		mg/L	0.4		10		
	MS	1108716-02	1.3087	3.4728	2.1053	mg/L		103		90 - 110	
	MSD	1108716-02	1.3087	3.3875	2.1053	mg/L	2.5	98.7	10	90 - 110	
QC Batch ID: BUF0935	Used client sample: Y - Description: G-2, 06/06/2011 11:05										
Nitrate/Nitrite as N	DUP	1109069-01	ND	ND		mg/L			10		
	MS	1109069-01	ND	2.1797	2.1053	mg/L		104		90 - 110	
	MSD	1109069-01	ND	2.1393	2.1053	mg/L	1.9	102	10	90 - 110	
QC Batch ID: BUF1115	Used client sample: N										
Ammonia as N	DUP	1108978-02	ND	ND		mg/L			10		
	MS	1108978-02	ND	1.1094	1.1111	mg/L		99.8		90 - 110	
	MSD	1108978-02	ND	1.1037	1.1111	mg/L	0.5	99.3	10	90 - 110	

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 06/22/2011 9:08 Project: Hay Road LF Project Number: 053-7444-11 Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0649						
Dissolved Arsenic	BUF0649-BLK1	ND	mg/L	0.050	0.0075	
Dissolved Chromium	BUF0649-BLK1	0.0013642	mg/L	0.010	0.0010	J
Dissolved Lead	BUF0649-BLK1	ND	mg/L	0.050	0.0050	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUF0649										
Dissolved Arsenic	BUF0649-BS1	LCS	0.18549	0.20000	mg/L	92.7		85 - 115		
Dissolved Chromium	BUF0649-BS1	LCS	0.20619	0.20000	mg/L	103		85 - 115		
Dissolved Lead	BUF0649-BS1	LCS	0.42187	0.40000	mg/L	105		85 - 115		

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/22/2011 9:08
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF0649	Used client sample: Y - Description: PL-9.1A, 06/08/2011 14:45										
Dissolved Arsenic	DUP	1109063-02	ND	ND		mg/L			20		
	MS	1109063-02	ND	0.20461	0.20408	mg/L		100		75 - 125	
	MSD	1109063-02	ND	0.19518	0.20408	mg/L	4.7	95.6	20	75 - 125	
Dissolved Chromium	DUP	1109063-02	0.0046638	0.0044282		mg/L	5.2		20		J
	MS	1109063-02	0.0046638	0.21944	0.20408	mg/L		105		75 - 125	
	MSD	1109063-02	0.0046638	0.20741	0.20408	mg/L	5.6	99.3	20	75 - 125	
Dissolved Lead	DUP	1109063-02	ND	ND		mg/L			20		
	MS	1109063-02	ND	0.43149	0.40816	mg/L		106		75 - 125	
	MSD	1109063-02	ND	0.41047	0.40816	mg/L	5.0	101	20	75 - 125	

Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 06/22/2011 9:08 Project: Hay Road LF Project Number: 053-7444-11 Project Manager: Kris Johnson

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.
A02	The difference between duplicate readings is less than the PQL.

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Date of Report: 07/18/2011

Kris Johnson

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Project: Hay Road LF
BC Work Order: 1109069
Invoice ID: B102599

Enclosed are the results of analyses for samples received by the laboratory on 6/8/2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Linda Phoudamneun

Contact Person: Linda Phoudamneun
Client Service Rep

Authorized Signature

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4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com

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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1109069-01 Recology Hay Rd, G-2, G-2, 6/6/2011 11:05:00AM						
Bicarbonate Alkalinity as CaCO3	820	8.2	8.2	mg/L	SM-2320B	
Chloride	560	1.0	0.10	mg/L	EPA-300.0	A01
Sulfate	710	2.0	0.20	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	2800	200	200	mg/L	SM-2540C	
1109069-02 Recology Hay Rd, G-1, G-1, 6/6/2011 12:15:00PM						
Bicarbonate Alkalinity as CaCO3	360	8.2	8.2	mg/L	SM-2320B	
Chloride	180	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	1.0	0.10	0.010	mg/L	EPA-353.2	
Sulfate	50	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	780	50	50	mg/L	SM-2540C	
Dissolved Chromium	0.0014	0.010	0.0010	mg/L	EPA-6010B	J
Dissolved Lead	0.0056	0.050	0.0050	mg/L	EPA-6010B	J
1109069-03 Recology Hay Rd, G-13, G-13, 6/6/2011 12:50:00PM						
Bicarbonate Alkalinity as CaCO3	320	8.2	8.2	mg/L	SM-2320B	
Chloride	180	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	5.6	0.50	0.050	mg/L	EPA-353.2	A01
Sulfate	91	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	850	50	50	mg/L	SM-2540C	
Dissolved Lead	0.0050	0.050	0.0050	mg/L	EPA-6010B	J
1109069-04 Recology Hay Rd, G-12, G-12, 6/6/2011 1:30:00PM						
Bicarbonate Alkalinity as CaCO3	310	8.2	8.2	mg/L	SM-2320B	
Chloride	130	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	0.67	0.10	0.010	mg/L	EPA-353.2	
Sulfate	31	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	600	33	33	mg/L	SM-2540C	
1109069-05 Recology Hay Rd, G-11M, G-11M, 6/6/2011 2:30:00PM						
Bicarbonate Alkalinity as CaCO3	390	8.2	8.2	mg/L	SM-2320B	
Chloride	110	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	1.7	0.10	0.010	mg/L	EPA-353.2	
Sulfate	29	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	680	33	33	mg/L	SM-2540C	
Dissolved Chromium	0.0016	0.010	0.0010	mg/L	EPA-6010B	J
1109069-06 Recology Hay Rd, G-10M, G-10M, 6/6/2011 3:15:00PM						
Bicarbonate Alkalinity as CaCO3	460	8.2	8.2	mg/L	SM-2320B	
Chloride	280	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	1.1	0.10	0.010	mg/L	EPA-353.2	
Sulfate	49	1.0	0.10	mg/L	EPA-300.0	

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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1109069-06 Recology Hay Rd, G-10M, G-10M, 6/6/2011 3:15:00PM						
Total Dissolved Solids @ 180 C	1100	50	50	mg/L	SM-2540C	
Dissolved Lead	0.0055	0.050	0.0050	mg/L	EPA-6010B	J
1109069-07 Recology Hay Rd, 4B, 4B, 6/7/2011 12:00:00PM						
Toluene	0.33	1.0	0.093	ug/L	EPA-8260	J
Acetone	5.4	10	4.6	ug/L	EPA-8260	J,M03
2-Butanone	15	10	2.5	ug/L	EPA-8260	
Bicarbonate Alkalinity as CaCO3	790	8.2	8.2	mg/L	SM-2320B	
Chloride	900	2.5	0.25	mg/L	EPA-300.0	A01
Nitrate/Nitrite as N	7.8	0.50	0.050	mg/L	EPA-353.2	A01
Sulfate	800	5.0	0.50	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	3700	200	200	mg/L	SM-2540C	
Dissolved Lead	0.0082	0.050	0.0050	mg/L	EPA-6010B	J
1109069-08 Recology Hay Rd, QCEB-1, QCEB-1, 6/8/2011 11:35:00AM						
Chloroform	0.53	1.0	0.12	ug/L	EPA-8260	J
n-Propylbenzene	0.21	1.0	0.11	ug/L	EPA-8260	J
Tetrachloroethene	0.34	1.0	0.13	ug/L	EPA-8260	J
1,2,4-Trimethylbenzene	1.2	1.0	0.12	ug/L	EPA-8260	
1109069-09 Recology Hay Rd, G-11, G-11, 6/8/2011 11:50:00AM						
Bicarbonate Alkalinity as CaCO3	520	8.2	8.2	mg/L	SM-2320B	
Chloride	210	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	2.2	0.10	0.010	mg/L	EPA-353.2	
Sulfate	57	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	1000	50	50	mg/L	SM-2540C	
Dissolved Chromium	0.0020	0.010	0.0010	mg/L	EPA-6010B	J
Dissolved Lead	0.0075	0.050	0.0050	mg/L	EPA-6010B	J
1109069-10 Recology Hay Rd, G-8, G-8, 6/8/2011 12:35:00PM						
Bicarbonate Alkalinity as CaCO3	630	8.2	8.2	mg/L	SM-2320B	
Chloride	220	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	0.42	0.10	0.010	mg/L	EPA-353.2	
Sulfate	84	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	1100	50	50	mg/L	SM-2540C	
Dissolved Barium	0.46	0.010	0.0012	mg/L	EPA-6010B	
Dissolved Lead	0.0068	0.050	0.0050	mg/L	EPA-6010B	J
1109069-11 Recology Hay Rd, G-9, G-9, 6/8/2011 1:15:00PM						
Bicarbonate Alkalinity as CaCO3	720	8.2	8.2	mg/L	SM-2320B	
Chloride	190	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	0.023	0.10	0.010	mg/L	EPA-353.2	J

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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1109069-11 Recology Hay Rd, G-9, G-9, 6/8/2011 1:15:00PM						
Sulfate	7.0	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	1100	50	50	mg/L	SM-2540C	
Dissolved Barium	0.54	0.010	0.0012	mg/L	EPA-6010B	
Dissolved Lead	0.0051	0.050	0.0050	mg/L	EPA-6010B	J
1109069-12 Recology Hay Rd, G-27, G-27, 6/8/2011 2:00:00PM						
Bicarbonate Alkalinity as CaCO3	330	8.2	8.2	mg/L	SM-2320B	
Chloride	280	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	3.3	0.10	0.010	mg/L	EPA-353.2	
Sulfate	36	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	1000	50	50	mg/L	SM-2540C	
Dissolved Chromium	0.0022	0.010	0.0010	mg/L	EPA-6010B	J
Dissolved Lead	0.0078	0.050	0.0050	mg/L	EPA-6010B	J
1109069-13 Recology Hay Rd, MW-4, MW-4, 6/8/2011 2:35:00PM						
Bicarbonate Alkalinity as CaCO3	490	8.2	8.2	mg/L	SM-2320B	
Chloride	440	1.0	0.10	mg/L	EPA-300.0	A01
Nitrate/Nitrite as N	0.82	0.10	0.010	mg/L	EPA-353.2	
Sulfate	120	2.0	0.20	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	1700	100	100	mg/L	SM-2540C	
1109069-14 Recology Hay Rd, P-1, P-1, 6/8/2011 3:15:00PM						
Bicarbonate Alkalinity as CaCO3	580	8.2	8.2	mg/L	SM-2320B	
Chloride	400	1.0	0.10	mg/L	EPA-300.0	A01
Nitrate/Nitrite as N	0.86	0.10	0.010	mg/L	EPA-353.2	
Sulfate	260	2.0	0.20	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	1700	100	100	mg/L	SM-2540C	

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Golder Associates 11-09069

Golder Associates
CHAIN OF CUSTODY

GW

Page 1 of 1
Quotation No.

PROJECT NO.: 053-7444-11
SITE NAME: Recology - Hay Rd.
SAMPLER(S): R. McCarthy (printed) (signature)
CONTRACT LABORATORY: BC LABS
TURN-AROUND TIME: Standard

EDD required? ☒ Yes ☐ No
EDF required? ☒ Yes ☐ No

ANALYSES

Sample I.D.	Lab I.D.	Collection Date	Collection Time	Matrix	Depth	Container Info	EPA 5260	BOD Short List	TDS, Cl, SO4, Carbonate, Bicarb, NO3+NO2-N, TKN, Ammonia-N	As, Cr, Pb	NO3+NO2-N	As, Pb	Cont. Qty.	Remarks
Type/Vol.							VOA 40ml	PE 1gal	PE 1gal	PE 1gal	PE 2oz	PE 1gal		
Filter							N	N	N	Y	N	Y		
Preserv.							HCl	none	H_2SO_4	HNO_3	H_2SO_4	HNO_3		
G-2	-1	6/6/11	1105	W			3	1			1	1	6	
G-1	-2		1215				3	1			1	1	6	
G-13	-3		1250				3	1			1	1	6	
G-12	-4		1330				3	1			1	1	6	
G-11M	-5		1430				3	1			1	1	6	
G-10M	-6		1515				3	1			1	1	6	
4B	-7	6/7/11	1200				3	1			1	1	6	
QCEB-1	-8	6/8/11	1135				3						3	
G-11	-9		1150				3	1			1	1	6	
G-8	-10		1235				3	1			1	1	6	
G-9	-11		1315				3	1			1	1	6	
G-27	-12		1400				3	1			1	1	6	
MW-4	-13		1435				3	1			1	1	6	
P-1	-14		1515				3	1			1	1	6	

Relinquished by: (signature)	Received by: (signature)	Date/Time:
[signature]	Rob Dickey	6-8-11 1540
Rob Dickey 6-8-11	[signature]	6-8-11 1830
[signature] 6-8-11 2200	[signature]	6-8-11 2200

SEND RESULTS TO:
Attn: Kris Johnson
Golder Associates Inc.
425 Lakeside Drive
Sunnyvale, CA 94085
Phone (408) 220-9223
Fax (408) 220-9224

white: lab copy yellow: project file

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Chain of Custody and Cooler Receipt Form for 1109069 Page 2 of 3

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 Of 2

Submission #: 11-09069

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☑ Intact? Yes ☐ No ☑ Containers ☐ Intact? Yes ☐ No ☐ None ☐ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.98 Container: PTFE Thermometer ID: 1613
Temperature: A 1.3 °C / C 1.1 °C
Date/Time 6/8/11 Analyst Init 1'11 M 2300

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED	B	B	B	B	B	B	B			
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS	C	C	C	C	C	C	C			
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE	D	D	D	D	D	D	D			
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A 3	A 3	A 3	A 3	A 3	A 3	A 3	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

CHK BY BLT DISTRIBUTION DISPOSAL SUB-OUT

Comments:
Sample Numbering Completed By: [illegible] Date/Time: 6/8/11 1003
A = Actual / C = Corrected
P:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

Chain of Custody and Cooler Receipt Form for 1109069 Page 3 of 3

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 2 Of 2

Submission #: 11-09069

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.98 Container: Pye Thermometer ID: 1613 Date/Time 6/8/11
Temperature: A 4.2 °C / C 4.0 °C Analyst Init MM 2300

SAMPLE CONTAINERS	SAMPLE NUMBERS 7	8	9	11/4	12	13	14	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED	B		B	B	B	B	B			
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS	C		C	C	C	C	C			
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE	D		D	D	D	D	D			
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A 3	A 3	A 3	A 3	A 3	A 3	A 3			
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:
Sample Numbering Completed By: CMM Date/Time: 6/8/11 1003
A = Actual / C = Corrected
[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1109069-01	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Rd	**Sampling Date:**	06/06/2011 11:05
	Sampling Location:	G-2	**Sample Depth:**	---
	Sampling Point:	G-2	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-2	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1109069-02	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Rd	**Sampling Date:**	06/06/2011 12:15
	Sampling Location:	G-1	**Sample Depth:**	---
	Sampling Point:	G-1	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-1	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1109069-03	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Rd	**Sampling Date:**	06/06/2011 12:50
	Sampling Location:	G-13	**Sample Depth:**	---
	Sampling Point:	G-13	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-13	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1109069-04	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Rd	**Sampling Date:**	06/06/2011 13:30
	Sampling Location:	G-12	**Sample Depth:**	---
	Sampling Point:	G-12	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-12	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1109069-05	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Rd	**Sampling Date:**	06/06/2011 14:30
	Sampling Location:	G-11M	**Sample Depth:**	---
	Sampling Point:	G-11M	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-11M	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1109069-06	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Rd	**Sampling Date:**	06/06/2011 15:15
	Sampling Location:	G-10M	**Sample Depth:**	---
	Sampling Point:	G-10M	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-10M	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1109069-07	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Rd	**Sampling Date:**	06/07/2011 12:00
	Sampling Location:	4B	**Sample Depth:**	---
	Sampling Point:	4B	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): 4B	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1109069-08	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Rd	**Sampling Date:**	06/08/2011 11:35
	Sampling Location:	QCEB-1	**Sample Depth:**	---
	Sampling Point:	QCEB-1	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): QCEB-1	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1109069-09	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Rd	**Sampling Date:**	06/08/2011 11:50
	Sampling Location:	G-11	**Sample Depth:**	---
	Sampling Point:	G-11	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-11	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1109069-10	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Rd	**Sampling Date:**	06/08/2011 12:35
	Sampling Location:	G-8	**Sample Depth:**	---
	Sampling Point:	G-8	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-8	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1109069-11	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Rd	**Sampling Date:**	06/08/2011 13:15
	Sampling Location:	G-9	**Sample Depth:**	---
	Sampling Point:	G-9	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-9	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1109069-12	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Rd	**Sampling Date:**	06/08/2011 14:00
	Sampling Location:	G-27	**Sample Depth:**	---
	Sampling Point:	G-27	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-27	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1109069-13	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Rd	**Sampling Date:**	06/08/2011 14:35
	Sampling Location:	MW-4	**Sample Depth:**	---
	Sampling Point:	MW-4	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): MW-4	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1109069-14	**COC Number:**	---	**Receive Date:**	06/08/2011 22:00
	Project Number:	Recology Hay Rd	**Sampling Date:**	06/08/2011 15:15
	Sampling Location:	P-1	**Sample Depth:**	---
	Sampling Point:	P-1	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Metal Analysis: 1-Field Filtered and Acidified	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): P-1	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-01 | **Client Sample Name:** Recology Hay Rd, G-2, G-2, 6/6/2011 11:05:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-01 | **Client Sample Name:** Recology Hay Rd, G-2, G-2, 6/6/2011 11:05:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	5.5		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-01 | **Client Sample Name:** Recology Hay Rd, G-2, G-2, 6/6/2011 11:05:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	104	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	98.4	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	97.0	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/11	06/14/11 01:57	MGC	MS-V5	1	BUF0784

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Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109069-01 | **Client Sample Name:** Recology Hay Rd, G-2, G-2, 6/6/2011 11:05:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**820**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	ND		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**560**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	0.33	**A01**	2
Nitrate/Nitrite as N	ND	mg/L	0.10	0.010	EPA-353.2	ND		3
Sulfate	**710**	**mg/L**	**2.0**	**0.20**	**EPA-300.0**	ND	**A01**	2
Total Dissolved Solids @ 180 C	**2800**	**mg/L**	**200**	**200**	**SM-2540C**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/13/11	06/13/11 10:08	RML	MET-1	2	BUF0761
2	EPA-300.0	06/13/11	06/13/11 17:35	LRS	IC1	2	BUF0695
3	EPA-353.2	06/15/11	06/15/11 12:14	SDU	SC-1	1	BUF0935
4	SM-2540C	06/10/11	06/10/11 10:00	JES2	MANUAL	20	BUF0614

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109069-01 | **Client Sample Name:** Recology Hay Rd, G-2, G-2, 6/6/2011 11:05:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	0.0014		1
Dissolved Lead	ND	mg/L	0.050	0.0050	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/06/11	06/13/11 11:42	ARD	PE-OP1	1	BUF0649

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Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-02 | **Client Sample Name:** Recology Hay Rd, G-1, G-1, 6/6/2011 12:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-02 | **Client Sample Name:** Recology Hay Rd, G-1, G-1, 6/6/2011 12:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	5.5		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-02 | **Client Sample Name:** Recology Hay Rd, G-1, G-1, 6/6/2011 12:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	104	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	98.8	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.6	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/11	06/14/11 02:24	MGC	MS-V5	1	BUF0784

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109069-02 | **Client Sample Name:** Recology Hay Rd, G-1, G-1, 6/6/2011 12:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**360**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	ND		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**180**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	0.16		2
Nitrate/Nitrite as N	**1.0**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	ND		3
Sulfate	**50**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	ND		2
Total Dissolved Solids @ 180 C	**780**	**mg/L**	**50**	**50**	**SM-2540C**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/13/11	06/13/11 10:16	RML	MET-1	2	BUF0761
2	EPA-300.0	06/13/11	06/13/11 14:12	LRS	IC1	1	BUF0695
3	EPA-353.2	06/15/11	06/15/11 12:25	SDU	SC-1	1	BUF0935
4	SM-2540C	06/10/11	06/10/11 10:00	JES2	MANUAL	5	BUF0614

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Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109069-02 | **Client Sample Name:** Recology Hay Rd, G-1, G-1, 6/6/2011 12:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	**0.0014**	**mg/L**	**0.010**	**0.0010**	**EPA-6010B**	0.0014	**J**	1
Dissolved Lead	**0.0056**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	ND	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/06/11	06/13/11 11:44	ARD	PE-OP1	1	BUF0649

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-03 | **Client Sample Name:** Recology Hay Rd, G-13, G-13, 6/6/2011 12:50:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-03 | **Client Sample Name:** Recology Hay Rd, G-13, G-13, 6/6/2011 12:50:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	5.5		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-03 | **Client Sample Name:** Recology Hay Rd, G-13, G-13, 6/6/2011 12:50:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	102	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	97.6	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.0	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/11	06/14/11 02:51	MGC	MS-V5	1	BUF0784

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109069-03 | **Client Sample Name:** Recology Hay Rd, G-13, G-13, 6/6/2011 12:50:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**320**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	ND		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**180**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	0.16		2
Nitrate/Nitrite as N	**5.6**	**mg/L**	**0.50**	**0.050**	**EPA-353.2**	ND	**A01**	3
Sulfate	**91**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	ND		2
Total Dissolved Solids @ 180 C	**850**	**mg/L**	**50**	**50**	**SM-2540C**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/13/11	06/13/11 10:23	RML	MET-1	2	BUF0761
2	EPA-300.0	06/13/11	06/13/11 14:52	LRS	IC1	1	BUF0695
3	EPA-353.2	06/15/11	06/15/11 13:23	SDU	SC-1	5	BUF0935
4	SM-2540C	06/10/11	06/10/11 10:00	JES2	MANUAL	5	BUF0614

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109069-03 | **Client Sample Name:** Recology Hay Rd, G-13, G-13, 6/6/2011 12:50:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	0.0014		1
Dissolved Lead	**0.0050**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	ND	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/06/11	06/13/11 11:46	ARD	PE-OP1	1	BUF0649

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-04 | **Client Sample Name:** Recology Hay Rd, G-12, G-12, 6/6/2011 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-04 | **Client Sample Name:** Recology Hay Rd, G-12, G-12, 6/6/2011 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	5.5		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-04 | **Client Sample Name:** Recology Hay Rd, G-12, G-12, 6/6/2011 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	102	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	98.4	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.1	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/11	06/14/11 03:18	MGC	MS-V5	1	BUF0784

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109069-04 | **Client Sample Name:** Recology Hay Rd, G-12, G-12, 6/6/2011 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**310**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	ND		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**130**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	0.16		2
Nitrate/Nitrite as N	**0.67**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	ND		3
Sulfate	**31**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	ND		2
Total Dissolved Solids @ 180 C	**600**	**mg/L**	**33**	**33**	**SM-2540C**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/13/11	06/13/11 10:29	RML	MET-1	2	BUF0761
2	EPA-300.0	06/13/11	06/13/11 15:06	LRS	IC1	1	BUF0695
3	EPA-353.2	06/15/11	06/15/11 12:27	SDU	SC-1	1	BUF0935
4	SM-2540C	06/10/11	06/10/11 10:00	JES2	MANUAL	3.333	BUF0614

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109069-04 | **Client Sample Name:** Recology Hay Rd, G-12, G-12, 6/6/2011 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	0.0014		1
Dissolved Lead	ND	mg/L	0.050	0.0050	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/06/11	06/13/11 11:54	ARD	PE-OP1	1	BUF0649

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-05 | **Client Sample Name:** Recology Hay Rd, G-11M, G-11M, 6/6/2011 2:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-05 | **Client Sample Name:** Recology Hay Rd, G-11M, G-11M, 6/6/2011 2:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	5.5		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-05 | **Client Sample Name:** Recology Hay Rd, G-11M, G-11M, 6/6/2011 2:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	98.2	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	99.3	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.0	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/11	06/14/11 03:45	MGC	MS-V5	1	BUF0784

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109069-05 | **Client Sample Name:** Recology Hay Rd, G-11M, G-11M, 6/6/2011 2:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**390**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	ND		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**110**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	0.16		2
Nitrate/Nitrite as N	**1.7**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	ND		3
Sulfate	**29**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	ND		2
Total Dissolved Solids @ 180 C	**680**	**mg/L**	**33**	**33**	**SM-2540C**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/13/11	06/13/11 10:35	RML	MET-1	2	BUF0761
2	EPA-300.0	06/13/11	06/13/11 15:19	LRS	IC1	1	BUF0695
3	EPA-353.2	06/15/11	06/15/11 12:28	SDU	SC-1	1	BUF0935
4	SM-2540C	06/10/11	06/10/11 10:00	JES2	MANUAL	3.333	BUF0614

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Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109069-05 | **Client Sample Name:** Recology Hay Rd, G-11M, G-11M, 6/6/2011 2:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	**0.0016**	**mg/L**	**0.010**	**0.0010**	**EPA-6010B**	0.0014	**J**	1
Dissolved Lead	ND	mg/L	0.050	0.0050	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/06/11	06/13/11 11:57	ARD	PE-OP1	1	BUF0649

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-06 | **Client Sample Name:** Recology Hay Rd, G-10M, G-10M, 6/6/2011 3:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-06 | **Client Sample Name:** Recology Hay Rd, G-10M, G-10M, 6/6/2011 3:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	5.5		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-06 | **Client Sample Name:** Recology Hay Rd, G-10M, G-10M, 6/6/2011 3:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	102	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	98.9	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.4	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/11	06/14/11 04:12	MGC	MS-V5	1	BUF0784

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109069-06 | **Client Sample Name:** Recology Hay Rd, G-10M, G-10M, 6/6/2011 3:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**460**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	ND		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**280**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	0.16		2
Nitrate/Nitrite as N	**1.1**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	ND		3
Sulfate	**49**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	ND		2
Total Dissolved Solids @ 180 C	**1100**	**mg/L**	**50**	**50**	**SM-2540C**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/13/11	06/13/11 10:42	RML	MET-1	2	BUF0761
2	EPA-300.0	06/13/11	06/13/11 15:33	LRS	IC1	1	BUF0695
3	EPA-353.2	06/15/11	06/15/11 12:29	SDU	SC-1	1	BUF0935
4	SM-2540C	06/10/11	06/10/11 10:00	JES2	MANUAL	5	BUF0614

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Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109069-06 | **Client Sample Name:** Recology Hay Rd, G-10M, G-10M, 6/6/2011 3:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	0.0014		1
Dissolved Lead	**0.0055**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	ND	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/06/11	06/13/11 11:59	ARD	PE-OP1	1	BUF0649

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-07 | **Client Sample Name:** Recology Hay Rd, 4B, 4B, 6/7/2011 12:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-07 | **Client Sample Name:** Recology Hay Rd, 4B, 4B, 6/7/2011 12:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	**0.33**	**ug/L**	**1.0**	**0.093**	**EPA-8260**	ND	**J**	1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	**5.4**	**ug/L**	**10**	**4.6**	**EPA-8260**	5.5	**J,M03**	1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	**15**	**ug/L**	**10**	**2.5**	**EPA-8260**	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-07 | **Client Sample Name:** Recology Hay Rd, 4B, 4B, 6/7/2011 12:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	104	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	98.7	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	97.5	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/11	06/14/11 04:39	MGC	MS-V5	1	BUF0784

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109069-07 | **Client Sample Name:** Recology Hay Rd, 4B, 4B, 6/7/2011 12:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**790**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	ND		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**900**	**mg/L**	**2.5**	**0.25**	**EPA-300.0**	0.82	**A01**	2
Nitrate/Nitrite as N	**7.8**	**mg/L**	**0.50**	**0.050**	**EPA-353.2**	ND	**A01**	3
Sulfate	**800**	**mg/L**	**5.0**	**0.50**	**EPA-300.0**	ND	**A01**	2
Total Dissolved Solids @ 180 C	**3700**	**mg/L**	**200**	**200**	**SM-2540C**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/13/11	06/13/11 10:49	RML	MET-1	2	BUF0761
2	EPA-300.0	06/13/11	06/13/11 15:46	LRS	IC1	5	BUF0695
3	EPA-353.2	06/15/11	06/15/11 13:25	SDU	SC-1	5	BUF0935
4	SM-2540C	06/10/11	06/10/11 10:00	JES2	MANUAL	20	BUF0614

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Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109069-07 | **Client Sample Name:** Recology Hay Rd, 4B, 4B, 6/7/2011 12:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	0.0014		1
Dissolved Lead	**0.0082**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	ND	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/07/11	06/13/11 12:01	ARD	PE-OP1	1	BUF0649

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-08 | **Client Sample Name:** Recology Hay Rd, QCEB-1, QCEB-1, 6/8/2011 11:35:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	**0.53**	**ug/L**	**1.0**	**0.12**	**EPA-8260**	ND	**J**	1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-08 | **Client Sample Name:** Recology Hay Rd, QCEB-1, QCEB-1, 6/8/2011 11:35:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	**0.21**	**ug/L**	**1.0**	**0.11**	**EPA-8260**	ND	**J**	1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	**0.34**	**ug/L**	**1.0**	**0.13**	**EPA-8260**	ND	**J**	1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	**1.2**	**ug/L**	**1.0**	**0.12**	**EPA-8260**	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	5.5		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-08 | **Client Sample Name:** Recology Hay Rd, QCEB-1, QCEB-1, 6/8/2011 11:35:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	103	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	99.0	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	95.9	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/11	06/14/11 05:06	MGC	MS-V5	1	BUF0784

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-09 | **Client Sample Name:** Recology Hay Rd, G-11, G-11, 6/8/2011 11:50:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-09 | **Client Sample Name:** Recology Hay Rd, G-11, G-11, 6/8/2011 11:50:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-09 | **Client Sample Name:** Recology Hay Rd, G-11, G-11, 6/8/2011 11:50:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	106	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	98.5	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	99.3	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/14/11	06/15/11 02:20	MGC	MS-V5	1	BUF0896

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109069-09 | **Client Sample Name:** Recology Hay Rd, G-11, G-11, 6/8/2011 11:50:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**520**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	ND		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**210**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	0.16		2
Nitrate/Nitrite as N	**2.2**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	ND		3
Sulfate	**57**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	ND		2
Total Dissolved Solids @ 180 C	**1000**	**mg/L**	**50**	**50**	**SM-2540C**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/13/11	06/13/11 09:51	RML	MET-1	2	BUF0761
2	EPA-300.0	06/13/11	06/13/11 16:00	LRS	IC1	1	BUF0695
3	EPA-353.2	06/15/11	06/15/11 11:58	SDU	SC-1	1	BUF0936
4	SM-2540C	06/10/11	06/10/11 10:00	JES2	MANUAL	5	BUF0614

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109069-09 | **Client Sample Name:** Recology Hay Rd, G-11, G-11, 6/8/2011 11:50:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	**0.0020**	**mg/L**	**0.010**	**0.0010**	**EPA-6010B**	0.0014	**J**	1
Dissolved Lead	**0.0075**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	ND	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/08/11	06/13/11 12:03	ARD	PE-OP1	1	BUF0649

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-10 | **Client Sample Name:** Recology Hay Rd, G-8, G-8, 6/8/2011 12:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-10 | **Client Sample Name:** Recology Hay Rd, G-8, G-8, 6/8/2011 12:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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425 Lakeside Drive
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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-10 | **Client Sample Name:** Recology Hay Rd, G-8, G-8, 6/8/2011 12:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	105	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	99.7	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	99.6	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/14/11	06/15/11 02:47	MGC	MS-V5	1	BUF0896

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109069-10 | **Client Sample Name:** Recology Hay Rd, G-8, G-8, 6/8/2011 12:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**630**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	ND		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**220**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	0.16		2
Nitrate/Nitrite as N	**0.42**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	ND		3
Sulfate	**84**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	ND		2
Total Dissolved Solids @ 180 C	**1100**	**mg/L**	**50**	**50**	**SM-2540C**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/13/11	06/13/11 10:57	RML	MET-1	2	BUF0761
2	EPA-300.0	06/13/11	06/13/11 16:13	LRS	IC1	1	BUF0695
3	EPA-353.2	06/15/11	06/15/11 11:59	SDU	SC-1	1	BUF0936
4	SM-2540C	06/10/11	06/10/11 10:00	JES2	MANUAL	5	BUF0614

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109069-10 | **Client Sample Name:** Recology Hay Rd, G-8, G-8, 6/8/2011 12:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Barium	**0.46**	**mg/L**	**0.010**	**0.0012**	**EPA-6010B**	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	0.0014		1
Dissolved Lead	**0.0068**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	ND	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/08/11	06/13/11 12:05	ARD	PE-OP1	1	BUF0649

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-11 | **Client Sample Name:** Recology Hay Rd, G-9, G-9, 6/8/2011 1:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-11 | **Client Sample Name:** Recology Hay Rd, G-9, G-9, 6/8/2011 1:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-11 | **Client Sample Name:** Recology Hay Rd, G-9, G-9, 6/8/2011 1:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	105	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	101	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	102	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/14/11	06/15/11 03:14	MGC	MS-V5	1	BUF0896

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109069-11 | **Client Sample Name:** Recology Hay Rd, G-9, G-9, 6/8/2011 1:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**720**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	ND		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**190**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	0.16		2
Nitrate/Nitrite as N	**0.023**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	ND	**J**	3
Sulfate	**7.0**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	ND		2
Total Dissolved Solids @ 180 C	**1100**	**mg/L**	**50**	**50**	**SM-2540C**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/13/11	06/13/11 11:04	RML	MET-1	2	BUF0761
2	EPA-300.0	06/13/11	06/13/11 16:27	LRS	IC1	1	BUF0695
3	EPA-353.2	06/15/11	06/15/11 12:01	SDU	SC-1	1	BUF0936
4	SM-2540C	06/10/11	06/10/11 10:00	JES2	MANUAL	5	BUF0614

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109069-11 | **Client Sample Name:** Recology Hay Rd, G-9, G-9, 6/8/2011 1:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Barium	**0.54**	**mg/L**	**0.010**	**0.0012**	**EPA-6010B**	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	0.0014		1
Dissolved Lead	**0.0051**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	ND	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/08/11	06/13/11 12:07	ARD	PE-OP1	1	BUF0649

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-12 | **Client Sample Name:** Recology Hay Rd, G-27, G-27, 6/8/2011 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-12 | **Client Sample Name:** Recology Hay Rd, G-27, G-27, 6/8/2011 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-12 | **Client Sample Name:** Recology Hay Rd, G-27, G-27, 6/8/2011 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	102	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	98.7	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	102	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/14/11	06/15/11 03:41	MGC	MS-V5	1	BUF0896

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109069-12 | **Client Sample Name:** Recology Hay Rd, G-27, G-27, 6/8/2011 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**330**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	ND		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**280**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	0.16		2
Nitrate/Nitrite as N	**3.3**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	ND		3
Sulfate	**36**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	ND		2
Total Dissolved Solids @ 180 C	**1000**	**mg/L**	**50**	**50**	**SM-2540C**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/13/11	06/13/11 11:41	RML	MET-1	2	BUF0762
2	EPA-300.0	06/13/11	06/13/11 11:30	LD1	IC1	1	BUF0694
3	EPA-353.2	06/15/11	06/15/11 12:02	SDU	SC-1	1	BUF0936
4	SM-2540C	06/10/11	06/10/11 11:00	JES2	MANUAL	5	BUF0615

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Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109069-12 | **Client Sample Name:** Recology Hay Rd, G-27, G-27, 6/8/2011 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	**0.0022**	**mg/L**	**0.010**	**0.0010**	**EPA-6010B**	0.0014	**J**	1
Dissolved Lead	**0.0078**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	ND	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/08/11	06/13/11 12:09	ARD	PE-OP1	1	BUF0649

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-13 | **Client Sample Name:** Recology Hay Rd, MW-4, MW-4, 6/8/2011 2:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	0.52		1

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-13 | **Client Sample Name:** Recology Hay Rd, MW-4, MW-4, 6/8/2011 2:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-13 | **Client Sample Name:** Recology Hay Rd, MW-4, MW-4, 6/8/2011 2:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	102	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	99.0	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	99.3	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/14/11	06/15/11 04:08	MGC	MS-V5	1	BUF0921

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109069-13 | **Client Sample Name:** Recology Hay Rd, MW-4, MW-4, 6/8/2011 2:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**490**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	ND		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**440**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	0.31	**A01**	2
Nitrate/Nitrite as N	**0.82**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	ND		3
Sulfate	**120**	**mg/L**	**2.0**	**0.20**	**EPA-300.0**	ND	**A01**	2
Total Dissolved Solids @ 180 C	**1700**	**mg/L**	**100**	**100**	**SM-2540C**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/13/11	06/13/11 11:47	RML	MET-1	2	BUF0762
2	EPA-300.0	06/13/11	06/13/11 12:10	LD1	IC1	2	BUF0694
3	EPA-353.2	06/15/11	06/15/11 12:03	SDU	SC-1	1	BUF0936
4	SM-2540C	06/10/11	06/10/11 11:00	JES2	MANUAL	10	BUF0615

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109069-13 | **Client Sample Name:** Recology Hay Rd, MW-4, MW-4, 6/8/2011 2:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	0.0014		1
Dissolved Lead	ND	mg/L	0.050	0.0050	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/08/11	06/13/11 12:11	ARD	PE-OP1	1	BUF0649

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-14 | **Client Sample Name:** Recology Hay Rd, P-1, P-1, 6/8/2011 3:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	0.52		1

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-14 | **Client Sample Name:** Recology Hay Rd, P-1, P-1, 6/8/2011 3:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109069-14 | **Client Sample Name:** Recology Hay Rd, P-1, P-1, 6/8/2011 3:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	103	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	100	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	102	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/14/11	06/15/11 04:35	MGC	MS-V5	1	BUF0921

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109069-14 | **Client Sample Name:** Recology Hay Rd, P-1, P-1, 6/8/2011 3:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bicarbonate Alkalinity as CaCO3	**580**	**mg/L**	**8.2**	**8.2**	**SM-2320B**	ND		1
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND		1
Chloride	**400**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	0.31	**A01**	2
Nitrate/Nitrite as N	**0.86**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	ND		3
Sulfate	**260**	**mg/L**	**2.0**	**0.20**	**EPA-300.0**	ND	**A01**	2
Total Dissolved Solids @ 180 C	**1700**	**mg/L**	**100**	**100**	**SM-2540C**	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2320B	06/13/11	06/13/11 11:55	RML	MET-1	2	BUF0762
2	EPA-300.0	06/13/11	06/13/11 12:24	LD1	IC1	2	BUF0694
3	EPA-353.2	06/15/11	06/15/11 11:53	SDU	SC-1	1	BUF0936
4	SM-2540C	06/10/11	06/10/11 11:00	JES2	MANUAL	10	BUF0615

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109069-14 | **Client Sample Name:** Recology Hay Rd, P-1, P-1, 6/8/2011 3:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Arsenic	ND	mg/L	0.050	0.0075	EPA-6010B	ND		1
Dissolved Chromium	ND	mg/L	0.010	0.0010	EPA-6010B	0.0014		1
Dissolved Lead	ND	mg/L	0.050	0.0050	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/08/11	06/13/11 12:13	ARD	PE-OP1	1	BUF0649

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0784						
Benzene	BUF0784-BLK1	ND	ug/L	1.0	0.083	
Bromobenzene	BUF0784-BLK1	ND	ug/L	1.0	0.13	
Bromochloromethane	BUF0784-BLK1	ND	ug/L	1.0	0.24	
Bromodichloromethane	BUF0784-BLK1	ND	ug/L	1.0	0.14	
Bromoform	BUF0784-BLK1	ND	ug/L	1.0	0.27	
Bromomethane	BUF0784-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BUF0784-BLK1	ND	ug/L	1.0	0.11	
sec-Butylbenzene	BUF0784-BLK1	ND	ug/L	1.0	0.15	
tert-Butylbenzene	BUF0784-BLK1	ND	ug/L	1.0	0.13	
Carbon tetrachloride	BUF0784-BLK1	ND	ug/L	1.0	0.18	
Chlorobenzene	BUF0784-BLK1	ND	ug/L	1.0	0.093	
Chloroethane	BUF0784-BLK1	ND	ug/L	1.0	0.14	
Chloroform	BUF0784-BLK1	ND	ug/L	1.0	0.12	
Chloromethane	BUF0784-BLK1	ND	ug/L	1.0	0.14	
Dibromochloromethane	BUF0784-BLK1	ND	ug/L	1.0	0.13	
1,2-Dibromo-3-chloropropane	BUF0784-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane (EDB)	BUF0784-BLK1	ND	ug/L	1.0	0.16	
Dibromomethane	BUF0784-BLK1	ND	ug/L	1.0	0.24	
1,2-Dichlorobenzene	BUF0784-BLK1	ND	ug/L	1.0	0.072	
1,3-Dichlorobenzene	BUF0784-BLK1	ND	ug/L	1.0	0.15	
1,4-Dichlorobenzene	BUF0784-BLK1	ND	ug/L	1.0	0.062	
Dichlorodifluoromethane	BUF0784-BLK1	ND	ug/L	1.0	0.099	
1,1-Dichloroethane	BUF0784-BLK1	ND	ug/L	1.0	0.11	
1,2-Dichloroethane	BUF0784-BLK1	ND	ug/L	1.0	0.17	
1,1-Dichloroethene	BUF0784-BLK1	ND	ug/L	1.0	0.18	
cis-1,2-Dichloroethene	BUF0784-BLK1	ND	ug/L	1.0	0.085	
trans-1,2-Dichloroethene	BUF0784-BLK1	ND	ug/L	1.0	0.15	
1,2-Dichloropropane	BUF0784-BLK1	ND	ug/L	1.0	0.13	
cis-1,3-Dichloropropene	BUF0784-BLK1	ND	ug/L	1.0	0.14	
trans-1,3-Dichloropropene	BUF0784-BLK1	ND	ug/L	1.0	0.079	
Ethylbenzene	BUF0784-BLK1	ND	ug/L	1.0	0.098	
Hexachlorobutadiene	BUF0784-BLK1	ND	ug/L	1.0	0.17	
Methylene chloride	BUF0784-BLK1	ND	ug/L	1.0	0.48	
Methyl t-butyl ether	BUF0784-BLK1	ND	ug/L	1.0	0.11	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0784						
Naphthalene	BUF0784-BLK1	ND	ug/L	1.0	0.36	
n-Propylbenzene	BUF0784-BLK1	ND	ug/L	1.0	0.11	
Styrene	BUF0784-BLK1	ND	ug/L	1.0	0.068	
1,1,1,2-Tetrachloroethane	BUF0784-BLK1	ND	ug/L	1.0	0.18	
1,1,2,2-Tetrachloroethane	BUF0784-BLK1	ND	ug/L	1.0	0.17	
Tetrachloroethene	BUF0784-BLK1	ND	ug/L	1.0	0.13	
Toluene	BUF0784-BLK1	ND	ug/L	1.0	0.093	
1,2,4-Trichlorobenzene	BUF0784-BLK1	ND	ug/L	1.0	0.19	
1,1,1-Trichloroethane	BUF0784-BLK1	ND	ug/L	1.0	0.11	
1,1,2-Trichloroethane	BUF0784-BLK1	ND	ug/L	1.0	0.16	
Trichloroethene	BUF0784-BLK1	ND	ug/L	1.0	0.085	
Trichlorofluoromethane	BUF0784-BLK1	ND	ug/L	1.0	0.13	
1,2,3-Trichloropropane	BUF0784-BLK1	ND	ug/L	1.0	0.24	
1,2,4-Trimethylbenzene	BUF0784-BLK1	ND	ug/L	1.0	0.12	
1,3,5-Trimethylbenzene	BUF0784-BLK1	ND	ug/L	1.0	0.12	
Vinyl chloride	BUF0784-BLK1	ND	ug/L	1.0	0.12	
Total Xylenes	BUF0784-BLK1	ND	ug/L	1.0	0.36	
Acetone	BUF0784-BLK1	5.5400	ug/L	10	4.6	J,M03
Acrylonitrile	BUF0784-BLK1	ND	ug/L	5.0	1.2	
t-Amyl Methyl ether	BUF0784-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BUF0784-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BUF0784-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BUF0784-BLK1	ND	ug/L	5.0	1.4	
Diisopropyl ether	BUF0784-BLK1	ND	ug/L	0.50	0.23	
1,4-Dioxane	BUF0784-BLK1	ND	ug/L	100	42	
Ethanol	BUF0784-BLK1	ND	ug/L	250	50	
Ethyl t-butyl ether	BUF0784-BLK1	ND	ug/L	0.50	0.18	
2-Hexanone	BUF0784-BLK1	ND	ug/L	10	3.4	
2-Butanone	BUF0784-BLK1	ND	ug/L	10	2.5	
Iodomethane	BUF0784-BLK1	ND	ug/L	2.0	0.47	
4-Methyl-2-pentanone	BUF0784-BLK1	ND	ug/L	10	2.1	
Vinyl acetate	BUF0784-BLK1	ND	ug/L	10	1.8	
1,2-Dichloroethane-d4 (Surrogate)	BUF0784-BLK1	101	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BUF0784-BLK1	98.6	%	88 - 110 (LCL - UCL)		

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0784						
4-Bromofluorobenzene (Surrogate)	BUF0784-BLK1	96.4	%	86 - 115 (LCL - UCL)		
QC Batch ID: BUF0896						
Benzene	BUF0896-BLK1	ND	ug/L	1.0	0.083	
Bromobenzene	BUF0896-BLK1	ND	ug/L	1.0	0.13	
Bromochloromethane	BUF0896-BLK1	ND	ug/L	1.0	0.24	
Bromodichloromethane	BUF0896-BLK1	ND	ug/L	1.0	0.14	
Bromoform	BUF0896-BLK1	ND	ug/L	1.0	0.27	
Bromomethane	BUF0896-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BUF0896-BLK1	ND	ug/L	1.0	0.11	
sec-Butylbenzene	BUF0896-BLK1	ND	ug/L	1.0	0.15	
tert-Butylbenzene	BUF0896-BLK1	ND	ug/L	1.0	0.13	
Carbon tetrachloride	BUF0896-BLK1	ND	ug/L	1.0	0.18	
Chlorobenzene	BUF0896-BLK1	ND	ug/L	1.0	0.093	
Chloroethane	BUF0896-BLK1	ND	ug/L	1.0	0.14	
Chloroform	BUF0896-BLK1	ND	ug/L	1.0	0.12	
Chloromethane	BUF0896-BLK1	ND	ug/L	1.0	0.14	
Dibromochloromethane	BUF0896-BLK1	ND	ug/L	1.0	0.13	
1,2-Dibromo-3-chloropropane	BUF0896-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane (EDB)	BUF0896-BLK1	ND	ug/L	1.0	0.16	
Dibromomethane	BUF0896-BLK1	ND	ug/L	1.0	0.24	
1,2-Dichlorobenzene	BUF0896-BLK1	ND	ug/L	1.0	0.072	
1,3-Dichlorobenzene	BUF0896-BLK1	ND	ug/L	1.0	0.15	
1,4-Dichlorobenzene	BUF0896-BLK1	ND	ug/L	1.0	0.062	
Dichlorodifluoromethane	BUF0896-BLK1	ND	ug/L	1.0	0.099	
1,1-Dichloroethane	BUF0896-BLK1	ND	ug/L	1.0	0.11	
1,2-Dichloroethane	BUF0896-BLK1	ND	ug/L	1.0	0.17	
1,1-Dichloroethene	BUF0896-BLK1	ND	ug/L	1.0	0.18	
cis-1,2-Dichloroethene	BUF0896-BLK1	ND	ug/L	1.0	0.085	
trans-1,2-Dichloroethene	BUF0896-BLK1	ND	ug/L	1.0	0.15	
1,2-Dichloropropane	BUF0896-BLK1	ND	ug/L	1.0	0.13	
cis-1,3-Dichloropropene	BUF0896-BLK1	ND	ug/L	1.0	0.14	
trans-1,3-Dichloropropene	BUF0896-BLK1	ND	ug/L	1.0	0.079	
Ethylbenzene	BUF0896-BLK1	ND	ug/L	1.0	0.098	

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Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0896						
Hexachlorobutadiene	BUF0896-BLK1	ND	ug/L	1.0	0.17	
Methylene chloride	BUF0896-BLK1	ND	ug/L	1.0	0.48	
Methyl t-butyl ether	BUF0896-BLK1	ND	ug/L	1.0	0.11	
Naphthalene	BUF0896-BLK1	ND	ug/L	1.0	0.36	
n-Propylbenzene	BUF0896-BLK1	ND	ug/L	1.0	0.11	
Styrene	BUF0896-BLK1	ND	ug/L	1.0	0.068	
1,1,1,2-Tetrachloroethane	BUF0896-BLK1	ND	ug/L	1.0	0.18	
1,1,2,2-Tetrachloroethane	BUF0896-BLK1	ND	ug/L	1.0	0.17	
Tetrachloroethene	BUF0896-BLK1	ND	ug/L	1.0	0.13	
Toluene	BUF0896-BLK1	ND	ug/L	1.0	0.093	
1,2,4-Trichlorobenzene	BUF0896-BLK1	ND	ug/L	1.0	0.19	
1,1,1-Trichloroethane	BUF0896-BLK1	ND	ug/L	1.0	0.11	
1,1,2-Trichloroethane	BUF0896-BLK1	ND	ug/L	1.0	0.16	
Trichloroethene	BUF0896-BLK1	ND	ug/L	1.0	0.085	
Trichlorofluoromethane	BUF0896-BLK1	ND	ug/L	1.0	0.13	
1,2,3-Trichloropropane	BUF0896-BLK1	ND	ug/L	1.0	0.24	
1,2,4-Trimethylbenzene	BUF0896-BLK1	ND	ug/L	1.0	0.12	
1,3,5-Trimethylbenzene	BUF0896-BLK1	ND	ug/L	1.0	0.12	
Vinyl chloride	BUF0896-BLK1	ND	ug/L	1.0	0.12	
Total Xylenes	BUF0896-BLK1	ND	ug/L	1.0	0.36	
Acetone	BUF0896-BLK1	ND	ug/L	10	4.6	
Acrylonitrile	BUF0896-BLK1	ND	ug/L	5.0	1.2	
t-Amyl Methyl ether	BUF0896-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BUF0896-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BUF0896-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BUF0896-BLK1	ND	ug/L	5.0	1.4	
Diisopropyl ether	BUF0896-BLK1	ND	ug/L	0.50	0.23	
1,4-Dioxane	BUF0896-BLK1	ND	ug/L	100	42	
Ethanol	BUF0896-BLK1	ND	ug/L	250	50	
Ethyl t-butyl ether	BUF0896-BLK1	ND	ug/L	0.50	0.18	
2-Hexanone	BUF0896-BLK1	ND	ug/L	10	3.4	
2-Butanone	BUF0896-BLK1	ND	ug/L	10	2.5	
Iodomethane	BUF0896-BLK1	ND	ug/L	2.0	0.47	
4-Methyl-2-pentanone	BUF0896-BLK1	ND	ug/L	10	2.1	

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Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0896						
Vinyl acetate	BUF0896-BLK1	ND	ug/L	10	1.8	
1,2-Dichloroethane-d4 (Surrogate)	BUF0896-BLK1	104	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BUF0896-BLK1	99.8	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BUF0896-BLK1	104	%	86 - 115 (LCL - UCL)		
QC Batch ID: BUF0921						
Benzene	BUF0921-BLK1	ND	ug/L	1.0	0.083	
Bromobenzene	BUF0921-BLK1	ND	ug/L	1.0	0.13	
Bromochloromethane	BUF0921-BLK1	ND	ug/L	1.0	0.24	
Bromodichloromethane	BUF0921-BLK1	ND	ug/L	1.0	0.14	
Bromoform	BUF0921-BLK1	ND	ug/L	1.0	0.27	
Bromomethane	BUF0921-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BUF0921-BLK1	ND	ug/L	1.0	0.11	
sec-Butylbenzene	BUF0921-BLK1	ND	ug/L	1.0	0.15	
tert-Butylbenzene	BUF0921-BLK1	ND	ug/L	1.0	0.13	
Carbon tetrachloride	BUF0921-BLK1	ND	ug/L	1.0	0.18	
Chlorobenzene	BUF0921-BLK1	ND	ug/L	1.0	0.093	
Chloroethane	BUF0921-BLK1	ND	ug/L	1.0	0.14	
Chloroform	BUF0921-BLK1	ND	ug/L	1.0	0.12	
Chloromethane	BUF0921-BLK1	ND	ug/L	1.0	0.14	
Dibromochloromethane	BUF0921-BLK1	ND	ug/L	1.0	0.13	
1,2-Dibromo-3-chloropropane	BUF0921-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane (EDB)	BUF0921-BLK1	ND	ug/L	1.0	0.16	
Dibromomethane	BUF0921-BLK1	ND	ug/L	1.0	0.24	
1,2-Dichlorobenzene	BUF0921-BLK1	ND	ug/L	1.0	0.072	
1,3-Dichlorobenzene	BUF0921-BLK1	ND	ug/L	1.0	0.15	
1,4-Dichlorobenzene	BUF0921-BLK1	ND	ug/L	1.0	0.062	
Dichlorodifluoromethane	BUF0921-BLK1	ND	ug/L	1.0	0.099	
1,1-Dichloroethane	BUF0921-BLK1	ND	ug/L	1.0	0.11	
1,2-Dichloroethane	BUF0921-BLK1	ND	ug/L	1.0	0.17	
1,1-Dichloroethene	BUF0921-BLK1	ND	ug/L	1.0	0.18	
cis-1,2-Dichloroethene	BUF0921-BLK1	ND	ug/L	1.0	0.085	
trans-1,2-Dichloroethene	BUF0921-BLK1	ND	ug/L	1.0	0.15	
1,2-Dichloropropane	BUF0921-BLK1	ND	ug/L	1.0	0.13	

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0921						
cis-1,3-Dichloropropene	BUF0921-BLK1	ND	ug/L	1.0	0.14	
trans-1,3-Dichloropropene	BUF0921-BLK1	ND	ug/L	1.0	0.079	
Ethylbenzene	BUF0921-BLK1	ND	ug/L	1.0	0.098	
Hexachlorobutadiene	BUF0921-BLK1	ND	ug/L	1.0	0.17	
Methylene chloride	BUF0921-BLK1	0.52000	ug/L	1.0	0.48	J,M03
Methyl t-butyl ether	BUF0921-BLK1	ND	ug/L	1.0	0.11	
Naphthalene	BUF0921-BLK1	ND	ug/L	1.0	0.36	
n-Propylbenzene	BUF0921-BLK1	ND	ug/L	1.0	0.11	
Styrene	BUF0921-BLK1	ND	ug/L	1.0	0.068	
1,1,1,2-Tetrachloroethane	BUF0921-BLK1	ND	ug/L	1.0	0.18	
1,1,2,2-Tetrachloroethane	BUF0921-BLK1	ND	ug/L	1.0	0.17	
Tetrachloroethene	BUF0921-BLK1	ND	ug/L	1.0	0.13	
Toluene	BUF0921-BLK1	ND	ug/L	1.0	0.093	
1,2,4-Trichlorobenzene	BUF0921-BLK1	ND	ug/L	1.0	0.19	
1,1,1-Trichloroethane	BUF0921-BLK1	ND	ug/L	1.0	0.11	
1,1,2-Trichloroethane	BUF0921-BLK1	ND	ug/L	1.0	0.16	
Trichloroethene	BUF0921-BLK1	ND	ug/L	1.0	0.085	
Trichlorofluoromethane	BUF0921-BLK1	ND	ug/L	1.0	0.13	
1,2,3-Trichloropropane	BUF0921-BLK1	ND	ug/L	1.0	0.24	
1,2,4-Trimethylbenzene	BUF0921-BLK1	ND	ug/L	1.0	0.12	
1,3,5-Trimethylbenzene	BUF0921-BLK1	ND	ug/L	1.0	0.12	
Vinyl chloride	BUF0921-BLK1	ND	ug/L	1.0	0.12	
Total Xylenes	BUF0921-BLK1	ND	ug/L	1.0	0.36	
Acetone	BUF0921-BLK1	ND	ug/L	10	4.6	
Acrylonitrile	BUF0921-BLK1	ND	ug/L	5.0	1.2	
t-Amyl Methyl ether	BUF0921-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BUF0921-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BUF0921-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BUF0921-BLK1	ND	ug/L	5.0	1.4	
Diisopropyl ether	BUF0921-BLK1	ND	ug/L	0.50	0.23	
1,4-Dioxane	BUF0921-BLK1	ND	ug/L	100	42	
Ethanol	BUF0921-BLK1	ND	ug/L	250	50	
Ethyl t-butyl ether	BUF0921-BLK1	ND	ug/L	0.50	0.18	
2-Hexanone	BUF0921-BLK1	ND	ug/L	10	3.4	

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Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0921						
2-Butanone	BUF0921-BLK1	ND	ug/L	10	2.5	
Iodomethane	BUF0921-BLK1	ND	ug/L	2.0	0.47	
4-Methyl-2-pentanone	BUF0921-BLK1	ND	ug/L	10	2.1	
Vinyl acetate	BUF0921-BLK1	ND	ug/L	10	1.8	
1,2-Dichloroethane-d4 (Surrogate)	BUF0921-BLK1	104	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BUF0921-BLK1	99.7	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BUF0921-BLK1	100	%	86 - 115 (LCL - UCL)		

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Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUF0784										
Benzene	BUF0784-BS1	LCS	25.930	25.000	ug/L	104		70 - 130		
Bromodichloromethane	BUF0784-BS1	LCS	26.210	25.000	ug/L	105		70 - 130		
Chlorobenzene	BUF0784-BS1	LCS	22.710	25.000	ug/L	90.8		70 - 130		
Chloroethane	BUF0784-BS1	LCS	23.980	25.000	ug/L	95.9		70 - 130		
1,4-Dichlorobenzene	BUF0784-BS1	LCS	25.030	25.000	ug/L	100		70 - 130		
1,1-Dichloroethane	BUF0784-BS1	LCS	24.900	25.000	ug/L	99.6		70 - 130		
1,1-Dichloroethene	BUF0784-BS1	LCS	27.150	25.000	ug/L	109		70 - 130		
Toluene	BUF0784-BS1	LCS	24.820	25.000	ug/L	99.3		70 - 130		
Trichloroethene	BUF0784-BS1	LCS	30.340	25.000	ug/L	121		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BUF0784-BS1	LCS	9.7200	10.000	ug/L	97.2		76 - 114		
Toluene-d8 (Surrogate)	BUF0784-BS1	LCS	10.060	10.000	ug/L	101		88 - 110		
4-Bromofluorobenzene (Surrogate)	BUF0784-BS1	LCS	9.6500	10.000	ug/L	96.5		86 - 115		
QC Batch ID: BUF0896										
Benzene	BUF0896-BS1	LCS	27.240	25.000	ug/L	109		70 - 130		
Bromodichloromethane	BUF0896-BS1	LCS	26.130	25.000	ug/L	105		70 - 130		
Chlorobenzene	BUF0896-BS1	LCS	24.260	25.000	ug/L	97.0		70 - 130		
Chloroethane	BUF0896-BS1	LCS	25.110	25.000	ug/L	100		70 - 130		
1,4-Dichlorobenzene	BUF0896-BS1	LCS	23.920	25.000	ug/L	95.7		70 - 130		
1,1-Dichloroethane	BUF0896-BS1	LCS	26.760	25.000	ug/L	107		70 - 130		
1,1-Dichloroethene	BUF0896-BS1	LCS	30.460	25.000	ug/L	122		70 - 130		
Toluene	BUF0896-BS1	LCS	25.430	25.000	ug/L	102		70 - 130		
Trichloroethene	BUF0896-BS1	LCS	25.440	25.000	ug/L	102		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BUF0896-BS1	LCS	10.170	10.000	ug/L	102		76 - 114		
Toluene-d8 (Surrogate)	BUF0896-BS1	LCS	10.030	10.000	ug/L	100		88 - 110		
4-Bromofluorobenzene (Surrogate)	BUF0896-BS1	LCS	9.9000	10.000	ug/L	99.0		86 - 115		
QC Batch ID: BUF0921										
Benzene	BUF0921-BS1	LCS	24.800	25.000	ug/L	99.2		70 - 130		
Bromodichloromethane	BUF0921-BS1	LCS	25.810	25.000	ug/L	103		70 - 130		
Chlorobenzene	BUF0921-BS1	LCS	24.750	25.000	ug/L	99.0		70 - 130		
Chloroethane	BUF0921-BS1	LCS	22.720	25.000	ug/L	90.9		70 - 130		
1,4-Dichlorobenzene	BUF0921-BS1	LCS	24.890	25.000	ug/L	99.6		70 - 130		
1,1-Dichloroethane	BUF0921-BS1	LCS	24.560	25.000	ug/L	98.2		70 - 130		
1,1-Dichloroethene	BUF0921-BS1	LCS	28.450	25.000	ug/L	114		70 - 130		

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Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUF0921										
Toluene	BUF0921-BS1	LCS	24.630	25.000	ug/L	98.5		70 - 130		
Trichloroethene	BUF0921-BS1	LCS	23.990	25.000	ug/L	96.0		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BUF0921-BS1	LCS	9.7200	10.000	ug/L	97.2		76 - 114		
Toluene-d8 (Surrogate)	BUF0921-BS1	LCS	9.9700	10.000	ug/L	99.7		88 - 110		
4-Bromofluorobenzene (Surrogate)	BUF0921-BS1	LCS	10.430	10.000	ug/L	104		86 - 115		

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Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF0784	Used client sample: Y - Description: G-2, 06/06/2011 11:05										
Benzene	MS	1109069-01	ND	26.380	25.000	ug/L		106		70 - 130	
	MSD	1109069-01	ND	26.900	25.000	ug/L	2.0	108	20	70 - 130	
Bromodichloromethane	MS	1109069-01	ND	26.860	25.000	ug/L		107		70 - 130	
	MSD	1109069-01	ND	26.160	25.000	ug/L	2.6	105	20	70 - 130	
Chlorobenzene	MS	1109069-01	ND	22.940	25.000	ug/L		91.8		70 - 130	
	MSD	1109069-01	ND	23.470	25.000	ug/L	2.3	93.9	20	70 - 130	
Chloroethane	MS	1109069-01	ND	24.190	25.000	ug/L		96.8		70 - 130	
	MSD	1109069-01	ND	25.010	25.000	ug/L	3.3	100	20	70 - 130	
1,4-Dichlorobenzene	MS	1109069-01	ND	25.340	25.000	ug/L		101		70 - 130	
	MSD	1109069-01	ND	25.840	25.000	ug/L	2.0	103	20	70 - 130	
1,1-Dichloroethane	MS	1109069-01	ND	25.090	25.000	ug/L		100		70 - 130	
	MSD	1109069-01	ND	26.010	25.000	ug/L	3.6	104	20	70 - 130	
1,1-Dichloroethene	MS	1109069-01	ND	27.250	25.000	ug/L		109		70 - 130	
	MSD	1109069-01	ND	28.060	25.000	ug/L	2.9	112	20	70 - 130	
Toluene	MS	1109069-01	ND	25.690	25.000	ug/L		103		70 - 130	
	MSD	1109069-01	ND	24.870	25.000	ug/L	3.2	99.5	20	70 - 130	
Trichloroethene	MS	1109069-01	ND	25.880	25.000	ug/L		104		70 - 130	
	MSD	1109069-01	ND	25.240	25.000	ug/L	2.5	101	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1109069-01	ND	9.9500	10.000	ug/L		99.5		76 - 114	
	MSD	1109069-01	ND	10.290	10.000	ug/L	3.4	103		76 - 114	
Toluene-d8 (Surrogate)	MS	1109069-01	ND	10.010	10.000	ug/L		100		88 - 110	
	MSD	1109069-01	ND	9.8900	10.000	ug/L	1.2	98.9		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1109069-01	ND	9.4900	10.000	ug/L		94.9		86 - 115	
	MSD	1109069-01	ND	9.9400	10.000	ug/L	4.6	99.4		86 - 115	
QC Batch ID: BUF0896	Used client sample: N										
Benzene	MS	1109155-10	ND	29.250	25.000	ug/L		117		70 - 130	
	MSD	1109155-10	ND	27.480	25.000	ug/L	6.2	110	20	70 - 130	
Bromodichloromethane	MS	1109155-10	ND	29.080	25.000	ug/L		116		70 - 130	
	MSD	1109155-10	ND	26.650	25.000	ug/L	8.7	107	20	70 - 130	
Chlorobenzene	MS	1109155-10	ND	26.460	25.000	ug/L		106		70 - 130	
	MSD	1109155-10	ND	25.040	25.000	ug/L	5.5	100	20	70 - 130	
Chloroethane	MS	1109155-10	ND	26.810	25.000	ug/L		107		70 - 130	
	MSD	1109155-10	ND	25.480	25.000	ug/L	5.1	102	20	70 - 130	
1,4-Dichlorobenzene	MS	1109155-10	ND	26.430	25.000	ug/L		106		70 - 130	
	MSD	1109155-10	ND	24.940	25.000	ug/L	5.8	99.8	20	70 - 130	
1,1-Dichloroethane	MS	1109155-10	ND	28.740	25.000	ug/L		115		70 - 130	
	MSD	1109155-10	ND	26.850	25.000	ug/L	6.8	107	20	70 - 130	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF0896	Used client sample: N										
1,1-Dichloroethene	MS	1109155-10	ND	32.480	25.000	ug/L		130		70 - 130	
	MSD	1109155-10	ND	30.700	25.000	ug/L	5.6	123	20	70 - 130	
Toluene	MS	1109155-10	ND	28.550	25.000	ug/L		114		70 - 130	
	MSD	1109155-10	ND	25.960	25.000	ug/L	9.5	104	20	70 - 130	
Trichloroethene	MS	1109155-10	ND	27.580	25.000	ug/L		110		70 - 130	
	MSD	1109155-10	ND	25.130	25.000	ug/L	9.3	101	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1109155-10	ND	9.7400	10.000	ug/L		97.4		76 - 114	
	MSD	1109155-10	ND	9.9400	10.000	ug/L	2.0	99.4		76 - 114	
Toluene-d8 (Surrogate)	MS	1109155-10	ND	10.090	10.000	ug/L		101		88 - 110	
	MSD	1109155-10	ND	10.020	10.000	ug/L	0.7	100		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1109155-10	ND	10.060	10.000	ug/L		101		86 - 115	
	MSD	1109155-10	ND	10.260	10.000	ug/L	2.0	103		86 - 115	
QC Batch ID: BUF0921	Used client sample: N										
Benzene	MS	1109237-02	ND	25.370	25.000	ug/L		101		70 - 130	
	MSD	1109237-02	ND	25.890	25.000	ug/L	2.0	104	20	70 - 130	
Bromodichloromethane	MS	1109237-02	ND	26.750	25.000	ug/L		107		70 - 130	
	MSD	1109237-02	ND	27.140	25.000	ug/L	1.4	109	20	70 - 130	
Chlorobenzene	MS	1109237-02	ND	25.630	25.000	ug/L		103		70 - 130	
	MSD	1109237-02	ND	23.840	25.000	ug/L	7.2	95.4	20	70 - 130	
Chloroethane	MS	1109237-02	ND	22.860	25.000	ug/L		91.4		70 - 130	
	MSD	1109237-02	ND	23.280	25.000	ug/L	1.8	93.1	20	70 - 130	
1,4-Dichlorobenzene	MS	1109237-02	ND	26.120	25.000	ug/L		104		70 - 130	
	MSD	1109237-02	ND	24.130	25.000	ug/L	7.9	96.5	20	70 - 130	
1,1-Dichloroethane	MS	1109237-02	ND	25.080	25.000	ug/L		100		70 - 130	
	MSD	1109237-02	ND	25.590	25.000	ug/L	2.0	102	20	70 - 130	
1,1-Dichloroethene	MS	1109237-02	ND	28.730	25.000	ug/L		115		70 - 130	
	MSD	1109237-02	ND	29.590	25.000	ug/L	2.9	118	20	70 - 130	
Toluene	MS	1109237-02	ND	25.500	25.000	ug/L		102		70 - 130	
	MSD	1109237-02	ND	25.500	25.000	ug/L	0	102	20	70 - 130	
Trichloroethene	MS	1109237-02	0.85000	25.510	25.000	ug/L		98.6		70 - 130	
	MSD	1109237-02	0.85000	25.680	25.000	ug/L	0.7	99.3	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1109237-02	ND	9.8900	10.000	ug/L		98.9		76 - 114	
	MSD	1109237-02	ND	10.280	10.000	ug/L	3.9	103		76 - 114	
Toluene-d8 (Surrogate)	MS	1109237-02	ND	9.9900	10.000	ug/L		99.9		88 - 110	
	MSD	1109237-02	ND	10.100	10.000	ug/L	1.1	101		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1109237-02	ND	10.580	10.000	ug/L		106		86 - 115	
	MSD	1109237-02	ND	9.8700	10.000	ug/L	6.9	98.7		86 - 115	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0614						
Total Dissolved Solids @ 180 C	BUF0614-BLK1	ND	mg/L	6.7	6.7	
QC Batch ID: BUF0615						
Total Dissolved Solids @ 180 C	BUF0615-BLK1	ND	mg/L	6.7	6.7	
QC Batch ID: BUF0694						
Chloride	BUF0694-BLK1	0.15600	mg/L	0.50	0.050	J
Sulfate	BUF0694-BLK1	ND	mg/L	1.0	0.10	
QC Batch ID: BUF0695						
Chloride	BUF0695-BLK1	0.16300	mg/L	0.50	0.050	J
Sulfate	BUF0695-BLK1	ND	mg/L	1.0	0.10	
QC Batch ID: BUF0761						
Bicarbonate Alkalinity as CaCO3	BUF0761-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	BUF0761-BLK1	ND	mg/L	4.1	4.1	
QC Batch ID: BUF0762						
Bicarbonate Alkalinity as CaCO3	BUF0762-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	BUF0762-BLK1	ND	mg/L	4.1	4.1	
QC Batch ID: BUF0935						
Nitrate/Nitrite as N	BUF0935-BLK1	ND	mg/L	0.10	0.010	
QC Batch ID: BUF0936						
Nitrate/Nitrite as N	BUF0936-BLK1	ND	mg/L	0.10	0.010	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUF0614										
Total Dissolved Solids @ 180 C	BUF0614-BS1	LCS	560.00	586.00	mg/L	95.6		90 - 110		
QC Batch ID: BUF0615										
Total Dissolved Solids @ 180 C	BUF0615-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
QC Batch ID: BUF0694										
Chloride	BUF0694-BS1	LCS	101.03	100.00	mg/L	101		90 - 110		
Sulfate	BUF0694-BS1	LCS	100.63	100.00	mg/L	101		90 - 110		
QC Batch ID: BUF0695										
Chloride	BUF0695-BS1	LCS	100.17	100.00	mg/L	100		90 - 110		
Sulfate	BUF0695-BS1	LCS	99.074	100.00	mg/L	99.1		90 - 110		
QC Batch ID: BUF0935										
Nitrate/Nitrite as N	BUF0935-BS1	LCS	2.0379	2.0000	mg/L	102		90 - 110		
QC Batch ID: BUF0936										
Nitrate/Nitrite as N	BUF0936-BS1	LCS	2.0977	2.0000	mg/L	105		90 - 110		

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF0614	Used client sample: Y - Description: G-2, 06/06/2011 11:05										
Total Dissolved Solids @ 180 C	DUP	1109069-01	2840.0	2820.0		mg/L	0.7		10		
QC Batch ID: BUF0615	Used client sample: Y - Description: PL-5.1B, 06/08/2011 14:30										
Total Dissolved Solids @ 180 C	DUP	1109063-01	1500.0	1500.0		mg/L	0		10		
QC Batch ID: BUF0694	Used client sample: Y - Description: PL-5.1B, 06/08/2011 14:30										
Chloride	DUP	1109063-01	170.53	173.30		mg/L	1.6		10		
	MS	1109063-01	170.53	382.51	202.02	mg/L		105		80 - 120	
	MSD	1109063-01	170.53	388.11	202.02	mg/L	1.5	108	10	80 - 120	
Sulfate	DUP	1109063-01	404.50	406.64		mg/L	0.5		10		
	MS	1109063-01	404.50	608.74	202.02	mg/L		101		80 - 120	
	MSD	1109063-01	404.50	606.65	202.02	mg/L	0.3	100	10	80 - 120	
QC Batch ID: BUF0695	Used client sample: Y - Description: G-2, 06/06/2011 11:05										
Chloride	DUP	1109069-01	558.40	553.06		mg/L	1.0		10		
	MS	1109069-01	558.40	1092.6	505.05	mg/L		106		80 - 120	
	MSD	1109069-01	558.40	1094.5	505.05	mg/L	0.2	106	10	80 - 120	
Sulfate	DUP	1109069-01	711.98	714.62		mg/L	0.4		10		
	MS	1109069-01	711.98	1234.5	505.05	mg/L		103		80 - 120	
	MSD	1109069-01	711.98	1247.4	505.05	mg/L	1.0	106	10	80 - 120	
QC Batch ID: BUF0761	Used client sample: Y - Description: G-11, 06/08/2011 11:50										
Bicarbonate Alkalinity as CaCO3	DUP	1109069-09	517.55	519.99		mg/L	0.5		10		
Carbonate Alkalinity as CaCO3	DUP	1109069-09	ND	ND		mg/L			10		
QC Batch ID: BUF0762	Used client sample: N										
Bicarbonate Alkalinity as CaCO3	DUP	1109166-02	296.35	298.18		mg/L	0.6		10		
Carbonate Alkalinity as CaCO3	DUP	1109166-02	ND	ND		mg/L			10		
QC Batch ID: BUF0935	Used client sample: Y - Description: G-2, 06/06/2011 11:05										
Nitrate/Nitrite as N	DUP	1109069-01	ND	ND		mg/L			10		
	MS	1109069-01	ND	2.1797	2.1053	mg/L		104		90 - 110	
	MSD	1109069-01	ND	2.1393	2.1053	mg/L	1.9	102	10	90 - 110	
QC Batch ID: BUF0936	Used client sample: Y - Description: P-1, 06/08/2011 15:15										
Nitrate/Nitrite as N	DUP	1109069-14	0.86450	0.88880		mg/L	2.8		10		
	MS	1109069-14	0.86450	3.0075	2.1053	mg/L		102		90 - 110	
	MSD	1109069-14	0.86450	3.1185	2.1053	mg/L	3.6	107	10	90 - 110	

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 07/18/2011 12:56 Project: Hay Road LF Project Number: 053-7444-11 Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0649						
Dissolved Arsenic	BUF0649-BLK1	ND	mg/L	0.050	0.0075	
Dissolved Barium	BUF0649-BLK1	ND	mg/L	0.010	0.0012	
Dissolved Chromium	BUF0649-BLK1	0.0013642	mg/L	0.010	0.0010	J
Dissolved Lead	BUF0649-BLK1	ND	mg/L	0.050	0.0050	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUF0649										
Dissolved Arsenic	BUF0649-BS1	LCS	0.18549	0.20000	mg/L	92.7		85 - 115		
Dissolved Barium	BUF0649-BS1	LCS	0.40303	0.40000	mg/L	101		85 - 115		
Dissolved Chromium	BUF0649-BS1	LCS	0.20619	0.20000	mg/L	103		85 - 115		
Dissolved Lead	BUF0649-BS1	LCS	0.42187	0.40000	mg/L	105		85 - 115		

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/18/2011 12:56
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF0649	Used client sample: Y - Description: PL-9.1A, 06/08/2011 14:45										
Dissolved Arsenic	DUP	1109063-02	ND	ND		mg/L			20		
	MS	1109063-02	ND	0.20461	0.20408	mg/L		100		75 - 125	
	MSD	1109063-02	ND	0.19518	0.20408	mg/L	4.7	95.6	20	75 - 125	
Dissolved Barium	DUP	1109063-02	0.11497	0.11543		mg/L	0.4		20		
	MS	1109063-02	0.11497	0.52843	0.40816	mg/L		101		75 - 125	
	MSD	1109063-02	0.11497	0.50399	0.40816	mg/L	4.7	95.3	20	75 - 125	
Dissolved Chromium	DUP	1109063-02	0.0046638	0.0044282		mg/L	5.2		20		J
	MS	1109063-02	0.0046638	0.21944	0.20408	mg/L		105		75 - 125	
	MSD	1109063-02	0.0046638	0.20741	0.20408	mg/L	5.6	99.3	20	75 - 125	
Dissolved Lead	DUP	1109063-02	ND	ND		mg/L			20		
	MS	1109063-02	ND	0.43149	0.40816	mg/L		106		75 - 125	
	MSD	1109063-02	ND	0.41047	0.40816	mg/L	5.0	101	20	75 - 125	

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 07/18/2011 12:56 Project: Hay Road LF Project Number: 053-7444-11 Project Manager: Kris Johnson

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.
M03	Analyte detected in the Method Blank at a level between the PQL and the MDL.

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Date of Report: 06/24/2011

Kris Johnson

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Project:	Hay Road LF
BC Work Order:	1109302
Invoice ID:	B102820

Enclosed are the results of analyses for samples received by the laboratory on 6/13/2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Linda Phoudamneun

Contact Person: Linda Phoudamneun
Client Service Rep

Authorized Signature

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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1109302-01 Hay Road LF, SW-3, SW-3, 6/13/2011 1:30:00PM						
Chloride	430	1.0	0.10	mg/L	EPA-300.0	A01
Nitrate/Nitrite as N	0.24	0.10	0.010	mg/L	EPA-353.2	
Sulfate	180	2.0	0.20	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	1600	100	100	mg/L	SM-2540C	
Total Suspended Solids (Glass Fiber)	30	3.3	3.3	mg/L	SM-2540D	
Total Kjeldahl Nitrogen	1.4	0.20	0.056	mg/L	EPA-351.2	
Ammonia as N	0.033	0.050	0.025	mg/L	EPA-350.1	J
Nitrite as N	0.0095	0.050	0.0081	mg/L	EPA-353.2	J
Total Arsenic	0.011	0.050	0.0098	mg/L	EPA-6010B	J
Total Chromium	0.0018	0.010	0.0010	mg/L	EPA-6010B	J
Total Lead	0.0072	0.050	0.0050	mg/L	EPA-6010B	J
1109302-02 Hay Road LF, SW-4, SW-4, 6/13/2011 1:50:00PM						
Chloride	490	1.0	0.10	mg/L	EPA-300.0	A01
Nitrate/Nitrite as N	0.063	0.10	0.010	mg/L	EPA-353.2	J
Sulfate	200	2.0	0.20	mg/L	EPA-300.0	A01
Total Dissolved Solids @ 180 C	1400	100	100	mg/L	SM-2540C	
Total Suspended Solids (Glass Fiber)	99	3.3	3.3	mg/L	SM-2540D	
Total Kjeldahl Nitrogen	2.3	0.20	0.056	mg/L	EPA-351.2	
Ammonia as N	0.18	0.050	0.025	mg/L	EPA-350.1	
Nitrite as N	0.036	0.050	0.0081	mg/L	EPA-353.2	J
Total Arsenic	0.012	0.050	0.0098	mg/L	EPA-6010B	J
Total Chromium	0.015	0.010	0.0010	mg/L	EPA-6010B	
Total Lead	0.010	0.050	0.0050	mg/L	EPA-6010B	J
1109302-03 Hay Road LF, SW-5, SW-5, 6/13/2011 1:15:00PM						
Chloride	130	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	0.012	0.10	0.010	mg/L	EPA-353.2	J
Sulfate	23	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	560	33	33	mg/L	SM-2540C	
Total Suspended Solids (Glass Fiber)	6.7	3.3	3.3	mg/L	SM-2540D	
Total Kjeldahl Nitrogen	0.47	0.20	0.056	mg/L	EPA-351.2	
Total Chromium	0.0032	0.010	0.0010	mg/L	EPA-6010B	J
Total Lead	0.0061	0.050	0.0050	mg/L	EPA-6010B	J
1109302-04 Hay Road LF, SW-7, SW-7, 6/13/2011 2:10:00PM						
Chloride	140	0.50	0.050	mg/L	EPA-300.0	
Nitrate/Nitrite as N	0.011	0.10	0.010	mg/L	EPA-353.2	J
Sulfate	33	1.0	0.10	mg/L	EPA-300.0	
Total Dissolved Solids @ 180 C	640	33	33	mg/L	SM-2540C	

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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1109302-04 Hay Road LF, SW-7, SW-7, 6/13/2011 2:10:00PM						
Total Suspended Solids (Glass Fiber)	29	3.3	3.3	mg/L	SM-2540D	
Total Kjeldahl Nitrogen	1.0	0.20	0.056	mg/L	EPA-351.2	
Ammonia as N	0.026	0.050	0.025	mg/L	EPA-350.1	J
Nitrite as N	0.0090	0.050	0.0081	mg/L	EPA-353.2	J
Total Chromium	0.0016	0.010	0.0010	mg/L	EPA-6010B	J

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Golder Associates 11-09302

Golder Associates
CHAIN OF CUSTODY

SW

Page 1 of 1
Quotation No.

PROJECT NO.: 053-7444-11
SITE NAME: Recology - Hay Rd.
SAMPLER(S): (printed) (signature)
CONTRACT LABORATORY: BC LABS
TURN-AROUND TIME: Standard

EDD required? [X] Yes [ ] No
EDF required? [X] Yes [ ] No

ANALYSES: BOD 5260 + Short List, TDS, Cl, SO4, TSS, NO3-N, Nitrate-N, TKN, Ammonia-N, As, Cr, Pb

Sample I.D.	Lab I.D.	Collection Date	Collection Time	Matrix	Depth	Container Info	BOD 5260 + Short List	TDS, Cl, SO4	TSS, NO3-N	Nitrate-N, TKN, Ammonia-N	As, Cr, Pb	Cont. Qty.	Remarks
Type/Vol.							VOA 40ml	PE	PE 1600	PE 1600			
Filter							N	N	N	N			
Preserv.							HCl	None	H_2SO_4	HNO_3			
Sw-3	-1	6/13/11	1330	W			3	1	1	1		6	Report trace
Sw-4	-2	↓	1350	↓			3	1	1	1		6	for 8260
Sw-5	-3		1315				3	1	1	1		6	
Sw-7	-4		1410				3	1	1	1		6	

CHK BY MM
DISTRIBUTION JEE LAB WKT SUB-OUT

SHORT HOLDING TIME
Cr^{+6} NO_2 NO_3 OP SS
DO Cl_2 BOD MBAS COT

Relinquished by: (signature)	Received by: (signature)	Date/Time:
	Ross Dickey	6-13-11 1425
Relinquished by: (signature) Ross Dickey 6-13-11	Received by: (signature) R. Chung	6-13-11 1815
Relinquished by: (signature) R. Chung 6-13-11 2115	Received by: (signature) M Cyna M	6-13-11 2115

SEND RESULTS TO:
Attn: Kris Johnson
Golder Associates Inc.
425 Lakeside Drive
Sunnyvale, CA 94085
Phone (408) 220-9223
Fax (408) 220-9224

white: lab copy yellow: project file

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4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com

Chain of Custody and Cooler Receipt Form for 1109302 Page 2 of 2

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 Of 1

Submission #: 11-09302

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.98 Container: Pipe Thermometer ID: 1103
Temperature: A 2.3 °C / C 2.1 °C

Date/Time 10-13-11 2118
Analyst Init JKW

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED	B	B	B	B						
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS	C	C	C	C						
PT CYANIDE										
PT NITROGEN FORMS	D	D	D	D						
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A·3	A·3	A·3	A·3						
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:
Sample Numbering Completed By: JKW Date/Time: 10/13/11 2143
A = Actual / C = Corrected

(H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD)

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1109302-01	**COC Number:**	---	**Receive Date:**	06/13/2011 21:15
	Project Number:	Hay Road LF	**Sampling Date:**	06/13/2011 13:30
	Sampling Location:	SW-3	**Sample Depth:**	---
	Sampling Point:	SW-3	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): SW-3	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1109302-02	**COC Number:**	---	**Receive Date:**	06/13/2011 21:15
	Project Number:	Hay Road LF	**Sampling Date:**	06/13/2011 13:50
	Sampling Location:	SW-4	**Sample Depth:**	---
	Sampling Point:	SW-4	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): SW-4	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1109302-03	**COC Number:**	---	**Receive Date:**	06/13/2011 21:15
	Project Number:	Hay Road LF	**Sampling Date:**	06/13/2011 13:15
	Sampling Location:	SW-5	**Sample Depth:**	---
	Sampling Point:	SW-5	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): SW-5	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1109302-04	**COC Number:**	---	**Receive Date:**	06/13/2011 21:15
	Project Number:	Hay Road LF	**Sampling Date:**	06/13/2011 14:10
	Sampling Location:	SW-7	**Sample Depth:**	---
	Sampling Point:	SW-7	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): SW-7	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109302-01 | **Client Sample Name:** Hay Road LF, SW-3, SW-3, 6/13/2011 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109302-01 | **Client Sample Name:** Hay Road LF, SW-3, SW-3, 6/13/2011 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109302-01 | **Client Sample Name:** Hay Road LF, SW-3, SW-3, 6/13/2011 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	100	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	98.0	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	98.5	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/20/11	06/20/11 13:52	MGC	MS-V5	1	BUF1198

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109302-01 | **Client Sample Name:** Hay Road LF, SW-3, SW-3, 6/13/2011 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	**430**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**	**A01**	1
Nitrate/Nitrite as N	**0.24**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**		2
Sulfate	**180**	**mg/L**	**2.0**	**0.20**	**EPA-300.0**	**ND**	**A01**	1
Total Dissolved Solids @ 180 C	**1600**	**mg/L**	**100**	**100**	**SM-2540C**	**ND**		3
Total Suspended Solids (Glass Fiber)	**30**	**mg/L**	**3.3**	**3.3**	**SM-2540D**	**ND**		4
Total Kjeldahl Nitrogen	**1.4**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		5
Ammonia as N	**0.033**	**mg/L**	**0.050**	**0.025**	**EPA-350.1**	**ND**	**J**	6
Nitrite as N	**0.0095**	**mg/L**	**0.050**	**0.0081**	**EPA-353.2**	**ND**	**J**	7

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	06/14/11	06/14/11 05:43	LD1	IC5	2	BUF0860
2	EPA-353.2	06/15/11	06/15/11 12:08	SDU	SC-1	1	BUF0936
3	SM-2540C	06/15/11	06/15/11 12:00	JES2	MANUAL	10	BUF0931
4	SM-2540D	06/14/11	06/14/11 00:30	MRM	MANUAL	6.667	BUF0787
5	EPA-351.2	06/17/11	06/23/11 16:02	SDU	SC-1	1	BUF1137
6	EPA-350.1	06/17/11	06/17/11 12:43	SDU	SC-1	1	BUF1117
7	EPA-353.2	06/14/11	06/14/11 08:16	TDC	KONE-1	1	BUF0803

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109302-01 | **Client Sample Name:** Hay Road LF, SW-3, SW-3, 6/13/2011 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Arsenic	**0.011**	**mg/L**	**0.050**	**0.0098**	**EPA-6010B**	**ND**	**J**	1
Total Chromium	**0.0018**	**mg/L**	**0.010**	**0.0010**	**EPA-6010B**	**ND**	**J**	1
Total Lead	**0.0072**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	**ND**	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/17/11	06/20/11 09:55	ARD	PE-OP1	1	BUF1129

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109302-02 | **Client Sample Name:** Hay Road LF, SW-4, SW-4, 6/13/2011 1:50:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109302-02 | **Client Sample Name:** Hay Road LF, SW-4, SW-4, 6/13/2011 1:50:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109302-02 | **Client Sample Name:** Hay Road LF, SW-4, SW-4, 6/13/2011 1:50:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	106	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	97.4	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	98.9	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/20/11	06/20/11 14:19	MGC	MS-V5	1	BUF1198

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109302-02 | **Client Sample Name:** Hay Road LF, SW-4, SW-4, 6/13/2011 1:50:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	**490**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**	**A01**	1
Nitrate/Nitrite as N	**0.063**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**	**J**	2
Sulfate	**200**	**mg/L**	**2.0**	**0.20**	**EPA-300.0**	**ND**	**A01**	1
Total Dissolved Solids @ 180 C	**1400**	**mg/L**	**100**	**100**	**SM-2540C**	**ND**		3
Total Suspended Solids (Glass Fiber)	**99**	**mg/L**	**3.3**	**3.3**	**SM-2540D**	**ND**		4
Total Kjeldahl Nitrogen	**2.3**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		5
Ammonia as N	**0.18**	**mg/L**	**0.050**	**0.025**	**EPA-350.1**	**ND**		6
Nitrite as N	**0.036**	**mg/L**	**0.050**	**0.0081**	**EPA-353.2**	**ND**	**J**	7

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	06/14/11	06/14/11 07:10	LD1	IC5	2	BUF0860
2	EPA-353.2	06/15/11	06/15/11 12:09	SDU	SC-1	1	BUF0936
3	SM-2540C	06/15/11	06/15/11 12:00	JES2	MANUAL	10	BUF0931
4	SM-2540D	06/14/11	06/14/11 00:30	MRM	MANUAL	6.667	BUF0787
5	EPA-351.2	06/17/11	06/23/11 16:05	SDU	SC-1	1	BUF1137
6	EPA-350.1	06/17/11	06/17/11 12:43	SDU	SC-1	1	BUF1117
7	EPA-353.2	06/14/11	06/14/11 08:16	TDC	KONE-1	1	BUF0803

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109302-02 | **Client Sample Name:** Hay Road LF, SW-4, SW-4, 6/13/2011 1:50:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Arsenic	**0.012**	**mg/L**	**0.050**	**0.0098**	**EPA-6010B**	**ND**	**J**	1
Total Chromium	**0.015**	**mg/L**	**0.010**	**0.0010**	**EPA-6010B**	**ND**		1
Total Lead	**0.010**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	**ND**	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/17/11	06/20/11 10:07	ARD	PE-OP1	1	BUF1129

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109302-03 | **Client Sample Name:** Hay Road LF, SW-5, SW-5, 6/13/2011 1:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109302-03 | **Client Sample Name:** Hay Road LF, SW-5, SW-5, 6/13/2011 1:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109302-03 | **Client Sample Name:** Hay Road LF, SW-5, SW-5, 6/13/2011 1:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	107	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	98.3	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	101	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/20/11	06/20/11 14:47	MGC	MS-V5	1	BUF1198

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109302-03 | **Client Sample Name:** Hay Road LF, SW-5, SW-5, 6/13/2011 1:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	**130**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**ND**		1
Nitrate/Nitrite as N	**0.012**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**	**J**	2
Sulfate	**23**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		1
Total Dissolved Solids @ 180 C	**560**	**mg/L**	**33**	**33**	**SM-2540C**	**ND**		3
Total Suspended Solids (Glass Fiber)	**6.7**	**mg/L**	**3.3**	**3.3**	**SM-2540D**	**ND**		4
Total Kjeldahl Nitrogen	**0.47**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		5
Ammonia as N	ND	mg/L	0.050	0.025	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.0081	EPA-353.2	ND		7

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	06/14/11	06/14/11 07:24	LD1	IC5	1	BUF0860
2	EPA-353.2	06/15/11	06/15/11 12:10	SDU	SC-1	1	BUF0936
3	SM-2540C	06/15/11	06/15/11 12:00	JES2	MANUAL	3.333	BUF0931
4	SM-2540D	06/14/11	06/14/11 00:30	MRM	MANUAL	6.667	BUF0787
5	EPA-351.2	06/17/11	06/23/11 16:07	SDU	SC-1	1	BUF1137
6	EPA-350.1	06/17/11	06/17/11 12:45	SDU	SC-1	1	BUF1117
7	EPA-353.2	06/14/11	06/14/11 08:18	TDC	KONE-1	1	BUF0803

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109302-03 | **Client Sample Name:** Hay Road LF, SW-5, SW-5, 6/13/2011 1:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Arsenic	ND	mg/L	0.050	0.0098	EPA-6010B	ND		1
Total Chromium	**0.0032**	**mg/L**	**0.010**	**0.0010**	**EPA-6010B**	**ND**	**J**	1
Total Lead	**0.0061**	**mg/L**	**0.050**	**0.0050**	**EPA-6010B**	**ND**	**J**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/17/11	06/20/11 10:08	ARD	PE-OP1	1	BUF1129

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109302-04 | **Client Sample Name:** Hay Road LF, SW-7, SW-7, 6/13/2011 2:10:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	1.0	0.083	EPA-8260	ND		1
Bromobenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Bromochloromethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
Bromodichloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Bromoform	ND	ug/L	1.0	0.27	EPA-8260	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-8260	ND		1
n-Butylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
sec-Butylbenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
tert-Butylbenzene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Carbon tetrachloride	ND	ug/L	1.0	0.18	EPA-8260	ND		1
Chlorobenzene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
Chloroethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Chloroform	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Chloromethane	ND	ug/L	1.0	0.14	EPA-8260	ND		1
Dibromochloromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-8260	ND		1
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Dibromomethane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2-Dichlorobenzene	ND	ug/L	1.0	0.072	EPA-8260	ND		1
1,3-Dichlorobenzene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,4-Dichlorobenzene	ND	ug/L	1.0	0.062	EPA-8260	ND		1
Dichlorodifluoromethane	ND	ug/L	1.0	0.099	EPA-8260	ND		1
1,1-Dichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
1,1-Dichloroethene	ND	ug/L	1.0	0.18	EPA-8260	ND		1
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.15	EPA-8260	ND		1
1,2-Dichloropropane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.14	EPA-8260	ND		1
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.079	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	1.0	0.098	EPA-8260	ND		1
Hexachlorobutadiene	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Methylene chloride	ND	ug/L	1.0	0.48	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109302-04 | **Client Sample Name:** Hay Road LF, SW-7, SW-7, 6/13/2011 2:10:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methyl t-butyl ether	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Naphthalene	ND	ug/L	1.0	0.36	EPA-8260	ND		1
n-Propylbenzene	ND	ug/L	1.0	0.11	EPA-8260	ND		1
Styrene	ND	ug/L	1.0	0.068	EPA-8260	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.18	EPA-8260	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.17	EPA-8260	ND		1
Tetrachloroethene	ND	ug/L	1.0	0.13	EPA-8260	ND		1
Toluene	ND	ug/L	1.0	0.093	EPA-8260	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.19	EPA-8260	ND		1
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	EPA-8260	ND		1
1,1,2-Trichloroethane	ND	ug/L	1.0	0.16	EPA-8260	ND		1
Trichloroethene	ND	ug/L	1.0	0.085	EPA-8260	ND		1
Trichlorofluoromethane	ND	ug/L	1.0	0.13	EPA-8260	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-8260	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Vinyl chloride	ND	ug/L	1.0	0.12	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260	ND		1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-8260	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260	ND		1
1,4-Dioxane	ND	ug/L	100	42	EPA-8260	ND		1
Ethanol	ND	ug/L	250	50	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-8260	ND		1
2-Butanone	ND	ug/L	10	2.5	EPA-8260	ND		1
Iodomethane	ND	ug/L	2.0	0.47	EPA-8260	ND		1
4-Methyl-2-pentanone	ND	ug/L	10	2.1	EPA-8260	ND		1
Vinyl acetate	ND	ug/L	10	1.8	EPA-8260	ND		1

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1109302-04 | **Client Sample Name:** Hay Road LF, SW-7, SW-7, 6/13/2011 2:10:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,2-Dichloroethane-d4 (Surrogate)	108	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	97.5	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	98.7	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/20/11	06/20/11 15:14	MGC	MS-V5	1	BUF1198

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

BCL Sample ID: 1109302-04 | **Client Sample Name:** Hay Road LF, SW-7, SW-7, 6/13/2011 2:10:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	**140**	**mg/L**	**0.50**	**0.050**	**EPA-300.0**	**ND**		1
Nitrate/Nitrite as N	**0.011**	**mg/L**	**0.10**	**0.010**	**EPA-353.2**	**ND**	**J**	2
Sulfate	**33**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	**ND**		1
Total Dissolved Solids @ 180 C	**640**	**mg/L**	**33**	**33**	**SM-2540C**	**ND**		3
Total Suspended Solids (Glass Fiber)	**29**	**mg/L**	**3.3**	**3.3**	**SM-2540D**	**ND**		4
Total Kjeldahl Nitrogen	**1.0**	**mg/L**	**0.20**	**0.056**	**EPA-351.2**	**ND**		5
Ammonia as N	**0.026**	**mg/L**	**0.050**	**0.025**	**EPA-350.1**	**ND**	**J**	6
Nitrite as N	**0.0090**	**mg/L**	**0.050**	**0.0081**	**EPA-353.2**	**ND**	**J**	7

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	06/14/11	06/14/11 07:38	LD1	IC5	1	BUF0860
2	EPA-353.2	06/15/11	06/15/11 15:37	SDU	SC-1	1	BUF0938
3	SM-2540C	06/15/11	06/15/11 12:00	JES2	MANUAL	3.333	BUF0931
4	SM-2540D	06/14/11	06/14/11 00:30	MRM	MANUAL	6.667	BUF0787
5	EPA-351.2	06/17/11	06/23/11 16:09	SDU	SC-1	1	BUF1137
6	EPA-350.1	06/17/11	06/17/11 12:45	SDU	SC-1	1	BUF1117
7	EPA-353.2	06/14/11	06/14/11 08:18	TDC	KONE-1	1	BUF0803

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

BCL Sample ID: 1109302-04 | **Client Sample Name:** Hay Road LF, SW-7, SW-7, 6/13/2011 2:10:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Arsenic	ND	mg/L	0.050	0.0098	EPA-6010B	ND		1
Total Chromium	**0.0016**	**mg/L**	**0.010**	**0.0010**	**EPA-6010B**	**ND**	**J**	1
Total Lead	ND	mg/L	0.050	0.0050	EPA-6010B	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	06/17/11	06/20/11 10:16	ARD	PE-OP1	1	BUF1129

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF1198						
Benzene	BUF1198-BLK1	ND	ug/L	1.0	0.083	
Bromobenzene	BUF1198-BLK1	ND	ug/L	1.0	0.13	
Bromochloromethane	BUF1198-BLK1	ND	ug/L	1.0	0.24	
Bromodichloromethane	BUF1198-BLK1	ND	ug/L	1.0	0.14	
Bromoform	BUF1198-BLK1	ND	ug/L	1.0	0.27	
Bromomethane	BUF1198-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BUF1198-BLK1	ND	ug/L	1.0	0.11	
sec-Butylbenzene	BUF1198-BLK1	ND	ug/L	1.0	0.15	
tert-Butylbenzene	BUF1198-BLK1	ND	ug/L	1.0	0.13	
Carbon tetrachloride	BUF1198-BLK1	ND	ug/L	1.0	0.18	
Chlorobenzene	BUF1198-BLK1	ND	ug/L	1.0	0.093	
Chloroethane	BUF1198-BLK1	ND	ug/L	1.0	0.14	
Chloroform	BUF1198-BLK1	ND	ug/L	1.0	0.12	
Chloromethane	BUF1198-BLK1	ND	ug/L	1.0	0.14	
Dibromochloromethane	BUF1198-BLK1	ND	ug/L	1.0	0.13	
1,2-Dibromo-3-chloropropane	BUF1198-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane (EDB)	BUF1198-BLK1	ND	ug/L	1.0	0.16	
Dibromomethane	BUF1198-BLK1	ND	ug/L	1.0	0.24	
1,2-Dichlorobenzene	BUF1198-BLK1	ND	ug/L	1.0	0.072	
1,3-Dichlorobenzene	BUF1198-BLK1	ND	ug/L	1.0	0.15	
1,4-Dichlorobenzene	BUF1198-BLK1	ND	ug/L	1.0	0.062	
Dichlorodifluoromethane	BUF1198-BLK1	ND	ug/L	1.0	0.099	
1,1-Dichloroethane	BUF1198-BLK1	ND	ug/L	1.0	0.11	
1,2-Dichloroethane	BUF1198-BLK1	ND	ug/L	1.0	0.17	
1,1-Dichloroethene	BUF1198-BLK1	ND	ug/L	1.0	0.18	
cis-1,2-Dichloroethene	BUF1198-BLK1	ND	ug/L	1.0	0.085	
trans-1,2-Dichloroethene	BUF1198-BLK1	ND	ug/L	1.0	0.15	
1,2-Dichloropropane	BUF1198-BLK1	ND	ug/L	1.0	0.13	
cis-1,3-Dichloropropene	BUF1198-BLK1	ND	ug/L	1.0	0.14	
trans-1,3-Dichloropropene	BUF1198-BLK1	ND	ug/L	1.0	0.079	
Ethylbenzene	BUF1198-BLK1	ND	ug/L	1.0	0.098	
Hexachlorobutadiene	BUF1198-BLK1	ND	ug/L	1.0	0.17	
Methylene chloride	BUF1198-BLK1	ND	ug/L	1.0	0.48	
Methyl t-butyl ether	BUF1198-BLK1	ND	ug/L	1.0	0.11	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF1198						
Naphthalene	BUF1198-BLK1	ND	ug/L	1.0	0.36	
n-Propylbenzene	BUF1198-BLK1	ND	ug/L	1.0	0.11	
Styrene	BUF1198-BLK1	ND	ug/L	1.0	0.068	
1,1,1,2-Tetrachloroethane	BUF1198-BLK1	ND	ug/L	1.0	0.18	
1,1,2,2-Tetrachloroethane	BUF1198-BLK1	ND	ug/L	1.0	0.17	
Tetrachloroethene	BUF1198-BLK1	ND	ug/L	1.0	0.13	
Toluene	BUF1198-BLK1	ND	ug/L	1.0	0.093	
1,2,4-Trichlorobenzene	BUF1198-BLK1	ND	ug/L	1.0	0.19	
1,1,1-Trichloroethane	BUF1198-BLK1	ND	ug/L	1.0	0.11	
1,1,2-Trichloroethane	BUF1198-BLK1	ND	ug/L	1.0	0.16	
Trichloroethene	BUF1198-BLK1	ND	ug/L	1.0	0.085	
Trichlorofluoromethane	BUF1198-BLK1	ND	ug/L	1.0	0.13	
1,2,3-Trichloropropane	BUF1198-BLK1	ND	ug/L	1.0	0.24	
1,2,4-Trimethylbenzene	BUF1198-BLK1	ND	ug/L	1.0	0.12	
1,3,5-Trimethylbenzene	BUF1198-BLK1	ND	ug/L	1.0	0.12	
Vinyl chloride	BUF1198-BLK1	ND	ug/L	1.0	0.12	
Total Xylenes	BUF1198-BLK1	ND	ug/L	1.0	0.36	
Acetone	BUF1198-BLK1	ND	ug/L	10	4.6	
Acrylonitrile	BUF1198-BLK1	ND	ug/L	5.0	1.2	
t-Amyl Methyl ether	BUF1198-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BUF1198-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BUF1198-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BUF1198-BLK1	ND	ug/L	5.0	1.4	
Diisopropyl ether	BUF1198-BLK1	ND	ug/L	0.50	0.23	
1,4-Dioxane	BUF1198-BLK1	ND	ug/L	100	42	
Ethanol	BUF1198-BLK1	ND	ug/L	250	50	
Ethyl t-butyl ether	BUF1198-BLK1	ND	ug/L	0.50	0.18	
2-Hexanone	BUF1198-BLK1	ND	ug/L	10	3.4	
2-Butanone	BUF1198-BLK1	ND	ug/L	10	2.5	
Iodomethane	BUF1198-BLK1	ND	ug/L	2.0	0.47	
4-Methyl-2-pentanone	BUF1198-BLK1	ND	ug/L	10	2.1	
Vinyl acetate	BUF1198-BLK1	ND	ug/L	10	1.8	
1,2-Dichloroethane-d4 (Surrogate)	BUF1198-BLK1	110	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BUF1198-BLK1	98.2	%	88 - 110 (LCL - UCL)		

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 06/24/2011 14:16 Project: Hay Road LF Project Number: 053-7444-11 Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF1198						
4-Bromofluorobenzene (Surrogate)	BUF1198-BLK1	100	%	86 - 115 (LCL - UCL)		

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUF1198										
Benzene	BUF1198-BS1	LCS	24.510	25.000	ug/L	98.0		70 - 130		
Bromodichloromethane	BUF1198-BS1	LCS	26.750	25.000	ug/L	107		70 - 130		
Chlorobenzene	BUF1198-BS1	LCS	25.360	25.000	ug/L	101		70 - 130		
Chloroethane	BUF1198-BS1	LCS	22.050	25.000	ug/L	88.2		70 - 130		
1,4-Dichlorobenzene	BUF1198-BS1	LCS	26.200	25.000	ug/L	105		70 - 130		
1,1-Dichloroethane	BUF1198-BS1	LCS	24.840	25.000	ug/L	99.4		70 - 130		
1,1-Dichloroethene	BUF1198-BS1	LCS	29.020	25.000	ug/L	116		70 - 130		
Toluene	BUF1198-BS1	LCS	24.730	25.000	ug/L	98.9		70 - 130		
Trichloroethene	BUF1198-BS1	LCS	25.780	25.000	ug/L	103		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BUF1198-BS1	LCS	10.590	10.000	ug/L	106		76 - 114		
Toluene-d8 (Surrogate)	BUF1198-BS1	LCS	9.9200	10.000	ug/L	99.2		88 - 110		
4-Bromofluorobenzene (Surrogate)	BUF1198-BS1	LCS	10.530	10.000	ug/L	105		86 - 115		

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF1198	Used client sample: N										
Benzene	MS	1109337-03	ND	26.090	25.000	ug/L		104		70 - 130	
	MSD	1109337-03	ND	24.700	25.000	ug/L	5.5	98.8	20	70 - 130	
Bromodichloromethane	MS	1109337-03	ND	27.130	25.000	ug/L		109		70 - 130	
	MSD	1109337-03	ND	27.220	25.000	ug/L	0.3	109	20	70 - 130	
Chlorobenzene	MS	1109337-03	ND	26.760	25.000	ug/L		107		70 - 130	
	MSD	1109337-03	ND	24.400	25.000	ug/L	9.2	97.6	20	70 - 130	
Chloroethane	MS	1109337-03	ND	22.890	25.000	ug/L		91.6		70 - 130	
	MSD	1109337-03	ND	22.070	25.000	ug/L	3.6	88.3	20	70 - 130	
1,4-Dichlorobenzene	MS	1109337-03	ND	27.070	25.000	ug/L		108		70 - 130	
	MSD	1109337-03	ND	25.060	25.000	ug/L	7.7	100	20	70 - 130	
1,1-Dichloroethane	MS	1109337-03	ND	26.210	25.000	ug/L		105		70 - 130	
	MSD	1109337-03	ND	25.170	25.000	ug/L	4.0	101	20	70 - 130	
1,1-Dichloroethene	MS	1109337-03	ND	31.070	25.000	ug/L		124		70 - 130	
	MSD	1109337-03	ND	29.430	25.000	ug/L	5.4	118	20	70 - 130	
Toluene	MS	1109337-03	ND	26.210	25.000	ug/L		105		70 - 130	
	MSD	1109337-03	ND	25.440	25.000	ug/L	3.0	102	20	70 - 130	
Trichloroethene	MS	1109337-03	ND	26.470	25.000	ug/L		106		70 - 130	
	MSD	1109337-03	ND	25.690	25.000	ug/L	3.0	103	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1109337-03	ND	10.590	10.000	ug/L		106		76 - 114	
	MSD	1109337-03	ND	10.330	10.000	ug/L	2.5	103		76 - 114	
Toluene-d8 (Surrogate)	MS	1109337-03	ND	9.8400	10.000	ug/L		98.4		88 - 110	
	MSD	1109337-03	ND	9.9600	10.000	ug/L	1.2	99.6		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1109337-03	ND	10.520	10.000	ug/L		105		86 - 115	
	MSD	1109337-03	ND	9.8300	10.000	ug/L	6.8	98.3		86 - 115	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF0787						
Total Suspended Solids (Glass Fiber)	BUF0787-BLK1	ND	mg/L	0.50	0.50	
QC Batch ID: BUF0803						
Nitrite as N	BUF0803-BLK1	ND	mg/L	0.050	0.0081	
QC Batch ID: BUF0860						
Chloride	BUF0860-BLK1	ND	mg/L	0.50	0.050	
Sulfate	BUF0860-BLK1	ND	mg/L	1.0	0.10	
QC Batch ID: BUF0931						
Total Dissolved Solids @ 180 C	BUF0931-BLK1	ND	mg/L	6.7	6.7	
QC Batch ID: BUF0936						
Nitrate/Nitrite as N	BUF0936-BLK1	ND	mg/L	0.10	0.010	
QC Batch ID: BUF0938						
Nitrate/Nitrite as N	BUF0938-BLK1	ND	mg/L	0.10	0.010	
QC Batch ID: BUF1117						
Ammonia as N	BUF1117-BLK1	ND	mg/L	0.050	0.025	
QC Batch ID: BUF1137						
Total Kjeldahl Nitrogen	BUF1137-BLK1	ND	mg/L	0.20	0.056	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUF0803										
Nitrite as N	BUF0803-BS1	LCS	0.51973	0.50000	mg/L	104		90 - 110		
QC Batch ID: BUF0860										
Chloride	BUF0860-BS1	LCS	99.104	100.00	mg/L	99.1		90 - 110		
Sulfate	BUF0860-BS1	LCS	97.141	100.00	mg/L	97.1		90 - 110		
QC Batch ID: BUF0931										
Total Dissolved Solids @ 180 C	BUF0931-BS1	LCS	560.00	586.00	mg/L	95.6		90 - 110		
QC Batch ID: BUF0936										
Nitrate/Nitrite as N	BUF0936-BS1	LCS	2.0977	2.0000	mg/L	105		90 - 110		
QC Batch ID: BUF0938										
Nitrate/Nitrite as N	BUF0938-BS1	LCS	2.1367	2.0000	mg/L	107		90 - 110		
QC Batch ID: BUF1117										
Ammonia as N	BUF1117-BS1	LCS	0.97550	1.0000	mg/L	97.6		90 - 110		
QC Batch ID: BUF1137										
Total Kjeldahl Nitrogen	BUF1137-BS1	LCS	2.0911	2.0000	mg/L	105		85 - 115		

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF0787	Used client sample: N										
Total Suspended Solids (Glass Fiber)	DUP	1109271-01	32.000	30.667		mg/L	4.3		10		
QC Batch ID: BUF0803	Used client sample: Y - Description: SW-3, 06/13/2011 13:30										
Nitrite as N	DUP	1109302-01	0.0095300	0.0088630		mg/L	7.3		10		J
	MS	1109302-01	0.0095300	0.55249	0.52632	mg/L		103		90 - 110	
	MSD	1109302-01	0.0095300	0.55354	0.52632	mg/L	0.2	103	10	90 - 110	
QC Batch ID: BUF0860	Used client sample: Y - Description: SW-3, 06/13/2011 13:30										
Chloride	DUP	1109302-01	425.76	423.35		mg/L	0.6		10		
	MS	1109302-01	425.76	644.20	202.02	mg/L		108		80 - 120	
	MSD	1109302-01	425.76	636.92	202.02	mg/L	1.1	105	10	80 - 120	
Sulfate	DUP	1109302-01	183.67	182.28		mg/L	0.8		10		
	MS	1109302-01	183.67	417.27	202.02	mg/L		116		80 - 120	
	MSD	1109302-01	183.67	416.56	202.02	mg/L	0.2	115	10	80 - 120	
QC Batch ID: BUF0931	Used client sample: Y - Description: SW-3, 06/13/2011 13:30										
Total Dissolved Solids @ 180 C	DUP	1109302-01	1550.0	1540.0		mg/L	0.6		10		
QC Batch ID: BUF0936	Used client sample: Y - Description: P-1, 06/08/2011 15:15										
Nitrate/Nitrite as N	DUP	1109069-14	0.86450	0.88880		mg/L	2.8		10		
	MS	1109069-14	0.86450	3.0075	2.1053	mg/L		102		90 - 110	
	MSD	1109069-14	0.86450	3.1185	2.1053	mg/L	3.6	107	10	90 - 110	
QC Batch ID: BUF0938	Used client sample: Y - Description: S-2, 06/09/2011 12:15										
Nitrate/Nitrite as N	DUP	1109312-01	35.926	35.192		mg/L	2.1		10		
	MS	1109312-01	35.926	75.545	42.105	mg/L		94.1		90 - 110	
	MSD	1109312-01	35.926	80.589	42.105	mg/L	6.5	106	10	90 - 110	
QC Batch ID: BUF1117	Used client sample: N										
Ammonia as N	DUP	1109294-05	0.18120	0.18490		mg/L	2.0		10		
	MS	1109294-05	0.18120	1.3326	1.1111	mg/L		104		90 - 110	
	MSD	1109294-05	0.18120	1.3548	1.1111	mg/L	1.7	106	10	90 - 110	
QC Batch ID: BUF1137	Used client sample: Y - Description: SW-3, 06/13/2011 13:30										
Total Kjeldahl Nitrogen	DUP	1109302-01	1.4465	1.5172		mg/L	4.8		20		
	MS	1109302-01	1.4465	3.3733	2.0000	mg/L		96.3		80 - 120	
	MSD	1109302-01	1.4465	3.4525	2.0000	mg/L	2.3	100	20	80 - 120	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUF1129						
Total Arsenic	BUF1129-BLK1	ND	mg/L	0.050	0.0098	
Total Chromium	BUF1129-BLK1	ND	mg/L	0.010	0.0010	
Total Lead	BUF1129-BLK1	ND	mg/L	0.050	0.0050	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUF1129										
Total Arsenic	BUF1129-BS1	LCS	0.19172	0.20000	mg/L	95.9		85 - 115		
Total Chromium	BUF1129-BS1	LCS	0.20699	0.20000	mg/L	103		85 - 115		
Total Lead	BUF1129-BS1	LCS	0.42025	0.40000	mg/L	105		85 - 115		

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 06/24/2011 14:16
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Water Analysis (Metals)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUF1129	Used client sample: Y - Description: SW-3, 06/13/2011 13:30										
Total Arsenic	DUP	1109302-01	0.011479	ND		mg/L			20		
	MS	1109302-01	0.011479	0.22437	0.20000	mg/L		106		75 - 125	
	MSD	1109302-01	0.011479	0.23040	0.20000	mg/L	2.7	109	20	75 - 125	
Total Chromium	DUP	1109302-01	0.0018435	0.0017706		mg/L	4.0		20		J
	MS	1109302-01	0.0018435	0.21151	0.20000	mg/L		105		75 - 125	
	MSD	1109302-01	0.0018435	0.22130	0.20000	mg/L	4.5	110	20	75 - 125	
Total Lead	DUP	1109302-01	0.0072394	0.0066723		mg/L	8.2		20		J
	MS	1109302-01	0.0072394	0.41637	0.40000	mg/L		102		75 - 125	
	MSD	1109302-01	0.0072394	0.43447	0.40000	mg/L	4.3	107	20	75 - 125	

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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 06/24/2011 14:16 Project: Hay Road LF Project Number: 053-7444-11 Project Manager: Kris Johnson

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.

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Date of Report: 07/27/2011

Kris Johnson

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Project:	Hay Road LF
BC Work Order:	1111562
Invoice ID:	B104578

Enclosed are the results of analyses for samples received by the laboratory on 7/21/2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Linda Phoudamneun

Contact Person: Linda Phoudamneun
Client Service Rep

Authorized Signature

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Volatile Organic Analysis (EPA Method 8260)
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Executive Summary - Detections

Constituent	Result	PQL	MDL	Units	Method	Lab Quals
1111562-01	**Recology Hay Road, 4B, 4B, 7/20/2011 11:30:00AM**					
Toluene	0.12	0.50	0.093	ug/L	EPA-8260	J
1111562-02	**Recology Hay Road, G-29, G-29, 7/20/2011 12:20:00PM**					
t-Butyl alcohol	38	10	9.4	ug/L	EPA-8260	

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Golder Associates

11-11562
~~#1111562~~ BJT 7-21

Golder Associates
CHAIN OF CUSTODY

Page 1 of 1
Quotation No.

PROJECT NO.: 053-7444-11
SITE NAME: Ecology Hay Road
SAMPLER(S): S. Gaucomin (printed) SL (signature)
CONTRACT LABORATORY: BC Labs
TURN-AROUND TIME: SC ~~Standard~~ 5-DAY

EDD required? ☒ Yes ☐ No
EDF required? ☒ Yes ☐ No

ANALYSES: Toluene, acetone, 2-Butanone (by 8260); tert-butyl alcohol (by 8260)

Sample I.D.	Lab I.D.	Collection Date	Collection Time	Matrix	Depth	Container Info: Type/Vol.	Filter	Preserv.	Toluene, acetone, 2-Butanone (by 8260)	tert-butyl alcohol (by 8260)	Cont. Qty.	Remarks
						Type/Vol.	Filter	Preserv.				
4B	-1	7-20-11	1130	WATER	/	VOA 40 ml	N	HCl	3		3	Report Trace
G-29	-2	7-20-11	1220	WATER	/	VOA 40 ml	N	HCl		3	3	

5 DAY T.A.T

CHK BY: [illegible]
DISTRIBUTION: BJT
SUB-OUT ☐

Relinquished by: (signature)	Received by: (signature)	Date/Time:
SL	[illegible] 7/21/11 10:15	7/20/11 1515
Relinquished by: (signature)	Received by: (signature)	Date/Time:
Relinquished by: (signature)	Received by: (signature)	Date/Time:

SEND RESULTS TO:
Attn: Kris Johnson
Golder Associates Inc.
425 Lakeside Drive
Sunnyvale, CA 94085
Phone (408) 220-9223
Fax (408) 220-9224

white: lab copy yellow: project file

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4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com

Chain of Custody and Cooler Receipt Form for 1111562 Page 2 of 2

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 Of 1

Submission #: 11-115562

SHIPPING INFORMATION
Federal Express ☒ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☐ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☒ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☒ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☒ Comments:

All samples received? Yes ☒ No ☐ All samples containers intact? Yes ☒ No ☐ Description(s) match COC? Yes ☒ No ☐

COC Received ☒ YES ☐ NO

Emissivity: 0.97 Container: VOA Thermometer ID: 163
Temperature: A 13.7 °C / C 13.7 °C

Date/Time 7/21/11 10:15
Analyst Init MAM

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A 13	A 13	( )	( )	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments:_____
Sample Numbering Completed By: BLT Date/Time: 7-21-11 @ 1208
A = Actual / C = Corrected

[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/27/2011 13:38
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1111562-01	**COC Number:**	---	**Receive Date:**	07/21/2011 10:15
	Project Number:	Recology Hay Road	**Sampling Date:**	07/20/2011 11:30
	Sampling Location:	4B	**Sample Depth:**	---
	Sampling Point:	4B	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): 4B	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1111562-02	**COC Number:**	---	**Receive Date:**	07/21/2011 10:15
	Project Number:	Recology Hay Road	**Sampling Date:**	07/20/2011 12:20
	Sampling Location:	G-29	**Sample Depth:**	---
	Sampling Point:	G-29	**Lab Matrix:**	Water
	Sampled By:	GAMV	**Sample Type:**	
			Delivery Work Order:	
			Global ID: L10007011530	
			Location ID (FieldPoint): G-29	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/27/2011 13:38
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1111562-01 | **Client Sample Name:** Recology Hay Road, 4B, 4B, 7/20/2011 11:30:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Toluene	**0.12**	**ug/L**	**0.50**	**0.093**	**EPA-8260**	ND	**J**	1
Acetone	ND	ug/L	10	4.6	EPA-8260	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	109	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	97.3	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	94.9	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	07/22/11	07/22/11 22:51	MGC	MS-V5	1	BUG1376

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/27/2011 13:38
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1111562-02 | **Client Sample Name:** Recology Hay Road, G-29, G-29, 7/20/2011 12:20:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
t-Butyl alcohol	**38**	**ug/L**	**10**	**9.4**	**EPA-8260**	ND		1
1,2-Dichloroethane-d4 (Surrogate)	108	%	76 - 114 (LCL - UCL)		EPA-8260			1
Toluene-d8 (Surrogate)	99.7	%	88 - 110 (LCL - UCL)		EPA-8260			1
4-Bromofluorobenzene (Surrogate)	97.9	%	86 - 115 (LCL - UCL)		EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	07/22/11	07/22/11 23:18	MGC	MS-V5	1	BUG1376

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/27/2011 13:38
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUG1376						
Toluene	BUG1376-BLK1	ND	ug/L	0.50	0.093	
Acetone	BUG1376-BLK1	ND	ug/L	10	4.6	
t-Butyl alcohol	BUG1376-BLK1	ND	ug/L	10	9.4	
Methyl ethyl ketone	BUG1376-BLK1	ND	ug/L	10	2.5	
1,2-Dichloroethane-d4 (Surrogate)	BUG1376-BLK1	102	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BUG1376-BLK1	98.5	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BUG1376-BLK1	96.0	%	86 - 115 (LCL - UCL)		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/27/2011 13:38
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUG1376										
Toluene	BUG1376-BS1	LCS	24.870	25.000	ug/L	99.5		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BUG1376-BS1	LCS	10.230	10.000	ug/L	102		76 - 114		
Toluene-d8 (Surrogate)	BUG1376-BS1	LCS	10.040	10.000	ug/L	100		88 - 110		
4-Bromofluorobenzene (Surrogate)	BUG1376-BS1	LCS	9.4100	10.000	ug/L	94.1		86 - 115		

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 07/27/2011 13:38
Project: Hay Road LF
Project Number: 053-7444-11
Project Manager: Kris Johnson

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUG1376	Used client sample: N										
Toluene	MS	1111538-18	ND	25.050	25.000	ug/L		100		70 - 130	
	MSD	1111538-18	ND	24.000	25.000	ug/L	4.3	96.0	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1111538-18	ND	10.310	10.000	ug/L		103		76 - 114	
	MSD	1111538-18	ND	10.130	10.000	ug/L	1.8	101		76 - 114	
Toluene-d8 (Surrogate)	MS	1111538-18	ND	9.8800	10.000	ug/L		98.8		88 - 110	
	MSD	1111538-18	ND	9.9700	10.000	ug/L	0.9	99.7		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1111538-18	ND	10.420	10.000	ug/L		104		86 - 115	
	MSD	1111538-18	ND	9.7200	10.000	ug/L	7.0	97.2		86 - 115	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
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Golder Associates 425 Lakeside Drive Sunnyvale, CA 94085	**Reported:** 07/27/2011 13:38 Project: Hay Road LF Project Number: 053-7444-11 Project Manager: Kris Johnson

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference

Air Toxics LTD.
Laboratory Services Since 1989

7/11/2011
Mr. Steve Giacomini
Golder Associates, Inc.
425 Lakeside Drive

Sunnyvale CA 94085

Project Name: Recology Hay Rd.
Project #: 053-7444-11
Workorder #: 1106562

Dear Mr. Steve Giacomini

The following report includes the data for the above referenced project for sample(s) received on 6/24/2011 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori
Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1106562

Work Order Summary

CLIENT:	Mr. Steve Giacomini Golder Associates, Inc. 425 Lakeside Drive Sunnyvale, CA 94085	**BILL TO:**	Mr. Steve Giacomini Golder Associates, Inc. 425 Lakeside Drive Sunnyvale, CA 94085
PHONE:	408-220-9223	**P.O. #**	
FAX:	408-222-9224	**PROJECT #**	053-7444-11 Recology Hay Rd.
DATE RECEIVED:	06/24/2011	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	07/07/2011		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	PL-11.2	Modified TO-15	2.0 "Hg	5 psi
02A	LD-3.1	Modified TO-15	3.0 "Hg	5 psi
03A	Lab Blank	Modified TO-15	NA	NA
04A	CCV	Modified TO-15	NA	NA
05A	LCS	Modified TO-15	NA	NA
05AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Linda J. Freeman DATE: 07/11/11

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/11 , Expiration date: 06/30/12.
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Golder Associates, Inc.
Workorder# 1106562

Two 6 Liter Summa Canister samples were received on June 24, 2011. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV and/or LCS.
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: PL-11.2

Lab ID#: 1106562-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 114	0.72	5.5	5.0	39
Vinyl Chloride	0.72	160	1.8	420
Chloroethane	2.9	26	7.6	69
1,1-Dichloroethene	0.72	2.4	2.8	9.4
Acetone	2.9	57	6.8	140
Methyl tert-butyl ether	0.72	20	2.6	70
trans-1,2-Dichloroethene	0.72	3.0	2.8	12
Hexane	0.72	62	2.5	220
1,1-Dichloroethane	0.72	26	2.9	100
2-Butanone (Methyl Ethyl Ketone)	2.9	5.1	8.5	15
cis-1,2-Dichloroethene	0.72	13	2.8	51
Tetrahydrofuran	0.72	9.7	2.1	29
Cyclohexane	0.72	39	2.5	140
2,2,4-Trimethylpentane	0.72	130	3.4	610
Benzene	0.72	4.8	2.3	15
Trichloroethene	0.72	4.7	3.9	25
Toluene	0.72	0.84	2.7	3.2
Tetrachloroethene	0.72	12	4.9	78

Client Sample ID: LD-3.1

Lab ID#: 1106562-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.74	8.9	3.7	44
Vinyl Chloride	0.74	2.5	1.9	6.3
Freon 11	0.74	8.8	4.2	49
Acetone	3.0	24	7.1	58
Hexane	0.74	8.6	2.6	30
1,1-Dichloroethane	0.74	0.84	3.0	3.4
2-Butanone (Methyl Ethyl Ketone)	3.0	5.1	8.8	15
Tetrahydrofuran	0.74	15	2.2	44

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: LD-3.1

Lab ID#: 1106562-02A

Cyclohexane	0.74	11	2.6	39
2,2,4-Trimethylpentane	0.74	8.3	3.5	39
Benzene	0.74	0.82	2.4	2.6
Heptane	0.74	8.6	3.0	35
Trichloroethene	0.74	0.90	4.0	4.8
Toluene	0.74	2.6	2.8	9.9
Tetrachloroethene	0.74	6.7	5.0	45
m,p-Xylene	0.74	1.8	3.2	7.6
o-Xylene	0.74	0.88	3.2	3.8

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: PL-11.2

Lab ID#: 1106562-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p063025**	**Date of Collection:**	**6/24/11 1:30:00 PM**
Dil. Factor:	**1.44**	**Date of Analysis:**	**6/30/11 07:09 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.72	Not Detected	3.6	Not Detected
Freon 114	0.72	5.5	5.0	39
Chloromethane	2.9	Not Detected	5.9	Not Detected
Vinyl Chloride	0.72	160	1.8	420
1,3-Butadiene	0.72	Not Detected	1.6	Not Detected
Bromomethane	0.72	Not Detected	2.8	Not Detected
Chloroethane	2.9	26	7.6	69
Freon 11	0.72	Not Detected	4.0	Not Detected
Ethanol	2.9	Not Detected	5.4	Not Detected
Freon 113	0.72	Not Detected	5.5	Not Detected
1,1-Dichloroethene	0.72	2.4	2.8	9.4
Acetone	2.9	57	6.8	140
2-Propanol	2.9	Not Detected	7.1	Not Detected
Carbon Disulfide	2.9	Not Detected	9.0	Not Detected
3-Chloropropene	2.9	Not Detected	9.0	Not Detected
Methylene Chloride	0.72	Not Detected	2.5	Not Detected
Methyl tert-butyl ether	0.72	20	2.6	70
trans-1,2-Dichloroethene	0.72	3.0	2.8	12
Hexane	0.72	62	2.5	220
1,1-Dichloroethane	0.72	26	2.9	100
2-Butanone (Methyl Ethyl Ketone)	2.9	5.1	8.5	15
cis-1,2-Dichloroethene	0.72	13	2.8	51
Tetrahydrofuran	0.72	9.7	2.1	29
Chloroform	0.72	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.72	Not Detected	3.9	Not Detected
Cyclohexane	0.72	39	2.5	140
Carbon Tetrachloride	0.72	Not Detected	4.5	Not Detected
2,2,4-Trimethylpentane	0.72	130	3.4	610
Benzene	0.72	4.8	2.3	15
1,2-Dichloroethane	0.72	Not Detected	2.9	Not Detected
Heptane	0.72	Not Detected	3.0	Not Detected
Trichloroethene	0.72	4.7	3.9	25
1,2-Dichloropropane	0.72	Not Detected	3.3	Not Detected
1,4-Dioxane	2.9	Not Detected	10	Not Detected
Bromodichloromethane	0.72	Not Detected	4.8	Not Detected
cis-1,3-Dichloropropene	0.72	Not Detected	3.3	Not Detected
4-Methyl-2-pentanone	0.72	Not Detected	2.9	Not Detected
Toluene	0.72	0.84	2.7	3.2
trans-1,3-Dichloropropene	0.72	Not Detected	3.3	Not Detected
1,1,2-Trichloroethane	0.72	Not Detected	3.9	Not Detected
Tetrachloroethene	0.72	12	4.9	78

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: PL-11.2

Lab ID#: 1106562-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p063025**	**Date of Collection:**	**6/24/11 1:30:00 PM**
Dil. Factor:	**1.44**	**Date of Analysis:**	**6/30/11 07:09 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	2.9	Not Detected	12	Not Detected
Dibromochloromethane	0.72	Not Detected	6.1	Not Detected
1,2-Dibromoethane (EDB)	0.72	Not Detected	5.5	Not Detected
Chlorobenzene	0.72	Not Detected	3.3	Not Detected
Ethyl Benzene	0.72	Not Detected	3.1	Not Detected
m,p-Xylene	0.72	Not Detected	3.1	Not Detected
o-Xylene	0.72	Not Detected	3.1	Not Detected
Styrene	0.72	Not Detected	3.1	Not Detected
Bromoform	0.72	Not Detected	7.4	Not Detected
Cumene	0.72	Not Detected	3.5	Not Detected
1,1,2,2-Tetrachloroethane	0.72	Not Detected	4.9	Not Detected
Propylbenzene	0.72	Not Detected	3.5	Not Detected
4-Ethyltoluene	0.72	Not Detected	3.5	Not Detected
1,3,5-Trimethylbenzene	0.72	Not Detected	3.5	Not Detected
1,2,4-Trimethylbenzene	0.72	Not Detected	3.5	Not Detected
1,3-Dichlorobenzene	0.72	Not Detected	4.3	Not Detected
1,4-Dichlorobenzene	0.72	Not Detected	4.3	Not Detected
alpha-Chlorotoluene	0.72	Not Detected	3.7	Not Detected
1,2-Dichlorobenzene	0.72	Not Detected	4.3	Not Detected
1,2,4-Trichlorobenzene	2.9	Not Detected	21	Not Detected
Hexachlorobutadiene	2.9	Not Detected	31	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	97	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LD-3.1

Lab ID#: 1106562-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p063026**	**Date of Collection:**	**6/24/11 1:00:00 PM**
Dil. Factor:	**1.49**	**Date of Analysis:**	**6/30/11 08:24 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.74	8.9	3.7	44
Freon 114	0.74	Not Detected	5.2	Not Detected
Chloromethane	3.0	Not Detected	6.2	Not Detected
Vinyl Chloride	0.74	2.5	1.9	6.3
1,3-Butadiene	0.74	Not Detected	1.6	Not Detected
Bromomethane	0.74	Not Detected	2.9	Not Detected
Chloroethane	3.0	Not Detected	7.9	Not Detected
Freon 11	0.74	8.8	4.2	49
Ethanol	3.0	Not Detected	5.6	Not Detected
Freon 113	0.74	Not Detected	5.7	Not Detected
1,1-Dichloroethene	0.74	Not Detected	3.0	Not Detected
Acetone	3.0	24	7.1	58
2-Propanol	3.0	Not Detected	7.3	Not Detected
Carbon Disulfide	3.0	Not Detected	9.3	Not Detected
3-Chloropropene	3.0	Not Detected	9.3	Not Detected
Methylene Chloride	0.74	Not Detected	2.6	Not Detected
Methyl tert-butyl ether	0.74	Not Detected	2.7	Not Detected
trans-1,2-Dichloroethene	0.74	Not Detected	3.0	Not Detected
Hexane	0.74	8.6	2.6	30
1,1-Dichloroethane	0.74	0.84	3.0	3.4
2-Butanone (Methyl Ethyl Ketone)	3.0	5.1	8.8	15
cis-1,2-Dichloroethene	0.74	Not Detected	3.0	Not Detected
Tetrahydrofuran	0.74	15	2.2	44
Chloroform	0.74	Not Detected	3.6	Not Detected
1,1,1-Trichloroethane	0.74	Not Detected	4.1	Not Detected
Cyclohexane	0.74	11	2.6	39
Carbon Tetrachloride	0.74	Not Detected	4.7	Not Detected
2,2,4-Trimethylpentane	0.74	8.3	3.5	39
Benzene	0.74	0.82	2.4	2.6
1,2-Dichloroethane	0.74	Not Detected	3.0	Not Detected
Heptane	0.74	8.6	3.0	35
Trichloroethene	0.74	0.90	4.0	4.8
1,2-Dichloropropane	0.74	Not Detected	3.4	Not Detected
1,4-Dioxane	3.0	Not Detected	11	Not Detected
Bromodichloromethane	0.74	Not Detected	5.0	Not Detected
cis-1,3-Dichloropropene	0.74	Not Detected	3.4	Not Detected
4-Methyl-2-pentanone	0.74	Not Detected	3.0	Not Detected
Toluene	0.74	2.6	2.8	9.9
trans-1,3-Dichloropropene	0.74	Not Detected	3.4	Not Detected
1,1,2-Trichloroethane	0.74	Not Detected	4.1	Not Detected
Tetrachloroethene	0.74	6.7	5.0	45

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LD-3.1

Lab ID#: 1106562-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p063026**	**Date of Collection:**	**6/24/11 1:00:00 PM**
Dil. Factor:	**1.49**	**Date of Analysis:**	**6/30/11 08:24 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	3.0	Not Detected	12	Not Detected
Dibromochloromethane	0.74	Not Detected	6.3	Not Detected
1,2-Dibromoethane (EDB)	0.74	Not Detected	5.7	Not Detected
Chlorobenzene	0.74	Not Detected	3.4	Not Detected
Ethyl Benzene	0.74	Not Detected	3.2	Not Detected
m,p-Xylene	0.74	1.8	3.2	7.6
o-Xylene	0.74	0.88	3.2	3.8
Styrene	0.74	Not Detected	3.2	Not Detected
Bromoform	0.74	Not Detected	7.7	Not Detected
Cumene	0.74	Not Detected	3.7	Not Detected
1,1,2,2-Tetrachloroethane	0.74	Not Detected	5.1	Not Detected
Propylbenzene	0.74	Not Detected	3.7	Not Detected
4-Ethyltoluene	0.74	Not Detected	3.7	Not Detected
1,3,5-Trimethylbenzene	0.74	Not Detected	3.7	Not Detected
1,2,4-Trimethylbenzene	0.74	Not Detected	3.7	Not Detected
1,3-Dichlorobenzene	0.74	Not Detected	4.5	Not Detected
1,4-Dichlorobenzene	0.74	Not Detected	4.5	Not Detected
alpha-Chlorotoluene	0.74	Not Detected	3.8	Not Detected
1,2-Dichlorobenzene	0.74	Not Detected	4.5	Not Detected
1,2,4-Trichlorobenzene	3.0	Not Detected	22	Not Detected
Hexachlorobutadiene	3.0	Not Detected	32	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	85	70-130
4-Bromofluorobenzene	97	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1106562-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p063006**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/30/11 08:50 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 1106562-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p063006**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/30/11 08:50 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	78	70-130
4-Bromofluorobenzene	95	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 1106562-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p063002**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/30/11 06:48 AM**	

Compound	%Recovery
Freon 12	85
Freon 114	95
Chloromethane	90
Vinyl Chloride	102
1,3-Butadiene	99
Bromomethane	105
Chloroethane	103
Freon 11	81
Ethanol	111
Freon 113	95
1,1-Dichloroethene	108
Acetone	100
2-Propanol	102
Carbon Disulfide	99
3-Chloropropene	110
Methylene Chloride	95
Methyl tert-butyl ether	105
trans-1,2-Dichloroethene	103
Hexane	110
1,1-Dichloroethane	95
2-Butanone (Methyl Ethyl Ketone)	114
cis-1,2-Dichloroethene	106
Tetrahydrofuran	110
Chloroform	93
1,1,1-Trichloroethane	88
Cyclohexane	116
Carbon Tetrachloride	83
2,2,4-Trimethylpentane	122
Benzene	103
1,2-Dichloroethane	77
Heptane	115
Trichloroethene	95
1,2-Dichloropropane	104
1,4-Dioxane	109
Bromodichloromethane	88
cis-1,3-Dichloropropene	108
4-Methyl-2-pentanone	114
Toluene	103
trans-1,3-Dichloropropene	98
1,1,2-Trichloroethane	96
Tetrachloroethene	98

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 1106562-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p063002**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/30/11 06:48 AM**	

Compound	**%Recovery**
2-Hexanone	114
Dibromochloromethane	91
1,2-Dibromoethane (EDB)	98
Chlorobenzene	100
Ethyl Benzene	105
m,p-Xylene	110
o-Xylene	108
Styrene	108
Bromoform	91
Cumene	108
1,1,2,2-Tetrachloroethane	100
Propylbenzene	102
4-Ethyltoluene	106
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	115
1,3-Dichlorobenzene	97
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	95
Hexachlorobutadiene	87

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	80	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1106562-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p063003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/30/11 07:25 AM**	

Compound	%Recovery
Freon 12	83
Freon 114	92
Chloromethane	95
Vinyl Chloride	102
1,3-Butadiene	98
Bromomethane	103
Chloroethane	101
Freon 11	84
Ethanol	127
Freon 113	94
1,1-Dichloroethene	110
Acetone	100
2-Propanol	105
Carbon Disulfide	119
3-Chloropropene	123
Methylene Chloride	91
Methyl tert-butyl ether	104
trans-1,2-Dichloroethene	111
Hexane	106
1,1-Dichloroethane	94
2-Butanone (Methyl Ethyl Ketone)	112
cis-1,2-Dichloroethene	104
Tetrahydrofuran	106
Chloroform	92
1,1,1-Trichloroethane	86
Cyclohexane	114
Carbon Tetrachloride	81
2,2,4-Trimethylpentane	117
Benzene	100
1,2-Dichloroethane	75
Heptane	110
Trichloroethene	93
1,2-Dichloropropane	102
1,4-Dioxane	106
Bromodichloromethane	85
cis-1,3-Dichloropropene	105
4-Methyl-2-pentanone	107
Toluene	98
trans-1,3-Dichloropropene	95
1,1,2-Trichloroethane	94
Tetrachloroethene	94

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 1106562-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p063003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/30/11 07:25 AM**	

Compound	**%Recovery**
2-Hexanone	113
Dibromochloromethane	87
1,2-Dibromoethane (EDB)	96
Chlorobenzene	98
Ethyl Benzene	103
m,p-Xylene	108
o-Xylene	104
Styrene	106
Bromoform	88
Cumene	106
1,1,2,2-Tetrachloroethane	100
Propylbenzene	101
4-Ethyltoluene	101
1,3,5-Trimethylbenzene	106
1,2,4-Trimethylbenzene	110
1,3-Dichlorobenzene	96
1,4-Dichlorobenzene	98
alpha-Chlorotoluene	101
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	94
Hexachlorobutadiene	86

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	79	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 1106562-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p063004**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/30/11 07:46 AM**	

Compound	**%Recovery**
Freon 12	83
Freon 114	93
Chloromethane	96
Vinyl Chloride	102
1,3-Butadiene	100
Bromomethane	105
Chloroethane	104
Freon 11	79
Ethanol	119
Freon 113	96
1,1-Dichloroethene	112
Acetone	100
2-Propanol	103
Carbon Disulfide	119
3-Chloropropene	118
Methylene Chloride	91
Methyl tert-butyl ether	105
trans-1,2-Dichloroethene	112
Hexane	108
1,1-Dichloroethane	94
2-Butanone (Methyl Ethyl Ketone)	115
cis-1,2-Dichloroethene	106
Tetrahydrofuran	105
Chloroform	92
1,1,1-Trichloroethane	87
Cyclohexane	116
Carbon Tetrachloride	82
2,2,4-Trimethylpentane	119
Benzene	100
1,2-Dichloroethane	74
Heptane	109
Trichloroethene	94
1,2-Dichloropropane	101
1,4-Dioxane	104
Bromodichloromethane	84
cis-1,3-Dichloropropene	104
4-Methyl-2-pentanone	108
Toluene	98
trans-1,3-Dichloropropene	92
1,1,2-Trichloroethane	92
Tetrachloroethene	92

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCSD

Lab ID#: 1106562-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p063004**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/30/11 07:46 AM**	

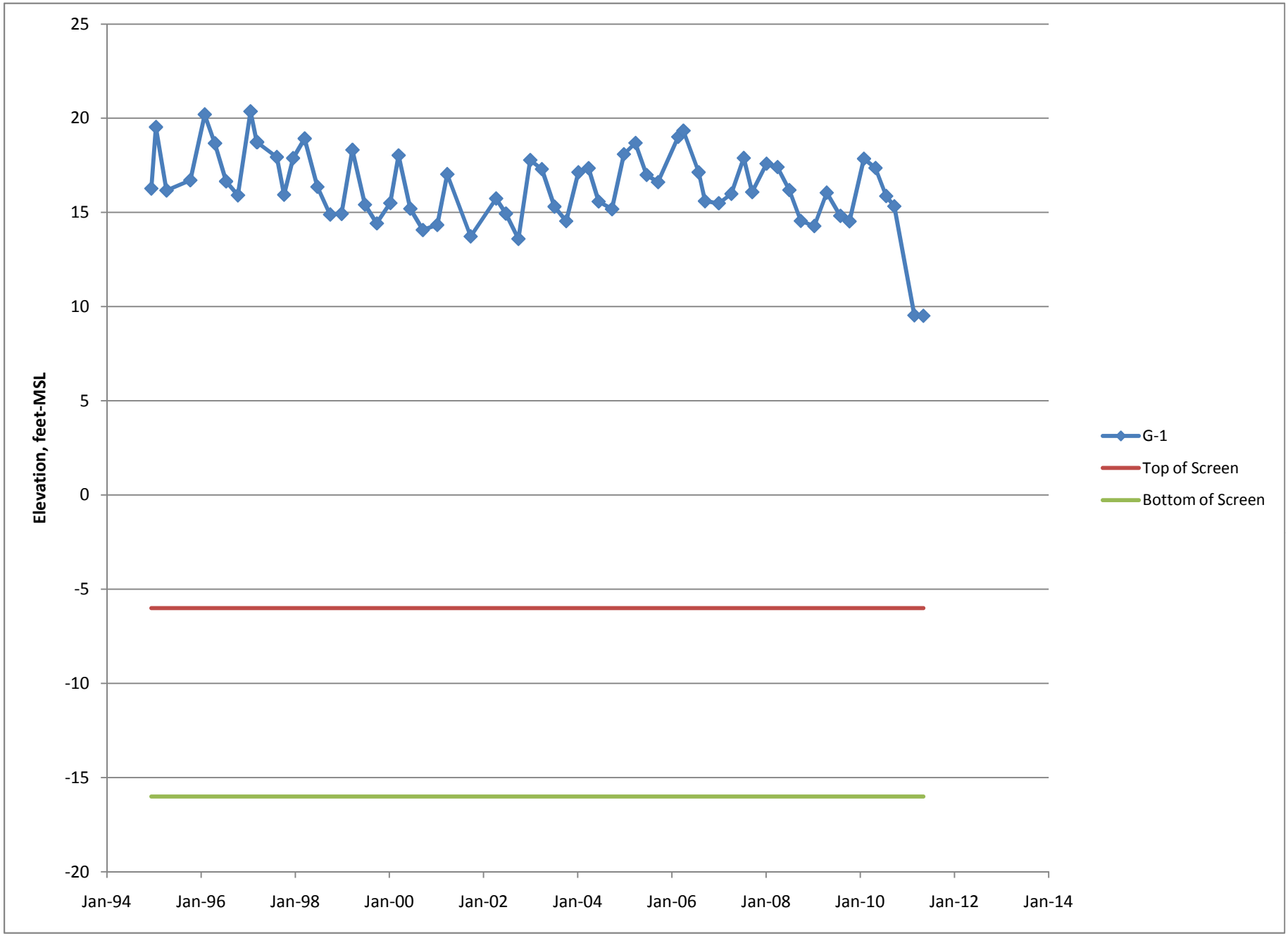
Compound	**%Recovery**
2-Hexanone	110
Dibromochloromethane	85
1,2-Dibromoethane (EDB)	94
Chlorobenzene	98
Ethyl Benzene	100
m,p-Xylene	107
o-Xylene	103
Styrene	104
Bromoform	85
Cumene	104
1,1,2,2-Tetrachloroethane	98
Propylbenzene	98
4-Ethyltoluene	100
1,3,5-Trimethylbenzene	105
1,2,4-Trimethylbenzene	108
1,3-Dichlorobenzene	94
1,4-Dichlorobenzene	96
alpha-Chlorotoluene	100
1,2-Dichlorobenzene	96
1,2,4-Trichlorobenzene	96
Hexachlorobutadiene	85

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	78	70-130
4-Bromofluorobenzene	95	70-130

APPENDIX C

WELL HYDROGRAPHS AND STATISTICAL CALCULATIONS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Jan-14
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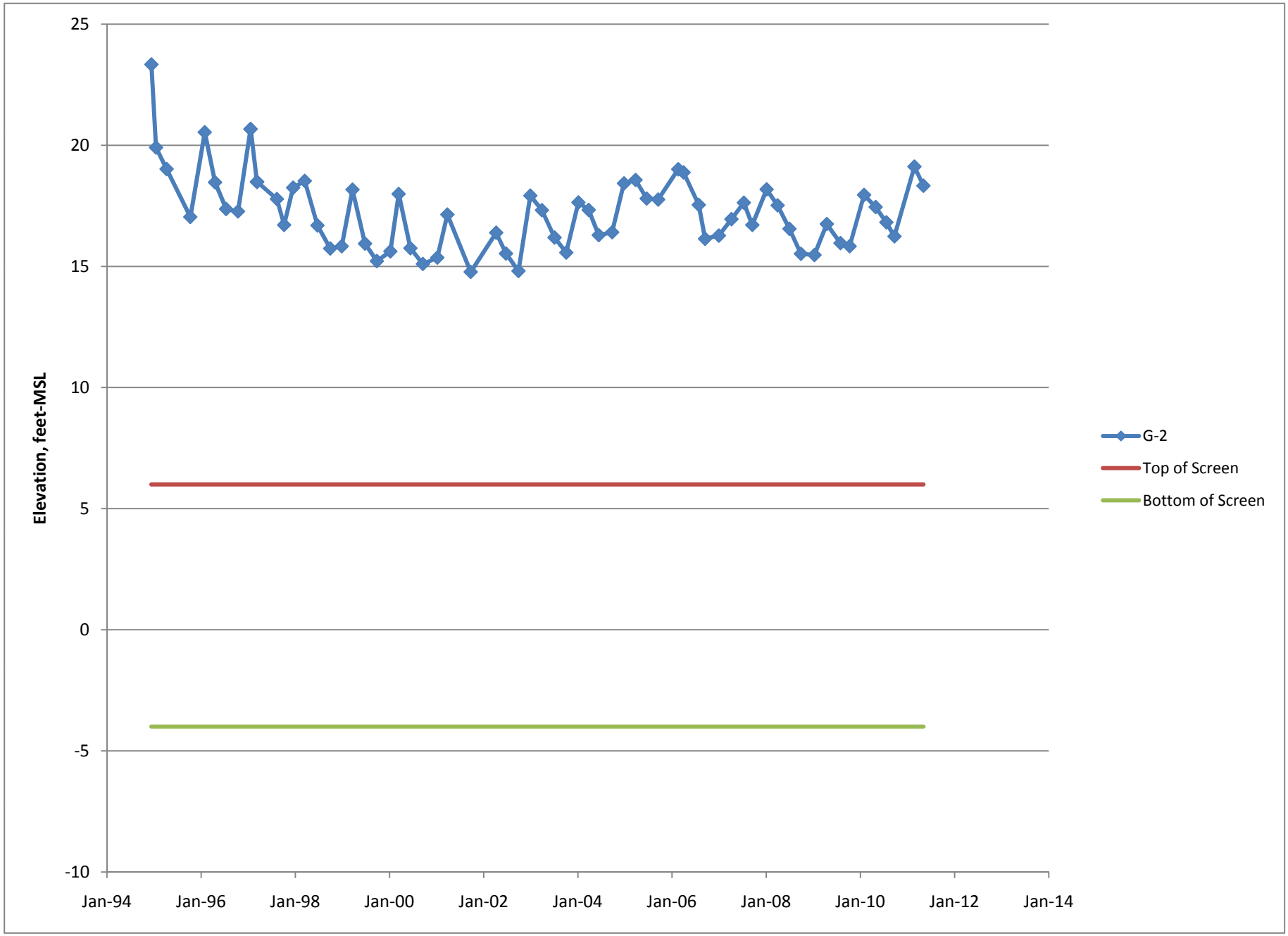
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Jan-14
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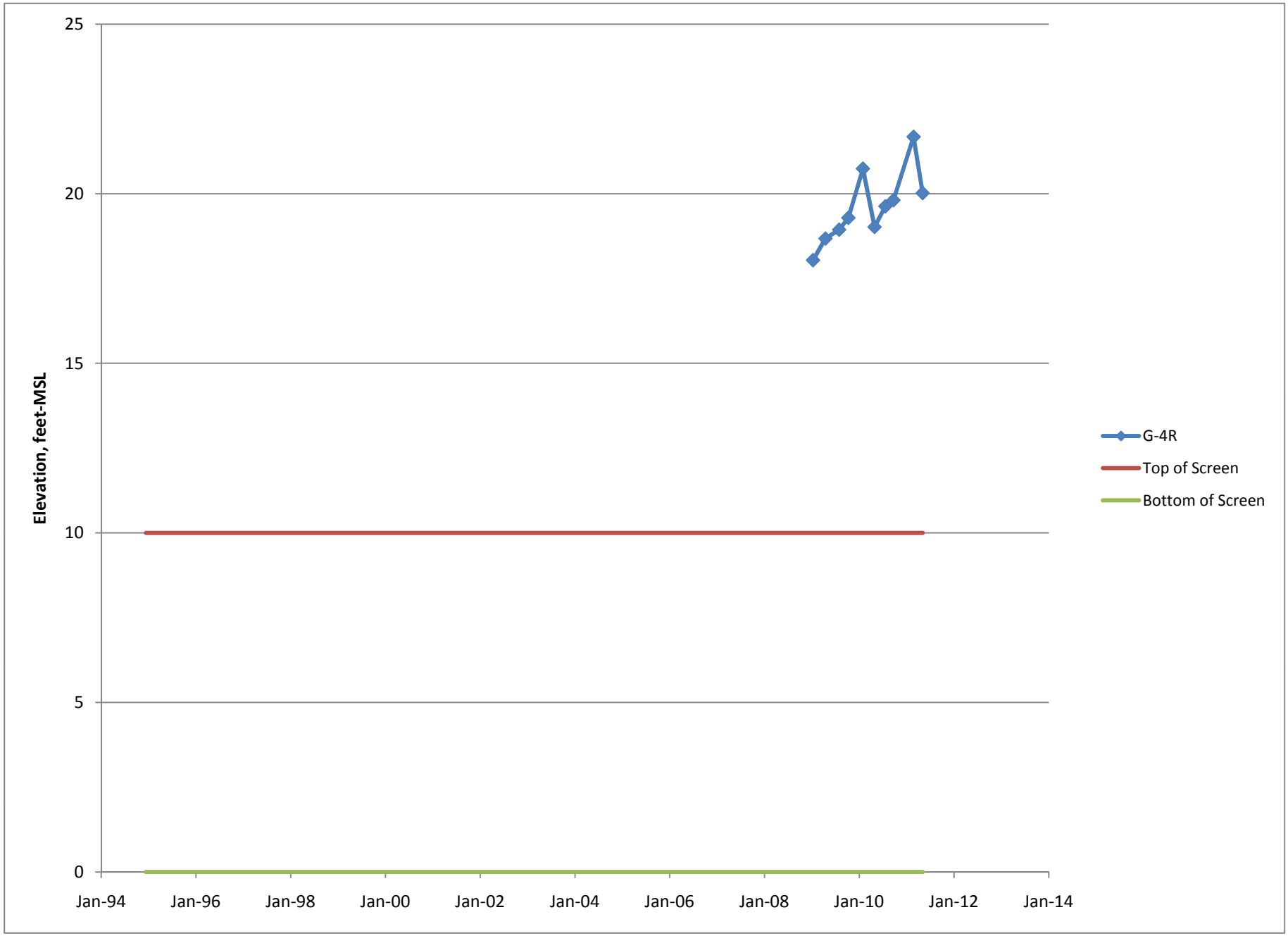
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G-4R
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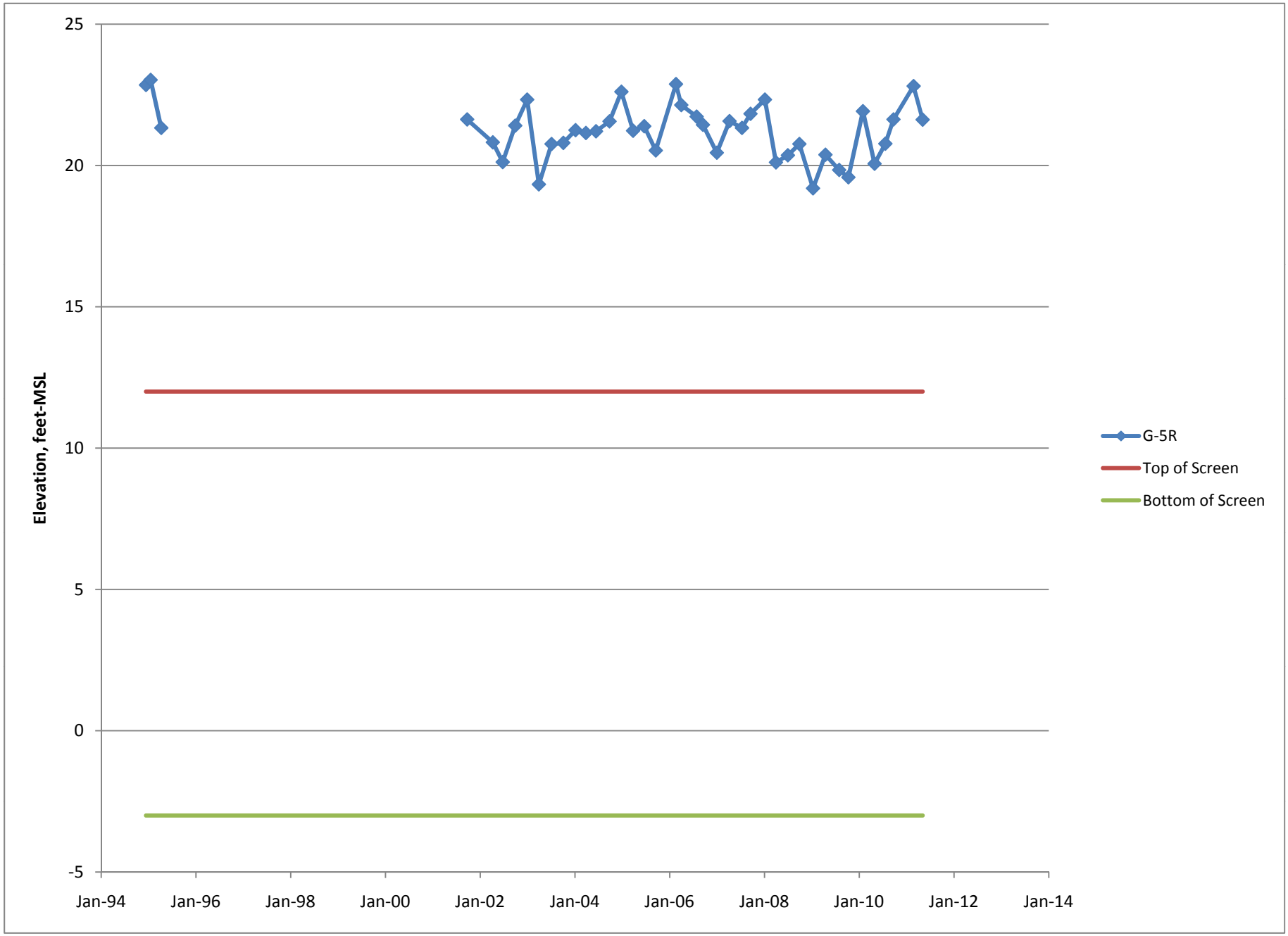
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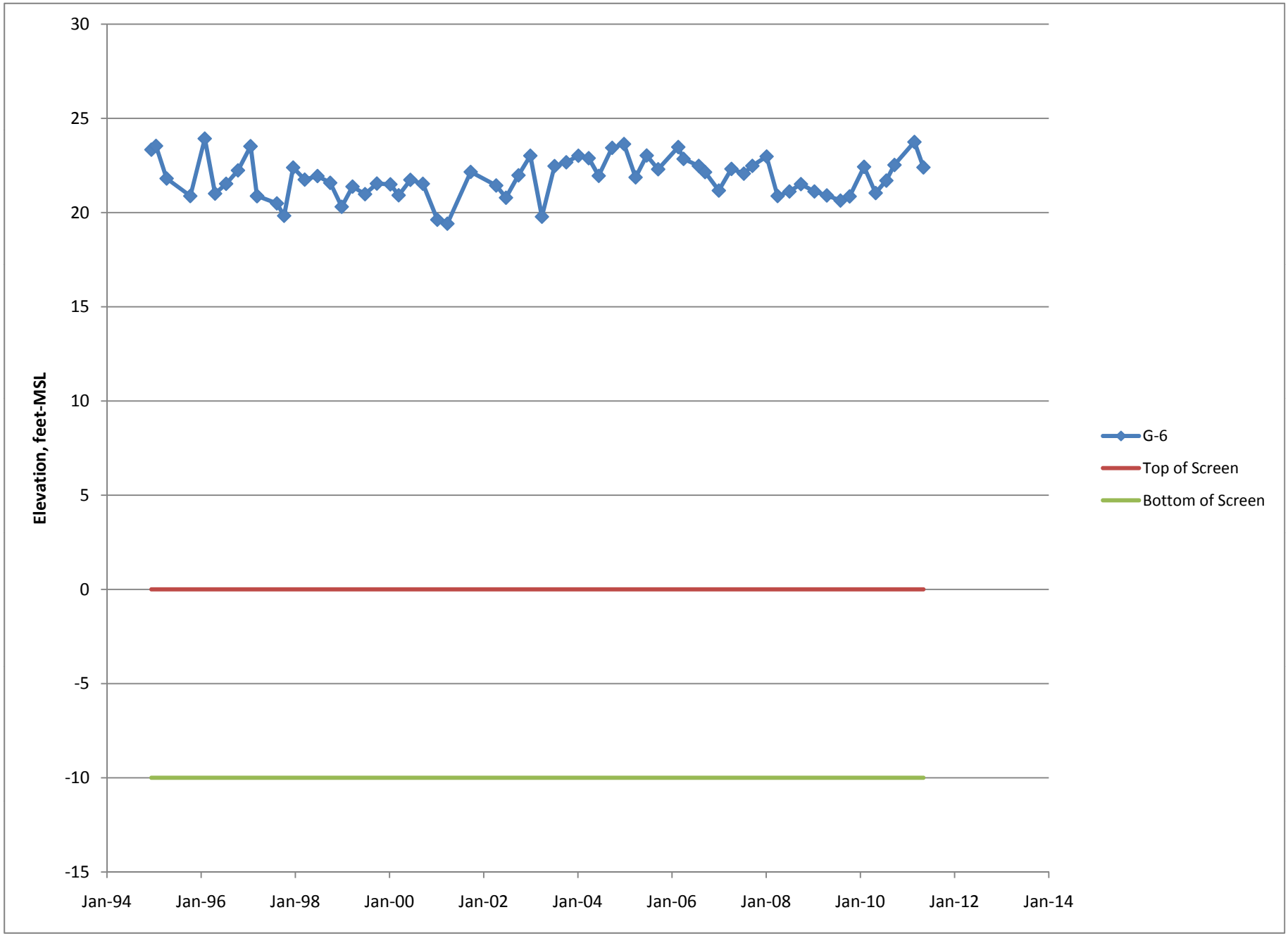
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Elevation, feet-MSL
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Jan-96
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Jan-10
Jan-12
Jan-14
G-6
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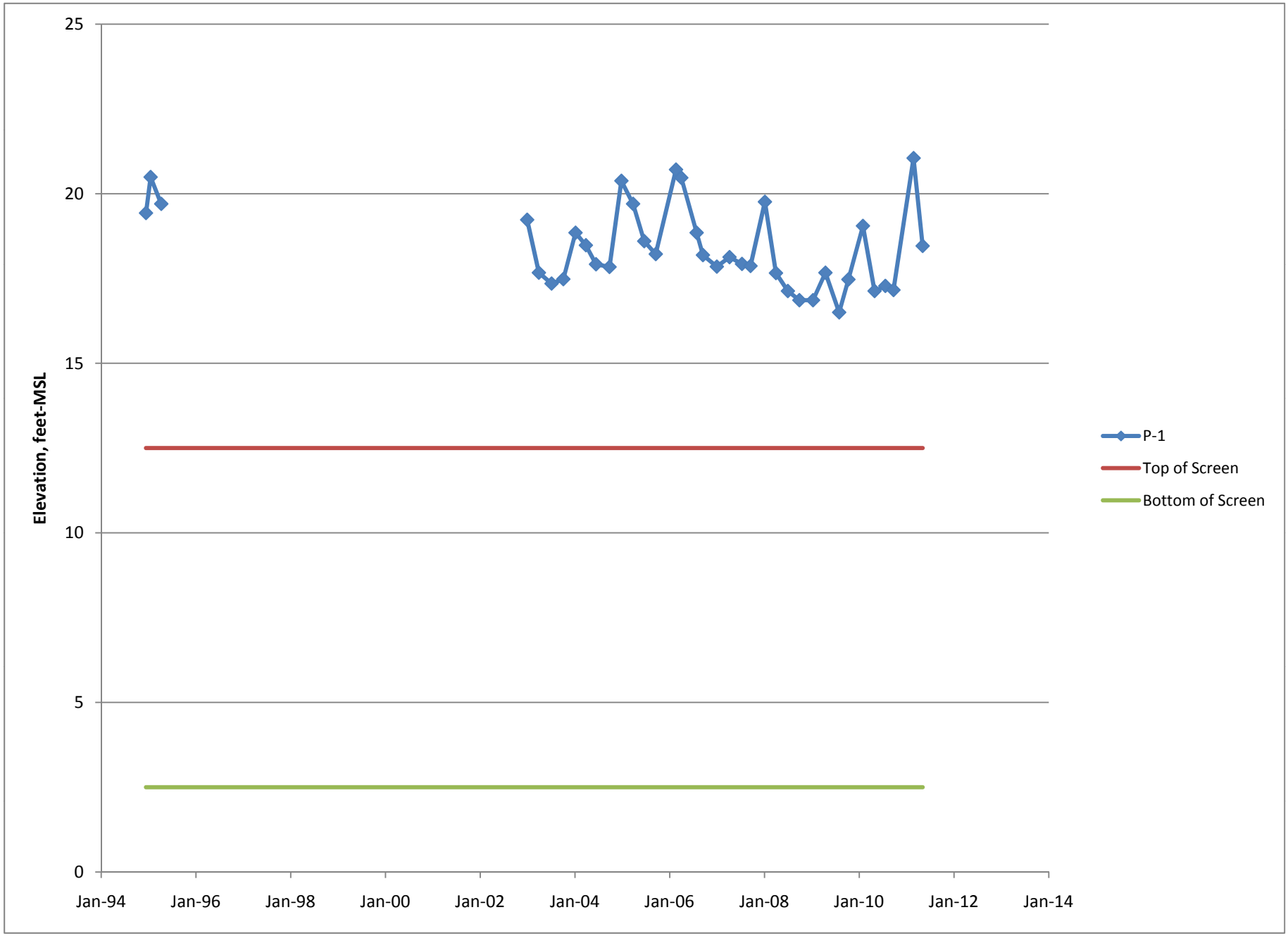
Bottom of Screen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Elevation, feet-MSL
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Jan-12
Jan-14
P-1
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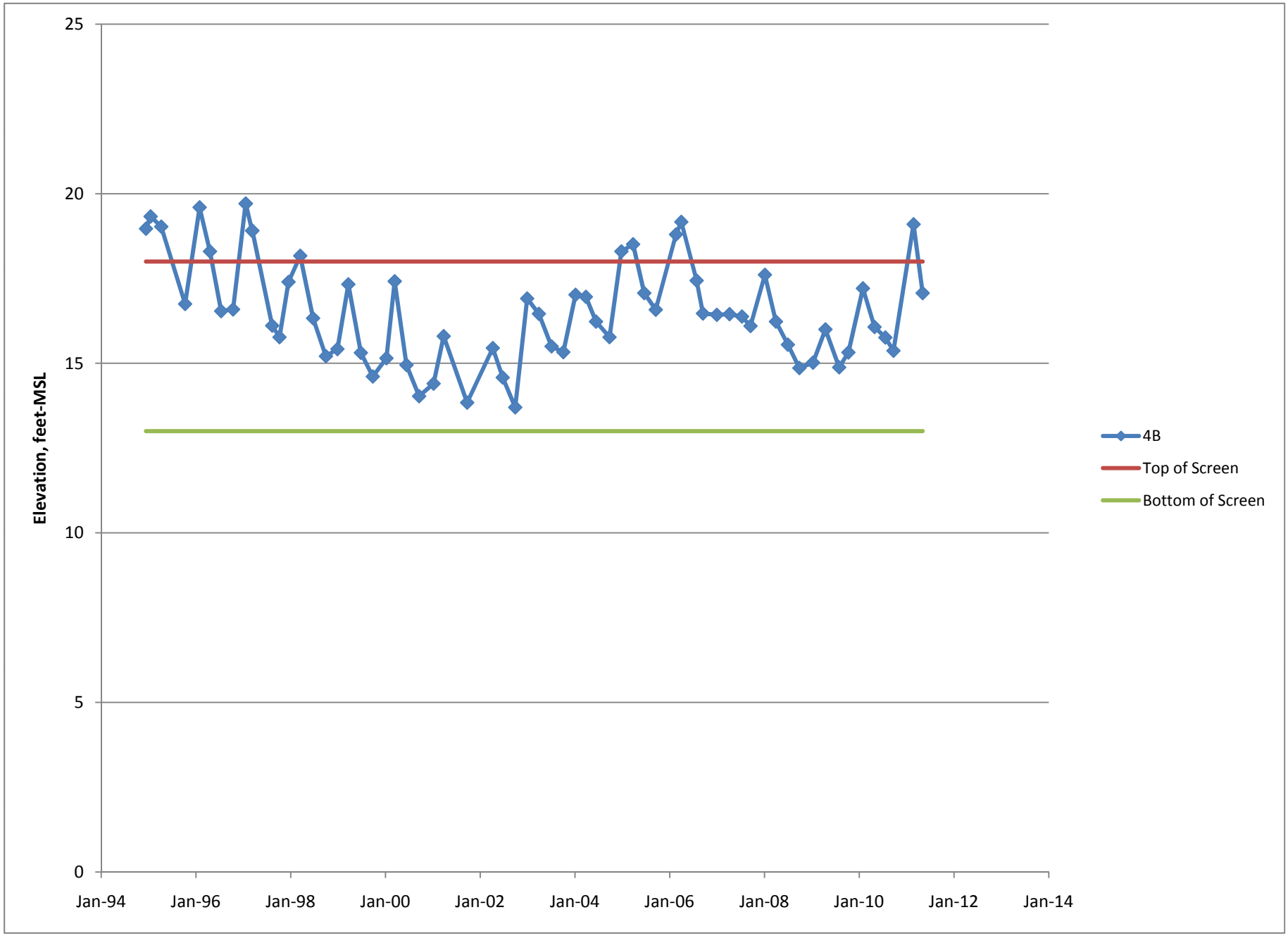
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Jan-96
Jan-98
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Jan-12
Jan-14
4B
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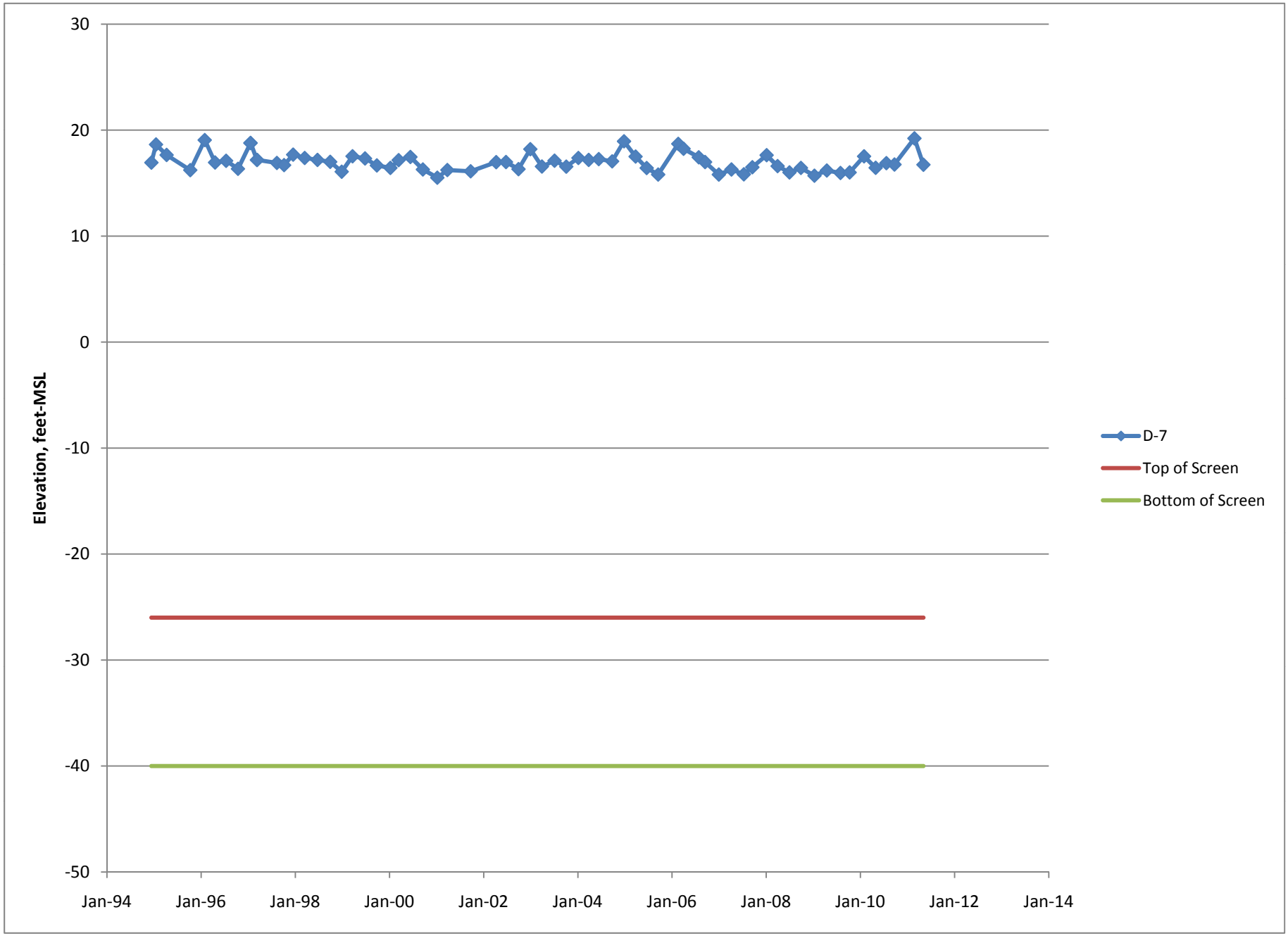
Bottom of Screen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Elevation, feet-MSL
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Jan-96
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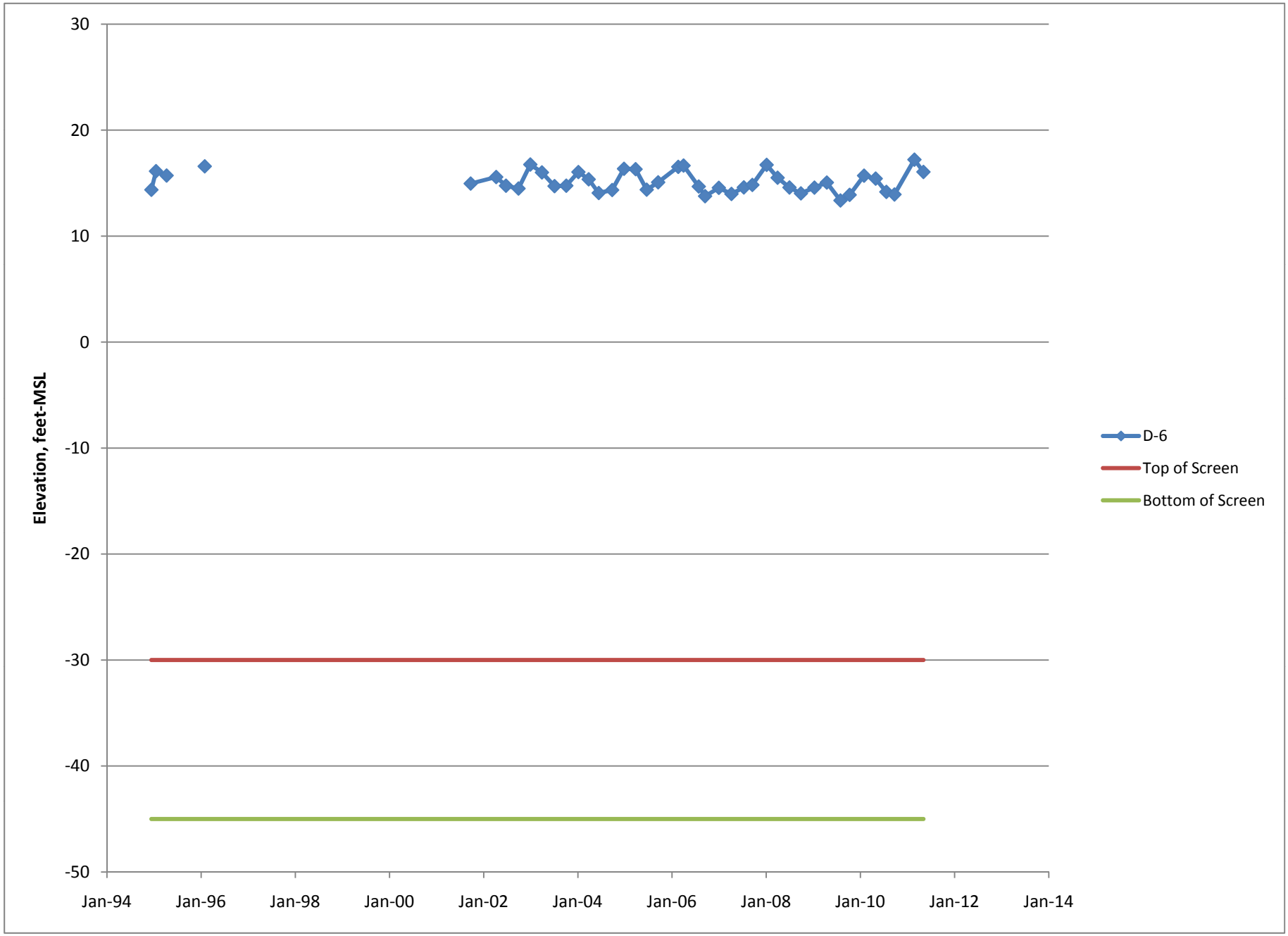
Jan-10
Jan-12
Jan-14
D-7
Top of Screen
Bottom of Screen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Jan-96
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Jan-12
Jan-14
D-6
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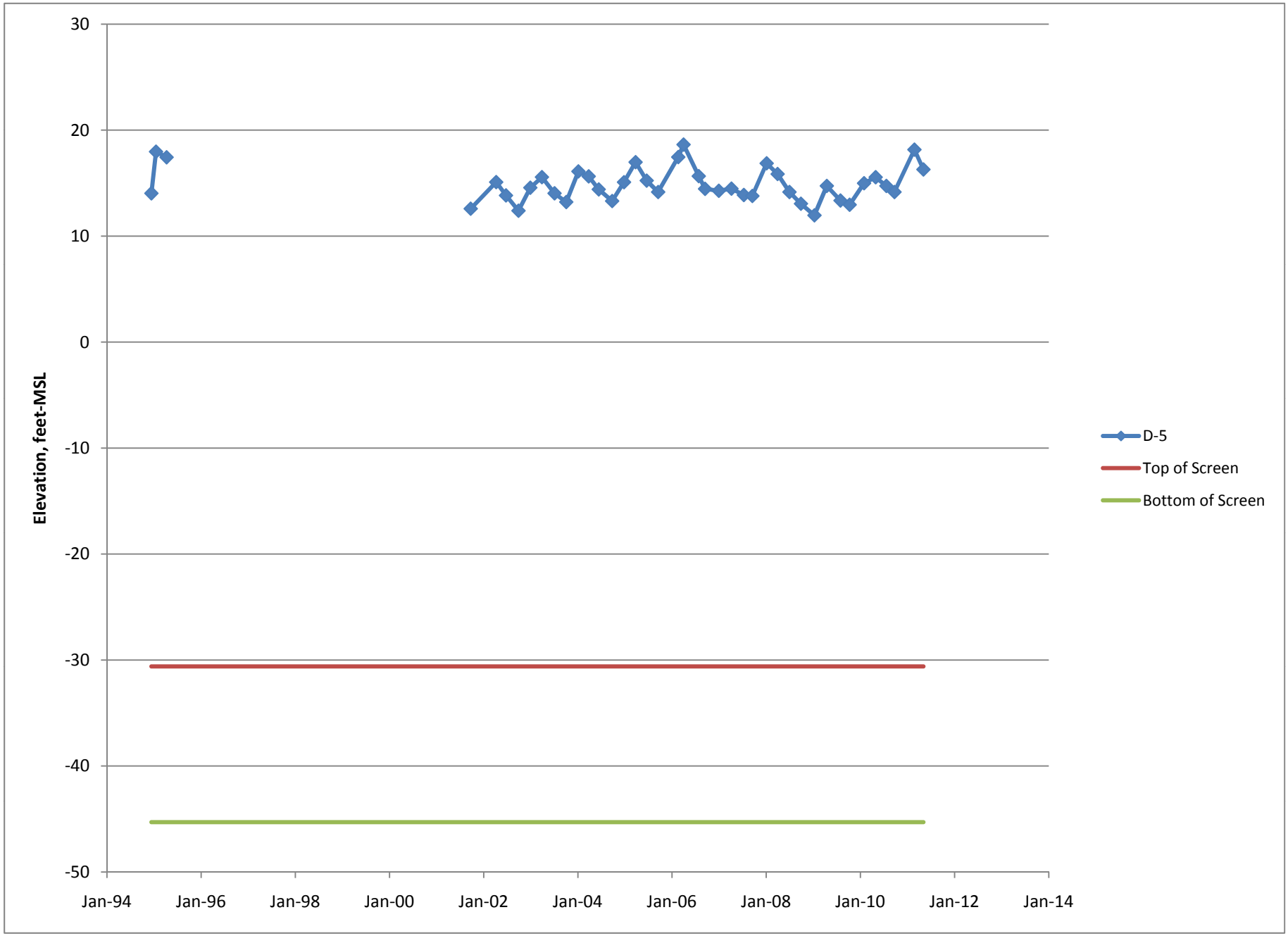
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Jan-12
Jan-14
D-5
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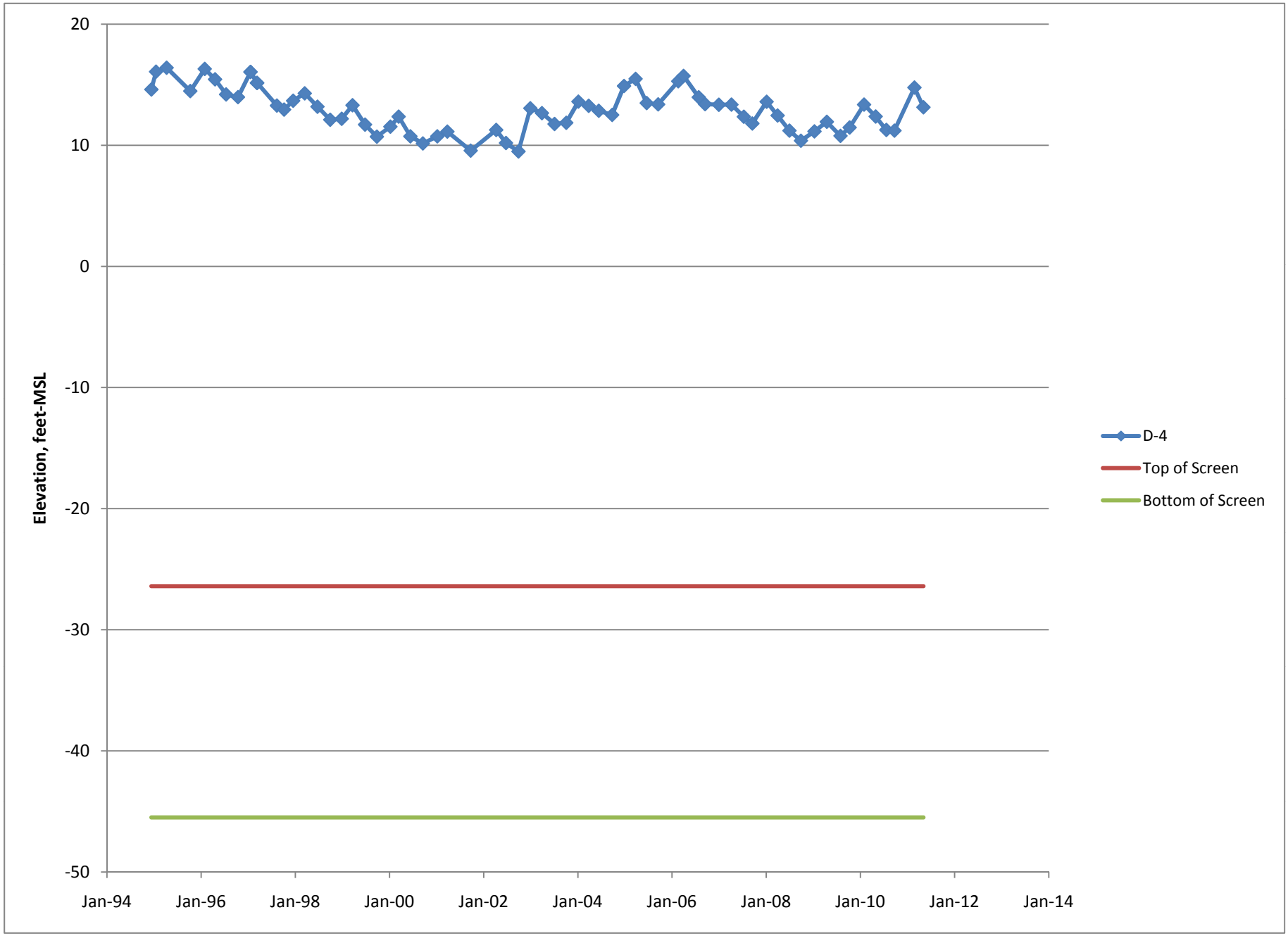
Bottom of Screen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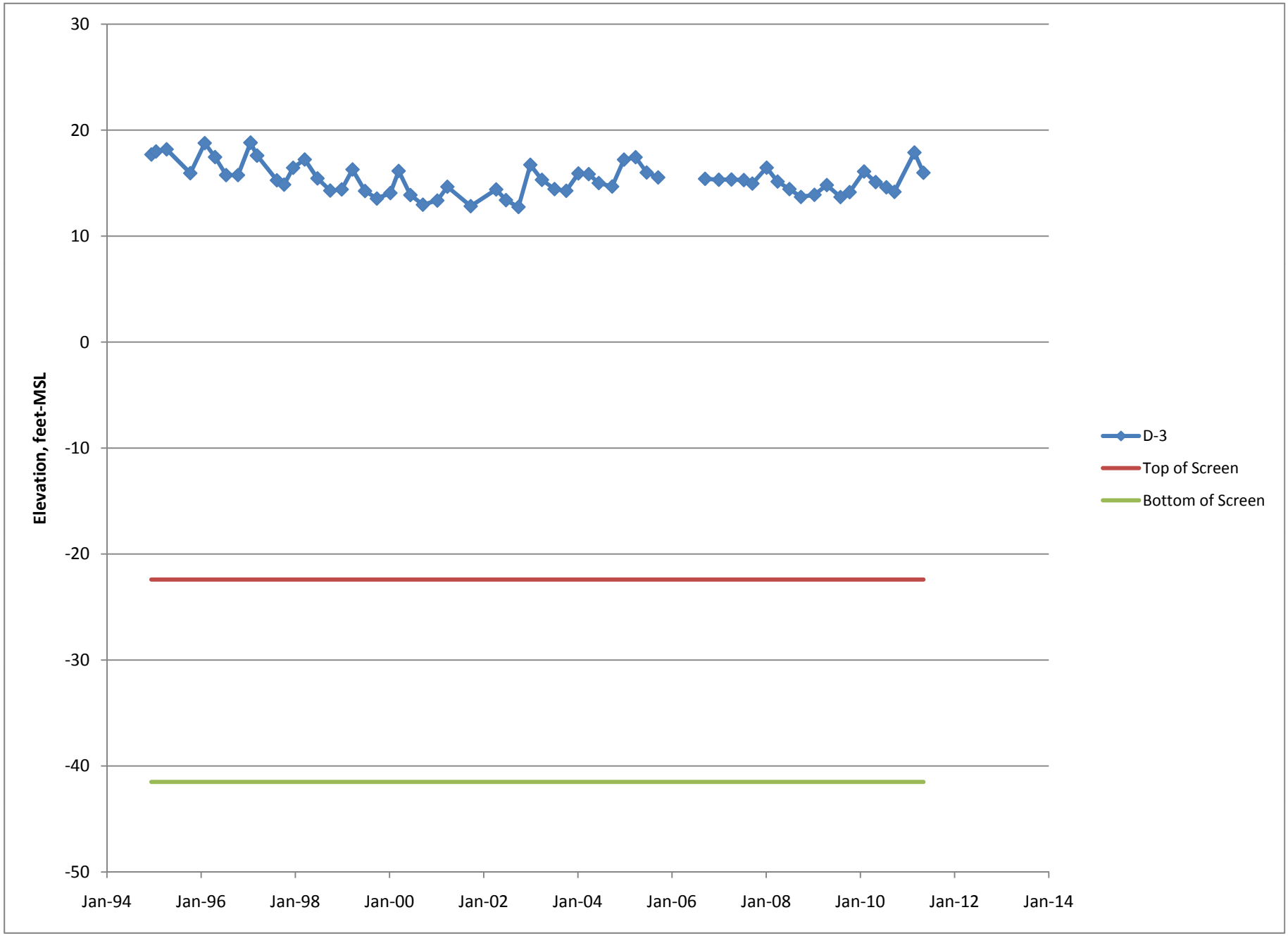
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Jan-12
Jan-14
D-3
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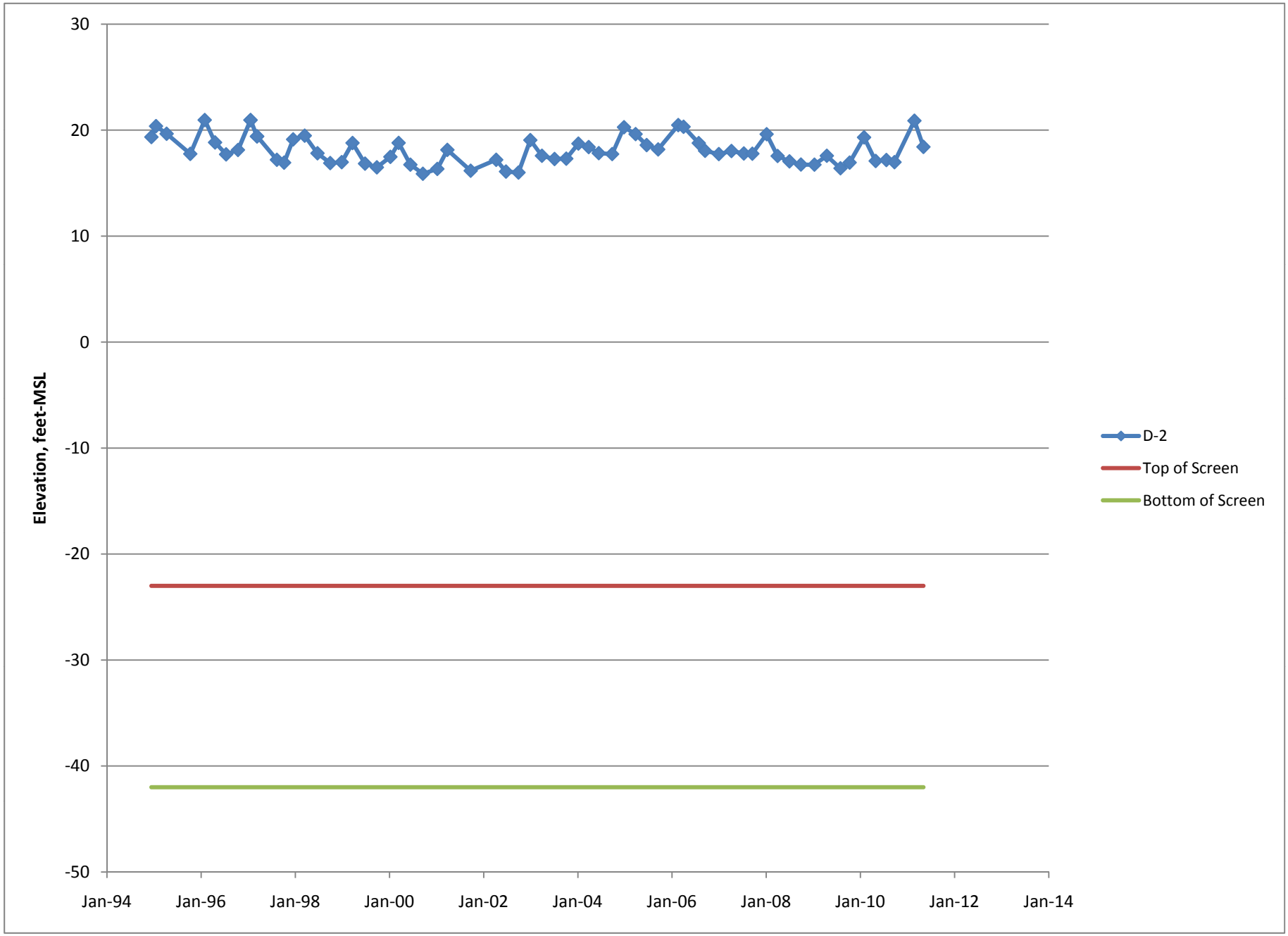
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Jan-12
Jan-14
D-2
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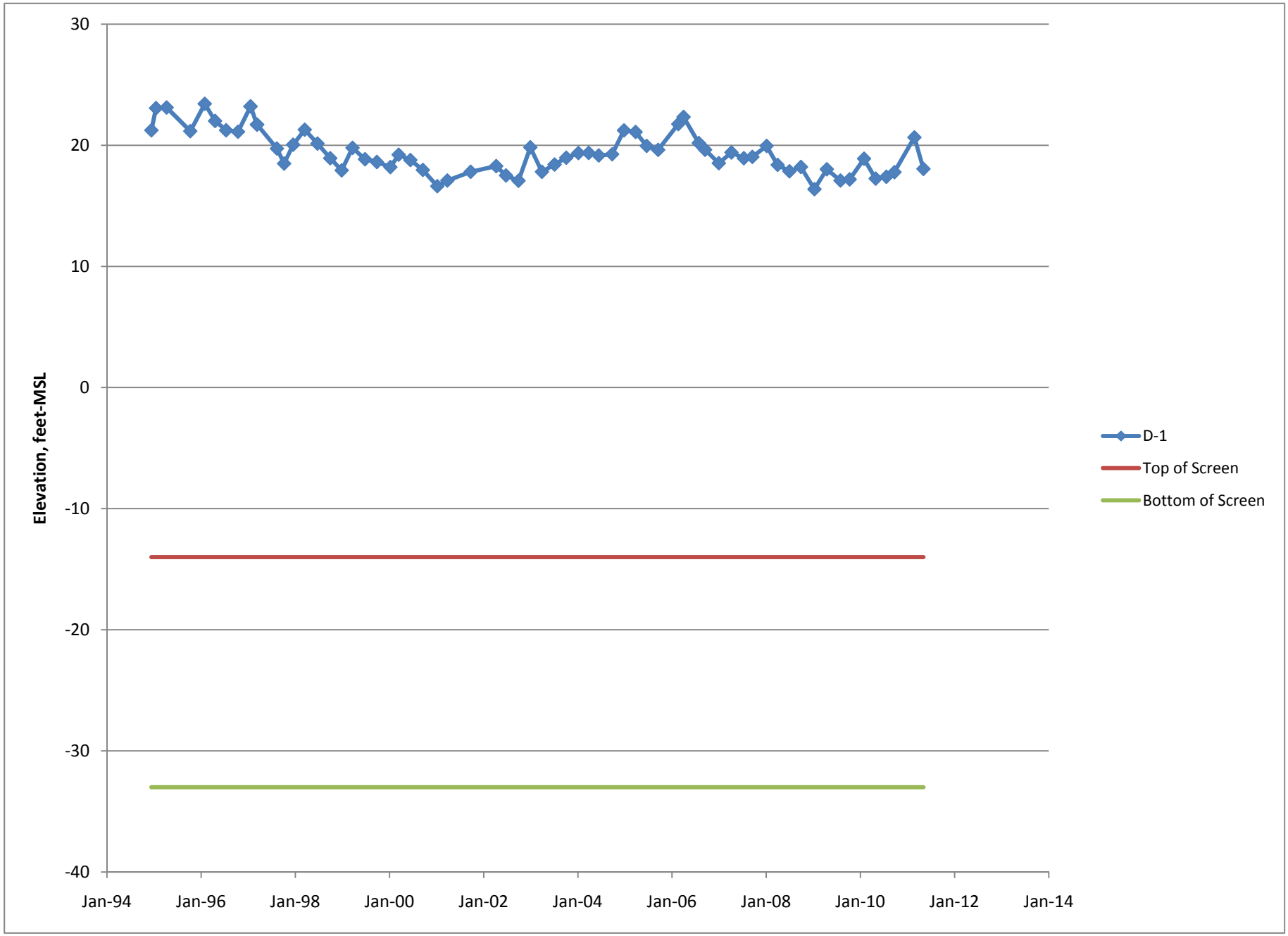
Bottom of Screen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D-1
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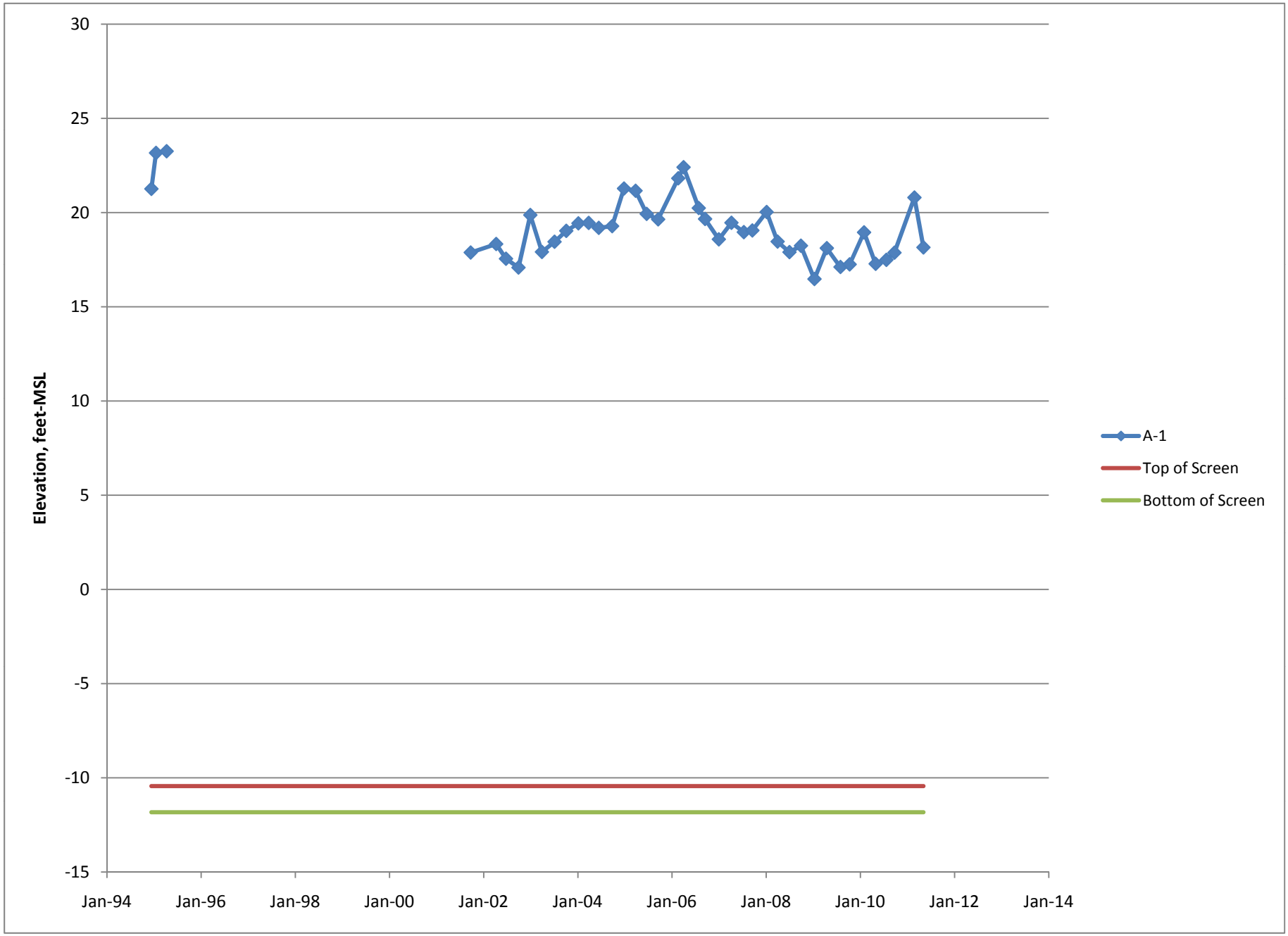
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Jan-14
A-1
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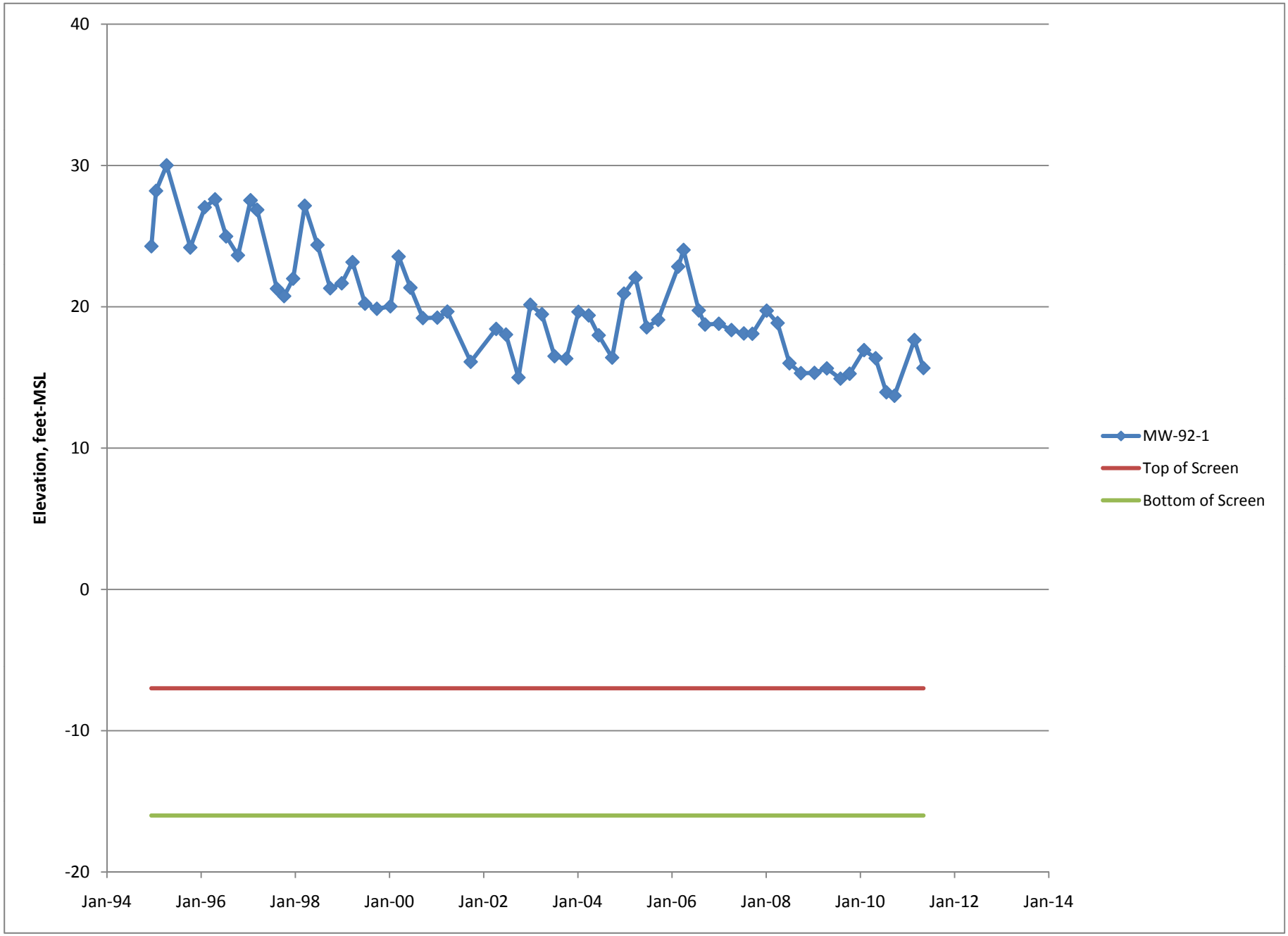
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Elevation, feet-MSL
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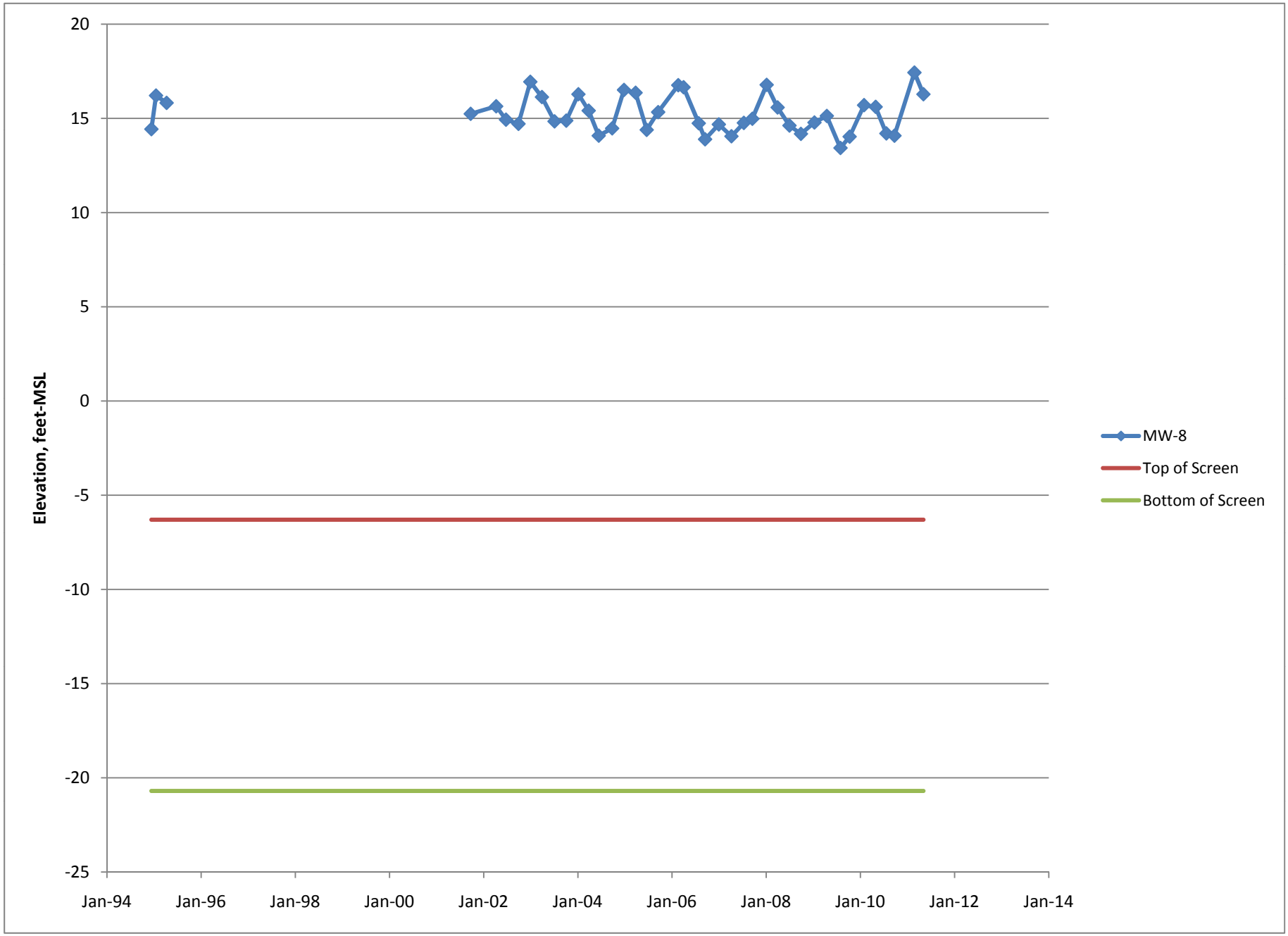
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Elevation, feet-MSL
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Jan-14
MW-8
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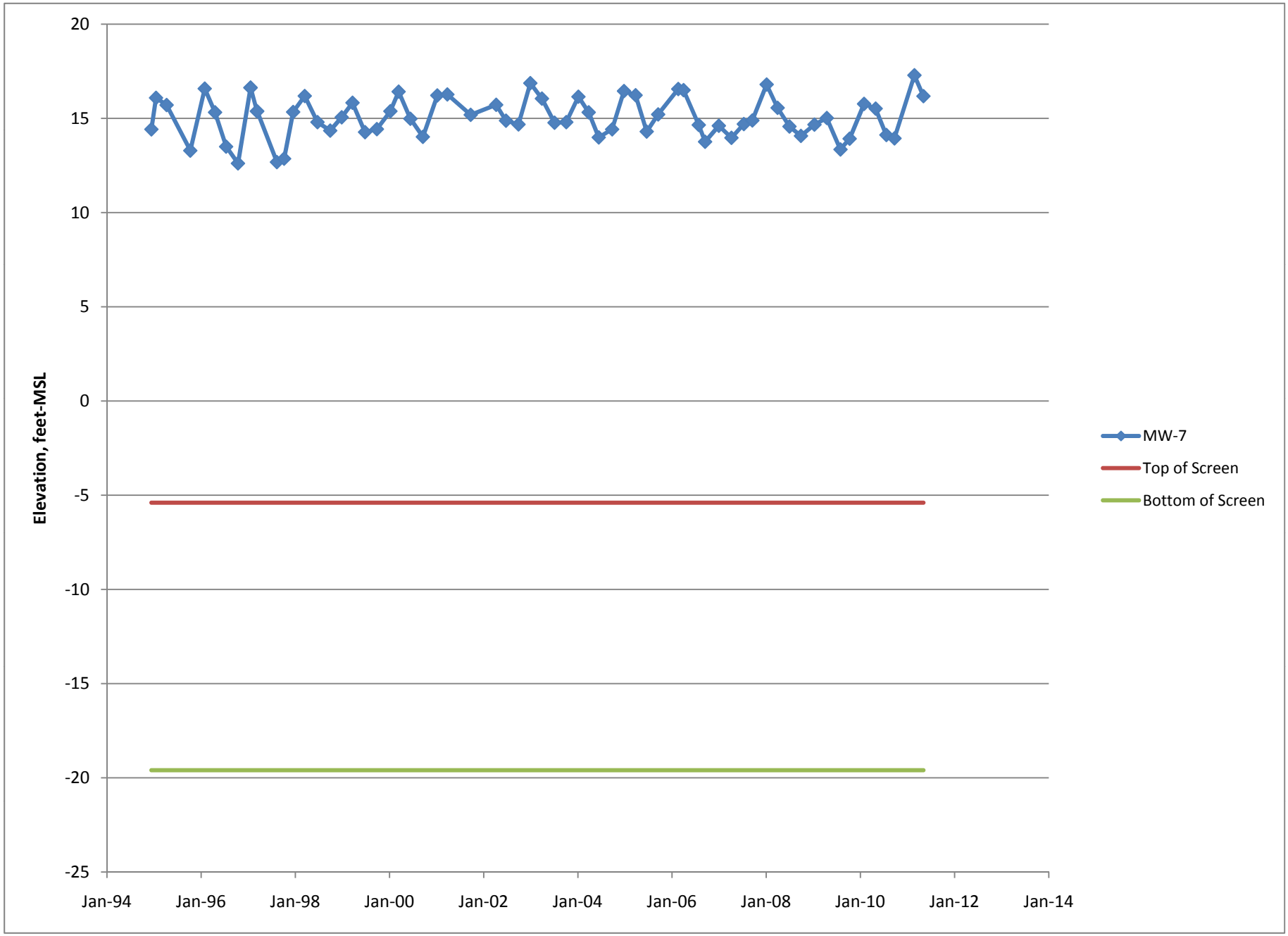
Bottom of Screen


20
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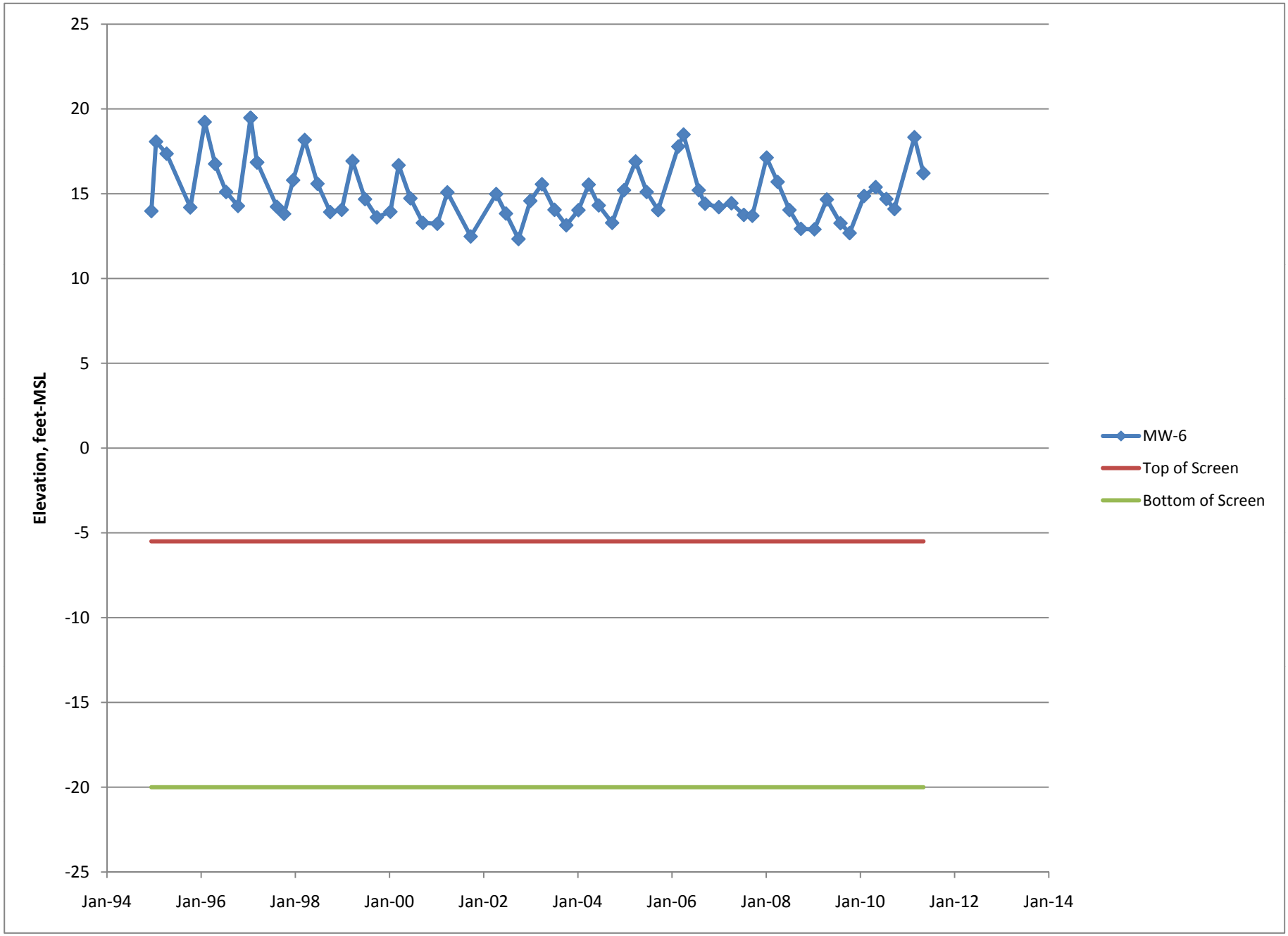
-5
-10
-15
-20
-25
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
MW-7
Top of Screen
Bottom of Screen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-10
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-20
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Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
Jan-00
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Jan-06
Jan-08
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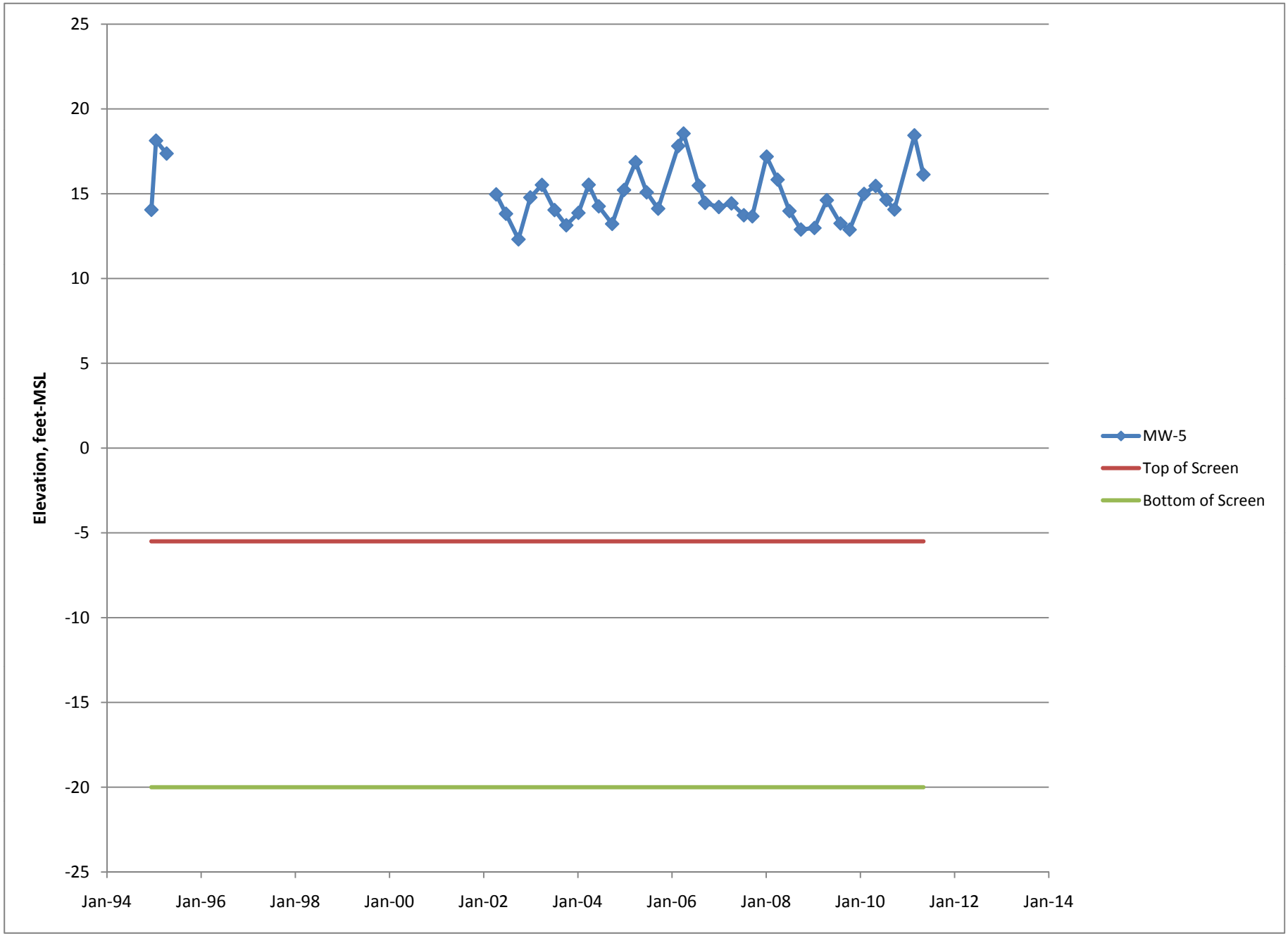
Jan-12
Jan-14
MW-6
Top of Screen
Bottom of Screen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-5
-10
-15
-20
-25
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
Jan-00
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Jan-04
Jan-06
Jan-08
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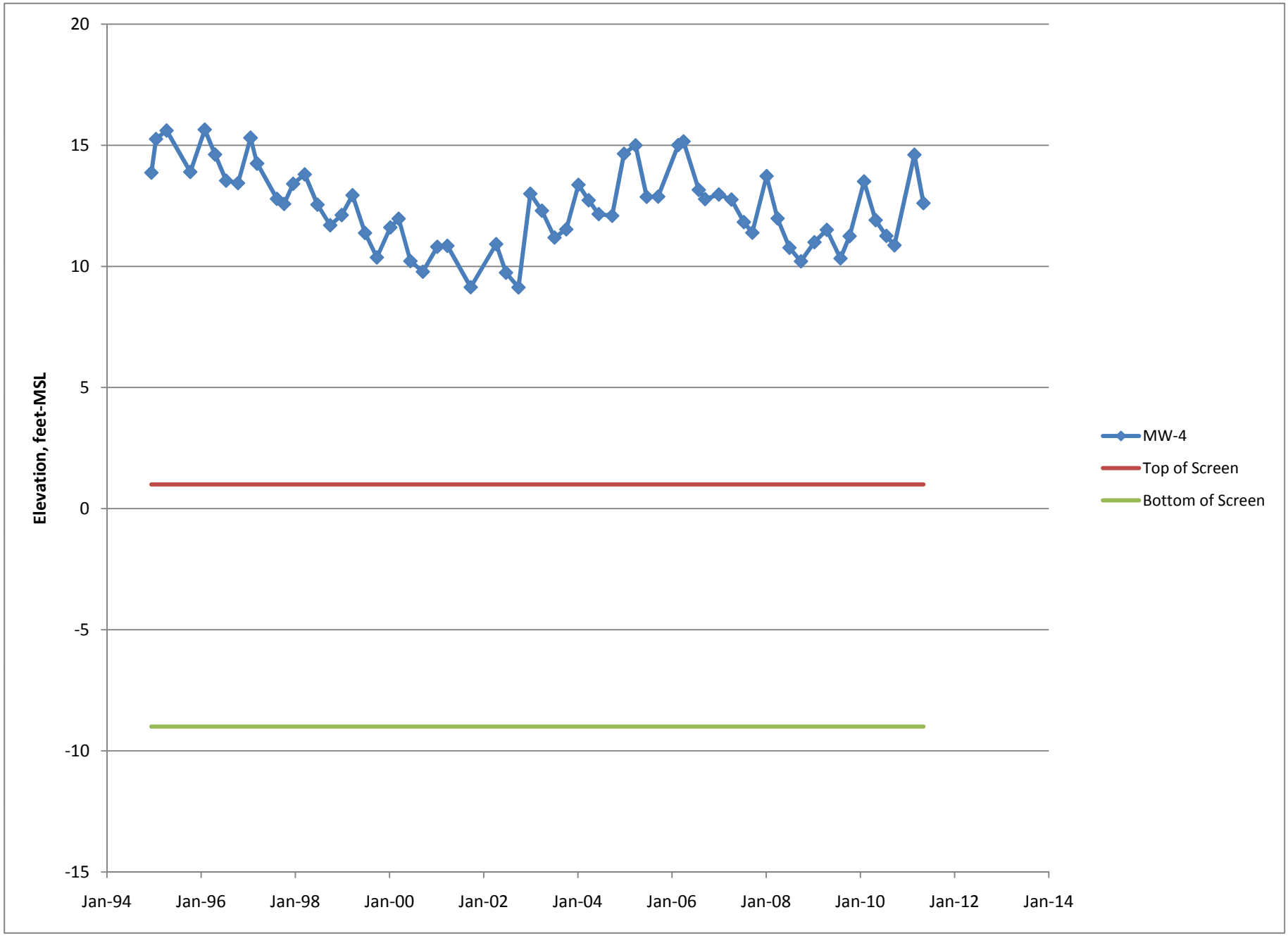
Jan-12
Jan-14
MW-5
Top of Screen
Bottom of Screen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-10
-15
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
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Jan-06
Jan-08
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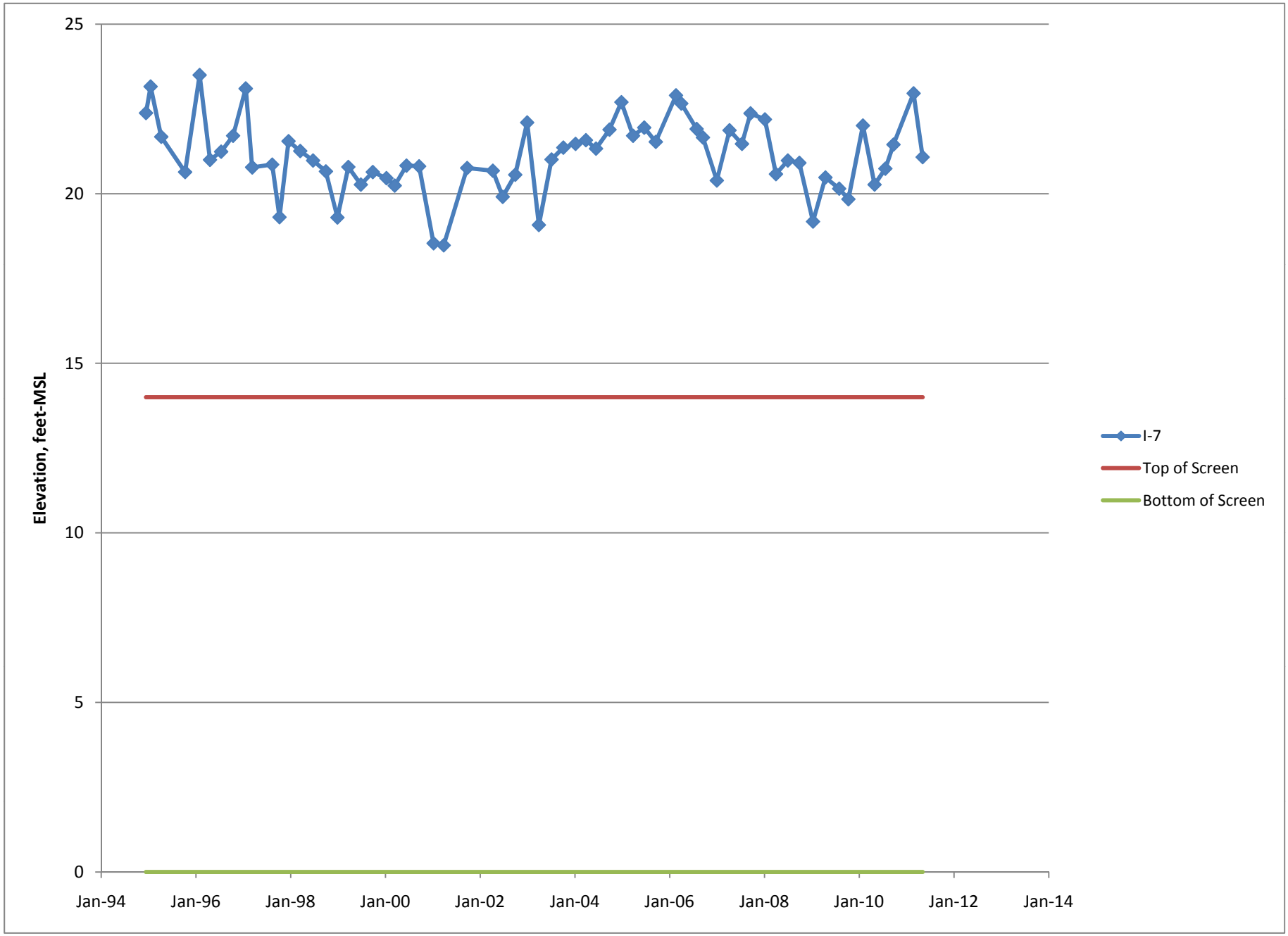
Jan-12
Jan-14
MW-4
Top of Screen
Bottom of Screen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Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
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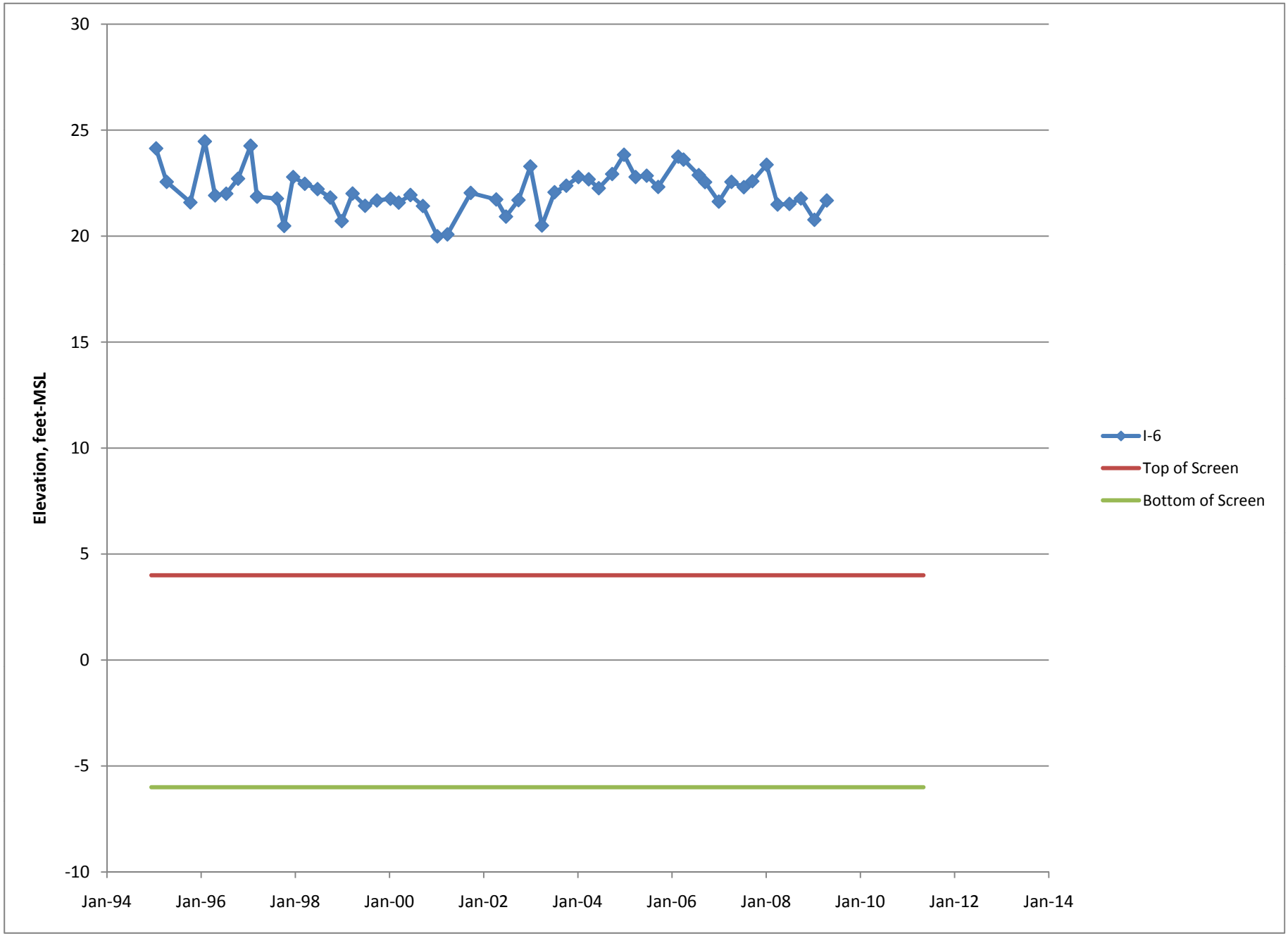
Jan-12
Jan-14
I-7
Top of Screen
Bottom of Screen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Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
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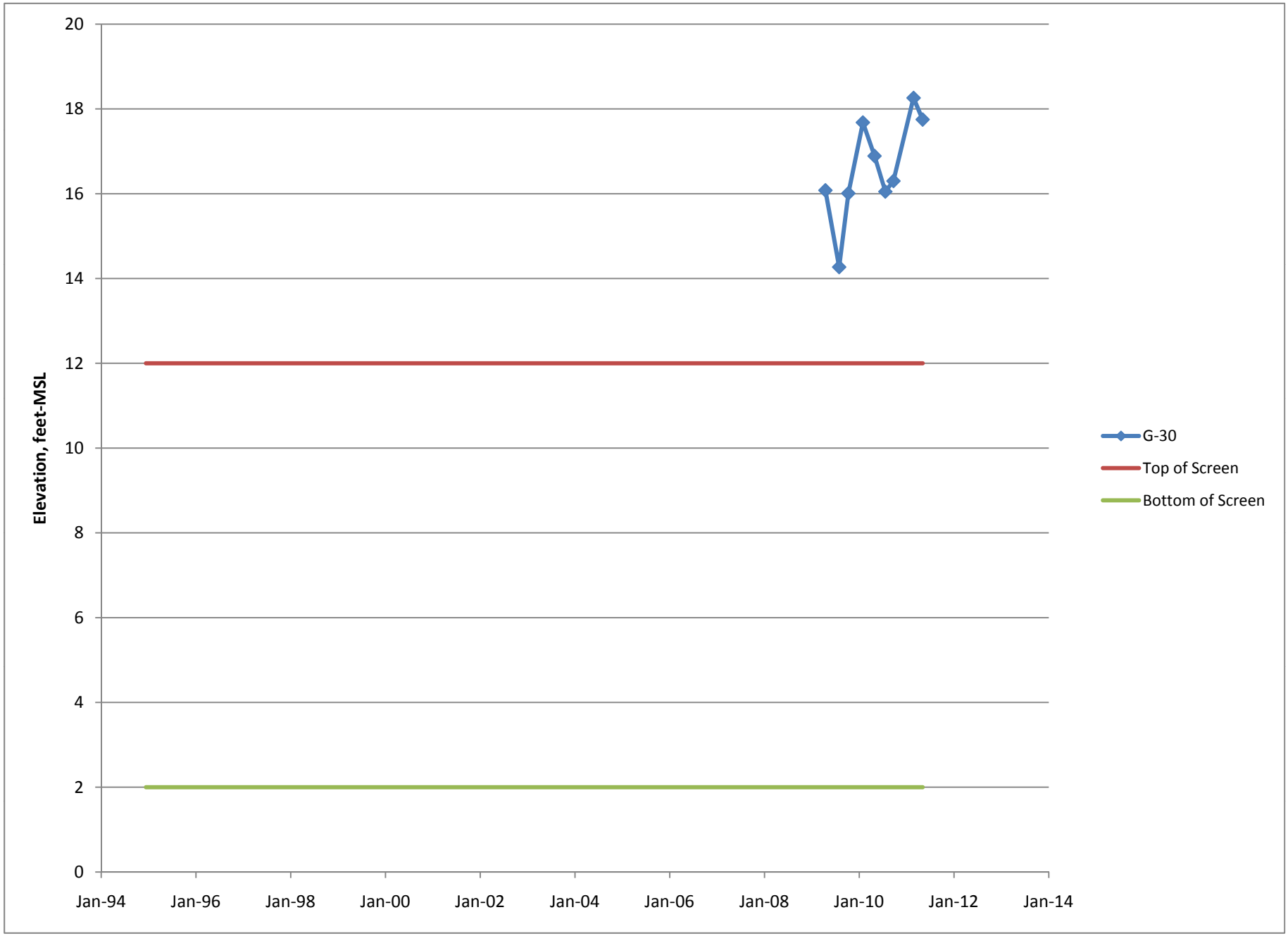
Jan-12
Jan-14
I-6
Top of Screen
Bottom of Screen


Elevation, feet-MSL
20
18
16
14
12
10
8
6
4
2
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Jan-94
Jan-96
Jan-98
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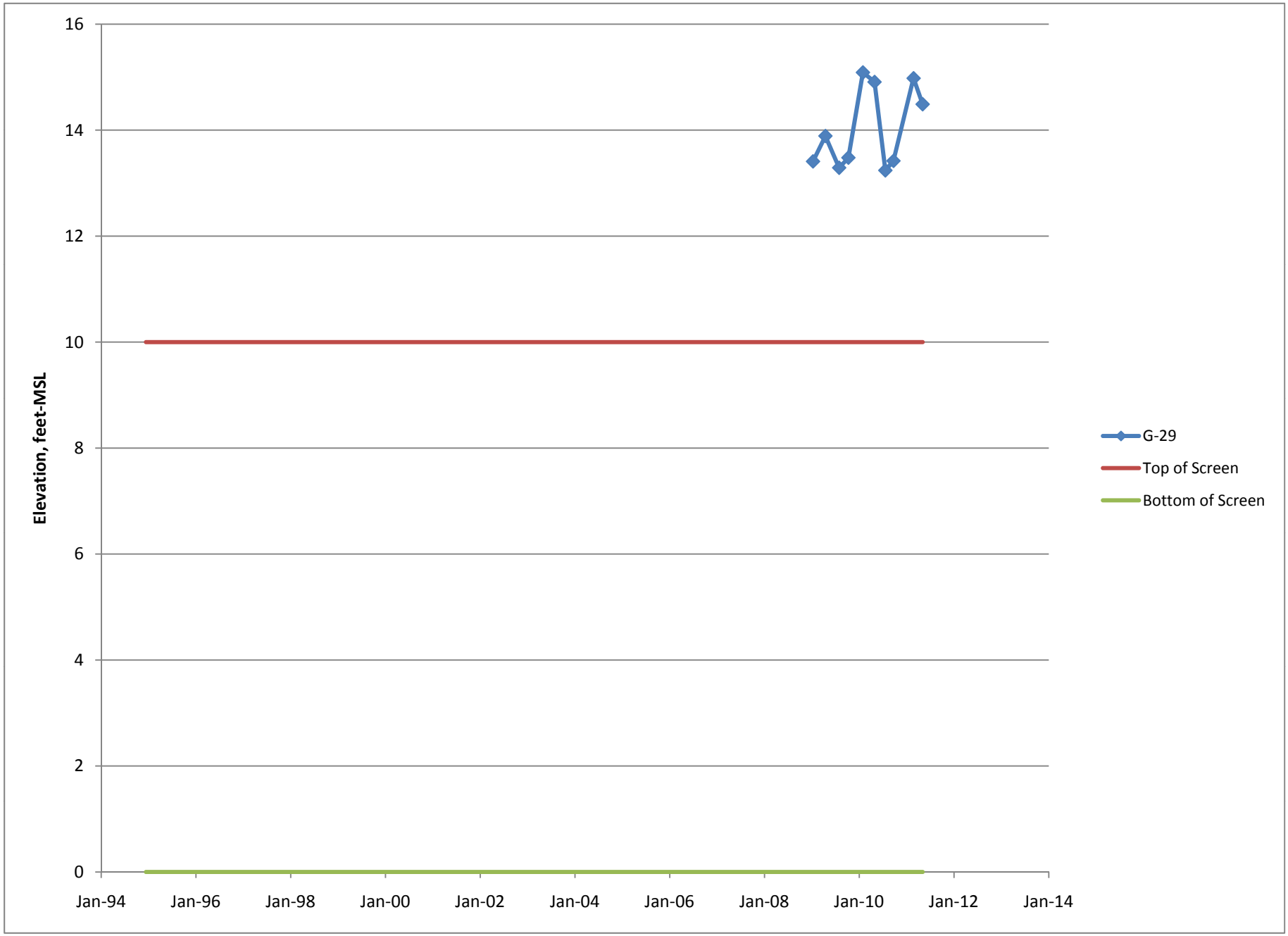
Jan-12
Jan-14
G-30
Top of Screen
Bottom of Screen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6
4
2
0
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
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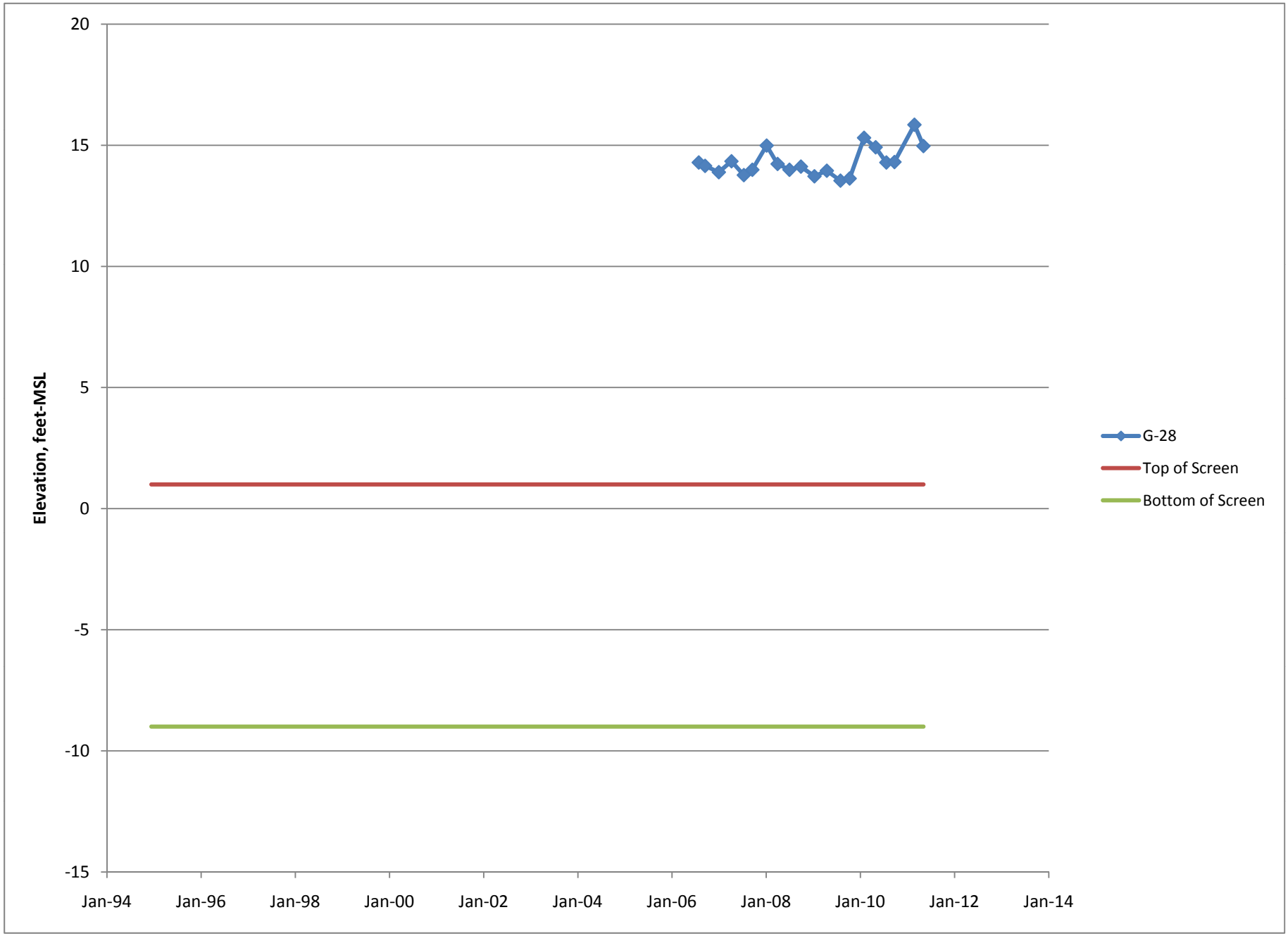
Jan-12
Jan-14
G-29
Top of Screen
Bottom of Screen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-5
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-15
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
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Jan-08
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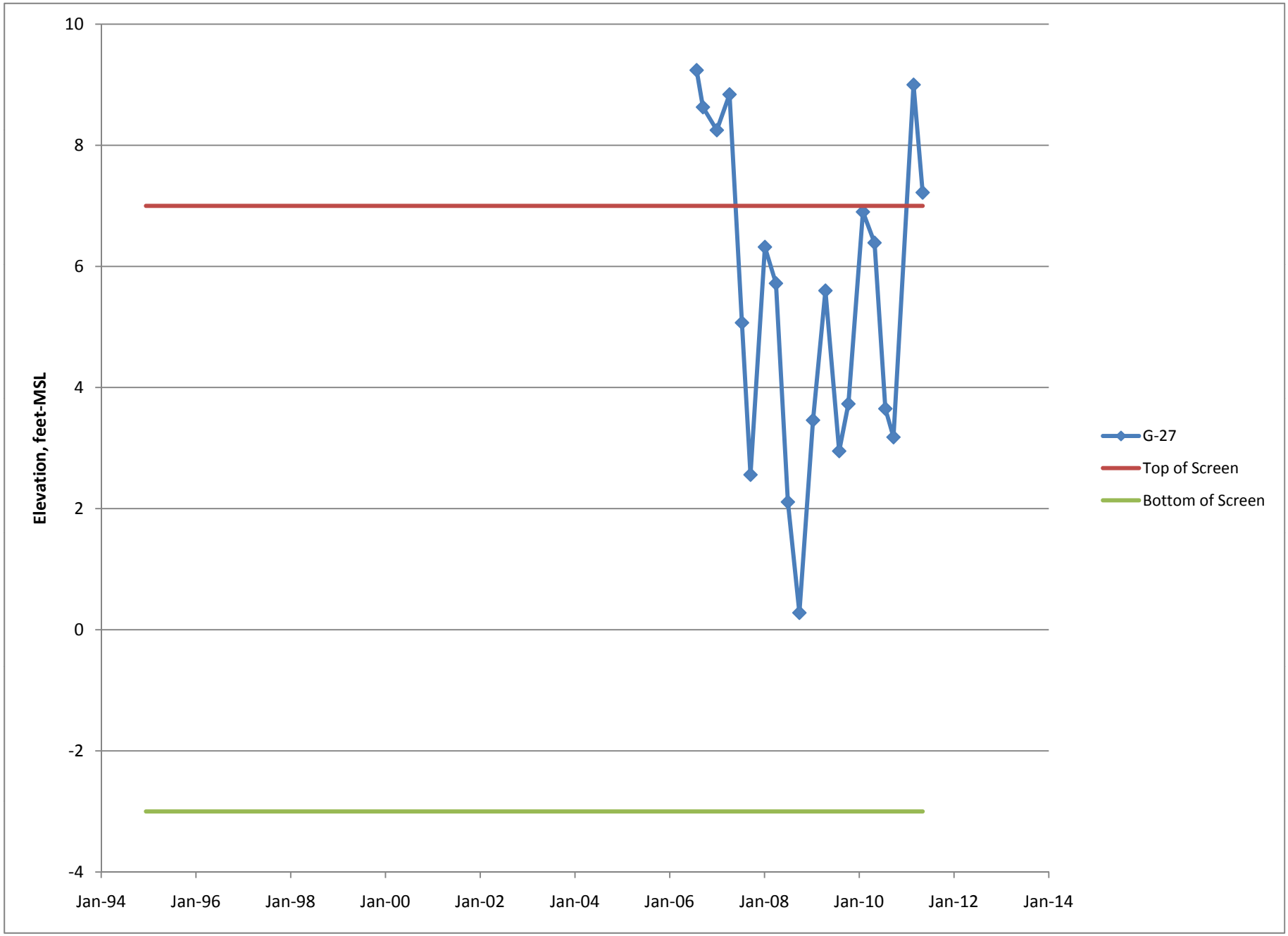
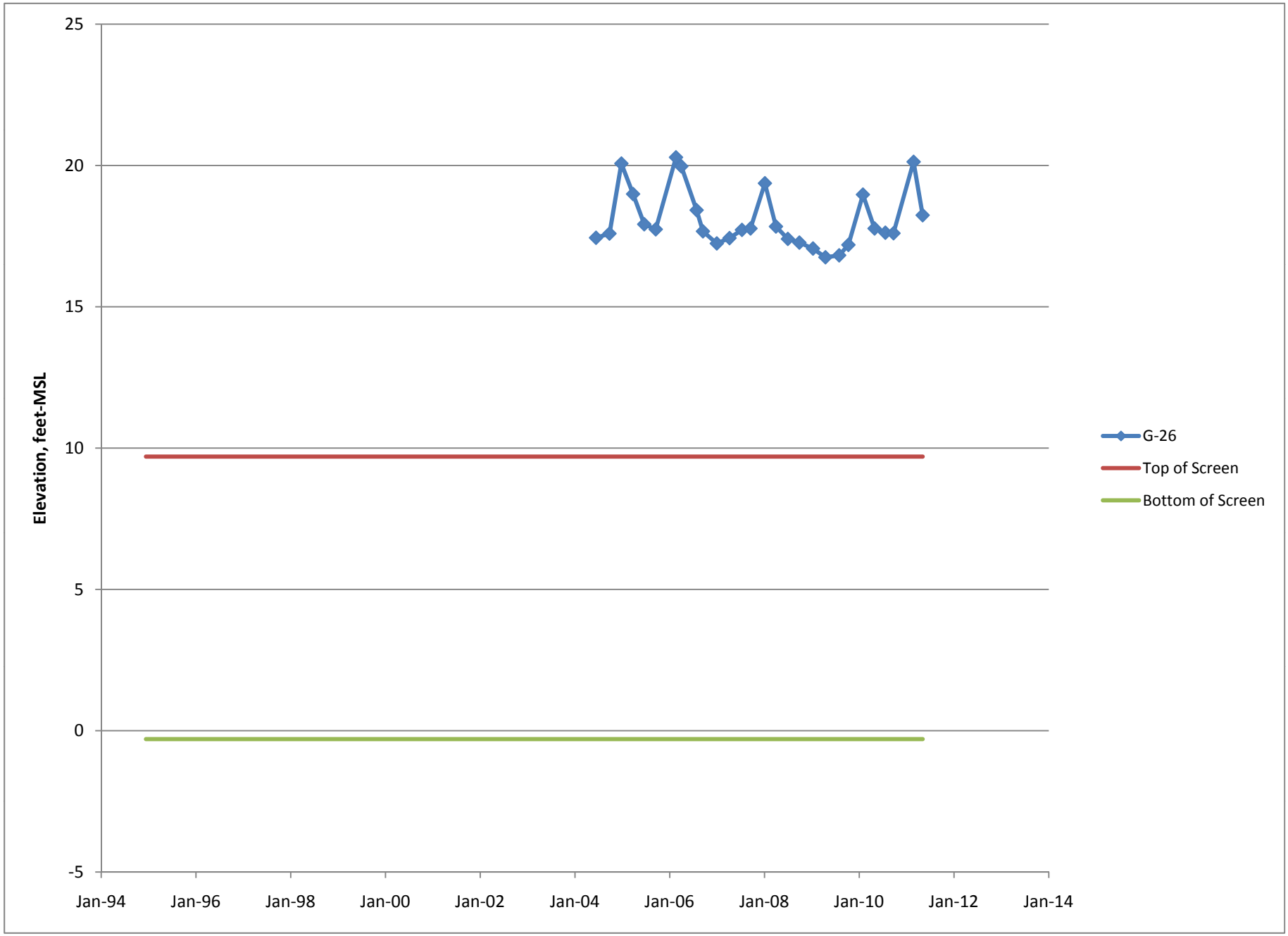
Jan-12
Jan-14
G-28
Top of Screen
Bottom of Screen


10
8
6
4
2
0
-2
-4
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
G-27
Top of Screen
Bottom of Screen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5
0
-5
Elevation, feet-MSL
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Jan-96
Jan-98
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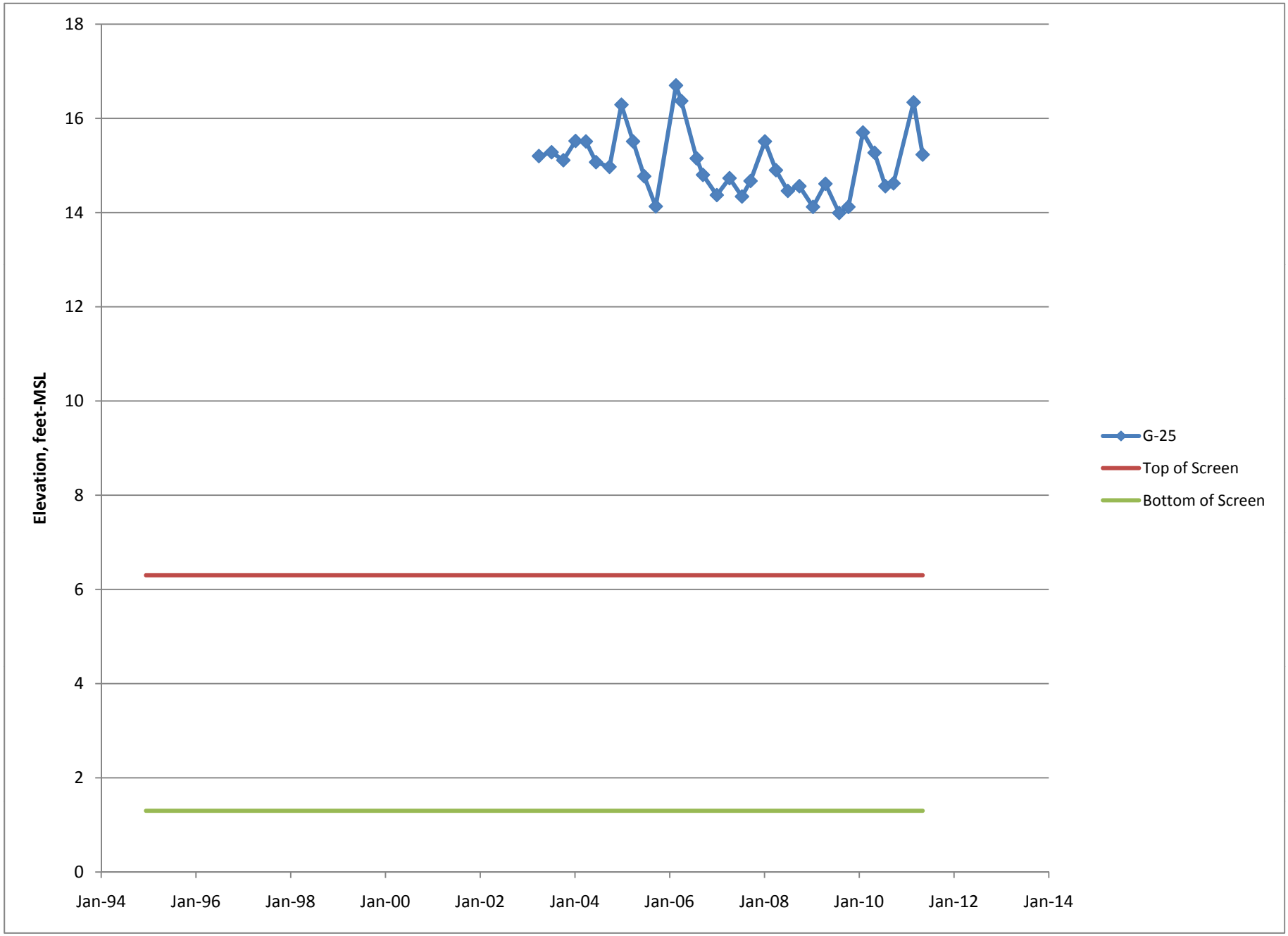
Jan-08
Jan-10
Jan-12
Jan-14
G-26
Top of Screen
Bottom of Screen


18
16
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12
10
8
6
4
2
0
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
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Jan-02
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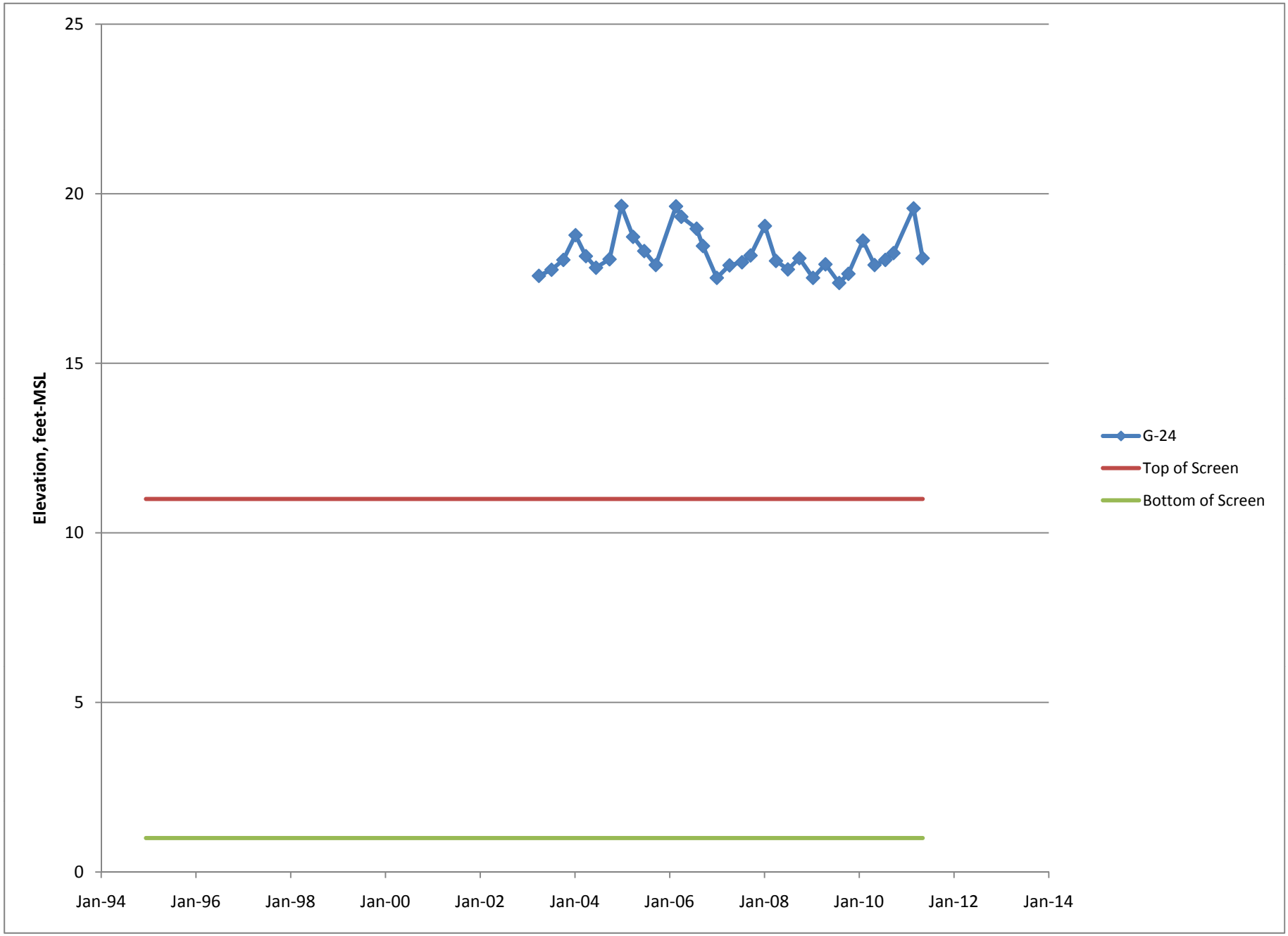
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
G-25
Top of Screen
Bottom of Screen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Elevation, feet-MSL
Jan-94
Jan-96
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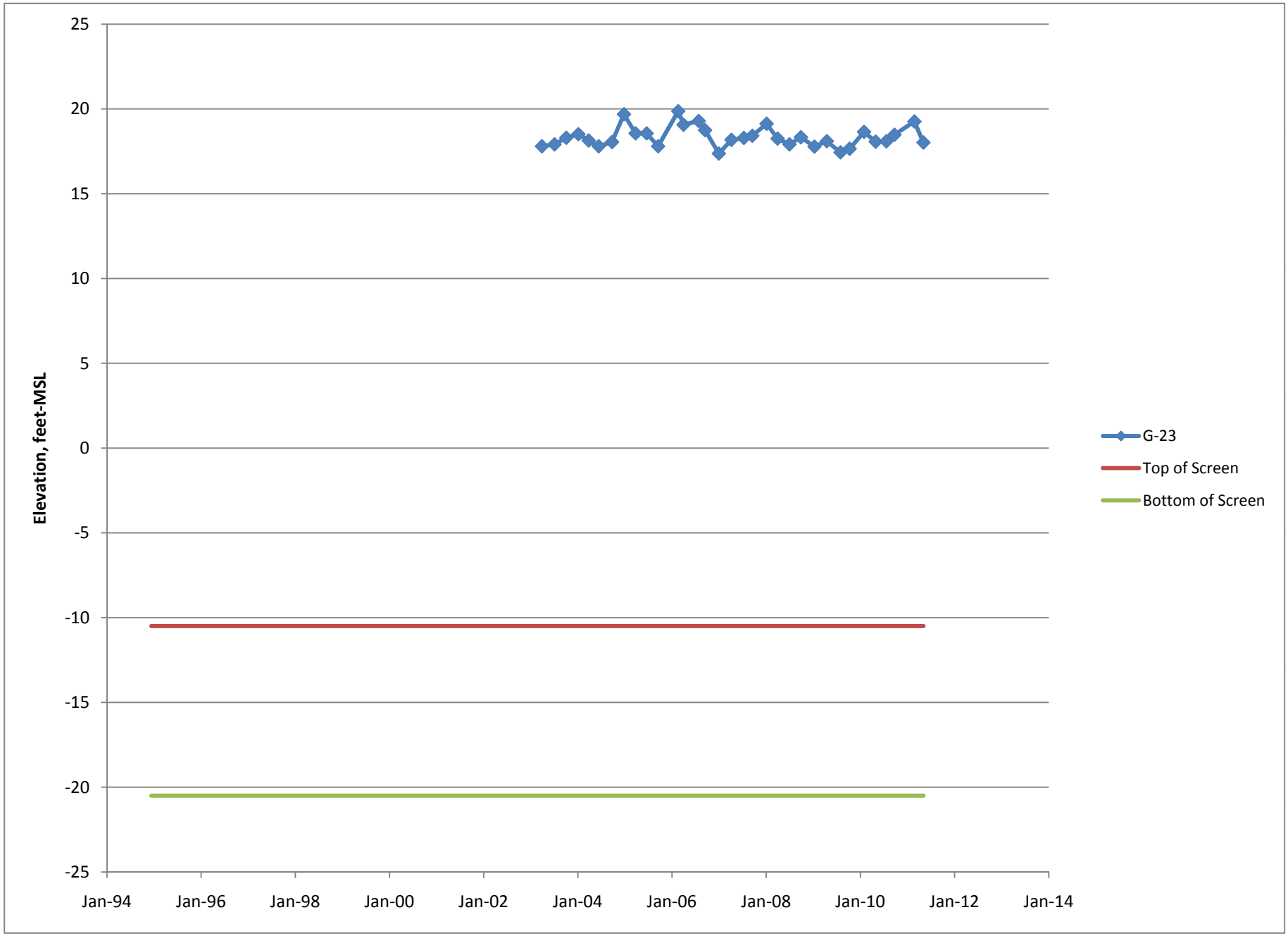
Jan-12
Jan-14
G-24
Top of Screen
Bottom of Screen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-5
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-15
-20
-25
Elevation, feet-MSL
Jan-94
Jan-96
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Jan-00
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Jan-08
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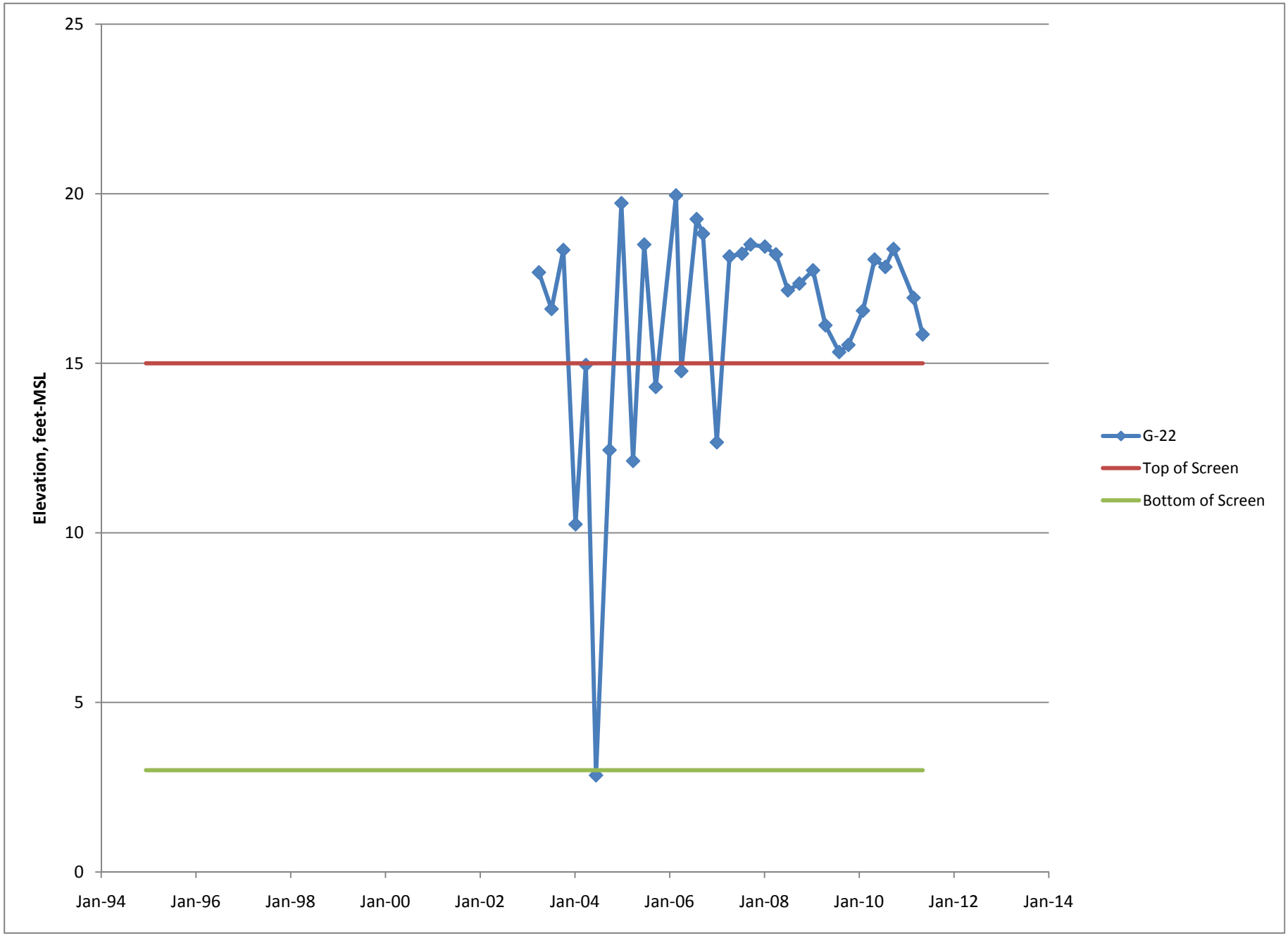
Jan-12
Jan-14
G-23
Top of Screen
Bottom of Screen


25
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15
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Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
Jan-00
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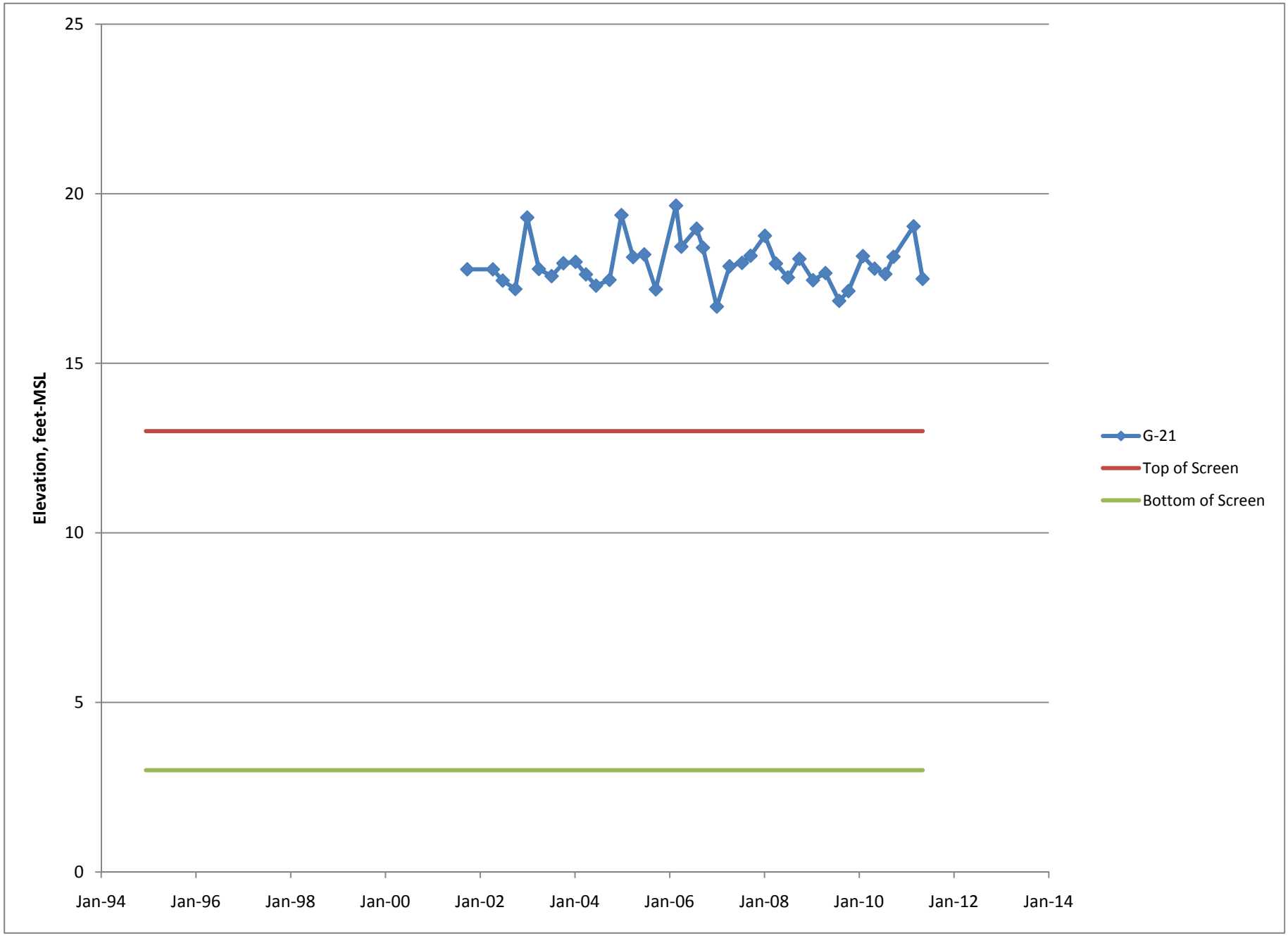
Jan-08
Jan-10
Jan-12
Jan-14
G-22
Top of Screen
Bottom of Screen


25
20
15
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5
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Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
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Jan-08
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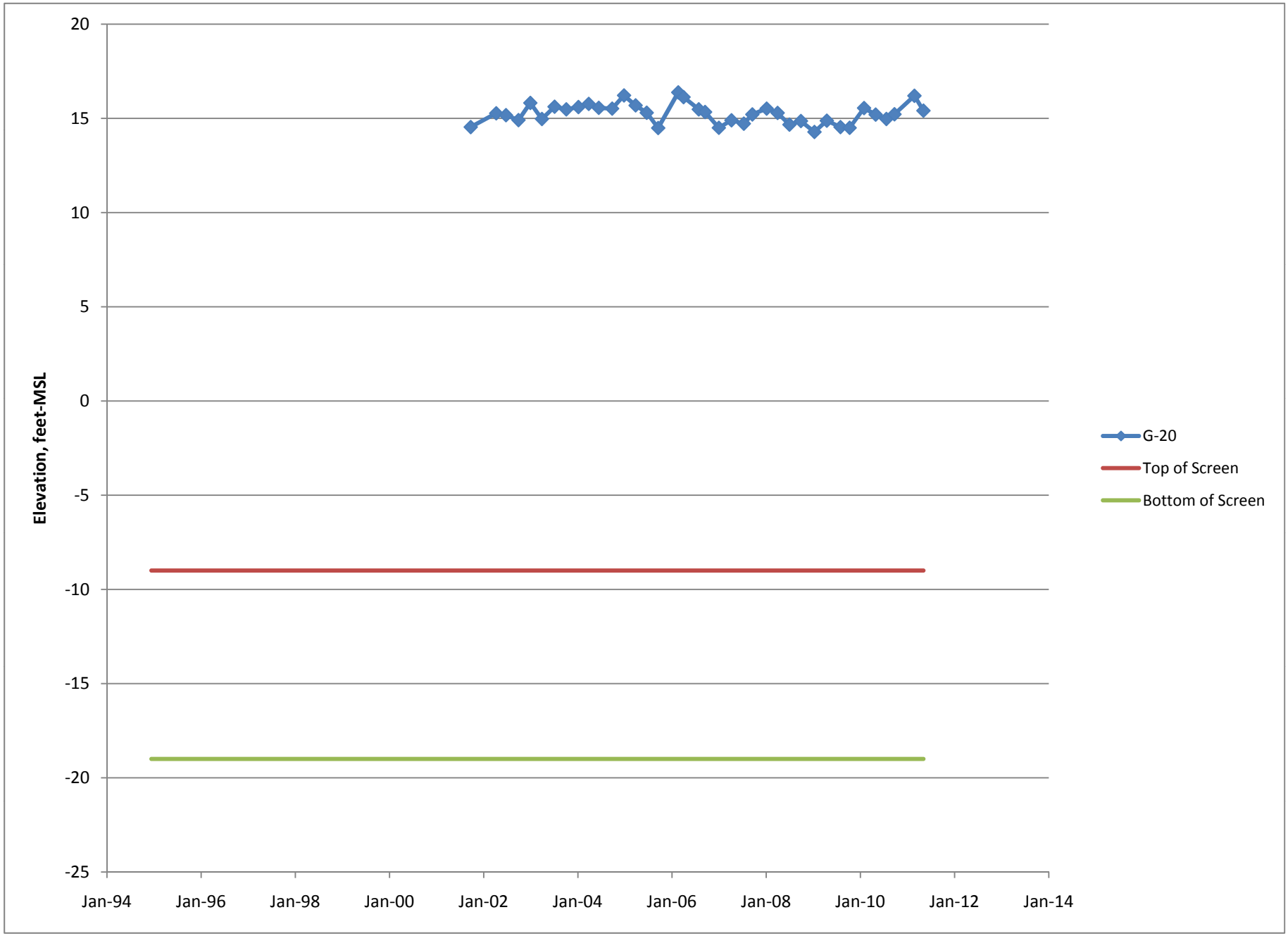
Jan-12
Jan-14
G-21
Top of Screen
Bottom of Screen


20
15
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0
-5
-10
-15
-20
-25
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
Jan-00
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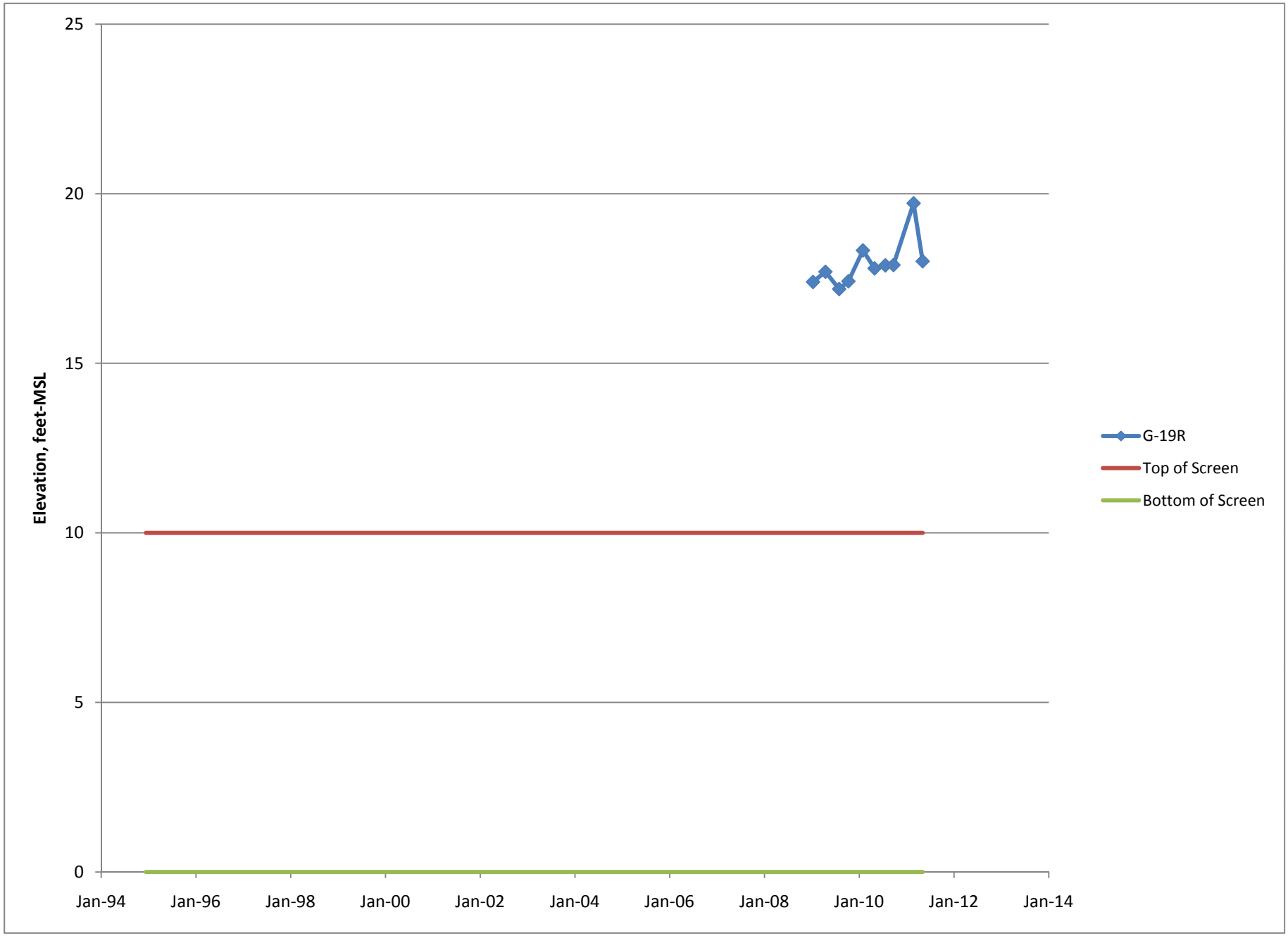
Jan-04
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
G-20
Top of Screen
Bottom of Screen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15
10
5
0
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
Jan-00
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Jan-04
Jan-06
Jan-08
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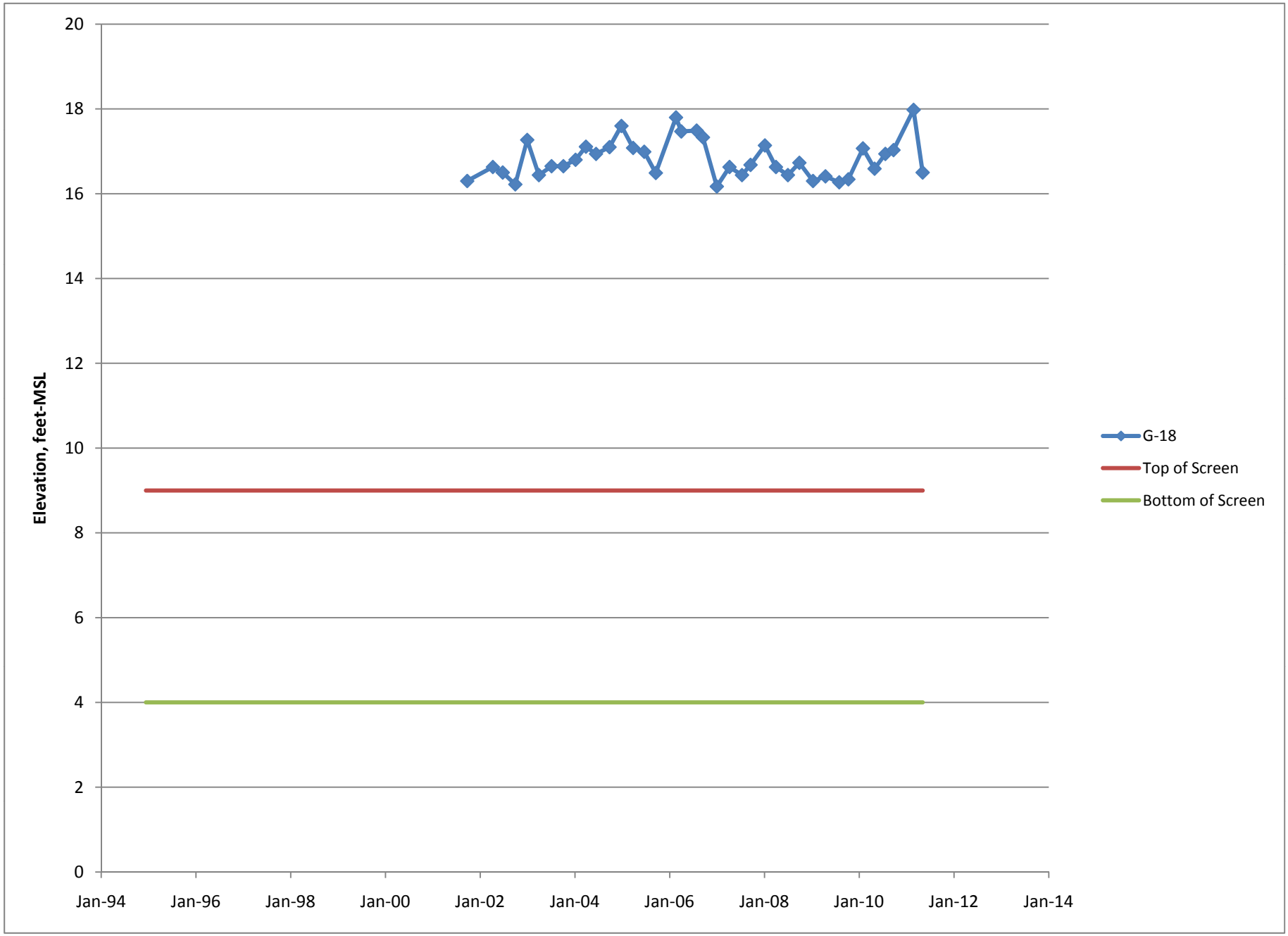
Jan-12
Jan-14
G-19R
Top of Screen
Bottom of Screen


Elevation, feet-MSL
20
18
16
14
12
10
8
6
4
2
0
Jan-94
Jan-96
Jan-98
Jan-00
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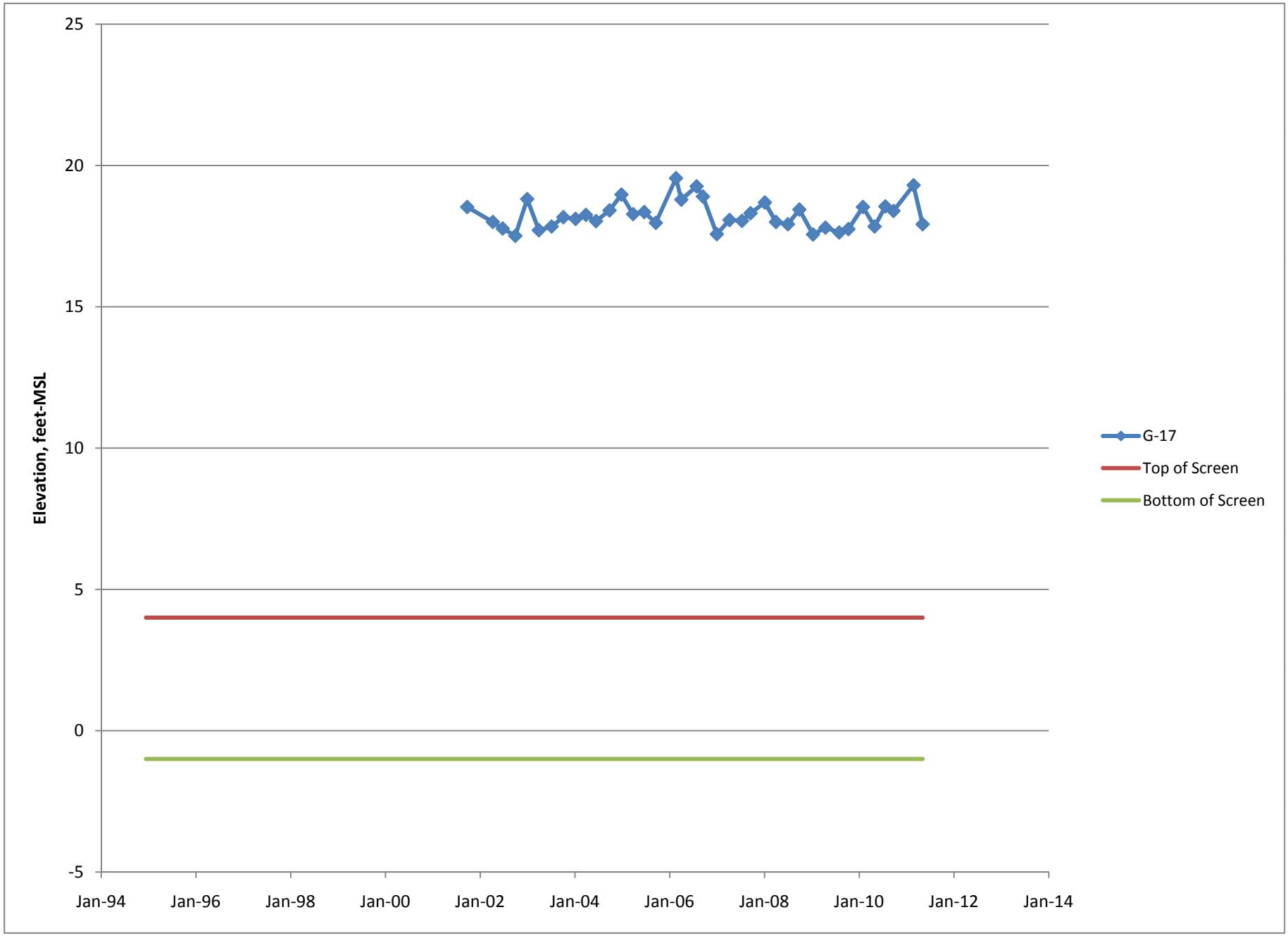
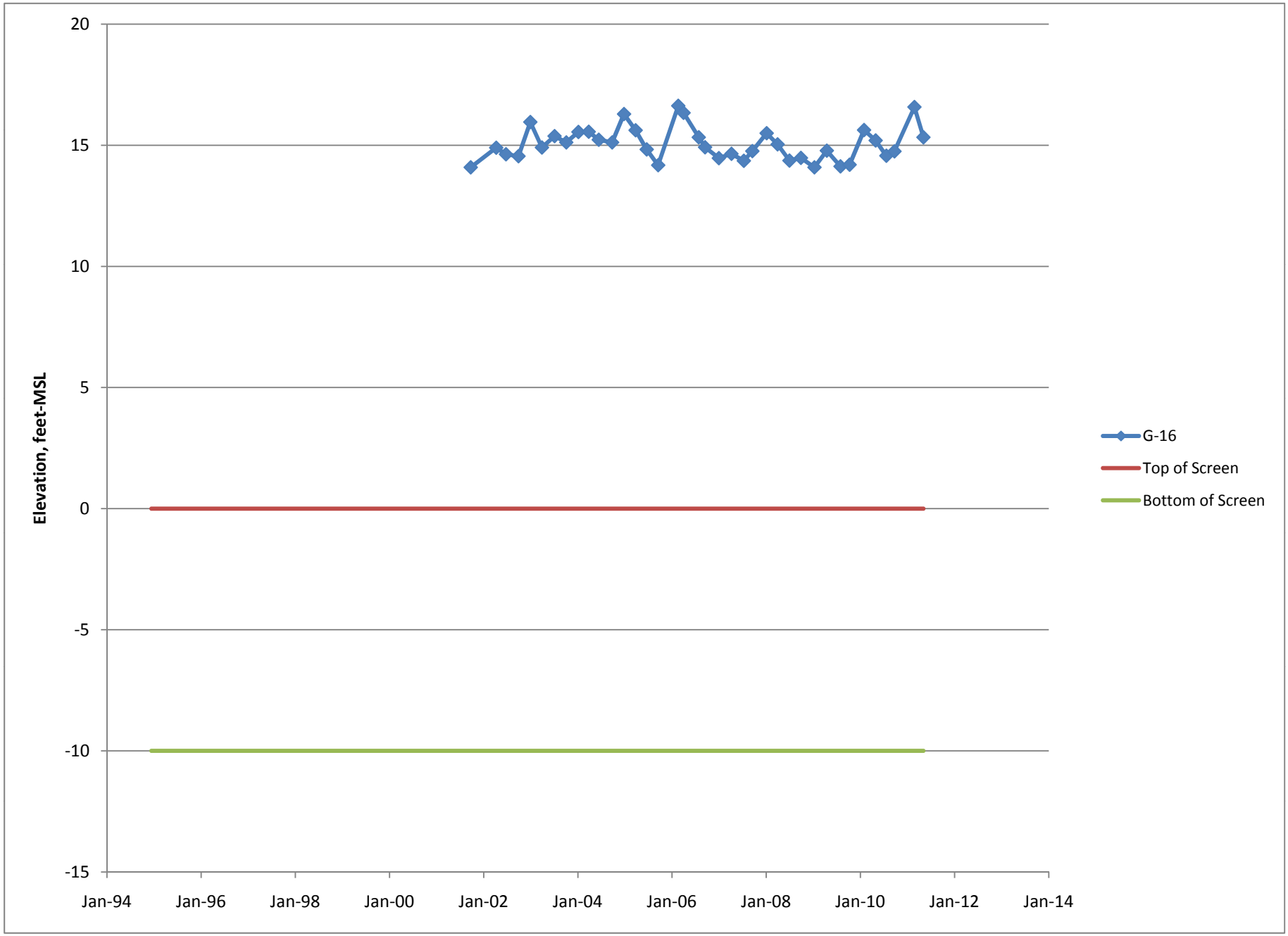
Jan-04
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
G-18
Top of Screen
Bottom of Screen


25
20
15
10
5
0
-5
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
G-17
Top of Screen
Bottom of Screen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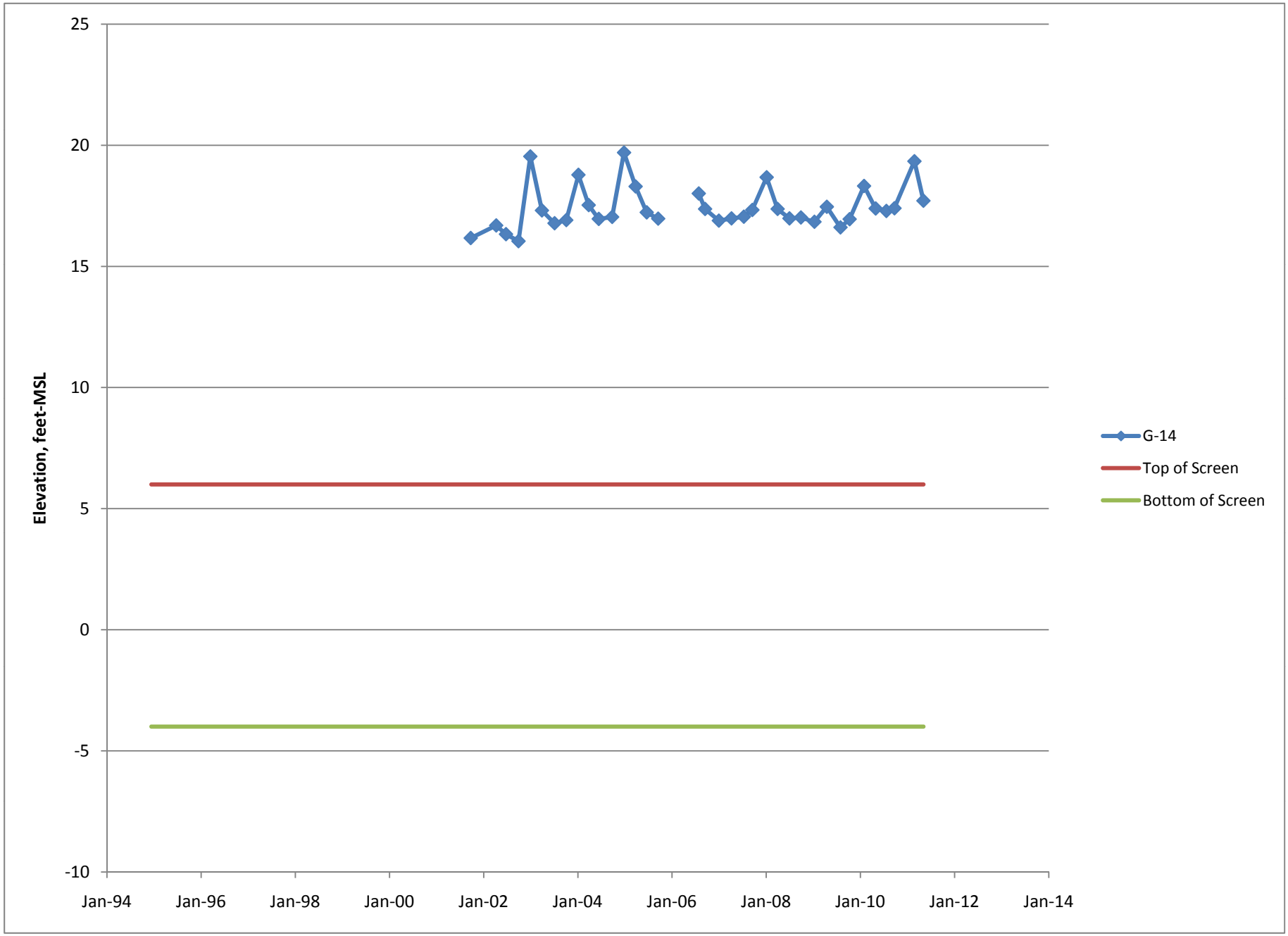
5
0
-5
-10
-15
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
G-16
Top of Screen
Bottom of Screen


25
20
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5
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-5
-10
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Jan-08
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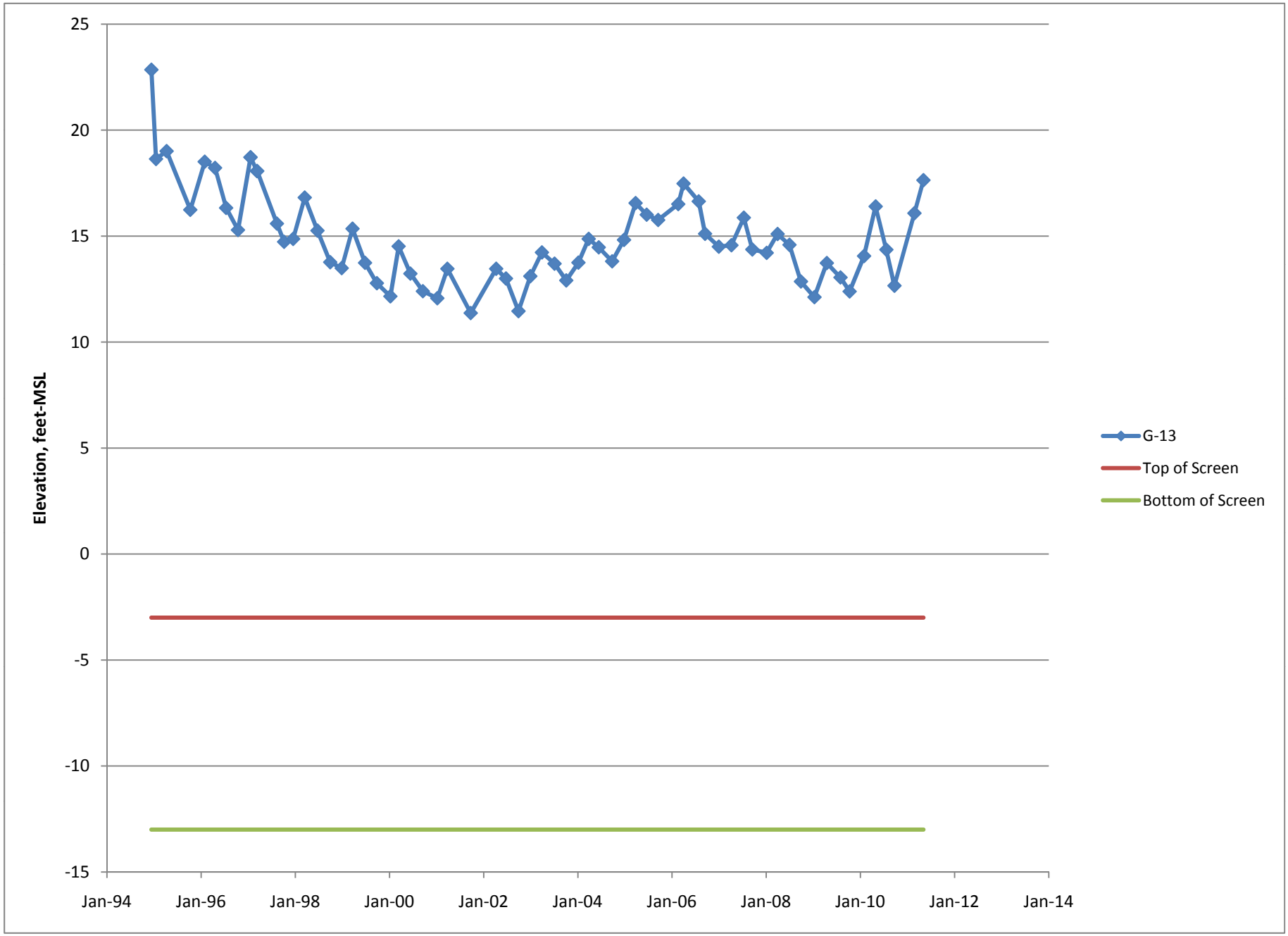
Jan-12
Jan-14
G-14
Top of Screen
Bottom of Screen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5
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-5
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Elevation, feet-MSL
Jan-94
Jan-96
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Jan-08
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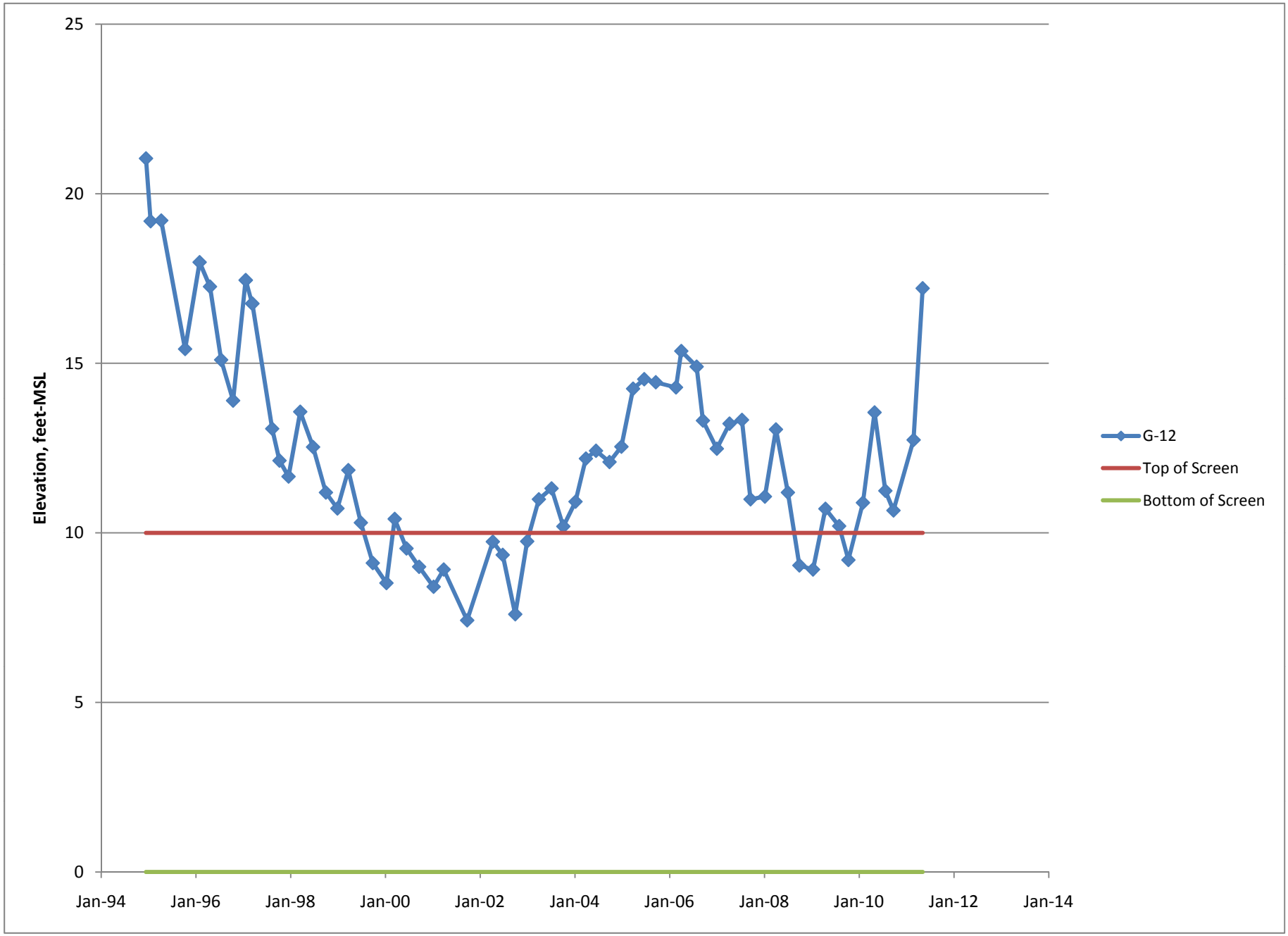
Jan-12
Jan-14
G-13
Top of Screen
Bottom of Screen


25
20
15
10
5
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Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
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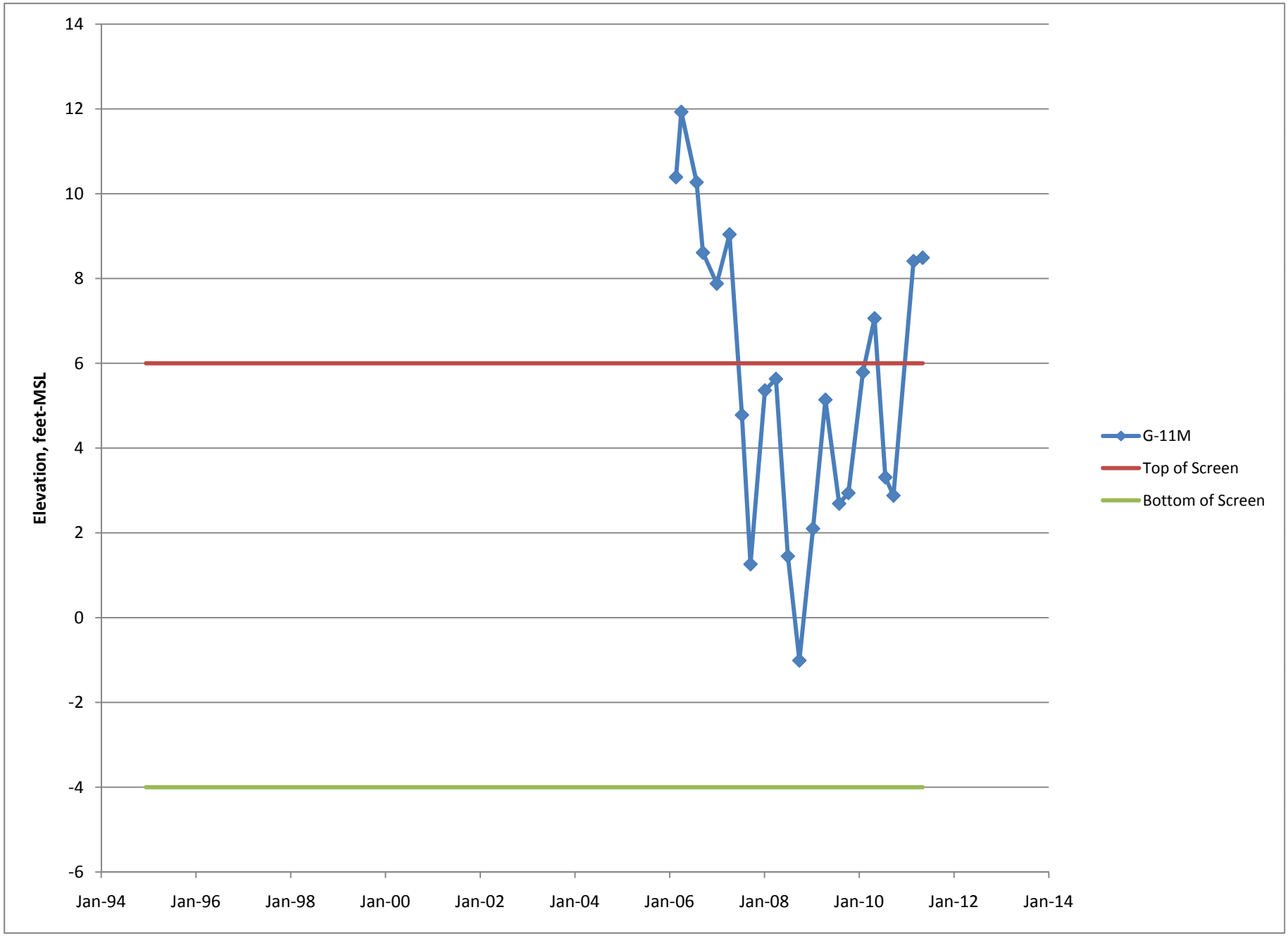
Jan-12
Jan-14
G-12
Top of Screen
Bottom of Screen


14
12
10
8
6
4
2
0
-2
-4
-6
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
Jan-00
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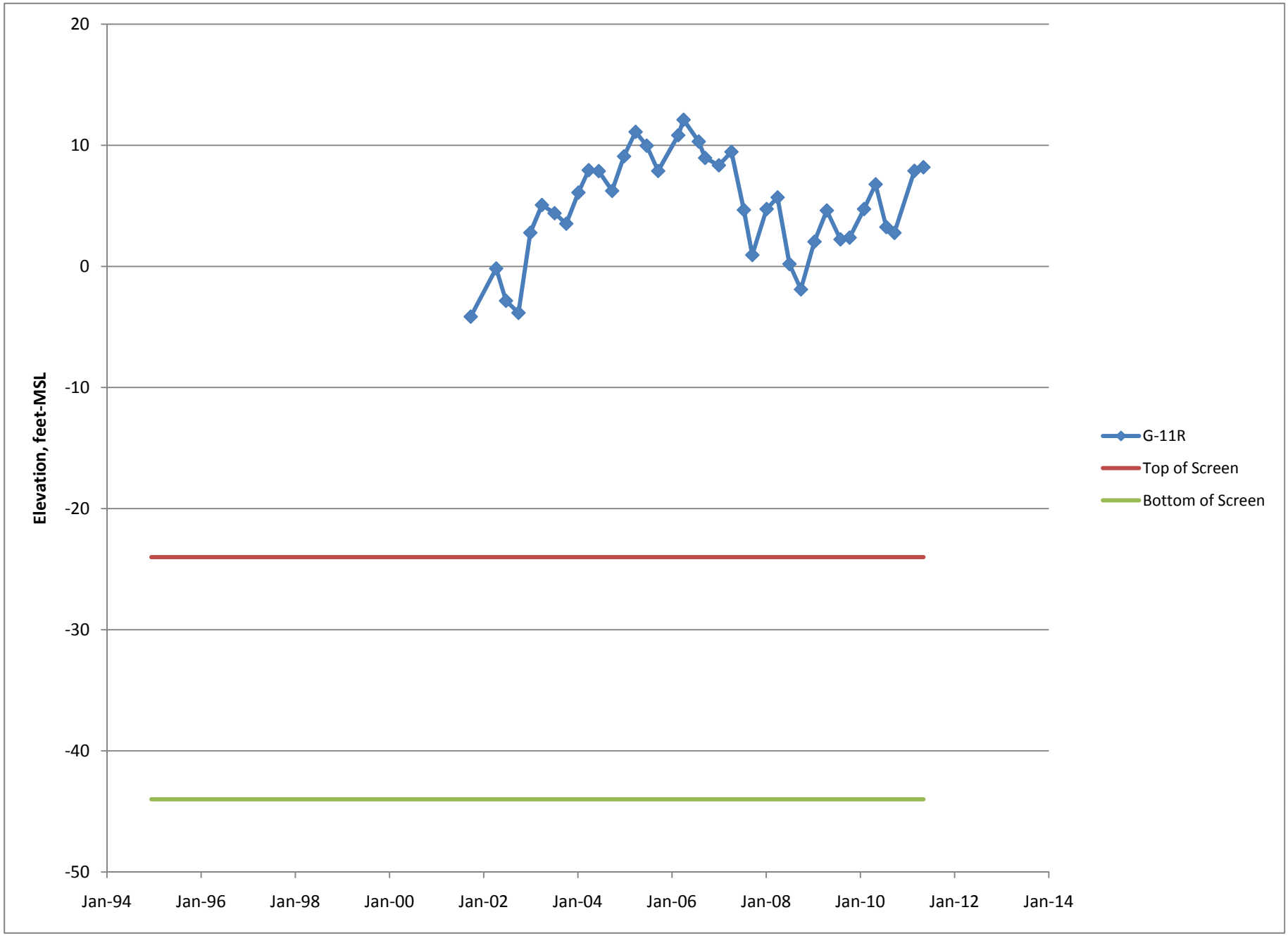
Jan-04
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
G-11M
Top of Screen
Bottom of Screen


20
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-10
-20
-30
-40
-50
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
Jan-00
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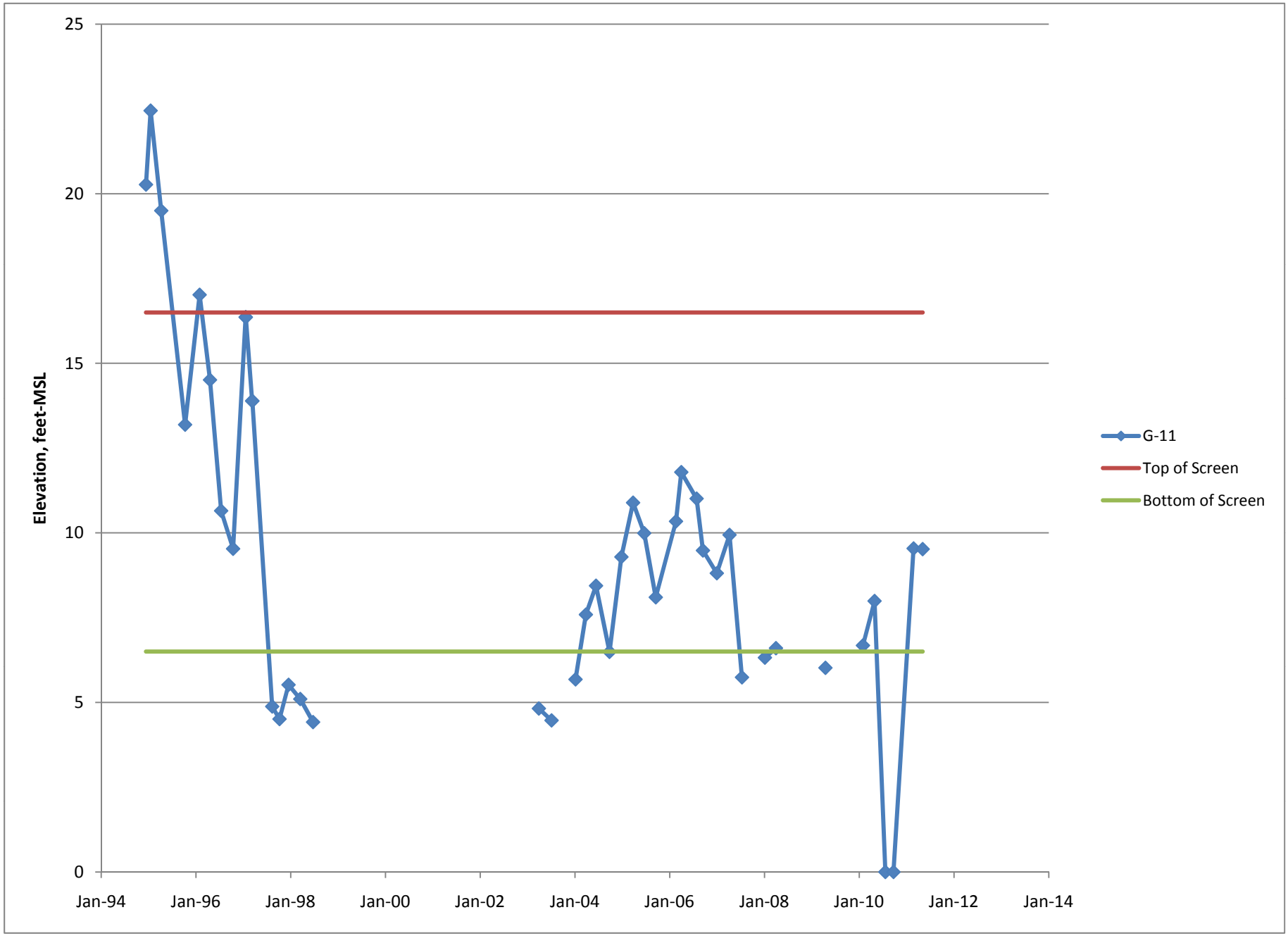
Jan-04
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
G-11R
Top of Screen
Bottom of Screen


25
20
15
10
5
0
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
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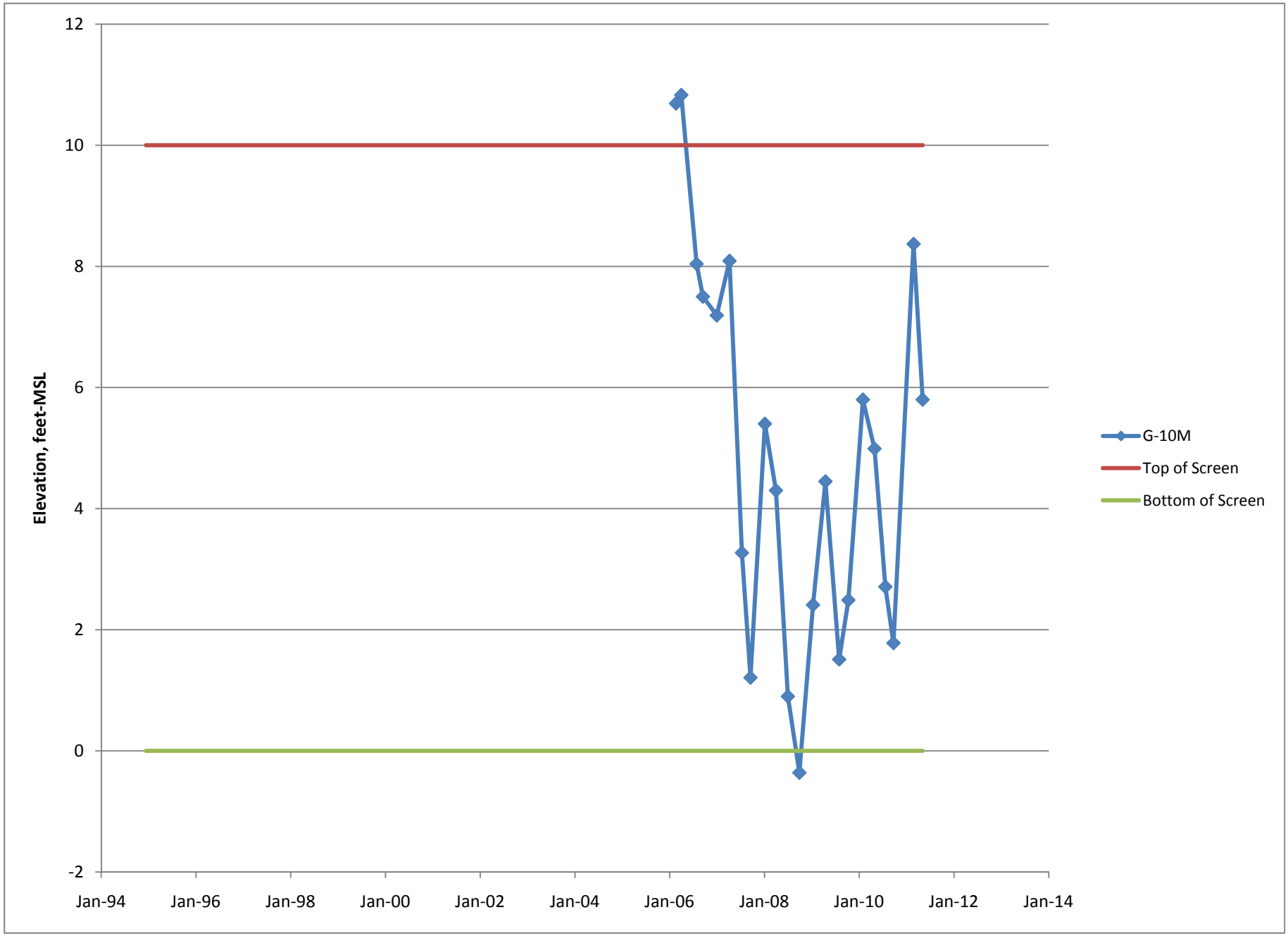
Jan-10
Jan-12
Jan-14
G-11
Top of Screen
Bottom of Screen


12
10
8
6
4
2
0
-2
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
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Jan-04
Jan-06
Jan-08
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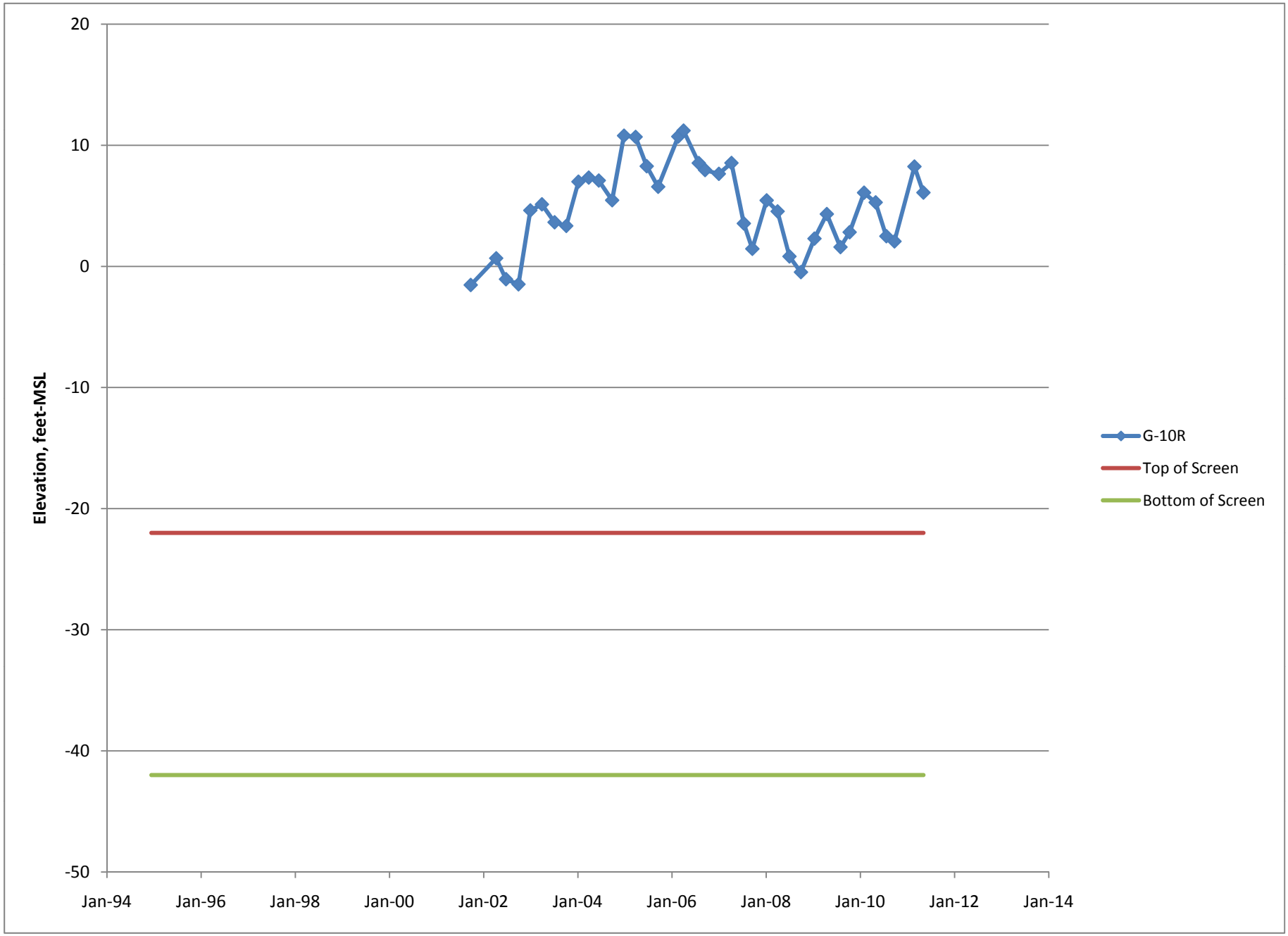
Jan-12
Jan-14
G-10M
Top of Screen
Bottom of Screen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-30
-40
-50
Elevation, feet-MSL
Jan-94
Jan-96
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Jan-06
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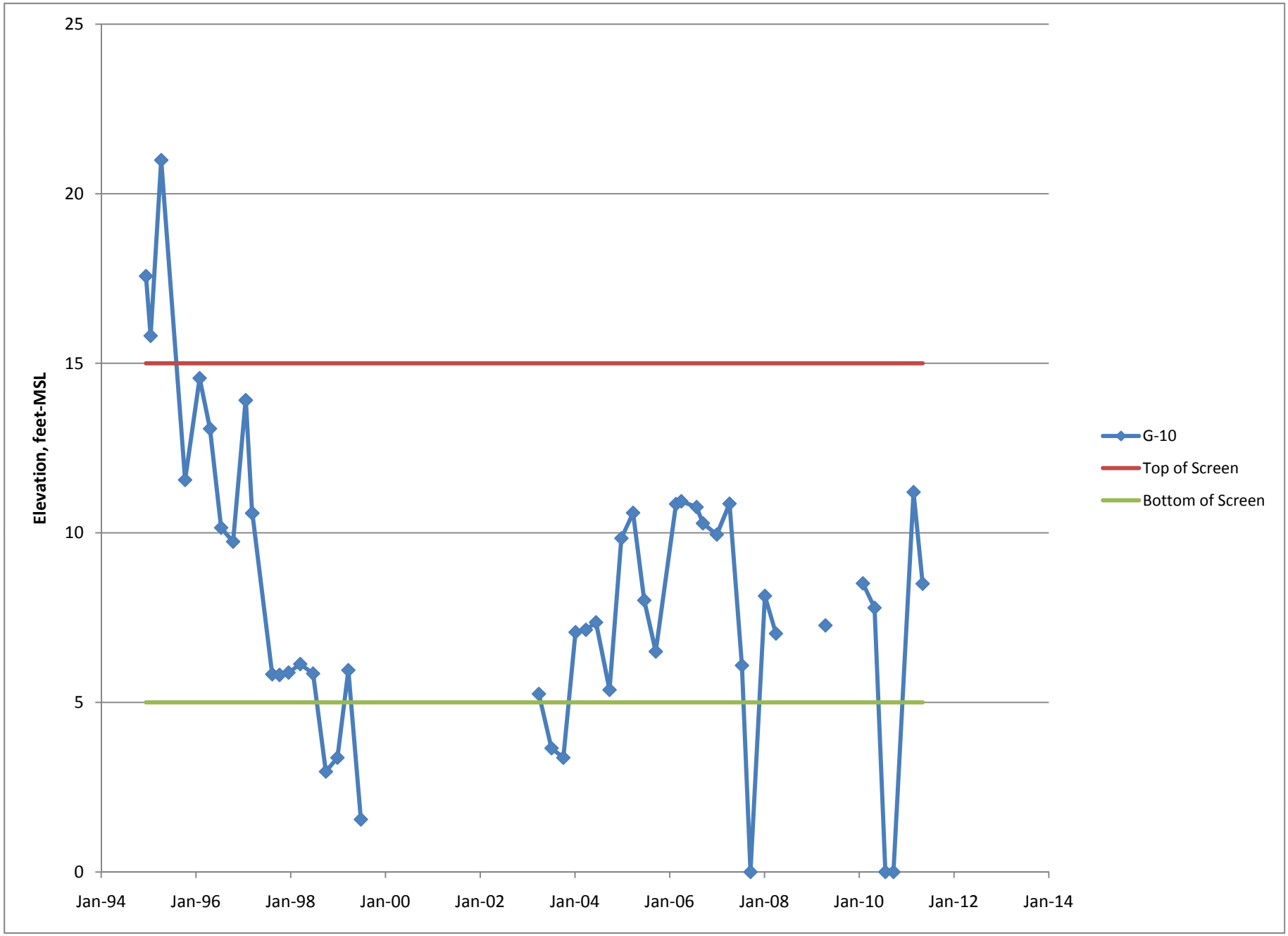
Jan-12
Jan-14
G-10R
Top of Screen
Bottom of Screen


25
20
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Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
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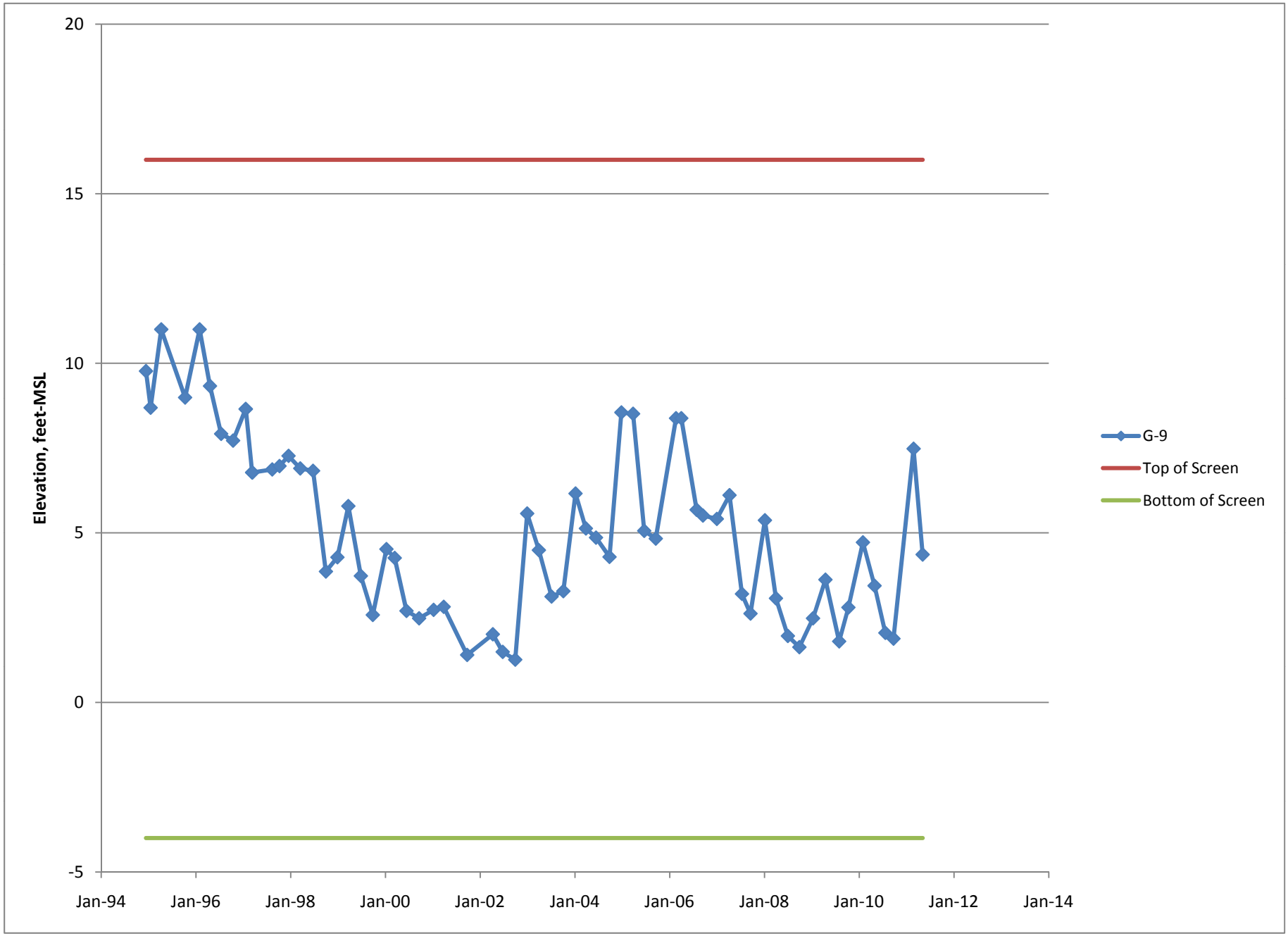
Jan-08
Jan-10
Jan-12
Jan-14
G-10
Top of Screen
Bottom of Screen


20
15
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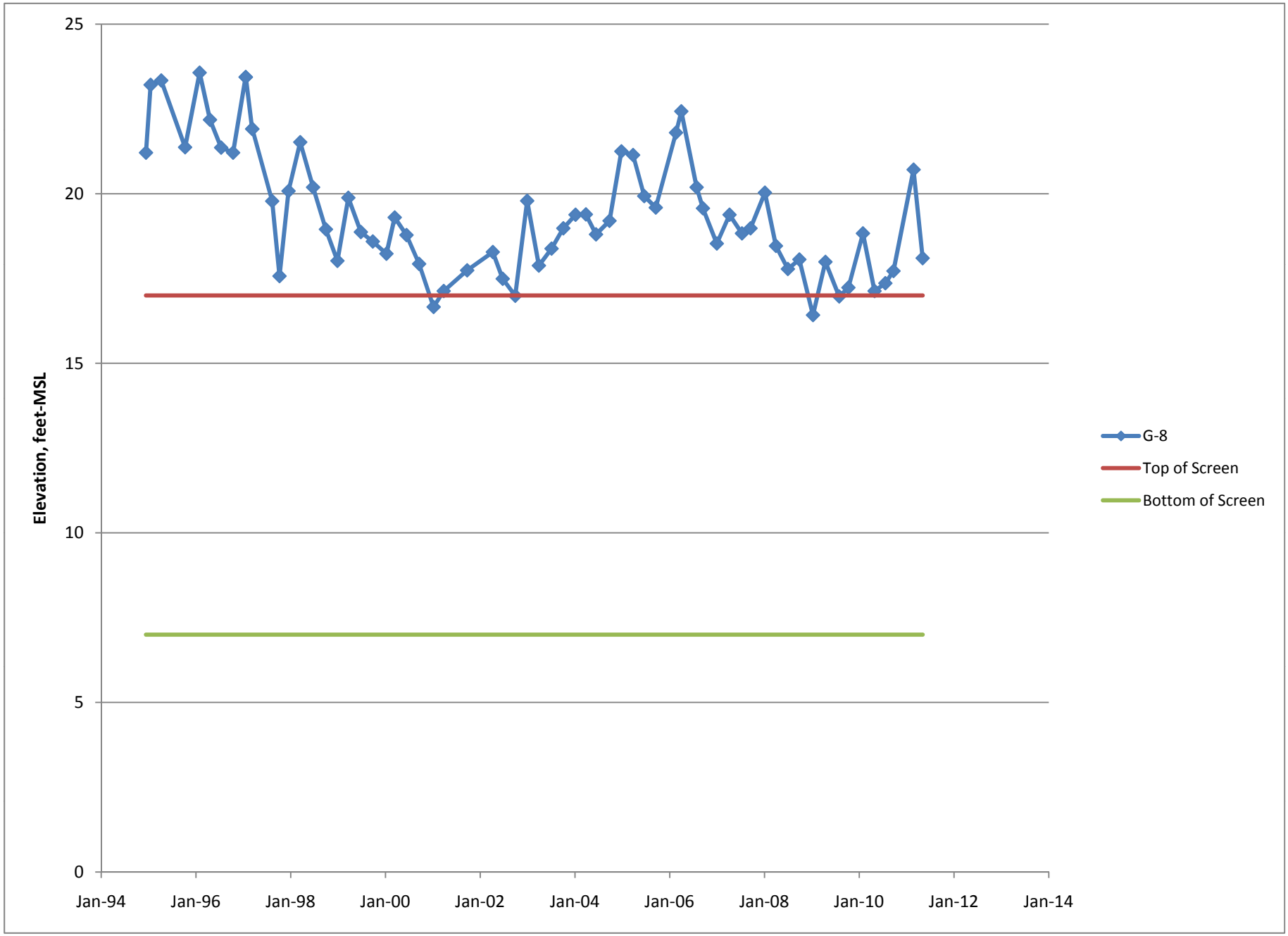
5
0
-5
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
G-9
Top of Screen
Bottom of Screen


25
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Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
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Jan-02
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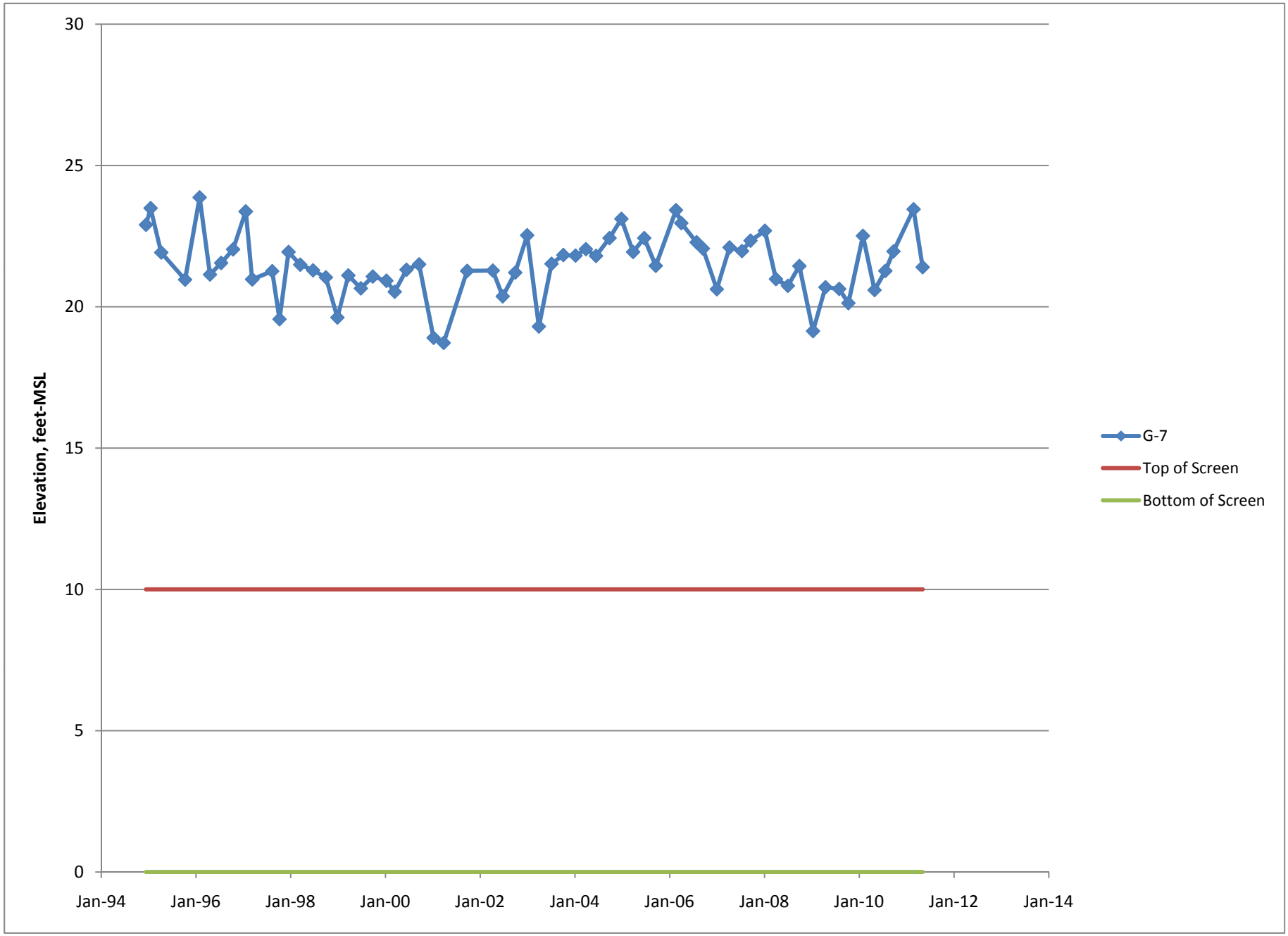
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
G-8
Top of Screen
Bottom of Screen


30
25
20
15
10
5
0
Elevation, feet-MSL
Jan-94
Jan-96
Jan-98
Jan-00
Jan-02
Jan-04
Jan-06
Jan-08
Jan-10
Jan-12
Jan-14
G-7
Top of Screen
Bottom of Screen

Mann-Kendall Trend Test Report

Company: Hay Road Landfill
Site: Hay Road Landfill
Program: BJD Groundwater

Date Range: 01-01-2006 to 06-30-2011
Non-detects: 1/2 detection limit
Duplicates: Mean
Confidence Level: 0.95

Parameter	Unit	Size	%NDs	S Value	Tabular Value	Statistically Significant Trend	Direction
4B							
pH	s.u.	12	0.0%	-9	0.296	No	-
Specific Conductance	µmhos/cm	11	0.0%	-5	0.381	No	-
Chloride	mg/L	11	0.0%	5	0.381	No	-
Nitrate/Nitrite as N	mg/L	11	0.0%	-3	0.44	No	-
Sulfate as SO4	mg/L	11	0.0%	6	0.3462	No	-
Total Dissolved Solids	mg/L	11	0.0%	23	0.043	Yes	Upward
Arsenic, Dissolved	mg/L	10	70.0%	-33	0.001	NA	NA
Chromium, Dissolved	mg/L	11	72.7%	-23	0.043	NA	NA
Bicarbonate Alkalinity	mg/L	11	0.0%	23	0.043	Yes	Upward
G-1							
pH	s.u.	10	0.0%	-9	0.242	No	-
Specific Conductance	µmhos/cm	10	0.0%	-3	0.431	No	-
Chloride	mg/L	11	0.0%	-17	0.109	No	-
Nitrate/Nitrite as N	mg/L	11	0.0%	-34	0.0029	Yes	Downward
Sulfate as SO4	mg/L	11	0.0%	7	0.324	No	-
Total Dissolved Solids	mg/L	11	0.0%	9	0.271	No	-
Arsenic, Dissolved	mg/L	10	90.0%	-24	0.0213	NA	NA
Chromium, Dissolved	mg/L	11	45.5%	-23	0.043	Yes	Downward
Bicarbonate Alkalinity	mg/L	11	0.0%	24	0.031	Yes	Upward
G-10M							
pH	s.u.	11	0.0%	-29	0.013	Yes	Downward
Specific Conductance	µmhos/cm	10	0.0%	-19	0.054	No	-
Chloride	mg/L	11	0.0%	-29	0.013	Yes	Downward
Nitrate/Nitrite as N	mg/L	11	9.1%	-17	0.109	No	-
Sulfate as SO4	mg/L	11	0.0%	-22	0.0447	Yes	Downward
Total Dissolved Solids	mg/L	11	0.0%	14	0.1498	No	-
Arsenic, Dissolved	mg/L	10	60.0%	-35	0	Yes	Downward
Chromium, Dissolved	mg/L	11	81.8%	-22	0.0447	NA	NA
Bicarbonate Alkalinity	mg/L	11	0.0%	3	0.44	No	-
G-11M							
pH	s.u.	10	0.0%	-7	0.3	No	-
Specific Conductance	µmhos/cm	10	0.0%	-3	0.431	No	-
Chloride	mg/L	11	0.0%	-1	0.5	No	-
Nitrate/Nitrite as N	mg/L	11	0.0%	27	0.02	Yes	Upward
Sulfate as SO4	mg/L	11	0.0%	-34	0.0029	Yes	Downward
Total Dissolved Solids	mg/L	11	0.0%	18	0.0864	No	-
Arsenic, Dissolved	mg/L	10	80.0%	-27	0.008	NA	NA
Chromium, Dissolved	mg/L	11	90.9%	-18	0.0864	NA	NA
Bicarbonate Alkalinity	mg/L	11	0.0%	-2	0.4686	No	-

Mann-Kendall Trend Test Report

Company: Hay Road Landfill
Site: Hay Road Landfill
Program: BJD Groundwater

Date Range: 01-01-2006 to 06-30-2011
Non-detects: 1/2 detection limit
Duplicates: Mean
Confidence Level: 0.95

Parameter	Unit	Size	%NDs	S Value	Tabular Value	Statistically Significant Trend	Direction
G-11R							
pH	s.u.	7	0.0%	3	0.386	No	-
Specific Conductance	µmhos/cm	7	0.0%	9	0.119	No	-
Chloride	mg/L	7	0.0%	18	0.0016	Yes	Upward
Nitrate/Nitrite as N	mg/L	7	0.0%	17	0.005	Yes	Upward
Sulfate as SO4	mg/L	7	0.0%	-15	0.015	Yes	Downward
Total Dissolved Solids	mg/L	7	0.0%	8	0.1305	No	-
Arsenic, Dissolved	mg/L	6	83.3%	0	0.592	NA	NA
Chromium, Dissolved	mg/L	7	100.0%	-1	0.5	ND	ND
Bicarbonate Alkalinity	mg/L	7	0.0%	-12	0.036	Yes	Downward
G-12							
pH	s.u.	10	0.0%	6	0.3352	No	-
Specific Conductance	µmhos/cm	10	0.0%	-17	0.078	No	-
Chloride	mg/L	11	0.0%	-25	0.03	Yes	Downward
Nitrate/Nitrite as N	mg/L	11	0.0%	9	0.271	No	-
Sulfate as SO4	mg/L	11	0.0%	-32	0.005	Yes	Downward
Total Dissolved Solids	mg/L	11	0.0%	-18	0.0864	No	-
Arsenic, Dissolved	mg/L	10	70.0%	-33	0.001	NA	NA
Chromium, Dissolved	mg/L	11	72.7%	-24	0.031	NA	NA
Bicarbonate Alkalinity	mg/L	11	0.0%	-11	0.223	No	-
G-13							
pH	s.u.	10	0.0%	17	0.078	No	-
Specific Conductance	µmhos/cm	10	0.0%	-29	0.005	Yes	Downward
Chloride	mg/L	11	0.0%	-27	0.02	Yes	Downward
Nitrate/Nitrite as N	mg/L	11	0.0%	-15	0.141	No	-
Sulfate as SO4	mg/L	11	0.0%	-34	0.0029	Yes	Downward
Total Dissolved Solids	mg/L	11	0.0%	-14	0.1498	No	-
Arsenic, Dissolved	mg/L	10	100.0%	-20	0.049	ND	ND
Chromium, Dissolved	mg/L	11	81.8%	-26	0.0207	NA	NA
Bicarbonate Alkalinity	mg/L	11	0.0%	-21	0.06	No	-
G-2							
pH	s.u.	10	0.0%	4	0.3995	No	-
Specific Conductance	µmhos/cm	10	0.0%	-37	0	Yes	Downward
Chloride	mg/L	11	0.0%	-27	0.02	Yes	Downward
Nitrate/Nitrite as N	mg/L	11	90.9%	-41	0	NA	NA
Sulfate as SO4	mg/L	11	0.0%	-38	0.001	Yes	Downward
Total Dissolved Solids	mg/L	11	0.0%	-32	0.005	Yes	Downward
Arsenic, Dissolved	mg/L	10	100.0%	-20	0.049	ND	ND
Chromium, Dissolved	mg/L	11	100.0%	-22	0.0447	ND	ND
Bicarbonate Alkalinity	mg/L	11	0.0%	31	0.008	Yes	Upward

Mann-Kendall Trend Test Report

Company: Hay Road Landfill
Site: Hay Road Landfill
Program: BJD Groundwater

Date Range: 01-01-2006 to 06-30-2011
Non-detects: 1/2 detection limit
Duplicates: Mean
Confidence Level: 0.95

Parameter	Unit	Size	%NDs	S Value	Tabular Value	Statistically Significant Trend	Direction
G-27							
pH	s.u.	11	0.0%	-18	0.0864	No	-
Specific Conductance	µmhos/cm	10	0.0%	-13	0.146	No	-
Chloride	mg/L	11	0.0%	-11	0.223	No	-
Nitrate/Nitrite as N	mg/L	11	0.0%	29	0.013	Yes	Upward
Sulfate as SO4	mg/L	11	0.0%	-46	0	Yes	Downward
Total Dissolved Solids	mg/L	11	0.0%	4	0.4065	No	-
Arsenic, Dissolved	mg/L	10	70.0%	-29	0.005	NA	NA
Chromium, Dissolved	mg/L	11	63.6%	-21	0.06	NA	NA
Bicarbonate Alkalinity	mg/L	11	0.0%	-12	0.1908	No	-
G-6							
pH	s.u.	10	0.0%	-17	0.078	No	-
Specific Conductance	µmhos/cm	9	0.0%	6	0.306	No	-
Chloride	mg/L	11	0.0%	-23	0.043	Yes	Downward
Nitrate/Nitrite as N	mg/L	11	0.0%	-1	0.5	No	-
Sulfate as SO4	mg/L	11	0.0%	-17	0.109	No	-
Total Dissolved Solids	mg/L	11	0.0%	22	0.0447	Yes	Upward
Arsenic, Dissolved	mg/L	9	77.8%	-24	0.006	NA	NA
Chromium, Dissolved	mg/L	11	81.8%	-22	0.0447	NA	NA
Bicarbonate Alkalinity	mg/L	11	0.0%	-18	0.0864	No	-
G-8							
pH	s.u.	11	0.0%	10	0.2375	No	-
Specific Conductance	µmhos/cm	10	0.0%	24	0.0213	Yes	Upward
Chloride	mg/L	11	0.0%	23	0.043	Yes	Upward
Nitrate/Nitrite as N	mg/L	11	0.0%	-15	0.141	No	-
Sulfate as SO4	mg/L	11	0.0%	34	0.0029	Yes	Upward
Total Dissolved Solids	mg/L	11	0.0%	39	0.001	Yes	Upward
Arsenic, Dissolved	mg/L	10	80.0%	-28	0.008	NA	NA
Chromium, Dissolved	mg/L	11	81.8%	-22	0.0447	NA	NA
Bicarbonate Alkalinity	mg/L	11	0.0%	46	0	Yes	Upward
G-9							
pH	s.u.	11	0.0%	-27	0.02	Yes	Downward
Specific Conductance	µmhos/cm	10	0.0%	4	0.3995	No	-
Chloride	mg/L	11	0.0%	-9	0.271	No	-
Nitrate/Nitrite as N	mg/L	11	90.9%	-40	0.0003	NA	NA
Sulfate as SO4	mg/L	11	0.0%	-35	0.003	Yes	Downward
Total Dissolved Solids	mg/L	11	0.0%	32	0.005	Yes	Upward
Arsenic, Dissolved	mg/L	10	80.0%	-31	0.002	NA	NA
Chromium, Dissolved	mg/L	11	100.0%	-22	0.0447	ND	ND
Bicarbonate Alkalinity	mg/L	11	0.0%	28	0.0134	Yes	Upward

Mann-Kendall Trend Test Report

Company: Hay Road Landfill
Site: Hay Road Landfill
Program: BJD Groundwater

Date Range: 01-01-2006 to 06-30-2011
Non-detects: 1/2 detection limit
Duplicates: Mean
Confidence Level: 0.95

Parameter	Unit	Size	%NDs	S Value	Tabular Value	Statistically Significant Trend	Direction
MW-4							
pH	s.u.	11	0.0%	-16	0.1152	No	-
Specific Conductance	µmhos/cm	10	0.0%	-21	0.036	Yes	Downward
Chloride	mg/L	11	0.0%	-7	0.324	No	-
Nitrate/Nitrite as N	mg/L	11	0.0%	-42	0	Yes	Downward
Sulfate as SO4	mg/L	11	0.0%	41	0	Yes	Upward
Total Dissolved Solids	mg/L	11	0.0%	-6	0.3462	No	-
Arsenic, Dissolved	mg/L	10	70.0%	-29	0.005	NA	NA
Chromium, Dissolved	mg/L	11	81.8%	-22	0.0447	NA	NA
Bicarbonate Alkalinity	mg/L	11	0.0%	-29	0.013	Yes	Downward
P-1							
pH	s.u.	11	0.0%	-22	0.0447	Yes	Downward
Specific Conductance	µmhos/cm	10	0.0%	-13	0.146	No	-
Chloride	mg/L	11	0.0%	-32	0.005	Yes	Downward
Nitrate/Nitrite as N	mg/L	11	0.0%	9	0.271	No	-
Sulfate as SO4	mg/L	11	0.0%	-7	0.324	No	-
Total Dissolved Solids	mg/L	11	0.0%	14	0.1498	No	-
Arsenic, Dissolved	mg/L	10	80.0%	-26	0.0132	NA	NA
Chromium, Dissolved	mg/L	11	90.9%	-22	0.0447	NA	NA
Bicarbonate Alkalinity	mg/L	11	0.0%	9	0.271	No	-

End of report

Mann-Kendall Trend Test Report

Company:	Hay Road Landfill	**Data Group:**	None
Site:	Hay Road Landfill	**Date Range:**	All
Program:	BJD Groundwater	**Non-detects:**	1/2 detection limit
Permit:		**Duplicates:**	Mean
Minimum Size:	3	**Confidence Level:**	0.95

Parameter	Unit	Size	%NDs	Tabular	Tabular Value	Statistically Significant Trend	Direction
G-21							
Nitrate/Nitrite as N	mg/L	43	0.0%	-3.06642	0.00108318	Yes	Downward
G-22							
Nitrate/Nitrite as N	mg/L	33	3.0%	141	0.0136	Yes	Upward
G-23							
Nitrate/Nitrite as N	mg/L	33	0.0%	-89	0.0843	No	-
G-24							
Nitrate/Nitrite as N	mg/L	35	0.0%	265	0	Yes	Upward

End of report

Descriptive Statistics Report

Company: Hay Road Landfill
Site: Hay Road Landfill
Program: BJD Groundwater
Data Group: None
Date Range: 01-01-2001 to 06-30-2011
Non-detects: 1/2 detection limit

Parameter	Unit	Size	% NDs	Mean	Median	Standard Deviation	Min	Conc. Limit calculated	Conc. Limit actual
Background(G4,6,17,18)									
Ammonia as N	mg/L	88	81.8%	0.133	0.025	0.421	0.000	1.0	
Nitrate/Nitrite as N	mg/L	78	1.1%	2.06431		1.340855	0.000	4.7	
Total Kjeldahl Nitrogen	mg/L	88	48.9%	0.862	0.250	2.452	0.000	5.643	
Arsenic, Dissolved	mg/L	76	92.1%	0.014	0.003	0.019	0.000	0.052	
Chromium, Dissolved	mg/L	85	90.6%	0.004	0.005	0.005	0.000	0.014	NE
Lead, Dissolved	mg/L	83	92.8%	0.012	0.003	0.018	0.000	0.0	NE

End of report.

Note:The statistics are replaced by the corresponding minimum variance unbiased estimates for the log normal distribution.

Descriptive Statistics Report

Company: Hay Road Landfill
Site: Hay Road Landfill
Program: BJD Groundwater
Data Group: None
Date Range: 01-01-1980 to 06-30-2011
Non-detects: 1/2 detection limit

Parameter	Unit	Size	% NDs	Mean	Median	Standard Deviation	Min	Max	Conc. Limit calculated	Conc. Limit actual
4B										
Nitrate/Nitrite as N	mg/L	61	4.9%	1.638	1.500	1.365	0.000	7.800	4.4	
Arsenic, Dissolved	mg/L	22	81.8%	0.013	0.003	0.018	0.000	0.050	0.055	
Chromium, Dissolved	mg/L	25	84.0%	0.003	0.003	0.002	0.000	0.008	0.008	NE
2-Butanone	µg/L	45	95.6%	2.696	1.250	2.747	0.000	15.000	8.454	NE
Acetone	µg/L	45	91.1%	2.962	2.600	1.870	0.000	5.400	6.882	NE
Toluene	µg/L	58	91.4%	0.332	0.225	0.431	0.000	3.000	1.207	
G-1										
Nitrate/Nitrite as N	mg/L	49	0.0%	9.556	8.900	7.102	0.750	38.000	24.264	
Arsenic, Dissolved	mg/L	25	92.0%	0.011	0.003	0.018	0.000	0.050	0.052	NE
Chromium, Dissolved	mg/L	28	75.0%	0.005	0.004	0.006	0.000	0.035	0.018	
2-Butanone	µg/L	30	100.0%	1.623	1.100	1.594	0.000	ND	5.162	NE
Acetone	µg/L	30	90.0%	2.608	2.300	1.693	0.000	5.000	6.366	NE
Toluene	µg/L	43	100.0%	0.218	0.120	0.219	0.000	ND	0.7	NE
G-10M										
Nitrate/Nitrite as N	mg/L	12	8.3%	0.649	0.445	0.481	0.000	1.700	1.965	
Arsenic, Dissolved	mg/L	11	63.6%	0.026	0.013	0.021	0.000	0.050	0.085	
Chromium, Dissolved	mg/L	12	83.3%	0.002	0.001	0.002	0.000	0.005	0.0	NE
2-Butanone	µg/L	12	100.0%	1.179	1.225	0.319	0.000	ND	2.1	NE
Acetone	µg/L	12	91.7%	2.326	2.300	1.116	0.000	3.700	5.4	NE
Toluene	µg/L	12	100.0%	0.062	0.055	0.023	0.000	ND	0.125	NE
G-11M										
Nitrate/Nitrite as N	mg/L	12	0.0%	3.702	1.250	8.923	0.180	32.000	28.115	
Arsenic, Dissolved	mg/L	11	81.8%	0.022	0.009	0.022	0.000	0.050	0.1	NE
Chromium, Dissolved	mg/L	12	91.7%	0.002	0.001	0.002	0.000	0.005	0.007	NE
2-Butanone	µg/L	12	100.0%	1.179	1.225	0.319	0.000	ND	2.052	NE
Acetone	µg/L	12	91.7%	2.284	2.300	1.146	0.000	3.700	5.419	NE
Toluene	µg/L	12	100.0%	0.062	0.055	0.023	0.000	ND	0.125	NE
G-11R										
Nitrate/Nitrite as N	mg/L	17	0.0%	1.428	1.400	0.332	0.930	2.300	2.3	
Arsenic, Dissolved	mg/L	14	92.9%	0.007	0.003	0.013	0.000	0.050	0.041	NE
Chromium, Dissolved	mg/L	16	100.0%	0.003	0.005	0.002	0.000	ND	0.008	NE
2-Butanone	µg/L	23	100.0%	0.946	0.350	1.035	0.000	ND	3.357	NE
Acetone	µg/L	23	95.7%	1.801	0.900	1.264	0.000	5.000	4.745	NE
Toluene	µg/L	23	100.0%	0.066	0.035	0.097	0.000	ND	0.292	NE

Descriptive Statistics Report

Company: Hay Road Landfill
Site: Hay Road Landfill
Program: BJD Groundwater
Data Group: None
Date Range: 01-01-1980 to 06-30-2011
Non-detects: 1/2 detection limit

Parameter	Unit	Size	% NDs	Mean	Median	Standard Deviation	Min	Max	Conc. Limit calculated	Conc. Limit actual
G-12										
Nitrate/Nitrite as N	mg/L	64	0.0%	2.202	2.400	1.383	0.095	4.600	4.982	
Arsenic, Dissolved	mg/L	24	79.2%	0.017	0.003	0.033	0.000	0.150	0.093	
Chromium, Dissolved	mg/L	26	84.6%	0.004	0.003	0.006	0.000	0.030	0.018	NE
2-Butanone	µg/L	46	100.0%	2.336	1.250	2.002	0.000	ND	6.518	NE
Acetone	µg/L	46	95.7%	2.918	2.700	1.848	0.000	5.000	6.778	NE
Toluene	µg/L	59	98.3%	0.264	0.200	0.220	0.000	1.000	0.7	NE
G-13										
Nitrate/Nitrite as N	mg/L	64	0.0%	2.207	2.550	1.115	0.063	5.600	4.449	
Arsenic, Dissolved	mg/L	24	95.8%	0.011	0.003	0.018	0.000	0.050	0.053	NE
Chromium, Dissolved	mg/L	26	69.2%	0.006	0.005	0.007	0.000	0.035	0.0	
G-2										
Nitrate/Nitrite as N	mg/L	54	48.1%	0.206	0.100	0.251	0.000	1.400	0.720	
Arsenic, Dissolved	mg/L	24	95.8%	0.011	0.003	0.018	0.000	0.050	0.1	NE
Chromium, Dissolved	mg/L	27	100.0%	0.003	0.003	0.002	0.000	ND	0.008	NE
G-27										
Nitrate/Nitrite as N	mg/L	12	0.0%	2.342	2.350	0.640	1.100	3.300	4.1	
Arsenic, Dissolved	mg/L	11	72.7%	0.025	0.015	0.022	0.000	0.050	0.087	NE
Chromium, Dissolved	mg/L	12	66.7%	0.003	0.002	0.002	0.000	0.005	0.008	NE
G-6										
Nitrate/Nitrite as N	mg/L	65	3.1%	0.799	0.420	1.212	0.000	8.000	3.232	
Arsenic, Dissolved	mg/L	23	87.0%	0.013	0.003	0.019	0.000	0.050	0.057	NE
Chromium, Dissolved	mg/L	28	89.3%	0.004	0.003	0.004	0.000	0.020	0.013	NE
G-8										
Nitrate/Nitrite as N	mg/L	65	0.0%	2.541	3.000	1.761	0.057	5.600	6.076	
Arsenic, Dissolved	mg/L	26	84.6%	0.013	0.003	0.023	0.000	0.100	0.065	
Chromium, Dissolved	mg/L	29	89.7%	0.003	0.003	0.002	0.000	0.010	0.0	NE
G-9										
Nitrate/Nitrite as N	mg/L	64	37.5%	1.199	0.700	1.349	0.000	5.200	3.911	
Arsenic, Dissolved	mg/L	24	87.5%	0.012	0.003	0.018	0.000	0.050	0.1	NE
Chromium, Dissolved	mg/L	27	100.0%	0.003	0.003	0.002	0.000	ND	0.008	NE
MW-4										
Nitrate/Nitrite as N	mg/L	64	0.0%	2.963	2.000	2.649	0.300	10.100	8.3	
Arsenic, Dissolved	mg/L	23	78.3%	0.013	0.003	0.019	0.000	0.050	0.057	
Chromium, Dissolved	mg/L	27	88.9%	0.003	0.003	0.002	0.000	0.011	0.008	NE

Descriptive Statistics Report

Company: Hay Road Landfill
Site: Hay Road Landfill
Program: BJD Groundwater

Data Group: None
Date Range: 01-01-1980 to 06-30-2011
Non-detects: 1/2 detection limit

Parameter	Unit	Size	% NDs	Mean	Median	Standard Deviation	Min	Max	Conc. Limit calculated	Conc. Limit actual
P-1										
Nitrate/Nitrite as N	mg/L	18	0.0%	0.669	0.545	0.321	0.440	1.600	1.456	
Arsenic, Dissolved	mg/L	14	85.7%	0.020	0.006	0.022	0.000	0.050	0.078	NE
Chromium, Dissolved	mg/L	17	94.1%	0.003	0.005	0.002	0.000	0.005	0.008	NE

End of report.

Note:The statistics are replaced by the corresponding minimum variance unbiased estimates for the log normal distribution.

Descriptive Statistics Report

Company: Hay Road Landfill
Site: Hay Road Landfill
Program: BJD Surface Water
Data Group: None
Date Range: All
Non-detects: 1/2 detection limit

Parameter	Unit	Size	% NDs	Mean	Median	Standard Deviation	Min	Max	Conc. Limit calculated	Conc. Limit actual
SW-4										
pH	s.u.	21	0.0%	7.999	7.980	0.506	6.790	8.930	6.6	9.4
Specific Conductance	µmhos/cm	21	0.0%	1404.190	1110.000	789.524	427.000	2810.000	3276	
Ammonia as N	mg/L	20	25.0%	0.288	0.250	0.204	0.000	0.680	0.8	
Chloride	mg/L	20	0.0%	244.400	140.000	203.221	43.000	610.000	731	
Nitrate/Nitrite as N	mg/L	20	10.0%	2.408	0.715	4.264	0.000	17.000	13	
Nitrite as N	mg/L	20	50.0%	0.350	0.120	0.743	0.000	2.500	2	
Sulfate as SO4	mg/L	20	0.0%	115.300	94.000	60.808	19.000	240.000	261	
Total Dissolved Solids	mg/L	20	0.0%	873.000	675.000	463.307	210.000	1700.000	1983	
Total Kjeldahl Nitrogen	mg/L	20	0.0%	2.071	1.800	1.055	0.570	4.200	4.6	
Total Suspended Solids	mg/L	18	11.1%	72.056	45.000	89.133	0.000	350.000	291	
Arsenic	mg/L	20	60.0%	0.026	0.013	0.021	0.000	0.050	0.08	*NE*
Chromium	mg/L	20	70.0%	0.005	0.005	0.004	0.000	0.015	0.01	
Lead	mg/L	22	86.4%	0.018	0.006	0.020	0.000	0.050	0.07	

Note:The statistics are replaced by the corresponding minimum variance unbiased estimates for the log normal distribution.

APPENDIX D
ANNUAL STORMWATER REPORT

Recology
Environmental Solutions
WASTE ZERO

June 30, 2011

Robert Ditto
California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive #200
Rancho Cordova, CA 95670

RE: 2010-2011 Annual Storm Water Report, Recology Hay Road, WDID: 5S48I010514

Dear Mr. Ditto,

On behalf of Recology Hay Road, Recology Environmental Solutions is submitting the enclosed 2010-2011 Annual Storm Water Report for Storm Water Discharges Associated with Industrial Activities.

Attachment A has been included with an explanation of all "no" responses in the annual report and with additional information on the authorized non-storm water discharge from the facility's borrow pit, clarification on parameters analyzed during the first sampling event, and additional BMPs implemented at the facility. In addition, a report prepared by SCS Engineers has been attached that addresses the slightly elevated specific conductance, iron, and aluminum in the facility's storm water discharge. The report is titled "Site Soil Analytical Results and Implications for Storm Water Benchmark Exceedances", Recology Hay Road, June 2011 and is being submitted as part of the facility's annual comprehensive site compliance evaluation.

If you have any questions or require additional information, please contact me at (707) 693-2108.

Sincerely,

Bryan Clarkson
Environmental Compliance Manager

Enclosure

cc: Greg Pryor, General Manager, Recology Hay Road

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD
2010-2011 ANNUAL REPORT
FOR STORM WATER DISCHARGES ASSOCIATED
WITH INDUSTRIAL ACTIVITIES

Reporting Period July 1, 2010 through June 30, 2011

An Annual Report is required to be submitted to your local Regional Water Quality Control Board (Regional Board) by July 1 of each year. This document must be certified and signed, under penalty of perjury, by the appropriate official of your company. Many of the Annual Report questions require an explanation. Please provide explanations on a separate sheet as an attachment. **Retain a copy of the completed Annual Report for your records.**

Please circle or highlight any information contained in Items A, B, and C below that is new or revised so we can update our records. Please remember that a Notice of Termination and new Notice of Intent are required whenever a facility operation is relocated or changes ownership.

If you have any questions, please contact your Regional Board Industrial Storm Water Permit Contact. The names, telephone numbers, and e-mail addresses of the Regional Board contacts, as well as the Regional Board Offices addresses are indicated below.

REGIONAL BOARD INFORMATION:

Central Valley Region
11020 Sun Center Dr. Ste. 200
Rancho Cordova, CA 95670

Contact: Robert Ditto
Tel: (916) 464-4841
Email: rditto@waterboards.ca.gov

GENERAL INFORMATION

A. Facility Information:

Recology Hay Rd
6426 Hay Rd
Vacaville, CA 95687
WDID No: 5S48I010514

Facility Contact: Greg Pryor
Email:
Phone: 707-678-4718

SIC Code(s):

4953	Refuse Systems
5093	Scrap and Waste Materials
4212	Local Trucking Without Storage

B. Facility Operator Information:

Recology Hay Rd
6426 HAY RD
VACAVILLE, CA 95687

Operator Contact: Greg Pryor
Email:
Phone: 916-678-4718

C. Facility Billing Information:

Recology Hay Rd
235 N 1st St
Dixon, CA 95620

Billing Contact: Marchell Nelson
Email:
Phone: 707-678-1492

Additional Table D Parameters: Fe,Fe,Pb,Al,Cu,Zn,COD
(Hazardous Waste Facilities, see Table D, Sector K of the Permit for Additional Parameters)

2010-2011

ANNUAL REPORT

SPECIFIC INFORMATION

MONITORING AND REPORTING PROGRAM

D. SAMPLING AND ANALYSIS EXEMPTIONS AND REDUCTIONS

1. For the reporting period, was your facility exempt from collecting and analyzing samples from **two** storm events in accordance with sections B.12 or 15 of the General Permit?

   ☐ **YES** Go to Item D.2 ☒ **NO** Go to Section E

2. Indicate the reason your facility is exempt from collecting and analyzing samples from **two** storm events. Attach a copy of the first page of the appropriate certification if you check boxes ii, iii, iv, or v.

   i. ☐ Participating in an Approved Group Monitoring Plan **Group Name:** _____

   ii. ☐ Submitted **No Exposure Certification (NEC)** Date Submitted: _____

   Re-evaluation Date: _____

   Does facility continue to satisfy NEC conditions? ☐ YES ☐ NO

   iii. ☐ Submitted **Sampling Reduction Certification (SRC)** Date Submitted: _____

   Re-evaluation Date: _____

   Does facility continue to satisfy SRC conditions? ☐ YES ☐ NO

   iv. ☐ Received Regional Board Certification Certification Date: _____

   v. ☐ Received Local Agency Certification Cetification Date: _____

3. If you checked boxes i or iii above, were you scheduled to sample **one** storm event during the reporting year?

   ☐ **YES** Go to Section E ☐ **NO** Go to Section F

4. If you checked boxes ii, iv, or v, go to Section F.

E. SAMPLING AND ANALYSIS RESULTS

1. How many storm events did you sample? 2 If less than 2, **attach explanation** (if you checked item D.2.i or iii. above, only attach explanation if you answer "0").

2. Did you collect storm water samples from the first storm of the wet season that produced a discharge during scheduled facility operating hours? (Section B.5 of the General Permit)

   ☒ **YES** ☐ **NO, attach explanation** **(Please note that if you do not sample the first storm event, you are still required to sample 2 storm events)**

3. How many storm water discharge locations are at your facility? 1

4. For each storm event sampled, did you collect and analyze a sample from each of the facilitys' storm water discharge locations? ☒ YES, go to Item E.6 ☐ NO

5. Was sample collection or analysis reduced in accordance with Section B.7.d of the General Permit? ☐ YES ☐ NO, **attach explanation**

   If "YES", **attach documentation** supporting your determination that two or more drainage areas are substantially identical.

   Date facility's drainage areas were last evaluated _____

6. Were all samples collected during the first hour of discharge? ☒ YES ☐ NO, **attach explanation**

7. Was all storm water sampling preceded by three (3) working days without a storm water discharge? ☐ YES ☒ NO, **attach explanation**

8. Were there any discharges of stormwater that had been temporarily stored or contained? (such as from a pond) ☒ YES ☐ NO, go to Item E.10

9. Did you collect and analyze samples of temporarily stored or contained storm water discharges from two storm events? (or one storm event if you checked item D.2.i or iii. above) ☒ YES ☐ NO, **attach explanation**

10. Section B.5. of the General Permit requires you to analyze storm water samples for pH, Total Suspended Solids (TSS), Specific Conductance (SC), Total Organic Carbon (TOC) or Oil and Grease (O&G), other pollutants likely to be present in storm water discharges in significant quantities, and analytical parameters listed in Table D of the General Permit.

    a. Does Table D contain any additional parameters related to your facility's SIC code(s)? ☒ YES ☐ NO, Go to Item E.11

    b. Did you analyze all storm water samples for the applicable parameters listed in Table D? ☒ YES ☐ NO

    c. If you did not analyze all storm water samples for the applicable Table D parameters, check one of the following reasons:

       _____ In prior sampling years, the parameter(s) have not been detected in significant quantities from two consecutive sampling events. **Attach explanation**

       _____ The parameter(s) is not likely to be present in storm water discharges and authorized non-storm water discharges in significant quantities based upon the facility operator's evaluation. **Attach explanation**

       _____ Other. **Attach explanation**

11. For each storm event sampled, attach a copy of the laboratory analytical reports and report the sampling and analysis results using **Form 1** or its equivalent. The following must be provided for each sample collected:

- Date and time of sample collection
- Name and title of sampler.
- Parameters tested.
- Name of analytical testing laboratory.
- Discharge location identification.
- Testing results.
- Test methods used.
- Test detection limits.
- Date of testing.
- Copies of the laboratory analytical results.

F. QUARTERLY VISUAL OBSERVATIONS

1. **Authorized Non-Storm Water Discharges**
Section B.3.b of the General Permit requires quarterly visual observations of all authorized non-storm water discharges and their sources.

a. Do authorized non-storm water discharges occur at your facility?

☒ **YES** ☐ **NO** Go to Item F.2

Authorized under NPDES Permit No. GAG495002 issued May 19, 2011

b. Indicate whether you visually observed all authorized non-storm water discharges and their sources during the quarters when they were discharged. **Attach an explanation for any "NO" answers**. Indicate "N/A" for quarters without any authorized non-storm water discharges.

July -September	☒ **YES**	☐ **NO**	☐ **N/A**	October-December	☐ **YES**	☐ **NO**	☒ **N/A**
January-March	☐ **YES**	☐ **NO**	☒ **N/A**	April-June	☒ **YES**	☐ **NO**	☐ **N/A**

c. Use **Form 2** to report quarterly visual observations of authorized non-storm water discharges or provide the following information.

i. name of each authorized non-storm water discharge
ii. date and time of observation
iii. source and location of each authorized non-storm water discharge
iv. characteristics of the discharge at its source and impacted drainage area/discharge location
v. name, title, and signature of observer
vi. **any** new or revised BMPs necessary to reduce or prevent pollutants in authorized non-storm water discharges. Provide new or revised BMP implementation date.

2. **Unauthorized Non-Storm Water Discharges**
Section B.3.a of the General Permit requires quarterly visual observations of all drainage areas to detect the presence of unauthorized non-storm water discharges and their sources.

a. Indicate whether you visually observed all drainage areas to detect the presence of unauthorized non-storm water discharges and their sources. **Attach an explanation for any "NO" answers.**

July -September	☒ **YES**	☐ **NO**	October-December	☒ **YES**	☐ **NO**
January-March	☒ **YES**	☐ **NO**	April-June	☒ **YES**	☐ **NO**

b. Based upon the quarterly visual observations, were any unauthorized non-storm water discharges detected?

☐ **YES** ☒ **NO** Go to item F.2.d

c. Have each of the unauthorized non-storm water discharges been eliminated or permitted?

☐ **YES** ☐ **NO** **Attach explanation**

d. Use **Form 3** to report quarterly unauthorized non-storm water discharge visual observations or provide the following information.

i. name of each unauthorized non-storm water discharge.
ii. date and time of observation.
iii. source and location of each unauthorized non-storm water discharge.
iv. characteristics of the discharge at its source and impacted drainage area/discharge location.
v. name, title, and signature of observer.
vi. **any** corrective actions necessary to eliminate the source of each unauthorized non-storm water discharge and to clean impacted drainage areas. Provide date unauthorized non-storm water discharge(s) was eliminated or scheduled to be eliminated.

G. MONTHLY WET SEASON VISUAL OBSERVATIONS

Section B.4.a of the General Permit requires you to conduct monthly visual observations of storm water discharges at all storm water discharge locations during the wet season. These observations shall occur during the first hour of discharge or, in the case of temporarily stored or contained storm water, at the time of discharge.

1. Indicate below whether monthly visual observations of storm water discharges occurred at all discharge locations. **Attach an explanation for any "NO" answers.** Include in this explanation whether any eligible storm events occurred during scheduled facility operating hours that did not result in a storm water discharge, and provide the date, time, name and title of the person who observed that there was no storm water discharge.

	YES	NO		YES	NO
October	☒	☐	February	☒	☐
November	☒	☐	March	☒	☐
December	☒	☐	April	☒	☐
January	☒	☐	May	☒	☐

2. Report monthly wet season visual observations using **Form 4** or provide the following information.

   a. date, time, and location of observation
   b. name and title of observer
   c. characteristics of the discharge (i.e., odor, color, etc.) and source of any pollutants observed.
   d. **any** new or revised BMPs necessary to reduce or prevent pollutants in storm water discharges. Provide new or revised BMP implementation date.

ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION (ACSCE)

H. ACSCE CHECKLIST

Section A.9 of the General Permit requires the facility operator to conduct one ACSCE in each reporting period (July 1-June 30). Evaluations must be conducted within 8-16 months of each other. The SWPPP and monitoring program shall be revised and implemented, as necessary, within 90 days of the evaluation. The checklist below includes the minimum steps necessary to complete a ACSCE. Indicate whether you have performed each step below. **Attach an explanation for any "NO" answers.**

1. Have you inspected all potential pollutant sources and industrial activities areas? ☒ YES ☐ NO
   The following areas should be inspected:

   - areas where spills and leaks have occured during the last year.
   - outdoor wash and rinse areas.
   - process/manufacturing areas.
   - loading, unloading, and transfer areas.
   - waste storage/disposal areas.
   - dust/particulate generating areas.
   - erosion areas.
   - building repair, remodeling, and construction
   - material storage areas
   - vehicle/equipment storage areas
   - truck parking and access areas
   - rooftop equipment areas
   - vehicle fueling/maintenance areas
   - non-storm water discharge generating areas

2. Have you reviewed your SWPPP to assure that its BMPs address existing potential pollutant sources and industrial activities areas? ☒ YES ☐ NO

3. Have you inspected the entire facility to verify that the SWPPP's site map, is up-to-date? The following site map items should be verified: ☒ YES ☐ NO

   - facility boundaries
   - outline of all storm water drainage areas
   - areas impacted by run-on
   - storm water discharges locations
   - storm water collection and conveyance system
   - structural control measures such as catch basins, berms, containment areas, oil/water separators, etc.

4. Have you reviewed all General Permit compliance records generated since the last annual evaluation? [X] YES [ ] NO

The following records should be reviewed:

- quarterly authorized non-storm water discharge visual observations
- monthly storm water discharge visual observation
- records of spills/leaks and associated clean-up/response activities
- quarterly unauthorized non-storm water discharge visual observations
- Sampling and Analysis records
- preventative maintenance inspection and maintenance records

5. Have you reviewed the major elements of the SWPPP to assure compliance with the General Permit? [X] YES [ ] NO

The following SWPPP items should be reviewed:

- pollution prevention team
- list of significant materials
- description of potential pollutant sources
- assessment of potential pollutant sources
- identification and description of the BMPs to be implemented for each potential pollutant source

6. Have you reviewed your SWPPP to assure that a) the BMPs are adequate in reducing or preventing pollutants in storm water discharges and authorized non-storm water discharges, and b) the BMPs are being implemented? [X] YES [ ] NO

The following BMP categories should be reviewed:

- good housekeeping practices
- spill response
- employee training
- erosion control
- quality assurance
- preventative maintenance
- material handling and storage practices
- waste handling/storage
- structural BMPs

7. Has all material handling equipment and equipment needed to implement the SWPPP been inspected? [X] YES [ ] NO

I. ACSCE EVALUATION REPORT

The facility operator is required to provide an evaluation report that includes:

- identification of personnel performing the evaluation
- the date(s) of the evaluation
- necessary SWPPP revisions
- schedule for implementing SWPPP revisions
- any incidents of non-compliance and the corrective actions taken.

Use **Form 5** to report the results of your evaluation or develop an equivalent form.

J. ACSCE CERTIFICATION

The facility operator is required to certify compliance with the Industrial Activities Storm Water General Permit. To certify compliance, both the SWPPP and Monitoring Program must be up to date and be fully implemented.

Based upon your ACSCE, do you certify compliance with the Industrial Activities Storm Water General Permit? [X] YES [ ] NO

If you answered "NO" **attach an explanation** to the ACSCE Evaluation Report why you are not in compliance with the Industrial Activities Storm Water General Permit.

ATTACHMENT SUMMARY

Answer the questions below to help you determine what should be attached to this annual report. Answer NA (Not Applicable) to questions 2-4 if you are not required to provide those attachments.

1. Have you attached Forms 1,2,3,4, and 5 or their equivalent?	☒ YES (Mandatory)		
2. If you conducted sampling and analysis, have you attached the laboratory analytical reports?	☒ YES	☐ NO	☐ NA
3. If you checked box II, III, IV, or V in item D.2 of this Annual Report, have you attached the first page of the appropriate certifications?	☐ YES	☐ NO	☒ NA
4. Have you attached an explanation for each "NO" answer in items E.1, E.2, E.5-E.7, E.9, E.10.c, F.1.b, F.2.a, F.2.c, G.1, H.1-H.7, or J?	☒ YES	☐ NO	☐ NA

ANNUAL REPORT CERTIFICATION

I am duly authorized to sign reports required by the INDUSTRIAL ACTIVITIES STORM WATER GENERAL PERMIT (see Standard Provision C.9) and I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those person directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed Name: GREG PREVOR

Signature: _____ Date: 6/27/2011

Title: GENERAL MANAGER

DESCRIPTION OF BASIC ANALYTICAL PARAMETERS

The Industrial Activities Storm Water General Permit (General Permit) requires you to analyze storm water samples for at least four parameters. These are pH, Total Suspended Solids (TSS), Specific Conductance (SC),and Total Organic Carbon (TOC). Oil and Grease (O&G) may be substituted for TOC. In addition, you must monitor for any other pollutants which you believe to be present in your storm water discharge as a result of industrial activity and analytical parameters listed in Table D of the General Permit. There are no numeric limitations for the parameters you test for.

The four parameters which the General Permit requires to be tested are considered *indicator* parameters. In other words, regardless of what type of facility you operate, these parameters are nonspecific and general enough to usually provide some indication whether pollutants are present in your storm water discharge. The following briefly explains what each of these parameters mean:

pH is a numeric measure of the hydrogen-ion concentration. The neutral, or acceptable, range is within 6.5 to 8.5. At values less than 6.5, the water is considered acidic; above 8.5 it is considered alkaline or basic. An example of an acidic substance is vinegar, and a alkaline or basic substance is liquid antacid. Pure rainfall tends to have a pH of a little less than 7. There may be sources of materials or industrial activities which could increase or decrease the pH of your storm water discharge. If the pH levels of your storm water discharge are high or low, you should conduct a thorough evaluation of all potential pollutant sources at your site.

Total Suspended Solids (TSS) is a measure of the undissolved solids that are present in your storm water discharge. Sources of TSS include sediment from erosion of exposed land, and dirt from impervious (i.e. paved) areas. Sediment by itself can be very toxic to aquatic life because it covers feeding and breeding grounds, and can smother organisms living on the bottom of a water body. Toxic chemicals and other pollutants also adhere to sediment particles. This provides a medium by which toxic or other pollutants end up in our water ways and ultimately in human and aquatic life. TSS levels vary in runoff from undisturbed land. It has been shown that TSS levels increase significantly due to land development.

Specific Conductance (SC) is a numerical expression of the ability of the water to carry an electric current. SC can be used to assess the degree of mineralization, salinity, or estimate the total dissolved solids concentration of a water sample. Because of air pollution, most rain water has a SC a little above zero. A high SC could affect the usability of waters for drinking, irrigation, and other commercial or industrial use.

Total Organic Carbon (TOC) is a measure of the total organic matter present in water. (All organic matter contains carbon) This test is sensitive and able to detect small concentrations of organic matter. Organic matter is naturally occurring in animals, plants, and man. Organic matter may also be man made (so called synthetic organics). Synthetic organics include pesticides, fuels, solvents, and paints. Natural organic matter utilizes the oxygen in a receiving water to biodegrade. Too much organic matter could place a significant oxygen demand on the water, and possibly impact its quality. Synthetic organics either do not biodegrade or biodegrade very slowly. Synthetic organics are a source of toxic chemicals that can have adverse affects at very low concentrations. Some of these chemicals bioaccumulate in aquatic life. If your levels of TOC are high, you should evaluate all sources of natural or synthetic organics you may use at your site.

Oil and Grease (O&G) is a measure of the amount of oil and grease present in your storm water discharge. At very low concentrations, O&G can cause a sheen (that floating "rainbow") on the surface of water (1 qt. of oil can pollute 250,000 gallons of water). O&G can adversely affect aquatic life and create unsightly floating material and film on water, thus making it undrinkable. Sources of O&G include maintenance shops, vehicles, machines and roadways.

If you have any questions regarding whether or not your constituent concentrations are too high, please contact your local Regional Board office. The United States Environmental Protection Agency (USEPA) has published stormwater discharge benchmarks for a number of parameters. These benchmarks may be helpful when evaluating whether additional BMPs are appropriate. These benchmarks can be accessed at our website at http://www.swrcb.ca.gov. It is contained in the Sampling and Analysis Reduction Certification.

See Storm Water Contacts at

http://www.waterboards.ca.gov/water_issues/programs/stormwater/contact.shtml

2010-2011

ANNUAL REPORT

SIDE A

FORM 1-SAMPLING & ANALYSIS RESULTS

FIRST STORM EVENT

- If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of the detection limit (example: <.05)
- If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank
- When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.
- Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLE(S): Chris Taylor TITLE: Site Manager SIGNATURE: [signature]

DESCRIBE DISCHARGE LOCATION Example: NW Out Fall	DATE/TIME OF SAMPLE COLLECTION	TIME DISCHARGE STARTED	ANALYTICAL RESULTS For First Storm Event									
			BASIC PARAMETERS					OTHER PARAMETERS				
			pH	TSS	SC	O&G	COD ~~TOC~~	Al	Cu	Fe	Pb	Zn
SW-1	12-17-2010 1:30 ☐ AM ☒ PM	~1:00 ☐ AM ☒ PM	8.63	39	1390	ND	62	1.2	ND	1.4	ND	.016
	____ ☐ AM ☐ PM	____ ☐ AM ☐ PM										
	____ ☐ AM ☐ PM	____ ☐ AM ☐ PM										
	____ ☐ AM ☐ PM	____ ☐ AM ☐ PM										
TEST REPORTING UNITS:			pH Units	mg/l	umho/cm	mg/l	mg/l	mg/L	mg/L	mg/L	mg/L	mg/L
TEST METHOD DETECTION LIMIT:			.05	1.4	1.00	1.4	4.5	.026	.0023	.0065	.0050	.0029
TEST METHOD USED:			4500HB	2540D	120.1	1664	410.4	200.7	200.7	200.7	200.7	200.7
ANALYZED BY (SELF/LAB):			LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB

TSS - Total Suspended Solids SC - Specific Conductance O&G - Oil & Grease TOC - Total Organic Carbon

2010-2011

ANNUAL REPORT

SIDE A

FORM 1-SAMPLING & ANALYSIS RESULTS

FIRST STORM EVENT

- If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of the detection limit (example: <.05)
- If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank
- When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.
- Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLE(S): Chris Taylor TITLE: Site Manager SIGNATURE: CTaylor

DESCRIBE DISCHARGE LOCATION Example: NW Out Fall	DATE/TIME OF SAMPLE COLLECTION	TIME DISCHARGE STARTED	ANALYTICAL RESULTS For First Storm Event									
			BASIC PARAMETERS					OTHER PARAMETERS				
			pH	TSS	SC	O&G	TOC	N+N	P			
SW-1	3-23-11 8:45 ☒ AM ☐ PM	~8:20 ☒ AM ☐ PM						1.8	.47			
	____ ☐ AM ☐ PM	____ ☐ AM ☐ PM										
	____ ☐ AM ☐ PM	____ ☐ AM ☐ PM										
	____ ☐ AM ☐ PM	____ ☐ AM ☐ PM										
TEST REPORTING UNITS:			pH Units	mg/l	umho/cm	mg/l	mg/l	mg/l	mg/l			
TEST METHOD DETECTION LIMIT:								.010	.050			
TEST METHOD USED:								353.2	365.4			
ANALYZED BY (SELF/LAB):								LAB	LAB			

TSS - Total Suspended Solids SC - Specific Conductance O&G - Oil & Grease TOC - Total Organic Carbon

2010-2011
ANNUAL REPORT

SIDE B

FORM 1-SAMPLING & ANALYSIS RESULTS

SECOND STORM EVENT

- If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of the detection limit (example: <.05)
- If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank
- When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.
- Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLE(S): Chris Taylor TITLE: Site Manager SIGNATURE: [signature]

DESCRIBE DISCHARGE LOCATION Example: NW Out Fall	DATE/TIME OF SAMPLE COLLECTION	TIME DISCHARGE STARTED	ANALYTICAL RESULTS For First Storm Event									
			BASIC PARAMETERS					OTHER PARAMETERS				
			pH	TSS	SC	O&G	~~TOC~~ COD	Al	Cu	Fe	Pb	Zn
SW-1	2-17-11 8:15 ☒ AM ☐ PM	~7:45 ☒ AM ☐ PM	8.56	56	1150	ND	110	1.9	.0038	1.2	ND	.0092
	☐ AM ☐ PM	☐ AM ☐ PM										
	☐ AM ☐ PM	☐ AM ☐ PM										
	☐ AM ☐ PM	☐ AM ☐ PM										
TEST REPORTING UNITS:			pH Units	mg/l	umho/cm	mg/l	mg/l	mg/L	mg/L	mg/L	mg/L	mg/L
TEST METHOD DETECTION LIMIT:			.05	2.5	1.00	1.2	4.5	.26	.0023	.0065	.0050	.0029
TEST METHOD USED:		4500HB	~~[illegible]~~	2540D	120.1	1664	410.4	200.7	200.7	200.7	200.7	200.7
ANALYZED BY (SELF/LAB):			LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB

TSS - Total Suspended Solids SC - Specific Conductance O&G - Oil & Grease TOC - Total Organic Carbon

2010-2011

ANNUAL REPORT

SIDE B

FORM 1-SAMPLING & ANALYSIS RESULTS

SECOND STORM EVENT

- If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of the detection limit (example: <.05)
- If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank
- When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.
- Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLE(S): Chris Taylor TITLE: Site Manager SIGNATURE: CTaylor

DESCRIBE DISCHARGE LOCATION Example: NW Out Fall	DATE/TIME OF SAMPLE COLLECTION	TIME DISCHARGE STARTED	ANALYTICAL RESULTS For First Storm Event									
			BASIC PARAMETERS					OTHER PARAMETERS				
			pH	TSS	SC	O&G	TOC	N+N	P			
SW-1	2-17-11 8:15 ☒ AM ☐ PM	~7:45 ☒ AM ☐ PM						.024	.32			
	☐ AM ☐ PM	☐ AM ☐ PM										
	☐ AM ☐ PM	☐ AM ☐ PM										
	☐ AM ☐ PM	☐ AM ☐ PM										
TEST REPORTING UNITS:			pH Units	mg/l	umho/cm	mg/l	mg/l	mg/l	mg/L			
TEST METHOD DETECTION LIMIT:								.010	.050			
TEST METHOD USED:								353.2	365.4			
ANALYZED BY (SELF/LAB):								LAB	LAB			

TSS - Total Suspended Solids SC - Specific Conductance O&G - Oil & Grease TOC - Total Organic Carbon

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SIDE A

FORM 2-QUARTERLY VISUAL OBSERVATIONS OF AUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)

- Quarterly dry weather visual observations are required of each authorized NSWD.
- Observe each authorized NSWD source, impacted drainage area, and discharge location.
- Authorized NSWDs must meet the conditions provided in Section D (pages 5-6), of the General Permit.
- Make additional copies of this form as necessary.

QUARTER: **JULY-SEPT.** DATE: 7-6-2010	Observers Name: Chris Taylor Title: Site Manager Signature: CTT	WERE ANY AUTHORIZED NSWDs DISCHARGED DURING THIS QUARTER? ☒ YES ☐ NO If YES, complete reverse side of this form.
QUARTER: **OCT.-DEC.** DATE: NA	Observers Name: Title: Signature:	WERE ANY AUTHORIZED NSWDs DISCHARGED DURING THIS QUARTER? ☐ YES ☐ NO If YES, complete reverse side of this form.
QUARTER: **JAN.-MARCH** DATE: NA	Observers Name: Title: Signature:	WERE ANY AUTHORIZED NSWDs DISCHARGED DURING THIS QUARTER? ☐ YES ☐ NO If YES, complete reverse side of this form.
QUARTER: **APRIL-JUNE** DATE: 6-17-2011	Observers Name: Chris Taylor Title: Site Manager Signature: CTT	WERE ANY AUTHORIZED NSWDs DISCHARGED DURING THIS QUARTER? ☒ YES ☐ NO If YES, complete reverse side of this form.

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SIDE B

FORM 2-QUARTERLY VISUAL OBSERVATIONS OF AUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)

DATE /TIME OF OBSERVATION	SOURCE AND LOCATION OF AUTHORIZED NSWD EXAMPLE: Air conditioner Units on Building C	NAME OF AUTHORIZED NSWD EXAMPLE: Air conditioner condensate	DESCRIBE AUTHORIZED NSWD CHARACTERISTICS Indicate whether authorized NSWD is clear, cloudy, or discolored, causing staining, contains floating objects or an oil sheen, has odors, etc.		DESCRIBE ANY REVISED OR NEW BMPs AND PROVIDE THEIR IMPLEMENTATION DATE
			At the NSWD Source	At the NSWD Drainage Area and Discharge Location	
7-6-2010 10:00 ☒ AM ☐ PM	A-1 Channel Permit # CAG-995001 11-17-2009	Borrow Pit water PERMIT # CAG995001	Clear	Clear	N/A
~~6-17-2011~~ ____ ☐ AM ☐ PM					
____ ____ ☐ AM ☐ PM					
____ ____ ☐ AM ☐ PM					
6-17-2011 10:00 ☒ AM ☐ PM	A1-Channel Permit # ~~CAG-995001~~ ~~11-17-20~~	Borrow Pit water Permit # CAG 995002	Clear	Clear	N/A

issued 5-19-11

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SIDE A

FORM 3-QUARTERLY VISUAL OBSERVATIONS OF UNAUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)

- Unauthorized NSWDs are discharges (such as wash or rinse waters) that do not meet the conditions provided in Section D (pages 5-6) of the General Permit.
- Quarterly visual observations are required to observe current and detect prior unauthorized NSWDs.
- Quarterly visual observations are required during dry weather and at all facility drainage areas.
- Each unauthorized NSWD source, impacted drainage area, and discharge location must be identified and observed.
- Unauthorized NSWDs that can not be eliminated within 90 days of observation must be reported to the Regional Board in accordance with Section A.10.e of the General Permit.
- Make additional copies of this form as necessary.

QUARTER: **JULY-SEPT.** **DATE/TIME OF OBSERVATIONS** 8-11-10 3 00 ☐ AM ☒ PM	**Observers Name:** Chris Taylor **Title:** Site Manager **Signature:** CTT	**WERE UNAUTHORIZED NSWDs OBSERVED?** ☐ YES ☒ NO **WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWDs?** ☐ YES ☒ NO	If **YES** to either question, complete reverse side.
QUARTER: **OCT.-DEC.** **DATE/TIME OF OBSERVATIONS** 10-18-10 10 30 ☒ AM ☐ PM	**Observers Name:** Chris Taylor **Title:** Site Manager **Signature:** CTT	**WERE UNAUTHORIZED NSWDs OBSERVED?** ☐ YES ☒ NO **WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWDs?** ☐ YES ☒ NO	If **YES** to either question, complete reverse side.
QUARTER: **JAN.-MARCH** **DATE/TIME OF OBSERVATIONS** 1-20-11 2 30 ☐ AM ☒ PM	**Observers Name:** Chris Taylor **Title:** Site Manager **Signature:** CTT	**WERE UNAUTHORIZED NSWDs OBSERVED?** ☐ YES ☒ NO **WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWDs?** ☐ YES ☒ NO	If **YES** to either question, complete reverse side.
QUARTER: **APRIL-JUNE** **DATE/TIME OF OBSERVATIONS** 6-14-11 1 45 ☐ AM ☒ PM	**Observers Name:** Chris Taylor **Title:** Site Manager **Signature:** CTT	**WERE UNAUTHORIZED NSWDs OBSERVED?** ☐ YES ☒ NO **WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWDs?** ☐ YES ☒ NO	If **YES** to either question, complete reverse side.

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SIDE B

FORM 3 QUARTERLY VISUAL OBSERVATIONS OF UNAUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)

OBSERVATION DATE (FROM REVERSE SIDE)	NAME OF UNAUTHORIZED NSWD EXAMPLE: Vehicle Wash Water	SOURCE AND LOCATION OF UNAUTHORIZED NSWD EXAMPLE: NW Corner of Parking Lot	DESCRIBE UNAUTHORIZED NSWD CHARACTERISTICS Indicate whether unauthorized NSWD is clear, cloudy, discolored, causing stains; contains floating objects or an oil sheen, has odors, etc.		DESCRIBE CORRECTIVE ACTIONS TO ELIMINATE UNAUTHORIZED NSWD AND TO CLEAN IMPACTED DRAINAGE AREAS. PROVIDE UNAUTHORIZED NSWD ELIMINATION DATE.
			AT THE UNAUTHORIZED NSWD SOURCE	AT THE UNAUTHORIZED NSWD AREA AND DISCHARGE LOCATION	
_____ ____ ☐ AM ☐ PM					
_____ ____ ☐ AM ☐ PM					
_____ ____ ☐ AM ☐ PM					
_____ ____ ☐ AM ☐ PM					

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FORM 4-MONTHLY VISUAL OBSERVATIONS OF

SIDE A

STORM WATER DISCHARGES

- Storm water discharge visual observations are required for at least one storm event per month between October 1 and May 31.
- Visual observations must be conducted during the first hour of discharge at all discharge locations.
- Discharges of temporarily stored or contained storm water must be observed at the time of discharge.
- Indicate "None" in the first column of this form if you did not conduct a monthly visual observation.
- Make additional copies of this form as necessary.
- Until a monthly visual observation is made, record any eligible storm events that do not result in a storm water discharge and note the date, time, name, and title of who observed there was no storm water discharge.

		#1	#2	#3	#4
Observation Date: October 29 2010 Observers Name: Chris Taylor Title: Site Manager Signature: CTT	Drainage Location Description	SW-1			
	Observation Time	4:00 ☒ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.
	Time Discharge Began	No discharge ☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.
	Were Pollutants Observed (If yes, complete reverse side)	YES ☐ NO ☒	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐
Observation Date: November 30 2010 Observers Name: Chris Taylor Title: Site Manager Signature: CTT	Drainage Location Description	SW-1			
	Observation Time 2:30P	~~No discharge~~ ☒ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.
	Time Discharge Began	No discharge ☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.
	Were Pollutants Observed (If yes, complete reverse side)	YES ☐ NO ☒	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐
Observation Date: December 17 2010 Observers Name: Chris Taylor Title: Site Manager Signature: CTT	Drainage Location Description	SW-1			
	Observation Time	1:30P ☒ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.
	Time Discharge Began	~1:00 ☒ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.
	Were Pollutants Observed (If yes, complete reverse side)	YES ☐ NO ☒	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐
Observation Date: January 31 2011 Observers Name: Chris Taylor Title: Site Manager Signature: CTT	Drainage Location Description	SW-1			
	Observation Time	3:15 ☒ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.
	Time Discharge Began	No discharge ☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.
	Were Pollutants Observed (If yes, complete reverse side)	YES ☐ NO ☒	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐

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SIDE B

FORM 4-MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

DATE/TIME OF OBSERVATION (From Reverse Side)	DRAINAGE AREA DESCRIPTION EXAMPLE: Discharge from material storage Area #2	DESCRIBE STORM WATER DISCHARGE CHARACTERISTICS Indicate whether storm water discharge is clear, cloudy, or discolored; causing staining; containing floating objects or an oil sheen, has odors, etc.	IDENTIFY AND DESCRIBE SOURCE(S) OF POLLUTANTS EXAMPLE: Oil sheen caused by oil dripped by trucks in vehicle maintenance area.	DESCRIBE ANY REVISED OR NEW BMPs AND THEIR DATE OF IMPLEMENTATION
_____ ☐ AM ☐ PM				
_____ ☐ AM ☐ PM				
_____ ☐ AM ☐ PM				
_____ ☐ AM ☐ PM				
_____ ☐ AM ☐ PM				

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FORM 4 (Continued)-MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

SIDE A

- Storm water discharge visual observations are required for at least one storm event per month between October 1 and May 31.
- Visual observations must be conducted during the first hour of discharge at all discharge locations.
- Discharges of temporarily stored or contained storm water must be observed at the time of discharge.
- Indicate "None" in the first column of this form if you did not conduct a monthly visual observation.
- Make additional copies of this form as necessary.
- Until a monthly visual observation is made, record any eligible storm events that do not result in a storm water discharge and note the date, time, name, and title of who observed there was no storm water discharge.

Observation Date: February 17 2011 Observers Name: Chris Taylor Title: Site Manager Signature: [illegible]	Drainage Location Description	#1 SW-1	#2	#3	#4
	Observation Time	8:20 ☐ P.M. ☒ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.
	Time Discharge Began	~8:00 ☐ P.M. ☒ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.
	Were Pollutants Observed (If yes, complete reverse side)	YES ☐ NO ☒	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐
Observation Date: March 24 2011 Observers Name: Chris Taylor Title: Site Manager Signature: [illegible]	Drainage Location Description	#1 SW-1	#2	#3	#4
	Observation Time	10:00 ☐ P.M. ☒ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.
	Time Discharge Began	~9:50A ☐ P.M. ☒ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.
	Were Pollutants Observed (If yes, complete reverse side)	YES ☐ NO ☒	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐
Observation Date: April 29 2011 Observers Name: Chris Taylor Title: Site Manager Signature: [illegible]	Drainage Location Description	#1 SW-1	#2	#3	#4
	Observation Time	3:00 ☒ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.
	Time Discharge Began	No discharge ☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.
	Were Pollutants Observed (If yes, complete reverse side)	YES ☐ NO ☒	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐
Observation Date: May 31 2011 Observers Name: Chris Taylor Title: Site Manager Signature: [illegible]	Drainage Location Description	#1 SW-1	#2	#3	#4
	Observation Time	3:30 ☒ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.
	Time Discharge Began	No discharge ☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.	☐ P.M. ☐ A.M.
	Were Pollutants Observed (If yes, complete reverse side)	YES ☐ NO ☒	YES ☐ NO ☐	YES ☐ NO ☐	YES ☐ NO ☐

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SIDE B

FORM 4 (Continued)-MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

DATE/TIME OF OBSERVATION (From Reverse Side)	DRAINAGE AREA DESCRIPTION EXAMPLE: Discharge from material storage Area #2	DESCRIBE STORM WATER DISCHARGE CHARACTERISTICS Indicate whether storm water discharge is clear, cloudy, or discolored; causing staining; containing floating objects or an oil sheen, has odors, etc.	IDENTIFY AND DESCRIBE SOURCE(S) OF POLLUTANTS EXAMPLE: Oil sheen caused by oil dripped by trucks in vehicle maintenance area.	DESCRIBE ANY REVISED OR NEW BMPs AND THEIR DATE OF IMPLEMENTATION
_____ _____ ☐ AM ☐ PM				
_____ _____ ☐ AM ☐ PM				
_____ _____ ☐ AM ☐ PM				
_____ _____ ☐ AM ☐ PM				
_____ _____ ☐ AM ☐ PM				

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SIDE A

FORM 5-ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY BMP STATUS

EVALUATION DATE: 6-23-11 **INSPECTOR NAME:** Chris Taylor **TITLE:** Site Manager **SIGNATURE:** CTT

POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)			If yes, to either question, complete the next two columns of this form	Describe deficiencies in BMPs or BMP implementation	Describe additional/revised BMPs or corrective actions and their date(s) of implementation
Industrial Processes	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED?	☐YES ☒NO		SLIGHTLY ELEVATED NITRATE DURING FIRST SAMPLING EVENT (MAKE UP) MAY BE PARTIALLY ATTRIBUTED TO COMPOST OPERATION. NITRATE LEVELS DROPPED DURING SECOND SAMPLING EVENT.	USE OF STRAW WATTLES & ROCK FILTERS ALONG EDGE OF COMPOST PAD MINIMIZED SEDIMENT TRANSPORT.
	ARE ADDITIONAL/REVISED BMPs NECESSARY?	☒YES ☐NO			
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)			**If yes, to either question, complete the next two columns of this form**	**Describe deficiencies in BMPs or BMP implementation**	**Describe additional/revised BMPs or corrective actions and their date(s) of implementation**
Material, loading, unloading and access areas	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED?	☐YES ☒NO			
	ARE ADDITIONAL/REVISED BMPs NECESSARY?	☐YES ☒NO			
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)			**If yes, to either question, complete the next two columns of this form**	**Describe deficiencies in BMPs or BMP implementation**	**Describe additional/revised BMPs or corrective actions and their date(s) of implementation**
Outdoor Storage and maintenance activities	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED?	☐YES ☒NO			
	ARE ADDITIONAL/REVISED BMPs NECESSARY?	☐YES ☒NO			
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)			**If yes, to either question, complete the next two columns of this form**	**Describe deficiencies in BMPs or BMP implementation**	**Describe additional/revised BMPs or corrective actions and their date(s) of implementation**
Dust and Particulate generating activities	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED?	☐YES ☒NO			
	ARE ADDITIONAL/REVISED BMPs NECESSARY?	☐YES ☒NO			

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SIDE B

FORM 5 (Continued)-ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY BMP STATUS

EVALUATION DATE: 6-27-11 INSPECTOR NAME: Chris Taylor TITLE: Site Manager SIGNATURE: [signature]

POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP)			Describe deficiencies in BMPs or BMP implementation	Describe additional/revised BMPs or corrective actions and their date(s) of implementation
Non-Storm water Discharge (Borrow Pit)	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? ☐YES ☒NO ARE ADDITIONAL/REVISED BMPs NECESSARY? ☐YES ☒NO	If yes, to either question, complete the next two columns of this form		
Soil Erosion locations	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? ☐YES ☒NO ARE ADDITIONAL/REVISED BMPs NECESSARY? ☐YES ☒NO	If yes, to either question, complete the next two columns of this form	TSS LEVELS HAVE DROPPED TO BELOW BENCHMARK w/ IMPLEMENTATION OF BMP'S.	CONTINUE TO USE STRAW WATTLES, ROCK BAG FILTERS, AND VEGETATED SWALES TO MINIMIZE EROSION.
Bird Sanctuary (Soil Erosion)	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? ☐YES ☒NO ARE ADDITIONAL/REVISED BMPs NECESSARY? ☐YES ☒NO	If yes, to either question, complete the next two columns of this form	AS NOTED ABOVE, TSS LEVELS HAVE DROPPED TO BELOW BENCHMARK LEVELS. ELEVATED EC, Fe, AND Al IS ADDRESSED IN ATTACHED SCS ENGINEERS REPORT.	PRIOR TO THE 2010/2011 WET SEASON, THE DISCHARGE PIPE WAS RAISED AND EXTENDED APPROX 30' TO MINIMIZE IMPACTS OF SLOPE EROSION ON STORMWATER DISCHARGE
Significant spills and leaks	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? ☐YES ☒NO ARE ADDITIONAL/REVISED BMPs NECESSARY? ☐YES ☒NO	If yes, to either question, complete the next two columns of this form		

Recology Hay Road
WDID No. 5S48I010514

2010-2011 Annual Report for Storm Water Discharges Associated with Industrial Activities

Attachment A

Explanations:

Item E-7 – Was all storm water sampling preceded by three working days of dry weather without a storm water discharge?

The 12/17/10 sampling event was preceded by at least two days of dry weather but discharge may have occurred during non operating hours earlier in the week. A light rain had occurred the day before the 2/17/11 sampling event but no discharge is believed to have occurred.

Item F-1 – Authorized Non-Storm Water Discharges

The facility was authorized for dewatering of the site's borrow pit under a Low Threat General Order No. R5-2008-0081-043 and NPDES Permit No. CAG995001 (issued 11/17/09) through May 19, 2011 and under a Limited Threat General Order No. R5-2008-0082-019 and NPDES Permit No. CAG995002 (issued 5/19/11). Quarterly monitoring and sampling are submitted to the RWQCB in accordance with each General Order by the 1st day of the 2nd month following the calendar quarter.

Form 1 – First Sampling Event

Due to a lab oversight, the Nitrate +Nitrite Nitrogen (N+N) and Phosphorous (P) was not analyzed from the first sampling event on 12/17/10, although it was listed on the chain of custody. An additional make-up sample was obtained on 3/23/11 and analyzed for the N+N and P and recorded in the report under the first sampling event.

Form 5 – Annual Comprehensive Site Compliance Evaluation

Implementation of additional straw wattles, site curbing, rock bag filters and vegetated swales has resulted in TSS being below benchmark levels. The slightly elevated SC, Fe, and Al during both sample events is addressed in the attached report prepared by SCS Engineers (Site Soil Analytical Results and Implications for Storm Water Benchmark Exceedances, Recology Hay Road, June 2011).