DRC-2011-007272

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August 31, 2011

Mr. Rusty Lundberg
Co-Executive Secretary
Utah Water Quality Board
Utah Department of Environmental Quality
195 North 1950 West
P.O. Box 144820
Salt Lake City, UT 84114-4820

Re: Transmittal of 2nd Quarter 2011 Routine Chloroform Monitoring Report UDEQ Docket No. UGQ-20-01- White Mesa Uranium Mill

Dear Mr. Lundberg:

Enclosed are two copies of the White Mesa Uranium Mill Chloroform Monitoring Report for the 2nd Quarter of 2011 as required by the Notice of Violation and Groundwater Corrective Action Order, UDEQ Docket No. UGQ-20-01 as well as two CDs each containing a word searchable electronic copy of the report.

If you should have any questions regarding this report please contact me.

Yours very truly,

DENISON MINES (USA) CORP.
for Jo Ann Tischler
Director, Compliance and Permitting

CC: Ron F. Hochstein
David C. Frydenlund
Harold R. Roberts
David E. Turk
Kathy Weinel
Central Files

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White Mesa Uranium Mill

Chloroform Monitoring Report

State of Utah
Notice of Violation and Groundwater Corrective Action Order UDEQ
Docket No. UGQ-20-01

2nd Quarter
(April through June)
2011

Prepared by:

Denison Mines (USA) Corp.
1050 17th Street, Suite 950
Denver CO 80265

August 31, 2011

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1.0 INTRODUCTION

The presence of chloroform was initially identified in groundwater at the White Mesa Mill (the "Mill") as a result of split sampling performed in May 1999. The discovery resulted in the issuance of State of Utah Notice of Violation ("NOV") and Groundwater Corrective Action Order ("CAO") State of Utah Department of Environmental Quality ("UDEQ") Docket No. UGQ-20-01, which required that Denison Mines (USA) Corp. ("DUSA") submit a Contamination Investigation Plan and Report pursuant to the provisions of UAC R317-6-6.15(D).

The frequency of chloroform sampling, which was initially performed on a monthly basis, was modified on November 8, 2003. Since that time all chloroform contaminant investigation wells have been sampled on a quarterly basis.

This is the Quarterly Chloroform Monitoring Report for the second quarter of 2011 as required under the NOV and CAO. This Report also includes the Operations Report for the Long Term Pump Test at MW-4, TW4-19, MW-26 (previously referred to as TW4-15), TW4-20, and TW4-4 for the quarter.

2.0 CHLOROFORM MONITORING

2.1 Samples and Measurements Taken During the Quarter

A map showing the location of all groundwater monitoring wells, piezometers, existing wells, temporary chloroform contaminant investigation wells and temporary nitrate investigation wells is attached under Tab A. Chloroform samples and measurements taken during this reporting period (April through June), are discussed in the remainder of this section.

2.1.1 Chloroform Monitoring

Quarterly sampling for chloroform monitoring parameters is currently required in the following wells:

TW4-1	TW4-10	TW4-21
TW4-2	TW4-11	TW4-22
TW4-3	TW4-12	TW4-23
TW4-4	TW4-13	TW4-24
TW4-5	TW4-14	TW4-25
TW4-6	TW4-16	MW-4
TW4-7	TW4-18	MW-26 (formerly TW4-15)
TW4-8	TW4-19	MW-32 (formerly TW4-17)
TW4-9	TW4-20	TW4-26

Table 1 provides an overview of all wells sampled during the current period, along with the date samples were collected from each well, and the date(s) which analytical data were received from the contract laboratory. Table 1 also identifies equipment rinsate samples collected, as well as sample numbers associated with the deionized field blank (DIFB) and any required duplicates.

As indicated in Table 1, chloroform monitoring was performed in all of the required chloroform monitoring wells.

2.1.2 Parameters Analyzed

Wells sampled during this reporting period were analyzed for the following constituents:

- Chloroform
- Chloromethane
- Carbon tetrachloride
- Methylene chloride
- Chloride
- Nitrate plus Nitrite as Nitrogen

Use of analytical methods is consistent with the requirements of the Chloroform Investigation Monitoring Quality Assurance Program (the "Chloroform QAP") attached as Appendix A to the White Mesa Uranium Mill Groundwater Monitoring Quality Assurance Plan ("QAP").

2.1.3 Groundwater Head Monitoring

Depth to groundwater was measured in the following wells and/or piezometers, pursuant to Part I.E.3 of the Groundwater Discharge Permit (the "GWDP"):

- The quarterly groundwater compliance monitoring wells.
- Existing monitoring well MW-4 and all of the temporary chloroform investigation wells.
- Piezometers – P-1, P-2, P-3, P-4 and P-5.
- MW-20 and MW-22.
- Nitrate monitoring wells.
- In addition to the above, depth to water measurements are routinely observed in conjunction with sampling events for all wells sampled during quarterly and accelerated efforts, regardless of the sampling purpose.

All well levels used for groundwater contour mapping were measured and recorded within 5 calendar days of each other as indicated by the measurement data in the summary sheet under Tab D.

In addition, weekly and monthly depth to groundwater measurements were taken in MW-4, MW-26, TW4-19, TW4-20, and TW4-4, as part of the long term pumping test for MW-4.

2.2 Sampling Methodology and Equipment and Decontamination Procedures

DUSA completed, and transmitted to UDEQ on May 25, 2006, a revised QAP for sampling under the Mill's GWDP. While the water sampling conducted for chloroform investigation purposes has conformed to the general principles set out in the QAP, some of the requirements in the QAP were not fully implemented prior to UDEQ's approval, for reasons set out in correspondence to UDEQ dated December 8, 2006. Subsequent to the delivery of the December 8, 2006 letter, DUSA discussed the issues brought forward in the letter with UDEQ and has received correspondence from UDEQ about those issues. In response to UDEQ's letter and subsequent discussions with UDEQ, DUSA has incorporated changes in chloroform Quality Assurance ("QA") procedures in the form of the Chloroform QAP, which is a separate Appendix A to the QAP. The Chloroform QAP describes the differing needs of the chloroform investigation program, and is an attachment to the GWDP QAP where QA requirements for the chloroform investigation are addressed. On June 20, 2009 the Chloroform QAP was modified to require that the quarterly chloroform reports include additional items specific to DUSA's ongoing pump testing and chloroform capture efforts.

The sampling methodology, equipment and decontamination procedures that were performed for the chloroform contaminant investigation, as summarized below, are consistent with the QAP and the Chloroform QAP.

2.2.1 Well Purging and Depth to Groundwater

A list of the wells in order of increasing chloroform contamination is generated quarterly. The order for purging is thus established. The list is included with the Field Data Worksheets under Tab B. Mill personnel start purging with all of the non-detect wells and then move to the more contaminated wells in order of chloroform contamination.

Before leaving the Mill office, the portable pump and hose are rinsed with DI water. A rinsate blank sample is collected at the beginning of each day prior to the first use of the pump. Mill personnel then proceed to the first well which is the well with the lowest concentration of chloroform based on the previous quarter's sampling results. Well depth measurements are taken and the two casing volumes are calculated for those wells which do not have a dedicated pump (measurements are made using the same instrument used for the monitoring wells under the Mill's GWDP). If the well has a dedicated pump, it is pumped on a set schedule per the remediation plan and is considered sufficiently evacuated to immediately collect a sample; however, if a pumping well has been out of service for 48 hours or more, DUSA will follow the purging requirements outlined in Section 6.2.7(d)(v) of the QAP. The dedicated pump is used to collect parameters and to collect the samples as described below. If the well does not have a dedicated pump, a Grundfos pump (9 - 10 gpm pump) is then lowered to the screened interval in the well and purging is started. The purge rate is established for the well by using a calibrated 5

gallon bucket. The purging of the well is completed per Section 6.2.5 of the QAP. In wells where the portable pump is used, a disposable bailer is used to collect the samples the day following purging activities. After each use, the portable pump is decontaminated prior to reuse at the next sample location. This purging process is repeated at each well location moving from least contaminated to the most contaminated well. All wells are capped and secured prior to leaving the sampling location.

Wells with dedicated pumps are sampled when the pump is in the pumping mode. If the pump is not pumping at the time of sampling, it is manually switched on by the Mill Personnel. The well is pumped for approximately 5 to 10 minutes prior to the collection of the field parameters. Per the approved QAP, one set of parameters is collected. Samples are collected following the measurement of one set of field parameters. The pump is turned off and allowed to resume its timed schedule.

2.2.2 Sample Collection

Samples are collected as described above. In all cases, on days when samples will be collected, a cooler with ice is prepared. The trip blank is also gathered at that time (the trip blank for these events is provided by the Analytical Laboratory). Once Mill Personnel arrive at the well sites, labels are filled out for the various samples to be collected. All personnel involved with the collection of water and samples are then outfitted with rubber gloves. Chloroform investigation samples are collected by means of disposable bailers.

Mill personnel use a disposable bailer to sample each well that does not have a dedicated pump. The bailer is attached to a reel of approximately 150 feet of nylon rope and then lowered into the well. After coming into contact with the water, the bailer is allowed to sink into the water in order to fill. Once full, the bailer is reeled up out of the well and the sample bottles are filled as follows:

- Volatile Organic Compound ("VOC") samples are collected first. This sample consists of three 40 ml vials provided by the Analytical Laboratory. The VOC sample is not filtered and is preserved with HCl;

- A sample for nitrate/nitrite is then collected. This sample consists of one 250 ml. bottle which is provided by the Analytical Laboratory. The nitrate/nitrite sample is also not filtered and is preserved with H_2SO_4;

- A sample for chloride is then collected. This sample consists of one 500 ml. bottle which is provided by the Analytical Laboratory. The chloride sample is also not filtered and is not chemically preserved.

After the samples have been collected for a particular well, the bailer is disposed of and the samples are placed into the cooler that contains ice. The well is then recapped and Mill personnel proceed to the next well.

2.3 Field Data

Attached under Tab B are copies of all Field Data Worksheets that were completed during the quarter for the chloroform contaminant investigation monitoring wells identified in paragraph 2.1.1 above, and Table 1.

2.4 Depth to Groundwater Data and Water Table Contour Map

Attached under Tab C are copies of the Depth to Water Sheets for the weekly monitoring of MW-4, MW-26, TW4-19, TW4-20, and TW4-4, as well as the monthly depth to groundwater data for chloroform contaminant investigation wells measured during the quarter that are not included in Tab D. Depth to groundwater measurements which were utilized for groundwater contours are included on the Quarterly Depth to Water Worksheet at Tab D of this report, along with the kriged groundwater contour map for the current quarter generated from this data. All of the water level measurements used for the contour map were collected within 5 days of each other as indicated by the measurement dates in the summary sheet under Tab D. A copy of the kriged groundwater contour map generated from the first quarter 2011 data is provided under Tab E.

2.5 Laboratory Results

2.5.1 Copy of Laboratory Results

All analytical results were provided by Energy Laboratories ("EL"). Table 1 lists the dates when analytical results were reported to the QA Manager for each well or other sample.

Results from analysis of samples collected for the second quarter chloroform contaminant investigation are provided under Tab H of this Report. Also included under Tab H are the results of analyses for duplicate samples, the DIFB, and rinsate samples for this sampling effort, as identified in Table 1, as well as results for trip blank analyses required by the Chloroform QAP.

2.5.2 Regulatory Framework

As discussed in Section 1.0, above, the NOV and requirements of the CAO triggered a series of actions on DUSA's part. In addition to the monitoring program, DUSA has equipped five wells with pumps to recover impacted groundwater, and has initiated recovery of chloroform from the perched zone.

Sections 4 and 5, below, interpret the groundwater level and flow information, contaminant analytical results, and pump test data to assess effectiveness of DUSA's chloroform capture program.

3.0 QUALITY ASSURANCE AND DATA VALIDATION

The QA Manager performed a QA/Quality Control ("QC") review to confirm compliance of the monitoring program with requirements of the QAP. As required in the QAP, data QA includes preparation and analysis of QC samples in the field, review of field procedures, an analyte completeness review, and QC review of laboratory methods and data. Identification of field QC samples collected and analyzed is provided in Section 3.1. Discussion of adherence to Mill sampling Standard Operating Procedures ("SOPs") is provided in Section 3.2. Analytical completeness review results are provided in Section 3.3. The steps and tests applied to check laboratory data QA/QC are discussed in Sections 3.4.4 through 3.4.9 below.

The analytical laboratory has provided summary reports of the analytical quality QA/QC measurements necessary to maintain conformance with National Environmental Laboratory Accreditation Conference ("NELAC") certification and reporting protocol. The Analytical Laboratory QA/QC Summary Reports, including copies of the Mill's Chain of Custody and Analytical Request Record forms for each set of Analytical Results, follow the analytical results under Tab H. Results of review of the laboratory QA/QC information are provided under Tab I and are discussed in Section 3.4, below.

3.1 Field QC Samples

The following QC samples were generated by Mill personnel and submitted to the analytical laboratory in order to assess the quality of data resulting from the field sampling program.

Field QC samples for the chloroform investigation program consist of one field duplicate sample for each 20 samples, a trip blank for each shipped cooler which contains VOCs, one DIFB and rinsate samples.

During this quarter, two duplicate samples were collected as indicated in Table 1. The duplicates were sent blind to the analytical laboratory and analyzed for the same parameters as the chloroform wells.

Four trip blanks were provided by Energy Laboratories and returned with the quarterly chloroform monitoring samples.

Four rinsate blank samples were collected as indicated on Table 1. Rinsate samples were labeled with the name of the subsequently purged well with a terminal letter "R" added (e.g. TW4-7R). The results of these analyses are included with the routine analyses under Tab H.

In addition, two DIFB, while not required by the Chloroform QAP, were collected and analyzed for the same constituents as the well samples and rinsate blank samples.

3.2 Adherence to Mill Sampling SOPs

On a review of adherence by Mill personnel to the existing sampling SOPs, the QA Manager observed that QA/QC requirements established in the QAP and Chloroform QAP were being adhered to and that the SOPs were implemented, except as described below.

One site procedure requiring clarification was noted during the QA Manager's review of the field data. As previously stated, a list of the wells in order of increasing chloroform contamination (based on the previous quarter's data) is generated quarterly prior to the next quarter's sampling to determine the order for purging prior to sampling. Consistent with the approved QAP, each quarterly event begins with purging of the wells from the least affected to the most affected based on the previous quarter's data. Although purging follows this order, the sampling order may deviate slightly from the generated list. This practice does not affect the samples for these reasons: any wells sampled in slightly different order had either dedicated pumps or were sampled via a disposable bailer. This practice does not affect the quality or usability of the data as there is no cross-contamination resulting from sampling order. DUSA intends to propose an amendment to clarify this practice in the next revision of the QAP.

3.3 Analyte Completeness Review

All analyses required by the GWDP for chloroform monitoring for the period were performed.

3.4 Data Validation

The QAP and GWDP identify the data validation steps and data QC checks required for the chloroform monitoring program. Consistent with these requirements, the QA Manager performed the following evaluations: a field data QA/QC evaluation, a holding time check, a receipt temperature check, an analytical method check, a reporting limit evaluation, a trip blank check, a QA/QC evaluation of sample duplicates, a QC Control Limit check for analyses and blanks including the DIFB and a rinsate sample check. Each evaluation is discussed in the following sections. Data check tables indicating the results of each test are provided under Tab I.

3.4.1 Field Data QA/QC Evaluation

The QA Manager performs a review of all field recorded parameters to assess their adherence with QAP requirements. The assessment involved review of two sources of information: the Field Data Sheets and the Quarterly Depth to Water summary sheet. Review of the Field Data Sheets addresses well purging volumes and stability of five parameters: conductance, pH, temperature, redox potential, and turbidity. Review of the Depth to Water data confirms that all depth measurements used for development of groundwater contour maps were conducted within a five-day period as indicated by the

measurement dates in the summary sheet under Tab D. The results of this quarter's review of field data are provided under Tab I.

Based upon this review, all non-pumping wells conformed to the QAP requirement to evacuate two well casing volumes before sampling except TW4-2, TW4-3, TW4-6, TW4-7, TW4-10, TW4-11, TW4-13, TW4-14, TW4-16, and TW4-26. All of these wells were pumped to dryness before two casing volumes were evacuated and as such the requirement to purge two casing volumes does not apply. In each case, representative samples of formation water were collected after the wells were allowed to recover.

During review of the field data sheets, it was observed that sampling personnel consistently recorded depth to water to the nearest 0.01 foot.

All field parameters for all wells were within the required Relative Percent Difference ("RPD") (other than the wells that were pumped to dryness and the wells which are continually pumped, for which this requirement does not apply), except as follows.

The review of the field sheets for compliance with QAP requirements resulted in the observations noted below. The requirements in Section 6.2.7 of the QAP specifically state that field parameters must have stabilized to within 10% over at least 2 consecutive measurements. The QAP states that turbidity should be less than 5 Nephelometric Turbidity Units ("NTU") prior to sampling unless the well is characterized by water that has a higher turbidity. The QAP does not require that turbidity measurements be less than 5 NTU prior to sampling. As such, the noted observations regarding turbidity measurements less than 5 NTU below are included for information purposes only.

Three wells did not meet the requirement for the stabilization of turbidity within 10% RPD and two wells did not meet the requirement for the stabilization of redox potential within 10% RPD. In all cases, the wells were purged to dryness prior to the achievement of stabilization for turbidity and conductivity and as such the requirement to meet the stabilization criteria does not apply.

Twenty-two turbidity measurements exceeded the QAP's 5 NTU goal. Of the twenty-two wells, ten wells were pumped to dryness. The QAP does not require that turbidity measurements be less than 5 NTU prior to sampling. As such, the noted observations regarding turbidity measurements less than 5 NTU below are included for information purposes only.

DUSA's letter to DRC of March 26, 2010 discusses further why turbidity does not appear to be an appropriate parameter for assessing well stabilization. In response to DRC's subsequent correspondence dated June 1, 2010 and June 24, 2010, DUSA has completed a monitoring well redevelopment program. The redevelopment program reviewed the available turbidity data for the nitrate wells and developed a list of wells that have undergone redevelopment utilizing several strategies. The redevelopment strategies include additional surging and bailing and overpumping as necessary. Surging and bailing and overpumping for the nitrate, chloroform, and groundwater wells is complete. Data from the redevelopment of the chloroform wells will be reviewed with the data from

the redevelopment of the nitrate and groundwater programs. A single report will be prepared at the completion of the redevelopment program for the wells in all three programs which is planned for submittal on or before the end of the third quarter 2011. DUSA will review the redevelopment data and summarize the status of the Mill wells. Redevelopment results will be discussed with DRC in an effort to come to a consensus regarding turbidity considerations for the chloroform wells at the Mill site.

3.4.2 Holding Time Evaluation

QAP Table 1 identifies the method holding times for each suite of parameters. Sample holding time checks are provided in Tab I. All samples were received and analyzed within the required holding time.

3.4.3 Receipt Temperature Evaluation

Chain of Custody sheets were reviewed to confirm compliance with the QAP requirement which specifies that samples be received at $6^{o}C$ or lower. Sample temperatures checks are provided in Tab I. All samples were received within the required temperature limit.

3.4.4 Analytical Method Checklist

All analytical methods reported by the laboratory were checked against the required methods enumerated in the Chloroform QAP. Analytical method checks are provided in Tab I. All methods were consistent with the requirements of the Chloroform QAP.

3.4.5 Reporting Limit Evaluation

All analytical method reporting limits reported by the laboratory were checked against the reporting limits enumerated in the Chloroform QAP. Reporting Limit Checks are provided under Tab I. All analytes were measured and reported to the required reporting limits, except 23 sets of sample results (22 wells, and 1 duplicates) had the reporting limit raised for at least one analyte due to matrix interference and/or sample dilution. In all cases the reported value for the analyte was higher than the increased detection limit.

3.4.6 Trip Blank Evaluation

All trip blank results were reviewed to identify any VOC contamination resulting from transport of the samples. Trip blank checks are provided in Tab I. All trip blank results were less than the reporting limit for all VOC analytes.

3.4.7 QA/QC Evaluation for Sample Duplicates

Section 9.1.4 a) of the QAP states that RPDs will be calculated for the comparison of duplicate and original field samples. The QAP acceptance limits for RPDs between the duplicate and original field sample is less than or equal to 20% unless the measured results (described as activities in the QAP) are less than 5 times the required detection limit. This standard is based on the EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, February 1994, 9240.1-05-01 as cited in the QAP. The RPDs are calculated for all duplicate pairs for all analytes regardless of

whether or not the reported concentrations are greater than 5 times the required detection limits; however, data will be considered noncompliant only when the results are greater than 5 times the reported detection limit and the RPD is greater than 20%. The additional duplicate information is provided for information purposes.

All analytical results for the sample/duplicate pairs were within the 20% RPD acceptance limits. Results of the RPD test are provided in Tab I.

3.4.8 Rinsate Sample Check

Rinsate blank sample checks are provided in Tab I.

Chloroform

A review of the analytical results reported for rinsate blank samples indicated that one of the rinsate blank samples contained chloroform. A DIFB was analyzed and was reported as nondetect. A comparison of the rinsate blank sample concentration levels to the QAP requirements – that rinsate sample concentrations be one order of magnitude lower than that of the actual well – indicated that the rinsate blank sample with a detection of chloroform met this criterion.

This criterion however, is irrelevant and inappropriate for the rinsate blank sample data collected during the chloroform sampling because rinsate blank samples are collected from the decontaminated portable pump used for well purging, and the pump is not used for sample collection. As stated in Section 2.2.1, wells that do not have a dedicated pump are purged using a portable pump. In wells where the portable pump is used for purging, a disposable bailer is used to collect the samples the day following purging activities.

Chloroform has been present in the rinsate blanks in previous quarters. Based on the investigation into the source of chloroform, DUSA believes that the potential source for the chloroform present in the rinsate blanks has been identified. It is known from EPA studies that chloroform is frequently a byproduct of the chlorination process in potable water supplies.

Based on the EPA documentation, DUSA believes the chloroform contamination in the DI water is most likely the result of chlorination of the intake water used for the DI system. Multiple sources cite the creation of chloroform as a byproduct of chlorination. The following two sources have been attached as, *EPA – Basic Information about Disinfection Byproducts in Drinking Water: Total Trihalomethanes, Haloacetic Acids, Bromate and Chlorite;* and *Water Research Net – Disinfection By-Products Trihalomethanes,* in Tab N to this report. The chloroform is most likely the result of the chlorination of the potable water at the Mill which is subsequently fed to the DI system. The water is free of chloroform prior to chlorination, as it is tested by the Utah Department of Health, Division of Epidemiology and Laboratory Services on a routine basis. The chlorine added reacts with the naturally occurring organic and inorganic materials in the water.

During the Q2 2011 event a second 55-gallon rinse with DI water was added to address the nitrate contamination in the rinsate blank process resulting from the nitric acid rinse in the decontamination procedure. The rinsate blank was collected from the second DI rinsate water after the second 55-gallons of DI are pumped. The addition of this step eliminated nitrate contamination, but "stressed" the DI system due to increase in volume of water being used. The DI system is designed to remove the chloroform; however, due to the large volume of DI water processed through the system during the chloroform sampling events to accommodate the decontamination needs, breakthrough appears to occur under heavy usage when the system is "stressed". Removal of chloroform and other organics is accomplished by the "activated carbon" portion of the DI system. The performance of this portion of the DI system is directly proportional to the volume of water treated and, due to the large volumes of water treated in a short time, the system becomes "stressed" and performance decreases resulting in chloroform "breakthrough".

Corrective actions for this issue are described in Section 6.1.

Nitrate

A review of the analytical results reported for rinsate blank samples indicated that none of the rinsate blank samples contained nitrate. A DIFB was analyzed and was reported as nondetect.

3.4.9 Other Laboratory QA/QC

Section 9.2 of the QAP requires that the laboratory's QA/QC Manager check the following items in developing data reports: (1) sample preparation information is correct and complete, (2) analysis information is correct and complete, (3) appropriate analytical laboratory procedures are followed, (4) analytical results are correct and complete, (5) QC samples are within established control limits, (6) blanks are within QC limits, (7) special sample preparation and analytical requirements have been met, and (8) documentation is complete. In addition to other laboratory checks described above, DUSA's QA Manager rechecks QC samples and blanks (items (5) and (6)) to confirm that the percent recovery for spikes and the relative percent difference for spike duplicates are within the method-specified acceptance limits, or that the case narrative sufficiently explains any deviation from these limits. Results of this quantitative check are provided in Tab I.

All lab QA/QC results met these specified acceptance limits except as noted below.

The QAP Section 8.1.2 requires that an MS/MSD (referred to as Duplicate Spike [Matrix spike] in the QAP) pair be analyzed with each analytical batch. The QAP does not specify acceptance limits for the MS/MSD pair, and the QAP does not specify that the MS/MSD pair be prepared on DUSA samples only. Acceptance limits for MS/MSDs are set by the laboratories. The review of the information provided by the laboratories in the data packages verified that the QAP requirement to analyze an MS/MSD pair with each analytical batch was met. While the QAP does not require it, the recoveries were reviewed for compliance with the laboratory established acceptance limits. The QAP

does not require this level of review, and the results of this review are provided for information only.

The information from the Laboratory QA/QC Summary Reports indicates that the MS/MSDs recoveries and the associated RPDs for all quarterly chloroform samples are within acceptable laboratory limits for all regulated compounds except as indicated in Tab I. The recoveries, which are outside of the laboratory established acceptance limits, do not affect the quality or usability of the data because the recoveries outside of the acceptance limits are indicative of matrix interference. Furthermore, the nitrate samples with MS/MSD recoveries outside of the laboratory established limits are not Denison samples and as such are not applicable to the Mill samples. The QAP requirement to analyze a MS/MSD pair with each analytical batch was met and as such the data are compliant with the QAP.

The QAP specifies that surrogate compounds shall be employed for all organic analyses, but the QAP does not specify acceptance limits for surrogate recoveries. The analytical data associated with the routine quarterly sampling met the requirement specified in the QAP. The information from the Laboratory QA/QC Summary Reports indicates that the surrogate recoveries for all quarterly chloroform samples were within acceptable laboratory limits for all surrogate compounds except as indicated in Tab I. One surrogate recovery was above the laboratory established acceptance limits or that had a high recovery, indicating a high bias to the individual sample results. A high bias means that reported results will be higher than the actual results. There is no effect on the quality or usability of the data because there are multiple surrogates added to each sample and all other surrogates were within limits. Furthermore, there are no QAP requirements for surrogate recoveries.

The information from the Laboratory QA/QC Summary Reports indicates that all LCS recoveries were within acceptable laboratory limits for all LCS compounds.

4.0 INTERPRETATION OF DATA

4.1 Interpretation of Groundwater Levels, Gradients and Flow Directions.

4.1.1 Current Site Groundwater Contour Map

As stated above, a listing of groundwater level readings for the current quarter (shown as depth to groundwater in feet) is included under Tab D. The data from this tab has been interpreted (kriged) and plotted in a water table contour map, provided under the same tab.

Also included under Tab D is a groundwater contour map of the Mill site and a more detailed map of a portion of the Mill site where the chloroform pumping wells are located, in each case with hand-drawn stream tubes, depicting hydraulic capture from the pumping.

The water level contour maps indicate that perched water flow at the site ranges from generally southwesterly in the western portion of the site to generally southerly in the

eastern portion of the site. Perched water mounding associated with the wildlife ponds locally changes the flow patterns. For example, northeast of the Mill site, mounding associated with wildlife ponds results in locally northerly flow near MW-19. Flow directions are also locally influenced by pumping at MW-4, MW-26, TW4-4, TW4-19, and TW4-20. Significant cones of depression have formed in the vicinity of all pumping wells except TW4-4, which began pumping in the first quarter of 2010.

Although pumping at TW4-4 has depressed the water table in the vicinity of TW4-4, the well has apparently not been pumped long enough to have affected water levels at adjacent wells sufficiently for a well-defined cone of depression to be evident. Changes in water levels at wells immediately south of TW4-4 resulting from TW4-4 pumping are likely muted because TW4-4 is located at a transition from relatively high to relatively low permeability conditions south (downgradient) of TW4-4. The permeability of the perched zone at TW4-6 and TW4-26 is approximately 2 orders of magnitude lower than at TW4-4. Any drawdown of water levels at wells immediately south of TW4-4 resulting from TW4-4 pumping is also difficult to determine because of a general, long-term increase in water levels in this area. Water levels at TW4-4 and TW4-6 increased by nearly 2.7 and 2.9 feet, respectively, between the fourth quarter of 2007 and the fourth quarter of 2009 (just prior to TW4-4 pumping) at rates of approximately 1.2 feet/year and 1.3 feet/year, respectively. However, the increase in water level at TW4-6 has been reduced since the start of pumping at TW4-4 (first quarter of 2010) to approximately 0.35 feet/year suggesting that TW4-6 is within the hydraulic influence of TW4-4.

The lack of a well-defined cone of depression at TW4-4 is also influenced by the persistent, apparently anomalously low water level at non-pumping well TW4-14, located east of TW4-4 and TW4-6. For the current quarter, the water level at TW4-14 is approximately 13 feet lower than the water level at TW4-6 and approximately 19 feet lower than TW4-4 even though TW4-4 is pumping. The low water level at TW4-14 is considered anomalous because it appears to be downgradient of all three wells TW4-4, TW4-6, and TW4-26, yet there is no chloroform at TW4-14. Chloroform has apparently migrated from TW4-4 to TW4-6 and from TW4-6 to TW4-26 which suggests that TW4-26 is actually downgradient of TW4-6, and TW4-6 is actually downgradient of TW4-4, regardless of the flow direction implied by the low water level at TW4-14. The water level at TW4-26 (5537.6 feet amsl) is, however, lower than water levels at adjacent wells TW4-6 (5538.4 feet amsl), and TW4-23 (5541.9 feet amsl)

Current water level data indicates that regardless of whether the water level at TW4-14 is considered anomalous, the likelihood that chloroform could move undetected toward the eastern property boundary is minimal. The historical chloroform data indicates that the direction of perched water flow is to the south-southwest from TW4-4 towards TW4-6 and TW4-26, and not to the southeast toward TW4-14.

For these reasons, DUSA believes that the existing monitoring well network adequately bounds the chloroform plume and that additional wells are not necessary to the southeast of TW4-4 and TW4-6. At the present time, the data from the existing wells in the area seem adequate, especially considering the shrinkage of the chloroform plume that has occurred since TW4-4 pumping began.

4.1.2 Comparison of Current Groundwater Contour Maps to Groundwater Contour Maps for Previous Quarter

The groundwater contour maps for the Mill site for the first quarter of 2011, as submitted with the Chloroform Monitoring Report for the first quarter of 2011, are attached under Tab E.

A comparison of the water table contour maps for the second quarter of 2011 to the water table contour maps for the previous quarter (first quarter of 2011) indicates similar patterns of drawdown related to pumping of MW-4, MW-26, TW4-4, TW4-19 and TW4-20. Water levels and water level contours for the site have not changed significantly since the last quarter, except for a few locations. As discussed in Section 4.1.1, pumping at TW4-4, which began in the first quarter of 2010, has depressed the water table near TW4-4, but does not yet appear to have affected water levels at adjacent wells sufficiently for a well-defined cone of depression to be evident.

Reported increases in water levels of approximately 5 feet occurred in MW-18, of approximately 7 feet occurred in both MW-35 and TW4-3, and of approximately 5 feet occurred in TW4-21. The apparent increase in water level at MW-35 this quarter was due to use of a surveyed rather than estimated casing elevation. A reported decrease in water level of approximately 5 feet occurred in well MW-20. The low water levels in MW-20 are potentially the result of the recent surging and bailing activities. Reported increases in water levels of nearly 11 feet occurred in pumping well MW-4, of approximately 20 feet occurred in pumping well TW4-19, and of approximately 16 feet occurred in pumping well TW4-20. A reported decrease in water level of approximately 9 feet occurred in pumping well MW-26. The water level change at the remaining pumping well (TW4-4) was less than 1 foot.

Water level fluctuations at pumping wells MW-4, MW-26, TW4-4, TW4-19, and TW4-20 are due in part to fluctuations in pumping conditions just prior to and at the time the measurements are taken. The largest decrease (increase in drawdown) of approximately 9 feet occurred in well MW-26 and the largest increase (decrease in drawdown), of approximately 20 feet, occurred at TW4-19. The water level reported for MW-18 during the current quarter is more similar to historical measurements than that reported for the previous quarter.

4.1.3 Hydrographs

Attached under Tab F are hydrographs showing groundwater elevation in each chloroform contaminant investigation monitor well over time.

4.1.4 Depth to Groundwater Measured and Groundwater Elevation

Attached under Tab G are tables showing depth to groundwater measured and groundwater elevation over time for each of the wells listed in Section 2.1.1 above.

4.1.5 Evaluation of the Effectiveness of Hydraulic Capture

Perched water containing chloroform has been removed from the subsurface by pumping MW-4, MW-26, TW4-4, TW4-19, and TW4-20. The primary purpose of the pumping is to reduce total chloroform mass in the perched zone as rapidly as is practical. Pumping wells upgradient of TW4-4 were chosen for pumping because 1) they are located in areas of the perched zone having relatively high permeability and saturated thickness, and 2) high concentrations of chloroform were detected at these locations. The relatively high transmissivity of the perched zone in the vicinity of these pumping wells results in the wells having a relatively high productivity. The combination of relatively high productivity and high chloroform concentrations allows a high rate of chloroform mass removal. TW4-4 is located in a downgradient area having relatively high chloroform concentrations but relatively small saturated thickness, and at a transition from relatively high to relatively low permeability conditions downgradient of TW4-4. As with the other pumping wells, pumping TW4-4 helps to reduce the rate of chloroform migration in downgradient portions of the plume.

The impact of pumping is indicated by the water level contour maps attached under Tabs D and E. Cones of depression have developed in the vicinity of MW-4, MW-26, TW4-19, and TW4-20 which continue to remove significant quantities of chloroform from the perched zone. The water level contour maps indicate that effective capture of water containing high chloroform concentrations in the vicinity of these pumping wells is occurring. Overall, the combined capture of MW-4, MW-26, TW4-19, and TW4-20 has not changed significantly since the last quarter. As noted in Section 4.1.2, a decrease in water level (increase in drawdown) of approximately 9 feet occurred at MW-26, and increases in water levels (decreases in drawdown) of nearly 11 feet occurred at MW-4, of approximately 20 feet occurred in TW4-19, and of approximately 16 feet occurred in TW4-20. The increase in drawdown at MW-26 has slightly increased the apparent capture zone of this well relative to other nearby pumping wells. As discussed in Section 4.1.1, TW4-4 has apparently not been pumped long enough for a well-defined capture zone to become evident, and the drawdown associated with TW4-4 is likely less apparent due to the low water level at TW4-14. The capture zone associated with TW4-20 this quarter is not distinguishable from the larger capture zones of MW-26 and TW4-19.

Chloroform concentrations exceeding 70 μg/L have occurred at some locations downgradient of pumping wells (for example, at TW4-6, located immediately south of TW4-4), where the lower permeability and relatively small saturated thickness of the perched zone significantly limits the rate at which chloroform mass can be removed by pumping. By removing mass and reducing hydraulic gradients, thereby reducing the rate of downgradient chloroform migration, and allowing natural attenuation to be more effective, pumping at the productive, upgradient locations has a beneficial effect on this downgradient chloroform. Pumping at TW4-4 was implemented during the first quarter of 2010 to improve capture in this downgradient area to the extent allowable by the lower productivity conditions presumed to exist in this area. The beneficial effect of pumping

TW4-4 is demonstrated by the decrease in chloroform concentrations at TW4-6 from 1000 μg/L to 9.6 μg/L, and at TW4-26 from 13 μg/L to 2.9 μg/L since pumping began at TW4-4. Concentrations at these wells have decreased substantially even though they do not unambiguously appear to be within the hydraulic capture of TW4-4. As discussed in Section 4.1.1, however, the decrease in the long-term rate of water level rise at TW4-6 since pumping began at TW4-4 does suggest that TW4-6 is within the hydraulic influence of TW4-4. Regardless of whether TW4-6 can be demonstrated to be within hydraulic capture of TW4-4, Pumping TW4-4 acts to cut off the source of chloroform to TW4-6 and TW4-26 by the mechanisms discussed above.

4.2 Review of Analytical Results

4.2.1 Current Chloroform Isoconcentration Map

Included under Tab J of this Report is a current chloroform isoconcentration map for the Mill site.

4.2.2 Chloroform Concentration Trend Data and Graphs

Attached under Tab K is a table summarizing values for all required parameters, chloride, nitrate/nitrite, carbon tetrachloride, chloroform, chloromethane, and methylene chloride, for each well over time.

Attached under Tab L are graphs showing chloroform concentration trends in each monitor well over time.

4.2.3 Interpretation of Analytical Data

Comparing the analytical results to those of the previous quarter, as summarized in the table included under Tab K, the following observations can be made:

a) Chloroform concentrations have increased by more than 20% in the following wells compared to last quarter: MW-26, TW4-21, and TW4-26;

b) Chloroform concentrations have decreased by more than 20% in the following wells compared to last quarter: TW4-6, TW4-10, TW4-18, TW4-20, TW4-22, and TW4-24;

c) Chloroform concentrations have remained within 20% in the following wells compared to last quarter: MW-4, TW4-1, TW4-2, TW4-4, TW4-5, TW4-7, TW4-11, TW4-16, and TW4-19; and

d) MW-32, TW4-3, TW4-8, TW4-9, TW4-12, TW4-13, TW4-14, TW4-23, and TW4-25 remained non-detect.

As indicated, chloroform concentrations at many of the wells with detected chloroform were within 20% of the values reported for the wells during the previous quarter, suggesting that variations are within the range typical for sampling and analytical error.

Wells MW-26, TW4-6, TW4-10, TW4-18, TW4-20, TW4-21, TW4-22, TW4-24, and TW4-26 had changes in concentration greater than 20%. Of the latter, MW-26 and TW4-20 are pumping wells. TW4-6 is located adjacent to pumping well TW4-4; TW4-10 is located adjacent to pumping well MW-26; TW4-18 and TW4-21 are located adjacent to pumping well TW4-19; and TW4-22 is located adjacent to pumping well TW4-20. Fluctuations in concentrations at pumping wells and wells adjacent to pumping wells likely result in part from changes in pumping. The decrease in concentration at TW4-24 from 1.8 to 1.1 μg/L and the increase in concentration at TW4-26 from 2 to 2.9 μg/L are likely the result of analytical error because the concentrations are close to the detection limit. The decrease in concentration at TW4-6 is likely related to pumping at TW4-4.

Pumping well TW4-20 had the highest detected chloroform concentration. Since the last quarter, the chloroform concentration in TW4-20 decreased from 31,000 μg/L to 8,100 μg/L, the concentration in adjacent pumping well TW4-19 increased from 3,400 μg/L to 4,000 μg/L, the concentration in nearby well TW4-21 increased from 230 to 290 μg/L, and the concentration in nearby well TW4-22 decreased from 1,300 μg/L to 210 μg/L. Wells TW4-23 and TW4-25 remained non-detect for chloroform. TW4-24, located west of TW4-22, and TW4-25, located north of TW4-21, bound the chloroform plume to the west and north.

The chloroform concentration in TW4-6 decreased substantially from 47 μg/L to 9.6 μg/L, keeping the well outside the chloroform plume boundary. Concentrations at TW4-6 have been on a downward trend since initiation of pumping of TW4-4 in the first quarter of 2010, and have decreased from 1000 μg/L to 9.6 μg/L since that time. TW4-6, installed in the second quarter of 2000, was the most downgradient temporary perched well prior to installation of temporary well TW4-23 in 2007 and temporary well TW4-26 in the second quarter of 2010. TW4-6 remained outside the chloroform plume between the second quarter of 2000 and the fourth quarter of 2008. TW4-6 likely remained outside the chloroform plume during this time due to a combination of 1) slow rates of downgradient chloroform migration in this area due to low permeability conditions and the effects of upgradient chloroform removal by pumping, and 2) natural attenuation. Because TW4-6 is again outside the plume boundary, TW4-6 and TW4-23 bound the chloroform plume to the south.

The slow rate of chloroform migration in the vicinity of TW4-6 is demonstrated by comparing the rate of increase in chloroform at this well to the rate of increase in the nearest upgradient well TW4-4. Concentrations at TW4-4 increased from non-detect to more than 2,200 μg/L within only 2 quarters whereas 16 quarters were required for concentrations in TW4-6 to increase from non-detect to only 81 μg/L. This behavior is consistent with hydraulic tests performed at TW4-4, TW4-6, and TW4-26 during the third quarter of 2010 that indicate a nearly two order of magnitude decrease in permeability downgradient of TW4-4. Chloroform migration rates in the vicinity of recently installed well TW4-26 are also expected to be relatively low due to upgradient pumping and low permeability conditions.

The chloroform concentration in TW4-16, located immediately downgradient of the chloroform plume, increased slightly from 15 μg/L to 16 μg/L. Slight expansion and

contraction of the chloroform plume boundaries in response to changes in upgradient pumping are expected to impact the concentrations at TW4-16. In addition, the southernmost boundary of the plume is again between TW4-4 and TW4-6 (located just north of southernmost temporary well TW4-26). The decrease in concentration at TW4-6 (from 47 μg/L to 9.6 μg/L) is likely due to upgradient pumping, in particular pumping at TW4-4.

5.0 LONG TERM PUMP TEST AT MW-4, MW-26, TW4-19, TW4-20, AND TW4-4 OPERATIONS REPORT

5.1 Introduction

As a part of the investigation of chloroform contamination at the Mill site, DUSA has been conducting a Long Term Pump Test on MW-4, TW4-19, MW-26, and TW4-20, and, since January 31, 2010, TW4-4. The purpose of the test is to serve as an interim action that will remove a significant amount of chloroform-contaminated water while gathering additional data on hydraulic properties in the area of investigation. The following information documents the operational activities during the quarter.

5.2 Pump Test Data Collection

The long term pump test for MW-4 was started on April 14, 2003, followed by the start of pumping from TW4-19 on April 30, 2003, from MW-26 on August 8, 2003, from TW4-20 on August 4, 2005, and from TW4-4 on January 31, 2010. Personnel from Hydro Geo Chem, Inc. were on site to conduct the first phase of the pump test and collect the initial two days of monitoring data for MW-4. DUSA personnel have gathered subsequent water level and pumping data.

Analyses of hydraulic parameters and discussions of perched zone hydrogeology near MW-4 has been provided by Hydro Geo Chem in a separate report, dated November 12, 2001, and in the May 26, 2004 *Final Report on the Long Term Pumping Test.*

Data collected during the quarter included the following:

- Measurement of water levels at MW-4, TW4-19, MW-26, and TW4-20 and, commencing regularly on March 1, 2010, TW4-4, on a weekly basis, and at selected temporary wells and permanent monitoring wells on a monthly basis.

- Measurement of pumping history, including:
  - pumping rates
  - total pumped volume
  - Operational and non-operational periods.

- Periodic sampling of pumped water for chloroform and nitrate/nitrite analysis and other constituents.

5.3 Water Level Measurements

Beginning August 16, 2003, the frequency of water level measurements from MW-4, MW-26, and TW4-19 was reduced to weekly. From commencement of pumping TW4-20, and regularly after March 1, 2010 for TW4-4, water levels in these wells have been measured weekly. Depth to groundwater in all other chloroform contaminant investigation wells is monitored monthly. Copies of the weekly Depth to Water monitoring sheets for MW-4, MW-26, TW4-19, TW4-20 and TW4-4 and the monthly Depth to Water monitoring sheets for all of the chloroform contaminant investigation wells are included under Tab C. Monthly depth to water measurements for June are recorded in the Field Data Worksheets included under Tab D.

5.4 Pumping Rates and Volumes

Table 2 summarizes the recovered mass of chloroform by well per quarter and historically since the inception of the chloroform recovery program for the five currently-active pumping wells.

During the review of the weekly depth to water and flow measurements the Field Coordinator noted that there were inconsistencies in how the flow measurements were made. The flow measurements were adjusted by the Field Coordinator and retraining of the Field Staff was completed to assure correct and consistent recording of measurements.

5.4.1 MW-4

Approximately 85,849 gallons of water were pumped from MW-4 during the quarter. The average pumping rate from MW-4, when the pump was pumping, was approximately 4.1 gpm throughout the quarter. The well is not pumping continuously, but is on a delay device. The well purges for a set amount of time and then shuts off to allow the well to recharge. Water from MW-4 was transferred to the Cell 1 evaporation pond through a pipeline installed specifically for that purpose.

5.4.2 TW4-19

Approximately 159,239 gallons of water were pumped from TW4-19 during the quarter. The average pumping rate from TW4-19, when the pump was pumping, was approximately 8.1 gpm throughout the quarter. The pump in this well is operating on a delay. It pumps for approximately one and a half minutes and then is off for two to three minutes. Water from TW4-19 was directly transferred to the Cell 1 evaporation pond through a pipeline installed specifically for that purpose.

It was noted by Field Personnel on June 1, 2011 that the pump in TW4-19 was not working. The pump was replaced on June 2, 2011. Field Personnel collected measurements the following week as scheduled.

Additionally, during the June 27, 2011 depth to water and flow measurements it was noted by Field Personnel that no flow measurement was taken, due to a power outage

upon their arrival on June 27, 2011. Investigation into the power outage noted that the power had been out since June 24, 2011; however, the environmental staff were not aware of the outage until June 27, 2011. Field Personnel returned the following week and collected the measurements indicating power had been restored. In both instances noted above, DUSA provided a verbal notification to UDEQ, but written notifications were not necessary due to the issues being addressed with 24 hours of discovery by DUSA Management.

5.4.3 MW-26

Approximately 55,801 gallons of water were pumped from MW-26 during the quarter. The average flow rate from MW-26, when the pump was pumping, was approximately 5.8 gpm throughout the quarter. The well is not pumping continuously, but is on a delay device. The well now purges for a set amount of time and then shuts off to allow the well to recharge. The water is directly transferred to the Cell 1 evaporation pond through a pipeline installed specifically for that purpose. During the April 18, 2011 weekly depth to water and flow measurements it was noted by Field Personnel that a new meter was installed on April 16, 2011. Field Personnel were able to collect measurements as scheduled indicating the pump replacement was successful.

5.4.4 TW4-20

Approximately 67,908 gallons of water were pumped from TW4-20 during the quarter. The average flow rate from TW4-20, when the pump was pumping, was approximately 9.8 gpm throughout the quarter. The well is not purging continuously but is on a delay device. The well pump is set on a water elevation device. When the water reaches a set point, the pump turns on until the water level drops to another set point. The water is directly transferred to the Cell 1 evaporation pond through a pipeline installed specifically for that purpose.

5.4.5 TW4-4

Approximately 80,335 gallons were pumped from TW4-4 during the quarter. The average flow rate, when the pump was pumping, was 8.2 gpm. The well is not pumping continuously, but is set on a water elevation device. When the water reaches a set point, the pump turns on until the water level drops to another set point. The water is directly transferred to the Cell 1 evaporation pond through a pipeline installed specifically for that purpose.

5.5 Mass Removed

Chloroform removal was estimated as of the first quarter 2007. Since that estimation the mass removed by well for each quarter has been compiled in Table 2 below, indicating that a total of 567.4 pounds of chloroform have been removed to date.

5.6 Inspections

Denison has submitted an *Operations and Maintenance Plan, Chloroform Pumping*

System, White Mesa Mill, Blanding, Utah, Revision 2.1 to UDEQ for approval on October 25, 2010. Upon approval of that plan, the Mill will commence documenting its required inspections of the operational status of the chloroform pumping wells on an inspection form. An example of the form as well as completed reports for the quarter will be included in future Chloroform reports upon approval by UDEQ. At the time of the publication of this report approval of the *Operations and Maintenance Plan, Chloroform Pumping System, White Mesa Mill, Blanding, Utah*, Revision 2.1 had not been received.

Operational problems in the pumping wells are summarized above.

5.7 Conditions That May Affect Water Levels in Piezometers

Water was added to the upper and lower wildlife diversion ponds during the quarter. The middle wildlife pond had no water added and is dry at this time.

6.0 CORRECTIVE ACTION REPORT

Necessary corrective actions identified during the current monitoring period are described below.

6.1 Rinsate Blank Sample Chloroform Levels

Identification and Definition of the Problem

Rinsate Chloroform Levels

Chloroform has been present in the rinsate blanks in previous quarters and was addressed through a change in the decontamination procedures and rinsate blank frequency suggested by UDEQ personnel. However, nitrate contamination in rinsate blanks has continued to be problematic in both the nitrate and chloroform sampling program. To address the nitrate contamination in the nitrate and chloroform sampling programs, an additional rinse with 55-gallons of DI water has been added to the decontamination process. The added 55-gallons of DI water per decontamination of the portable pump has caused chloroform to reappear in the rinsate blanks. DUSA believes that the potential source for the chloroform present in the rinsate blanks appears to be related to the increasing volume of DI water used in the rinsate process due to the second 55-gallon rinse with DI water. The chloroform present in the rinsate blanks is most likely present in the DI water and is not the result of inadequate decontamination of the purging pump. The chloroform contamination in the DI water is most likely the result of chlorination of the intake water used for the DI system.

Assignment of Responsibility for Investigation of the Problem

The problem is currently under investigation by the QA Manager.

Investigation and Determination of Cause of the Problem

Rinsate Blank Sample Chloroform Levels
As discussed above, chloroform is most likely entering the rinsate blanks from the chlorination process. The DI system is showing signs of breakthrough at times of high usage. To address the issue, the QA manager plans to evaluate and implement upgrades to the DI system to ensure its ability to support the high volume of DI water needed for the rinsate process.

Determination of a Corrective Action to Eliminate the Problem

Rinsate Blank Sample Chloroform Levels
The chloroform contamination in the DI water is most likely the result of chlorination of the intake water used for the DI system. Based on low level detections this quarter, the additional of a second DI rinse in the process is "stressing" the system and causing chloroform contamination. By upgrading the system, it will be able to support the high volume of DI water being pumped through the system.

Assigning and Accepting Responsibility for Implementing the Corrective Action

Rinsate Blank Sample Chloroform Levels
It will be the joint responsibility of the Director, Compliance and Permitting, and the Mill's sampling staff to implement the changes and to assess the data to determine if it has corrected the problems.

Implementing the Corrective Action and Evaluating Effectiveness

Rinsate Blank Sample Chloroform Levels
Chloroform sources will be removed after the DI system is upgraded to support the high volume of DI water in the system during the rinsate process. The QA manager is developing a plan for the system update. Data collected after the completion of the system upgrades will determine if any further action is necessary to eliminate rinsate contamination.

Verifying That the Corrective Action Has Eliminated the Problem

Verification that chloroform contamination has been eliminated will occur upon completion of the system upgrades and receipt of at least the two quarters of data. If chloroform contamination persists then additional sources will be researched and the investigation will continue.

6.2 Assessment of Previous Quarter's Corrective Actions

The first quarter 2011 report identified corrective actions for nitrate contamination in the rinsate blank samples. Nitrate contamination was eliminated in the second quarter 2011 with the addition of a second DI water rinse in the decontamination process. The rinsate blank was collected from the second DI rinsate water after the second 55-gallons of DI were pumped.

7.0 CONCLUSIONS AND RECOMMENDATIONS

The water level contour maps for the second quarter, 2011 indicate that effective capture of water containing high chloroform concentrations is occurring in the vicinity of pumping wells MW-4, MW-26, TW4-19, and TW4-20. TW4-4 has apparently not been pumped long enough for a well-defined capture zone to become evident. Furthermore, the capture zone associated with TW4-4 may be less apparent because of the low water level at adjacent well TW4-14. However, the decrease in chloroform concentrations at TW4-6, located downgradient of TW4-4, is likely related to TW4-4 pumping.

First quarter, 2011 chloroform concentrations at many of the wells with detected chloroform were within 20% of the values reported during the previous quarter, suggesting that variations are within the range typical for sampling and analytical error. Changes in concentration greater than 20% occurred in wells MW-26, TW4-6, TW4-10, TW4-18, TW4-20, TW4-21, TW4-22, TW4-24, and TW4-26; the concentration in well TW4-24 decreased slightly from 1.8 μg/L to 1.1 μg/L and the concentration in well TW4-26 increased slightly from 2 μg/L to 2.9 μg/L.

Of the wells showing changes in concentration greater than 20%, MW-26 and TW4-20 are pumping wells. TW4-6 is located adjacent to pumping well TW4-4; TW4-10 is located adjacent to pumping well MW-26; TW4-18 and TW4-21 are located adjacent to pumping well TW4-19; and TW4-22 is located adjacent to pumping well TW4-20. Fluctuations in concentrations at pumping wells and wells adjacent to pumping wells likely result in part from changes in pumping. Between the current and previous quarters, the concentration in TW4-26, which is the most downgradient temporary well, increased slightly from 2 μg/L to 2.9 μg/L.

The highest chloroform concentration (8,100 μg/L) was detected at pumping well TW4-20. Between the current and previous quarters, the chloroform concentration in TW4-20 decreased from 31,000 μg/L to 8,100 μg/L, the concentration in adjacent pumping well TW4-19 increased from 3,400 μg/L to 4,000 μg/L, the concentration in nearby well TW4-21 increased from 230 to 290 μg/L, and the concentration in nearby well TW4-22 decreased from 1,300 μg/L to 210 μg/L Fluctuations in concentrations in these wells are likely related to their location near the suspected former office leach field source area in addition to variations in pumping in TW4-20 and nearby wells. Regardless of these measured fluctuations in chloroform concentrations, sampling of temporary wells TW4-24 (located west of TW4-22) and TW4-25 (located north of TW4-21), indicates these wells remain outside the chloroform plume and thus bound the plume to the west and north. Chloroform was not detected at TW4-25, and was detected at a concentration of 1.1 μg/L at TW4-24.

The chloroform concentration at well TW4-6 decreased substantially from 47 μg/L to 9.6 μg/L. This well has been outside the chloroform plume boundary since the fourth quarter of 2010. In the past, TW4-6 has been both within and outside the plume. From the first quarter of 2009 through the fourth quarter of 2010, TW4-6 was within the plume. Prior to

that time, between the time of installation in the second quarter of 2000 and the fourth quarter of 2008, TW4-6 was outside the plume. Although fluctuations in concentrations have occurred, this well likely remained outside the plume between installation in 2000 and the fourth quarter of 2008 due to a combination of 1) slow rates of downgradient chloroform migration in this area due to low permeability conditions and the effects of upgradient chloroform removal by pumping, and 2) natural attenuation. The decreases in concentrations at TW4-6 since the fourth quarter of 2009 are likely the result of upgradient pumping, in particular pumping at TW4-4. Chloroform remained non-detect at downgradient temporary well TW4-23. TW4-23 and TW4-6 (with a chloroform concentration of 9.6 μg/L) bound the chloroform plume to the south.

Continued pumping of MW-4, MW-26, TW4-19, and TW4-20 is recommended. Pumping these wells, regardless of any short term fluctuations in concentrations detected at the wells (such as at TW4-20), helps to reduce downgradient chloroform migration by removing chloroform mass and reducing average hydraulic gradients, thereby allowing natural attenuation to be more effective. Continued pumping at TW4-4 is also recommended to improve capture of chloroform to the extent practical in the southern portion of the plume where low permeability conditions exist. The general decrease in chloroform concentrations at TW4-6 from 1000 μg/L to 9.6 μg/L since the first quarter of 2010 is likely related to pumping at TW4-4. The decrease in the long-term rate of water level rise at TW4-6 since TW4-4 pumping began, which suggests that TW4-6 is within the hydraulic influence of TW4-4, is consistent with the decrease in chloroform concentrations at TW4-6.

DUSA believes that the existing monitoring well network adequately bounds the chloroform plume and that additional wells are not necessary to the southeast of TW4-4 and TW4-6. At the present time, the data from the existing wells in the area seem adequate, especially considering the shrinkage of the chloroform plume that has occurred since TW4-4 pumping began.

8.0 ELECTRONIC DATA FILES AND FORMAT

DUSA has provided to the Executive Secretary an electronic copy of all laboratory results for groundwater quality monitoring conducted under the chloroform contaminant investigation during the quarter, in Comma Separated Values (CSV) format. A copy of the transmittal e-mail is included under Tab M.

9.0 SIGNATURE AND CERTIFICATION

This document was prepared by Denison Mines (USA) Corp. on August 31, 2011.

DENISON MINES (USA) CORP.

By:

David C. Frydenlund
Vice President, Regulatory Affairs and Counsel

Certification:

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 assure 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 persons 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.

David C. Frydenlund
Vice President, Regulatory Affairs and Counsel
Denison Mines (USA) Corp.

Tables

Table 1: Summary of Well Sampling for the Period

Well	Sample Date	Date of Lab Report
MW-4	**6/1/2011**	**6/22/2011**
TW4-1	6/1/2011	6/22/2011
TW4-2	6/2/2011	6/22/2011
TW4-2R	6/1/2011	6/22/2011
TW4-3	5/25/2011	6/15/2011
TW4-3R	5/24/2011	6/15/2011
TW4-4	**6/1/2011**	**6/3/3011**
TW4-5	5/26/2011	6/15/2011
TW4-6	5/26/2011	6/15/2011
TW4-7	6/1/2011	6/22/2011
TW4-8	5/25/2011	6/15/2011
TW4-9	5/25/2011	6/15/2011
TW4-10	6/1/2011	6/22/2011
TW4-11	6/1/2011	6/22/2011
TW4-12	5/25/2011	6/15/2011
TW4-13	5/25/2011	6/15/2011
TW4-14	5/26/2011	6/15/2011
TW4-15 (MW-26)	**5/31/2011**	**6/22/2011**
TW4-16	5/26/2011	6/15/2011
TW4-17 (MW-32)	5/25/2011	6/15/2011
TW4-18	5/26/2011	6/15/2011
TW4-19	**6/7/2011**	**6/22/2011**
TW4-20	**6/1/2011**	**6/22/2011**
TW4-21	6/28/2011	7/13/2011
TW4-21R	6/27/2011	7/13/2011
TW4-22	6/1/2011	6/22/2011
TW4-23	5/25/2011	6/15/2011
TW4-24	5/26/2011	6/15/2011
TW4-24R	5/25/2011	6/15/2011
TW4-25	5/25/2011	6/15/2011
TW4-26	5/26/2011	6/15/2011
TW4-60	6/1/2011	6/22/2011
TW4-60 Resample	6/27/2011	7/13/2011
TW4-65	5/25/2011	6/15/2011
TW4-70	6/28/2011	7/13/2011

All sample locations were sampled for Chloroform, Carbon Tetrachloride, Chloromethane, Methylene Chloride, Chloride and Nitrogen

"R" following a well number deisgnates a rinsate sample collected prior to purging of the well of that number.

TW4-60 is a DI Field Blank, TW4-65 is a duplicate of MW-32, and TW4-70 is a duplicate of TW4-21.

Highlighted wells are continuously pumped.

Table 2 Chloroform Mass Removal Per Well Per Quarter

Quarter	MW-4	TW4-15	TW4-19	TW4-20	TW4-4	Quarter Totals
Q1 2007	36.8	12.9	150.2	87.0	NA	286.9
Q2 2007	1.4	0.1	0.0	2.5	NA	4.0
Q3 2007	2.2	0.8	2.9	3.1	NA	9.0
Q4 2007	1.7	1.0	3.1	4.8	NA	10.6
Q1 2008	1.7	0.4	4.6	7.2	NA	13.8
Q2 2008	1.3	0.5	3.2	9.9	NA	14.8
Q3 2008	1.2	0.3	15.9	9.3	NA	26.8
Q4 2008	1.3	0.3	20.7	0.4	NA	22.7
Q1 2009	1.7	0.4	4.3	3.6	NA	10.0
Q2 2009	6.8	0.2	3.7	2.8	NA	13.5
Q3 2009	1.5	0.4	11.1	5.5	NA	18.5
Q4 2009	4.8	0.6	17.8	26.1	NA	49.4
Q1 2010	0.9	0.4	2.7	0.4	NA	4.5
Q2 2010	1.5	1.0	6.8	5.9	1.4	16.5
Q3 2010	1.3	1.2	2.0	4.9	1.3	10.6
Q4 2010	1.1	0.5	7.7	7.4	1.2	17.9
Q1 2011	1.1	0.2	12.9	9.6	1.1	24.9
Q2 2011	1.2	0.8	5.3	4.6	1.1	13.1
Well Totals (pounds)	67.1	21.0	256.6	180.8	4.0	**567.4**

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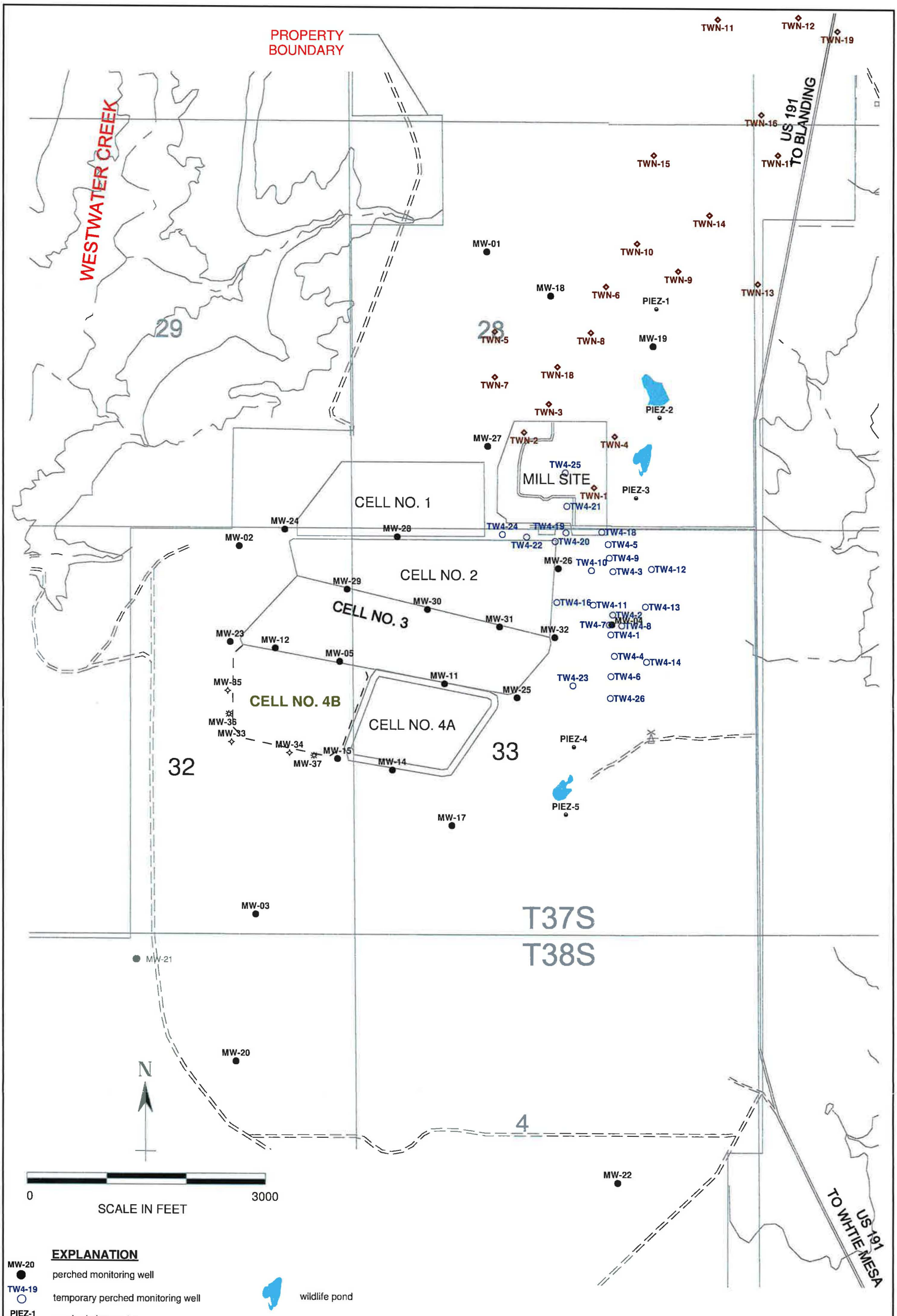
Tab A

Site Plan and Perched Well Locations White Mesa Site



EXPLANATION

MW-20	perched monitoring well
TW4-19	temporary perched monitoring well
PIEZ-1	perched piezometer
TWN-1	temporary perched nitrate monitoring well
MW-34	perched monitoring well installed August/September, 2010
MW-36	perched monitoring well installed April, 2011
	wildlife pond

HYDRO GEO CHEM, INC.

SITE PLAN AND PERCHED WELL LOCATIONS WHITE MESA SITE

APPROVED	DATE	REFERENCE	FIGURE
SJS		H:/718000/aug11/welloc11.srf	A-1

Tab B

Order of Sampling and Field Data Worksheets

Order of Contamination for 2nd Quarter 2011 Chloroform Purging Event

Well	Sample time	Chloroform Levels	Rinsate date/time	Water level	Well Depth	
TW4-3	5/25/11 0618	ND	5R 5/24/11 0700		141	
TW4-12	5/25 0634	ND			101.5	
TW4-13	5/25 0645	ND			102.5	
TW4-14	5/26 0637	ND			93	
MW-32	5/25 1405	ND			130	Bladder pump
TW4-23	5/25 0657	ND			114	
TW4-25	5/25 0710	ND			134.8	
TW4-8	5/25 0726	ND			125	
TW4-9	5/25 0736	ND			120	
TW4-24	5/26 0653	1.8	24 R ~~5/24/11~~ 0830 5/25/11		112.5	
TW4-26	5/26 0707	2			86	
TW4-5	5/26 0718	10			120	
TW4-16	5/26 0731	15			142	
TW4-18	5/26 0745	39			137.5	~~Cont. Pumping~~
TW4-6	5/26 0800	47			97.5	
TW4-21	6/1/11 0755	230	21 R 5/31/2011 0805		121	
TW4-15	5/31 0905	450			122.5	Cont. Pumping
TW4-10	6/1 0757	620			113	
TW4-11	6/1 0809	1000			100	
TW4-7	6/1 0818	1300			120	
TW4-22	6/1 0829	1300			113.5	
TW4-1	6/1 0839	1300			110	
MW4	6/1 0852	1700			124	Cont. Pumping
TW4-4	6/1 0908	1800			112	Cont. Pumping
TW4-2	6/2 0720	3100	2 R 6/1/2011 0951		120	
TW4-19	6-7 1015	3400			125	Cont. Pumping
TW4-20	6/1 1325	31000			106	Cont. Pumping
TW4-60	D.I. Blank 6/1/11 1405					
TW4-65	Duplicate 5/25/11 1405					
TW4-70	Duplicate 6/1/11 0755					

Comments:

Name: _____ Date: _____

DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): MW 4

Sampler Name and initials: Tanner Holliday /TH

Date and Time for Purging 6/1/2011 and Sampling (if different) N/A

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Continuous

Sampling Event Quarterly chloroform

Prev. Well Sampled in Sampling Event TW4-1

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 124.00

Depth to Water Before Purging 71.01

Casing Volume (V) 4" Well: 34.60 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 2010

pH of Water (avg) 6.03

Well Water Temp. (avg) 15.25

Redox Potential (Eh) 147

Turbidity 0

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 15°

Time	0850	Gal. Purged	
Conductance	2010	pH	6.03
Temp. °C	15.25		
Redox Potential Eh (mV)	147		
Turbidity (NTU)	0		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged 0 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 4.1

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two) 0

If well evacuated to dryness, number of gallons evacuated 0

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 0843. Tanner and Garrin are present for sampling event. Took Depth to Water, Turned pump on at 0844. Took 1 set of parameters. Samples were collected at 0852. water was clear. Left site at 0856.

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 1

Sampler Name and initials: Tanner Holliday / TH

Date and Time for Purging 5/31/2011 and Sampling (if different) 6/1/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 1R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 110.00

Depth to Water Before Purging 64.16

Casing Volume (V) 4" Well: 29.93 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 2203

pH of Water (avg) 6.99

Well Water Temp. (avg) 15.18

Redox Potential (Eh) 59

Turbidity 17.27

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 13°

Time	1422	Gal. Purged	50
Conductance	2196	pH	7.06
Temp. °C	15.20		
Redox Potential Eh (mV)	58		
Turbidity (NTU)	17.0		

Time	1423	Gal. Purged	60
Conductance	2199	pH	7.03
Temp. °C	15.18		
Redox Potential Eh (mV)	59		
Turbidity (NTU)	17.2		

Time	1424	Gal. Purged	70
Conductance	2203	pH	6.95
Temp. °C	15.18		
Redox Potential Eh (mV)	60		
Turbidity (NTU)	17.4		

Time	1425	Gal. Purged	80
Conductance	2214	pH	6.94
Temp. °C	15.17		
Redox Potential Eh (mV)	61		
Turbidity (NTU)	17.5		

Volume of Water Purged 80 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 5.98

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1412. Tanner and Garrin present to purge TW4 1. Purge began at 1417. Purged well for a total of 8 Minutes. Water was clear throughout purge. Purge ended at 1425. Depth to Water after purge was 91.93. Left site at 1431
Arrived on site at 0833. Tanner and Garrin on site to collect samples. Depth to water was 64.23
Samples were bailed at 0839. Left site at 0841

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Attachment 1
See instruction

DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 2

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 6/1/2011 and Sampling (if different) 6/2/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 2R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 120.00

Depth to Water Before Purging 67.30

Casing Volume (V) 4" Well: 34.41 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 2950

pH of Water (avg) 5.78

Well Water Temp. (avg) 15.25

Redox Potential (Eh) 172

Turbidity 121.90

Weather Cond. Partly Cloudy

Ext'l Amb. Temp. °C (prior sampling event) 17°

Time	1037	Gal. Purged	60
Conductance	2830	pH	5.76
Temp. °C	15.32		
Redox Potential Eh (mV)	181		
Turbidity (NTU)	128.1		

Time	1038	Gal. Purged	70
Conductance	2894	pH	5.78
Temp. °C	15.25		
Redox Potential Eh (mV)	177		
Turbidity (NTU)	122.1		

Time	1039	Gal. Purged	80
Conductance	3133	pH	5.80
Temp. °C	15.21		
Redox Potential Eh (mV)	169		
Turbidity (NTU)	120.1		

Time	1040	Gal. Purged	90
Conductance	2944	pH	5.81
Temp. °C	15.25		
Redox Potential Eh (mV)	161		
Turbidity (NTU)	117.3		

Volume of Water Purged 95 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 6.88

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated 95

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1024. Tanner and Garrin on site to purge TW4-2. Purge began at 1031. Purged well for a total of 9 Minutes and 30 seconds. Purged well dry! Purge ended at 1041. water had very little coloration. Left site at 1048.
Arrived on site at 0713. Tanner and Garrin on site to collect samples. Depth to water was 67.34 samples were bailed at 0720. Left site at 0722

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 2R

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 6/1/2011 and Sampling (if different) N/A

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4-4

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 0

Depth to Water Before Purging 0

Casing Volume (V) 4" Well: 0 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 2.5

pH of Water (avg) 6.86

Well Water Temp. (avg) 21.19

Redox Potential (Eh) 117

Turbidity 1.0

Weather Cond. Partly Cloudy

Ext'l Amb. Temp. °C (prior sampling event) 17°

Time	0948	Gal. Purged	180
Conductance	2.5	pH	6.86
Temp. °C	21.19		
Redox Potential Eh (mV)	117		
Turbidity (NTU)	1.0		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged 200 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two) 0

If well evacuated to dryness, number of gallons evacuated 0

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 0920. Tanner and Garrin on site to perform the Rinsate. Rinsate started at 0930. Pumped 50 Gallons Acid water, 50 Gallons soap water, 100 Gallons of DI water. Rinsate ended and samples were collected at 0951. Left site at 0955.

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Attachment 1
See instruction

DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 3

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/24/2011 and Sampling (if different) 5/25/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 3R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 141.00

Depth to Water Before Purging 49.18

Casing Volume (V) 4" Well: 59.95 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 1661

pH of Water (avg) 6.40

Well Water Temp. (avg) 14.17

Redox Potential (Eh) 453

Turbidity 27.20

Weather Cond. Cloudy

Ext'l Amb. Temp. °C (prior sampling event) 10°

Time	0728	Gal. Purged	110
Conductance	1663	pH	6.38
Temp. °C	14.19		
Redox Potential Eh (mV)	454		
Turbidity (NTU)	29.50		

Time	0729	Gal. Purged	120
Conductance	1660	pH	6.43
Temp. °C	14.15		
Redox Potential Eh (mV)	453		
Turbidity (NTU)	24.90		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

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Volume of Water Purged 123 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 11.99

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated 123

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 0711. Tanner and Garrin on site to purge TW4 3.
Purge began at 0717. Well Ran dry after 12 Minutes and 25 Seconds.
water was clear throughout purge. Purge ended at 0729 Left site at 0736

Arrived on site at 0614 Tanner and Garrin present for sampling event. Took Depth to Water 49.60
Samples were bailed at 0618. Left site at 0621

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 3R

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/24/2011 and Sampling (if different) N/A

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event N/A

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 0

Depth to Water Before Purging 0

Casing Volume (V) 4" Well: 0 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 8.9

pH of Water (avg) 6.01

Well Water Temp. (avg) 18.24

Redox Potential (Eh) 329

Turbidity 0

Weather Cond. Cloudy

Ext'l Amb. Temp. °C (prior sampling event) 10°

Time	[redacted]	Gal. Purged	[redacted]
Conductance		pH	
Temp. °C	[redacted]		
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time	[redacted]	Gal. Purged	[redacted]
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time	0658	Gal. Purged	170
Conductance	8.9	pH	6.01
Temp. °C	18.24		
Redox Potential Eh (mV)	329		
Turbidity (NTU)	0		

Time	[redacted]	Gal. Purged	[redacted]
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged 200 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two) 0

If well evacuated to dryness, number of gallons evacuated 0

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 0635. Tanner and Garrin present for Rinsate. Rinsate began at 0640. Pumped 50 Gallons ~~soap~~ Acid water, 50 Gallons Soap Water and 100 Gallons of DI Water. Rinsate ended at 0700. Samples were collected 0700. Left site at 0705.

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4-4

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 6/1/2011 and Sampling (if different) N/A

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Continuous

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event MW 4

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 112.00

Depth to Water Before Purging 75.01

Casing Volume (V) 4" Well: 24.15 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 2403

pH of Water (avg) 5.46

Well Water Temp. (avg) 15.42

Redox Potential (Eh) 178

Turbidity 1.3

Weather Cond. Partly Cloudy

Ext'l Amb. Temp. °C (prior sampling event) 16°

Time	0907	Gal. Purged	
Conductance	2403	pH	5.46
Temp. °C	15.42		
Redox Potential Eh (mV)	178		
Turbidity (NTU)	1.3		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged [0] gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = [8.5]

Time to evacuate two casing volumes (2V)
T = 2V/Q = [0]

Number of casing volumes evacuated (if other than two) [0]

If well evacuated to dryness, number of gallons evacuated [0]

Name of Certified Analytical Laboratory if Other Than Energy Lab: [N/A]

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 0859. Tanner and Garrin on site to collect samples, Pump was on. Took Depth to water Then collected 1 set of paramters. Samples were taken at 0908. Water was Clear. Left site at 0913.

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Attachment 1
See instruction

DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Description of Sampling Event: 2nd Quarter Chloroform

Location (well name): TW4 5

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/25/2011 and Sampling (if different) 5/26/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 5 R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 120.00

Depth to Water Before Purging 56.20

Casing Volume (V) 4" Well: 41.66 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 1565

pH of Water (avg) 6.16

Well Water Temp. (avg) 15.19

Redox Potential (Eh) 256

Turbidity 194.05

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 14°

Time	1035	Gal. Purged	70
Conductance	1574	pH	6.14
Temp. °C	15.20		
Redox Potential Eh (mV)	257		
Turbidity (NTU)	196.1		

Time	1036	Gal. Purged	80
Conductance	1569	pH	6.17
Temp. °C	15.19		
Redox Potential Eh (mV)	256		
Turbidity (NTU)	195.3		

Time	1037	Gal. Purged	90
Conductance	1560	pH	6.17
Temp. °C	15.19		
Redox Potential Eh (mV)	256		
Turbidity (NTU)	193.7		

Time	1038	Gal. Purged	100
Conductance	1559	pH	6.17
Temp. °C	15.20		
Redox Potential Eh (mV)	255		
Turbidity (NTU)	191.1		

Volume of Water Purged 100 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 8.33

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Labs N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1024. Tanner and Garrin present to purge TW4 5. Purge began at 1028 Purged Well for a total of 10 minutes. Water had alot of Bubbles traveling through the hydrolab. Water Looked pretty Clear. Purge ended at 1038. Depth to Water after was 57.91 left site at 1043. Arrived on site at 0713. Tanner and Garrin present for Sampling event. Depth to Water was 56.06. Samples were bailed at 0718. Left site at 0721.

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Attachment 1
See instruction

DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 6

Sampler Name and initials: Tunner Holliday/TH

Date and Time for Purging 5/25/2011 and Sampling (if different) 5/26/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 6R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 97.50

Depth to Water Before Purging 70.60

Casing Volume (V) 4" Well: 17.56 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 4068

pH of Water (avg) 7.08

Well Water Temp. (avg) 15.53

Redox Potential (Eh) 147

Turbidity 311

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 16°

Time	1441	Gal. Purged	10
Conductance	4067	pH	6.91
Temp. °C	15.61		
Redox Potential Eh (mV)	163		
Turbidity (NTU)	301.0		

Time	1442	Gal. Purged	20
Conductance	4070	pH	7.26
Temp. °C	15.46		
Redox Potential Eh (mV)	131		
Turbidity (NTU)	321.0		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

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Volume of Water Purged 26 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 3.51

Number of casing volumes evacuated (if other than two) 1.36

If well evacuated to dryness, number of gallons evacuated 26

Name of Certified Analytical Laboratory if Other Than Energy Labs N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1436 Tanner and Garrin present to purge TW4 6. Purge began at 1440. Purged well for a total of 2 Minutes and 40 seconds Purged well dry! Purge ended at 1443. Water was light brown with sand particles Left site at 1448

Arrived on site at 0754, Tanner and Garrin present for sampling event. Depth to water was ~~[illegible]~~ 70.87
Samples were bailed at 0800 Left site at 0803

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 7

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/31/2011 and Sampling (if different) 6/1/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 7R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 120.00

Depth to Water Before Purging 67.54

Casing Volume (V) 4" Well: 34.25 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 1745

pH of Water (avg) 7.54

Well Water Temp. (avg) 15.45

Redox Potential (Eh) 108

Turbidity 39.3

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 15°

Time	1222	Gal. Purged	50
Conductance	1741	pH	7.68
Temp. °C	15.45		
Redox Potential Eh (mV)	108		
Turbidity (NTU)	38.6		

Time	1223	Gal. Purged	60
Conductance	1750	pH	7.40
Temp. °C	15.46		
Redox Potential Eh (mV)	108		
Turbidity (NTU)	40.1		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged 65 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 6.85

Number of casing volumes evacuated (if other than two) 1.86

If well evacuated to dryness, number of gallons evacuated 65

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1211. Tanner and Garrin present to purge TW4-7. Purge began at 1217. Purged Well for a total of 6 Minutes and 38 Seconds. Purged Well dry! Water had very little coloration. Purge ended at 1224. Left site at 1230.
Arrived on site at 0812. Tanner and Garrin on site to collect samples. Depth to water was 68.40 Samples were collected at 0818. Left site at 0820.

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 8

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/24/2011 and Sampling (if different) 5/25/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 8R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 125.00

Depth to Water Before Purging 66.68

Casing Volume (V) 4" Well: 38.08 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 3279

pH of Water (avg) 6.51

Well Water Temp. (avg) 14.57

Redox Potential (Eh) 368

Turbidity 42

Weather Cond. Cloudy

Ext'l Amb. Temp. °C (prior sampling event) 13°

Time	1429	Gal. Purged	60
Conductance	3284	pH	6.50
Temp. °C	14.57		
Redox Potential Eh (mV)	369		
Turbidity (NTU)	41.2		

Time	1430	Gal. Purged	70
Conductance	3278	pH	6.51
Temp. °C	14.57		
Redox Potential Eh (mV)	369		
Turbidity (NTU)	41.8		

Time	1431	Gal. Purged	80
Conductance	3278	pH	6.51
Temp. °C	14.57		
Redox Potential Eh (mV)	368		
Turbidity (NTU)	42.3		

Time	1432	Gal. Purged	90
Conductance	3276	pH	6.53
Temp. °C	14.57		
Redox Potential Eh (mV)	366		
Turbidity (NTU)	43.1		

Volume of Water Purged 90 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 7.61

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1418. Tanner Holliday and Garrin palmer on site to purge TW4 8. Purge began at 1423. Purged well for a total of 9 minutes. Water had very little coloration. Purge ended at 1432. Depth to Water after purge was 80.23. Left site at 1436.
Arrived on site at 0720. Tanner and Garrin present to sample well. Depth to Water was 67.35 Samples were bailed at 0726. Left site at 0728

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Attachment 1
See instruction

DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 9

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/24/2011 and Sampling (if different) 5/25/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 9R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 120.00

Depth to Water Before Purging 54.05

Casing Volume (V) 4" Well: 43.06 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 2437

pH of Water (avg) 6.10

Well Water Temp. (avg) 14.69

Redox Potential (Eh) 297

Turbidity 138.7

Weather Cond. Cloudy

Ext'l Amb. Temp. °C (prior sampling event) 13°

Time	1514	Gal. Purged	70
Conductance	2437	pH	6.10
Temp. °C	14.69		
Redox Potential Eh (mV)	302		
Turbidity (NTU)	139.1		

Time	1515	Gal. Purged	80
Conductance	2435	pH	6.10
Temp. °C	14.68		
Redox Potential Eh (mV)	299		
Turbidity (NTU)	140.3		

Time	1516	Gal. Purged	90
Conductance	2439	pH	6.10
Temp. °C	14.68		
Redox Potential Eh (mV)	298		
Turbidity (NTU)	138.1		

Time	1517	Gal. Purged	100
Conductance	2440	pH	6.10
Temp. °C	14.70		
Redox Potential Eh (mV)	292		
Turbidity (NTU)	138.3		

Volume of Water Purged 100 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 8.61

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1502. Tanner and Garrin on site to purge TW4 9. Purge began at 1507 Purged well for a total of 10 Minutes. Water had some coloration with some sand particles. Purge ended at 1517. Depth to Water after purge was 70.07. Left site at 1522 Arrived on site at 0729. Tanner and Garrin present to sample well. Depth to water was 54.25 Samples were bailed at 0736. Left site at 0738.

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Attachment 1
See instruction

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Description of Sampling Event: 2nd Quarter Chloroform

Location (well name): TW4 10

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/31/2011 and Sampling (if different) 6/1/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 10R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 113.00

Depth to Water Before Purging 56.45

Casing Volume (V) 4" Well: 36.92 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 2628

pH of Water (avg) 5.60

Well Water Temp. (avg) 14.98

Redox Potential (Eh) 225

Turbidity 78.6

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 10°

Time	0949	Gal. Purged	60
Conductance	2628	pH	2628 5.60
Temp. °C	14.98		
Redox Potential Eh (mV)	225		
Turbidity (NTU)	78.6		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged 70 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 7.38

Number of casing volumes evacuated (if other than two) 1.89

If well evacuated to dryness, number of gallons evacuated 70

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 0938. Tanner and Garrin present to purge TW4 10. Purge began at 0943. Purged well for a total of 7 Minutes. Purged well Dry! Purge ended at 0950. water had very little coloration, it was mostly clear. Left site at 0956.

Arrived on site at 0751. Tanner and Garrin on site to collect samples. Depth to Water was 56.60 Samples were Bailed at 0757. Left site at 0759.

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 11

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/31/2011

and Sampling (if different) 6/1/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 11 R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 100.00

Depth to Water Before Purging 57.91

Casing Volume (V) 4" Well: 27.48 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 1682

pH of Water (avg) 6.06

Well Water Temp. (avg) 14.38

Redox Potential (Eh) 247

Turbidity 6.3

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 11°

Time	1041	Gal. Purged	40
Conductance	1688	pH	6.06
Temp. °C	14.39		
Redox Potential Eh (mV)	249		
Turbidity (NTU)	6.2		

Time	1042	Gal. Purged	50
Conductance	1682	pH	6.07
Temp. °C	14.36		
Redox Potential Eh (mV)	248		
Turbidity (NTU)	6.3		

Time	1043	Gal. Purged	60
Conductance	1681	pH	6.05
Temp. °C	14.39		
Redox Potential Eh (mV)	247		
Turbidity (NTU)	6.4		

Time	1044	Gal. Purged	65
Conductance	1679	pH	6.07
Temp. °C	14.39		
Redox Potential Eh (mV)	246		
Turbidity (NTU)	6.5		

Volume of Water Purged 68 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = N/ 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 5.49

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated 68

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1033. Tanner and Garrin present to purge TW4 11. Purge began at 1037 Purged well for a total of 6 Minutes and 50 seconds. Purged well dry! Water was clear throughout purge. purge ended at 1044. Left site at 1048. Arrived on site at 0803. Tanner and Garrin on site to collect samples. Depth to water was 58.70 Samples were bailed at 0809. Left site at 0811

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Attachment 1
See instruction

DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 12

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/24/2011 and Sampling (if different) 5/25/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 12 R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 101.50

Depth to Water Before Purging 39.44

Casing Volume (V) 4" Well: 40.52 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 938

pH of Water (avg) 6.55

Well Water Temp. (avg) 14.61

Redox Potential (Eh) 312

Turbidity 6.7

Weather Cond. Cloudy

Ext'l Amb. Temp. °C (prior sampling event) 11°

Time	Gal. Purged	Conductance	pH	Temp. °C	Redox Potential Eh (mV)	Turbidity (NTU)
0858	70	938.2	6.54	14.60	313	6.7
0859	80	939.1	6.55	14.61	313	6.7
0900	90	939.1	6.57	14.61	312	6.7
0901	100	938.7	6.57	14.62	311	6.7

Volume of Water Purged 100 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 8.10

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 0844. Tanner and Garrin on site to purge tw4 12. Purge began at 0851. Purged well for a total of 10 Minutes. Water was clear throughout purge. Purge ended at 0901. Depth to water after purge was 58.07. Left site at 0906. Arrived on site at 0628 Tanner and Garrin present to sample well. Took Depth to Water 39.66 Samples were bailed at 0634. Left site at 0636.

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 13

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/24/2011 and Sampling (if different) 5/25/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 13R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 10250

Depth to Water Before Purging 45.96

Casing Volume (V) 4" Well: 36.92 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 1569

pH of Water (avg) 6.59

Well Water Temp. (avg) 14.81

Redox Potential (Eh) 294

Turbidity 29 12.3

Weather Cond. Cloudy

Ext'l Amb. Temp. °C (prior sampling event) 13°

Time	1007	Gal. Purged	60
Conductance	1569	pH	6.59
Temp. °C	14.81		
Redox Potential Eh (mV)	294	294	
Turbidity (NTU)	12.3		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged 68 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 7.38

Number of casing volumes evacuated (if other than two) 68 ~~1.84~~ 1.71

If well evacuated to dryness, number of gallons evacuated 68

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 0955. Tanner and Garrin present to purge TW4 13. Purge began at 1001. Purged Well for a total of 6 Minutes and 50 Seconds. Well Ran dry! water was clear throughout purge. Purge ended at 1008. Left site at 1014. Arrived on site at 0637. Tanner and Garrin present to sample well. Took Depth to water 46.50 samples were bailed at 0643. Left site at 0645

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 14

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/24/2011 and Sampling (if different) 5/26/2011

Well Purging Equip Used: ☑ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 14R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 93.00

Depth to Water Before Purging 86.55

Casing Volume (V) 4" Well: 4.21 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 62.3

pH of Water (avg) 6.56

Well Water Temp. (avg) 17.82

Redox Potential (Eh) 282

Turbidity 44.9

Weather Cond. Cloudy

Ext'l Amb. Temp. °C (prior sampling event) 13°c

Time	1055	Gal. Purged	5
Conductance	62.3	pH	6.56
Temp. °C	17.82		
Redox Potential Eh (mV)	282		
Turbidity (NTU)	44.9		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged 3 gallon(s)

5

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = .84

Number of casing volumes evacuated (if other than two) 1.18

If well evacuated to dryness, number of gallons evacuated 5

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1051. Tanner and Garrin on site to purge TW4 14. Purge began at 1055 Purged well dry after 30 seconds. Purge ended at 1055. Water was mostly clear. Im not sure there was enough water in well to push out all Rinsate water in the hose. Left site at 1106.
Arrived on site at 0630. Tanner and Garrin present for sampling event. Depth to water was 88.24 Samples were bailed at 0637. Left site at 0640.

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 15

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/31/2011 and Sampling (if different) N/A

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Continuous

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 21

pH Buffer 7.0 7.0

pH Buffer 4.0 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 122.50

Depth to Water Before Purging 70.95

Casing Volume (V) 4" Well: 0 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 3588

pH of Water (avg) 6.09

Well Water Temp. (avg) 14.83

Redox Potential (Eh) 157

Turbidity 0

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 10°

Time	0904	Gal. Purged	
Conductance	3588	pH	6.09
Temp. °C	14.83		
Redox Potential Eh (mV)	157		
Turbidity (NTU)	0		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged [ ] gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 6.1

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two) [ ]

If well evacuated to dryness, number of gallons evacuated [ ]

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 0853. Tanner and Garrin are present for sampling event. Took Depth to Water. Pump was on. Took parameters. Water was clear. Samples were taken at 0905. Left site at 0908.

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 16

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/25/2011 and Sampling (if different) 5/26/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 16R

pH Buffer 7.0 7.0

pH Buffer 4.0 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 142.00

Depth to Water Before Purging 64.30

Casing Volume (V) 4" Well: 50.73 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 3713

pH of Water (avg) 6.53

Well Water Temp. (avg) 14.73

Redox Potential (Eh) 184

Turbidity 132.2

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 15°

Time	Gal. Purged	Conductance	pH	Temp. °C	Redox Potential Eh (mV)	Turbidity (NTU)
1232	90	3741	6.53	14.79	179	465.0
1233	100	3713	6.53	14.77	183	239.4
1234	110	3641	6.54	14.72	187	79.4
1235	120	3623	6.53	14.73	187	58.7

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Volume of Water Purged 167 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 10.14

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated 167

Name of Certified Analytical Laboratory if Other Than Energy Labs N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1215. Tanner and Garrin present to sample TW4 16. Purge began at 1223 Purged well for a total of 16 minutes and 45 seconds. Purged well dry water was a little dirty with some sand particles. Purge ended at ~~1240~~ 1240 Left site at 1250. Arrived on site at 0724. Tanner and garrin present for sampling event. Depth to water was 64.35. Samples were bailed at 0731 Left site at 0734.

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Attachment 1
See instruction

DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 16

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/25/2011 and Sampling (if different) 5/26/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 16 R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft):

Depth to Water Before Purging

Casing Volume (V) 4" Well: (.653h)
3" Well: (.367h)

Conductance (avg)

pH of Water (avg)

Well Water Temp. (avg)

Redox Potential (Eh)

Turbidity

Weather Cond.

Ext'l Amb. Temp. °C (prior sampling event)

Time	~~1236~~ 1236	Gal. Purged	130
Conductance	3730	pH	6.53
Temp. °C	14.73		
Redox Potential Eh (mV)	186		
Turbidity (NTU)	49.6		

Time	~~1237~~ 1237	Gal. Purged	140
Conductance	3730	pH	6.53
Temp. °C	14.72		
Redox Potential Eh (mV)	185		
Turbidity (NTU)	39.2		

Time	~~1238~~ 1238	Gal. Purged	150
Conductance	3734	pH	6.54
Temp. °C	14.73		
Redox Potential Eh (mV)	184		
Turbidity (NTU)	47.2		

Time	~~1239~~ 1239	Gal. Purged	160
Conductance	3748	pH	6.53
Temp. °C	14.72		
Redox Potential Eh (mV)	182		
Turbidity (NTU)	79.2		

01.3386.3.42 - GW-QAP rev4 11302010 / GW-QAP rev4.3-Template-[36] - Printed 3/23/2011 10:23 AM from DMCSS2K0012

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Volume of Water Purged [ ] gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = [ ]

Time to evacuate two casing volumes (2V)
T = 2V/Q = [ ]

Number of casing volumes evacuated (if other than two) [ ]

If well evacuated to dryness, number of gallons evacuated [ ]

Name of Certified Analytical Laboratory if Other Than Energy Lab: [ ]

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☐	☐	3x40 ml	☐	☐	HCL	☐	☐
Nutrients	☐	☐	100 ml	☐	☐	H2SO4	☐	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☐	☐	Sample volume	☐	☐		☐	☐

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

extra Sheet for TW4 16

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Attachment 1
See instruction

DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): MW 32

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/25/2011 and Sampling (if different) N/A

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) QED

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 9

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 130.00

Depth to Water Before Purging 76.26

Casing Volume (V) 4" Well: 35.09 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 4015

pH of Water (avg) 7.07

Well Water Temp. (avg) 14.77

Redox Potential (Eh) 85

Turbidity 6.55

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 11°

Time	1400	Gal. Purged	
Conductance	4015	pH	7.15
Temp. °C	14.77		
Redox Potential Eh (mV)	86		
Turbidity (NTU)	6.8		

Time	1401	Gal. Purged	
Conductance	4016	pH	7.06
Temp. °C	14.77		
Redox Potential Eh (mV)	85		
Turbidity (NTU)	6.5		

Time	1402	Gal. Purged	
Conductance	4013	pH	7.05
Temp. °C	14.77		
Redox Potential Eh (mV)	84		
Turbidity (NTU)	6.5		

Time	1403	Gal. Purged	
Conductance	4013	pH	7.04
Temp. °C	14.78		
Redox Potential Eh (mV)	84		
Turbidity (NTU)	6.4		

Volume of Water Purged 80.29 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = .217

Time to evacuate two casing volumes (2V)
T = 2V/Q = 323.43

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 0750. Tanner Holliday and Garrin Palmer present for purge and sampling event. Purge began at 0755. Purged well for a total of 370 Minutes. Purged ended and samples were collected at 1405. Water had very little coloration, mostly clear. Left site at 1410. Depth to water after purge was 82.20

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 18

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/25/2011 and Sampling (if different) 5/26/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 18R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 137.50

Depth to Water Before Purging 56.74

Casing Volume (V) 4" Well: 52.73 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 1775

pH of Water (avg) 7.01

Well Water Temp. (avg) 15.27

Redox Potential (Eh) 147

Turbidity 236.20

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 16°

Time	1337	Gal. Purged	90
Conductance	~~1649~~ 1823	pH	7.24
Temp. °C	15.33		
Redox Potential Eh (mV)	155		
Turbidity (NTU)	241.0		

Time	1338	Gal. Purged	100
Conductance	1784	pH	6.97
Temp. °C	15.27		
Redox Potential Eh (mV)	150		
Turbidity (NTU)	240.1		

Time	1339	Gal. Purged	110
Conductance	1748	pH	6.94
Temp. °C	15.25		
Redox Potential Eh (mV)	145		
Turbidity (NTU)	237.3		

Time	1340	Gal. Purged	120
Conductance	1747	pH	6.92
Temp. °C	15.25		
Redox Potential Eh (mV)	140		
Turbidity (NTU)	229.3		

Volume of Water Purged 120 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 10.54

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1324. Tanner and Garrin Present to purge TW4 18. Purge began at 1328. Purged well for a total of 12 Minutes. Purge ended at 1340. Water had a little coloration, with very little sand particles. Depth to water after purge was 57.15. Left site at 1348. Arrived on site at 0739. Tanner Holliday and Garrin Palmer present for sampling event. Depth to Water was 56.58. Samples were bailed at 0745. Left site at 0748.

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4-19

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 6/7/2011 and Sampling (if different) N/A

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos Continuous

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event N/A

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 125.00

Depth to Water Before Purging 69.71

Casing Volume (V) 4" Well: 36.10 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 3057

pH of Water (avg) 5.85

Well Water Temp. (avg) 16.68

Redox Potential (Eh) 219

Turbidity 1.9

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 24°

Time	1014	Gal. Purged	
Conductance	3057	pH	5.85
Temp. °C	16.68		
Redox Potential Eh (mV)	219		
Turbidity (NTU)	1.9		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

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Volume of Water Purged 0 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 14.0

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two) 0

If well evacuated to dryness, number of gallons evacuated 0

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1004 Tanner and Garrin present to collect samples Took Depth to water and Turned pump on. Pump Ran for 11 Minutes. Water was clear. Samples were taken at 1015. Left site at 1020.

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Attachment 1
See instruction

DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 20

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 6/1/2011 and Sampling (if different) N/A

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Continuous

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 2

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 106.00

Depth to Water Before Purging 64.10

Casing Volume (V) 4" Well: 27.36 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 3743

pH of Water (avg) 6.41

Well Water Temp. (avg) 17.99

Redox Potential (Eh) 141

Turbidity 2.1

Weather Cond. Partly Cloudy

Ext'l Amb. Temp. °C (prior sampling event) 23°

Time	1324	Gal. Purged	
Conductance	3743	pH	6.41
Temp. °C	17.99		
Redox Potential Eh (mV)	141		
Turbidity (NTU)	2.1		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged [0] gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = [ ]

Time to evacuate two casing volumes (2V)
T = 2V/Q = [0]

Number of casing volumes evacuated (if other than two) [0]

If well evacuated to dryness, number of gallons evacuated [0]

Name of Certified Analytical Laboratory if Other Than Energy Lab: [N/A]

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1311. Tanner and Garrin present for sampling event. Took depth to water and turned pump on. Took 1 set of parameters and samples were collected at 1325. Left site at 1327. Water was clear with a little rustic Type particle in it.

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4-21

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 6/27/2011 and Sampling (if different) 6/28/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4-21R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 121.00

Depth to Water Before Purging 55.10

Casing Volume (V) 4" Well: 43.03 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 3414

pH of Water (avg) 5.94

Well Water Temp. (avg) 16.25

Redox Potential (Eh) 296

Turbidity 8.7

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 25°

Time	1048	Gal. Purged	100
Conductance	3398	pH	5.93
Temp. °C	16.28		
Redox Potential Eh (mV)	294		
Turbidity (NTU)	8.6		

Time	1049	Gal. Purged	110
Conductance	3411	pH	5.94
Temp. °C	16.26		
Redox Potential Eh (mV)	295		
Turbidity (NTU)	8.7		

Time	1050	Gal. Purged	120
Conductance	3426	pH	5.95
Temp. °C	16.25		
Redox Potential Eh (mV)	297		
Turbidity (NTU)	8.7		

Time	1051	Gal. Purged	130
Conductance	3424	pH	5.96
Temp. °C	16.24		
Redox Potential Eh (mV)	298		
Turbidity (NTU)	8.8		

Volume of Water Purged 130 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 8.60

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Labs N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1032. Tanner and Garrin present to purge TW4-21. Purge began at 1038. Purged well for a total of 13 Minutes. Water was clear throughout purge. Purge ended at 1051. Depth to water after purge was 63.91. Left site at 1055. Arrived on site at 0757. Tanner and Garrin present to collect samples. Depth to water was 54.84. samples were collected at 0805. Left site at 0808.

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4-21 R

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 6/27/2011 and Sampling (if different) N/A

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event N/A

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 0

Depth to Water Before Purging 0

Casing Volume (V) 4" Well: 0 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 2.7

pH of Water (avg) 7.67

Well Water Temp. (avg) 21.86

Redox Potential (Eh) 146

Turbidity 2.0

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 23°

Time	1017	Gal. Purged	170
Conductance	2.7	pH	7.67
Temp. °C	21.86		
Redox Potential Eh (mV)	146		
Turbidity (NTU)	2.0		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged 200 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two) 0

If well evacuated to dryness, number of gallons evacuated 0

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 0955. Tanner and Garrin present for Rinsate. Rinsate began at 1000. Pumped 50 Gallons of Acid Water, 50 Gallons soap water and 100 Gallons of DI water. Rinsate ended and samples were collected at 1020. Left site at 1025.

Rinsate

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 22

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/31/2011 and Sampling (if different) 6/1/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 22R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 113.50

Depth to Water Before Purging 54.35

Casing Volume (V) 4" Well: 38.62 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 5179

pH of Water (avg) 7.13

Well Water Temp. (avg) 16.01

Redox Potential (Eh) 92

Turbidity 14.45

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 16°

Time	1313	Gal. Purged	60
Conductance	5444	pH	7.11
Temp. °C	16.02		
Redox Potential Eh (mV)	105		
Turbidity (NTU)	12.8		

Time	1314	Gal. Purged	70
Conductance	5112	pH	7.18
Temp. °C	16.10		
Redox Potential Eh (mV)	86		
Turbidity (NTU)	15.1		

Time	1315	Gal. Purged	80
Conductance	5026	pH	7.12
Temp. °C	15.97		
Redox Potential Eh (mV)	88		
Turbidity (NTU)	15.0		

Time	1316	Gal. Purged	90
Conductance	5134	pH	7.12
Temp. °C	15.96		
Redox Potential Eh (mV)	90		
Turbidity (NTU)	14.9		

Volume of Water Purged 90 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 7.72

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Labs N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1302. Tanner and Garrin present to purge TW4 22. Purge began at 1307. Purged well for a total of 9 Minutes. Water was clear. Purge ended at 1316. Depth to water after purge was 95.20. Left site at 1321.
Arrived on site at 0823. Tanner and Garrin on site to collect samples. Depth to water was 54.21 Samples were bailed at 0829 Left site at 0831

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 23

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/24/2011 and Sampling (if different) 5/25/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 23 R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 114.00

Depth to Water Before Purging 65.39

Casing Volume (V) 4" Well: 31.74 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 3685

pH of Water (avg) 6.09

Well Water Temp. (avg) 14.11

Redox Potential (Eh) 282

Turbidity 180

Weather Cond. Cloudy

Ext'l Amb. Temp. °C (prior sampling event) 13°

Time	1247	Gal. Purged	50
Conductance	3682	pH	6.07
Temp. °C	14.12		
Redox Potential Eh (mV)	292		
Turbidity (NTU)	184.1		

Time	1248	Gal. Purged	60
Conductance	3684	pH	6.09
Temp. °C	14.12		
Redox Potential Eh (mV)	291		
Turbidity (NTU)	180.3		

Time	1249	Gal. Purged	70
Conductance	3684	pH	6.09
Temp. °C	14.11		
Redox Potential Eh (mV)	278		
Turbidity (NTU)	179.3		

Time	1250	Gal. Purged	80
Conductance	3692	pH	6.11
Temp. °C	14.11		
Redox Potential Eh (mV)	269		
Turbidity (NTU)	178.1		

Volume of Water Purged 80 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 6.34

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1235. Tanner and Garrin present to purge TW4 23. Purge began at 1242 Purged well for a total of 8 Minutes. Water was a light brown with a little orange color. Purge ended at 1250. Depth to Water after purge was 86.13. Left site at 1256
Arrived on site at 0652. Tanner and Garrin present to sample well. Took Depth to Water 65.69 Samples were bailed at 0657. Left site at 0700

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: Quarterly Chloroform 2011 2nd Quarter

Location (well name): TW4 24

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/25/2011 and Sampling (if different) 5/26/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 24R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 112.50

Depth to Water Before Purging 55.79

Casing Volume (V) 4" Well: 37.03 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 9252

pH of Water (avg) 6.17

Well Water Temp. (avg) 15.02

Redox Potential (Eh) 143

Turbidity 10.3

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 12°.

Time	0849	Gal. Purged	60
Conductance	9180	pH	6.18
Temp. °C	15.02		
Redox Potential Eh (mV)	148		
Turbidity (NTU)	10.3		

Time	0850	Gal. Purged	70
Conductance	9247	pH	6.17
Temp. °C	15.02		
Redox Potential Eh (mV)	146		
Turbidity (NTU)	10.4		

Time	0851	Gal. Purged	80
Conductance	9270	pH	6.17
Temp. °C	15.01		
Redox Potential Eh (mV)	140		
Turbidity (NTU)	10.3		

Time	0852	Gal. Purged	90
Conductance	9312	pH	6.16
Temp. °C	15.02		
Redox Potential Eh (mV)	140		
Turbidity (NTU)	10.3		

Volume of Water Purged 90 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 7.40

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 0838. Tanner Holliday and Garrin Palmer are present to purge TW4-24. Purge began at 0843. Purged well for a total of 9 Minutes. water was clear throughout purge. Purge ended at 0852. Depth to Water after purge was 64.05. Left site at 0857. Arrived on site at 0648. Tanner and Garrin present for sampling event. Depth to Water was 55.65. Samples were bailed at 0653. Left site at 0656.

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 24R

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/25/2011 and Sampling (if different) N/A

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event MW 32

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 0

Depth to Water Before Purging 0

Casing Volume (V) 4" Well: 0 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 9.1

pH of Water (avg) 6.47

Well Water Temp. (avg) 17.00

Redox Potential (Eh) 245

Turbidity 1.0

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 11°c

Time	0827	Gal. Purged	170
Conductance	9.1	pH	6.47
Temp. °C	17.00		
Redox Potential Eh (mV)	245		
Turbidity (NTU)	1.0		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged 200 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two) 0

If well evacuated to dryness, number of gallons evacuated 0

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 0805. Tanner and Garrin present for Rinsate. Rinsate began at 0810. Pumped 50 Gallons of Acid Water, 50 Gallons soap water, 100 Gallons of DI Water. Rinsate ended and samples were collected at 0830. Left site at 0835.

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 25

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/24/2011 and Sampling (if different) 5/25/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 25 R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 134.80

Depth to Water Before Purging 46.31

Casing Volume (V) 4" Well: 57.78 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 3045

pH of Water (avg) 6.60

Well Water Temp. (avg) 15.00

Redox Potential (Eh) 351

Turbidity 16.2

Weather Cond. Cloudy

Ext'l Amb. Temp. °C (prior sampling event) 14°.

Time	Gal. Purged	Conductance	pH	Temp. °C	Redox Potential Eh (mV)	Turbidity (NTU)
1342	100	3047	6.60	15.01	354	16.1
1343	110	3045	6.61	15.01	352	16.2
1344	120	3045	6.61	15.00	350	16.3
1345	130	3043	6.61	14.99	348	16.4

Volume of Water Purged 130 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 11.55

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 1326. Tanner and Garrin present to purge TW4 25. Purge began at 1332 Purged well for a total of 13 Minutes. Water was clear throughout purge. purge ended at 1345. Depth to Water after purge was 69.00, Left site at 1352
Arrived on site at 0705. Tanner and Garrin present to sample well. Depth to water was 46.67 Samples were bailed at 0710. Left site at 0713

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 26

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/25/2011 and Sampling (if different) 5/26/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 26R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 86.00

Depth to Water Before Purging 64.44

Casing Volume (V) 4" Well: 14.07 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 6415

pH of Water (avg) 3.61

Well Water Temp. (avg) 15.11

Redox Potential (Eh) 222

Turbidity 71.75

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 13°

Time	0929	Gal. Purged	5
Conductance	6435	pH	3.57
Temp. °C	15.16		
Redox Potential Eh (mV)	204		
Turbidity (NTU)	116.7		

Time	0930	Gal. Purged	10
Conductance	6395	pH	3.66
Temp. °C	15.06		
Redox Potential Eh (mV)	240		
Turbidity (NTU)	26.8		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged 18 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 2.81

Number of casing volumes evacuated (if other than two) 1.06

If well evacuated to dryness, number of gallons evacuated 18

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived on site at 0925. Tanner and Garrin are present to purge TW4 26. Purge began at 0929. Purged well for a total of 1 Minute and 50 Seconds. Purged Well dry. Purge ended at 0930. Water had some light brown coloration. The PH Level was very Low. Left site at 0936. Arrived on site at 0701. Tanner and Garrin present for sampling event. Depth to Water was 64.30 Samples were bailed at 0707. Left site at 0709.

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Attachment 1
See instruction

DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 60

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 6/1/2011 and Sampling (if different) N/A

Well Purging Equip Used: ☐ pump or ☐ bailer

Well Pump (if other than Bennet)

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 20

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 0

Depth to Water Before Purging 0

Casing Volume (V) 4" Well: 0 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 3.7

pH of Water (avg) 7.14

Well Water Temp. (avg) 21.03

Redox Potential (Eh) 140

Turbidity 0

Weather Cond. Partly Cloudy

Ext'l Amb. Temp. °C (prior sampling event) 24°

Time	1404	Gal. Purged	
Conductance	3.7	pH	7.14
Temp. °C	21.03		
Redox Potential Eh (mV)	140		
Turbidity (NTU)	0		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged 0 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 0

Time to evacuate two casing volumes (2V)
T = 2V/Q = 0

Number of casing volumes evacuated (if other than two) 0

If well evacuated to dryness, number of gallons evacuated 0

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived in lab at 1400. Tanner Holliday on site to collect a DI Blank.
Took 1 set of parameters and collected samples at 1405. Water Looked good
Left site at 1410

DI Blank

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DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4-60

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 6/27/2011 and Sampling (if different) N/A

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4-21

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01 ft): 0

Depth to Water Before Purging 0

Casing Volume (V) 4" Well: 0 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 2.1

pH of Water (avg) 6.61

Well Water Temp. (avg) 22.94

Redox Potential (Eh) 181

Turbidity 1.4

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 21°

Time	1254	Gal. Purged	
Conductance	2.1	pH	6.61
Temp. °C	22.94		
Redox Potential Eh (mV)	181		
Turbidity (NTU)	1.4		

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged [0] gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = [0]

Time to evacuate two casing volumes (2V)
T = 2V/Q = [0]

Number of casing volumes evacuated (if other than two) [0]

If well evacuated to dryness, number of gallons evacuated [0]

Name of Certified Analytical Laboratory if Other Than Energy Lab: [N/A]

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Arrived in Lab at 1250. Tanner Holliday on site to collect DI Sample. Took 1 set of parameters. Samples were collected at 1255. DI Water was good. Left lab at 1300

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Attachment 1
See instruction

DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4 65

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 5/25/2011 and Sampling (if different) N/A

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) QED

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4 9

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 130.00

Depth to Water Before Purging 76.26

Casing Volume (V) 4" Well: 35.09 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 4015

pH of Water (avg) 7.07

Well Water Temp. (avg) 14.77

Redox Potential (Eh) 85

Turbidity 6.55

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 11°

Time	1400	Gal. Purged	
Conductance	4015	pH	7.15
Temp. °C	14.77		
Redox Potential Eh (mV)	86		
Turbidity (NTU)	6.8		

Time	1401	Gal. Purged	
Conductance	4016	pH	7.06
Temp. °C	14.77		
Redox Potential Eh (mV)	83		
Turbidity (NTU)	6.5		

Time	1402	Gal. Purged	
Conductance	4013	pH	7.05
Temp. °C	14.77		
Redox Potential Eh (mV)	84		
Turbidity (NTU)	6.5		

Time	1403	Gal. Purged	
Conductance	4013	pH	7.04
Temp. °C	14.78		
Redox Potential Eh (mV)	84		
Turbidity (NTU)	6.4		

Volume of Water Purged 80.29 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = .217

Time to evacuate two casing volumes (2V)
T = 2V/Q = 323.43

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Duplicate of MW 32

Do not touch this cell (SheetName)

DENISON MINES

ATTACHMENT 1
WHITE MESA URANIUM MILL
FIELD DATA WORKSHEET FOR GROUND WATER

Attachment 1
See instruction

Description of Sampling Event: 2nd Quarter Chloroform 2011

Location (well name): TW4-70

Sampler Name and initials: Tanner Holliday/TH

Date and Time for Purging 6/27/2011 and Sampling (if different) 6/28/2011

Well Purging Equip Used: ☒ pump or ☐ bailer

Well Pump (if other than Bennet) Grundfos

Sampling Event Quarterly Chloroform

Prev. Well Sampled in Sampling Event TW4-21R

pH Buffer 7.0: 7.0

pH Buffer 4.0: 4.0

Specific Conductance 999 µMHOS/ cm

Well Depth(0.01ft): 121.00

Depth to Water Before Purging 55.10

Casing Volume (V) 4" Well: 43.03 (.653h)
3" Well: 0 (.367h)

Conductance (avg) 3414

pH of Water (avg) 5.94

Well Water Temp. (avg) 16.25

Redox Potential (Eh) 296

Turbidity 8.7

Weather Cond. Sunny

Ext'l Amb. Temp. °C (prior sampling event) 25°

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Time		Gal. Purged	
Conductance		pH	
Temp. °C			
Redox Potential Eh (mV)			
Turbidity (NTU)			

Volume of Water Purged 130 gallon(s)

Pumping Rate Calculation

Flow Rate (Q), in gpm.
S/60 = 10

Time to evacuate two casing volumes (2V)
T = 2V/Q = 8.60

Number of casing volumes evacuated (if other than two)

If well evacuated to dryness, number of gallons evacuated

Name of Certified Analytical Laboratory if Other Than Energy Lab: N/A

Type of Sample	Sample Taken		Sample Vol (indicate if other than as specified below)	Filtered		Preservative Type	Preservative Added	
	Y	N		Y	N		Y	N
VOCs	☒	☐	3x40 ml	☐	☒	HCL	☒	☐
Nutrients	☒	☐	100 ml	☐	☒	H2SO4	☒	☐
Heavy Metals	☐	☐	250 ml	☐	☐	HNO3	☐	☐
All Other Non Radiologics	☐	☐	250 ml	☐	☐	No Preserv.	☐	☐
Gross Alpha	☐	☐	1,000 ml	☐	☐	HNO3	☐	☐
Other (specify)	☒	☐	Sample volume	☐	☒		☐	☒
Chloride								

If preservative is used, specify Type and Quantity of Preservative:

See instruction

Comment

Duplicate of TW4-21

Do not touch this cell (SheetName)

Tab C

Weekly and Monthly Depth to Water Data

Depth to Water

Date 4-04-11 **Name** Tanner & Ryan S

Time	Well	Depth	Comments
0840	MW-4	78.15	Flow 4.3 GPM
			Meter 433579.21
0836	TW4-15	75.39	Flow 5.4 GPM
			Meter ~~52993.0~~
			529930.0
0825	TW4-19	82.14	Flow 6.8 Gallons PM
			Meter ~~1535[illegible]~~
			1537236.3
0830	TW4-20	101.31	Flow 10.1 GPM
			Meter 179751.27
0843	TW4-4	68.81	Flow 8.7 GPM
			Meter 351830.5
	Water:	371687	

Adjustment was made. Environmental staff was All Trained on 5.9 2011 to Ensure Reports is Done the Same. #'s Should Coordin Better going Forward.

Depth to Water

Date 4-11-11 Name Ryan Schierman

Time	Well	Depth	Comments
~~800~~ 820	MW-4	70.69	Flow 4.2 GPM
			Meter 439949.35
812	TW4-15	74.20	Flow 5.2 GPM
			Meter 53450
800	TW4-19	87.4	Flow 6.5 GPM
			Meter 156101.0
806	TW4-20	69.12	Flow 10.4
			Meter 184400.34
826	TW4-4	68.90	Flow 8.2 GPM
			Meter 358109.3
	Water:	388497	

Depth to Water

Date 4/18/2011 Name Tanner Holliday

Time	Well	Depth	Comments
0558	MW-4	70.97	Flow 4.3 GPM
			Meter 446415.39
0552	TW4-15	73.05	Flow ~~9.0~~ 4.0 GPM
			Meter 3287.47 New Meter was installed on 4/16/2011
0611	TW4-19	69.81	Flow 6.4 GPM
			Meter 1561071.25
0542	TW4-20	95.12	Flow 10.0 GPM
			Meter 189202.41
0604	TW4-4	69.15	Flow 8.5 GPM
			Meter 364398.5
	Water:	407794	

Chloroform Wells

Date 4-19-2011 **Name** Garrin Palmer, Ryan Schierman

Time	Well	Depth	Comments
0959	MW-4	70.57	
0954	TW4-1	63.92	
1003	TW4-2	67.14	
1007	TW4-3	39.35	
1120	TW4-4	70.48	
1043	TW4-5	56.43	
0952	TW4-6	70.43	
0957	TW4-7	67.26	
1005	TW4-8	66.71	
1009	TW4-9	54.37	
1041	TW4-10	56.64	
1001	TW4-11	57.69	
0940	TW4-12	39.42	
0937	TW4-13	46.10	
0935	TW4-14	87.75	
0924	TW4-15	79.13	
0928	TW4-16	64.40	
0929	TW4-17	76.31	
1105	TW4-18	57.01	
1113	TW4-19	82.73	
0922	TW4-20	71.60	
1103	TW4-21	57.32	
0920	TW4-22	54.14	
0949	TW4-23	65.48	
0918	TW4-24	55.60	
1101	TW4-25	46.50	
0947	TW4-26	64.23	

Depth to Water

Date 4-25-11 **Name** Garrin Palmer, Ryan Schiern

Time	Well	Depth	Comments
0940	MW-4	78.10	Flow 4.5 GPM
			Meter 453108.72
0948	TW4-15	100.00	Flow 6.5 GPM
			Meter 8274.58
1000	TW4-19	76.60	Flow 6.4 GPM
			Meter 1006360.10
0926	TW4-20	70.75	Flow 10.0 GPM
			Meter 194206.52
0943	TW4-4	69.20	Flow 8.8 GPM
			Meter 370602.88
	Water:	430619	

Depth to Water

Date 5-2-2011 Name Tanner Holliday

Time	Well	Depth	Comments
0611	MW-4	71.25	Flow 4.3 GPM
			Meter 459511.31
0605	TW4-15	101.51	Flow 4.8 GPM
			Meter 12733.77
0630	TW4-19	61.27	Flow 6.4 GPM
			Meter 1608670.30
0600	TW4-20	75.70	Flow 10.1 GPM
			Meter 199007.02
0615	TW4-4	69.00	Flow 8.7 GPM
			Meter 376608.7
	Water:	446549	

A B
11.2 3.80

Chloroform Wells

Date 5-4-2011 **Name** Ryan Schierman

Time	Well	Depth	Comments
0816	MW-4	81.18	
0809	TW4-1	64.17	
0759	TW4-2	67.35	
0756	TW4-3	49.53	
0821	TW4-4	68.71	
0750	TW4-5	56.49	
0824	TW4-6	70.54	
0814	TW4-7	67.50	
0807	TW4-8	66.84	
0754	TW4-9	54.46	
0747	TW4-10	56.65	
0802	TW4-11	57.90	
0834	TW4-12	39.61	
0837	TW4-13	46.44	
0841	TW4-14	87.68	
0743	TW4-15	77.92	
0930	TW4-16	64.52	
0933	TW4-17	75.82	
0916	TW4-18	57.02	
0940	TW4-19	60.45	
0739	TW4-20	66.35	
0914	TW4-21	56.67	
0736	TW4-22	54.35	
0900	TW4-23	65.60	
0733	TW4-24	55.81	
0907	TW4-25	46.60	
0827	TW4-26	64.26	

Depth to Water

Date 5-9-11 Name Ryan Schiesman

Time	Well	Depth	Comments
1025	MW-4	70.20	Flow 4.26 GPM
			Meter 466100.00
1010	TW4-15	97.95	Flow 5.32 GPM
			Meter 17642.03
1000	TW4-19	71.08	Flow 6.85 GPM
			Meter 1635700.61
			1635700.61
1030	TW4-20	66.15	Flow 10 GPM
			Meter 204100.42
1020	TW4-4	86.01	Flow 7.8 GPM
			Meter 0382908.3
	Water:	463471	

Depth to Water

Date 5-16-11 **Name** Ryan Schiermar

Time	Well	Depth	Comments
0857	MW-4	71.35	Flow 4 GPM
			Meter 472619.65
0850	TW4-15	72.45	Flow 82 GPM
			Meter 22308.46
0830	TW4-19	59.74	Flow 4.2 GPM
			Meter 1635631.97
0843	TW4-20	89.96	Flow 96 GPM
			Meter 209058.50
0905	TW4-4	87.34	Flow 80 GPM
			Meter 388893.1
	Water:	477370	

Depth to Water

Date 5-23-11 Name Ryan Schiesman

Time	Well	Depth	Comments
1020	MW-4	70.03	Flow 4.8 GPM
			Meter 479056.15
1013	MW-26	85.21	Flow 5.6 GPM
			Meter 27253.99
1040	TW4-19	58.32	Flow 4.26 GPM
			Meter 1635691.47
1006	TW4-20	65.19	Flow 9.4 GPM
			Meter 214251.78
1027	TW4-4	69.98	Flow 8.1 GPM
			Meter 395089.09
	Water:	501075	

Depth to Water

Date 5-31-11 Name Ryan Schierman

Time	Well	Depth	Comments
1108	MW-4	snagged at 46.85	Flow 4.2 GPM
			Meter 486549.46
1053	MW-26	75.39	Flow 4.4 GPM
			Meter 33051.43
0930	TW4-19	57.98	Flow 4.6 GPM
			Meter 1635677.35
1041	TW4-20	63.97	Flow 10.2 GPM
			Meter 220340.22
1101	TW4-4	82.83	Flow 6.1 GPM
			Meter 401619.02
	Water:	523790	

* Replaced pump on 6-2-11 (TW4-19)
* Pump was found not working on 6-1-11 (TW4-19)

Depth to Water

Date 6-6-11 **Name** Garrin Palmer

Time	Well	Depth	Comments
1050	MW-4	Snagged at 46'	Flow 4.3 GPM
			Meter 492123.36
1045	MW-26	75.40	Flow 6.2 GPM
			Meter 37364.19
1020	TW4-19	63.65	Flow 14.3 GPM
			Meter 1640557.39
1039	TW4-20	63.50	Flow 10 GPM
			Meter 225014.16
1056	TW4-4	69.45	Flow 8.2 GPM
			Meter 406290.11
	Water:	547829	

Depth to Water

Date 6-13-11 **Name** Garrin Palmer, Tanner Hollis

Time	Well	Depth	Comments
1010	MW-4	snagged at 45'	Flow 2.8 GPM
			Meter 498609.52
1020	MW-26	80.81	Flow 6.4 GPM
			Meter 42355.37
1050	TW4-19	60.55	Flow 14.2 GPM
1030			Meter 1652320.23
1025	TW4-20	64.91	Flow 10 GPM
			Meter 230564.14
1013	TW4-4	77.41	Flow 8.0 GPM
			Meter 411778.19
	Water:	566258	

Depth to Water

Date 6-20-2011 **Name** Ryan Schierman

Time	Well	Depth	Comments
1026	MW-4	Snagged 64.79	Flow 4.2 GPM
			Meter 505245.44
1206	MW-26	87.85	Flow 7.2 GPM
			Meter 47511.63
0945	TW4-19	60.98	Flow 12.4 GPM
			Meter 1675103.53
1040	TW4-20	snagged at	Flow 5.0 GPM
		53.30	Meter 235849.55
1032	TW4-4	69.76	Flow 8.6 GPM
			Meter 417555.6
	Water:	584671	

Depth to Water

Date 6-27-2011 **Name** Ryan Schierman

Time	Well	Depth	Comments	
1003	MW-4	70.81	Flow	3.2 GPM
			Meter	511859.76
0956	MW-26	98.89	Flow	5.6 GPM
			Meter	52652.29
0935	TW4-19	58.07	Flow	~~[illegible]~~
	power outage since 6-24-2011		Meter	168416 0.79
0950	TW4-20	snagged at 62.15	Flow	9.4 GPM
			Meter	241260.21
1006	TW4-4	105.94	Flow	8.0 GPM
			Meter	424064.2
	Water:	597574		

Depth to Water

Date 7-5-2011 **Name** Ryan Schierman

Time	Well	Depth	Comments
1048	MW-4	73.20	Flow 4.1 GPM
			Meter 519428.55
1045	MW-26	75.24	Flow 6.2 GPM
			Meter 58573.58
1019	TW4-19	63.86	Flow 12.4 GPM
			Meter 1696475.21
1040	TW4-20	snagged at 63.21	Flow 10 GPM
			Meter 247058.96
1055	TW4-4	69.52	Flow 8.4 GPM
			Meter 432165.1
	Water:	604633	

Tab D

Kriged Current Quarter Groundwater Contour Map, Details Map, and Depth to Water Summary

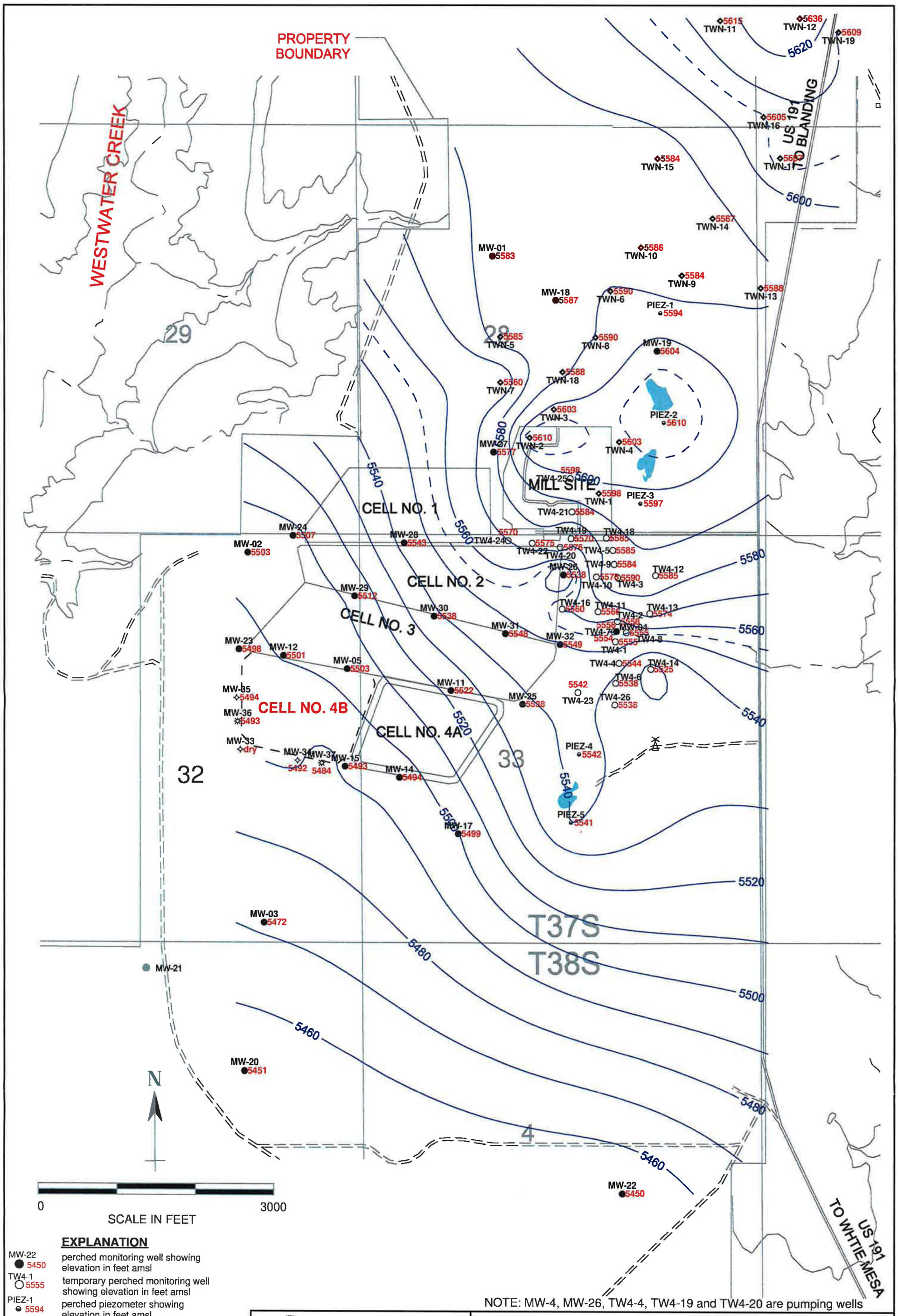
Quarterly Depth to Water

NAME: Tanner Holliday, Ryan Scheirman

DATE: 6/21/2011

TIME	WELL	Static level	TIME	WELL	Static Level	TIME	WELL	Static Level
918	MW-1	64.71	1026	MW-4	*64.79	822	PIEZ-1	61.54
1035	MW-2	109.80	1259	TW4-1	64.01	806	PIEZ-2	18.22
751	MW-3	83.21	1250	TW4-2	67.14	929	PIEZ-3	40.81
750	MW-3A	85.28	1247	TW4-3	42.23	1149	PIEZ-4	48.85
1054	MW-5	105.78	1032	TW4-4	69.76	1155	PIEZ-5	43.71
822	MW-11	88.73	1242	TW4-5	55.98			
1049	MW-12	108.61	1306	TW4-6	70.32	746	TWN-1	50.29
1215	MW-14	103.90	1254	TW4-7	67.40	751	TWN-2	16.91
1205	MW-15	106.60	1303	TW4-8	66.61	755	TWN-3	31.75
756	MW-17	75.63	1245	TW4-9	53.97	926	TWN-4	38.51
903	MW-18	70.21	1240	TW4-10	56.15	905	TWN-5	69.80
810	MW-19	51.38	1334	TW4-11	57.61	858	TWN-6	74.50
1234	MW-20	89.19	1320	TW4-12	39.47	907	TWN-7	88.83
1227	MW-22	67.20	1322	TW4-13	46.19	855	TWN-8	61.52
806	MW-23	114.05	1326	TW4-14	87.54	818	TWN-9	63.53
1024	MW-24	114.61	1006	TW4-15	87.85	823	TWN-10	81.03
820	MW-25	74.41	1339	TW4-16	63.54	843	TWN-11	69.41
831	MW-26	81.31	1405	TW4-17	75.91	839	TWN-12	32.29
1012	MW-27	51.04	1227	TW4-18	56.55	813	TWN-13	46.43
1030	MW-28	77.01	945	TW4-19	60.98	828	TWN-14	62.69
1041	MW-29	102.37	1040	TW4-20	*53.30	848	TWN-15	92.19
828	MW-30	76.19	1223	TW4-21	55.18	835	TWN-16	48.15
826	MW-31	68.44	1235	TW4-22	54.03	832	TWN-17	34.33
832	MW-32	34.33	1313	TW4-23	65.39	758	TWN-18	57.74
802	MW-33	DRY	1232	TW4-24	55.43	955	TWN-19	52.76
815	MW-34	108.05	1214	TW4-25	46.30			
809	MW-35	112.51	1309	TW4-26	64.11			
811	MW-36	110.56						
817	MW-37	115.24						

Comments: all depths were checked on 6/21/11 with the exeption of the DR series wells, they were checked on 6/22/11. we don't have logged depths on the DR series as of yet. We obtained the MW-36 and MW-37 logged depths as a special request. We still do not have a tagged depth on the MW series of wells as they all have dedicated pumps in the wells and we do not want to distrub the column. Time was not recorded on the DR series wells. Im not sure why, but moving forward we will ensure that the time is recorded on these wells.



NOTE: MW-4, MW-26, TW4-4, TW4-19 and TW4-20 are pumping wells

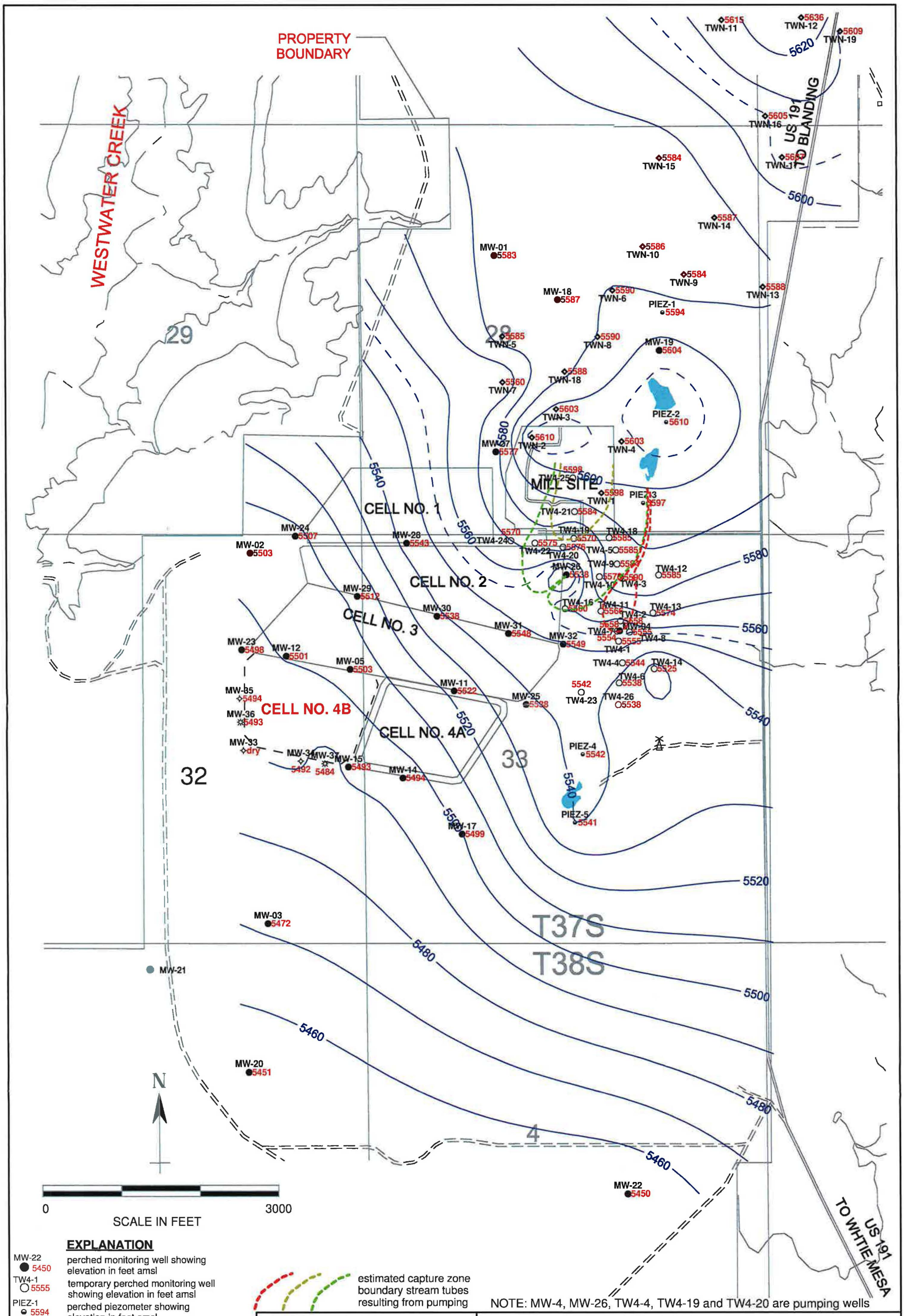
EXPLANATION

MW-22 5450	perched monitoring well showing elevation in feet amsl
TW4-1 5555	temporary perched monitoring well showing elevation in feet amsl
PIEZ-1 5594	perched piezometer showing elevation in feet amsl
TWN-4 5603	temporary perched nitrate monitoring well showing elevation in feet amsl
MW-34 5492	perched monitoring well installed August/September, 2010 showing elevation in feet amsl
MW-36 5493	perched monitoring well installed April, 2011 showing elevation in feet amsl

HYDRO GEO CHEM, INC.

KRIGED 2nd QUARTER, 2011 WATER LEVELS WHITE MESA SITE

APPROVED	DATE	REFERENCE	FIGURE
SJS		H:/718000/aug11/wl0611.srf	D-1



EXPLANATION

MW-22 ● 5450	perched monitoring well showing elevation in feet amsl
TW4-1 ○ 5555	temporary perched monitoring well showing elevation in feet amsl
PIEZ-1 ⊖ 5594	perched piezometer showing elevation in feet amsl
TWN-4 ◆ 5603	temporary perched nitrate monitoring well showing elevation in feet amsl
MW-34 ✧ 5492	perched monitoring well installed August/September, 2010 showing elevation in feet amsl
MW-36 ✲ 5493	perched monitoring well installed April, 2011 showing elevation in feet amsl

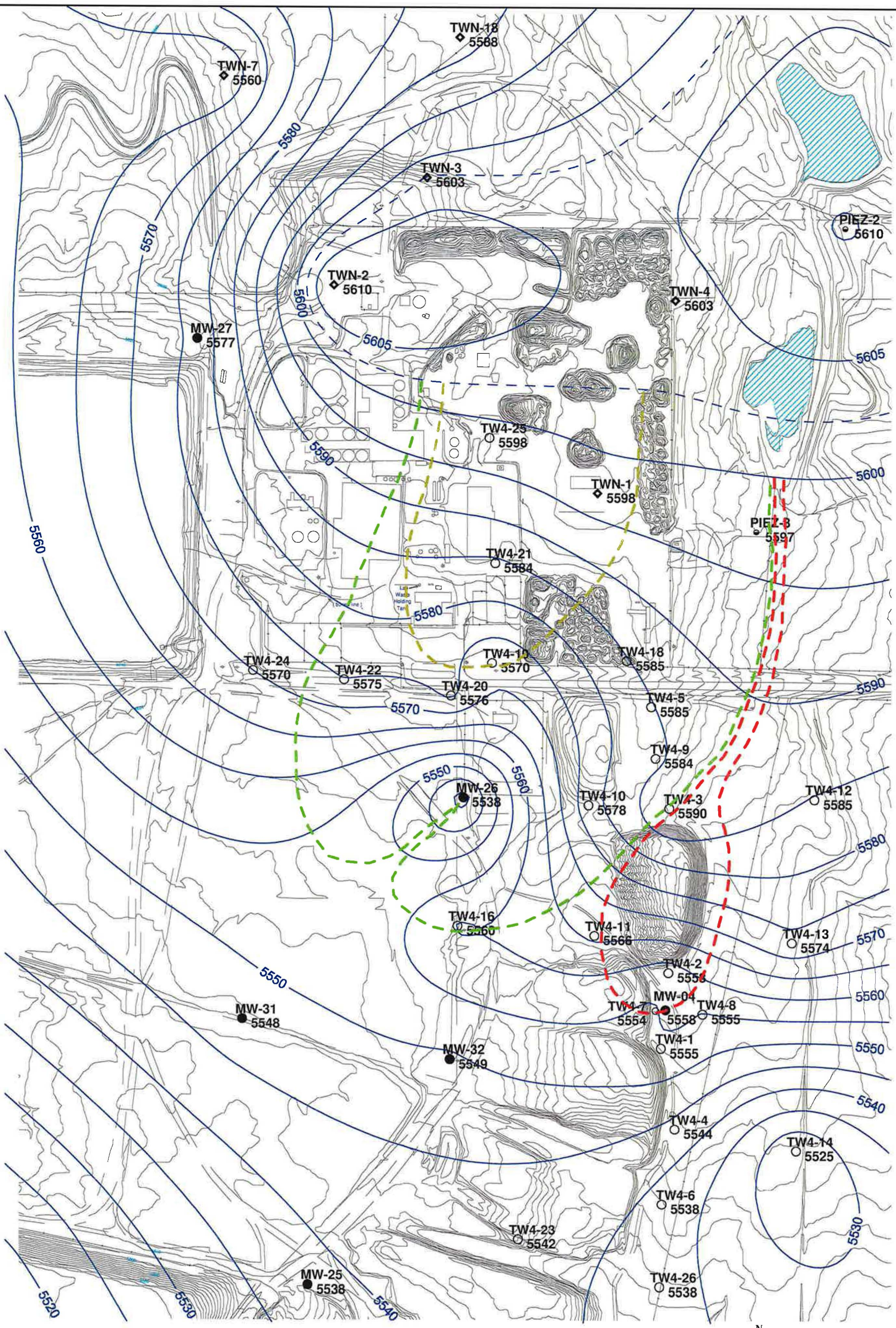
estimated capture zone boundary stream tubes resulting from pumping

NOTE: MW-4, MW-26, TW4-4, TW4-19 and TW4-20 are pumping wells

HYDRO GEO CHEM, INC.

KRIGED 1st QUARTER, 2011 WATER LEVELS AND ESTIMATED CAPTURE ZONES WHITE MESA SITE

APPROVED	DATE	REFERENCE	FIGURE
SJS		H:/718000/aug11/wl0611cz2.srf	D-2



EXPLANATION

estimated capture zone boundary stream tubes resulting from pumping

◆ TWN-1 5598 temporary perched nitrate monitoring well showing elevation in feet amsl

○ TW4-1 5555 temporary perched monitoring well showing elevation in feet amsl

● MW-32 5549 perched monitoring well showing elevation in feet amsl

NOTE: MW-4, MW-26, TW4-4, TW4-19, and TW4-20 are pumping wells

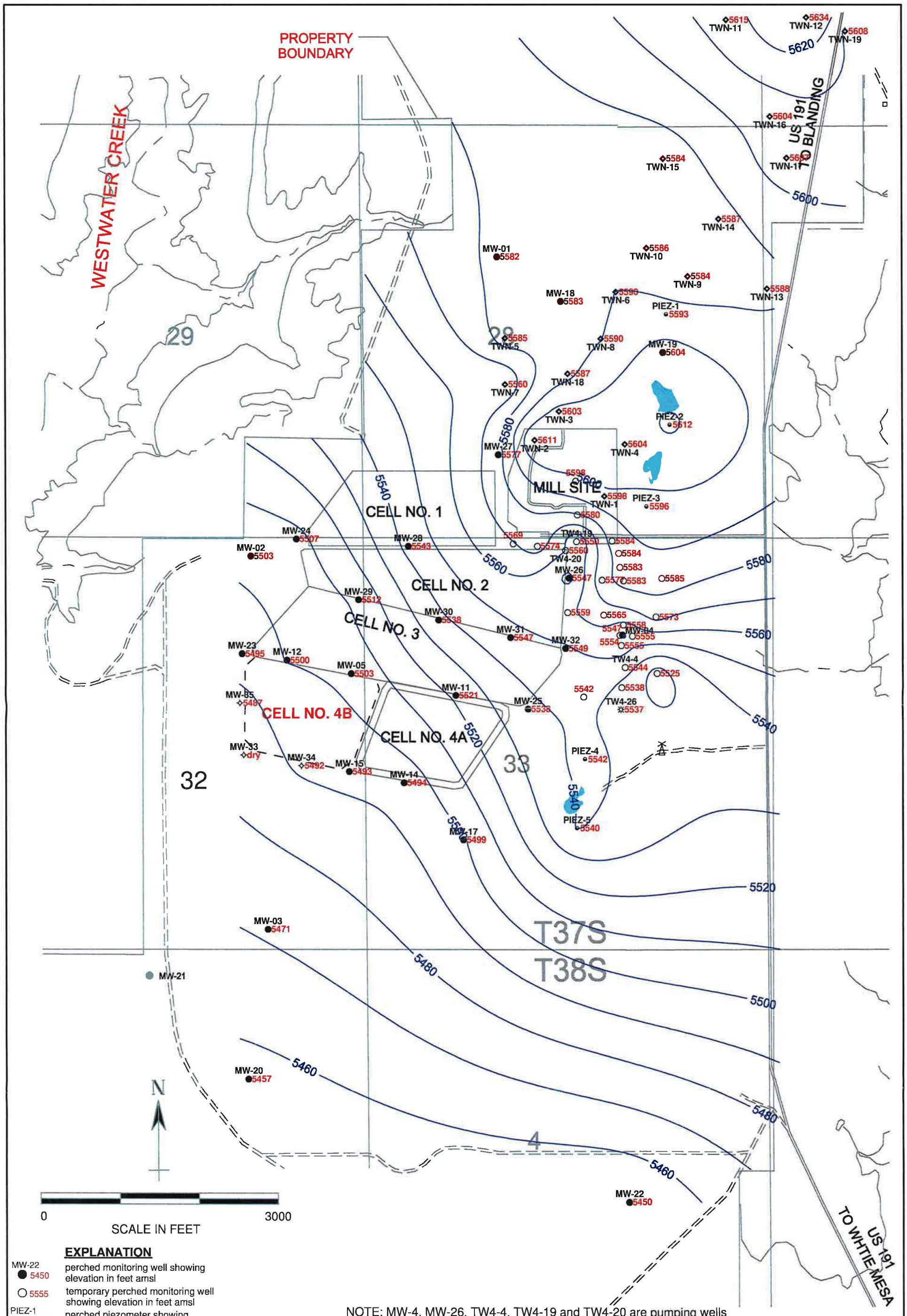
HYDRO GEO CHEM, INC.

KRIGED 2nd QUARTER, 2011 WATER LEVELS AND ESTIMATED CAPTURE ZONES WHITE MESA SITE (detail map)

APPROVED	DATE	REFERENCE	FIGURE
SJS		H:/718000/aug11/wl0611cz.srf	D-3

Tab E

Kriged Previous Quarter Groundwater Contour Map



EXPLANATION

MW-22 ● 5450	perched monitoring well showing elevation in feet amsl
○ 5555	temporary perched monitoring well showing elevation in feet amsl
PIEZ-1 ◒ 5593	perched piezometer showing elevation in feet amsl
TWN-4 ◆ 5604	temporary perched nitrate monitoring well showing elevation in feet amsl
TW4-26 ✲ 5537	temporary perched monitoring well installed May, 2010 showing elevation in feet amsl
MW-34 ✧ 5492	perched monitoring well installed August/September, 2010 showing elevation in feet amsl

NOTE: MW-4, MW-26, TW4-4, TW4-19 and TW4-20 are pumping wells

HYDRO GEO CHEM, INC.

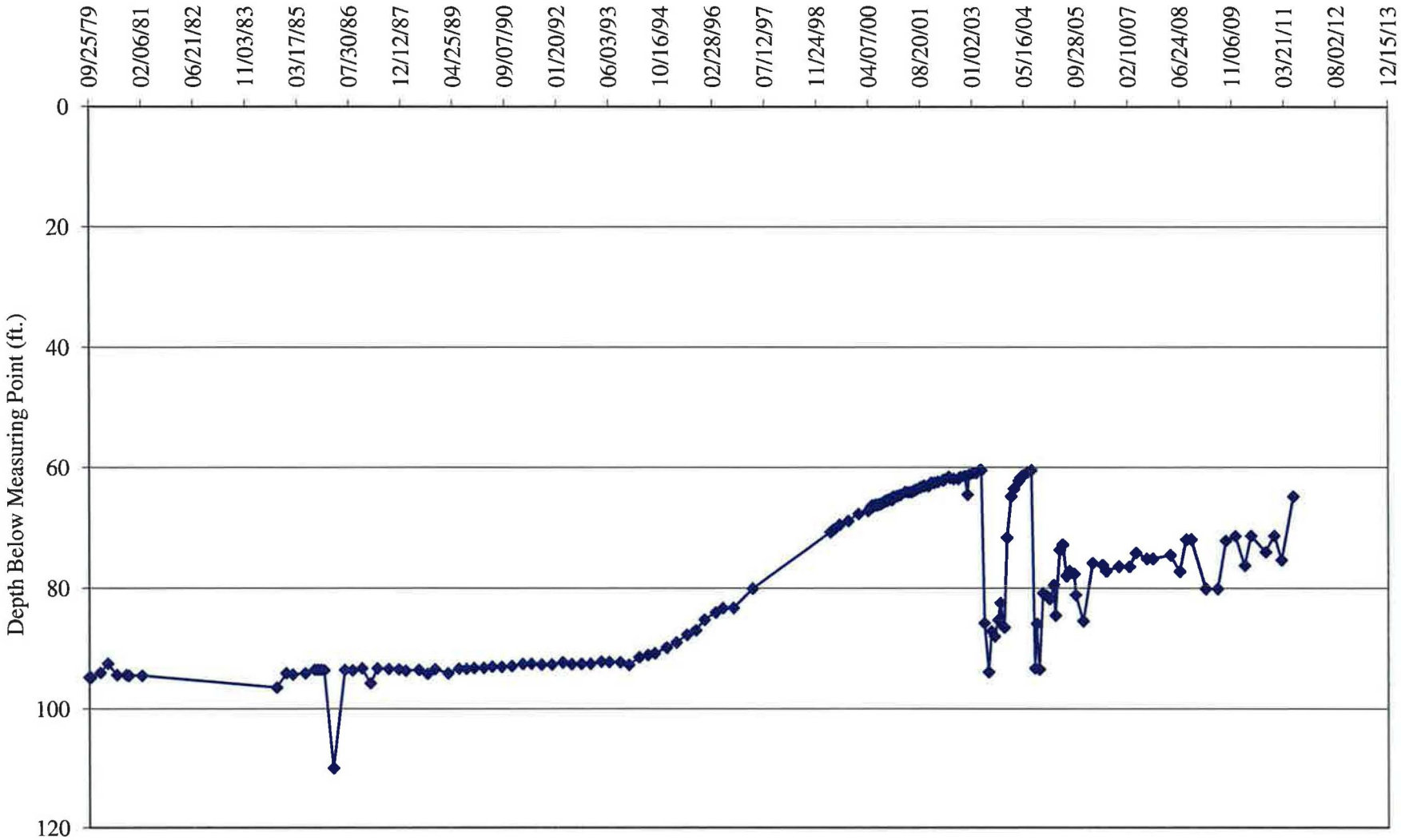
KRIGED 1st QUARTER, 2011 WATER LEVELS WHITE MESA SITE

APPROVED	DATE	REFERENCE	FIGURE
SJS		H:/718000/may11/wl0211.srf	E-1

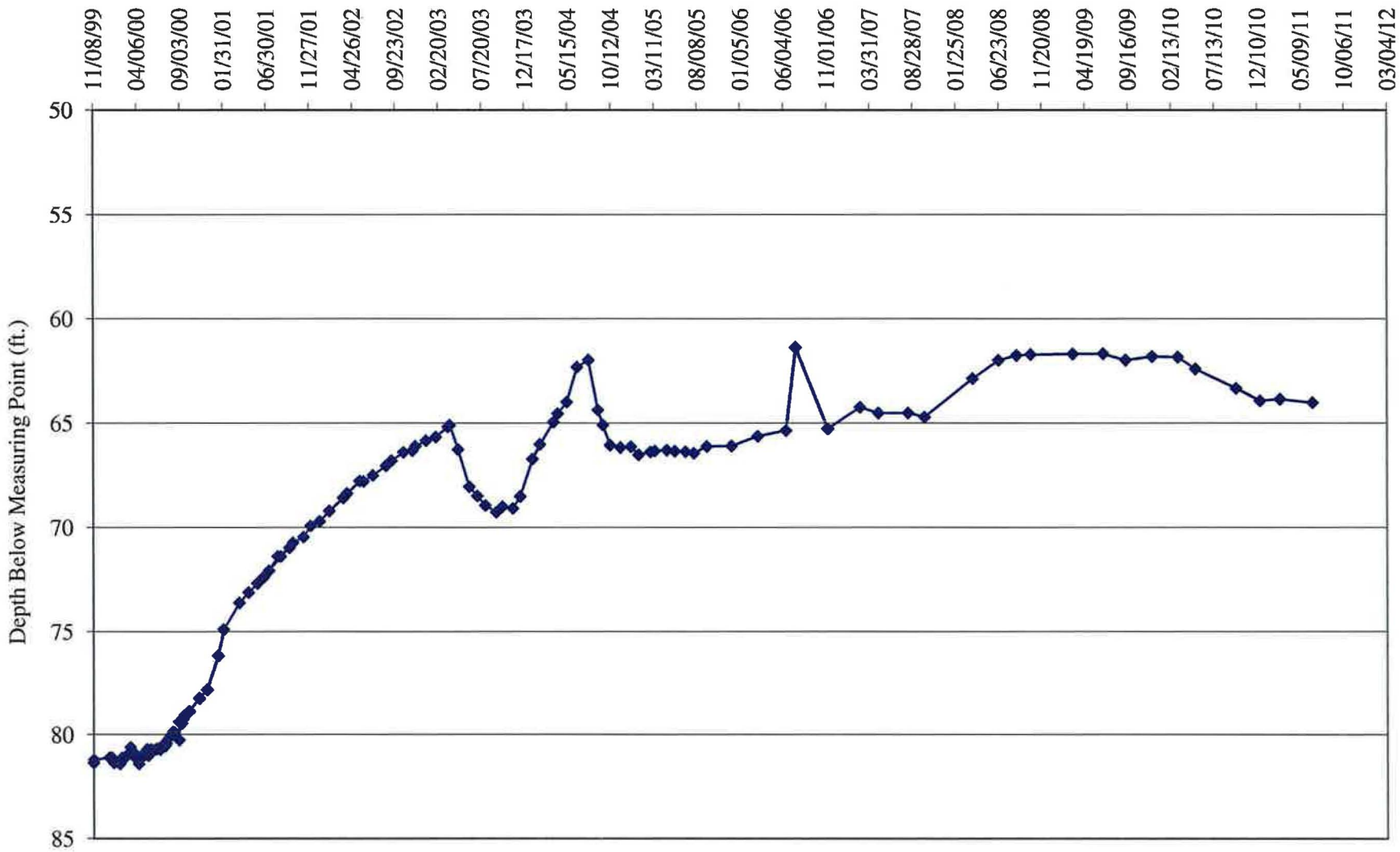
Tab F

Hydrographs of Groundwater Elevations Over Time for Chloroform Monitoring Wells

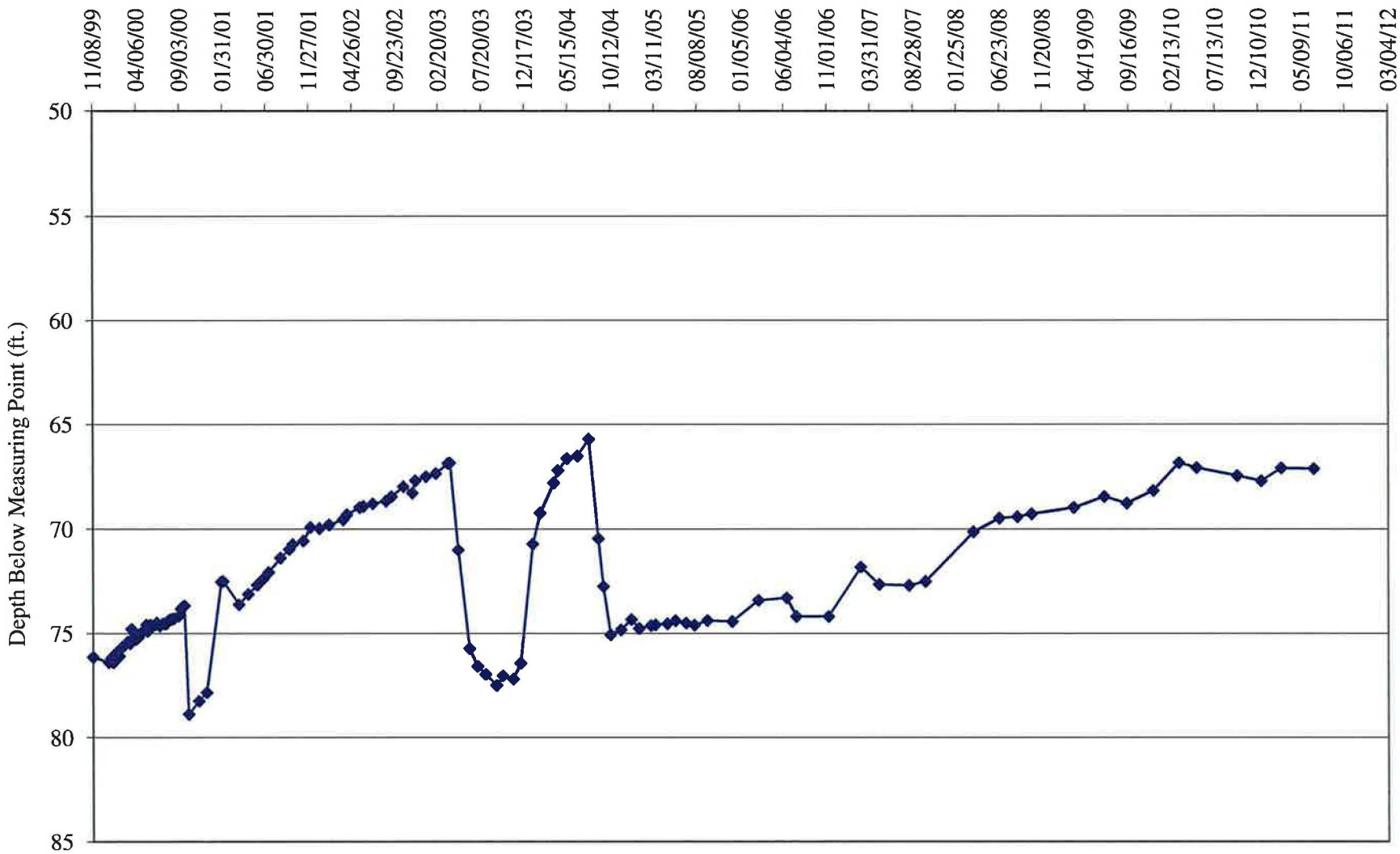
MW 4 Water Depth Over Time (ft. blmp)



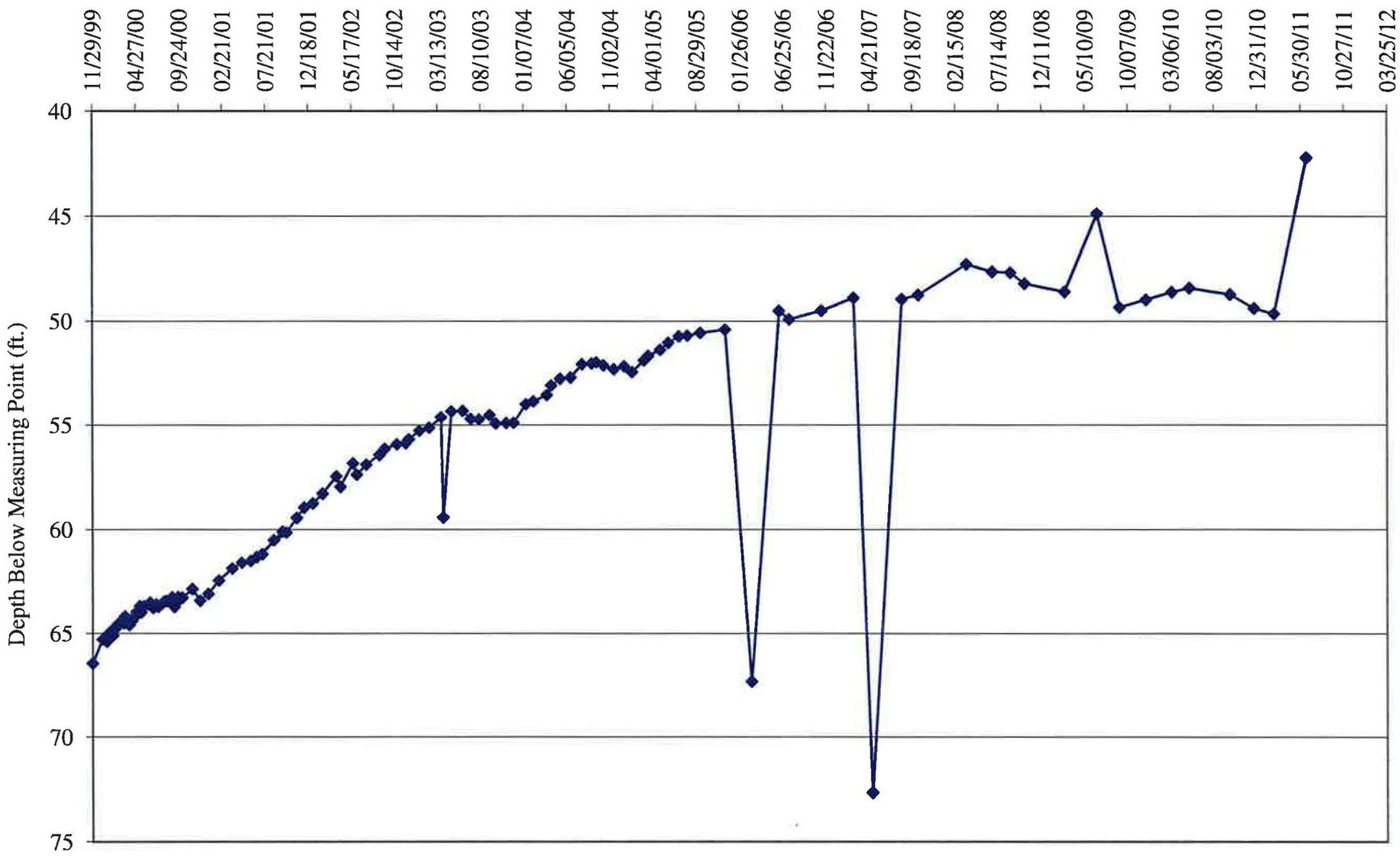
TW4-1 Water Depth Over Time (ft. blmp)



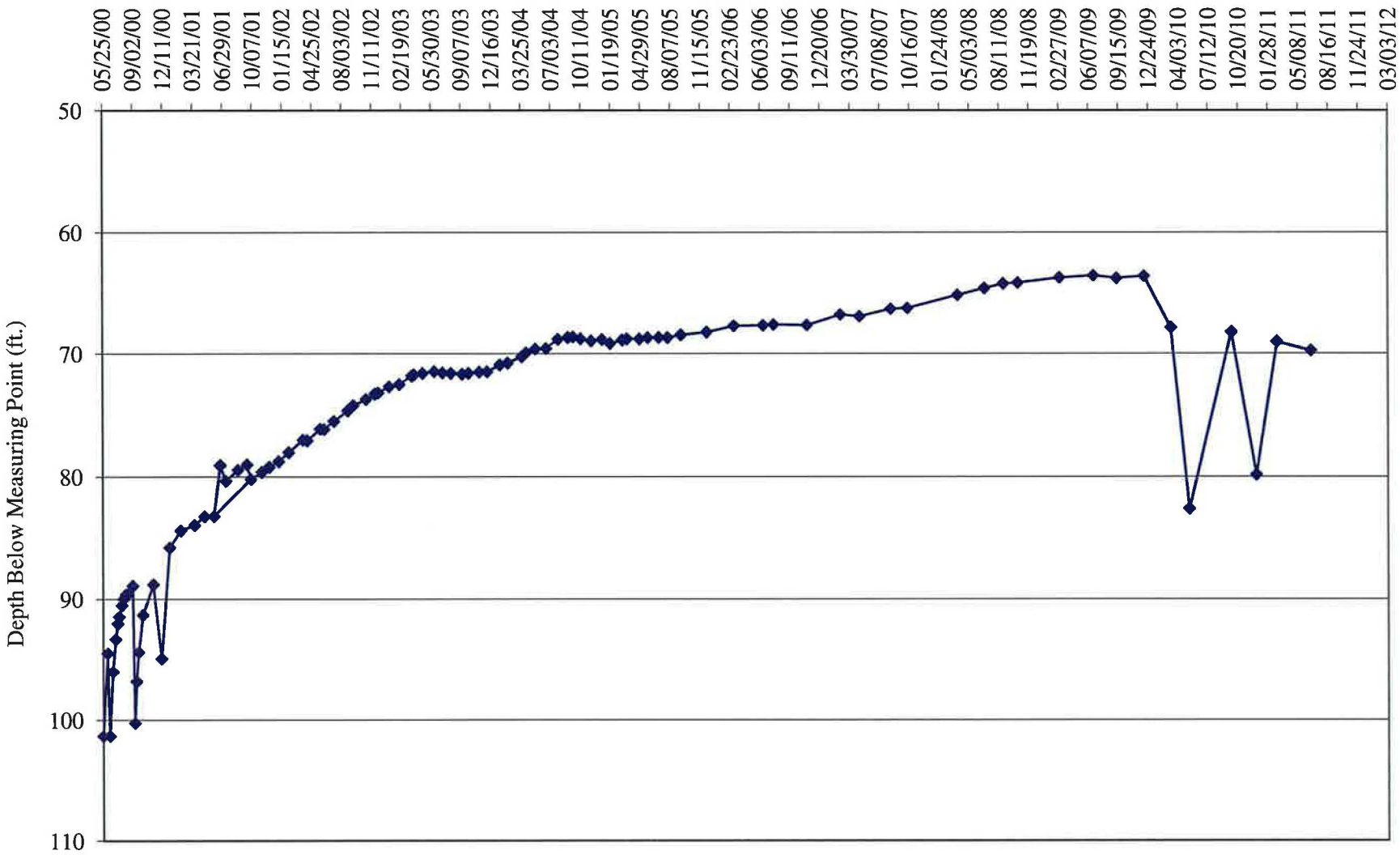
TW4-2 Water Depth Over Time (ft. blmp)



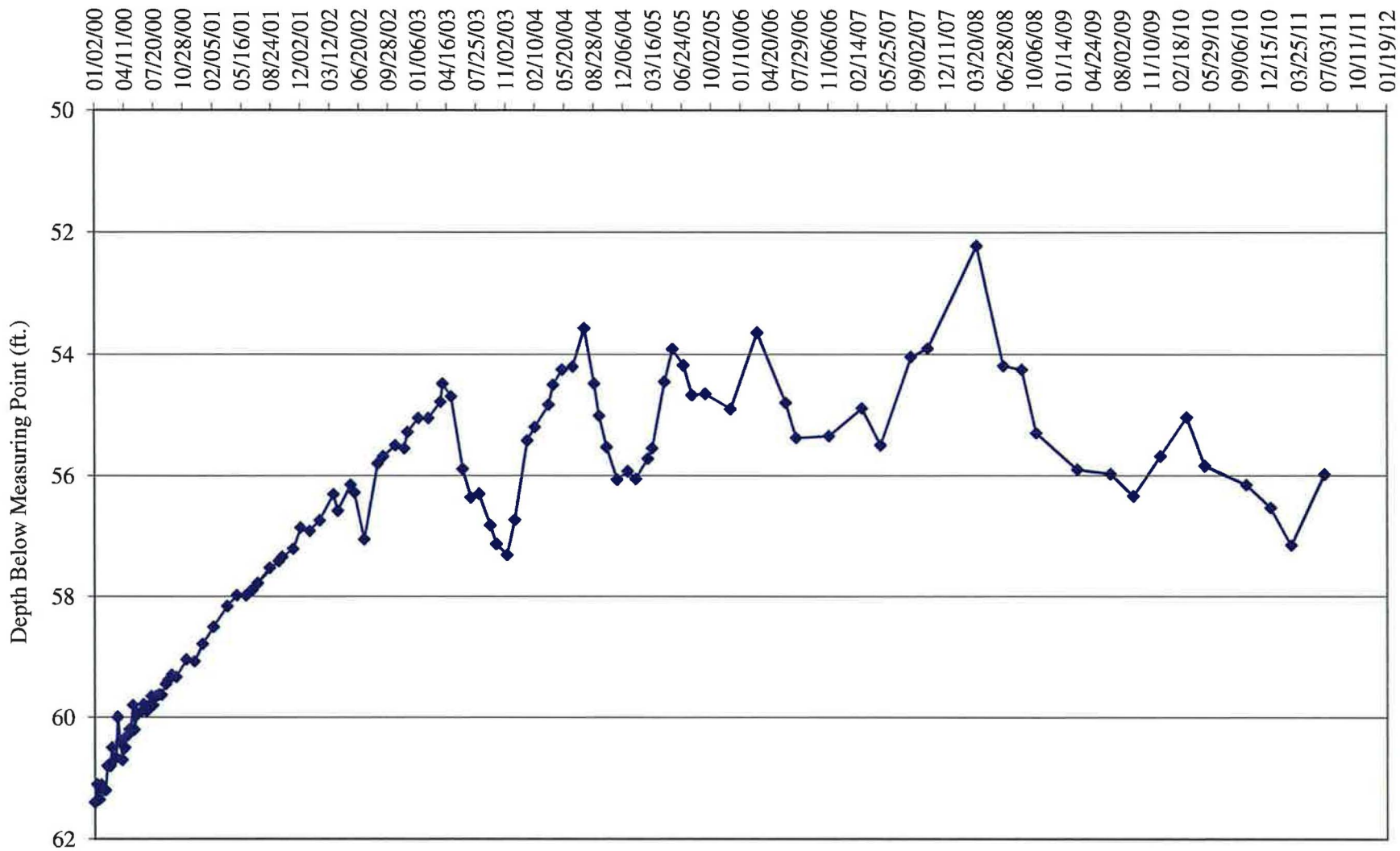
TW4-3 Water Depth Over Time (ft. blmp)



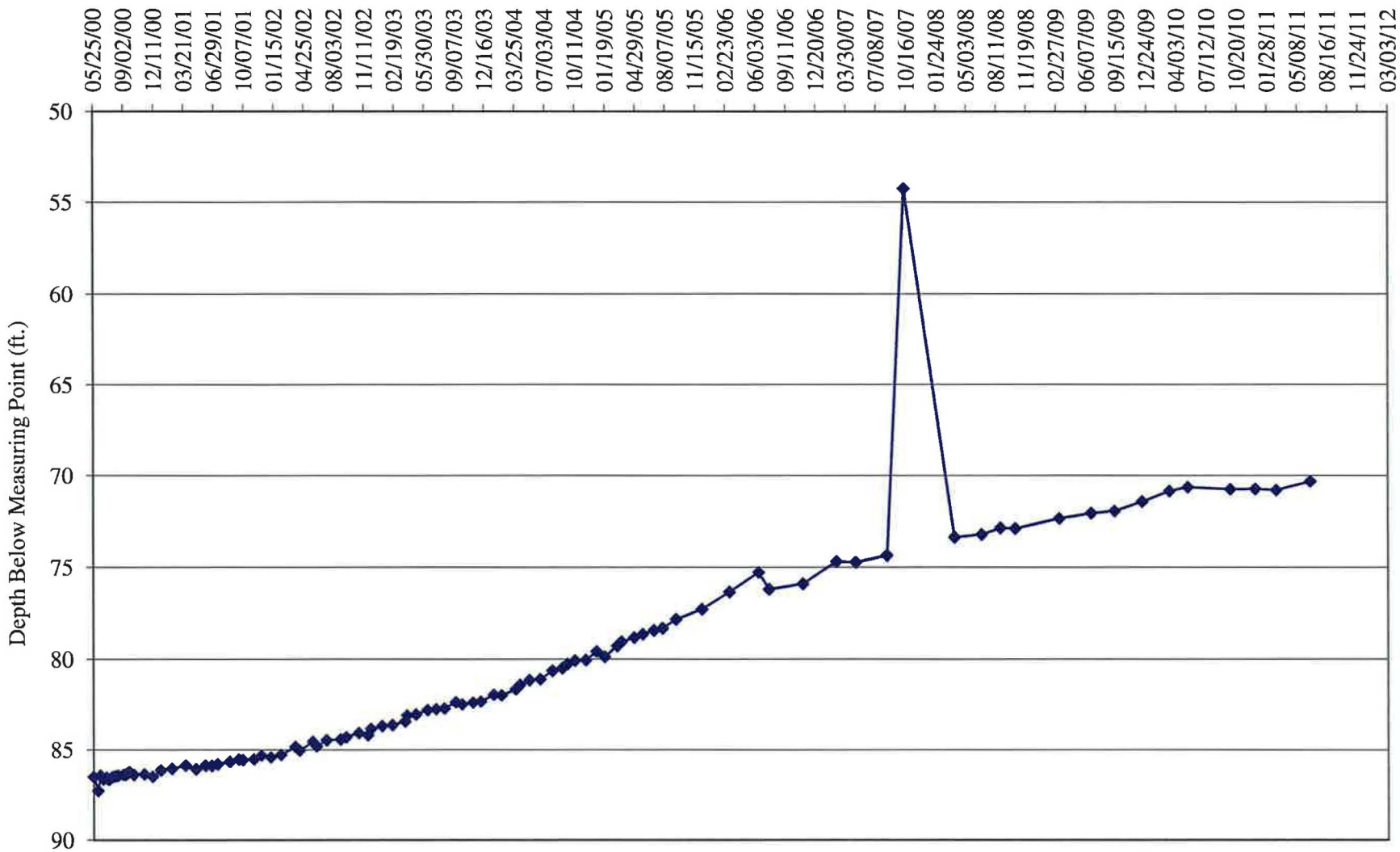
TW4-4 Water Depth Over Time (ft. blmp)



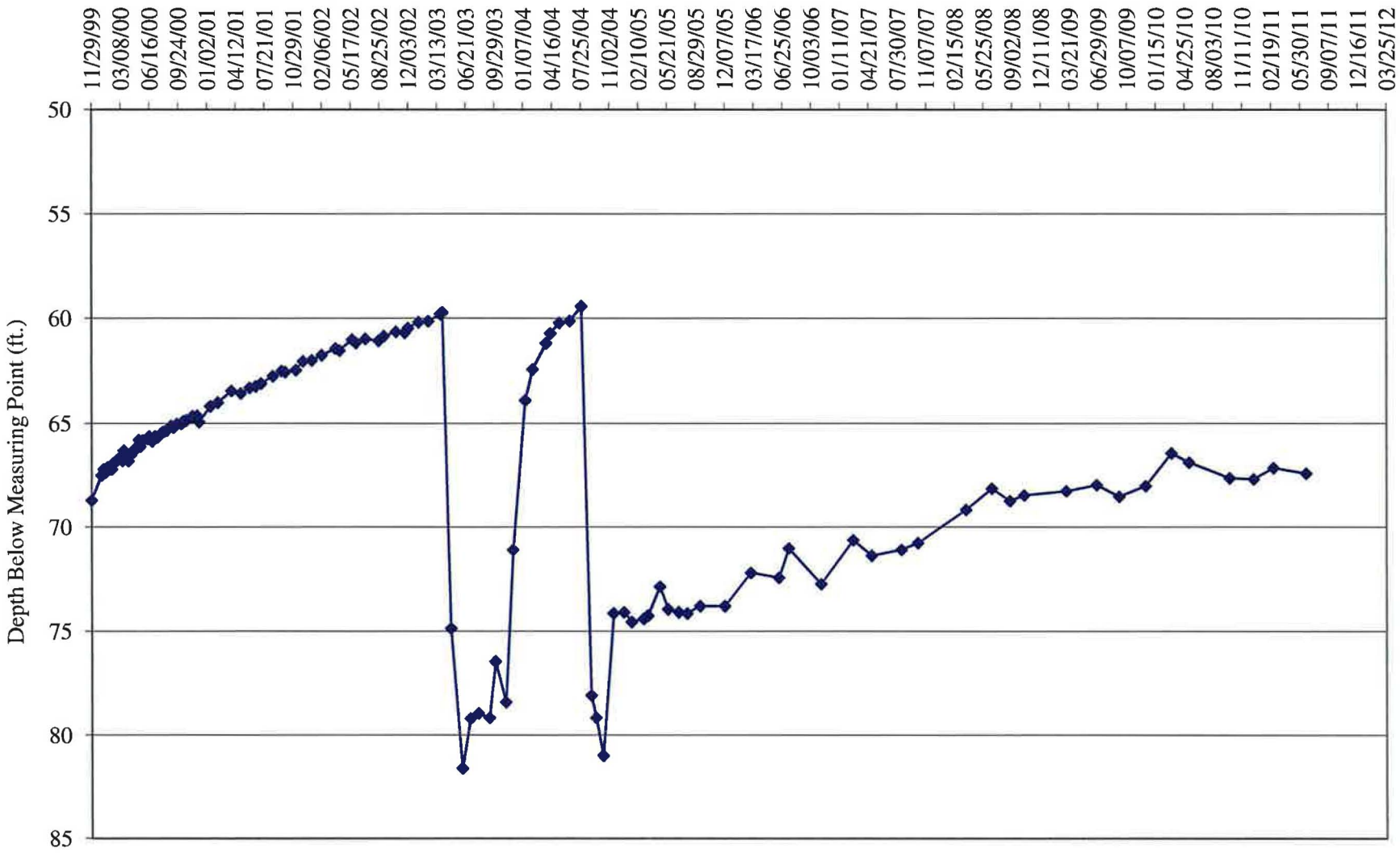
TW4-5 Water Depth Over Time (ft. blmp)



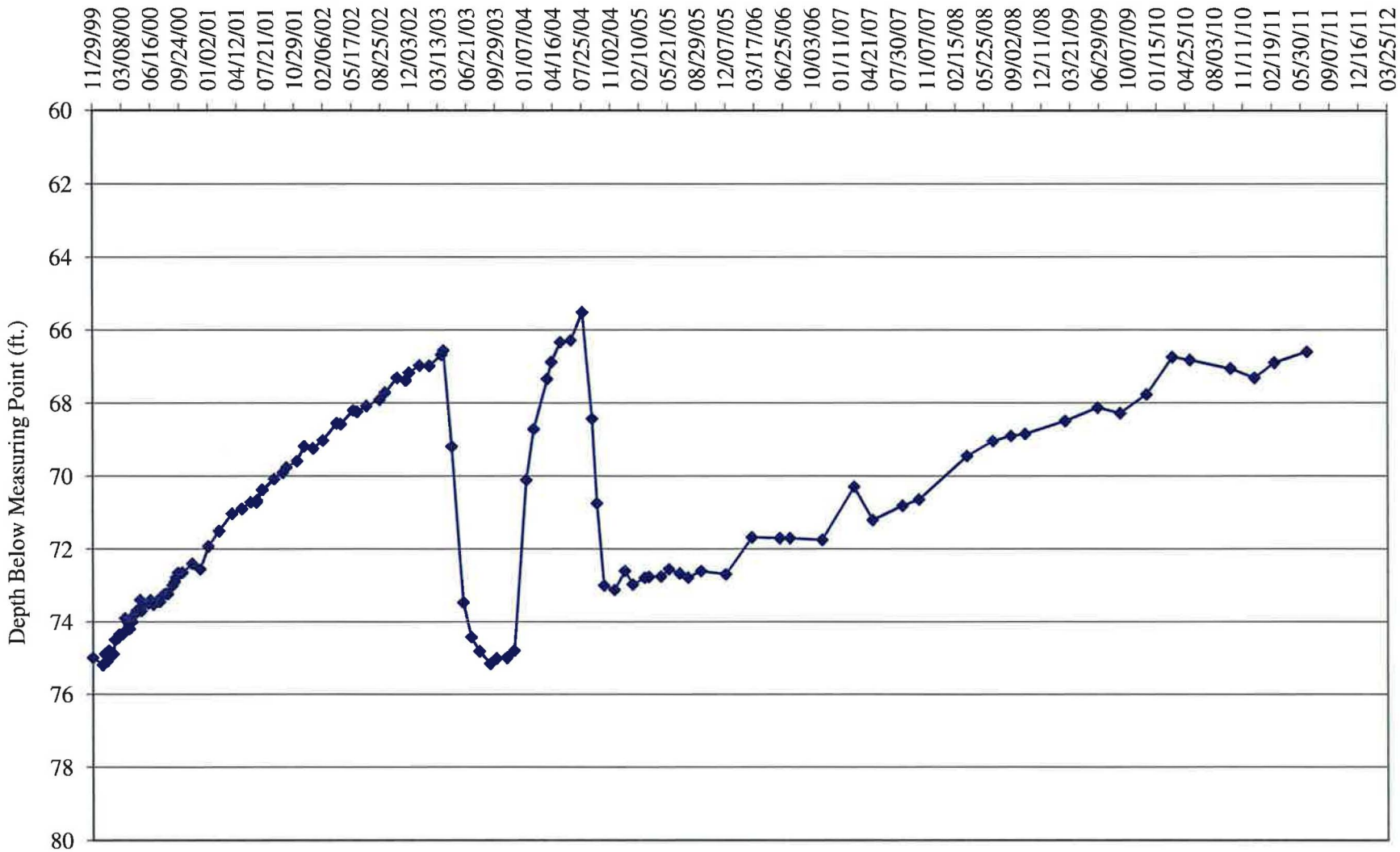
TW4-6 Water Depth Over Time (ft. blmp)



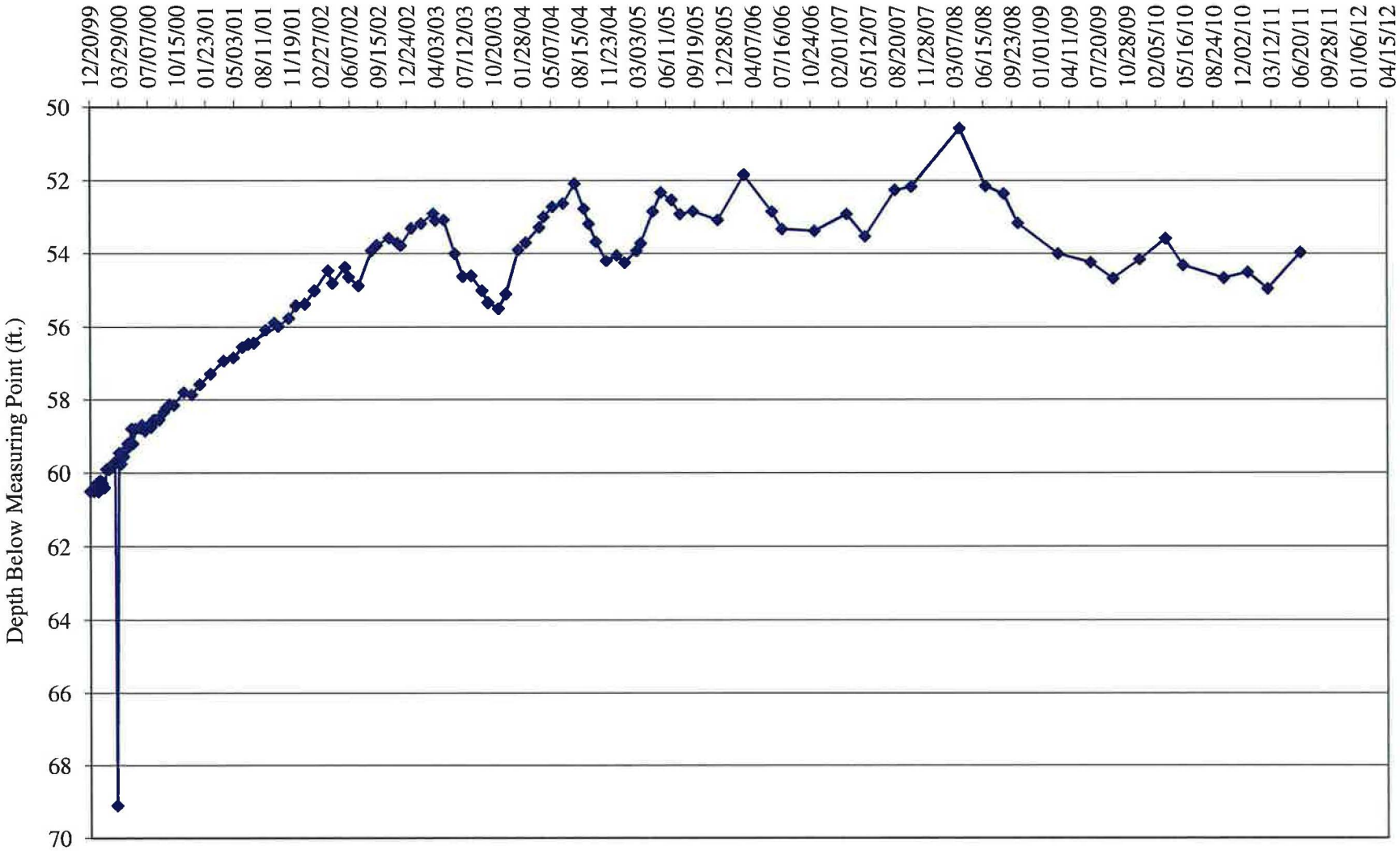
TW4-7 Water Depth Over Time (ft. blmp)



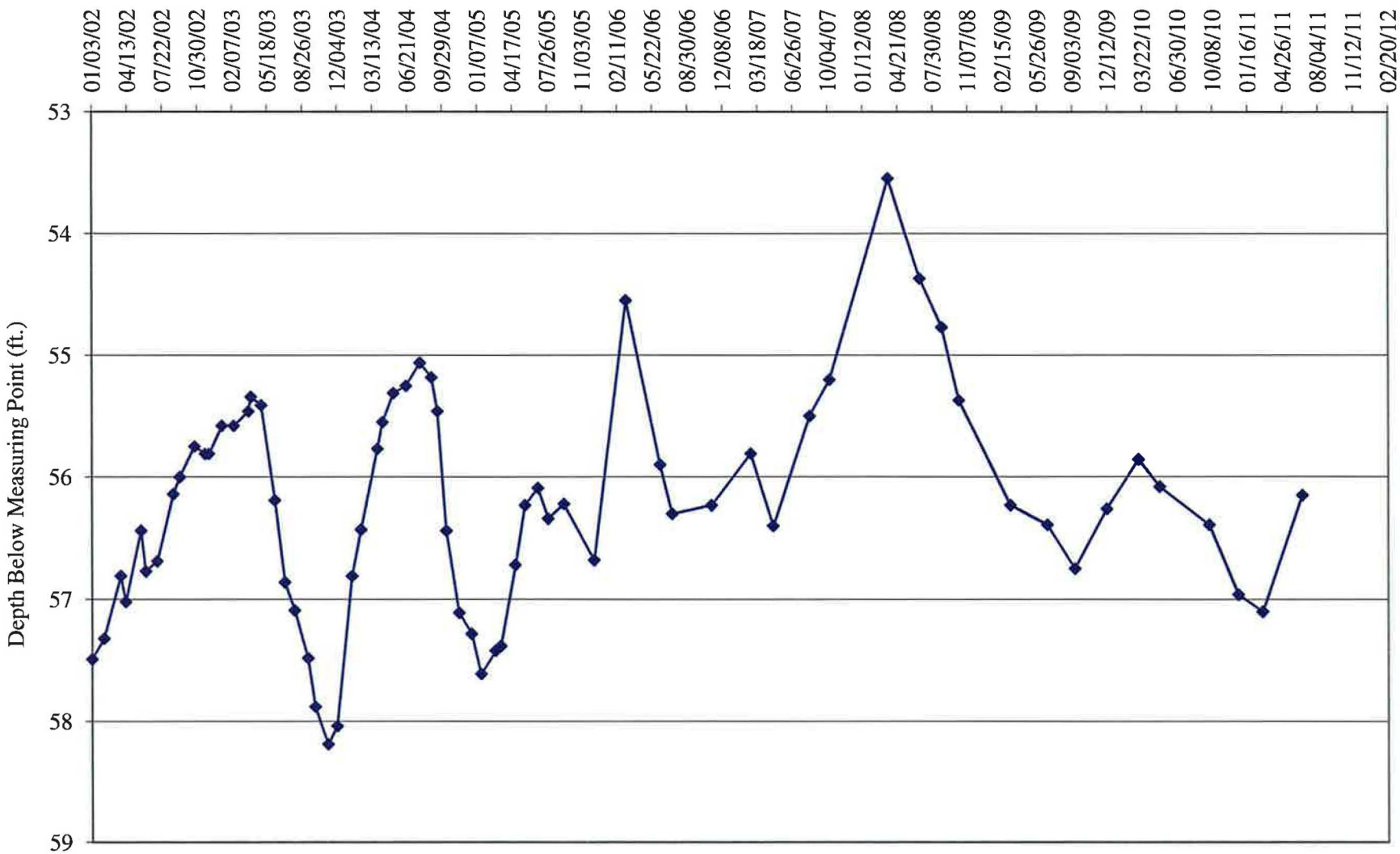
TW4-8 Water Depth Over Time (ft. blmp)



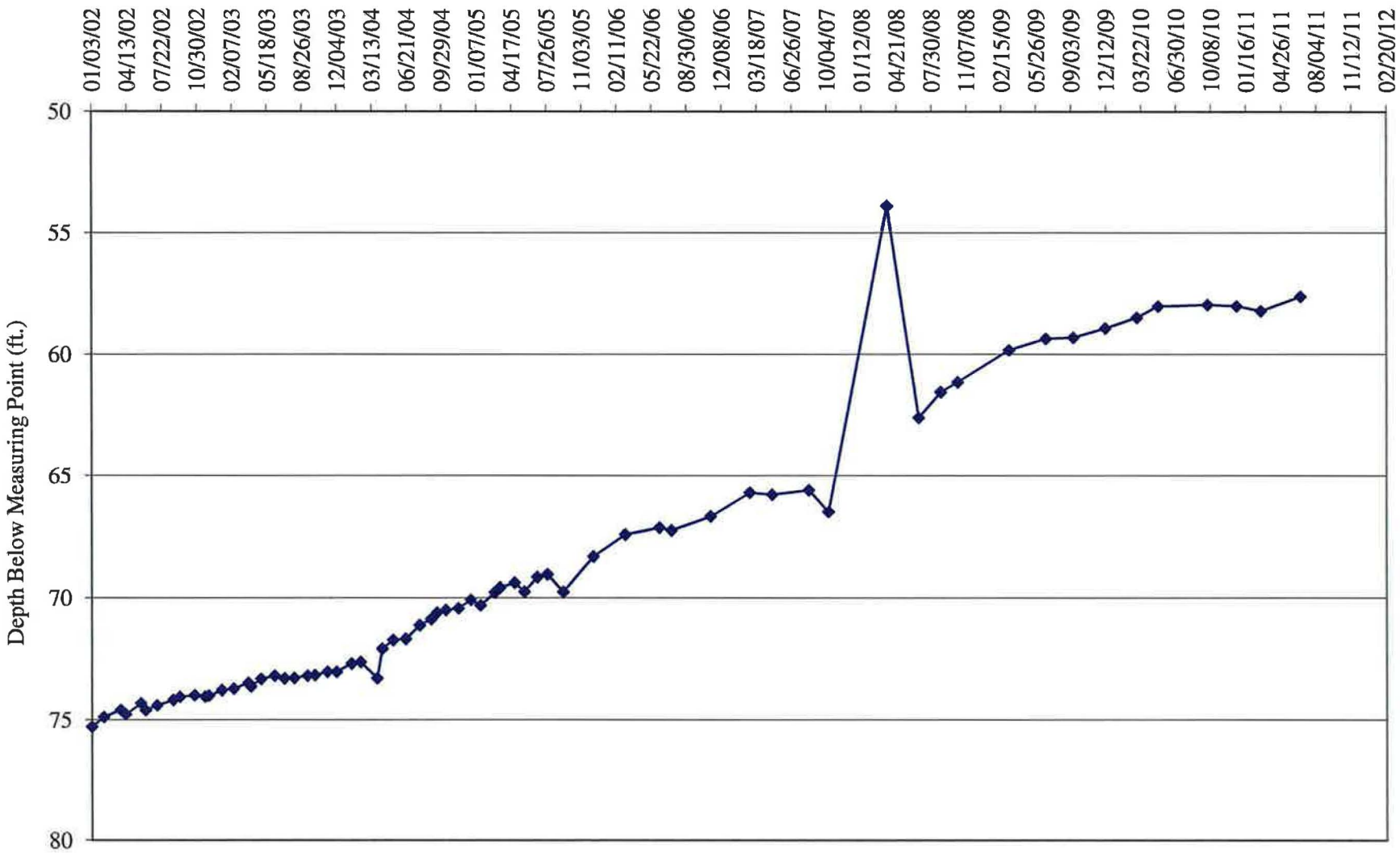
TW4-9 Water Depth Over Time (ft. blmp)



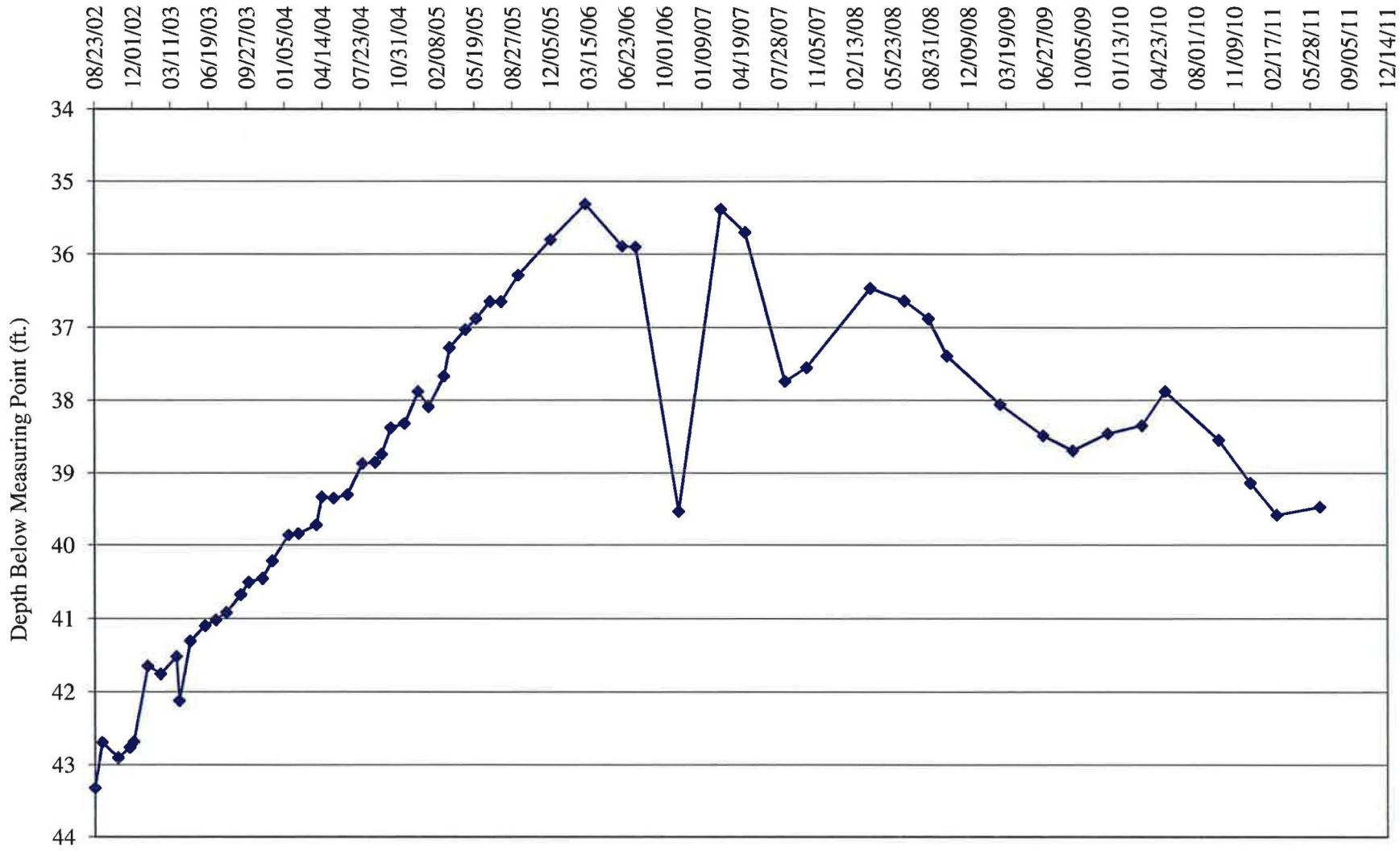
TW4-10 Water Depth Over Time (ft. blmp)



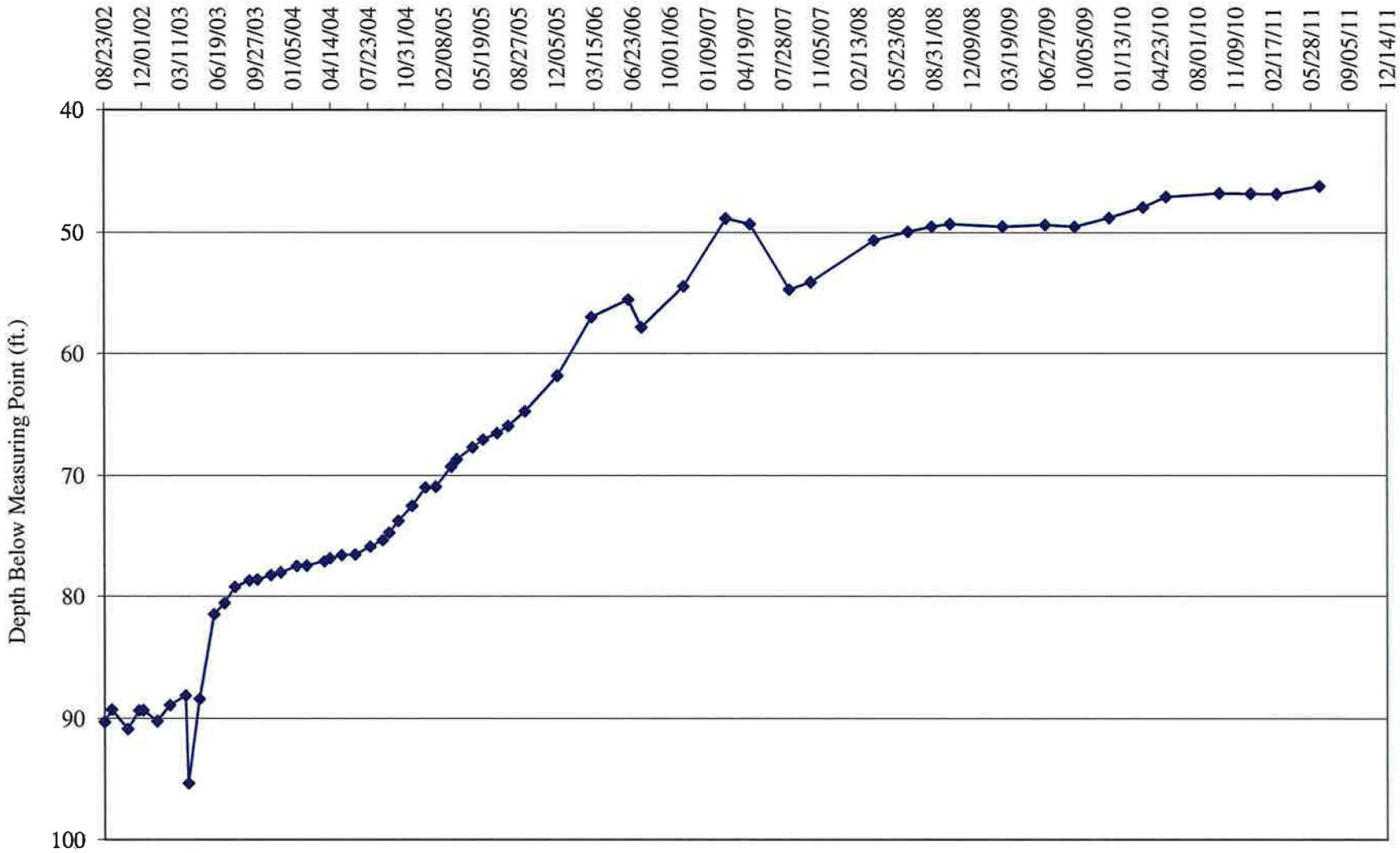
TW4-11 Water Depth Over Time (ft. blmp)



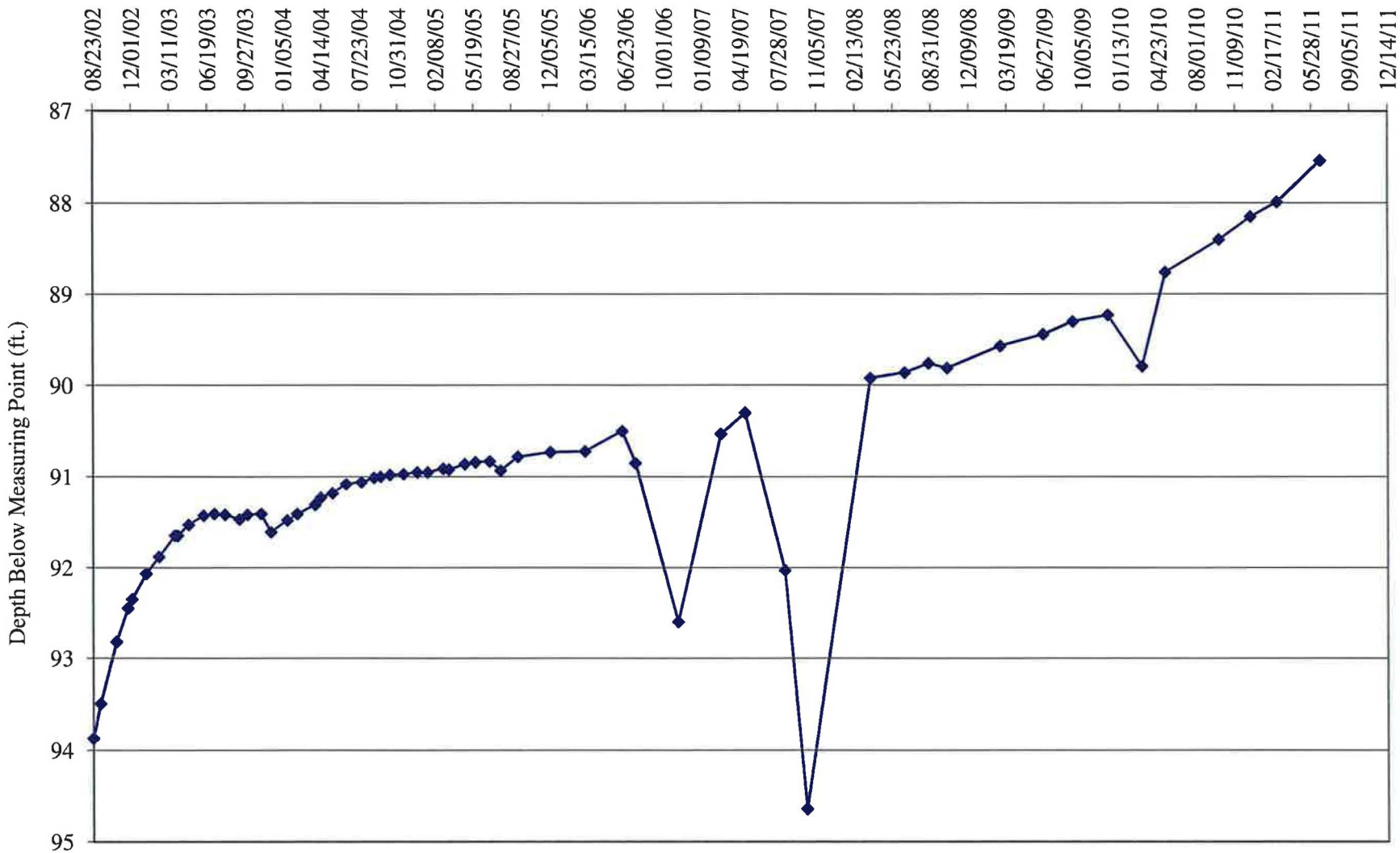
TW4-12 Water Depth Over Time (ft. blmp)



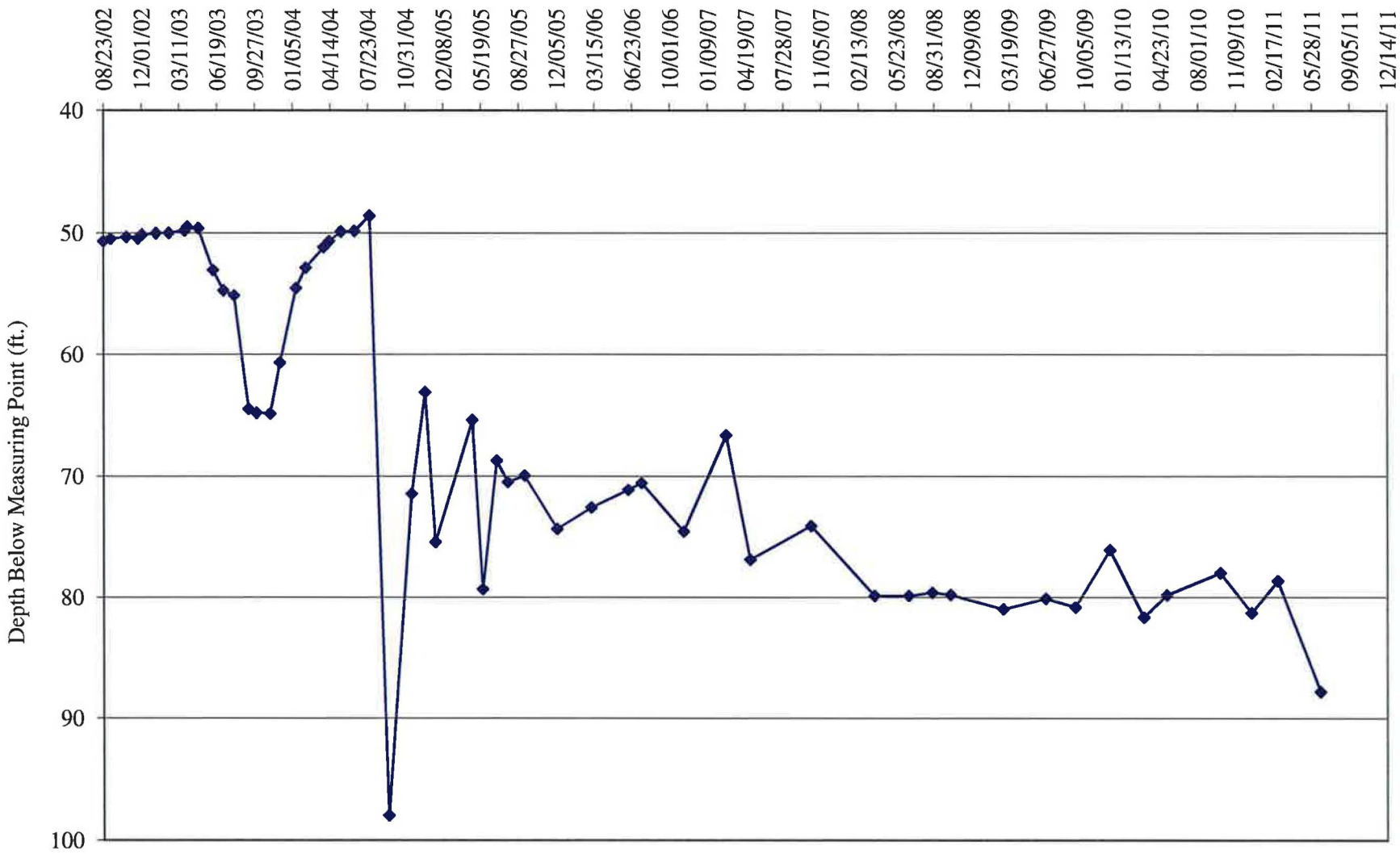
TW4-13 Water Depth Over Time (ft. blmp)



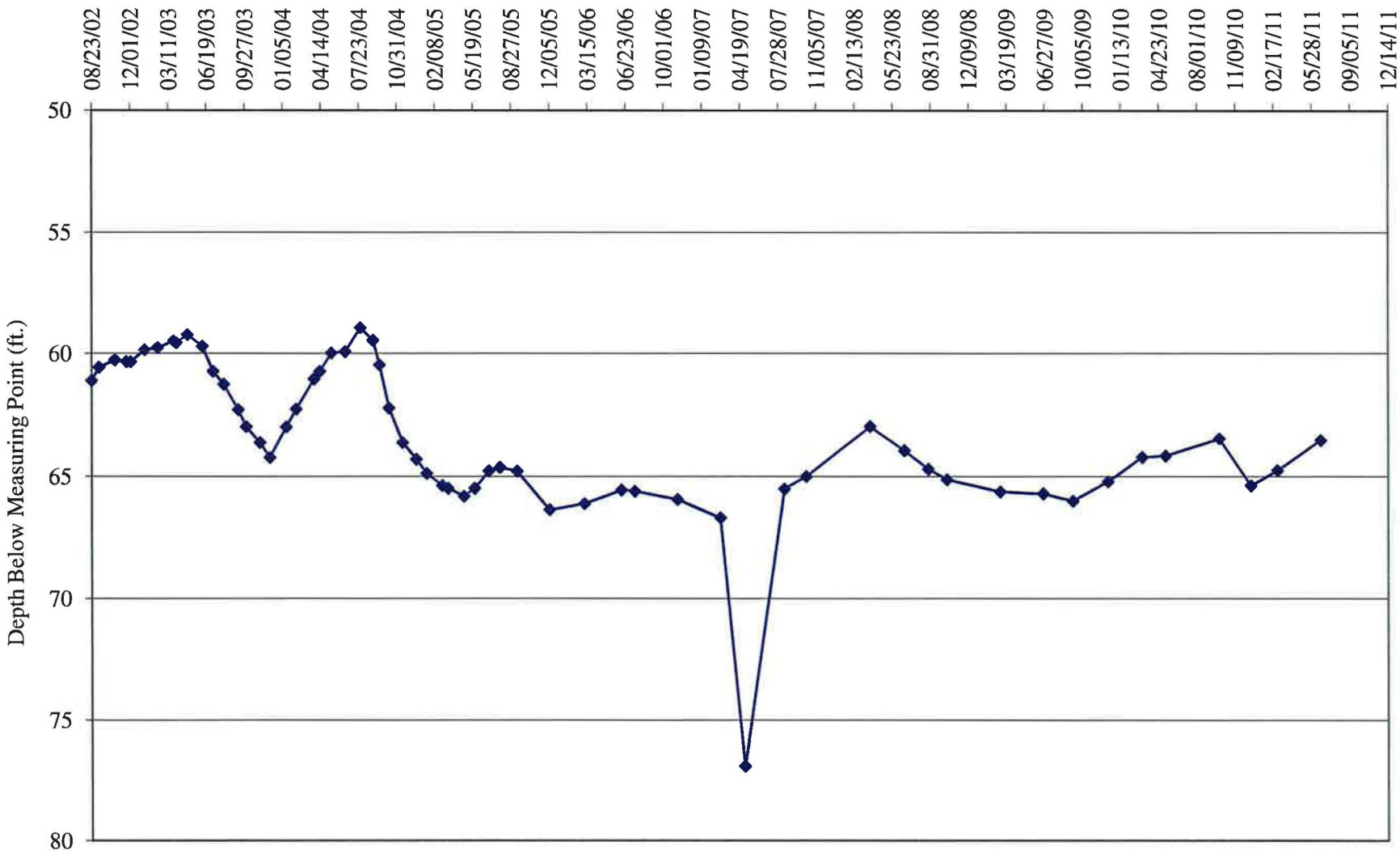
TW4-14 Water Depth Over Time (ft. blmp)



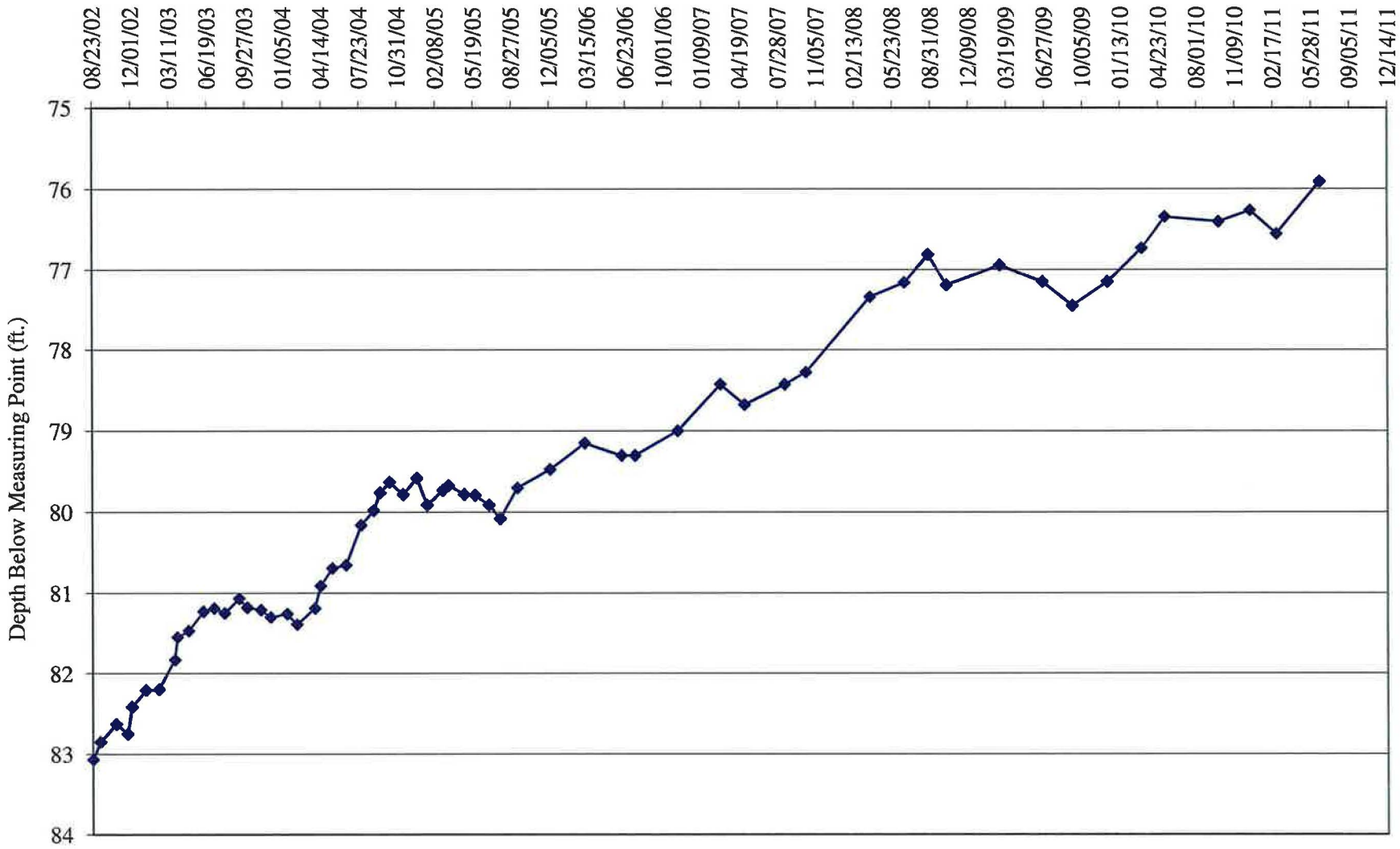
MW-26 Water Depth Over Time (ft. blmp)



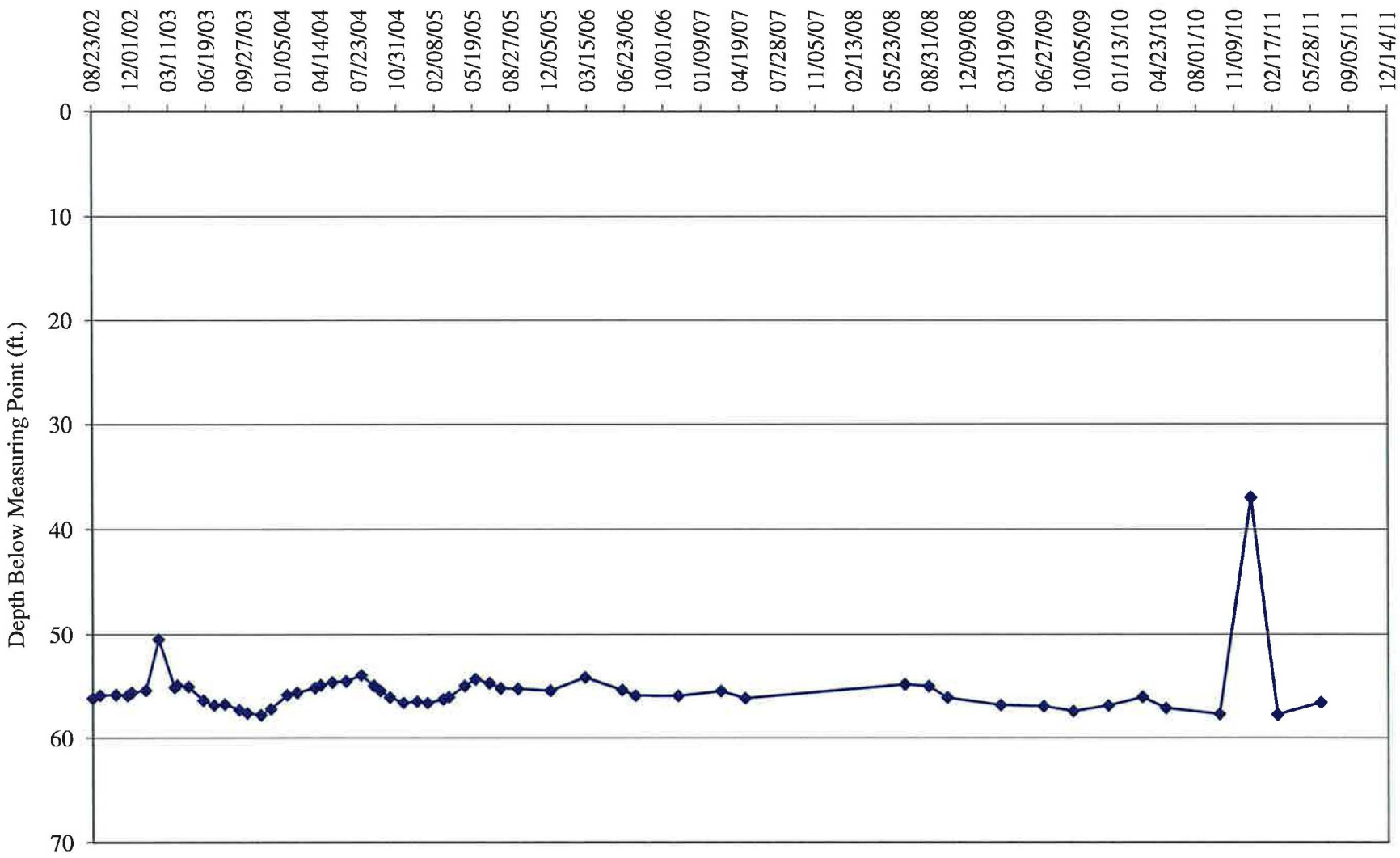
TW4-16 Water Depth Over Time (ft. blmp)



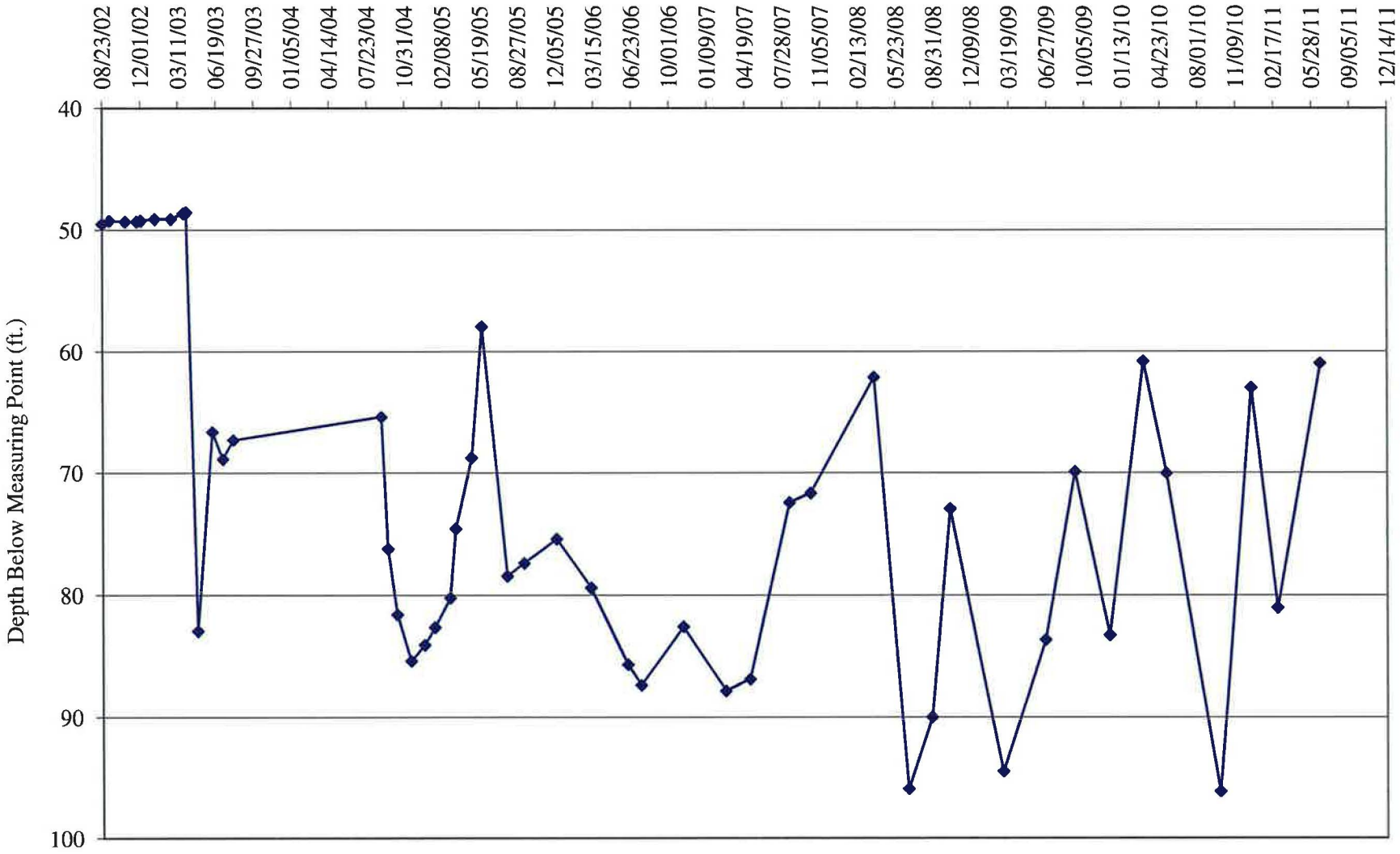
MW-32 Water Depth Over Time (ft. blmp)



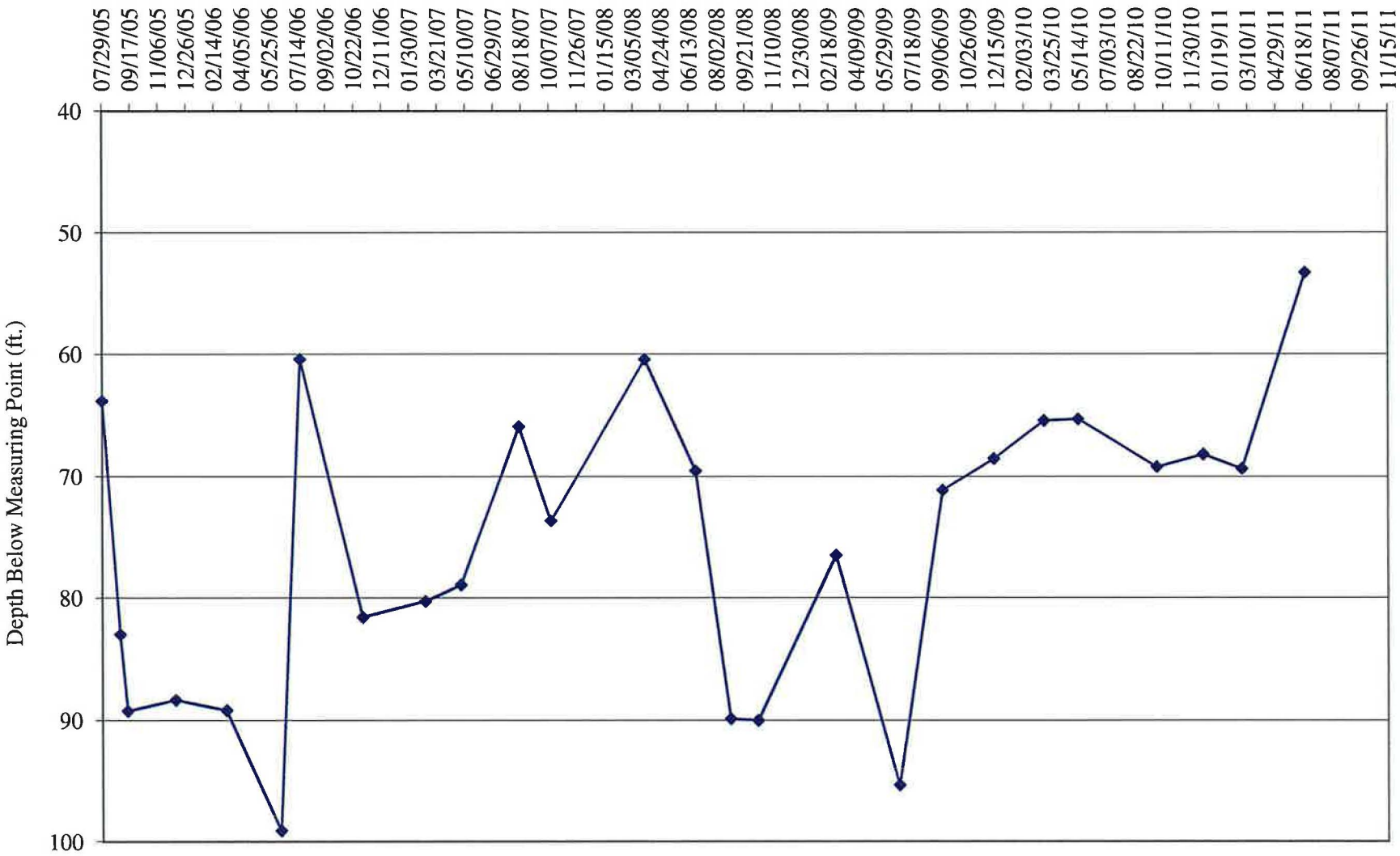
TW4-18 Water Depth Over Time (ft. blmp)



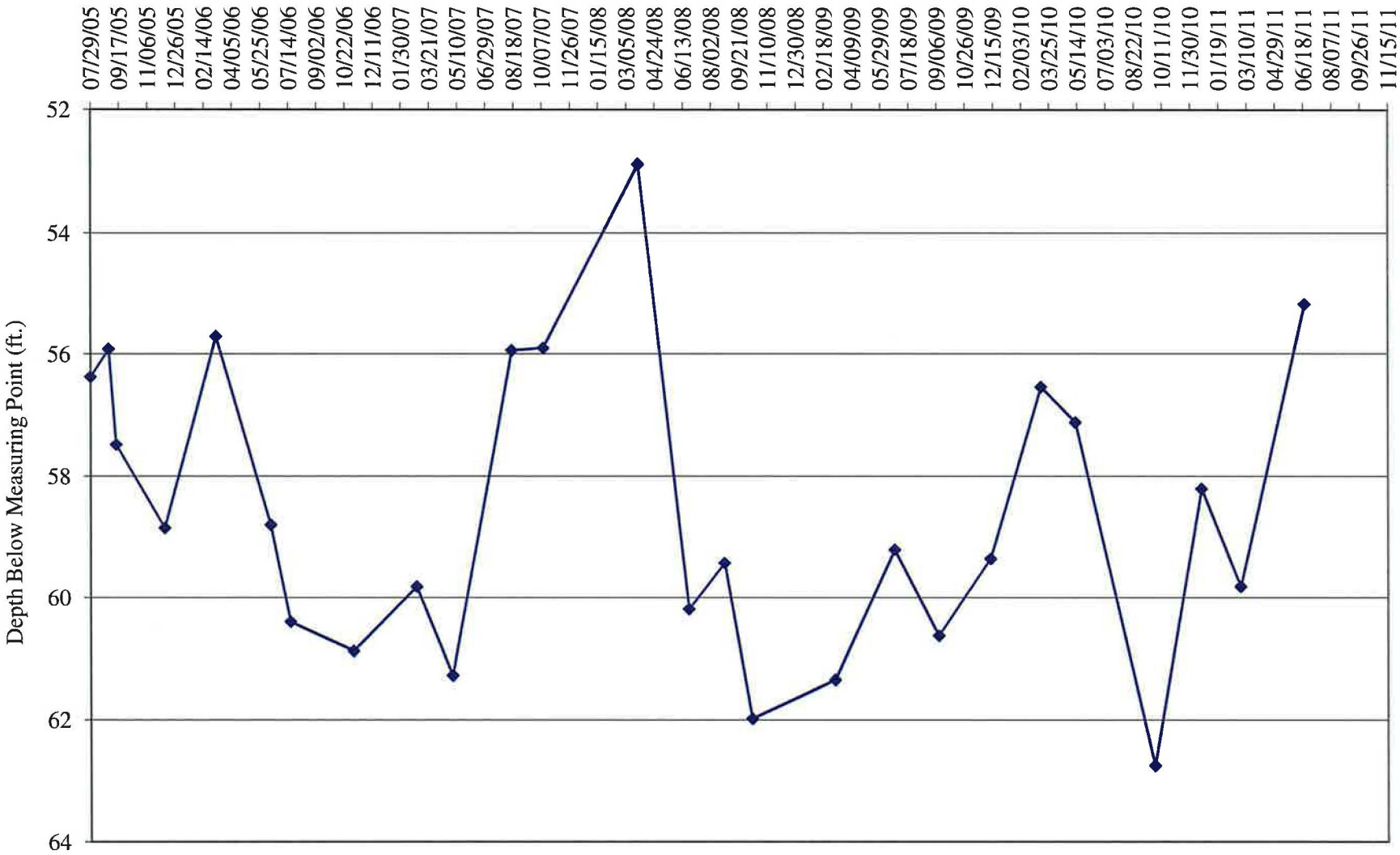
TW4-19 Water Depth Over Time (ft. blmp)



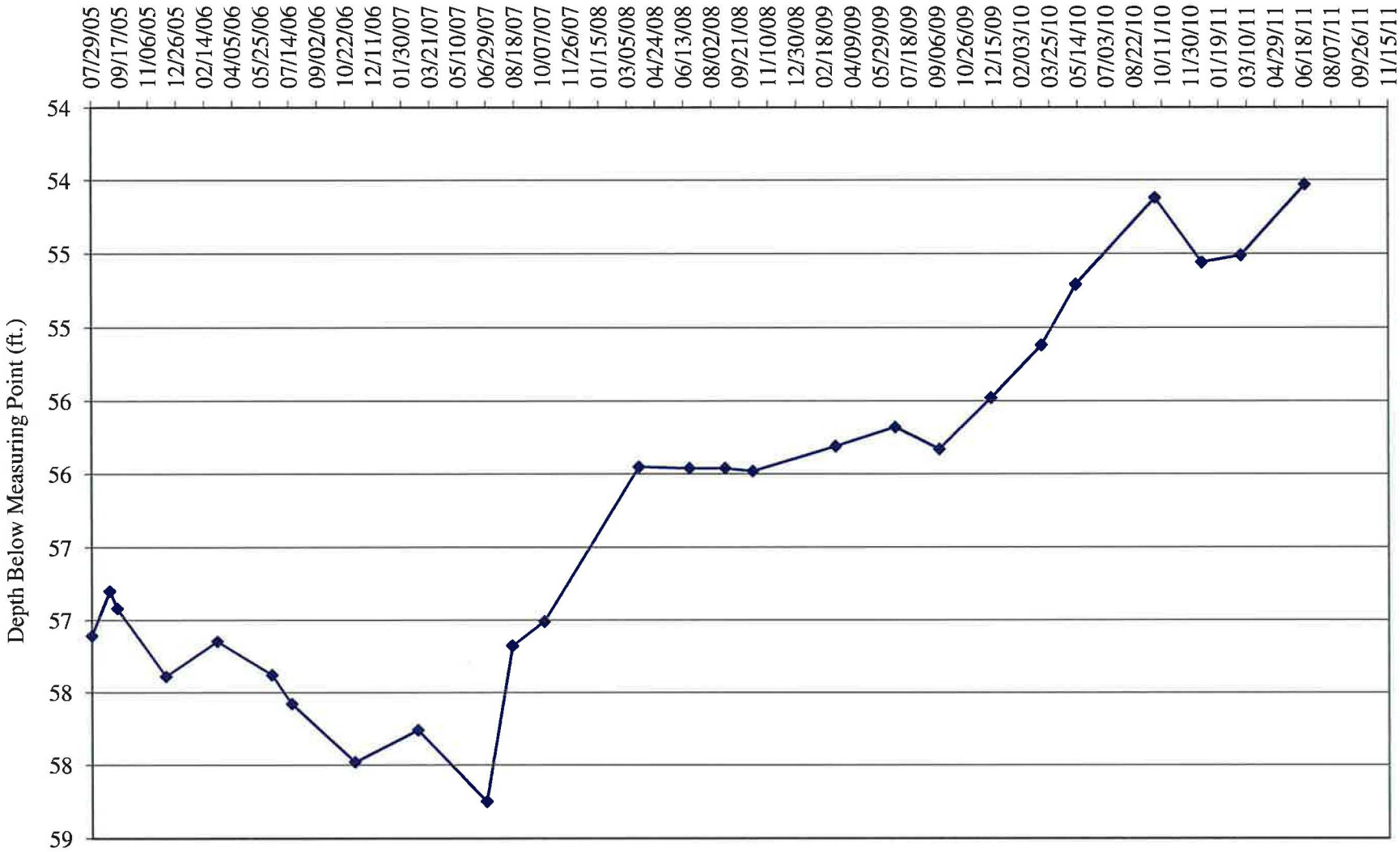
TW4-20 Water Depth Over Time (ft. blmp)



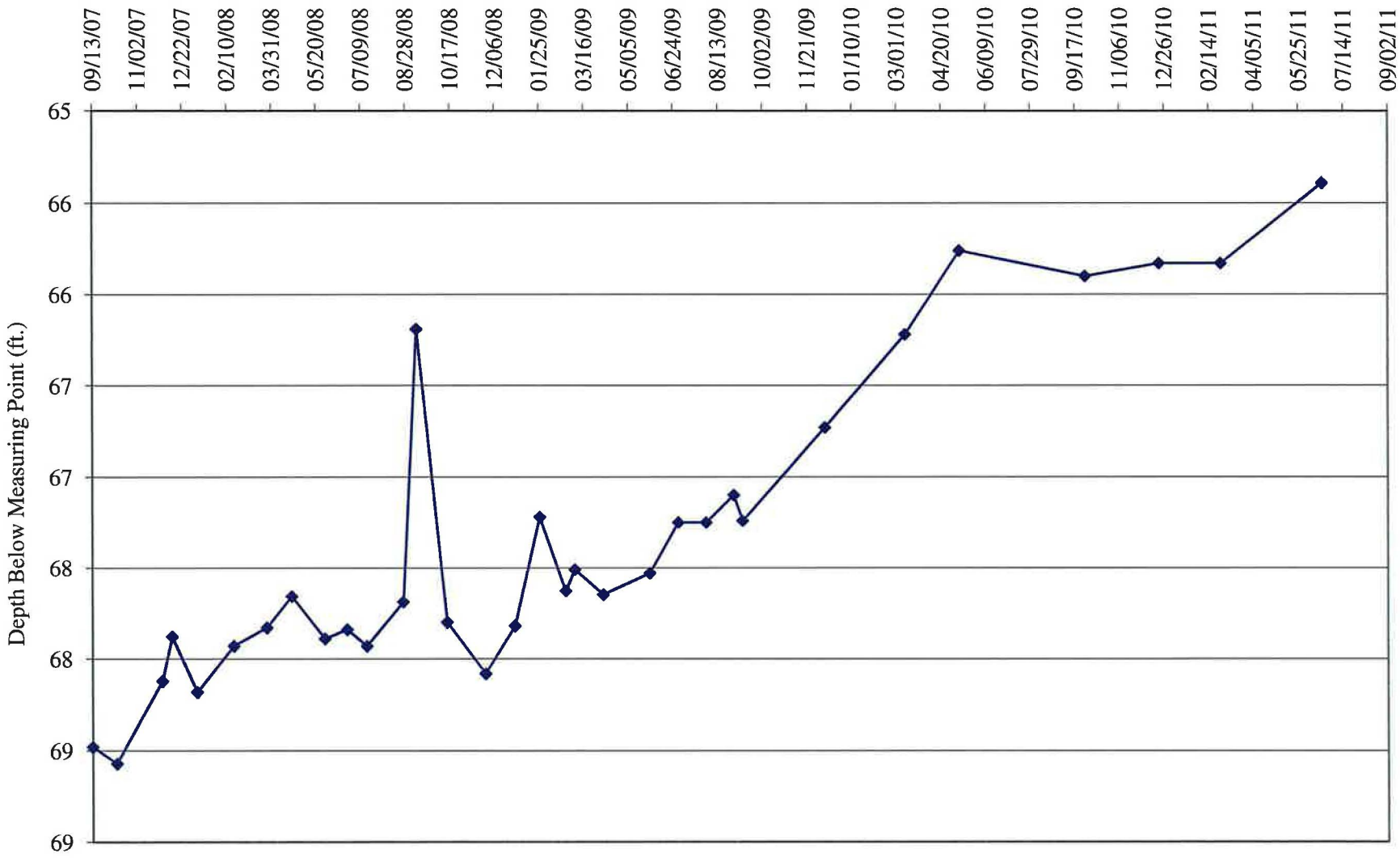
TW4-21 Water Depth Over Time (ft. blmp)



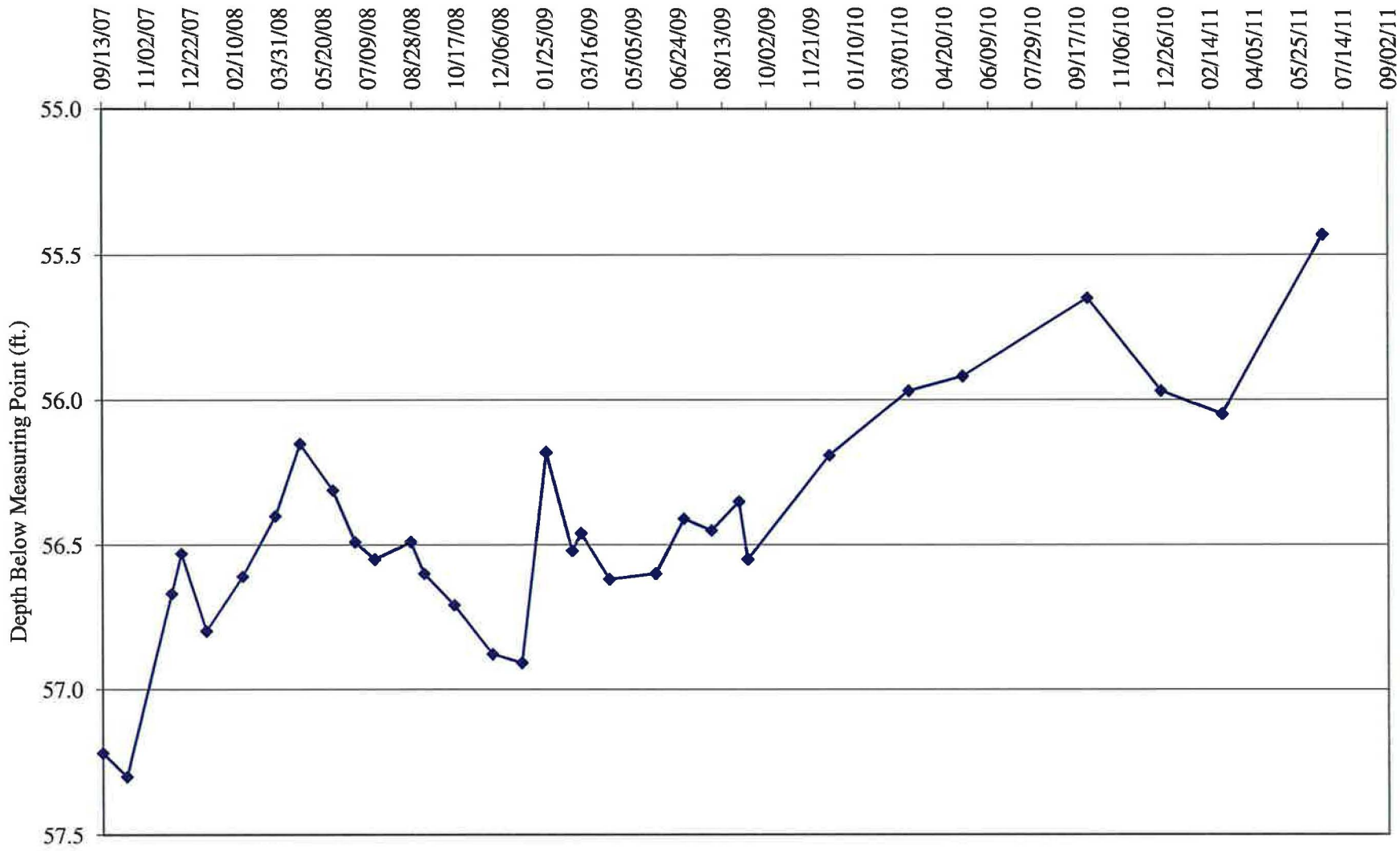
TW4-22 Water Depth Over Time (ft. blmp)



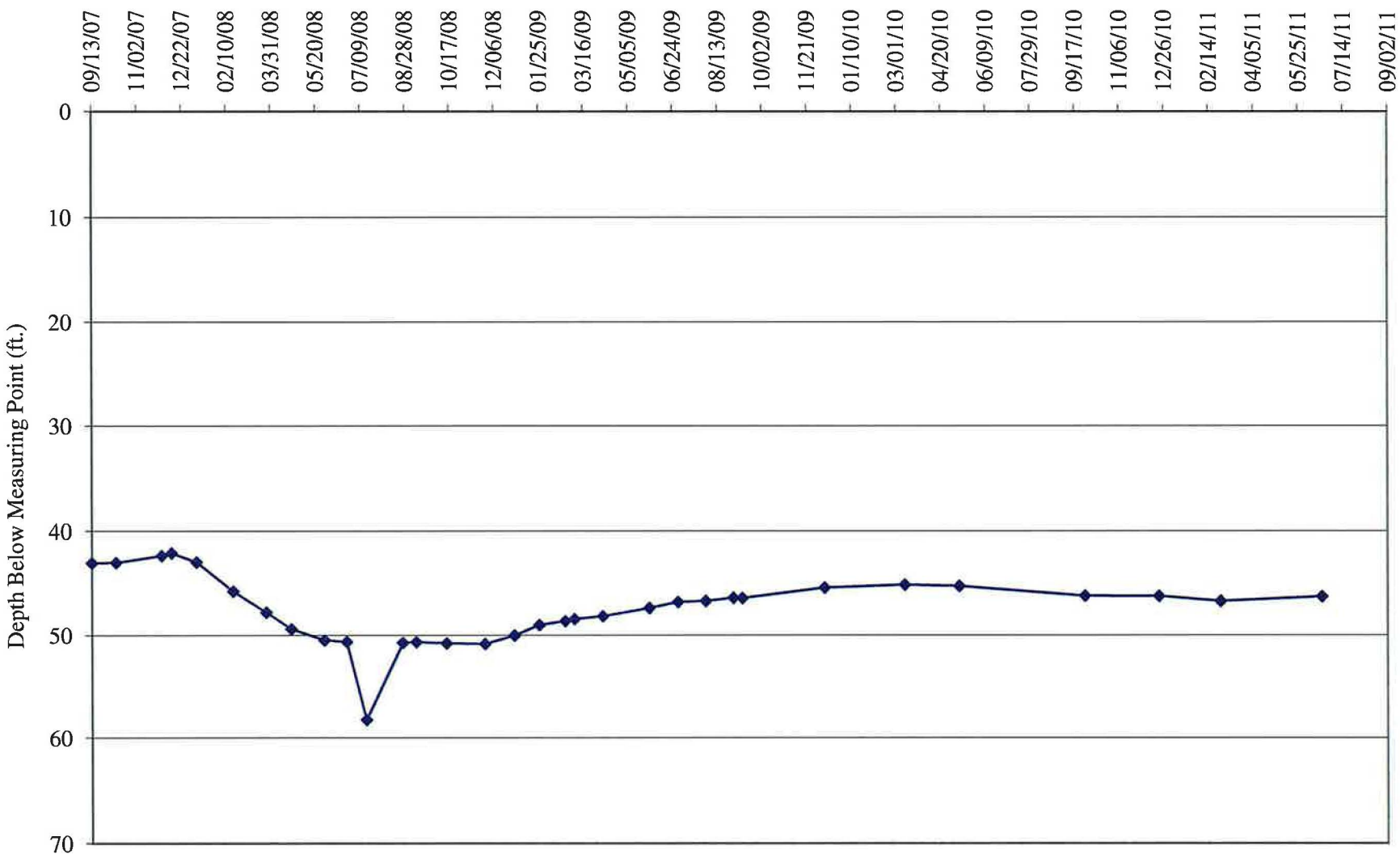
TW4-23 Water Depth Over Time (ft. blmp)



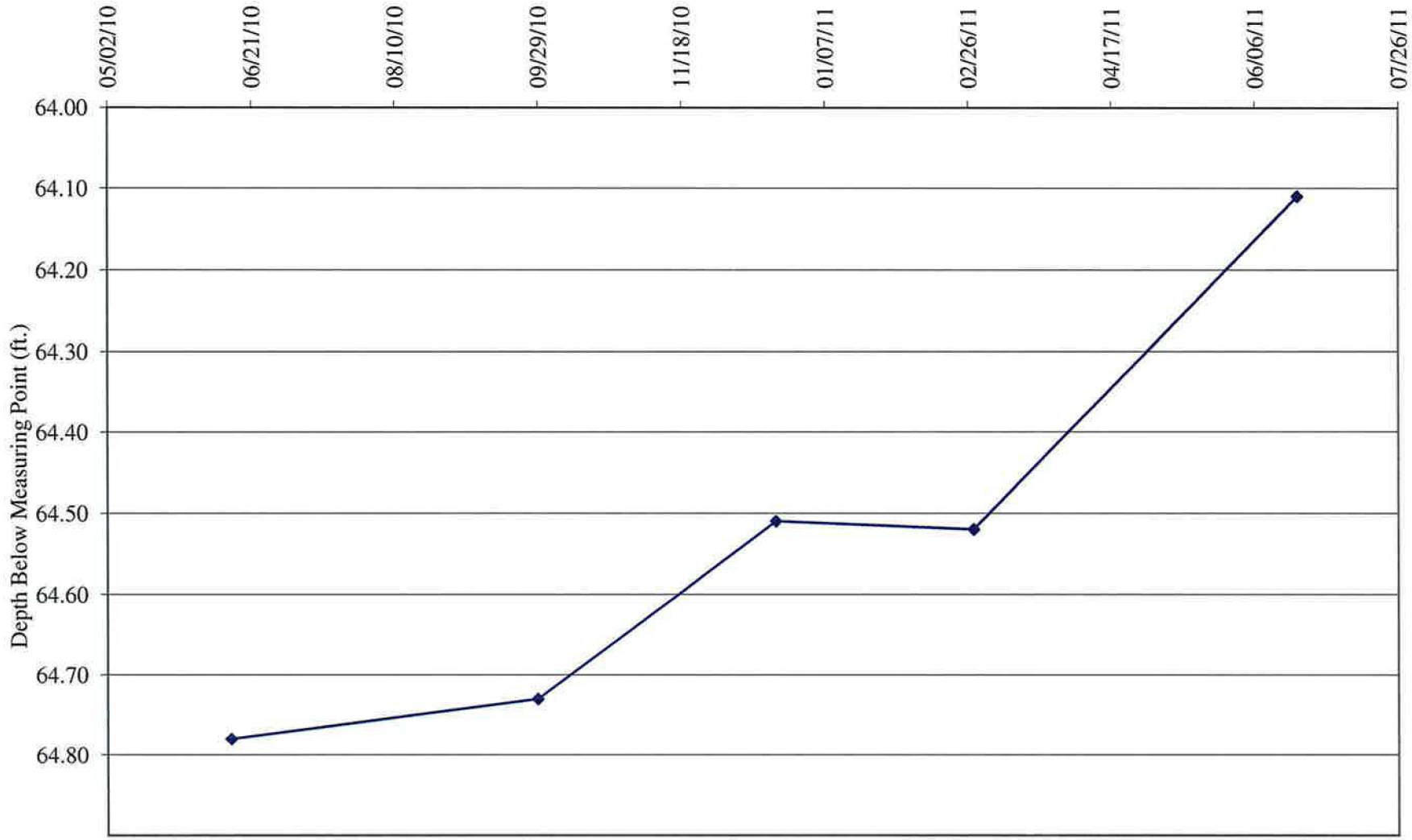
TW4-24 Water Depth Over Time (ft. blmp)



TW4-25 Water Depth Over Time (ft. blmp)



TW4-26 Water Depth Over Time (ft. blmp)



Tab G

Depths to Groundwater and Elevations Over Time for Chloroform Monitoring Wells

Water Levels and Data over Time
White Mesa Mill - Well MW4

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,620.77	5,622.33	1.56				123.6
5,527.63				09/25/79	94.70	93.14	
5,527.63				10/10/79	94.70	93.14	
5,528.43				01/10/80	93.90	92.34	
5,529.93				03/20/80	92.40	90.84	
5,528.03				06/17/80	94.30	92.74	
5,528.03				09/15/80	94.30	92.74	
5,527.93				10/08/80	94.40	92.84	
5,527.93				02/12/81	94.40	92.84	
5,525.93				09/01/84	96.40	94.84	
5,528.33				12/01/84	94.00	92.44	
5,528.13				02/01/85	94.20	92.64	
5,528.33				06/01/85	94.00	92.44	
5,528.93				09/01/85	93.40	91.84	
5,528.93				10/01/85	93.40	91.84	
5,528.93				11/01/85	93.40	91.84	
5,528.83				12/01/85	93.50	91.94	
5,512.33				03/01/86	110.00	108.44	
5,528.91				06/19/86	93.42	91.86	
5,528.83				09/01/86	93.50	91.94	
5,529.16				12/01/86	93.17	91.61	
5,526.66				02/20/87	95.67	94.11	
5,529.16				04/28/87	93.17	91.61	
5,529.08				08/14/87	93.25	91.69	
5,529.00				11/20/87	93.33	91.77	
5,528.75				01/26/88	93.58	92.02	
5,528.91				06/01/88	93.42	91.86	
5,528.25				08/23/88	94.08	92.52	
5,529.00				11/02/88	93.33	91.77	
5,528.33				03/09/89	94.00	92.44	
5,529.10				06/21/89	93.23	91.67	
5,529.06				09/01/89	93.27	91.71	
5,529.21				11/15/89	93.12	91.56	
5,529.22				02/16/90	93.11	91.55	
5,529.43				05/08/90	92.90	91.34	
5,529.40				08/07/90	92.93	91.37	
5,529.53				11/13/90	92.80	91.24	
5,529.86				02/27/91	92.47	90.91	
5,529.91				05/21/91	92.42	90.86	
5,529.77				08/27/91	92.56	91.00	
5,529.79				12/03/91	92.54	90.98	
5,530.13				03/17/92	92.20	90.64	
5,529.85				06/11/92	92.48	90.92	
5,529.90				09/13/92	92.43	90.87	

Water Levels and Data over Time
White Mesa Mill - Well MW4

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,620.77	5,622.33	1.56				123.6
5,529.92				12/09/92	92.41	90.85	
5,530.25				03/24/93	92.08	90.52	
5,530.20				06/08/93	92.13	90.57	
5,530.19				09/22/93	92.14	90.58	
5,529.75				12/14/93	92.58	91.02	
5,530.98				03/24/94	91.35	89.79	
5,531.35				06/15/94	90.98	89.42	
5,531.62				08/18/94	90.71	89.15	
5,532.58				12/13/94	89.75	88.19	
5,533.42				03/16/95	88.91	87.35	
5,534.70				06/27/95	87.63	86.07	
5,535.44				09/20/95	86.89	85.33	
5,537.16				12/11/95	85.17	83.61	
5,538.37				03/28/96	83.96	82.40	
5,539.10				06/07/96	83.23	81.67	
5,539.13				09/16/96	83.20	81.64	
5,542.29				03/20/97	80.04	78.48	
5,551.58				04/07/99	70.75	69.19	
5,552.08				05/11/99	70.25	68.69	
5,552.83				07/06/99	69.50	67.94	
5,553.47				09/28/99	68.86	67.30	
5,554.63				01/03/00	67.70	66.14	
5,555.13				04/04/00	67.20	65.64	
5,555.73				05/02/00	66.60	65.04	
5,556.03				05/11/00	66.30	64.74	
5,555.73				05/15/00	66.60	65.04	
5,555.98				05/25/00	66.35	64.79	
5,556.05				06/09/00	66.28	64.72	
5,556.18				06/16/00	66.15	64.59	
5,556.05				06/26/00	66.28	64.72	
5,556.15				07/06/00	66.18	64.62	
5,556.18				07/13/00	66.15	64.59	
5,556.17				07/18/00	66.16	64.60	
5,556.26				07/25/00	66.07	64.51	
5,556.35				08/02/00	65.98	64.42	
5,556.38				08/09/00	65.95	64.39	
5,556.39				08/15/00	65.94	64.38	
5,556.57				08/31/00	65.76	64.20	
5,556.68				09/08/00	65.65	64.09	
5,556.73				09/13/00	65.60	64.04	
5,556.82				09/20/00	65.51	63.95	
5,556.84				09/29/00	65.49	63.93	
5,556.81				10/05/00	65.52	63.96	

Water Levels and Data over Time
White Mesa Mill - Well MW4

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,620.77	5,622.33	1.56				123.6
5,556.89				10/12/00	65.44	63.88	
5,556.98				10/19/00	65.35	63.79	
5,557.01				10/23/00	65.32	63.76	
5,557.14				11/09/00	65.19	63.63	
5,557.17				11/14/00	65.16	63.60	
5,556.95				11/21/00	65.38	63.82	
5,557.08				11/30/00	65.25	63.69	
5,557.55				12/07/00	64.78	63.22	
5,557.66				01/14/01	64.67	63.11	
5,557.78				02/09/01	64.55	62.99	
5,558.28				03/29/01	64.05	62.49	
5,558.23				04/30/01	64.10	62.54	
5,558.31				05/31/01	64.02	62.46	
5,558.49				06/22/01	63.84	62.28	
5,558.66				07/10/01	63.67	62.11	
5,559.01				08/20/01	63.32	61.76	
5,559.24				09/19/01	63.09	61.53	
5,559.26				10/02/01	63.07	61.51	
5,559.27				11/08/01	63.06	61.50	
5,559.77				12/03/01	62.56	61.00	
5,559.78				01/03/02	62.55	60.99	
5,559.96				02/06/02	62.37	60.81	
5,560.16				03/26/02	62.17	60.61	
5,560.28				04/09/02	62.05	60.49	
5,560.76				05/23/02	61.57	60.01	
5,560.58				06/05/02	61.75	60.19	
5,560.43				07/08/02	61.90	60.34	
5,560.44				08/23/02	61.89	60.33	
5,560.71				09/11/02	61.62	60.06	
5,560.89				10/23/02	61.44	59.88	
5,557.86				11/22/02	64.47	62.91	
5,561.10				12/03/02	61.23	59.67	
5,561.39				01/09/03	60.94	59.38	
5,561.41				02/12/03	60.92	59.36	
5,561.93				03/26/03	60.40	58.84	
5,561.85				04/02/03	60.48	58.92	
5,536.62				05/01/03	85.71	84.15	
5,528.56				06/09/03	93.77	92.21	
5,535.28				07/07/03	87.05	85.49	
5,534.44				08/04/03	87.89	86.33	
5,537.10				09/11/03	85.23	83.67	
5,539.96				10/02/03	82.37	80.81	
5,535.91				11/07/03	86.42	84.86	

Water Levels and Data over Time
White Mesa Mill - Well MW4

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,620.77	5,622.33	1.56				123.6
5,550.70				12/03/03	71.63	70.07	
5,557.58				01/15/04	64.75	63.19	
5,558.80				02/10/04	63.53	61.97	
5,560.08				03/28/04	62.25	60.69	
5,560.55				04/12/04	61.78	60.22	
5,561.06				05/13/04	61.27	59.71	
5,561.48				06/18/04	60.85	59.29	
5,561.86				07/28/04	60.47	58.91	
5,529.17				08/30/04	93.16	91.60	
5,536.55				09/16/04	85.78	84.22	
5,529.00				10/11/04	93.33	91.77	
5,541.55				11/16/04	80.78	79.22	
5,541.12				12/22/04	81.21	79.65	
5,540.59				01/18/05	81.74	80.18	
5,542.85				02/28/05	79.48	77.92	
5,537.91				03/15/05	84.42	82.86	
5,548.67				04/26/05	73.66	72.10	
5,549.53				05/24/05	72.80	71.24	
5,544.36				06/30/05	77.97	76.41	
5,545.16				07/29/05	77.17	75.61	
5,544.67				09/12/05	77.66	76.10	
5,541.28				09/27/05	81.05	79.49	
5,536.96				12/07/05	85.37	83.81	
5,546.49				03/08/06	75.84	74.28	
5,546.15				06/13/06	76.18	74.62	
5,545.15				07/18/06	77.18	75.62	
5,545.91				11/17/06	76.42	74.86	
5,545.90				02/27/07	76.43	74.87	
5,548.16				05/02/07	74.17	72.61	
5,547.20				08/13/07	75.13	73.57	
5,547.20				10/10/07	75.13	73.57	
5,547.79				03/26/08	74.54	72.98	
5,545.09				06/25/08	77.24	75.68	
5,550.36				08/26/08	71.97	70.41	
5,550.39				10/14/08	71.94	70.38	
5,542.25				03/03/09	80.08	78.52	
5,542.25				06/24/09	80.08	78.52	
5,550.19				09/10/09	72.14	70.58	
5,550.94				12/11/09	71.39	69.83	
5,546.08				03/11/10	76.25	74.69	
5,550.98				05/11/10	71.35	69.79	
5,548.33				09/29/10	74.00	72.44	
5,551.01				12/21/10	71.32	69.76	

Water Levels and Data over Time
White Mesa Mill - Well MW4

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,620.77	5,622.33	1.56				123.6
5,547.00				02/28/11	75.33	73.77	
5,557.54				06/21/11	64.79	63.23	

Water Levels and Data over Time
White Mesa Mill - Well TW4-1

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
z	5,620.77	5,618.58	1.02				111.04
5,537.23				11/08/99	81.35	80.33	
5,537.38				11/09/99	81.20	80.18	
5,537.48				01/02/00	81.10	80.08	
5,537.48				01/10/00	81.10	80.08	
5,537.23				01/17/00	81.35	80.33	
5,537.28				01/24/00	81.30	80.28	
5,537.28				02/01/00	81.30	80.28	
5,537.18				02/07/00	81.40	80.38	
5,537.48				02/14/00	81.10	80.08	
5,537.48				02/23/00	81.10	80.08	
5,537.58				03/01/00	81.00	79.98	
5,537.68				03/08/00	80.90	79.88	
5,537.98				03/15/00	80.60	79.58	
5,537.68				03/20/00	80.90	79.88	
5,537.68				03/29/00	80.90	79.88	
5,537.43				04/04/00	81.15	80.13	
5,537.18				04/13/00	81.40	80.38	
5,537.48				04/21/00	81.10	80.08	
5,537.68				04/28/00	80.90	79.88	
5,537.58				05/01/00	81.00	79.98	
5,537.88				05/11/00	80.70	79.68	
5,537.58				05/15/00	81.00	79.98	
5,537.88				05/25/00	80.70	79.68	
5,537.88				06/09/00	80.70	79.68	
5,537.90				06/16/00	80.68	79.66	
5,537.88				06/26/00	80.70	79.68	
5,538.10				07/06/00	80.48	79.46	
5,538.04				07/13/00	80.54	79.52	
5,538.16				07/18/00	80.42	79.40	
5,538.42				07/27/00	80.16	79.14	
5,538.56				08/02/00	80.02	79.00	
5,538.68				08/09/00	79.90	78.88	
5,538.66				08/15/00	79.92	78.90	
5,538.33				08/31/00	80.25	79.23	
5,539.18				09/01/00	79.40	78.38	
5,539.12				09/08/00	79.46	78.44	
5,539.34				09/13/00	79.24	78.22	
5,539.50				09/20/00	79.08	78.06	
5,539.69				10/05/00	78.89	77.87	
5,540.33				11/09/00	78.25	77.23	
5,540.74				12/06/00	77.84	76.82	
5,542.39				01/14/01	76.19	75.17	
5,543.69				02/02/01	74.89	73.87	

Water Levels and Data over Time
White Mesa Mill - Well TW4-1

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
z	5,620.77	5,618.58	1.02				111.04
5,544.96				03/29/01	73.62	72.60	
5,545.45				04/30/01	73.13	72.11	
5,545.89				05/31/01	72.69	71.67	
5,546.19				06/22/01	72.39	71.37	
5,546.50				07/10/01	72.08	71.06	
5,547.18				08/10/01	71.40	70.38	
5,547.59				09/19/01	70.99	69.97	
5,547.84				10/02/01	70.74	69.72	
5,545.89				05/31/01	72.69	71.67	
5,546.19				06/21/01	72.39	71.37	
5,546.50				07/10/01	72.08	71.06	
5,547.18				08/20/01	71.40	70.38	
5,547.59				09/19/01	70.99	69.97	
5,547.84				10/02/01	70.74	69.72	
5,548.12				11/08/01	70.46	69.44	
5,548.65				12/03/01	69.93	68.91	
5,548.87				01/03/02	69.71	68.69	
5,549.37				02/06/02	69.21	68.19	
5,550.00				03/26/02	68.58	67.56	
5,550.22				04/09/02	68.36	67.34	
5,550.81				05/23/02	67.77	66.75	
5,550.79				06/05/02	67.79	66.77	
5,551.08				07/08/02	67.50	66.48	
5,551.54				08/23/02	67.04	66.02	
5,551.79				09/11/02	66.79	65.77	
5,552.19				10/23/02	66.39	65.37	
5,552.27				11/22/02	66.31	65.29	
5,552.48				12/03/02	66.10	65.08	
5,552.74				01/09/03	65.84	64.82	
5,552.92				02/12/03	65.66	64.64	
5,553.40				03/26/03	65.18	64.16	
5,553.48				04/02/03	65.10	64.08	
5,552.32				05/01/03	66.26	65.24	
5,550.53				06/09/03	68.05	67.03	
5,550.09				07/07/03	68.49	67.47	
5,549.64				08/04/03	68.94	67.92	
5,549.31				09/11/03	69.27	68.25	
5,549.58				10/02/03	69.00	67.98	
5,549.50				11/07/03	69.08	68.06	
5,550.07				12/03/03	68.51	67.49	
5,551.86				01/15/04	66.72	65.70	
5,552.57				02/10/04	66.01	64.99	
5,553.63				03/28/04	64.95	63.93	

Water Levels and Data over Time
White Mesa Mill - Well TW4-1

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
z	5,620.77	5,618.58	1.02				111.04
5,554.04				04/12/04	64.54	63.52	
5,554.60				05/13/04	63.98	62.96	
5,556.28				06/18/04	62.30	61.28	
5,556.61				07/28/04	61.97	60.95	
5,554.21				08/30/04	64.37	63.35	
5,553.49				09/16/04	65.09	64.07	
5,552.53				10/11/04	66.05	65.03	
5,552.42				11/16/04	66.16	65.14	
5,552.46				12/22/04	66.12	65.10	
5,552.07				01/18/05	66.51	65.49	
5,552.21				02/28/05	66.37	65.35	
5,552.26				03/15/05	66.32	65.30	
5,552.30				04/26/05	66.28	65.26	
5,552.25				05/24/05	66.33	65.31	
5,552.22				06/30/05	66.36	65.34	
5,552.15				07/29/05	66.43	65.41	
5,552.47				09/12/05	66.11	65.09	
5,552.50				12/07/05	66.08	65.06	
5,552.96				03/08/06	65.62	64.60	
5,553.23				06/14/06	65.35	64.33	
5,557.20				07/18/06	61.38	60.36	
5,553.32				11/07/06	65.26	64.24	
5,554.35				02/27/07	64.23	63.21	
5,554.07				05/02/07	64.51	63.49	
5,554.07				08/14/07	64.51	63.49	
5,553.88				10/10/07	64.70	63.68	
5,555.73				03/26/08	62.85	61.83	
5,556.60				06/24/08	61.98	60.96	
5,556.83				08/26/08	61.75	60.73	
5,556.87				10/14/08	61.71	60.69	
5,556.90				03/10/09	61.68	60.66	
5,556.91				06/24/09	61.67	60.65	
5,556.61				09/10/09	61.97	60.95	
5,556.78				12/11/09	61.8	60.78	
5,556.75				03/11/10	61.83	60.81	
5,556.19				05/11/10	62.39	61.37	
5,555.26				09/29/10	63.32	62.30	
5,554.66				12/21/10	63.92	62.90	
5,554.74				02/28/11	63.84	62.82	
5,554.57				06/21/11	64.01	62.99	

Water Levels and Data over Time
White Mesa Mill - Well TW4-2

Water Elevation (z)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,623.10	5,624.72	1.62				121.125
5,548.57				11/08/99	76.15	74.53	
5,548.57				11/09/99	76.15	74.53	
5,548.32				01/02/00	76.40	74.78	
5,548.52				01/10/00	76.20	74.58	
5,548.32				01/17/00	76.40	74.78	
5,548.72				01/24/00	76.00	74.38	
5,548.62				02/01/00	76.10	74.48	
5,548.62				02/07/00	76.10	74.48	
5,549.02				02/14/00	75.70	74.08	
5,549.12				02/23/00	75.60	73.98	
5,549.22				03/01/00	75.50	73.88	
5,549.32				03/08/00	75.40	73.78	
5,549.22				03/15/00	75.50	73.88	
5,549.92				03/20/00	74.80	73.18	
5,549.72				03/29/00	75.00	73.38	
5,549.42				04/04/00	75.30	73.68	
5,549.52				04/13/00	75.20	73.58	
5,549.72				04/21/00	75.00	73.38	
5,549.82				04/28/00	74.90	73.28	
5,549.82				05/01/00	74.90	73.28	
5,550.12				05/11/00	74.60	72.98	
5,549.82				05/15/00	74.90	73.28	
5,550.12				05/25/00	74.60	72.98	
5,550.12				06/09/00	74.60	72.98	
5,550.22				06/16/00	74.50	72.88	
5,550.07				06/26/00	74.65	73.03	
5,550.17				07/06/00	74.55	72.93	
5,550.17				07/13/00	74.55	72.93	
5,550.18				07/18/00	74.54	72.92	
5,550.33				07/27/00	74.39	72.77	
5,550.38				08/02/00	74.34	72.72	
5,550.40				08/09/00	74.32	72.70	
5,550.42				08/15/00	74.30	72.68	
5,550.54				08/31/00	74.18	72.56	
5,550.87				09/08/00	73.85	72.23	
5,550.97				09/13/00	73.75	72.13	
5,551.04				09/20/00	73.68	72.06	
5,545.83				10/05/00	78.89	77.27	
5,546.47				11/09/00	78.25	76.63	
5,546.88				12/06/00	77.84	76.22	
5,552.18				01/26/01	72.54	70.92	
5,552.20				02/02/01	72.52	70.90	
5,551.10				03/29/01	73.62	72.00	

Water Levels and Data over Time
White Mesa Mill - Well TW4-2

Water Elevation (z)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,623.10	5,624.72	1.62				121.125
5,551.59				04/30/01	73.13	71.51	
5,552.03				05/31/01	72.69	71.07	
5,552.33				06/21/01	72.39	70.77	
5,552.64				07/10/01	72.08	70.46	
5,553.32				08/20/01	71.40	69.78	
5,553.73				09/19/01	70.99	69.37	
5,553.98				10/02/01	70.74	69.12	
5,554.14				11/08/01	70.58	68.96	
5,554.79				12/03/01	69.93	68.31	
5,554.74				01/03/02	69.98	68.36	
5,554.91				02/06/02	69.81	68.19	
5,555.15				03/26/02	69.57	67.95	
5,555.39				04/09/02	69.33	67.71	
5,555.73				05/23/02	68.99	67.37	
5,555.79				06/05/02	68.93	67.31	
5,555.91				07/08/02	68.81	67.19	
5,556.04				08/23/02	68.68	67.06	
5,556.25				09/11/02	68.47	66.85	
5,556.72				10/23/02	68.00	66.38	
5,556.42				11/22/02	68.30	66.68	
5,557.01				12/03/02	67.71	66.09	
5,557.20				01/09/03	67.52	65.90	
5,557.35				02/12/03	67.37	65.75	
5,557.83				03/26/03	66.89	65.27	
5,557.87				04/02/03	66.85	65.23	
5,553.71				05/01/03	71.01	69.39	
5,548.98				06/09/03	75.74	74.12	
5,548.14				07/07/03	76.58	74.96	
5,547.75				08/04/03	76.97	75.35	
5,547.22				09/11/03	77.50	75.88	
5,547.68				10/02/03	77.04	75.42	
5,547.52				11/07/03	77.20	75.58	
5,548.29				12/03/03	76.43	74.81	
5,554.00				01/15/04	70.72	69.10	
5,555.46				02/10/04	69.26	67.64	
5,556.90				03/28/04	67.82	66.20	
5,557.49				04/12/04	67.23	65.61	
5,558.07				05/13/04	66.65	65.03	
5,558.19				06/18/04	66.53	64.91	
5,559.00				07/28/04	65.72	64.10	
5,554.26				08/30/04	70.46	68.84	
5,551.97				09/16/04	72.75	71.13	
5,549.65				10/11/04	75.07	73.45	

Water Levels and Data over Time
White Mesa Mill - Well TW4-2

Water Elevation (z)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,623.10	5,624.72	1.62				121.125
5,549.89				11/16/04	74.83	73.21	
5,550.37				12/22/04	74.35	72.73	
5,549.95				01/18/05	74.77	73.15	
5,550.09				02/28/05	74.63	73.01	
5,550.13				03/15/05	74.59	72.97	
5,550.18				04/26/05	74.54	72.92	
5,550.32				05/24/05	74.40	72.78	
5,550.21				06/30/05	74.51	72.89	
5,550.11				07/29/05	74.61	72.99	
5,550.33				09/12/05	74.39	72.77	
5,550.29				12/07/05	74.43	72.81	
5,551.30				03/08/06	73.42	71.80	
5,551.42				06/14/06	73.3	71.68	
5,550.52				07/18/06	74.20	72.58	
5550.52				11/07/06	74.20	72.58	
5552.89				02/27/07	71.83	70.21	
5,552.06				05/02/07	72.66	71.04	
5,552.02				08/14/07	72.7	71.08	
5,552.20				10/10/07	72.52	70.90	
5,554.58				03/26/08	70.14	68.52	
5,555.23				06/24/08	69.49	67.87	
5,555.29				08/26/08	69.43	67.81	
5,555.43				10/14/08	69.29	67.67	
5,555.73				03/10/09	68.99	67.37	
5,556.25				06/24/09	68.47	66.85	
5,555.94				09/10/09	68.78	67.16	
5,556.53				12/11/09	68.19	66.57	
5,557.87				03/11/10	66.85	65.23	
5,557.63				05/11/10	67.09	65.47	
5,557.24				09/29/10	67.48	65.86	
5,557.00				12/21/10	67.72	66.10	
5,557.61				02/28/11	67.11	65.49	
5,557.58				06/21/11	67.14	65.52	

Water Levels and Data over Time
White Mesa Mill - Well TW4-3

Water Elevation (z)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,631.21	5,632.23	1.02				141
5,565.78				11/29/99	66.45	65.43	
5,566.93				01/02/00	65.30	64.28	
5,567.03				01/10/00	65.20	64.18	
5,566.83				01/17/00	65.40	64.38	
5,567.13				01/24/00	65.10	64.08	
5,567.33				02/01/00	64.90	63.88	
5,567.13				02/07/00	65.10	64.08	
5,567.43				02/14/00	64.80	63.78	
5,567.63				02/23/00	64.60	63.58	
5,567.73				03/01/00	64.50	63.48	
5,567.83				03/08/00	64.40	63.38	
5,567.70				03/15/00	64.53	63.51	
5,568.03				03/20/00	64.20	63.18	
5,567.93				03/29/00	64.30	63.28	
5,567.63				04/04/00	64.60	63.58	
5,567.83				04/13/00	64.40	63.38	
5,568.03				04/21/00	64.20	63.18	
5,568.23				04/28/00	64.00	62.98	
5,568.13				05/01/00	64.10	63.08	
5,568.53				05/11/00	63.70	62.68	
5,568.23				05/15/00	64.00	62.98	
5,568.53				05/25/00	63.70	62.68	
5,568.61				06/09/00	63.62	62.60	
5,568.69				06/16/00	63.54	62.52	
5,568.45				06/26/00	63.78	62.76	
5,568.61				07/06/00	63.62	62.60	
5,568.61				07/06/00	63.62	62.60	
5,568.49				07/13/00	63.74	62.72	
5,568.55				07/18/00	63.68	62.66	
5,568.65				07/27/00	63.58	62.56	
5,568.73				08/02/00	63.50	62.48	
5,568.77				08/09/00	63.46	62.44	
5,568.76				08/16/00	63.47	62.45	
5,568.95				08/31/00	63.28	62.26	
5,568.49				09/08/00	63.74	62.72	
5,568.67				09/13/00	63.56	62.54	
5,568.96				09/20/00	63.27	62.25	
5,568.93				10/05/00	63.3	62.28	
5,569.34				11/09/00	62.89	61.87	
5,568.79				12/06/00	63.44	62.42	
5,569.11				01/03/01	63.12	62.10	
5,569.75				02/09/01	62.48	61.46	
5,570.34				03/28/01	61.89	60.87	

Water Levels and Data over Time
White Mesa Mill - Well TW4-3

Water Elevation (z)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,631.21	5,632.23	1.02				141
5,570.61				04/30/01	61.62	60.60	
5,570.70				05/31/01	61.53	60.51	
5,570.88				06/21/01	61.35	60.33	
5,571.02				07/10/01	61.21	60.19	
5,571.70				08/20/01	60.53	59.51	
5,572.12				09/19/01	60.11	59.09	
5,572.08				10/02/01	60.15	59.13	
5,570.70				05/31/01	61.53	60.51	
5,570.88				06/21/01	61.35	60.33	
5,571.02				07/10/01	61.21	60.19	
5,571.70				08/20/01	60.53	59.51	
5,572.12				09/19/01	60.11	59.09	
5,572.08				10/02/01	60.15	59.13	
5,572.78				11/08/01	59.45	58.43	
5,573.27				12/03/01	58.96	57.94	
5,573.47				01/03/02	58.76	57.74	
5,573.93				02/06/02	58.30	57.28	
5,574.75				03/26/02	57.48	56.46	
5,574.26				04/09/02	57.97	56.95	
5,575.39				05/23/02	56.84	55.82	
5,574.84				06/05/02	57.39	56.37	
5,575.33				07/08/02	56.90	55.88	
5,575.79				08/23/02	56.44	55.42	
5,576.08				09/11/02	56.15	55.13	
5,576.30				10/23/02	55.93	54.91	
5,576.35				11/22/02	55.88	54.86	
5,576.54				12/03/02	55.69	54.67	
5,576.96				01/09/03	55.27	54.25	
5,577.11				02/12/03	55.12	54.10	
5,577.61				03/26/03	54.62	53.60	
5,572.80				04/02/03	59.43	58.41	
5,577.89				05/01/03	54.34	53.32	
5,577.91				06/09/03	54.32	53.30	
5,577.53				07/07/03	54.70	53.68	
5,577.50				08/04/03	54.73	53.71	
5,577.71				09/11/03	54.52	53.50	
5,577.31				10/02/03	54.92	53.90	
5,577.33				11/07/03	54.90	53.88	
5,577.34				12/03/03	54.89	53.87	
5,578.24				01/15/04	53.99	52.97	
5,578.38				02/10/04	53.85	52.83	
5,578.69				03/28/04	53.54	52.52	
5,579.15				04/12/04	53.08	52.06	

Water Levels and Data over Time
White Mesa Mill - Well TW4-3

Water Elevation (z)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,631.21	5,632.23	1.02				141
5,579.47				05/13/04	52.76	51.74	
5,579.53				06/18/04	52.70	51.68	
5,580.17				07/28/04	52.06	51.04	
5,580.20				08/30/04	52.03	51.01	
5,580.26				09/16/04	51.97	50.95	
5,580.12				10/11/04	52.11	51.09	
5,579.93				11/16/04	52.30	51.28	
5,580.07				12/22/04	52.16	51.14	
5,579.80				01/18/05	52.43	51.41	
5,580.35				02/28/05	51.88	50.86	
5,580.57				03/15/05	51.66	50.64	
5,580.86				04/26/05	51.37	50.35	
5,581.20				05/24/05	51.03	50.01	
5,581.51				06/30/05	50.72	49.70	
5,581.55				07/29/05	50.68	49.66	
5,581.68				09/12/05	50.55	49.53	
5,581.83				12/07/05	50.4	49.38	
5,564.92				03/08/06	67.31	66.29	
5,582.73				06/13/06	49.50	48.48	
5,582.33				07/18/06	49.90	48.88	
5,582.75				11/07/06	49.48	48.46	
5583.35				02/27/07	48.88	47.86	
5,559.57				05/02/07	72.66	71.64	
5,583.29				08/14/07	48.94	47.92	
5,583.49				10/10/07	48.74	47.72	
5,584.95				03/26/08	47.28	46.26	
5,584.59				06/24/08	47.64	46.62	
5,584.55				08/26/08	47.68	46.66	
5,584.03				10/14/08	48.2	47.18	
5,583.64				03/03/09	48.59	47.57	
5,587.34				06/24/09	44.89	43.87	
5,582.90				09/10/09	49.33	48.31	
5,583.27				12/11/09	48.96	47.94	
5,583.63				03/11/10	48.6	47.58	
5,583.82				05/11/10	48.41	47.39	
5,583.51				09/29/10	48.72	47.70	
5,582.86				12/21/10	49.37	48.35	
5,582.60				02/28/11	49.63	48.61	
5,590.00				06/21/11	42.23	41.21	

Water Levels and Data over Time
White Mesa Mill - Well TW4-4

Water Elevation (z)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,612.301	5,613.485	1.184				114.5
5,512.145				05/25/00	101.34	100.16	
5,518.985				06/09/00	94.50	93.32	
5,512.145				06/16/00	101.34	100.16	
5,517.465				06/26/00	96.02	94.84	
5,520.145				07/06/00	93.34	92.16	
5,521.435				07/13/00	92.05	90.87	
5,522.005				07/18/00	91.48	90.30	
5,522.945				07/27/00	90.54	89.36	
5,523.485				08/02/00	90.00	88.82	
5,523.845				08/09/00	89.64	88.46	
5,523.885				08/15/00	89.60	88.42	
5,524.555				09/01/00	88.93	87.75	
5,513.235				09/08/00	100.25	99.07	
5,516.665				09/13/00	96.82	95.64	
5,519.085				09/20/00	94.40	93.22	
5,522.165				10/05/00	91.32	90.14	
5,524.665				11/09/00	88.82	87.64	
5,518.545				12/06/00	94.94	93.76	
5,527.695				01/03/01	85.79	84.61	
5,529.085				02/09/01	84.40	83.22	
5,529.535				03/27/01	83.95	82.77	
5,530.235				04/30/01	83.25	82.07	
5,530.265				05/31/01	83.22	82.04	
5,534.405				06/22/01	79.08	77.90	
5,533.145				07/10/01	80.34	79.16	
5,534.035				08/20/01	79.45	78.27	
5,534.465				09/19/01	79.02	77.84	
5,533.285				10/02/01	80.20	79.02	
5,530.265				05/31/01	83.22	82.04	
5,534.405				06/21/01	79.08	77.90	
5,533.145				07/10/01	80.34	79.16	
5,534.035				08/20/01	79.45	78.27	
5,534.465				09/19/01	79.02	77.84	
5,533.285				10/02/01	80.20	79.02	
5,533.865				11/08/01	79.62	78.44	
5,534.275				12/03/01	79.21	78.03	
5,534.715				01/03/02	78.77	77.59	
5,535.435				02/06/02	78.05	76.87	
5,536.445				03/26/02	77.04	75.86	
5,536.405				04/09/02	77.08	75.90	
5,537.335				05/23/02	76.15	74.97	
5,537.325				06/05/02	76.16	74.98	
5,537.975				07/08/02	75.51	74.33	

Water Levels and Data over Time
White Mesa Mill - Well TW4-4

Water Elevation (z)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,612.301	5,613.485	1.184				114.5
5,538.825				08/23/02	74.66	73.48	
5,539.275				09/11/02	74.21	73.03	
5,539.765				10/23/02	73.72	72.54	
5,540.205				11/22/02	73.28	72.10	
5,540.295				12/03/02	73.19	72.01	
5,540.795				01/09/03	72.69	71.51	
5,540.985				02/12/03	72.50	71.32	
5,541.675				03/26/03	71.81	70.63	
5,541.765				04/02/03	71.72	70.54	
5,541.885				05/01/03	71.60	70.42	
5,542.025				06/09/03	71.46	70.28	
5,541.925				07/07/03	71.56	70.38	
5,541.885				08/04/03	71.60	70.42	
5,541.825				09/11/03	71.66	70.48	
5,541.885				10/02/03	71.60	70.42	
5,541.995				11/07/03	71.49	70.31	
5,542.005				12/03/03	71.48	70.30	
5,542.555				01/15/04	70.93	69.75	
5,542.705				02/10/04	70.78	69.60	
5,543.225				03/28/04	70.26	69.08	
5,543.555				04/12/04	69.93	68.75	
5,543.865				05/13/04	69.62	68.44	
5,543.915				06/18/04	69.57	68.39	
5,544.655				07/28/04	68.83	67.65	
5,544.795				08/30/04	68.69	67.51	
5,544.845				09/16/04	68.64	67.46	
5,544.705				10/11/04	68.78	67.60	
5,544.525				11/16/04	68.96	67.78	
5,544.625				12/22/04	68.86	67.68	
5,544.305				01/18/05	69.18	68.00	
5,544.585				02/28/05	68.90	67.72	
5,544.685				03/15/05	68.80	67.62	
5,544.675				04/26/05	68.81	67.63	
5,544.785				05/24/05	68.70	67.52	
5,544.795				06/30/05	68.69	67.51	
5,544.775				07/29/05	68.71	67.53	
5,545.005				09/12/05	68.48	67.30	
5,545.225				12/07/05	68.26	67.08	
5,545.735				03/08/06	67.75	66.57	
5,545.785				06/14/06	67.70	66.52	
5,545.855				07/18/06	67.63	66.45	
5,545.805				11/07/06	67.68	66.50	
5546.675				02/27/07	66.81	65.63	

Water Levels and Data over Time
White Mesa Mill - Well TW4-4

Water Elevation (z)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,612.301	5,613.485	1.184				114.5
5,546.535				05/02/07	66.95	65.77	
5,547.155				08/15/07	66.33	65.15	
5,547.215				10/10/07	66.27	65.09	
5,548.305				03/26/08	65.18	64.00	
5,548.865				06/24/08	64.62	63.44	
5,549.235				08/26/08	64.25	63.07	
5,549.305				10/14/08	64.18	63.00	
5,549.725				03/03/09	63.76	62.58	
5,549.905				06/24/09	63.58	62.40	
5,549.695				09/10/09	63.79	62.61	
5,549.865				12/11/09	63.62	62.44	
5,545.60				03/11/10	67.89	66.71	
5,530.88				05/11/10	82.61	81.43	
5,545.24				09/29/10	68.25	67.07	
5,533.66				12/21/10	79.83	78.65	
5,544.44				02/28/11	69.05	67.87	
5,543.73				06/21/11	69.76	68.58	

Water Levels and Data over Time
White Mesa Mill - Well TW4-5

Water Elevation (z)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,638.75	5,640.70	1.95				121.75
5,579.30				01/02/00	61.40	59.45	
5,579.60				01/10/00	61.10	59.15	
5,579.35				01/17/00	61.35	59.40	
5,579.60				01/24/00	61.10	59.15	
5,579.50				02/01/00	61.20	59.25	
5,579.50				02/07/00	61.20	59.25	
5,579.90				02/14/00	60.80	58.85	
5,579.90				02/23/00	60.80	58.85	
5,580.20				03/01/00	60.50	58.55	
5,580.00				03/08/00	60.70	58.75	
5,580.04				03/15/00	60.66	58.71	
5,580.70				03/20/00	60.00	58.05	
5,580.30				03/29/00	60.40	58.45	
5,580.00				04/04/00	60.70	58.75	
5,580.20				04/13/00	60.50	58.55	
5,580.40				04/21/00	60.30	58.35	
5,580.50				04/28/00	60.20	58.25	
5,580.50				05/01/00	60.20	58.25	
5,580.90				05/11/00	59.80	57.85	
5,580.50				05/15/00	60.20	58.25	
5,580.75				05/25/00	59.95	58.00	
5,580.80				06/09/00	59.90	57.95	
5,580.92				06/16/00	59.78	57.83	
5,580.80				06/26/00	59.90	57.95	
5,580.90				07/06/00	59.80	57.85	
5,581.05				07/13/00	59.65	57.70	
5,580.90				07/18/00	59.80	57.85	
5,581.05				07/27/00	59.65	57.70	
5,581.06				08/02/00	59.64	57.69	
5,581.08				08/09/00	59.62	57.67	
5,581.07				08/16/00	59.63	57.68	
5,581.25				08/31/00	59.45	57.50	
5,581.32				09/08/00	59.38	57.43	
5,581.34				09/13/00	59.36	57.41	
5,581.41				09/20/00	59.29	57.34	
5,581.37				10/05/00	59.33	57.38	
5,581.66				11/09/00	59.04	57.09	
5,581.63				12/06/00	59.07	57.12	
5,581.92				01/03/01	58.78	56.83	
5,582.20				02/09/01	58.50	56.55	
5,582.54				03/28/01	58.16	56.21	
5,582.72				04/30/01	57.98	56.03	
5,582.72				05/31/01	57.98	56.03	

Water Levels and Data over Time
White Mesa Mill - Well TW4-5

Water Elevation (z)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,638.75	5,640.70	1.95				121.75
5,582.81				06/22/01	57.89	55.94	
5,582.92				07/10/01	57.78	55.83	
5,583.17				08/20/01	57.53	55.58	
5,583.28				09/19/01	57.42	55.47	
5,583.36				10/02/01	57.34	55.39	
5,582.72				05/31/01	57.98	56.03	
5,582.81				06/21/01	57.89	55.94	
5,582.92				07/10/01	57.78	55.83	
5,583.17				08/20/01	57.53	55.58	
5,583.28				09/19/01	57.42	55.47	
5,583.36				10/02/01	57.34	55.39	
5,583.49				11/08/01	57.21	55.26	
5,583.84				12/03/01	56.86	54.91	
5,583.79				01/03/02	56.91	54.96	
5,583.96				02/06/02	56.74	54.79	
5,584.39				03/26/02	56.31	54.36	
5,584.12				04/09/02	56.58	54.63	
5,584.55				05/23/02	56.15	54.20	
5,584.42				06/05/02	56.28	54.33	
5,583.65				07/08/02	57.05	55.10	
5,584.90				08/23/02	55.80	53.85	
5,585.02				09/11/02	55.68	53.73	
5,585.20				10/23/02	55.50	53.55	
5,585.15				11/22/02	55.55	53.60	
5,585.42				12/03/02	55.28	53.33	
5,585.65				01/09/03	55.05	53.10	
5,585.65				02/12/03	55.05	53.10	
5,585.92				03/26/03	54.78	52.83	
5,586.22				04/02/03	54.48	52.53	
5,586.01				05/01/03	54.69	52.74	
5,584.81				06/09/03	55.89	53.94	
5,584.34				07/07/03	56.36	54.41	
5,584.40				08/04/03	56.30	54.35	
5,583.88				09/11/03	56.82	54.87	
5,583.57				10/02/03	57.13	55.18	
5,583.39				11/07/03	57.31	55.36	
5,583.97				12/03/03	56.73	54.78	
5,585.28				01/15/04	55.42	53.47	
5,585.50				02/10/04	55.20	53.25	
5,585.87				03/28/04	54.83	52.88	
5,586.20				04/12/04	54.50	52.55	
5,586.45				05/13/04	54.25	52.30	
5,586.50				06/18/04	54.20	52.25	

Water Levels and Data over Time
White Mesa Mill - Well TW4-5

Water Elevation (z)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,638.75	5,640.70	1.95				121.75
5,587.13				07/28/04	53.57	51.62	
5,586.22				08/30/04	54.48	52.53	
5,585.69				09/16/04	55.01	53.06	
5,585.17				10/11/04	55.53	53.58	
5,584.64				11/16/04	56.06	54.11	
5,584.77				12/22/04	55.93	53.98	
5,584.65				01/18/05	56.05	54.10	
5,584.98				02/28/05	55.72	53.77	
5,585.15				03/15/05	55.55	53.60	
5,586.25				04/26/05	54.45	52.50	
5,586.79				05/24/05	53.91	51.96	
5,586.52				06/30/05	54.18	52.23	
5,586.03				07/29/05	54.67	52.72	
5,586.05				09/12/05	54.65	52.70	
5,585.80				12/07/05	54.90	52.95	
5,587.06				03/08/06	53.64	51.69	
5,585.90				06/13/06	54.80	52.85	
5,585.32				07/18/06	55.38	53.43	
5,585.35				11/07/06	55.35	53.40	
5585.81				02/27/07	54.89	52.94	
5,585.20				05/02/07	55.50	53.55	
5,586.66				08/14/07	54.04	52.09	
5,586.80				10/10/07	53.90	51.95	
5,588.48				03/26/08	52.22	50.27	
5,586.51				06/24/08	54.19	52.24	
5,586.45				08/26/08	54.25	52.30	
5,585.40				10/14/08	55.3	53.35	
5,584.80				03/03/09	55.9	53.95	
5,584.73				06/24/09	55.97	54.02	
5,584.36				09/10/09	56.34	54.39	
5,585.02				12/11/09	55.68	53.73	
5,585.66				03/11/10	55.04	53.09	
5,584.86				05/11/10	55.84	53.89	
5,584.55				09/29/10	56.15	54.20	
5,584.17				12/21/10	56.53	54.58	
5,583.55				02/28/11	57.15	55.20	
5,584.72				06/21/11	55.98	54.03	

Water Levels and Data over Time
White Mesa Mill - Well TW4-6

Water Elevation (z)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well (blw.LSD)
	5,607.33	5,608.78	1.450				98.55
5,522.28				05/25/00	86.50	85.05	
5,521.51				06/09/00	87.27	85.82	
5,522.35				06/16/00	86.43	84.98	
5,522.14				06/26/00	86.64	85.19	
5,522.25				07/06/00	86.53	85.08	
5,522.13				07/13/00	86.65	85.20	
5,522.17				07/18/00	86.61	85.16	
5,522.26				07/25/00	86.52	85.07	
5,522.31				08/02/00	86.47	85.02	
5,522.33				08/09/00	86.45	85.00	
5,522.35				08/15/00	86.43	84.98	
5,522.40				08/31/00	86.38	84.93	
5,522.40				09/08/00	86.38	84.93	
5,522.45				09/13/00	86.33	84.88	
5,522.53				09/20/00	86.25	84.80	
5,522.39				10/05/00	86.39	84.94	
5,522.42				11/09/00	86.36	84.91	
5,522.29				12/06/00	86.49	85.04	
5,522.63				01/03/01	86.15	84.70	
5,522.72				02/09/01	86.06	84.61	
5,522.90				03/26/01	85.88	84.43	
5,522.70				04/30/01	86.08	84.63	
5,522.89				05/31/01	85.89	84.44	
5,522.88				06/20/01	85.90	84.45	
5,522.96				07/10/01	85.82	84.37	
5,523.10				08/20/01	85.68	84.23	
5,523.23				09/19/01	85.55	84.10	
5,523.21				10/02/01	85.57	84.12	
5,522.89				05/31/01	85.89	84.44	
5,522.88				06/21/01	85.90	84.45	
5,522.96				07/10/01	85.82	84.37	
5,523.10				08/20/01	85.68	84.23	
5,523.23				09/19/01	85.55	84.10	
5,523.21				10/02/01	85.57	84.12	
5,523.25				11/08/01	85.53	84.08	
5,523.46				12/03/01	85.32	83.87	
5,523.36				01/03/02	85.42	83.97	
5,523.50				02/06/02	85.28	83.83	
5,523.94				03/26/02	84.84	83.39	
5,523.75				04/09/02	85.03	83.58	
5,524.23				05/23/02	84.55	83.10	
5,523.98				06/05/02	84.80	83.35	
5,524.31				07/08/02	84.47	83.02	

Water Levels and Data over Time
White Mesa Mill - Well TW4-6

Water Elevation (z)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well (blw.LSD)
	5,607.33	5,608.78	1.450				98.55
5,524.36				08/23/02	84.42	82.97	
5,524.49				09/11/02	84.29	82.84	
5,524.71				10/23/02	84.07	82.62	
5,524.60				11/22/02	84.18	82.73	
5,524.94				12/03/02	83.84	82.39	
5,525.10				01/09/03	83.68	82.23	
5,525.15				02/12/03	83.63	82.18	
5,525.35				03/26/03	83.43	81.98	
5,525.68				04/02/03	83.10	81.65	
5,525.74				05/01/03	83.04	81.59	
5,525.98				06/09/03	82.80	81.35	
5,526.04				07/07/03	82.74	81.29	
5,526.07				08/04/03	82.71	81.26	
5,526.42				09/11/03	82.36	80.91	
5,526.30				10/02/03	82.48	81.03	
5,526.41				11/07/03	82.37	80.92	
5,526.46				12/03/03	82.32	80.87	
5,526.83				01/15/04	81.95	80.50	
5,526.81				02/10/04	81.97	80.52	
5,527.14				03/28/04	81.64	80.19	
5,527.39				04/12/04	81.39	79.94	
5,527.64				05/13/04	81.14	79.69	
5,527.70				06/18/04	81.08	79.63	
5,528.16				07/28/04	80.62	79.17	
5,528.30				08/30/04	80.48	79.03	
5,528.52				09/16/04	80.26	78.81	
5,528.71				10/11/04	80.07	78.62	
5,528.74				11/16/04	80.04	78.59	
5,529.20				12/22/04	79.58	78.13	
5,528.92				01/18/05	79.86	78.41	
5,529.51				02/28/05	79.27	77.82	
5,529.74				03/15/05	79.04	77.59	
5,529.96				04/26/05	78.82	77.37	
5,530.15				05/24/05	78.63	77.18	
5,530.35				06/30/05	78.43	76.98	
5,530.47				07/29/05	78.31	76.86	
5,530.95				09/12/05	77.83	76.38	
5,531.50				12/07/05	77.28	75.83	
5,532.43				03/08/06	76.35	74.90	
5,533.49				06/13/06	75.29	73.84	
5,532.58				07/18/06	76.20	74.75	
5,532.88				11/07/06	75.90	74.45	
5534.09				02/27/07	74.69	73.24	

Water Levels and Data over Time
White Mesa Mill - Well TW4-6

Water Elevation (z)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well (blw.LSD)
	5,607.33	5,608.78	1.450				98.55
5,534.04				05/02/07	74.74	73.29	
5,534.43				08/14/07	74.35	72.90	
5,554.54				10/10/07	54.24	52.79	
5,535.40				03/26/08	73.38	71.93	
5,535.55				06/24/08	73.23	71.78	
5,535.90				08/26/08	72.88	71.43	
5,535.87				10/14/08	72.91	71.46	
5,536.42				03/10/09	72.36	70.91	
5,536.71				06/24/09	72.07	70.62	
5,536.83				09/10/09	71.95	70.50	
5,537.35				12/11/09	71.43	69.98	
5,537.93				03/11/10	70.85	69.40	
5,538.14				05/11/10	70.64	69.19	
5,538.03				09/29/10	70.75	69.30	
5,538.04				12/21/10	70.74	69.29	
5,537.98				02/28/11	70.8	69.35	
5,538.46				06/21/11	70.32	68.87	

Water Levels and Data over Time
White Mesa Mill - Well TW4-7

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well (blw.LSD)
	5,619.87	5,621.07	1.20				119.8
5,552.37				11/29/99	68.70	67.50	
5,553.57				01/02/00	67.50	66.30	
5,553.87				01/10/00	67.20	66.00	
5,553.72				01/17/00	67.35	66.15	
5,553.97				01/24/00	67.10	65.90	
5,553.87				02/01/00	67.20	66.00	
5,553.87				02/07/00	67.20	66.00	
5,554.17				02/14/00	66.90	65.70	
5,554.27				02/23/00	66.80	65.60	
5,554.37				03/01/00	66.70	65.50	
5,554.37				03/08/00	66.70	65.50	
5,554.27				03/15/00	66.80	65.60	
5,554.77				03/20/00	66.30	65.10	
5,554.57				03/29/00	66.50	65.30	
5,554.27				04/04/00	66.80	65.60	
5,554.57				04/13/00	66.50	65.30	
5,554.77				04/21/00	66.30	65.10	
5,554.87				04/28/00	66.20	65.00	
5,554.87				05/01/00	66.20	65.00	
5,555.27				05/11/00	65.80	64.60	
5,554.97				05/15/00	66.10	64.90	
5,555.27				05/25/00	65.80	64.60	
5,555.33				06/09/00	65.74	64.54	
5,555.45				06/16/00	65.62	64.42	
5,555.22				06/26/00	65.85	64.65	
5,555.45				07/06/00	65.62	64.42	
5,555.40				07/13/00	65.67	64.47	
5,555.45				07/18/00	65.62	64.42	
5,555.59				07/27/00	65.48	64.28	
5,555.65				08/02/00	65.42	64.22	
5,555.70				08/09/00	65.37	64.17	
5,555.74				08/16/00	65.33	64.13	
5,555.96				08/31/00	65.11	63.91	
5,555.87				09/08/00	65.20	64.00	
5,555.95				09/13/00	65.12	63.92	
5,556.05				09/20/00	65.02	63.82	
5,556.06				10/05/00	65.01	63.81	
5,556.17				10/12/00	64.90	63.70	
5,556.20				10/19/00	64.87	63.67	
5,556.22				10/23/00	64.85	63.65	
5,556.36				11/09/00	64.71	63.51	
5,556.42				11/14/00	64.65	63.45	
5,556.45				11/30/00	64.62	63.42	

Water Levels and Data over Time
White Mesa Mill - Well TW4-7

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well (blw.LSD)
	5,619.87	5,621.07	1.20				119.8
5,556.15				12/06/00	64.92	63.72	
5,556.89				01/14/01	64.18	62.98	
5,557.07				02/09/01	64.00	62.80	
5,557.62				03/29/01	63.45	62.25	
5,557.51				04/30/01	63.56	62.36	
5,557.77				05/31/01	63.30	62.10	
5,557.84				06/21/01	63.23	62.03	
5,557.98				07/10/01	63.09	61.89	
5,558.33				08/20/01	62.74	61.54	
5,558.57				09/19/01	62.50	61.30	
5,558.53				10/02/01	62.54	61.34	
5,558.62				11/08/01	62.45	61.25	
5,559.03				12/03/01	62.04	60.84	
5,559.08				01/03/02	61.99	60.79	
5,559.32				02/06/02	61.75	60.55	
5,559.63				03/26/02	61.44	60.24	
5,559.55				04/09/02	61.52	60.32	
5,560.06				05/23/02	61.01	59.81	
5,559.91				06/05/02	61.16	59.96	
5,560.09				07/08/02	60.98	59.78	
5,560.01				08/23/02	61.06	59.86	
5,560.23				09/11/02	60.84	59.64	
5,560.43				10/23/02	60.64	59.44	
5,560.39				11/22/02	60.68	59.48	
5,560.61				12/03/02	60.46	59.26	
5,560.89				01/09/03	60.18	58.98	
5,560.94				02/12/03	60.13	58.93	
5,561.28				03/26/03	59.79	58.59	
5,561.35				04/02/03	59.72	58.52	
5,546.20				05/01/03	74.87	73.67	
5,539.47				06/09/03	81.60	80.40	
5,541.87				07/07/03	79.20	78.00	
5,542.12				08/04/03	78.95	77.75	
5,541.91				09/11/03	79.16	77.96	
5,544.62				10/02/03	76.45	75.25	
5,542.67				11/07/03	78.40	77.20	
5,549.96				12/03/03	71.11	69.91	
5,557.17				01/15/04	63.90	62.70	
5,558.65				02/10/04	62.42	61.22	
5,559.90				03/28/04	61.17	59.97	
5,560.36				04/12/04	60.71	59.51	
5,560.87				05/13/04	60.20	59.00	
5,560.95				06/18/04	60.12	58.92	

Water Levels and Data over Time
White Mesa Mill - Well TW4-7

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well (blw.LSD)
	5,619.87	5,621.07	1.20				119.8
5,561.64				07/28/04	59.43	58.23	
5,543.00				08/30/04	78.07	76.87	
5,541.91				09/16/04	79.16	77.96	
5,540.08				10/11/04	80.99	79.79	
5,546.92				11/16/04	74.15	72.95	
5,546.97				12/22/04	74.10	72.90	
5,546.51				01/18/05	74.56	73.36	
5,546.66				02/28/05	74.41	73.21	
5,546.81				03/15/05	74.26	73.06	
5,548.19				04/26/05	72.88	71.68	
5,547.11				05/24/05	73.96	72.76	
5,546.98				06/30/05	74.09	72.89	
5,546.92				07/29/05	74.15	72.95	
5,547.26				09/12/05	73.81	72.61	
5,547.26				12/07/05	73.81	72.61	
5,548.86				03/08/06	72.21	71.01	
5,548.62				06/13/06	72.45	71.25	
5,550.04				07/18/06	71.03	69.83	
5,548.32				11/07/06	72.75	71.55	
5,550.44				02/27/07	70.63	69.43	
5,549.69				05/02/07	71.38	70.18	
5,549.97				08/14/07	71.10	69.90	
5,550.30				10/10/07	70.77	69.57	
5,551.92				03/26/08	69.15	67.95	
5,552.94				06/24/08	68.13	66.93	
5,552.34				08/26/08	68.73	67.53	
5,552.61				10/14/08	68.46	67.26	
5,552.81				03/10/09	68.26	67.06	
5,553.11				06/24/09	67.96	66.76	
5,552.55				09/10/09	68.52	67.32	
5,553.06				12/11/09	68.01	66.81	
5,554.64				03/11/10	66.43	65.23	
5,554.20				05/11/10	66.87	65.67	
5,553.45				09/29/10	67.62	66.42	
5,553.40				12/21/10	67.67	66.47	
5,553.93				02/28/11	67.14	65.94	
5,553.67				06/21/11	67.4	66.20	

Water Levels and Data over Time
White Mesa Mill - Well TW4-8

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,616.80	5,621.40	4.60				126.00
5,546.40				11/29/99	75.00	70.40	
5,546.20				01/02/00	75.20	70.60	
5,546.50				01/10/00	74.90	70.30	
5,546.30				01/17/00	75.10	70.50	
5,546.60				01/24/00	74.80	70.20	
5,546.50				02/01/00	74.90	70.30	
5,546.50				02/07/00	74.90	70.30	
5,546.90				02/14/00	74.50	69.90	
5,546.95				02/23/00	74.45	69.85	
5,547.05				03/01/00	74.35	69.75	
5,547.05				03/08/00	74.35	69.75	
5,547.10				03/15/00	74.30	69.70	
5,547.50				03/20/00	73.90	69.30	
5,547.40				03/29/00	74.00	69.40	
5,547.20				04/04/00	74.20	69.60	
5,547.40				04/13/00	74.00	69.40	
5,547.60				04/21/00	73.80	69.20	
5,547.70				04/28/00	73.70	69.10	
5,547.70				05/01/00	73.70	69.10	
5,548.00				05/11/00	73.40	68.80	
5,547.70				05/15/00	73.70	69.10	
5,547.90				05/25/00	73.50	68.90	
5,547.90				06/09/00	73.50	68.90	
5,548.00				06/16/00	73.40	68.80	
5,547.87				06/26/00	73.53	68.93	
5,547.95				07/06/00	73.45	68.85	
5,547.96				07/13/00	73.44	68.84	
5,547.95				07/18/00	73.45	68.85	
5,548.11				07/27/00	73.29	68.69	
5,548.15				08/02/00	73.25	68.65	
5,548.17				08/09/00	73.23	68.63	
5,548.16				08/15/00	73.24	68.64	
5,548.40				08/31/00	73.00	68.40	
5,548.50				09/08/00	72.90	68.30	
5,548.62				09/13/00	72.78	68.18	
5,548.75				09/20/00	72.65	68.05	
5,548.76				10/05/00	72.64	68.04	
5,549.00				11/09/00	72.40	67.80	
5,548.85				12/06/00	72.55	67.95	
5,549.47				01/03/01	71.93	67.33	
5,549.89				02/09/01	71.51	66.91	
5,550.37				03/27/01	71.03	66.43	
5,550.50				04/30/01	70.90	66.30	

Water Levels and Data over Time
White Mesa Mill - Well TW4-8

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,616.80	5,621.40	4.60				126.00
5,550.68				05/31/01	70.72	66.12	
5,550.68				06/20/01	70.72	66.12	
5,551.02				07/10/01	70.38	65.78	
5,551.32				08/20/01	70.08	65.48	
5,551.49				09/19/01	69.91	65.31	
5,551.64				10/02/01	69.76	65.16	
5,550.68				05/31/01	70.72	66.12	
5,550.73				06/21/01	70.67	66.07	
5,551.02				07/10/01	70.38	65.78	
5,551.32				08/20/01	70.08	65.48	
5,551.49				09/19/01	69.91	65.31	
5,551.64				10/02/01	69.76	65.16	
5,551.81				11/08/01	69.59	64.99	
5,552.22				12/03/01	69.18	64.58	
5,552.16				01/03/02	69.24	64.64	
5,552.38				02/06/02	69.02	64.42	
5,552.85				03/26/02	68.55	63.95	
5,552.83				04/09/02	68.57	63.97	
5,553.20				05/23/02	68.20	63.60	
5,553.16				06/05/02	68.24	63.64	
5,553.32				07/08/02	68.08	63.48	
5,553.49				08/23/02	67.91	63.31	
5,553.69				09/11/02	67.71	63.11	
5,554.09				10/23/02	67.31	62.71	
5,554.02				11/22/02	67.38	62.78	
5,554.23				12/03/02	67.17	62.57	
5,554.43				01/09/03	66.97	62.37	
5,554.42				02/12/03	66.98	62.38	
5,554.71				03/26/03	66.69	62.09	
5,554.83				04/02/03	66.57	61.97	
5,552.21				05/01/03	69.19	64.59	
5,547.93				06/09/03	73.47	68.87	
5,546.97				07/07/03	74.43	69.83	
5,546.58				08/04/03	74.82	70.22	
5,546.24				09/11/03	75.16	70.56	
5,546.38				10/02/03	75.02	70.42	
5,546.40				11/07/03	75.00	70.40	
5,546.59				12/03/03	74.81	70.21	
5,551.29				01/15/04	70.11	65.51	
5,552.69				02/10/04	68.71	64.11	
5,554.06				03/28/04	67.34	62.74	
5,554.52				04/12/04	66.88	62.28	
5,555.06				05/13/04	66.34	61.74	

Water Levels and Data over Time
White Mesa Mill - Well TW4-8

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,616.80	5,621.40	4.60				126.00
5,555.11				06/18/04	66.29	61.69	
5,555.88				07/28/04	65.52	60.92	
5,552.97				08/30/04	68.43	63.83	
5,550.65				09/16/04	70.75	66.15	
5,548.40				10/11/04	73.00	68.40	
5,548.28				11/16/04	73.12	68.52	
5,548.80				12/22/04	72.60	68.00	
5,548.43				01/18/05	72.97	68.37	
5,548.61				02/28/05	72.79	68.19	
5,548.64				03/15/05	72.76	68.16	
5,548.65				04/26/05	72.75	68.15	
5,548.85				05/24/05	72.55	67.95	
5,548.73				06/30/05	72.67	68.07	
5,548.62				07/29/05	72.78	68.18	
5,548.80				09/12/05	72.60	68.00	
5,548.71				12/07/05	72.69	68.09	
5,549.72				03/08/06	71.68	67.08	
5,549.70				06/13/06	71.70	67.10	
5,549.70				07/18/06	71.70	67.10	
5,549.65				11/07/06	71.75	67.15	
5,551.11				02/27/07	70.29	65.69	
5,550.20				05/02/07	71.20	66.60	
5,550.59				08/14/07	70.81	66.21	
5,550.76				10/10/07	70.64	66.04	
5,551.95				03/26/08	69.45	64.85	
5,552.36				06/24/08	69.04	64.44	
5,552.50				08/26/08	68.9	64.30	
5,552.56				10/14/08	68.84	64.24	
5,552.91				03/03/09	68.49	63.89	
5,553.27				06/24/09	68.13	63.53	
5,553.12				09/10/09	68.28	63.68	
5,553.63				12/11/09	67.77	63.17	
5,554.65				03/11/10	66.75	62.15	
5,554.57				05/11/10	66.83	62.23	
5,554.34				09/29/10	67.06	62.46	
5,554.09				12/21/10	67.31	62.71	
5,554.50				02/28/11	66.9	62.30	
5,554.79				06/21/11	66.61	62.01	

Water Levels and Data over Time
White Mesa Mill - Well TW4-9

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,636.11	5,637.59	1.48				121.33
5,577.09				12/20/99	60.5	59.02	
5,577.09				01/02/00	60.5	59.02	
5,577.29				01/10/00	60.3	58.82	
5,577.09				01/17/00	60.5	59.02	
5,577.39				01/24/00	60.2	58.72	
5,577.29				02/01/00	60.3	58.82	
5,577.19				02/07/00	60.4	58.92	
5,577.69				02/14/00	59.9	58.42	
5,577.69				02/23/00	59.9	58.42	
5,577.79				03/01/00	59.8	58.32	
5,577.79				03/08/00	59.8	58.32	
5,577.89				03/15/00	59.7	58.22	
5,568.49				03/20/00	69.1	67.62	
5,578.14				03/29/00	59.45	57.97	
5,577.84				04/04/00	59.75	58.27	
5,578.04				04/13/00	59.55	58.07	
5,578.24				04/21/00	59.35	57.87	
5,578.39				04/28/00	59.2	57.72	
5,578.39				05/01/00	59.2	57.72	
5,578.79				05/11/00	58.8	57.32	
5,578.39				05/15/00	59.2	57.72	
5,578.79				05/25/00	58.8	57.32	
5,578.81				06/09/00	58.78	57.30	
5,578.89				06/16/00	58.7	57.22	
5,578.74				06/26/00	58.85	57.37	
5,578.86				07/06/00	58.73	57.25	
5,578.87				07/13/00	58.72	57.24	
5,578.84				07/18/00	58.75	57.27	
5,579.03				07/27/00	58.56	57.08	
5,579.03				08/02/00	58.56	57.08	
5,579.05				08/09/00	58.54	57.06	
5,579.04				08/15/00	58.55	57.07	
5,579.25				08/31/00	58.34	56.86	
5,579.35				09/08/00	58.24	56.76	
5,579.40				09/13/00	58.19	56.71	
5,579.46				09/20/00	58.13	56.65	
5,579.44				10/05/00	58.15	56.67	
5,579.79				11/09/00	57.8	56.32	
5,579.73				12/06/00	57.86	56.38	
5,580.01				01/03/01	57.58	56.10	
5,580.30				02/09/01	57.29	55.81	
5,580.66				03/27/01	56.93	55.45	
5,580.75				04/30/01	56.84	55.36	

Water Levels and Data over Time
White Mesa Mill - Well TW4-9

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,636.11	5,637.59	1.48				121.33
5,581.04				05/31/01	56.55	55.07	
5,581.12				06/21/01	56.47	54.99	
5,581.15				07/10/01	56.44	54.96	
5,581.51				08/20/01	56.08	54.60	
5,581.70				09/19/01	55.89	54.41	
5,581.61				10/02/01	55.98	54.50	
5,581.04				05/31/01	56.55	55.07	
5,581.12				06/21/01	56.47	54.99	
5,581.15				07/10/01	56.44	54.96	
5,581.51				08/20/01	56.08	54.60	
5,581.70				09/19/01	55.89	54.41	
5,581.61				10/02/01	55.98	54.50	
5,581.83				11/08/01	55.76	54.28	
5,582.17				12/03/01	55.42	53.94	
5,582.21				01/03/02	55.38	53.90	
5,582.57				02/06/02	55.02	53.54	
5,583.12				03/26/02	54.47	52.99	
5,582.77				04/09/02	54.82	53.34	
5,583.21				05/23/02	54.38	52.90	
5,582.94				06/05/02	54.65	53.17	
5,582.71				07/08/02	54.88	53.40	
5,583.67				08/23/02	53.92	52.44	
5,583.82				09/11/02	53.77	52.29	
5,584.01				10/23/02	53.58	52.10	
5,583.88				11/22/02	53.71	52.23	
5,583.81				12/03/02	53.78	52.30	
5,584.28				01/09/03	53.31	51.83	
5,584.41				02/12/03	53.18	51.70	
5,584.68				03/26/03	52.91	51.43	
5,584.49				04/02/03	53.10	51.62	
5,584.51				05/01/03	53.08	51.60	
5,583.59				06/09/03	54.00	52.52	
5,582.96				07/07/03	54.63	53.15	
5,582.98				08/04/03	54.61	53.13	
5,582.57				09/11/03	55.02	53.54	
5,582.25				10/02/03	55.34	53.86	
5,582.09				11/07/03	55.50	54.02	
5,582.48				12/03/03	55.11	53.63	
5,583.69				01/15/04	53.90	52.42	
5,583.89				02/10/04	53.70	52.22	
5,584.30				03/28/04	53.29	51.81	
5,584.59				04/12/04	53.00	51.52	
5,584.87				05/13/04	52.72	51.24	

Water Levels and Data over Time
White Mesa Mill - Well TW4-9

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,636.11	5,637.59	1.48				121.33
5,584.96				06/18/04	52.63	51.15	
5,585.50				07/28/04	52.09	50.61	
5,584.81				08/30/04	52.78	51.30	
5,584.40				09/16/04	53.19	51.71	
5,583.91				10/11/04	53.68	52.20	
5,583.39				11/16/04	54.20	52.72	
5,583.54				12/22/04	54.05	52.57	
5,583.34				01/18/05	54.25	52.77	
5,583.66				02/28/05	53.93	52.45	
5,583.87				03/15/05	53.72	52.24	
5,584.74				04/26/05	52.85	51.37	
5,585.26				05/24/05	52.33	50.85	
5,585.06				06/30/05	52.53	51.05	
5,584.67				07/29/05	52.92	51.44	
5,584.75				09/12/05	52.84	51.36	
5,584.51				12/07/05	53.08	51.60	
5,585.74				03/08/06	51.85	50.37	
5,584.74				06/13/06	52.85	51.37	
5,584.26				07/18/06	53.33	51.85	
5,584.21				11/07/06	53.38	51.90	
5,584.67				02/27/07	52.92	51.44	
5,584.06				05/02/07	53.53	52.05	
5,585.33				08/14/07	52.26	50.78	
5,585.42				10/10/07	52.17	50.69	
5,587.01				03/26/08	50.58	49.10	
5,585.44				06/24/08	52.15	50.67	
5,585.23				08/26/08	52.36	50.88	
5,584.42				10/14/08	53.17	51.69	
5,583.59				03/03/09	54	52.52	
5,583.35				06/24/09	54.24	52.76	
5,582.91				09/10/09	54.68	53.20	
5,583.43				12/11/09	54.16	52.68	
5,584.00				03/11/10	53.59	52.11	
5,583.27				05/11/10	54.32	52.84	
5,582.92				09/29/10	54.67	53.19	
5,583.08				12/21/10	54.51	53.03	
5,582.63				02/28/11	54.96	53.48	
5,583.62				06/21/11	53.97	52.49	

Water Levels and Data over Time
White Mesa Mill - Well TW4-10

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,631.99	5,634.24	2.25				111
5,576.75				01/03/02	57.49	55.24	
5,576.92				02/06/02	57.32	55.07	
5,577.43				03/26/02	56.81	54.56	
5,577.22				04/09/02	57.02	54.77	
5,577.80				05/23/02	56.44	54.19	
5,577.47				06/05/02	56.77	54.52	
5,577.55				07/08/02	56.69	54.44	
5,578.10				08/23/02	56.14	53.89	
5,578.24				09/11/02	56.00	53.75	
5,578.49				10/23/02	55.75	53.50	
5,578.43				11/22/02	55.81	53.56	
5,578.43				12/03/02	55.81	53.56	
5,578.66				01/09/03	55.58	53.33	
5,578.66				02/12/03	55.58	53.33	
5,578.78				03/26/03	55.46	53.21	
5,578.90				04/02/03	55.34	53.09	
5,578.83				05/01/03	55.41	53.16	
5,578.05				06/09/03	56.19	53.94	
5,577.38				07/07/03	56.86	54.61	
5,577.15				08/04/03	57.09	54.84	
5,576.76				09/11/03	57.48	55.23	
5,576.36				10/02/03	57.88	55.63	
5,576.05				11/07/03	58.19	55.94	
5,576.20				12/03/03	58.04	55.79	
5,577.43				01/15/04	56.81	54.56	
5,577.81				02/10/04	56.43	54.18	
5,578.47				03/28/04	55.77	53.52	
5,578.69				04/12/04	55.55	53.30	
5,578.93				05/13/04	55.31	53.06	
5,578.99				06/18/04	55.25	53.00	
5,579.18				07/28/04	55.06	52.81	
5,579.06				08/30/04	55.18	52.93	
5,578.78				09/16/04	55.46	53.21	
5,577.80				10/11/04	56.44	54.19	
5,577.13				11/16/04	57.11	54.86	
5,576.96				12/22/04	57.28	55.03	
5,576.63				01/18/05	57.61	55.36	
5,576.82				02/28/05	57.42	55.17	
5,576.86				03/15/05	57.38	55.13	
5,577.52				04/26/05	56.72	54.47	
5,578.01				05/24/05	56.23	53.98	
5,578.15				06/30/05	56.09	53.84	
5,577.90				07/29/05	56.34	54.09	

Water Levels and Data over Time
White Mesa Mill - Well TW4-10

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,631.99	5,634.24	2.25				111
5,578.02				09/12/05	56.22	53.97	
5,577.56				12/07/05	56.68	54.43	
5,579.69				03/08/06	54.55	52.30	
5,578.34				06/13/06	55.90	53.65	
5,577.94				07/18/06	56.30	54.05	
5,578.01				11/07/06	56.23	53.98	
5578.43				02/27/07	55.81	53.56	
5,577.84				05/02/07	56.40	54.15	
5,578.74				08/14/07	55.50	53.25	
5,579.04				10/10/07	55.20	52.95	
5,580.69				03/26/08	53.55	51.30	
5,579.87				06/24/08	54.37	52.12	
5,579.47				08/26/08	54.77	52.52	
5,578.87				10/14/08	55.37	53.12	
5,578.01				03/10/09	56.23	53.98	
5,577.85				06/24/09	56.39	54.14	
5,577.49				09/10/09	56.75	54.50	
5,577.98				12/11/09	56.26	54.01	
5,578.38				03/11/10	55.86	53.61	
5,578.16				05/11/10	56.08	53.83	
5,577.85				09/29/10	56.39	54.14	
5,577.28				12/21/10	56.96	54.71	
5,577.14				02/28/11	57.1	54.85	
5,578.09				06/21/11	56.15	53.90	

Water Levels and Data over Time
White Mesa Mill - Well TW4-11

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,621.92	5,623.62	1.70				100
5,548.32				01/03/02	75.30	73.60	
5,548.73				02/06/02	74.89	73.19	
5,549.03				03/26/02	74.59	72.89	
5,548.84				04/09/02	74.78	73.08	
5,549.30				05/23/02	74.32	72.62	
5,549.01				06/05/02	74.61	72.91	
5,549.22				07/08/02	74.40	72.70	
5,549.44				08/23/02	74.18	72.48	
5,549.57				09/11/02	74.05	72.35	
5,549.64				10/23/02	73.98	72.28	
5,549.58				11/22/02	74.04	72.34	
5,549.62				12/03/02	74.00	72.30	
5,549.85				01/09/03	73.77	72.07	
5,549.91				02/12/03	73.71	72.01	
5,550.15				03/26/03	73.47	71.77	
5,550.01				04/02/03	73.61	71.91	
5,550.31				05/01/03	73.31	71.61	
5,550.44				06/09/03	73.18	71.48	
5,550.33				07/07/03	73.29	71.59	
5,550.35				08/04/03	73.27	71.57	
5,550.44				09/11/03	73.18	71.48	
5,550.47				10/02/03	73.15	71.45	
5,550.60				11/07/03	73.02	71.32	
5,550.60				12/03/03	73.02	71.32	
5,550.94				01/15/04	72.68	70.98	
5,551.00				02/10/04	72.62	70.92	
5,550.34				03/28/04	73.28	71.58	
5,551.54				04/12/04	72.08	70.38	
5,551.89				05/13/04	71.73	70.03	
5,551.94				06/18/04	71.68	69.98	
5,552.49				07/28/04	71.13	69.43	
5,552.74				08/30/04	70.88	69.18	
5,553.01				09/16/04	70.61	68.91	
5,553.11				10/11/04	70.51	68.81	
5,553.19				11/16/04	70.43	68.73	
5,553.53				12/22/04	70.09	68.39	
5,553.31				01/18/05	70.31	68.61	
5,553.84				02/28/05	69.78	68.08	
5,554.04				03/15/05	69.58	67.88	
5,554.23				04/26/05	69.39	67.69	
5,553.87				05/24/05	69.75	68.05	
5,554.46				06/30/05	69.16	67.46	
5,554.57				07/29/05	69.05	67.35	

Water Levels and Data over Time
White Mesa Mill - Well TW4-11

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,621.92	5,623.62	1.70				100
5,553.86				09/12/05	69.76	68.06	
5,555.30				12/07/05	68.32	66.62	
5,556.20				03/08/06	67.42	65.72	
5,556.48				06/14/06	67.14	65.44	
5,556.37				07/18/06	67.25	65.55	
5,556.94				11/07/06	66.68	64.98	
5557.92				02/27/07	65.7	64	
5,557.84				05/02/07	65.78	64.08	
5,558.02				08/15/07	65.60	63.90	
5,557.13				10/10/07	66.49	64.79	
5,569.74				03/26/08	53.88	52.18	
5,561.01				06/24/08	62.61	60.91	
5,562.07				08/26/08	61.55	59.85	
5,562.47				10/14/08	61.15	59.45	
5,563.80				03/10/09	59.82	58.12	
5,564.27				06/24/09	59.35	57.65	
5,564.32				09/10/09	59.3	57.60	
5,564.70				12/11/09	58.92	57.22	
5,565.14				03/11/10	58.48	56.78	
5,565.61				05/11/10	58.01	56.31	
5,565.67				09/29/10	57.95	56.25	
5,565.62				12/21/10	58	56.30	
5,565.42				02/28/11	58.2	56.50	
5,566.01				06/21/11	57.61	55.91	

Water Levels and Data over Time
White Mesa Mill - Well TW4-12

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,622.38	5,624.23	1.85				101.5
5,580.91				08/23/02	43.32	41.47	
5,581.54				09/11/02	42.69	40.84	
5,581.33				10/23/02	42.90	41.05	
5,581.47				11/22/02	42.76	40.91	
5,581.55				12/03/02	42.68	40.83	
5,582.58				01/09/03	41.65	39.80	
5,582.47				02/12/03	41.76	39.91	
5,582.71				03/26/03	41.52	39.67	
5,582.11				04/02/03	42.12	40.27	
5,582.92				05/01/03	41.31	39.46	
5,583.13				06/09/03	41.10	39.25	
5,583.21				07/07/03	41.02	39.17	
5,583.31				08/04/03	40.92	39.07	
5,583.55				09/11/03	40.68	38.83	
5,583.72				10/02/03	40.51	38.66	
5,583.77				11/07/03	40.46	38.61	
5,584.01				12/03/03	40.22	38.37	
5,584.37				01/15/04	39.86	38.01	
5,584.39				02/10/04	39.84	37.99	
5,584.51				03/28/04	39.72	37.87	
5,584.90				04/12/04	39.33	37.48	
5,584.88				05/13/04	39.35	37.50	
5,584.93				06/18/04	39.30	37.45	
5,585.36				07/28/04	38.87	37.02	
5,585.38				08/30/04	38.85	37.00	
5,585.49				09/16/04	38.74	36.89	
5,585.85				10/11/04	38.38	36.53	
5,585.91				11/16/04	38.32	36.47	
5,586.35				12/22/04	37.88	36.03	
5,586.14				01/18/05	38.09	36.24	
5,586.56				02/28/05	37.67	35.82	
5,586.95				03/15/05	37.28	35.43	
5,587.20				04/26/05	37.03	35.18	
5,587.35				05/24/05	36.88	35.03	
5,587.58				06/30/05	36.65	34.80	
5,587.58				07/29/05	36.65	34.80	
5,587.94				09/12/05	36.29	34.44	
5,588.43				12/07/05	35.80	33.95	
5,588.92				03/08/06	35.31	33.46	
5,588.34				06/13/06	35.89	34.04	
5,588.33				07/18/06	35.90	34.05	
5,584.70				11/07/06	39.53	37.68	
5588.85				02/27/07	35.38	33.53	

Water Levels and Data over Time
White Mesa Mill - Well TW4-12

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,622.38	5,624.23	1.85				101.5
5,588.53				05/02/07	35.70	33.85	
5,586.49				08/14/07	37.74	35.89	
5,586.68				10/10/07	37.55	35.70	
5,587.76				03/26/08	36.47	34.62	
5,587.59				06/24/08	36.64	34.79	
5,587.35				08/26/08	36.88	35.03	
5,586.84				10/14/08	37.39	35.54	
5,586.17				03/03/09	38.06	36.21	
5,585.74				06/24/09	38.49	36.64	
5,585.54				09/10/09	38.69	36.84	
5,585.77				12/11/09	38.46	36.61	
5,585.88				03/11/10	38.35	36.50	
5,586.35				05/11/10	37.88	36.03	
5,585.68				09/29/10	38.55	36.70	
5,585.09				12/21/10	39.14	37.29	
5,584.65				02/28/11	39.58	37.73	
5,584.76				06/21/11	39.47	37.62	

Water Levels and Data over Time
White Mesa Mill - Well TW4-13

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,618.09	5,619.94	1.85				102.5
5,529.66				08/23/02	90.28	88.43	
5,530.66				09/11/02	89.28	87.43	
5,529.10				10/23/02	90.84	88.99	
5,530.58				11/22/02	89.36	87.51	
5,530.61				12/03/02	89.33	87.48	
5,529.74				01/09/03	90.20	88.35	
5,531.03				02/12/03	88.91	87.06	
5,531.82				03/26/03	88.12	86.27	
5,524.63				04/02/03	95.31	93.46	
5,531.54				05/01/03	88.40	86.55	
5,538.46				06/09/03	81.48	79.63	
5,539.38				07/07/03	80.56	78.71	
5,540.72				08/04/03	79.22	77.37	
5,541.25				09/11/03	78.69	76.84	
5,541.34				10/02/03	78.60	76.75	
5,541.69				11/07/03	78.25	76.40	
5,541.91				12/03/03	78.03	76.18	
5,542.44				01/15/04	77.50	75.65	
5,542.47				02/10/04	77.47	75.62	
5,542.84				03/28/04	77.10	75.25	
5,543.08				04/12/04	76.86	75.01	
5,543.34				05/13/04	76.60	74.75	
5,543.40				06/18/04	76.54	74.69	
5,544.06				07/28/04	75.88	74.03	
5,544.61				08/30/04	75.33	73.48	
5,545.23				09/16/04	74.71	72.86	
5,546.20				10/11/04	73.74	71.89	
5,547.43				11/16/04	72.51	70.66	
5,548.96				12/22/04	70.98	69.13	
5,549.02				01/18/05	70.92	69.07	
5,550.66				02/28/05	69.28	67.43	
5,551.26				03/15/05	68.68	66.83	
5,552.23				04/26/05	67.71	65.86	
5,552.87				05/24/05	67.07	65.22	
5,553.42				06/30/05	66.52	64.67	
5,554.00				07/29/05	65.94	64.09	
5,555.21				09/12/05	64.73	62.88	
5,558.13				12/07/05	61.81	59.96	
5,562.93				03/08/06	57.01	55.16	
5,564.39				06/13/06	55.55	53.70	
5,562.09				07/18/06	57.85	56.00	
5,565.49				11/07/06	54.45	52.60	
5571.08				02/27/07	48.86	47.01	

Water Levels and Data over Time
White Mesa Mill - Well TW4-13

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,618.09	5,619.94	1.85				102.5
5,570.63				05/02/07	49.31	47.46	
5,565.24				08/14/07	54.7	52.85	
5,565.83				10/10/07	54.11	52.26	
5,569.29				03/26/08	50.65	48.80	
5,570.00				06/24/08	49.94	48.09	
5,570.41				08/26/08	49.53	47.68	
5,570.64				10/14/08	49.3	47.45	
5,570.43				03/03/09	49.51	47.66	
5,570.56				06/24/09	49.38	47.53	
5,570.42				09/10/09	49.52	47.67	
5,571.15				12/11/09	48.79	46.94	
5,572.01				03/11/10	47.93	46.08	
5,572.88				05/11/10	47.06	45.21	
5,573.17				09/29/10	46.77	44.92	
5,573.14				12/21/10	46.8	44.95	
5,573.10				02/28/11	46.84	44.99	
5,573.75				06/21/11	46.19	44.34	

Water Levels and Data over Time
White Mesa Mill - Well TW4-14

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,610.92	5,612.77	1.85				93
5,518.90				08/23/02	93.87	92.02	
5,519.28				09/11/02	93.49	91.64	
5,519.95				10/23/02	92.82	90.97	
5,520.32				11/22/02	92.45	90.60	
5,520.42				12/03/02	92.35	90.50	
5,520.70				01/09/03	92.07	90.22	
5,520.89				02/12/03	91.88	90.03	
5,521.12				03/26/03	91.65	89.80	
5,521.12				04/02/03	91.65	89.80	
5,521.24				05/01/03	91.53	89.68	
5,521.34				06/09/03	91.43	89.58	
5,521.36				07/07/03	91.41	89.56	
5,521.35				08/04/03	91.42	89.57	
5,521.30				09/11/03	91.47	89.62	
5,521.35				10/02/03	91.42	89.57	
5,521.36				11/07/03	91.41	89.56	
5,521.16				12/03/03	91.61	89.76	
5,521.29				01/15/04	91.48	89.63	
5,521.36				02/10/04	91.41	89.56	
5,521.46				03/28/04	91.31	89.46	
5,521.54				04/12/04	91.23	89.38	
5,521.59				05/13/04	91.18	89.33	
5,521.69				06/18/04	91.08	89.23	
5,521.71				07/28/04	91.06	89.21	
5,521.76				08/30/04	91.01	89.16	
5,521.77				09/16/04	91.00	89.15	
5,521.79				10/11/04	90.98	89.13	
5,521.80				11/16/04	90.97	89.12	
5,521.82				12/22/04	90.95	89.10	
5,521.82				01/18/05	90.95	89.10	
5,521.86				02/28/05	90.91	89.06	
5,521.85				03/15/05	90.92	89.07	
5,521.91				04/26/05	90.86	89.01	
5,521.93				05/24/05	90.84	88.99	
5,521.94				06/30/05	90.83	88.98	
5,521.84				07/29/05	90.93	89.08	
5,521.99				09/12/05	90.78	88.93	
5,522.04				12/07/05	90.73	88.88	
5,522.05				03/08/06	90.72	88.87	
5,522.27				06/13/06	90.50	88.65	
5,521.92				07/18/06	90.85	89.00	
5,520.17				11/07/06	92.60	90.75	
5522.24				02/27/07	90.53	88.68	

Water Levels and Data over Time
White Mesa Mill - Well TW4-14

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,610.92	5,612.77	1.85				93
5,522.47				05/02/07	90.30	88.45	
5,520.74				08/14/07	92.03	90.18	
5,518.13				10/10/07	94.64	92.79	
5,522.85				03/26/08	89.92	88.07	
5,522.91				06/24/08	89.86	88.01	
5,523.01				08/26/08	89.76	87.91	
5,522.96				10/14/08	89.81	87.96	
5,523.20				03/03/09	89.57	87.72	
5,523.33				06/24/09	89.44	87.59	
5,523.47				09/10/09	89.3	87.45	
5,523.54				12/11/09	89.23	87.38	
5,522.98				03/11/10	89.79	87.94	
5,524.01				05/11/10	88.76	86.91	
5,524.37				09/29/10	88.40	86.55	
5,524.62				12/21/10	88.15	86.30	
5,524.78				02/28/11	87.99	86.14	
5,525.23				06/21/11	87.54	85.69	

Water Levels and Data over Time
White Mesa Mill - Well MW-26

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,624.15	5,625.45	1.30				121.33
5,574.75				08/23/02	50.70	49.40	
5,574.97				09/11/02	50.48	49.18	
5,575.10				10/23/02	50.35	49.05	
5,574.99				11/22/02	50.46	49.16	
5,575.28				12/03/02	50.17	48.87	
5,575.41				01/09/03	50.04	48.74	
5,575.43				02/12/03	50.02	48.72	
5,575.63				03/26/03	49.82	48.52	
5,575.91				04/02/03	49.54	48.24	
5,575.81				05/01/03	49.64	48.34	
5,572.36				06/09/03	53.09	51.79	
5,570.70				07/07/03	54.75	53.45	
5,570.29				08/04/03	55.16	53.86	
5,560.94				09/11/03	64.51	63.21	
5,560.63				10/02/03	64.82	63.52	
5,560.56				11/07/03	64.89	63.59	
5,564.77				12/03/03	60.68	59.38	
5,570.89				01/15/04	54.56	53.26	
5,572.55				02/10/04	52.90	51.60	
5,574.25				03/28/04	51.20	49.90	
5,574.77				04/12/04	50.68	49.38	
5,575.53				05/13/04	49.92	48.62	
5,575.59				06/18/04	49.86	48.56	
5,576.82				07/28/04	48.63	47.33	
5,527.47				09/16/04	97.98	96.68	
5,553.97				11/16/04	71.48	70.18	
5,562.33				12/22/04	63.12	61.82	
5,550.00				01/18/05	75.45	74.15	
5,560.02				04/26/05	65.43	64.13	
5,546.11				05/24/05	79.34	78.04	
5,556.71				06/30/05	68.74	67.44	
5,554.95				07/29/05	70.50	69.20	
5,555.48				09/12/05	69.97	68.67	
5,551.09				12/07/05	74.36	73.06	
5,552.85				03/08/06	72.60	71.30	
5,554.30				06/13/06	71.15	69.85	
5,554.87				07/18/06	70.58	69.28	
5,550.88				11/07/06	74.57	73.27	
5558.77				02/27/07	66.68	65.38	
5,548.54				05/02/07	76.91	75.61	
5,551.33				10/10/07	74.12	72.82	
5,545.56				03/26/08	79.89	78.59	
5,545.56				06/25/08	79.89	78.59	

Water Levels and Data over Time
White Mesa Mill - Well MW-26

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,624.15	5,625.45	1.30				121.33
5,545.82				08/26/08	79.63	78.33	
5,545.64				10/14/08	79.81	78.51	
5,544.45				03/03/09	81.00	79.70	
5,545.32				06/24/09	80.13	78.83	
5,544.61				09/10/09	80.84	79.54	
5,549.33				12/11/09	76.12	74.82	
5,543.78				03/11/10	81.67	80.37	
5,545.61				05/11/10	79.84	78.54	
5,547.43				09/29/10	78.02	76.72	
5,544.14				12/21/10	81.31	80.01	
5,546.77				02/28/11	78.68	77.38	
5,537.60				06/21/11	87.85	86.55	

Water Levels and Data over Time
White Mesa Mill - Well TW4-16

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,622.19	5,624.02	1.83				142
5,562.91				08/23/02	61.11	59.28	
5,563.45				09/11/02	60.57	58.74	
5,563.75				10/23/02	60.27	58.44	
5,563.68				11/22/02	60.34	58.51	
5,563.68				12/03/02	60.34	58.51	
5,564.16				01/09/03	59.86	58.03	
5,564.25				02/12/03	59.77	57.94	
5,564.53				03/26/03	59.49	57.66	
5,564.46				04/02/03	59.56	57.73	
5,564.79				05/01/03	59.23	57.40	
5,564.31				06/09/03	59.71	57.88	
5,563.29				07/07/03	60.73	58.90	
5,562.76				08/04/03	61.26	59.43	
5,561.73				09/11/03	62.29	60.46	
5,561.04				10/02/03	62.98	61.15	
5,560.39				11/07/03	63.63	61.80	
5,559.79				12/03/03	64.23	62.40	
5,561.02				01/15/04	63	61.17	
5,561.75				02/10/04	62.27	60.44	
5,562.98				03/28/04	61.04	59.21	
5,563.29				04/12/04	60.73	58.90	
5,564.03				05/13/04	59.99	58.16	
5,564.09				06/18/04	59.93	58.10	
5,565.08				07/28/04	58.94	57.11	
5,564.56				08/30/04	59.46	57.63	
5,563.55				09/16/04	60.47	58.64	
5,561.79				10/11/04	62.23	60.40	
5,560.38				11/16/04	63.64	61.81	
5,559.71				12/22/04	64.31	62.48	
5,559.14				01/18/05	64.88	63.05	
5,558.65				02/28/05	65.37	63.54	
5,558.54				03/15/05	65.48	63.65	
5,558.22				04/26/05	65.8	63.97	
5,558.54				05/24/05	65.48	63.65	
5,559.24				06/30/05	64.78	62.95	
5,559.38				07/29/05	64.64	62.81	
5,559.23				09/12/05	64.79	62.96	
5,557.67				12/07/05	66.35	64.52	
5,557.92				03/08/06	66.10	64.27	
5,558.47				06/13/06	65.55	63.72	
5,558.42				07/18/06	65.60	63.77	
5,558.09				11/07/06	65.93	64.10	
5557.34				02/27/07	66.68	64.85	

Water Levels and Data over Time
White Mesa Mill - Well TW4-16

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,622.19	5,624.02	1.83				142
5,547.11				05/02/07	76.91	75.08	
5,558.52				08/14/07	65.5	63.67	
5,559.02				10/10/07	65.00	63.17	
5,561.04				03/26/08	62.98	61.15	
5,560.06				06/24/08	63.96	62.13	
5,559.32				08/26/08	64.7	62.87	
5,558.89				10/14/08	65.13	63.30	
5,558.40				03/03/09	65.62	63.79	
5,558.32				06/24/09	65.7	63.87	
5,558.03				09/10/09	65.99	64.16	
5,558.81				12/11/09	65.21	63.38	
5,559.80				03/11/10	64.22	62.39	
5,559.85				05/11/10	64.17	62.34	
5,560.54				09/29/10	63.48	61.65	
5,558.65				12/21/10	65.37	63.54	
5,559.26				02/28/11	64.76	62.93	
5,560.48				06/21/11	63.54	61.71	

Water Levels and Data over Time
White Mesa Mill - Well MW-32

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,623.41	5,625.24	1.83				130.6
5,542.17				08/23/02	83.07	81.24	
5,542.39				09/11/02	82.85	81.02	
5,542.61				10/23/02	82.63	80.80	
5,542.49				11/22/02	82.75	80.92	
5,542.82				12/03/02	82.42	80.59	
5,543.03				01/09/03	82.21	80.38	
5,543.04				02/12/03	82.20	80.37	
5,543.41				03/26/03	81.83	80.00	
5,543.69				04/02/03	81.55	79.72	
5,543.77				05/01/03	81.47	79.64	
5,544.01				06/09/03	81.23	79.40	
5,544.05				07/07/03	81.19	79.36	
5,543.99				08/04/03	81.25	79.42	
5,544.17				09/11/03	81.07	79.24	
5,544.06				10/02/03	81.18	79.35	
5,544.03				11/07/03	81.21	79.38	
5,543.94				12/03/03	81.30	79.47	
5,543.98				01/15/04	81.26	79.43	
5,543.85				02/10/04	81.39	79.56	
5,544.05				03/28/04	81.19	79.36	
5,544.33				04/12/04	80.91	79.08	
5,544.55				05/13/04	80.69	78.86	
5,544.59				06/18/04	80.65	78.82	
5,545.08				07/28/04	80.16	78.33	
5,545.26				08/30/04	79.98	78.15	
5,545.48				09/16/04	79.76	77.93	
5,545.61				10/11/04	79.63	77.80	
5,545.46				11/16/04	79.78	77.95	
5,545.66				12/22/04	79.58	77.75	
5,545.33				01/18/05	79.91	78.08	
5,545.51				02/28/05	79.73	77.90	
5,545.57				03/15/05	79.67	77.84	
5,545.46				04/26/05	79.78	77.95	
5,545.45				05/24/05	79.79	77.96	
5,545.33				06/30/05	79.91	78.08	
5,545.16				07/29/05	80.08	78.25	
5,545.54				09/12/05	79.70	77.87	
5,545.77				12/07/05	79.47	77.64	
5,546.09				03/08/06	79.15	77.32	
5,545.94				06/13/06	79.30	77.47	
5,545.94				07/18/06	79.30	77.47	
5,546.24				11/07/06	79.00	77.17	
5546.81				02/27/07	78.43	76.6	

Water Levels and Data over Time
White Mesa Mill - Well MW-32

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,623.41	5,625.24	1.83				130.6
5546.56				05/02/07	78.68	76.85	
5546.81				08/15/07	78.43	76.6	
5546.96				10/10/07	78.28	76.45	
5547.9				03/26/08	77.34	75.51	
5548.08				06/25/08	77.16	75.33	
5548.42				08/26/08	76.82	74.99	
5548.05				10/14/08	77.19	75.36	
5548.29				03/03/09	76.95	75.12	
5548.09				06/24/09	77.15	75.32	
5547.79				09/10/09	77.45	75.62	
5548.09				12/11/09	77.15	75.32	
5,548.50				03/11/10	76.74	74.91	
5,548.89				05/11/10	76.35	74.52	
5,548.83				09/29/10	76.41	74.58	
5,548.97				12/21/10	76.27	74.44	
5,548.68				02/28/11	76.56	74.73	
5,549.33				06/21/11	75.91	74.08	

Water Levels and Data over Time
White Mesa Mill - Well TW4-18

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,639.13	5,641.28	2.15				137.5
5,585.13				08/23/02	56.15	54.00	
5,585.41				09/11/02	55.87	53.72	
5,585.47				10/23/02	55.81	53.66	
5,585.40				11/22/02	55.88	53.73	
5,585.68				12/03/02	55.60	53.45	
5,585.90				01/09/03	55.38	53.23	
5,590.79				02/12/03	50.49	48.34	
5,586.18				03/26/03	55.10	52.95	
5,586.36				04/02/03	54.92	52.77	
5,586.24				05/01/03	55.04	52.89	
5,584.93				06/09/03	56.35	54.20	
5,584.46				07/07/03	56.82	54.67	
5,584.55				08/04/03	56.73	54.58	
5,584.01				09/11/03	57.27	55.12	
5,583.67				10/02/03	57.61	55.46	
5,583.50				11/07/03	57.78	55.63	
5,584.08				12/03/03	57.20	55.05	
5,585.45				01/15/04	55.83	53.68	
5,585.66				02/10/04	55.62	53.47	
5,586.13				03/28/04	55.15	53.00	
5,586.39				04/12/04	54.89	52.74	
5,586.66				05/13/04	54.62	52.47	
5,586.77				06/18/04	54.51	52.36	
5,587.35				07/28/04	53.93	51.78	
5,586.34				08/30/04	54.94	52.79	
5,585.85				09/16/04	55.43	53.28	
5,585.22				10/11/04	56.06	53.91	
5,584.70				11/16/04	56.58	54.43	
5,584.81				12/22/04	56.47	54.32	
5,584.68				01/18/05	56.60	54.45	
5,585.02				02/28/05	56.26	54.11	
5,585.25				03/15/05	56.03	53.88	
5,586.31				04/26/05	54.97	52.82	
5,586.97				05/24/05	54.31	52.16	
5,586.58				06/30/05	54.70	52.55	
5,586.10				07/29/05	55.18	53.03	
5,586.05				09/12/05	55.23	53.08	
5,585.86				12/07/05	55.42	53.27	
5,587.13				03/08/06	54.15	52.00	
5,585.93				06/13/06	55.35	53.20	
5,585.40				07/18/06	55.88	53.73	
5,585.38				11/07/06	55.90	53.75	
5585.83				02/27/07	55.45	53.30	

Water Levels and Data over Time
White Mesa Mill - Well TW4-18

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,639.13	5,641.28	2.15				137.5
5585.15				05/02/07	56.13	53.98	
5586.47				06/24/08	54.81	52.66	
5586.3				08/26/08	54.98	52.83	
5585.21				10/14/08	56.07	53.92	
5584.47				03/03/09	56.81	54.66	
5584.35				06/24/09	56.93	54.78	
5583.88				09/10/09	57.4	55.25	
5584.43				12/11/09	56.85	54.70	
5,585.26				03/11/10	56.02	53.87	
5,584.17				05/11/10	57.11	54.96	
5,583.61				09/29/10	57.67	55.52	
5,604.29				12/21/10	36.99	34.84	
5,583.56				02/28/11	57.72	55.57	
5,584.73				06/21/11	56.55	54.40	

Water Levels and Data over Time
White Mesa Mill - Well TW4-19

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,629.53	5,631.39	1.86				121.33
5,581.88				08/23/02	49.51	47.65	
5,582.14				09/11/02	49.25	47.39	
5,582.06				10/23/02	49.33	47.47	
5,582.07				11/22/02	49.32	47.46	
5,582.16				12/03/02	49.23	47.37	
5,582.28				01/09/03	49.11	47.25	
5,582.29				02/21/03	49.10	47.24	
5,582.74				03/26/03	48.65	46.79	
5,582.82				04/02/03	48.57	46.71	
5,548.47				05/01/03	82.92	81.06	
5,564.76				06/09/03	66.63	64.77	
5,562.53				07/07/03	68.86	67.00	
5,564.10				08/04/03	67.29	65.43	
5,566.01				08/30/04	65.38	63.52	
5,555.16				09/16/04	76.23	74.37	
5,549.80				10/11/04	81.59	79.73	
5,546.04				11/16/04	85.35	83.49	
5,547.34				12/22/04	84.05	82.19	
5,548.77				01/18/05	82.62	80.76	
5,551.18				02/28/05	80.21	78.35	
5,556.81				03/15/05	74.58	72.72	
5,562.63				04/26/05	68.76	66.90	
5,573.42				05/24/05	57.97	56.11	
5,552.94				07/29/05	78.45	76.59	
5,554.00				09/12/05	77.39	75.53	
5,555.98				12/07/05	75.41	73.55	
5,552.00				03/08/06	79.39	77.53	
5,545.74				06/13/06	85.65	83.79	
5,544.06				07/18/06	87.33	85.47	
5,548.81				11/07/06	82.58	80.72	
5543.59				02/27/07	87.8	85.94	
5544.55				05/02/07	86.84	84.98	
5558.97				08/15/07	72.42	70.56	
5559.73				10/10/07	71.66	69.8	
5569.26				03/26/08	62.13	60.27	
5535.47				06/25/08	95.92	94.06	
5541.41				08/26/08	89.98	88.12	
5558.45				10/14/08	72.94	71.08	
5536.9				03/03/09	94.49	92.63	
5547.76				06/24/09	83.63	81.77	
5561.48				09/10/09	69.91	68.05	
5548.14				12/11/09	83.25	81.39	
5,570.58				03/11/10	60.81	58.95	

Water Levels and Data over Time
White Mesa Mill - Well TW4-19

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,629.53	5,631.39	1.86				121.33
5,561.35				05/11/10	70.04	68.18	
5,535.26				09/29/10	96.13	94.27	
5,568.40				12/21/10	62.99	61.13	
5,550.36				02/28/11	81.03	79.17	
5,570.41				06/21/11	60.98	59.12	

Water Levels and Data over Time
White Mesa Mill - Well TW4-20

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,628.52	5,629.53	1.01				106.0
5,565.70				07/29/05	63.83	62.82	
5,546.53				08/30/05	83.00	81.99	
5,540.29				09/12/05	89.24	88.23	
5,541.17				12/07/05	88.36	87.35	
5,540.33				03/08/06	89.20	88.19	
5,530.43				06/13/06	99.10	98.09	
5,569.13				07/18/06	60.40	59.39	
5,547.95				11/07/06	81.58	80.57	
5,549.25				02/27/07	80.28	79.27	
5,550.58				05/02/07	78.95	77.94	
5,563.60				08/14/07	65.93	64.92	
5,555.85				10/10/07	73.68	72.67	
5,569.10				03/26/08	60.43	59.42	
5,560.00				06/25/08	69.53	68.52	
5,539.64				08/26/08	89.89	88.88	
5,539.51				10/14/08	90.02	89.01	
5,553.00				03/03/09	76.53	75.52	
5,534.18				06/24/09	95.35	94.34	
5,558.39				09/10/09	71.14	70.13	
5,560.99				12/11/09	68.54	67.53	
5,564.09				03/11/10	65.44	64.43	
5,564.22				05/11/10	65.31	64.30	
5,560.33				09/29/10	69.20	68.19	
5,561.35				12/21/10	68.18	67.17	
5,560.18				02/28/11	69.35	68.34	
5,576.23				06/21/11	53.3	52.29	

Water Levels and Data over Time
White Mesa Mill - Well TW4-21

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,638.20	5,639.35	1.15				120.92
5,582.98				07/29/05	56.37	55.22	
5,583.43				08/30/05	55.92	54.77	
5,581.87				09/12/05	57.48	56.33	
5,580.50				12/07/05	58.85	57.70	
5,583.64				03/08/06	55.71	54.56	
5,580.55				06/13/06	58.80	57.65	
5,578.95				07/18/06	60.40	59.25	
5,578.47				11/07/06	60.88	59.73	
5,579.53				02/27/07	59.82	58.67	
5,578.07				05/02/07	61.28	60.13	
5,583.41				08/15/07	55.94	54.79	
5,583.45				10/10/07	55.9	54.75	
5,586.47				03/26/08	52.88	51.73	
5,579.16				06/24/08	60.19	59.04	
5,579.92				08/26/08	59.43	58.28	
5,577.37				10/14/08	61.98	60.83	
5,578.00				03/10/09	61.35	60.20	
5,580.14				06/24/09	59.21	58.06	
5,578.72				09/10/09	60.63	59.48	
5,579.99				12/11/09	59.36	58.21	
5,582.81				03/11/10	56.54	55.39	
5,582.23				05/11/10	57.12	55.97	
5,576.60				09/29/10	62.75	61.60	
5,581.14				12/21/10	58.21	57.06	
5,579.53				02/28/11	59.82	58.67	
5,584.17				06/21/11	55.18	54.03	

Water Levels and Data over Time
White Mesa Mill - Well TW4-22

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,627.83	5,629.00	1.17				113.5
5,571.89				07/29/05	57.11	55.94	
5,572.20				08/30/05	56.80	55.63	
5,572.08				09/12/05	56.92	55.75	
5,571.61				12/07/05	57.39	56.22	
5,571.85				03/08/06	57.15	55.98	
5,571.62				06/13/06	57.38	56.21	
5,571.42				07/18/06	57.58	56.41	
5,571.02				11/07/06	57.98	56.81	
5571.24				02/27/07	57.76	56.59	
5,570.75				06/29/07	58.25	57.08	
5,571.82				08/14/07	57.18	56.01	
5,571.99				10/10/07	57.01	55.84	
5,573.05				03/26/08	55.95	54.78	
5,573.04				06/24/08	55.96	54.79	
5,573.04				08/26/08	55.96	54.79	
5,573.02				10/14/08	55.98	54.81	
5,573.19				03/10/09	55.81	54.64	
5,573.32				06/24/09	55.68	54.51	
5,573.17				09/10/09	55.83	54.66	
5,573.52				12/11/09	55.48	54.31	
5,573.88				03/11/10	55.12	53.95	
5,574.29				05/11/10	54.71	53.54	
5,574.88				09/29/10	54.12	52.95	
5,574.44				12/21/10	54.56	53.39	
5,574.49				02/28/11	54.51	53.34	
5,574.97				06/21/11	54.03	52.86	

Water Levels and Data over Time
White Mesa Mill - Well TW4-23

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,605.77	5,607.37	1.60				113.5
5,538.89				09/13/07	68.48	66.88	
5,538.80				10/10/07	68.57	66.97	
5,539.25				11/30/07	68.12	66.52	
5,539.49				12/11/07	67.88	66.28	
5,539.19				01/08/08	68.18	66.58	
5,539.44				02/18/08	67.93	66.33	
5,539.54				03/26/08	67.83	66.23	
5,539.71				04/23/08	67.66	66.06	
5539.48				05/30/08	67.89	66.29	
5,539.53				06/24/08	67.84	66.24	
5,539.44				07/16/08	67.93	66.33	
5,539.68				08/26/08	67.69	66.09	
5,541.18				09/10/08	66.19	64.59	
5,539.57				10/14/08	67.8	66.20	
5,539.29				11/26/08	68.08	66.48	
5,539.55				12/29/08	67.82	66.22	
5,540.15				01/26/09	67.22	65.62	
5,539.74				02/24/09	67.63	66.03	
5,539.86				03/06/09	67.51	65.91	
5,539.72				04/07/09	67.65	66.05	
5,539.84				05/29/09	67.53	65.93	
5,540.12				06/30/09	67.25	65.65	
5,540.12				07/31/09	67.25	65.65	
5,540.27				08/31/09	67.1	65.50	
5,540.13				09/10/09	67.24	65.64	
5,540.64				12/11/09	66.73	65.13	
5,541.15				03/11/10	66.22	64.62	
5,541.61				05/11/10	65.76	64.16	
5,541.47				09/29/10	65.90	64.30	
5,541.54				12/21/10	65.83	64.23	
5,541.54				02/28/11	65.83	64.23	
5,541.98				06/21/11	65.39	63.79	

Water Levels and Data over Time
White Mesa Mill - Well TW4-24

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,625.70	5,627.83	2.13				113.5
5,570.61				09/13/07	57.22	55.09	
5,570.53				10/10/07	57.30	55.17	
5,571.16				11/30/07	56.67	54.54	
5,571.30				12/11/07	56.53	54.40	
5,571.03				01/08/08	56.80	54.67	
5,571.22				02/18/08	56.61	54.48	
5,571.43				03/26/08	56.40	54.27	
5,571.68				04/23/08	56.15	54.02	
5571.52				05/30/08	56.31	54.18	
5,571.34				06/24/08	56.49	54.36	
5,571.28				07/16/08	56.55	54.42	
5,571.34				08/26/08	56.49	54.36	
5,571.23				09/10/08	56.60	54.47	
5,571.12				10/14/08	56.71	54.58	
5,570.95				11/26/08	56.88	54.75	
5,570.92				12/29/08	56.91	54.78	
5,571.65				01/26/09	56.18	54.05	
5,571.31				02/24/09	56.52	54.39	
5,571.37				03/06/09	56.46	54.33	
5,571.21				04/07/09	56.62	54.49	
5,571.23				05/29/09	56.60	54.47	
5,571.42				06/30/09	56.41	54.28	
5,571.38				07/31/09	56.45	54.32	
5,571.48				08/31/09	56.35	54.22	
5,571.28				09/10/09	56.55	54.42	
5,571.64				12/11/09	56.19	54.06	
5,571.86				03/11/10	55.97	53.84	
5,571.91				05/11/10	55.92	53.79	
5,572.18				09/29/10	55.65	53.52	
5,571.86				12/21/10	55.97	53.84	
5,571.78				02/28/11	56.05	53.92	
5,572.40				06/21/11	55.43	53.30	

Water Levels and Data over Time
White Mesa Mill - Well TW4-25

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,627.83	5,644.91	17.08				134.8
5,601.86				09/13/07	43.05	25.97	
5,601.89				10/10/07	43.02	25.94	
5,602.57				11/30/07	42.34	25.26	
5,602.82				12/11/07	42.09	25.01	
5,601.94				01/08/08	42.97	25.89	
5,599.13				02/18/08	45.78	28.70	
5,597.11				03/26/08	47.80	30.72	
5,595.51				04/23/08	49.40	32.32	
5594.42				05/30/08	50.49	33.41	
5,594.26				06/24/08	50.65	33.57	
5,586.67				07/16/08	58.24	41.16	
5,594.17				08/26/08	50.74	33.66	
5,594.23				09/10/08	50.68	33.60	
5,594.12				10/14/08	50.79	33.71	
5,594.06				11/26/08	50.85	33.77	
5,594.87				12/29/08	50.04	32.96	
5,595.89				01/26/09	49.02	31.94	
5,596.27				02/24/09	48.64	31.56	
5,596.47				03/06/09	48.44	31.36	
5,596.74				04/07/09	48.17	31.09	
5,597.55				05/29/09	47.36	30.28	
5,598.11				06/30/09	46.8	29.72	
5,598.22				07/31/09	46.69	29.61	
5,598.52				08/31/09	46.39	29.31	
5,598.49				09/10/09	46.42	29.34	
5,599.48				12/11/09	45.43	28.35	
5,599.75				03/11/10	45.16	28.08	
5,599.63				05/11/10	45.28	28.20	
5,598.68				09/29/10	46.23	29.15	
5,598.66				12/21/10	46.25	29.17	
5,598.18				02/28/11	46.73	29.65	
5,598.61				06/21/11	46.30	29.22	

Water Levels and Data over Time
White Mesa Mill - Well TW4-26

Water Elevation (WL)	Land Surface (LSD)	Measuring Point Elevation (MP)	Length Of Riser (L)	Date Of Monitoring	Total or Measured Depth to Water (blw.MP)	Total Depth to Water (blw.LSD)	Total Depth Of Well
	5,599.98	5,601.68	1.70				86
5,536.90				06/14/10	64.78	63.08	
5,536.95				09/29/10	64.73	63.03	
5,537.17				12/21/10	64.51	62.81	
5,537.16				02/28/11	64.52	62.82	
5,537.57				06/21/11	64.11	62.41	

Tab H

Laboratory Analytical Reports

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060152-010
Client Sample ID: MW-4

Report Date: 06/22/11
Collection Date: 06/01/11 08:52
DateReceived: 06/03/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	35	mg/L		1		A4500-Cl B	06/14/11 11:01 / wc
Nitrogen, Nitrate+Nitrite as N	4.9	mg/L	D	0.5		E353.2	06/07/11 13:48 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	1.4	ug/L		1.0		SW8260B	06/04/11 21:11 / jlr
Chloroform	1700	ug/L	D	50		SW8260B	06/13/11 21:32 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/04/11 21:11 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/04/11 21:11 / jlr
Surr: 1,2-Dichlorobenzene-d4	100	%REC		80-120		SW8260B	06/04/11 21:11 / jlr
Surr: Dibromofluoromethane	105	%REC		70-130		SW8260B	06/04/11 21:11 / jlr
Surr: p-Bromofluorobenzene	92.0	%REC		80-120		SW8260B	06/04/11 21:11 / jlr
Surr: Toluene-d8	102	%REC		80-120		SW8260B	06/04/11 21:11 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060152-009
Client Sample ID: TW4-1

Report Date: 06/22/11
Collection Date: 06/01/11 08:39
DateReceived: 06/03/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	35	mg/L		1		A4500-Cl B	06/14/11 11:00 / wc
Nitrogen, Nitrate+Nitrite as N	7.0	mg/L	D	0.5		E353.2	06/07/11 13:46 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/04/11 20:35 / jlr
Chloroform	1200	ug/L	D	500		SW8260B	06/10/11 13:29 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/04/11 20:35 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/04/11 20:35 / jlr
Surr: 1,2-Dichlorobenzene-d4	98.0	%REC		80-120		SW8260B	06/04/11 20:35 / jlr
Surr: Dibromofluoromethane	104	%REC		70-130		SW8260B	06/04/11 20:35 / jlr
Surr: p-Bromofluorobenzene	90.0	%REC		80-120		SW8260B	06/04/11 20:35 / jlr
Surr: Toluene-d8	104	%REC		80-120		SW8260B	06/04/11 20:35 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060152-012
Client Sample ID: TW4-2

Report Date: 06/22/11
Collection Date: 06/02/11 07:20
DateReceived: 06/03/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	42	mg/L		1		A4500-Cl B	06/14/11 11:06 / wc
Nitrogen, Nitrate+Nitrite as N	6.8	mg/L	D	0.5		E353.2	06/07/11 13:53 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	2.2	ug/L		1.0		SW8260B	06/04/11 22:22 / jlr
Chloroform	3000	ug/L	D	500		SW8260B	06/10/11 15:15 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/04/11 22:22 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/04/11 22:22 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		80-120		SW8260B	06/04/11 22:22 / jlr
Surr: Dibromofluoromethane	104	%REC		70-130		SW8260B	06/04/11 22:22 / jlr
Surr: p-Bromofluorobenzene	94.0	%REC		80-120		SW8260B	06/04/11 22:22 / jlr
Surr: Toluene-d8	102	%REC		80-120		SW8260B	06/04/11 22:22 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060152-002
Client Sample ID: TW4-2R

Report Date: 06/22/11
Collection Date: 06/01/11 09:51
DateReceived: 06/03/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	ND	mg/L		1		A4500-Cl B	06/14/11 10:24 / wc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	06/07/11 13:16 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/04/11 12:49 / jlr
Chloroform	2.8	ug/L		1.0		SW8260B	06/04/11 12:49 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/04/11 12:49 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/04/11 12:49 / jlr
Surr: 1,2-Dichlorobenzene-d4	97.0	%REC		80-120		SW8260B	06/04/11 12:49 / jlr
Surr: Dibromofluoromethane	100	%REC		70-130		SW8260B	06/04/11 12:49 / jlr
Surr: p-Bromofluorobenzene	94.0	%REC		80-120		SW8260B	06/04/11 12:49 / jlr
Surr: Toluene-d8	105	%REC		80-120		SW8260B	06/04/11 12:49 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-003
Client Sample ID: TW4-3

Report Date: 06/15/11
Collection Date: 05/25/11 06:18
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	23	mg/L		1		A4500-Cl B	06/01/11 15:57 / wc
Nitrogen, Nitrate+Nitrite as N	3.7	mg/L	D	0.5		E353.2	05/27/11 18:18 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/02/11 21:14 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	06/02/11 21:14 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/02/11 21:14 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/02/11 21:14 / jlr
Surr: 1,2-Dichlorobenzene-d4	99.0	%REC		80-120		SW8260B	06/02/11 21:14 / jlr
Surr: Dibromofluoromethane	125	%REC		70-130		SW8260B	06/02/11 21:14 / jlr
Surr: p-Bromofluorobenzene	92.0	%REC		80-120		SW8260B	06/02/11 21:14 / jlr
Surr: Toluene-d8	103	%REC		80-120		SW8260B	06/02/11 21:14 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-001
Client Sample ID: TW4-3R

Report Date: 06/15/11
Collection Date: 05/24/11 07:00
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	ND	mg/L		1		A4500-Cl B	06/01/11 15:50 / wc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	05/27/11 18:13 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/02/11 20:02 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	06/02/11 20:02 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/02/11 20:02 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/02/11 20:02 / jlr
Surr: 1,2-Dichlorobenzene-d4	97.0	%REC		80-120		SW8260B	06/02/11 20:02 / jlr
Surr: Dibromofluoromethane	110	%REC		70-130		SW8260B	06/02/11 20:02 / jlr
Surr: p-Bromofluorobenzene	89.0	%REC		80-120		SW8260B	06/02/11 20:02 / jlr
Surr: Toluene-d8	106	%REC		80-120		SW8260B	06/02/11 20:02 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060152-011
Client Sample ID: TW4-4

Report Date: 06/22/11
Collection Date: 06/01/11 09:08
DateReceived: 06/03/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	35	mg/L		1		A4500-Cl B	06/14/11 11:04 / wc
Nitrogen, Nitrate+Nitrite as N	7	mg/L	D	1		E353.2	06/07/11 13:51 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	1.2	ug/L		1.0		SW8260B	06/04/11 21:47 / jlr
Chloroform	1700	ug/L	D	500		SW8260B	06/10/11 14:40 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/04/11 21:47 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/04/11 21:47 / jlr
Surr: 1,2-Dichlorobenzene-d4	94.0	%REC		80-120		SW8260B	06/04/11 21:47 / jlr
Surr: Dibromofluoromethane	105	%REC		70-130		SW8260B	06/04/11 21:47 / jlr
Surr: p-Bromofluorobenzene	89.0	%REC		80-120		SW8260B	06/04/11 21:47 / jlr
Surr: Toluene-d8	100	%REC		80-120		SW8260B	06/04/11 21:47 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-014
Client Sample ID: TW4-5

Report Date: 06/15/11
Collection Date: 05/26/11 07:18
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	35	mg/L		1		A4500-Cl B	06/02/11 10:34 / wc
Nitrogen, Nitrate+Nitrite as N	7.2	mg/L	D	0.5		E353.2	05/27/11 19:00 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/03/11 08:01 / jlr
Chloroform	9.0	ug/L		1.0		SW8260B	06/03/11 08:01 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/03/11 08:01 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/03/11 08:01 / jlr
Surr: 1,2-Dichlorobenzene-d4	95.0	%REC		80-120		SW8260B	06/03/11 08:01 / jlr
Surr: Dibromofluoromethane	101	%REC		70-130		SW8260B	06/03/11 08:01 / jlr
Surr: p-Bromofluorobenzene	91.0	%REC		80-120		SW8260B	06/03/11 08:01 / jlr
Surr: Toluene-d8	100	%REC		80-120		SW8260B	06/03/11 08:01 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-017
Client Sample ID: TW4-6

Report Date: 06/15/11
Collection Date: 05/26/11 08:00
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	42	mg/L		1		A4500-Cl B	06/02/11 10:44 / wc
Nitrogen, Nitrate+Nitrite as N	0.3	mg/L		0.1		E353.2	05/27/11 19:15 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/03/11 00:49 / jlr
Chloroform	9.6	ug/L		1.0		SW8260B	06/03/11 00:49 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/03/11 00:49 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/03/11 00:49 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		80-120		SW8260B	06/03/11 00:49 / jlr
Surr: Dibromofluoromethane	99.0	%REC		70-130		SW8260B	06/03/11 00:49 / jlr
Surr: p-Bromofluorobenzene	87.0	%REC		80-120		SW8260B	06/03/11 00:49 / jlr
Surr: Toluene-d8	96.0	%REC		80-120		SW8260B	06/03/11 00:49 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060152-007
Client Sample ID: TW4-7

Report Date: 06/22/11
Collection Date: 06/01/11 08:18
DateReceived: 06/03/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	35	mg/L		1		A4500-Cl B	06/14/11 10:54 / wc
Nitrogen, Nitrate+Nitrite as N	4.0	mg/L	D	0.2		E353.2	06/07/11 13:36 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/04/11 15:12 / jlr
Chloroform	1200	ug/L	D	500		SW8260B	06/10/11 15:17 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/04/11 15:12 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/04/11 15:12 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		80-120		SW8260B	06/04/11 15:12 / jlr
Surr: Dibromofluoromethane	99.0	%REC		70-130		SW8260B	06/04/11 15:12 / jlr
Surr: p-Bromofluorobenzene	94.0	%REC		80-120		SW8260B	06/04/11 15:12 / jlr
Surr: Toluene-d8	105	%REC		80-120		SW8260B	06/04/11 15:12 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-010
Client Sample ID: TW4-8

Report Date: 06/15/11
Collection Date: 05/25/11 07:26
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	45	mg/L		1		A4500-Cl B	06/02/11 10:07 / wc
Nitrogen, Nitrate+Nitrite as N	0.1	mg/L		0.1		E353.2	05/27/11 18:50 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/03/11 05:37 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	06/03/11 05:37 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/03/11 05:37 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/03/11 05:37 / jlr
Surr: 1,2-Dichlorobenzene-d4	98.0	%REC		80-120		SW8260B	06/03/11 05:37 / jlr
Surr: Dibromofluoromethane	97.0	%REC		70-130		SW8260B	06/03/11 05:37 / jlr
Surr: p-Bromofluorobenzene	85.0	%REC		80-120		SW8260B	06/03/11 05:37 / jlr
Surr: Toluene-d8	96.0	%REC		80-120		SW8260B	06/03/11 05:37 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-011
Client Sample ID: TW4-9

Report Date: 06/15/11
Collection Date: 05/25/11 07:36
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	38	mg/L		1		A4500-Cl B	06/02/11 10:11 / wc
Nitrogen, Nitrate+Nitrite as N	3.4	mg/L	D	0.2		E353.2	06/06/11 11:54 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/03/11 06:13 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	06/03/11 06:13 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/03/11 06:13 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/03/11 06:13 / jlr
Surr: 1,2-Dichlorobenzene-d4	100	%REC		80-120		SW8260B	06/03/11 06:13 / jlr
Surr: Dibromofluoromethane	101	%REC		70-130		SW8260B	06/03/11 06:13 / jlr
Surr: p-Bromofluorobenzene	85.0	%REC		80-120		SW8260B	06/03/11 06:13 / jlr
Surr: Toluene-d8	96.0	%REC		80-120		SW8260B	06/03/11 06:13 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060152-005
Client Sample ID: TW4-10

Report Date: 06/22/11
Collection Date: 06/01/11 07:57
DateReceived: 06/03/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	42	mg/L		1		A4500-Cl B	06/14/11 10:46 / wc
Nitrogen, Nitrate+Nitrite as N	3.3	mg/L	D	0.2		E353.2	06/07/11 13:31 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/04/11 14:01 / jlr
Chloroform	280	ug/L	D	50		SW8260B	06/10/11 14:05 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/04/11 14:01 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/04/11 14:01 / jlr
Surr: 1,2-Dichlorobenzene-d4	97.0	%REC		80-120		SW8260B	06/04/11 14:01 / jlr
Surr: Dibromofluoromethane	101	%REC		70-130		SW8260B	06/04/11 14:01 / jlr
Surr: p-Bromofluorobenzene	94.0	%REC		80-120		SW8260B	06/04/11 14:01 / jlr
Surr: Toluene-d8	102	%REC		80-120		SW8260B	06/04/11 14:01 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060152-006
Client Sample ID: TW4-11

Report Date: 06/22/11
Collection Date: 06/01/11 08:09
DateReceived: 06/03/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	49	mg/L		1		A4500-Cl B	06/14/11 10:52 / wc
Nitrogen, Nitrate+Nitrite as N	7.3	mg/L	D	0.5		E353.2	06/07/11 13:33 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/04/11 14:37 / jlr
Chloroform	930	ug/L	D	500		SW8260B	06/10/11 14:41 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/04/11 14:37 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/04/11 14:37 / jlr
Surr: 1,2-Dichlorobenzene-d4	99.0	%REC		80-120		SW8260B	06/04/11 14:37 / jlr
Surr: Dibromofluoromethane	102	%REC		70-130		SW8260B	06/04/11 14:37 / jlr
Surr: p-Bromofluorobenzene	95.0	%REC		80-120		SW8260B	06/04/11 14:37 / jlr
Surr: Toluene-d8	103	%REC		80-120		SW8260B	06/04/11 14:37 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-004
Client Sample ID: TW4-12

Report Date: 06/15/11
Collection Date: 05/25/11 06:34
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	32	mg/L		1		A4500-Cl B	06/01/11 16:00 / wc
Nitrogen, Nitrate+Nitrite as N	7	mg/L	D	1		E353.2	05/27/11 18:20 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/02/11 21:50 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	06/02/11 21:50 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/02/11 21:50 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/02/11 21:50 / jlr
Surr: 1,2-Dichlorobenzene-d4	94.0	%REC		80-120		SW8260B	06/02/11 21:50 / jlr
Surr: Dibromofluoromethane	104	%REC		70-130		SW8260B	06/02/11 21:50 / jlr
Surr: p-Bromofluorobenzene	88.0	%REC		80-120		SW8260B	06/02/11 21:50 / jlr
Surr: Toluene-d8	100	%REC		80-120		SW8260B	06/02/11 21:50 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-005
Client Sample ID: TW4-13

Report Date: 06/15/11
Collection Date: 05/25/11 06:43
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	56	mg/L		1		A4500-Cl B	06/01/11 16:05 / wc
Nitrogen, Nitrate+Nitrite as N	5.4	mg/L	D	0.5		E353.2	05/27/11 18:30 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/02/11 22:26 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	06/02/11 22:26 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/02/11 22:26 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/02/11 22:26 / jlr
Surr: 1,2-Dichlorobenzene-d4	100	%REC		80-120		SW8260B	06/02/11 22:26 / jlr
Surr: Dibromofluoromethane	102	%REC		70-130		SW8260B	06/02/11 22:26 / jlr
Surr: p-Bromofluorobenzene	91.0	%REC		80-120		SW8260B	06/02/11 22:26 / jlr
Surr: Toluene-d8	96.0	%REC		80-120		SW8260B	06/02/11 22:26 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-006
Client Sample ID: TW4-14

Report Date: 06/15/11
Collection Date: 05/26/11 06:37
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	24	mg/L		1		A4500-Cl B	06/01/11 16:08 / wc
Nitrogen, Nitrate+Nitrite as N	1.4	mg/L		0.1		E353.2	05/27/11 18:33 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/02/11 23:02 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	06/02/11 23:02 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/02/11 23:02 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/02/11 23:02 / jlr
Surr: 1,2-Dichlorobenzene-d4	98.0	%REC		80-120		SW8260B	06/02/11 23:02 / jlr
Surr: Dibromofluoromethane	98.0	%REC		70-130		SW8260B	06/02/11 23:02 / jlr
Surr: p-Bromofluorobenzene	89.0	%REC		80-120		SW8260B	06/02/11 23:02 / jlr
Surr: Toluene-d8	100	%REC		80-120		SW8260B	06/02/11 23:02 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060152-004
Client Sample ID: TW4-15

Report Date: 06/22/11
Collection Date: 05/31/11 09:05
DateReceived: 06/03/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	88	mg/L		1		A4500-Cl B	06/14/11 10:32 / wc
Nitrogen, Nitrate+Nitrite as N	0.4	mg/L		0.1		E353.2	06/07/11 13:28 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/04/11 13:25 / jlr
Chloroform	1800	ug/L	D	500		SW8260B	06/10/11 13:30 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/04/11 13:25 / jlr
Methylene chloride	1.3	ug/L		1.0		SW8260B	06/04/11 13:25 / jlr
Surr: 1,2-Dichlorobenzene-d4	101	%REC		80-120		SW8260B	06/04/11 13:25 / jlr
Surr: Dibromofluoromethane	106	%REC		70-130		SW8260B	06/04/11 13:25 / jlr
Surr: p-Bromofluorobenzene	97.0	%REC		80-120		SW8260B	06/04/11 13:25 / jlr
Surr: Toluene-d8	102	%REC		80-120		SW8260B	06/04/11 13:25 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-015
Client Sample ID: TW4-16

Report Date: 06/15/11
Collection Date: 05/26/11 07:31
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	81	mg/L		1		A4500-Cl B	06/02/11 10:37 / wc
Nitrogen, Nitrate+Nitrite as N	5.0	mg/L	D	0.5		E353.2	05/27/11 19:10 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/03/11 08:37 / jlr
Chloroform	16	ug/L		1.0		SW8260B	06/03/11 08:37 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/03/11 08:37 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/03/11 08:37 / jlr
Surr: 1,2-Dichlorobenzene-d4	101	%REC		80-120		SW8260B	06/03/11 08:37 / jlr
Surr: Dibromofluoromethane	106	%REC		70-130		SW8260B	06/03/11 08:37 / jlr
Surr: p-Bromofluorobenzene	88.0	%REC		80-120		SW8260B	06/03/11 08:37 / jlr
Surr: Toluene-d8	97.0	%REC		80-120		SW8260B	06/03/11 08:37 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-007
Client Sample ID: MW-32

Report Date: 06/15/11
Collection Date: 05/25/11 14:05
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	31	mg/L		1		A4500-Cl B	06/01/11 16:13 / wc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	05/27/11 18:35 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/02/11 23:37 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	06/02/11 23:37 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/02/11 23:37 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/02/11 23:37 / jlr
Surr: 1,2-Dichlorobenzene-d4	98.0	%REC		80-120		SW8260B	06/02/11 23:37 / jlr
Surr: Dibromofluoromethane	103	%REC		70-130		SW8260B	06/02/11 23:37 / jlr
Surr: p-Bromofluorobenzene	90.0	%REC		80-120		SW8260B	06/02/11 23:37 / jlr
Surr: Toluene-d8	97.0	%REC		80-120		SW8260B	06/02/11 23:37 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-016
Client Sample ID: TW4-18

Report Date: 06/15/11
Collection Date: 05/26/11 07:45
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	36	mg/L		1		A4500-Cl B	06/02/11 10:40 / wc
Nitrogen, Nitrate+Nitrite as N	9	mg/L	D	1		E353.2	05/27/11 19:13 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/03/11 09:13 / jlr
Chloroform	26	ug/L		1.0		SW8260B	06/03/11 09:13 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/03/11 09:13 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/03/11 09:13 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		80-120		SW8260B	06/03/11 09:13 / jlr
Surr: Dibromofluoromethane	102	%REC		70-130		SW8260B	06/03/11 09:13 / jlr
Surr: p-Bromofluorobenzene	86.0	%REC		80-120		SW8260B	06/03/11 09:13 / jlr
Surr: Toluene-d8	100	%REC		80-120		SW8260B	06/03/11 09:13 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060430-001
Client Sample ID: TW4-19

Report Date: 06/22/11
Collection Date: 06/07/11 10:15
DateReceived: 06/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	148	mg/L		1		A4500-Cl B	06/14/11 11:30 / wc
Nitrogen, Nitrate+Nitrite as N	12	mg/L	D	1		E353.2	06/14/11 15:08 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	8.3	ug/L		1.0		SW8260B	06/13/11 20:47 / mlf
Chloroform	4000	ug/L	D	50		SW8260B	06/13/11 20:07 / mlf
Chloromethane	ND	ug/L		1.0		SW8260B	06/13/11 20:47 / mlf
Methylene chloride	ND	ug/L		1.0		SW8260B	06/13/11 20:47 / mlf
Surr: 1,2-Dichlorobenzene-d4	105	%REC		80-120		SW8260B	06/13/11 20:47 / mlf
Surr: Dibromofluoromethane	99.0	%REC		70-130		SW8260B	06/13/11 20:47 / mlf
Surr: p-Bromofluorobenzene	106	%REC		80-120		SW8260B	06/13/11 20:47 / mlf
Surr: Toluene-d8	104	%REC		80-120		SW8260B	06/13/11 20:47 / mlf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060152-013
Client Sample ID: TW4-20

Report Date: 06/22/11
Collection Date: 06/01/11 13:25
DateReceived: 06/03/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	177	mg/L		1		A4500-Cl B	06/14/11 11:07 / wc
Nitrogen, Nitrate+Nitrite as N	4.8	mg/L	D	0.5		E353.2	06/07/11 13:56 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	10	ug/L		1.0		SW8260B	06/04/11 22:58 / jlr
Chloroform	8100	ug/L	D	500		SW8260B	06/10/11 15:51 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/04/11 22:58 / jlr
Methylene chloride	2.1	ug/L		1.0		SW8260B	06/04/11 22:58 / jlr
Surr: 1,2-Dichlorobenzene-d4	100	%REC		80-120		SW8260B	06/04/11 22:58 / jlr
Surr: Dibromofluoromethane	103	%REC		70-130		SW8260B	06/04/11 22:58 / jlr
Surr: p-Bromofluorobenzene	90.0	%REC		80-120		SW8260B	06/04/11 22:58 / jlr
Surr: Toluene-d8	102	%REC		80-120		SW8260B	06/04/11 22:58 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11061150-002
Client Sample ID: TW4-21

Report Date: 07/13/11
Collection Date: 06/28/11 08:05
DateReceived: 06/29/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	290	mg/L		1		A4500-Cl B	07/08/11 09:39 / wc
Nitrogen, Nitrate+Nitrite as N	12	mg/L	D	1		E353.2	06/30/11 15:21 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	4.8	ug/L		1.0		SW8260B	07/07/11 06:37 / jlr
Chloroform	290	ug/L	D	10		SW8260B	07/07/11 03:35 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	07/07/11 06:37 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	07/07/11 06:37 / jlr
Surr: 1,2-Dichlorobenzene-d4	98.0	%REC		80-120		SW8260B	07/07/11 06:37 / jlr
Surr: Dibromofluoromethane	106	%REC		70-130		SW8260B	07/07/11 06:37 / jlr
Surr: p-Bromofluorobenzene	95.0	%REC		80-120		SW8260B	07/07/11 06:37 / jlr
Surr: Toluene-d8	84.0	%REC		80-120		SW8260B	07/07/11 06:37 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11061150-001
Client Sample ID: TW4-21R

Report Date: 07/13/11
Collection Date: 06/27/11 10:20
DateReceived: 06/29/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	ND	mg/L		1		A4500-Cl B	07/08/11 09:31 / wc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	06/30/11 15:18 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	07/01/11 15:36 / mlf
Chloroform	ND	ug/L		1.0		SW8260B	07/01/11 15:36 / mlf
Chloromethane	ND	ug/L		1.0		SW8260B	07/01/11 15:36 / mlf
Methylene chloride	ND	ug/L		1.0		SW8260B	07/01/11 15:36 / mlf
Surr: 1,2-Dichlorobenzene-d4	107	%REC		80-120		SW8260B	07/01/11 15:36 / mlf
Surr: Dibromofluoromethane	82.0	%REC		70-130		SW8260B	07/01/11 15:36 / mlf
Surr: p-Bromofluorobenzene	114	%REC		80-120		SW8260B	07/01/11 15:36 / mlf
Surr: Toluene-d8	92.0	%REC		80-120		SW8260B	07/01/11 15:36 / mlf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060152-008
Client Sample ID: TW4-22

Report Date: 06/22/11
Collection Date: 06/01/11 08:29
DateReceived: 06/03/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	138	mg/L		1		A4500-Cl B	06/14/11 10:57 / wc
Nitrogen, Nitrate+Nitrite as N	17	mg/L	D	1		E353.2	06/07/11 13:38 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/04/11 15:48 / jlr
Chloroform	210	ug/L	D	50		SW8260B	06/10/11 15:53 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/04/11 15:48 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/04/11 15:48 / jlr
Surr: 1,2-Dichlorobenzene-d4	95.0	%REC		80-120		SW8260B	06/04/11 15:48 / jlr
Surr: Dibromofluoromethane	102	%REC		70-130		SW8260B	06/04/11 15:48 / jlr
Surr: p-Bromofluorobenzene	93.0	%REC		80-120		SW8260B	06/04/11 15:48 / jlr
Surr: Toluene-d8	102	%REC		80-120		SW8260B	06/04/11 15:48 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-008
Client Sample ID: TW4-23

Report Date: 06/15/11
Collection Date: 05/25/11 06:57
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	44	mg/L		1		A4500-Cl B	06/01/11 16:18 / wc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	05/27/11 18:38 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/03/11 04:25 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	06/03/11 04:25 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/03/11 04:25 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/03/11 04:25 / jlr
Surr: 1,2-Dichlorobenzene-d4	97.0	%REC		80-120		SW8260B	06/03/11 04:25 / jlr
Surr: Dibromofluoromethane	103	%REC		70-130		SW8260B	06/03/11 04:25 / jlr
Surr: p-Bromofluorobenzene	83.0	%REC		80-120		SW8260B	06/03/11 04:25 / jlr
Surr: Toluene-d8	99.0	%REC		80-120		SW8260B	06/03/11 04:25 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-012
Client Sample ID: TW4-24

Report Date: 06/15/11
Collection Date: 05/26/11 06:53
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	1110	mg/L		1		A4500-Cl B	06/02/11 10:26 / wc
Nitrogen, Nitrate+Nitrite as N	35	mg/L	D	1		E353.2	05/27/11 18:55 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/03/11 06:49 / jlr
Chloroform	1.1	ug/L		1.0		SW8260B	06/03/11 06:49 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/03/11 06:49 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/03/11 06:49 / jlr
Surr: 1,2-Dichlorobenzene-d4	98.0	%REC		80-120		SW8260B	06/03/11 06:49 / jlr
Surr: Dibromofluoromethane	105	%REC		70-130		SW8260B	06/03/11 06:49 / jlr
Surr: p-Bromofluorobenzene	86.0	%REC		80-120		SW8260B	06/03/11 06:49 / jlr
Surr: Toluene-d8	96.0	%REC		80-120		SW8260B	06/03/11 06:49 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-002
Client Sample ID: TW4-24R

Report Date: 06/15/11
Collection Date: 05/25/11 08:30
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	ND	mg/L		1		A4500-Cl B	06/01/11 15:52 / wc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	05/27/11 18:15 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/02/11 20:38 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	06/02/11 20:38 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/02/11 20:38 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/02/11 20:38 / jlr
Surr: 1,2-Dichlorobenzene-d4	98.0	%REC		80-120		SW8260B	06/02/11 20:38 / jlr
Surr: Dibromofluoromethane	102	%REC		70-130		SW8260B	06/02/11 20:38 / jlr
Surr: p-Bromofluorobenzene	92.0	%REC		80-120		SW8260B	06/02/11 20:38 / jlr
Surr: Toluene-d8	97.0	%REC		80-120		SW8260B	06/02/11 20:38 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-009
Client Sample ID: TW4-25

Report Date: 06/15/11
Collection Date: 05/25/11 07:10
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	321	mg/L		1		A4500-Cl B	06/01/11 16:30 / wc
Nitrogen, Nitrate+Nitrite as N	16	mg/L	D	1		E353.2	05/27/11 18:40 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/03/11 05:01 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	06/03/11 05:01 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/03/11 05:01 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/03/11 05:01 / jlr
Surr: 1,2-Dichlorobenzene-d4	99.0	%REC		80-120		SW8260B	06/03/11 05:01 / jlr
Surr: Dibromofluoromethane	105	%REC		70-130		SW8260B	06/03/11 05:01 / jlr
Surr: p-Bromofluorobenzene	89.0	%REC		80-120		SW8260B	06/03/11 05:01 / jlr
Surr: Toluene-d8	97.0	%REC		80-120		SW8260B	06/03/11 05:01 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-013
Client Sample ID: TW4-26

Report Date: 06/15/11
Collection Date: 05/26/11 07:07
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	15	mg/L		1		A4500-Cl B	06/02/11 10:31 / wc
Nitrogen, Nitrate+Nitrite as N	10	mg/L	D	1		E353.2	05/27/11 18:58 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/03/11 07:25 / jlr
Chloroform	2.9	ug/L		1.0		SW8260B	06/03/11 07:25 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/03/11 07:25 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/03/11 07:25 / jlr
Surr: 1,2-Dichlorobenzene-d4	100	%REC		80-120		SW8260B	06/03/11 07:25 / jlr
Surr: Dibromofluoromethane	101	%REC		70-130		SW8260B	06/03/11 07:25 / jlr
Surr: p-Bromofluorobenzene	86.0	%REC		80-120		SW8260B	06/03/11 07:25 / jlr
Surr: Toluene-d8	93.0	%REC		80-120		SW8260B	06/03/11 07:25 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11061150-004
Client Sample ID: TW4-60

Report Date: 07/13/11
Collection Date: 06/27/11 12:55
DateReceived: 06/29/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	1	mg/L		1		A4500-Cl B	07/08/11 09:48 / wc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	06/30/11 15:33 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	07/06/11 17:18 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	07/06/11 17:18 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	07/06/11 17:18 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	07/06/11 17:18 / jlr
Surr: 1,2-Dichlorobenzene-d4	97.0	%REC		80-120		SW8260B	07/06/11 17:18 / jlr
Surr: Dibromofluoromethane	94.0	%REC		70-130		SW8260B	07/06/11 17:18 / jlr
Surr: p-Bromofluorobenzene	92.0	%REC		80-120		SW8260B	07/06/11 17:18 / jlr
Surr: Toluene-d8	94.0	%REC		80-120		SW8260B	07/06/11 17:18 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060152-014
Client Sample ID: TW4-60

Report Date: 06/22/11
Collection Date: 06/01/11 14:05
DateReceived: 06/03/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	1	mg/L		1		A4500-Cl B	06/14/11 11:09 / wc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	06/07/11 14:06 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/13/11 22:08 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	06/13/11 22:08 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/13/11 22:08 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/13/11 22:08 / jlr
Surr: 1,2-Dichlorobenzene-d4	102	%REC		80-120		SW8260B	06/13/11 22:08 / jlr
Surr: Dibromofluoromethane	108	%REC		70-130		SW8260B	06/13/11 22:08 / jlr
Surr: p-Bromofluorobenzene	97.0	%REC		80-120		SW8260B	06/13/11 22:08 / jlr
Surr: Toluene-d8	94.0	%REC		80-120		SW8260B	06/13/11 22:08 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-019
Client Sample ID: TW4-65

Report Date: 06/15/11
Collection Date: 05/25/11 14:05
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	34	mg/L		1		A4500-Cl B	06/02/11 10:47 / wc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	05/27/11 19:18 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/03/11 10:25 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	06/03/11 10:25 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/03/11 10:25 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/03/11 10:25 / jlr
Surr: 1,2-Dichlorobenzene-d4	104	%REC		80-120		SW8260B	06/03/11 10:25 / jlr
Surr: Dibromofluoromethane	105	%REC		70-130		SW8260B	06/03/11 10:25 / jlr
Surr: p-Bromofluorobenzene	95.0	%REC		80-120		SW8260B	06/03/11 10:25 / jlr
Surr: Toluene-d8	102	%REC		80-120		SW8260B	06/03/11 10:25 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11061150-003
Client Sample ID: TW4-70

Report Date: 07/13/11
Collection Date: 06/28/11 08:05
DateReceived: 06/29/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Chloride	286	mg/L		1		A4500-Cl B	07/08/11 09:45 / wc
Nitrogen, Nitrate+Nitrite as N	12	mg/L	D	1		E353.2	06/30/11 15:23 / dc
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	4.7	ug/L		1.0		SW8260B	07/07/11 07:13 / jlr
Chloroform	300	ug/L	D	10		SW8260B	07/07/11 04:11 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	07/07/11 07:13 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	07/07/11 07:13 / jlr
Surr: 1,2-Dichlorobenzene-d4	101	%REC		80-120		SW8260B	07/07/11 07:13 / jlr
Surr: Dibromofluoromethane	106	%REC		70-130		SW8260B	07/07/11 07:13 / jlr
Surr: p-Bromofluorobenzene	95.0	%REC		80-120		SW8260B	07/07/11 07:13 / jlr
Surr: Toluene-d8	89.0	%REC		80-120		SW8260B	07/07/11 07:13 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-018
Client Sample ID: Trip Blank 6092

Report Date: 06/15/11
Collection Date: 05/26/11
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/03/11 09:49 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	06/03/11 09:49 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/03/11 09:49 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/03/11 09:49 / jlr
Surr: 1,2-Dichlorobenzene-d4	100	%REC		80-120		SW8260B	06/03/11 09:49 / jlr
Surr: Dibromofluoromethane	106	%REC		70-130		SW8260B	06/03/11 09:49 / jlr
Surr: p-Bromofluorobenzene	93.0	%REC		80-120		SW8260B	06/03/11 09:49 / jlr
Surr: Toluene-d8	100	%REC		80-120		SW8260B	06/03/11 09:49 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060152-016
Client Sample ID: Trip Blank 6092

Report Date: 06/22/11
Collection Date: 06/02/11
DateReceived: 06/03/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/10/11 17:05 / jlr
Chloroform	ND	ug/L		1.0		SW8260B	06/10/11 17:05 / jlr
Chloromethane	ND	ug/L		1.0		SW8260B	06/10/11 17:05 / jlr
Methylene chloride	ND	ug/L		1.0		SW8260B	06/10/11 17:05 / jlr
Surr: 1,2-Dichlorobenzene-d4	102	%REC		80-120		SW8260B	06/10/11 17:05 / jlr
Surr: Dibromofluoromethane	103	%REC		70-130		SW8260B	06/10/11 17:05 / jlr
Surr: p-Bromofluorobenzene	94.0	%REC		80-120		SW8260B	06/10/11 17:05 / jlr
Surr: Toluene-d8	99.0	%REC		80-120		SW8260B	06/10/11 17:05 / jlr

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060430-002
Client Sample ID: Trip Blank 6092

Report Date: 06/22/11
Collection Date: 06/07/11
DateReceived: 06/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	06/13/11 19:27 / mlf
Chloroform	ND	ug/L		1.0		SW8260B	06/13/11 19:27 / mlf
Chloromethane	ND	ug/L		1.0		SW8260B	06/13/11 19:27 / mlf
Methylene chloride	ND	ug/L		1.0		SW8260B	06/13/11 19:27 / mlf
Surr: 1,2-Dichlorobenzene-d4	105	%REC		80-120		SW8260B	06/13/11 19:27 / mlf
Surr: Dibromofluoromethane	97.0	%REC		70-130		SW8260B	06/13/11 19:27 / mlf
Surr: p-Bromofluorobenzene	105	%REC		80-120		SW8260B	06/13/11 19:27 / mlf
Surr: Toluene-d8	101	%REC		80-120		SW8260B	06/13/11 19:27 / mlf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11061150-005
Client Sample ID: Trip Blank 6092

Report Date: 07/13/11
Collection Date: 06/27/11
DateReceived: 06/29/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	07/01/11 13:48 / mlf
Chloroform	ND	ug/L		1.0		SW8260B	07/01/11 13:48 / mlf
Chloromethane	ND	ug/L		1.0		SW8260B	07/01/11 13:48 / mlf
Methylene chloride	ND	ug/L		1.0		SW8260B	07/01/11 13:48 / mlf
Surr: 1,2-Dichlorobenzene-d4	107	%REC		80-120		SW8260B	07/01/11 13:48 / mlf
Surr: Dibromofluoromethane	81.0	%REC		70-130		SW8260B	07/01/11 13:48 / mlf
Surr: p-Bromofluorobenzene	114	%REC		80-120		SW8260B	07/01/11 13:48 / mlf
Surr: Toluene-d8	91.0	%REC		80-120		SW8260B	07/01/11 13:48 / mlf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11050927-020
Client Sample ID: Temp Blank

Report Date: 06/15/11
Collection Date: 05/25/11
DateReceived: 05/27/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Temperature	2.8	°C				E170.1	05/27/11 09:10 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060152-017
Client Sample ID: Temp Blank

Report Date: 06/22/11
Collection Date: 06/02/11
DateReceived: 06/03/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Temperature	2.2	°C				E170.1	06/03/11 09:00 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11060430-003
Client Sample ID: Temp Blank

Report Date: 06/22/11
Collection Date: 06/07/11
DateReceived: 06/09/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Temperature	2.6	°C				E170.1	06/09/11 09:00 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Lab ID: C11061150-006
Client Sample ID: Temp Blank

Report Date: 07/13/11
Collection Date: 06/27/11
DateReceived: 06/29/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
Temperature	2.2	°C				E170.1	06/29/11 09:50 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

ANALYTICAL SUMMARY REPORT

June 15, 2011

Denison Mines USA Corp
6425 S Hwy 191
Blanding, UT 84511

Workorder No.: C11050927 Quote ID: C2975 - Chloroform Sampling

Project Name: 2nd Quarter Chloroform 2011

Energy Laboratories, Inc. Casper WY received the following 20 samples for Denison Mines USA Corp on 5/27/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11050927-001	TW4-3R	05/24/11 7:00	05/27/11	Aqueous	Chloride Nitrogen, Nitrate + Nitrite SW8260B VOCs, Standard List
C11050927-002	TW4-24R	05/25/11 8:30	05/27/11	Aqueous	Same As Above
C11050927-003	TW4-3	05/25/11 6:18	05/27/11	Aqueous	Same As Above
C11050927-004	TW4-12	05/25/11 6:34	05/27/11	Aqueous	Same As Above
C11050927-005	TW4-13	05/25/11 6:43	05/27/11	Aqueous	Same As Above
C11050927-006	TW4-14	05/26/11 6:37	05/27/11	Aqueous	Same As Above
C11050927-007	MW-32	05/25/11 14:05	05/27/11	Aqueous	Same As Above
C11050927-008	TW4-23	05/25/11 6:57	05/27/11	Aqueous	Same As Above
C11050927-009	TW4-25	05/25/11 7:10	05/27/11	Aqueous	Same As Above
C11050927-010	TW4-8	05/25/11 7:26	05/27/11	Aqueous	Same As Above
C11050927-011	TW4-9	05/25/11 7:36	05/27/11	Aqueous	Same As Above
C11050927-012	TW4-24	05/26/11 6:53	05/27/11	Aqueous	Same As Above
C11050927-013	TW4-26	05/26/11 7:07	05/27/11	Aqueous	Same As Above
C11050927-014	TW4-5	05/26/11 7:18	05/27/11	Aqueous	Same As Above
C11050927-015	TW4-16	05/26/11 7:31	05/27/11	Aqueous	Same As Above
C11050927-016	TW4-18	05/26/11 7:45	05/27/11	Aqueous	Same As Above
C11050927-017	TW4-6	05/26/11 8:00	05/27/11	Aqueous	Same As Above
C11050927-018	Trip Blank 6092	05/26/11 0:00	05/27/11	Aqueous	SW8260B VOCs, Standard List
C11050927-019	TW4-65	05/25/11 14:05	05/27/11	Aqueous	Chloride Nitrogen, Nitrate + Nitrite SW8260B VOCs, Standard List
C11050927-020	Temp Blank	05/25/11 0:00	05/27/11	Aqueous	Temperature

ANALYTICAL SUMMARY REPORT

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

Stephanie D Waldrop
Reporting Supervisor

Digitally signed by
Stephanie Waldrop
Date: 2011.06.15 15:51:50 -06:00

CLIENT: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Sample Delivery Group: C11050927

Report Date: 06/15/11

CASE NARRATIVE

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

RADON IN AIR ANALYSIS
The desired exposure time is 48 hours (2 days). The time delay in returning the canister to the laboratory for processing should be as short as possible to avoid excessive decay. Maximum recommended delay between end of exposure to beginning of counting should not exceed 8 days.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

ATRAZINE, SIMAZINE AND PCB ANALYSIS
Data for PCBs, Atrazine and Simazine are reported from EPA 525.2. PCB data reported by ELI reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTIFICATIONS:
USEPA: WY00002, Radiochemical WY00937; FL-DOH NELAC: E87641, Radiochemical E871017; California: 02118CA; Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011

Report Date: 06/15/11
Work Order: C11050927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-Cl B									Batch: 110601A-CL-TTR-W	
Sample ID: MBLK9-110601A		Method Blank				Run: TITRATION_110601B			06/01/11 15:44	
Chloride		ND	mg/L	0.5						
Sample ID: C11050927-009AMS		Sample Matrix Spike				Run: TITRATION_110601B			06/01/11 16:32	
Chloride		688	mg/L	1.0	103	90	110			
Sample ID: C11050927-009AMSD		Sample Matrix Spike Duplicate				Run: TITRATION_110601B			06/01/11 16:35	
Chloride		674	mg/L	1.0	99	90	110	2.1	10	
Sample ID: LCS35-110601A		Laboratory Control Sample				Run: TITRATION_110601B			06/01/11 16:40	
Chloride		3510	mg/L	1.0	99	90	110			
Method: A4500-Cl B									Batch: 110602A-CL-TTR-W	
Sample ID: MBLK9-110602A		Method Blank				Run: TITRATION_110602A			06/02/11 09:58	
Chloride		ND	mg/L	0.5						
Sample ID: C11050977-001AMS		Sample Matrix Spike				Run: TITRATION_110602A			06/02/11 10:57	
Chloride		107	mg/L	1.0	99	90	110			
Sample ID: C11050977-001AMSD		Sample Matrix Spike Duplicate				Run: TITRATION_110602A			06/02/11 11:02	
Chloride		105	mg/L	1.0	97	90	110	1.3	10	
Sample ID: LCS35-110602A		Laboratory Control Sample				Run: TITRATION_110602A			06/02/11 11:16	
Chloride		3650	mg/L	1.0	103	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011

Report Date: 06/15/11
Work Order: C11050927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R146338
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110527A				05/27/11 12:18
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.06						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110527A				05/27/11 12:20
Nitrogen, Nitrate+Nitrite as N		2.35	mg/L	0.10	94	90	110			
Sample ID: C11050927-002BMS		Sample Matrix Spike				Run: TECHNICON_110527A				05/27/11 18:23
Nitrogen, Nitrate+Nitrite as N		1.84	mg/L	0.10	94	90	110			
Sample ID: C11050927-002BMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110527A				05/27/11 18:25
Nitrogen, Nitrate+Nitrite as N		1.89	mg/L	0.10	96	90	110	2.7	10	
Sample ID: C11050927-010BMS		Sample Matrix Spike				Run: TECHNICON_110527A				05/27/11 19:03
Nitrogen, Nitrate+Nitrite as N		1.95	mg/L	0.10	94	90	110			
Sample ID: C11050927-010BMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110527A				05/27/11 19:05
Nitrogen, Nitrate+Nitrite as N		1.94	mg/L	0.10	93	90	110	0.5	10	
Method: E353.2										Batch: R146606
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110606A				06/06/11 11:49
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.06						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110606A				06/06/11 11:51
Nitrogen, Nitrate+Nitrite as N		2.53	mg/L	0.10	101	90	110			
Sample ID: C11050938-001DMS		Sample Matrix Spike				Run: TECHNICON_110606A				06/06/11 12:06
Nitrogen, Nitrate+Nitrite as N		1.73	mg/L	0.10	88	90	110			S
Sample ID: C11050938-001DMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110606A				06/06/11 12:09
Nitrogen, Nitrate+Nitrite as N		1.68	mg/L	0.10	86	90	110	2.9	10	S

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp **Report Date:** 06/15/11

Project: 2nd Quarter Chloroform 2011 **Work Order:** C11050927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R146549
Sample ID: 060211_LCS_4	8	Laboratory Control Sample				Run: SATURNCA_110602A				06/02/11 18:14
Carbon tetrachloride		11	ug/L	1.0	108	70	130			
Chloroform		10	ug/L	1.0	104	70	130			
Chloromethane		9.1	ug/L	1.0	91	70	130			
Methylene chloride		10	ug/L	1.0	102	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	104	80	120			
Surr: Dibromofluoromethane				1.0	91	70	130			
Surr: p-Bromofluorobenzene				1.0	108	80	130			
Surr: Toluene-d8				1.0	108	80	120			
Sample ID: 060211_MBLK_6	8	Method Blank				Run: SATURNCA_110602A				06/02/11 19:26
Carbon tetrachloride		ND	ug/L	1.0						
Chloroform		ND	ug/L	1.0						
Chloromethane		ND	ug/L	1.0						
Methylene chloride		ND	ug/L	1.0						
Surr: 1,2-Dichlorobenzene-d4				1.0	95	80	120			
Surr: Dibromofluoromethane				1.0	97	70	130			
Surr: p-Bromofluorobenzene				1.0	94	80	120			
Surr: Toluene-d8				1.0	103	80	120			
Sample ID: C11050927-017CMS	8	Sample Matrix Spike				Run: SATURNCA_110602A				06/03/11 01:25
Carbon tetrachloride		100	ug/L	5.0	100	70	130			
Chloroform		110	ug/L	5.0	99	70	130			
Chloromethane		88	ug/L	5.0	88	70	130			
Methylene chloride		94	ug/L	5.0	94	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	99	80	120			
Surr: Dibromofluoromethane				1.0	101	70	130			
Surr: p-Bromofluorobenzene				1.0	90	80	120			
Surr: Toluene-d8				1.0	94	80	120			
Sample ID: C11050927-017CMSD	8	Sample Matrix Spike Duplicate				Run: SATURNCA_110602A				06/03/11 02:01
Carbon tetrachloride		100	ug/L	5.0	100	70	130	0.8	20	
Chloroform		110	ug/L	5.0	99	70	130	0.4	20	
Chloromethane		89	ug/L	5.0	89	70	130	0.9	20	
Methylene chloride		95	ug/L	5.0	95	70	130	1.3	20	
Surr: 1,2-Dichlorobenzene-d4				1.0	102	80	120	0.0	10	
Surr: Dibromofluoromethane				1.0	96	70	130	0.0	10	
Surr: p-Bromofluorobenzene				1.0	92	80	120	0.0	10	
Surr: Toluene-d8				1.0	96	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

Workorder Receipt Checklist

C11050927

Denison Mines USA Corp

Login completed by: Halley Ackerman
Date Received: 5/27/2011
Reviewed by: BL2000\kschroeder
Received by: ckw
Reviewed Date: 5/31/2011
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	2.8°C On Ice		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

None

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

Page _____ of _____

PLEASE PRINT (Provide as much information as possible.)

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
Denison Mines	2nd Quarter Chloroform 2011	State: UT	Yes ☑ No ☐
Report Mail Address:	**Contact Name:**	**Phone/Fax:**	**Email:**
P.O. Box 809 Blanding, UT 84511	Ryan Palmer	435 678 2221	
Sampler: (Please Print)			
Garrin Palmer			
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**
Same	Same		

Special Report/Formats:

- ☐ DW
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids Vegetation Bioassay Other DW - Drinking Water

ANALYSIS REQUESTED

Standard Turnaround (TAT) → RUSH

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: FedEX
Cooler ID(s): Client
Receipt Temp 2.8 °C
On Ice: (Y) N
Custody Seal On Bottle (Y) N; On Cooler (Y) N
Intact (Y) N
Signature Match (Y) N

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	Quote # C2975	SEE ATTACHED	Comments
1 TW4-3R	5/24/11	0700	SW	X		
2 TW4-24R	5/25/11	0830	SW	X		
3 TW4-3	5/25/11	0618	SW	X		
4 TW4-12	5/25/11	0634	SW	X		
5 TW4-13	5/25/11	0643	SW	X		
6 TW4-14	5/26/11	0637	SW	X		
7 MW-32	5/25/11	1405	SW	X		
8 TW4-23	5/25/11	0657	SW	X		
9 TW4-25	5/25/11	0710	SW	X		C1105092 7
10 TW4-8	5/25/11	0726	SW	X		

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Garrin Palmer	5/26/11 1330	Garrin Palmer			

Received by Laboratory: [illegible] Date/Time: 5/27/11 910 Signature:

Sample Disposal: Return to Client: _____ Lab Disposal: _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

Page _____ of _____

PLEASE PRINT (Provide as much information as possible.)

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
Denison Mines	2nd Quarter chloroform 2011	State: UT	Yes ☑ No ☐
Report Mail Address:	**Contact Name:**	**Phone/Fax:**	**Email:**
P.O. Box 809 Blanding, UT 84511	Ryan Palmer	435-678-2221	
Sampler: (Please Print)			
Garrin Palmer			
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**
Same	Same		

Special Report/Formats:

- ☐ DW
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

ANALYSIS REQUESTED

SEE ATTACHED

Standard Turnaround (TAT)

RUSH

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: Fed Ex
Cooler ID(s): Client
Receipt Temp 2.8 °C
On Ice: Y N
Custody Seal On Bottle Y N
On Cooler Y N
Intact Y N
Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	Quote # C2975
1	TW4-9	5/25/11	0736	SW	X
2	TW4-24	5/26/11	0653	SW	X
3	TW4-26	5/26/11	0707	SW	X
4	TW4-5	5/26/11	0718	SW	X
5	TW4-16	5/26/11	0731	SW	X
6	TW4-18	5/26/11	0745	SW	X
7	TW4-6	5/26/11	0800	SW	X
8	Trip Blank 0092				
9	TW4-65	5/25/11	1405	SW	X
10					

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Garrin Palmer	5/26/11 1330	Garrin Palmer			
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time:	Signature:
				5/27/11 910	

Sample Disposal: Return to Client: _____ Lab Disposal: _____

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ANALYTICAL SUMMARY REPORT

June 22, 2011

Denison Mines USA Corp
6425 S Hwy 191
Blanding, UT 84511

Workorder No.: C11060152 Quote ID: C2975 - Chloroform Sampling

Project Name: 2nd Quarter Chloroform 2011

Energy Laboratories, Inc. Casper WY received the following 17 samples for Denison Mines USA Corp on 6/3/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11060152-001	TW4-21R	05/31/11 8:05	06/03/11	Aqueous	Chloride Nitrogen, Nitrate + Nitrite SW8260B VOCs, Standard List
C11060152-002	TW4-2R	06/01/11 9:51	06/03/11	Aqueous	Same As Above
C11060152-003	TW4-21	06/01/11 7:33	06/03/11	Aqueous	Same As Above
C11060152-004	TW4-15	05/31/11 9:05	06/03/11	Aqueous	Same As Above
C11060152-005	TW4-10	06/01/11 7:57	06/03/11	Aqueous	Same As Above
C11060152-006	TW4-11	06/01/11 8:09	06/03/11	Aqueous	Same As Above
C11060152-007	TW4-7	06/01/11 8:18	06/03/11	Aqueous	Same As Above
C11060152-008	TW4-22	06/01/11 8:29	06/03/11	Aqueous	Same As Above
C11060152-009	TW4-1	06/01/11 8:39	06/03/11	Aqueous	Same As Above
C11060152-010	MW-4	06/01/11 8:52	06/03/11	Aqueous	Same As Above
C11060152-011	TW4-4	06/01/11 9:08	06/03/11	Aqueous	Same As Above
C11060152-012	TW4-2	06/02/11 7:20	06/03/11	Aqueous	Same As Above
C11060152-013	TW4-20	06/01/11 13:25	06/03/11	Aqueous	Same As Above
C11060152-014	TW4-60	06/01/11 14:05	06/03/11	Aqueous	Same As Above
C11060152-015	TW4-70	06/01/11 7:33	06/03/11	Aqueous	Same As Above
C11060152-016	Trip Blank 6092	06/02/11 0:00	06/03/11	Aqueous	SW8260B VOCs, Standard List
C11060152-017	Temp Blank	06/02/11 0:00	06/03/11	Aqueous	Temperature

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

Stephanie D Waldrop
Reporting Supervisor

Digitally signed by
Stephanie Waldrop
Date: 2011.06.22 08:01:49 -06:00

CLIENT: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Sample Delivery Group: C11060152

Report Date: 06/22/11

CASE NARRATIVE

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

RADON IN AIR ANALYSIS
The desired exposure time is 48 hours (2 days). The time delay in returning the canister to the laboratory for processing should be as short as possible to avoid excessive decay. Maximum recommended delay between end of exposure to beginning of counting should not exceed 8 days.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

ATRAZINE, SIMAZINE AND PCB ANALYSIS
Data for PCBs, Atrazine and Simazine are reported from EPA 525.2. PCB data reported by ELI reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTIFICATIONS:
USEPA: WY00002, Radiochemical WY00937; FL-DOH NELAC: E87641, Radiochemical E871017; California: 02118CA; Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

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ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011

Report Date: 06/22/11
Work Order: C11060152

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-Cl B									Batch: 6/14/2011-CL-TTR-W	
Sample ID: MBLK9-6/14/2011		Method Blank				Run: TITRATION_110614A			06/14/11 09:58	
Chloride		ND	mg/L	0.5						
Sample ID: C11060152-004AMS		Sample Matrix Spike				Run: TITRATION_110614A			06/14/11 10:35	
Chloride		251	mg/L	1.0	92	90	110			
Sample ID: C11060152-004AMSD		Sample Matrix Spike Duplicate				Run: TITRATION_110614A			06/14/11 10:42	
Chloride		251	mg/L	1.0	92	90	110	0.0	10	
Sample ID: C11060152-014AMS		Sample Matrix Spike				Run: TITRATION_110614A			06/14/11 11:12	
Chloride		36.0	mg/L	1.0	98	90	110			
Sample ID: C11060152-014AMSD		Sample Matrix Spike Duplicate				Run: TITRATION_110614A			06/14/11 11:14	
Chloride		35.3	mg/L	1.0	96	90	110	2.0	10	
Sample ID: LCS35-6/14/2011		Laboratory Control Sample				Run: TITRATION_110614A			06/14/11 11:16	
Chloride		3530	mg/L	1.0	100	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011

Report Date: 06/22/11
Work Order: C11060152

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R146663
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110607A				06/07/11 13:03
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.06						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110607A				06/07/11 13:06
Nitrogen, Nitrate+Nitrite as N		2.53	mg/L	0.10	101	90	110			
Sample ID: C11060152-002BMS		Sample Matrix Spike				Run: TECHNICON_110607A				06/07/11 13:21
Nitrogen, Nitrate+Nitrite as N		1.91	mg/L	0.10	97	90	110			
Sample ID: C11060152-002BMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110607A				06/07/11 13:23
Nitrogen, Nitrate+Nitrite as N		1.97	mg/L	0.10	101	90	110	3.1	10	
Sample ID: C11060152-013BMS		Sample Matrix Spike				Run: TECHNICON_110607A				06/07/11 13:58
Nitrogen, Nitrate+Nitrite as N		14.5	mg/L	0.50	100	90	110			
Sample ID: C11060152-013BMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110607A				06/07/11 14:01
Nitrogen, Nitrate+Nitrite as N		14.3	mg/L	0.50	98	90	110	1.4	10	
Sample ID: LFB-98		Laboratory Fortified Blank				Run: TECHNICON_110607A				06/07/11 17:14
Nitrogen, Nitrate+Nitrite as N		1.87	mg/L	0.10	94	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011

Report Date: 06/22/11
Work Order: C11060152

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R146587
Sample ID: 060411_LCS_4	8	Laboratory Control Sample				Run: SATURNCA_110604A				06/04/11 10:26
Carbon tetrachloride		10	ug/L	1.0	103	70	130			
Chloroform		10	ug/L	1.0	104	70	130			
Chloromethane		8.8	ug/L	1.0	88	70	130			
Methylene chloride		10	ug/L	1.0	102	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	94	80	120			
Surr: Dibromofluoromethane				1.0	97	70	130			
Surr: p-Bromofluorobenzene				1.0	94	80	130			
Surr: Toluene-d8				1.0	103	80	120			
Sample ID: 060411_MBLK_6	8	Method Blank				Run: SATURNCA_110604A				06/04/11 11:37
Carbon tetrachloride		ND	ug/L	1.0						
Chloroform		ND	ug/L	1.0						
Chloromethane		ND	ug/L	1.0						
Methylene chloride		ND	ug/L	1.0						
Surr: 1,2-Dichlorobenzene-d4				1.0	94	80	120			
Surr: Dibromofluoromethane				1.0	93	70	130			
Surr: p-Bromofluorobenzene				1.0	88	80	120			
Surr: Toluene-d8				1.0	101	80	120			
Sample ID: C11060152-015CMS	8	Sample Matrix Spike				Run: SATURNCA_110604A				06/04/11 17:36
Carbon tetrachloride		2300	ug/L	100	116	70	130			
Chloroform		2800	ug/L	100	112	70	130			
Chloromethane		1800	ug/L	100	90	70	130			
Methylene chloride		2200	ug/L	100	108	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	101	80	120			
Surr: Dibromofluoromethane				1.0	99	70	130			
Surr: p-Bromofluorobenzene				1.0	101	80	120			
Surr: Toluene-d8				1.0	110	80	120			
Sample ID: C11060152-015CMSD	8	Sample Matrix Spike Duplicate				Run: SATURNCA_110604A				06/04/11 18:11
Carbon tetrachloride		2200	ug/L	100	112	70	130	2.8	20	
Chloroform		2800	ug/L	100	108	70	130	2.3	20	
Chloromethane		1700	ug/L	100	87	70	130	3.6	20	
Methylene chloride		2100	ug/L	100	107	70	130	1.1	20	
Surr: 1,2-Dichlorobenzene-d4				1.0	98	80	120	0.0	10	
Surr: Dibromofluoromethane				1.0	100	70	130	0.0	10	
Surr: p-Bromofluorobenzene				1.0	102	80	120	0.0	10	
Surr: Toluene-d8				1.0	109	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011

Report Date: 06/22/11
Work Order: C11060152

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R146815
Sample ID: 061011_LCS_4	8	Laboratory Control Sample				Run: SATURNCA_110610A				06/10/11 11:41
Carbon tetrachloride		9.8	ug/L	1.0	98	70	130			
Chloroform		9.4	ug/L	1.0	94	70	130			
Chloromethane		9.2	ug/L	1.0	92	70	130			
Methylene chloride		9.8	ug/L	1.0	98	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	102	80	120			
Surr: Dibromofluoromethane				1.0	94	70	130			
Surr: p-Bromofluorobenzene				1.0	100	80	130			
Surr: Toluene-d8				1.0	104	80	120			
Sample ID: 061011_MBLK_6	8	Method Blank				Run: SATURNCA_110610A				06/10/11 12:53
Carbon tetrachloride		ND	ug/L	1.0						
Chloroform		ND	ug/L	1.0						
Chloromethane		ND	ug/L	1.0						
Methylene chloride		ND	ug/L	1.0						
Surr: 1,2-Dichlorobenzene-d4				1.0	103	80	120			
Surr: Dibromofluoromethane				1.0	100	70	130			
Surr: p-Bromofluorobenzene				1.0	99	80	120			
Surr: Toluene-d8				1.0	95	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011

Report Date: 06/22/11
Work Order: C11060152

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R146817
Sample ID: 10-Jun-11_LCS_4	5	Laboratory Control Sample				Run: 5975VOC1_110610A			06/10/11 11:43	
Chloroform		9.6	ug/L	1.0	96	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	112	80	120			
Surr: Dibromofluoromethane				1.0	90	70	130			
Surr: p-Bromofluorobenzene				1.0	105	80	130			
Surr: Toluene-d8				1.0	100	80	120			
Sample ID: 10-Jun-11_MBLK_6	5	Method Blank				Run: 5975VOC1_110610A			06/10/11 12:54	
Chloroform		ND	ug/L	1.0						
Surr: 1,2-Dichlorobenzene-d4				1.0	128	80	120			S
Surr: Dibromofluoromethane				1.0	100	70	130			
Surr: p-Bromofluorobenzene				1.0	108	80	120			
Surr: Toluene-d8				1.0	91	80	120			
Sample ID: C11060292-005GMS	5	Sample Matrix Spike				Run: 5975VOC1_110610A			06/10/11 18:47	
Chloroform		240	ug/L	10	118	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	115	80	120			
Surr: Dibromofluoromethane				1.0	106	70	130			
Surr: p-Bromofluorobenzene				1.0	105	80	120			
Surr: Toluene-d8				1.0	101	80	120			
Sample ID: C11060292-005GMSD	5	Sample Matrix Spike Duplicate				Run: 5975VOC1_110610A			06/10/11 19:22	
Chloroform		210	ug/L	10	103	70	130	13	20	
Surr: 1,2-Dichlorobenzene-d4				1.0	114	80	120	0.0	10	
Surr: Dibromofluoromethane				1.0	99	70	130	0.0	10	
Surr: p-Bromofluorobenzene				1.0	104	80	120	0.0	10	
Surr: Toluene-d8				1.0	101	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011

Report Date: 06/22/11
Work Order: C11060152

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R146901
Sample ID: 061311_LCS_20	8	Laboratory Control Sample				Run: SATURNCA_110613A				06/13/11 20:20
Carbon tetrachloride		12	ug/L	1.0	122	70	130			
Chloroform		12	ug/L	1.0	121	70	130			
Chloromethane		11	ug/L	1.0	107	70	130			
Methylene chloride		13	ug/L	1.0	128	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	102	80	120			
Surr: Dibromofluoromethane				1.0	111	70	130			
Surr: p-Bromofluorobenzene				1.0	104	80	130			
Surr: Toluene-d8				1.0	103	80	120			
Sample ID: 061311_MBLK_7	8	Method Blank				Run: SATURNCA_110613A				06/13/11 12:32
Carbon tetrachloride		ND	ug/L	1.0						
Chloroform		ND	ug/L	1.0						
Chloromethane		ND	ug/L	1.0						
Methylene chloride		ND	ug/L	1.0						
Surr: 1,2-Dichlorobenzene-d4				1.0	105	80	120			
Surr: Dibromofluoromethane				1.0	99	70	130			
Surr: p-Bromofluorobenzene				1.0	97	80	120			
Surr: Toluene-d8				1.0	98	80	120			
Sample ID: C11060108-001DMS	8	Sample Matrix Spike				Run: SATURNCA_110613A				06/13/11 17:56
Carbon tetrachloride		210	ug/L	10	105	70	130			
Chloroform		210	ug/L	10	106	70	130			
Chloromethane		190	ug/L	10	93	70	130			
Methylene chloride		230	ug/L	10	114	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	106	80	120			
Surr: Dibromofluoromethane				1.0	106	70	130			
Surr: p-Bromofluorobenzene				1.0	99	80	120			
Surr: Toluene-d8				1.0	102	80	120			
Sample ID: C11060108-001DMSD	8	Sample Matrix Spike Duplicate				Run: SATURNCA_110613A				06/13/11 18:32
Carbon tetrachloride		250	ug/L	10	127	70	130	19	20	
Chloroform		240	ug/L	10	122	70	130	13	20	
Chloromethane		220	ug/L	10	111	70	130	18	20	
Methylene chloride		260	ug/L	10	129	70	130	12	20	
Surr: 1,2-Dichlorobenzene-d4				1.0	102	80	120	0.0	10	
Surr: Dibromofluoromethane				1.0	110	70	130	0.0	10	
Surr: p-Bromofluorobenzene				1.0	102	80	120	0.0	10	
Surr: Toluene-d8				1.0	101	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

Workorder Receipt Checklist

C11060152

Denison Mines USA Corp

Login completed by: Halley Ackerman
Reviewed by: BL2000\kschroeder
Reviewed Date: 6/3/2011

Date Received: 6/3/2011
Received by: dw
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	2.2°C On Ice		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

None

Chain of Custody and Analytical Request Record

ENERGY LABORATORIES

PLEASE PRINT (Provide as much information as possible.)

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
Denison Mines	2nd Quarter Chloroform 2011	State: UT	Yes ☑ No ☐
Report Mail Address:	**Contact Name:** / **Phone/Fax:**	**Email:**	**Sampler: (Please Print)**
PO BOX 809 Blanding UT 84511	Ryan Palmer 435 678 2221		Tanner Holliday
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**
Same	Same		

Special Report/Formats:

☐ DW
☐ POTW/WWTP
☐ State: _____
☐ Other: _____
☐ EDD/EDT (Electronic Data) Format: _____
☐ LEVEL IV
☐ NELAC

ANALYSIS REQUESTED

Standard Turnaround (TAT) — RUSH

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: FedEx
Cooler ID(s): Client
Receipt Temp: 2.2 °C
On Ice: (Y) N
Custody Seal: On Bottle Y N; On Cooler (Y) N
Intact (Y) N
Signature Match (Y) N

#	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O DW; Air Water Soils/Solids Vegetation Bioassay Other DW - Drinking Water)	Quote # C2975	SEE ATTACHED	Comments
1	TW4 21 R	5/31/11	0805	5W	X		
2	TW4 2 R	6/1/2011	0951	5W	X		
3	TW4 21	6/1/2011	0733	5W	X		
4	TW4 15	5/31/2011	0905	5W	X		
5	TW4 10	6/1/2011	0757	5W	X		
6	TW4 11	6/1/2011	0809	5W	X		
7	TW4 7	6/1/2011	0818	5W	X		
8	TW4 22	6/1/2011	0829	5W	X		
9	TW4 1	6/1/2011	0839	5W	X		C11060152
10	MW 4	6/1/2011	0852	5W	X		

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Tanner Holliday	6/2/2011 1030	Tanner Holliday			
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time: 6/3/11 900	Signature:

Sample Disposal: Return to Client: _____ Lab Disposal: _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Chain of Custody and Analytical Request Record

ENERGY LABORATORIES

PLEASE PRINT (Provide as much information as possible.)

Company Name: Denison Mines	Project Name, PWS, Permit, Etc.: 2nd Quarter Chloroform	Sample Origin State: UT	EPA/State Compliance: Yes ☑ No ☐
Report Mail Address: PO Box 809 Blanding UT 84511	Contact Name: Ryan Palmer Phone/Fax: 435 678 2221	Email:	Sampler: (Please Print) Tanner Holliday
Invoice Address: Same	Invoice Contact & Phone: Same	Purchase Order:	Quote/Bottle Order:

Special Report/Formats:

☐ DW ☐ POTW/WWTP ☐ State: _____ ☐ Other: _____

☐ EDD/EDT (Electronic Data) Format: _____ ☐ LEVEL IV ☐ NELAC

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids Vegetation Bioassay Other DW - Drinking Water

ANALYSIS REQUESTED

Standard Turnaround (TAT) — RUSH

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments:

Shipped by: FedEx
Cooler ID(s): Client
Receipt Temp: 2.2 °C
On Ice: (Y) N
Custody Seal: On Bottle Y N; On Cooler (Y) N
Intact (Y) N
Signature Match (Y) N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	Quote # C2975	SEE ATTACHED
1	TW4 4	6/1/2011	0908	SW	X	
2	TW4 2	6/2/2011	0720	SW	X	
3	TW4 20	6/1/2011	1325	SW	X	
4	TW4 60	6/1/2011	1405	SW	X	
5	TW4 70	6/1/2011	0733	SW	X	
6	Trip Blank 6092					
7	Temp Blank					
8						
9						
10						

C11060152

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Tanner Holliday	6/2/2011 1030	Tanner Holliday			
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	6/3/11 900	

Sample Disposal: Return to Client: _____ Lab Disposal: _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

ANALYTICAL SUMMARY REPORT

June 22, 2011

Denison Mines USA Corp
6425 S Hwy 191
Blanding, UT 84511

Workorder No.: C11060430 Quote ID: C2975 - Chloroform Sampling

Project Name: 2nd Quarter Chloroform 2011

Energy Laboratories, Inc. Casper WY received the following 3 samples for Denison Mines USA Corp on 6/9/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11060430-001	TW4-19	06/07/11 10:15	06/09/11	Aqueous	Chloride Nitrogen, Nitrate + Nitrite SW8260B VOCs, Standard List
C11060430-002	Trip Blank 6092	06/07/11 0:00	06/09/11	Aqueous	SW8260B VOCs, Standard List
C11060430-003	Temp Blank	06/07/11 0:00	06/09/11	Aqueous	Temperature

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

Stephanie D Waldrop
Reporting Supervisor

Digitally signed by
Stephanie Waldrop
Date: 2011.06.22 08:07:20 -06:00

CLIENT: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Sample Delivery Group: C11060430

Report Date: 06/22/11

CASE NARRATIVE

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

RADON IN AIR ANALYSIS
The desired exposure time is 48 hours (2 days). The time delay in returning the canister to the laboratory for processing should be as short as possible to avoid excessive decay. Maximum recommended delay between end of exposure to beginning of counting should not exceed 8 days.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

ATRAZINE, SIMAZINE AND PCB ANALYSIS
Data for PCBs, Atrazine and Simazine are reported from EPA 525.2. PCB data reported by ELI reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTIFICATIONS:
USEPA: WY00002, Radiochemical WY00937; FL-DOH NELAC: E87641, Radiochemical E871017; California: 02118CA; Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011

Report Date: 06/22/11
Work Order: C11060430

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-Cl B									Batch: 6/14/2011-CL-TTR-W	
Sample ID: MBLK9-6/14/2011		Method Blank				Run: TITRATION_110614A			06/14/11 09:58	
Chloride		ND	mg/L	0.5						
Sample ID: LCS35-6/14/2011		Laboratory Control Sample				Run: TITRATION_110614A			06/14/11 11:16	
Chloride		3530	mg/L	1.0	100	90	110			
Sample ID: C11060430-001AMS		Sample Matrix Spike				Run: TITRATION_110614A			06/14/11 11:35	
Chloride		318	mg/L	1.0	96	90	110			
Sample ID: C11060430-001AMSD		Sample Matrix Spike Duplicate				Run: TITRATION_110614A			06/14/11 11:35	
Chloride		318	mg/L	1.0	96	90	110	0.0	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011

Report Date: 06/22/11
Work Order: C11060430

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R146953
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110614A				06/14/11 11:48
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.06						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110614A				06/14/11 11:51
Nitrogen, Nitrate+Nitrite as N		2.62	mg/L	0.10	105	90	110			
Sample ID: LFB-3		Laboratory Fortified Blank				Run: TECHNICON_110614A				06/14/11 11:53
Nitrogen, Nitrate+Nitrite as N		1.94	mg/L	0.10	99	90	110			
Sample ID: C11060428-003DMS		Sample Matrix Spike				Run: TECHNICON_110614A				06/14/11 14:43
Nitrogen, Nitrate+Nitrite as N		2.00	mg/L	0.10	98	90	110			
Sample ID: C11060428-003DMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110614A				06/14/11 14:46
Nitrogen, Nitrate+Nitrite as N		1.96	mg/L	0.10	96	90	110	2.0	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp **Report Date:** 06/22/11

Project: 2nd Quarter Chloroform 2011 **Work Order:** C11060430

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R146882
Sample ID: 13-Jun-11_LCS_4	8	Laboratory Control Sample				Run: GCMS2_110613A				06/13/11 13:17
Carbon tetrachloride		10	ug/L	1.0	101	70	130			
Chloroform		9.8	ug/L	1.0	98	70	130			
Chloromethane		10	ug/L	1.0	102	70	130			
Methylene chloride		9.3	ug/L	1.0	93	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	106	80	120			
Surr: Dibromofluoromethane				1.0	96	70	130			
Surr: p-Bromofluorobenzene				1.0	106	80	130			
Surr: Toluene-d8				1.0	102	80	120			
Sample ID: 13-Jun-11_MBLK_6	8	Method Blank				Run: GCMS2_110613A				06/13/11 14:33
Carbon tetrachloride		ND	ug/L	1.0						
Chloroform		ND	ug/L	1.0						
Chloromethane		ND	ug/L	1.0						
Methylene chloride		ND	ug/L	1.0						
Surr: 1,2-Dichlorobenzene-d4				1.0	104	80	120			
Surr: Dibromofluoromethane				1.0	104	70	130			
Surr: p-Bromofluorobenzene				1.0	106	80	120			
Surr: Toluene-d8				1.0	105	80	120			
Sample ID: C11060430-001CMS	8	Sample Matrix Spike				Run: GCMS2_110613A				06/13/11 21:27
Carbon tetrachloride		1100	ug/L	50	106	70	130			
Chloroform		5400	ug/L	50	140	70	130			S
Chloromethane		1200	ug/L	50	119	70	130			
Methylene chloride		1100	ug/L	50	110	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	106	80	120			
Surr: Dibromofluoromethane				1.0	101	70	130			
Surr: p-Bromofluorobenzene				1.0	100	80	120			
Surr: Toluene-d8				1.0	106	80	120			
- Spike recovery is high for one analyte. This is a matrix related bias since the MS MSD pair both exhibit this same behavior yet have an acceptable RPD.										
Sample ID: C11060430-001CMSD	8	Sample Matrix Spike Duplicate				Run: GCMS2_110613A				06/13/11 22:07
Carbon tetrachloride		1100	ug/L	50	107	70	130	1.1	20	
Chloroform		5200	ug/L	50	124	70	130	3.0	20	
Chloromethane		1200	ug/L	50	122	70	130	2.3	20	
Methylene chloride		1100	ug/L	50	110	70	130	0.7	20	
Surr: 1,2-Dichlorobenzene-d4				1.0	104	80	120	0.0	10	
Surr: Dibromofluoromethane				1.0	104	70	130	0.0	10	
Surr: p-Bromofluorobenzene				1.0	106	80	120	0.0	10	
Surr: Toluene-d8				1.0	104	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

Workorder Receipt Checklist

C11060430

Denison Mines USA Corp

Login completed by: Halley Ackerman
Date Received: 6/9/2011
Reviewed by: BL2000\kschroeder
Received by: dw
Reviewed Date: 6/10/2011
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	2.6°C On Ice		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

None

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

PLEASE PRINT (Provide as much information as possible.)

Company Name: Denison Mines	Project Name, PWS, Permit, Etc.: 2nd Quarter Chloroform 2011	Sample Origin State: UT	EPA/State Compliance: Yes ☑ No ☐
Report Mail Address: P.O. Box 809 Blanding, UT 84511	Contact Name: Ryan Palmer Phone/Fax: 435 678 2221	Email:	Sampler: (Please Print) Tanner Holliday
Invoice Address: Same	Invoice Contact & Phone: Same	Purchase Order:	Quote/Bottle Order:

Special Report/Formats:

☐ DW
☐ POTW/WWTP
☐ State: _____
☐ Other: _____
☐ EDD/EDT (Electronic Data) Format: _____
☐ LEVEL IV
☐ NELAC

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O DW; Air Water Soils/Solids Vegetation Bioassay Other DW - Drinking Water)	Quote # C2975									SEE ATTACHED
1 TW4-19	6/7/11	1015	SW	X									
2 Trip Blank 6092	6/7/11												
3													
4													
5													
6													
7													
8													
9													
10													

Standard Turnaround (TAT)

RUSH

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments: C1106043O

Shipped by: Fedex E
Cooler ID(s): Client
Receipt Temp: 2.6 °C
On Ice: (Y) N
Custody Seal: On Bottle Y (N); On Cooler (Y) N
Intact (Y) N
Signature Match (Y) N

LABORATORY USE ONLY

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Tanner Holliday	6/8/2011 1100	Tanner Holliday			
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time: 6-9-11 900	Signature:

Sample Disposal: Return to Client: _____ Lab Disposal: _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

ANALYTICAL SUMMARY REPORT

July 13, 2011

Denison Mines USA Corp
6425 S Hwy 191
Blanding, UT 84511

Workorder No.: C11061150 Quote ID: C2975 - Chloroform Sampling

Project Name: 2nd Quarter Chloroform 2011

Energy Laboratories, Inc. Casper WY received the following 6 samples for Denison Mines USA Corp on 6/29/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11061150-001	TW4-21R	06/27/11 10:20	06/29/11	Aqueous	Chloride Nitrogen, Nitrate + Nitrite SW8260B VOCs, Standard List
C11061150-002	TW4-21	06/28/11 8:05	06/29/11	Aqueous	Same As Above
C11061150-003	TW4-70	06/28/11 8:05	06/29/11	Aqueous	Same As Above
C11061150-004	TW4-60	06/27/11 12:55	06/29/11	Aqueous	Same As Above
C11061150-005	Trip Blank 6092	06/27/11 0:00	06/29/11	Aqueous	SW8260B VOCs, Standard List
C11061150-006	Temp Blank	06/27/11 0:00	06/29/11	Aqueous	Temperature

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

Stephanie D Waldrop
Reporting Supervisor

Digitally signed by
Stephanie Waldrop
Date: 2011.07.13 14:44:13 -06:00

CLIENT: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011
Sample Delivery Group: C11061150

Report Date: 07/13/11

CASE NARRATIVE

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

RADON IN AIR ANALYSIS
The desired exposure time is 48 hours (2 days). The time delay in returning the canister to the laboratory for processing should be as short as possible to avoid excessive decay. Maximum recommended delay between end of exposure to beginning of counting should not exceed 8 days.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

ATRAZINE, SIMAZINE AND PCB ANALYSIS
Data for PCBs, Atrazine and Simazine are reported from EPA 525.2. PCB data reported by ELI reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTIFICATIONS:
USEPA: WY00002, Radiochemical WY00937; FL-DOH NELAC: E87641, Radiochemical E871017; California: 02118CA; Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011

Report Date: 07/13/11
Work Order: C11061150

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-Cl B									Batch: 7/8/2011-CL-TTR-W	
Sample ID: MBLK9-7/8/2011		Method Blank				Run: TITRATION_110708A			07/08/11 09:23	
Chloride		ND	mg/L	0.5						
Sample ID: C11061150-003A		Sample Matrix Spike				Run: TITRATION_110708A			07/08/11 10:07	
Chloride		643	mg/L	1.0	101	90	110			
Sample ID: C11061150-003A		Sample Matrix Spike Duplicate				Run: TITRATION_110708A			07/08/11 10:09	
Chloride		643	mg/L	1.0	101	90	110	0.0	10	
Sample ID: LCS35-7/8/2011		Laboratory Control Sample				Run: TITRATION_110708A			07/08/11 10:12	
Chloride		3600	mg/L	1.0	102	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Report Date: 07/13/11
Project: 2nd Quarter Chloroform 2011
Work Order: C11061150

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R147578
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110630A				06/30/11 13:11
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.06						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110630A				06/30/11 13:13
Nitrogen, Nitrate+Nitrite as N		2.50	mg/L	0.10	100	90	110			
Sample ID: LFB-3		Laboratory Fortified Blank				Run: TECHNICON_110630A				06/30/11 13:16
Nitrogen, Nitrate+Nitrite as N		1.88	mg/L	0.10	96	90	110			
Sample ID: C11061150-001BMS		Sample Matrix Spike				Run: TECHNICON_110630A				06/30/11 15:26
Nitrogen, Nitrate+Nitrite as N		1.86	mg/L	0.10	95	90	110			
Sample ID: C11061150-001BMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110630A				06/30/11 15:28
Nitrogen, Nitrate+Nitrite as N		1.89	mg/L	0.10	96	90	110	1.6	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011

Report Date: 07/13/11
Work Order: C11061150

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R147664
Sample ID: 01-Jul-11_LCS_4	8	Laboratory Control Sample				Run: GCMS2_110701A				07/01/11 12:01
Carbon tetrachloride		11	ug/L	1.0	110	70	130			
Chloroform		10	ug/L	1.0	102	70	130			
Chloromethane		10	ug/L	1.0	104	70	130			
Methylene chloride		9.6	ug/L	1.0	96	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	102	80	120			
Surr: Dibromofluoromethane				1.0	90	70	130			
Surr: p-Bromofluorobenzene				1.0	102	80	130			
Surr: Toluene-d8				1.0	95	80	120			
Sample ID: 01-Jul-11_ISTBLK_5	8	Method Blank				Run: GCMS2_110701A				07/01/11 12:37
Carbon tetrachloride		ND	ug/L	1.0						
Chloroform		ND	ug/L	1.0						
Chloromethane		ND	ug/L	1.0						
Methylene chloride		ND	ug/L	1.0						
Surr: 1,2-Dichlorobenzene-d4				1.0	100	80	120			
Surr: Dibromofluoromethane				1.0	87	70	130			
Surr: p-Bromofluorobenzene				1.0	109	80	120			
Surr: Toluene-d8				1.0	92	80	120			
Sample ID: C11061164-007AMS	8	Sample Matrix Spike				Run: GCMS2_110701A				07/01/11 18:37
Carbon tetrachloride		190	ug/L	10	97	70	130			
Chloroform		180	ug/L	10	92	70	130			
Chloromethane		190	ug/L	10	93	70	130			
Methylene chloride		170	ug/L	10	87	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	105	80	120			
Surr: Dibromofluoromethane				1.0	90	70	130			
Surr: p-Bromofluorobenzene				1.0	108	80	120			
Surr: Toluene-d8				1.0	99	80	120			
Sample ID: C11061164-007AMSD	8	Sample Matrix Spike Duplicate				Run: GCMS2_110701A				07/01/11 19:13
Carbon tetrachloride		190	ug/L	10	94	70	130	3.8	20	
Chloroform		170	ug/L	10	85	70	130	8.6	20	
Chloromethane		170	ug/L	10	87	70	130	6.2	20	
Methylene chloride		160	ug/L	10	79	70	130	9.6	20	
Surr: 1,2-Dichlorobenzene-d4				1.0	102	80	120	0.0	10	
Surr: Dibromofluoromethane				1.0	84	70	130	0.0	10	
Surr: p-Bromofluorobenzene				1.0	100	80	120	0.0	10	
Surr: Toluene-d8				1.0	94	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Denison Mines USA Corp
Project: 2nd Quarter Chloroform 2011

Report Date: 07/13/11
Work Order: C11061150

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B									Batch: R147744	
Sample ID: 070611_LCS_5	8	Laboratory Control Sample				Run: SATURNCA_110706B			07/06/11 13:40	
Carbon tetrachloride		10	ug/L	1.0	100	70	130			
Chloroform		9.6	ug/L	1.0	96	70	130			
Chloromethane		8.2	ug/L	1.0	82	70	130			
Methylene chloride		10	ug/L	1.0	104	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	96	80	120			
Surr: Dibromofluoromethane				1.0	98	70	130			
Surr: p-Bromofluorobenzene				1.0	98	80	130			
Surr: Toluene-d8				1.0	95	80	120			
Sample ID: 070611_MBLK_7	8	Method Blank				Run: SATURNCA_110706B			07/06/11 14:53	
Carbon tetrachloride		ND	ug/L	1.0						
Chloroform		ND	ug/L	1.0						
Chloromethane		ND	ug/L	1.0						
Methylene chloride		ND	ug/L	1.0						
Surr: 1,2-Dichlorobenzene-d4				1.0	95	80	120			
Surr: Dibromofluoromethane				1.0	92	70	130			
Surr: p-Bromofluorobenzene				1.0	97	80	120			
Surr: Toluene-d8				1.0	95	80	120			
Sample ID: C11061215-004AMS	8	Sample Matrix Spike				Run: SATURNCA_110706B			07/06/11 20:19	
Carbon tetrachloride		210	ug/L	10	107	70	130			
Chloroform		210	ug/L	10	107	70	130			
Chloromethane		170	ug/L	10	86	70	130			
Methylene chloride		230	ug/L	10	115	70	130			
Surr: 1,2-Dichlorobenzene-d4				1.0	99	80	120			
Surr: Dibromofluoromethane				1.0	100	70	130			
Surr: p-Bromofluorobenzene				1.0	99	80	120			
Surr: Toluene-d8				1.0	93	80	120			
Sample ID: C11061215-004AMSD	8	Sample Matrix Spike Duplicate				Run: SATURNCA_110706B			07/06/11 20:55	
Carbon tetrachloride		200	ug/L	10	98	70	130	9.0	20	
Chloroform		200	ug/L	10	98	70	130	9.0	20	
Chloromethane		160	ug/L	10	81	70	130	6.2	20	
Methylene chloride		210	ug/L	10	105	70	130	9.1	20	
Surr: 1,2-Dichlorobenzene-d4				1.0	96	80	120	0.0	10	
Surr: Dibromofluoromethane				1.0	91	70	130	0.0	10	
Surr: p-Bromofluorobenzene				1.0	97	80	120	0.0	10	
Surr: Toluene-d8				1.0	100	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

Workorder Receipt Checklist

C11061150

Denison Mines USA Corp

Login completed by: Edith McPike
Date Received: 6/29/2011
Reviewed by: BL2000\kschroeder
Received by: dw
Reviewed Date: 6/29/2011
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	2.2°C On Ice		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

None

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

PLEASE PRINT (Provide as much information as possible.)

Company Name: Denison Mines	Project Name, PWS, Permit, Etc.: 2nd Quarter Chloroform 2011	Sample Origin State: UT	EPA/State Compliance: Yes ☑ No ☐
Report Mail Address: PO Box 809 Blanding UT 84511	Contact Name: Ryan Palmer Phone/Fax: 435 678 2221	Email:	Sampler: (Please Print) Tanner Holliday
Invoice Address: Same	Invoice Contact & Phone: Same	Purchase Order:	Quote/Bottle Order:

Special Report/Formats:

- ☐ DW
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

ANALYSIS REQUESTED

Standard Turnaround (TAT)

RUSH

Contact ELI prior to **RUSH** sample submittal for charges and scheduling – See Instruction Page

Comments:

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	Quote # C2975	SEE ATTACHED
1	TW4-21 R	6/27/11	1020	SW	X	
2	TW4-21	6/28/11	0805	SW	X	
3	TW4-70	6/28/11	0805	SW	X	
4	TW4-60	6/27/11	1255	SW	X	
5	Trip Blank 6092	6/27/11				
6	Temp Blank					
7						
8						
9						
10						

LABORATORY USE ONLY

Shipped by: Fed Ex
Cooler ID(s): Original
Receipt Temp 2.2 °C
On Ice: (Y) N
Custody Seal On Bottle Y (N) / On Cooler Y (N)
Intact (Y) N
Signature Match Y N
1.1661150

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Tanner Holliday	6/28/2011 1100	Tanner Holliday			
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory: D. Wellins	Date/Time: 6/29/11 950	Signature:

Sample Disposal: Return to Client: _____ Lab Disposal: _____

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.
Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Tab I

Quality Assurance and Data Validation Tables

I-1: Field QA/QC Evaluation

Location	2x Casing Volume	Volume Pumped	2x Casing Volume	Volume Pumped	Volume Check	Conductivity		RPD	pH		RPD	Temp		RPD	Redox Potential		RPD	Turbidity		RPD
MW-4	NA	Continuously pumped well	--			2010		N/A	6.03		N/A	15.25		N/A	147		N/A	0.0		N/A
TW4-1	59.86	80.00	60	80	OK	2203	2214	0.50	6.95	6.94	0.14	15.18	15.17	0.07	60	61	1.65	17.4	17.5	0.57
TW4-2	68.82	95.00	69	95	Pumped Dry	3133	2944	6.22	5.8	5.81	0.17	15.21	15.25	0.26	169	161	4.85	120.1	117.3	2.36
TW4-3	119.90	123.00	120	123	Pumped Dry	1663	1660	0.18	6.38	6.43	0.78	14.14	14.15	0.07	454	453	0.22	24.5	24.9	1.62
TW4-4	NA	Continuously pumped well	--			2403		N/A	5.46		N/A	15.42		N/A	178		N/A	1.3		N/A
TW4-5	83.32	100.00	83	100	OK	1560	1559	0.06	6.11	6.17	0.98	15.19	15.2	0.07	256	255	0.39	193.7	191.1	1.35
TW4-6	35.12	26.00	35	26	Pumped Dry	4067	4070	0.07	6.91	7.26	4.94	15.61	15.46	0.97	163	131	21.77	301	231	26.32
TW4-7	68.50	65.00	69	65	Pumped Dry	1741	1750	0.52	7.68	7.4	3.71	15.45	15.46	0.06	108	108	0.00	38.6	40.1	3.81
TW4-8	76.16	90.00	76	90	OK	3278	3276	0.06	6.51	6.53	0.31	14.57	14.57	0.00	368	366	0.54	42.3	43.1	1.87
TW4-9	86.12	100.00	86	100	OK	2439	2440	0.04	6.1	6.1	0.00	14.68	14.7	0.14	298	292	2.03	138.1	138.3	0.14
TW4-10	73.84	70.00	74	70	Pumped Dry	2628		N/A	5.6		N/A	14.98		N/A	225		N/A	78.6		N/A
TW4-11	54.96	68.00	55	68	Pumped Dry	1681	1679	0.12	6.05	6.07	0.33	14.39	14.39	0.00	247	246	0.41	6.4	6.5	1.55
TW4-12	81.04	100.00	81	100	OK	939.1	938.7	0.04	6.57	6.57	0.00	14.61	14.62	0.07	312	311	0.32	6.7	6.7	0.00
TW4-13	73.84	68.00	74	68	Pumped Dry	1569		N/A	6.59		N/A	14.81		N/A	294		N/A	12.3		N/A
TW4-14	8.42	5.00	8	5	Pumped Dry	623		N/A	6.56		N/A	17.82		N/A	282		N/A	44.9		N/A
TW4-15	NA	Continuously pumped well	--			3588		N/A	6.09		N/A	14.83		N/A	157		N/A	0.00		N/A
TW4-16	101.46	167.00	101	167	Pumped Dry	3743	3748	0.13	6.54	6.53	0.15	14.73	14.72	0.07	184	182	1.09	47.2	79.2	50.63
TW4-17	70.18	80.29	70	80	OK	4013	4013	0.00	7.05	7.04	0.14	14.77	14.78	0.07	84	84	0.00	6.5	6.4	1.55
TW4-18	105.46	120.00	105	120	OK	1748	1747	0.06	6.94	6.92	0.29	15.25	15.25	0.00	145	140	3.51	237.3	229.3	3.43
TW4-19	NA	Continuously pumped well	--			3057		N/A	5.85		N/A	16.68		N/A	219		N/A	1.9		N/A
TW4-20	NA	Continuously pumped well	--			3743		N/A	6.41		N/A	17.99		N/A	141		N/A	2.10		N/A
TW4-21	86.06	130.00	86	130	OK	3426	3424	0.06	5.95	5.96	0.17	16.25	16.24	0.06	297	298	0.34	8.7	8.8	1.14
TW4-22	77.24	90.00	77	90	OK	5026	5134	2.13	7.12	7.12	0.00	15.97	15.96	0.06	88	90	2.25	15	14.9	0.67
TW4-23	63.48	80.00	63	80	OK	3684	3692	0.22	6.09	6.11	0.33	14.11	14.11	0.00	278	269	3.29	179.3	178.1	0.67
TW4-24	74.06	90.00	74	90	OK	9270	9312	0.45	6.17	6.16	0.16	15.01	15.02	0.07	140	140	0.00	10.3	10.3	0.00
TW4-25	115.56	130.00	116	130	OK	3045	3043	0.07	6.61	6.61	0.00	15	14.99	0.07	350	348	0.57	16.3	16.4	0.61
TW4-26	28.14	18	28	18	Pumped Dry	6435	6395	0.62	3.57	3.66	2.49	15.16	15.06	0.66	204	240	16.22	116.7	26.8	125.30

MW-4, TW4-4, TW4-15, TW4-19, and TW4-20 are continually pumped wells.

TW4-2,TW4-3, TW4-6, TW4-7, TW4-10, TW4-11, TW4-13, TW4-14, TW4-16, and TW4-26 were pumped dry and sampled after recovery.

RPD > than 10%

The QAP states that turbidity should be less than 5 Nephelometric Turbidity Units ("NTU") prior to sampling unless the well is characterized by water that has a higher turbidity. The QAP does not require that turbidity measurements be less than 5 NTU prior to sampling. As such, the noted observations regarding turbidity measurements less than 5 NTU are included for information purposes only.

I-2: Holding Time Evaluation

Location	Constituent	Sample Collection Date	Lab Analysis Date	Holding Time	Allowed Holding Time	Holding Time Check
MW-4	Chloroform	6/1/2011	6/13/2011	12.00 days	14 days	OK
MW-4	Chloromethane	6/1/2011	6/4/2011	3.00 days	14 days	OK
MW-4	Methylene chloride	6/1/2011	6/4/2011	3.00 days	14 days	OK
MW-4	Carbon Tetrachloride	6/1/2011	6/4/2011	3.00 days	14 days	OK
MW-4	Nitrogen	6/1/2011	6/7/2011	6.00 days	28 days	OK
MW-4	Chloride	6/1/2011	6/14/2011	13.00 days	28 days	OK
TW4-1	Chloroform	6/1/2011	6/10/2011	9.00 days	14 days	OK
TW4-1	Chloromethane	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-1	Methylene chloride	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-1	Carbon Tetrachloride	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-1	Nitrogen	6/1/2011	6/7/2011	6.00 days	28 days	OK
TW4-1	Chloride	6/1/2011	6/14/2011	13.00 days	28 days	OK
TW4-2	Chloroform	6/2/2011	6/10/2011	8.00 days	14 days	OK
TW4-2	Chloromethane	6/2/2011	6/4/2011	2.00 days	14 days	OK
TW4-2	Methylene chloride	6/2/2011	6/4/2011	2.00 days	14 days	OK
TW4-2	Carbon Tetrachloride	6/2/2011	6/4/2011	2.00 days	14 days	OK
TW4-2	Nitrogen	6/2/2011	6/7/2011	5.00 days	28 days	OK
TW4-2	Chloride	6/2/2011	6/14/2011	12.00 days	28 days	OK
TW4-3	Chloroform	5/25/2011	6/2/2011	8.00 days	14 days	OK
TW4-3	Chloromethane	5/25/2011	6/2/2011	8.00 days	14 days	OK
TW4-3	Methylene chloride	5/25/2011	6/2/2011	8.00 days	14 days	OK
TW4-3	Carbon Tetrachloride	5/25/2011	6/2/2011	8.00 days	14 days	OK
TW4-3	Nitrogen	5/25/2011	5/27/2011	2.00 days	28 days	OK
TW4-3	Chloride	5/25/2011	6/1/2011	7.00 days	28 days	OK
TW4-4	Chloroform	6/1/2011	6/10/2011	9.00 days	14 days	OK
TW4-4	Chloromethane	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-4	Methylene chloride	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-4	Carbon Tetrachloride	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-4	Nitrogen	6/1/2011	6/7/2011	6.00 days	28 days	OK
TW4-4	Chloride	6/1/2011	6/14/2011	13.00 days	28 days	OK
TW4-5	Chloroform	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-5	Chloromethane	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-5	Methylene chloride	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-5	Carbon Tetrachloride	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-5	Nitrogen	5/26/2011	5/27/2011	1.00 days	28 days	OK
TW4-5	Chloride	5/26/2011	6/2/2011	7.00 days	28 days	OK
TW4-6	Chloroform	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-6	Chloromethane	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-6	Methylene chloride	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-6	Carbon Tetrachloride	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-6	Nitrogen	5/26/2011	5/27/2011	1.00 days	28 days	OK
TW4-6	Chloride	5/26/2011	6/2/2011	7.00 days	28 days	OK
TW4-7	Chloroform	6/1/2011	6/10/2011	9.00 days	14 days	OK
TW4-7	Chloromethane	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-7	Methylene chloride	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-7	Carbon Tetrachloride	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-7	Nitrogen	6/1/2011	6/7/2011	6.00 days	28 days	OK

I-2: Holding Time Evaluation

Location	Constituent	Sample Collection Date	Lab Analysis Date	Holding Time	Allowed Holding Time	Holding Time Check
TW4-7	Chloride	6/1/2011	6/14/2011	13.00 days	28 days	OK
TW4-8	Chloroform	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-8	Chloromethane	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-8	Methylene chloride	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-8	Carbon Tetrachloride	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-8	Nitrogen	5/25/2011	5/27/2011	2.00 days	28 days	OK
TW4-8	Chloride	5/25/2011	6/2/2011	8.00 days	28 days	OK
TW4-9	Chloroform	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-9	Chloromethane	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-9	Methylene chloride	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-9	Carbon Tetrachloride	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-9	Nitrogen	5/25/2011	6/6/2011	12.00 days	28 days	OK
TW4-9	Chloride	5/25/2011	6/2/2011	8.00 days	28 days	OK
TW4-10	Chloroform	6/1/2011	6/10/2011	9.00 days	14 days	OK
TW4-10	Chloromethane	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-10	Methylene chloride	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-10	Carbon Tetrachloride	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-10	Nitrogen	6/1/2011	6/7/2011	6.00 days	28 days	OK
TW4-10	Chloride	6/1/2011	6/14/2011	13.00 days	28 days	OK
TW4-11	Chloroform	6/1/2011	6/10/2011	9.00 days	14 days	OK
TW4-11	Chloromethane	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-11	Methylene chloride	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-11	Carbon Tetrachloride	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-11	Nitrogen	6/1/2011	6/7/2011	6.00 days	28 days	OK
TW4-11	Chloride	6/1/2011	6/14/2011	13.00 days	28 days	OK
TW4-12	Chloroform	5/25/2011	6/2/2011	8.00 days	14 days	OK
TW4-12	Chloromethane	5/25/2011	6/2/2011	8.00 days	14 days	OK
TW4-12	Methylene chloride	5/25/2011	6/2/2011	8.00 days	14 days	OK
TW4-12	Carbon Tetrachloride	5/25/2011	6/2/2011	8.00 days	14 days	OK
TW4-12	Nitrogen	5/25/2011	5/27/2011	2.00 days	28 days	OK
TW4-12	Chloride	5/25/2011	6/1/2011	7.00 days	28 days	OK
TW4-13	Chloroform	5/25/2011	6/2/2011	8.00 days	14 days	OK
TW4-13	Chloromethane	5/25/2011	6/2/2011	8.00 days	14 days	OK
TW4-13	Methylene chloride	5/25/2011	6/2/2011	8.00 days	14 days	OK
TW4-13	Carbon Tetrachloride	5/25/2011	6/2/2011	8.00 days	14 days	OK
TW4-13	Nitrogen	5/25/2011	5/27/2011	2.00 days	28 days	OK
TW4-13	Chloride	5/25/2011	6/1/2011	7.00 days	28 days	OK
TW4-14	Chloroform	5/26/2011	6/2/2011	7.00 days	14 days	OK
TW4-14	Chloromethane	5/26/2011	6/2/2011	7.00 days	14 days	OK
TW4-14	Methylene chloride	5/26/2011	6/2/2011	7.00 days	14 days	OK
TW4-14	Carbon Tetrachloride	5/26/2011	6/2/2011	7.00 days	14 days	OK
TW4-14	Nitrogen	5/26/2011	5/27/2011	1.00 days	28 days	OK
TW4-14	Chloride	5/26/2011	6/1/2011	6.00 days	28 days	OK
TW4-15	Chloroform	5/31/2011	6/10/2011	10.00 days	14 days	OK
TW4-15	Chloromethane	5/31/2011	6/4/2011	4.00 days	14 days	OK
TW4-15	Methylene chloride	5/31/2011	6/4/2011	4.00 days	14 days	OK
TW4-15	Carbon Tetrachloride	5/31/2011	6/4/2011	4.00 days	14 days	OK
TW4-15	Nitrogen	5/31/2011	6/7/2011	7.00 days	28 days	OK

I-2: Holding Time Evaluation

Location	Constituent	Sample Collection Date	Lab Analysis Date	Holding Time	Allowed Holding Time	Holding Time Check
TW4-15	Chloride	5/31/2011	6/14/2011	14.00 days	28 days	OK
TW4-16	Chloroform	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-16	Chloromethane	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-16	Methylene chloride	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-16	Carbon Tetrachloride	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-16	Nitrogen	5/26/2011	5/27/2011	1.00 days	28 days	OK
TW4-16	Chloride	5/26/2011	6/2/2011	7.00 days	28 days	OK
MW-32	Chloroform	5/25/2011	6/2/2011	8.00 days	14 days	OK
MW-32	Chloromethane	5/25/2011	6/2/2011	8.00 days	14 days	OK
MW-32	Methylene chloride	5/25/2011	6/2/2011	8.00 days	14 days	OK
MW-32	Carbon Tetrachloride	5/25/2011	6/2/2011	8.00 days	14 days	OK
MW-32	Nitrogen	5/25/2011	5/27/2011	2.00 days	28 days	OK
MW-32	Chloride	5/25/2011	6/1/2011	7.00 days	28 days	OK
TW4-18	Chloroform	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-18	Chloromethane	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-18	Methylene chloride	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-18	Carbon Tetrachloride	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-18	Nitrogen	5/26/2011	5/27/2011	1.00 days	28 days	OK
TW4-18	Chloride	5/26/2011	6/2/2011	7.00 days	28 days	OK
TW4-19	Chloroform	6/7/2011	6/13/2011	6.00 days	14 days	OK
TW4-19	Chloromethane	6/7/2011	6/13/2011	6.00 days	14 days	OK
TW4-19	Methylene chloride	6/7/2011	6/13/2011	6.00 days	14 days	OK
TW4-19	Carbon Tetrachloride	6/7/2011	6/13/2011	6.00 days	14 days	OK
TW4-19	Nitrogen	6/7/2011	6/14/2011	7.00 days	28 days	OK
TW4-19	Chloride	6/7/2011	6/14/2011	7.00 days	28 days	OK
TW4-20	Chloroform	6/1/2011	6/10/2011	9.00 days	14 days	OK
TW4-20	Chloromethane	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-20	Methylene chloride	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-20	Carbon Tetrachloride	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-20	Nitrogen	6/1/2011	6/7/2011	6.00 days	28 days	OK
TW4-20	Chloride	6/1/2011	6/14/2011	13.00 days	28 days	OK
TW4-21	Chloroform	6/28/2011	7/7/2011	9.00 days	14 days	OK
TW4-21	Chloromethane	6/28/2011	7/7/2011	9.00 days	14 days	OK
TW4-21	Methylene chloride	6/28/2011	7/7/2011	9.00 days	14 days	OK
TW4-21	Carbon Tetrachloride	6/28/2011	7/7/2011	9.00 days	14 days	OK
TW4-21	Nitrogen	6/28/2011	6/30/2011	2.00 days	28 days	OK
TW4-21	Chloride	6/28/2011	7/8/2011	10.00 days	28 days	OK
TW4-22	Chloroform	6/1/2011	6/10/2011	9.00 days	14 days	OK
TW4-22	Chloromethane	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-22	Methylene chloride	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-22	Carbon Tetrachloride	6/1/2011	6/4/2011	3.00 days	14 days	OK
TW4-22	Nitrogen	6/1/2011	6/7/2011	6.00 days	28 days	OK
TW4-22	Chloride	6/1/2011	6/14/2011	13.00 days	28 days	OK
TW4-23	Chloroform	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-23	Chloromethane	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-23	Methylene chloride	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-23	Carbon Tetrachloride	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-23	Nitrogen	5/25/2011	5/27/2011	2.00 days	28 days	OK

I-2: Holding Time Evaluation

Location	Constituent	Sample Collection Date	Lab Analysis Date	Holding Time	Allowed Holding Time	Holding Time Check
TW4-23	Chloride	5/25/2011	6/1/2011	7.00 days	28 days	OK
TW4-24	Chloroform	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-24	Chloromethane	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-24	Methylene chloride	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-24	Carbon Tetrachloride	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-24	Nitrogen	5/26/2011	5/27/2011	1.00 days	28 days	OK
TW4-24	Chloride	5/26/2011	6/2/2011	7.00 days	28 days	OK
TW4-25	Chloroform	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-25	Chloromethane	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-25	Methylene chloride	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-25	Carbon Tetrachloride	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-25	Nitrogen	5/25/2011	5/27/2011	2.00 days	28 days	OK
TW4-25	Chloride	5/25/2011	6/1/2011	7.00 days	28 days	OK
TW4-26	Chloroform	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-26	Chloromethane	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-26	Methylene chloride	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-26	Carbon Tetrachloride	5/26/2011	6/3/2011	8.00 days	14 days	OK
TW4-26	Nitrogen	5/26/2011	5/27/2011	1.00 days	28 days	OK
TW4-26	Chloride	5/26/2011	6/2/2011	7.00 days	28 days	OK
TW4-60	Chloroform	6/1/2011	6/13/2011	12.00 days	14 days	OK
TW4-60	Chloromethane	6/1/2011	6/13/2011	12.00 days	14 days	OK
TW4-60	Methylene chloride	6/1/2011	6/13/2011	12.00 days	14 days	OK
TW4-60	Carbon Tetrachloride	6/1/2011	6/13/2011	12.00 days	14 days	OK
TW4-60	Nitrogen	6/1/2011	6/7/2011	6.00 days	28 days	OK
TW4-60	Chloride	6/1/2011	6/14/2011	13.00 days	28 days	OK
TW4-60	Chloroform	6/27/2011	7/6/2011	9.00 days	14 days	OK
TW4-60	Chloromethane	6/27/2011	7/6/2011	9.00 days	14 days	OK
TW4-60	Methylene chloride	6/27/2011	7/6/2011	9.00 days	14 days	OK
TW4-60	Carbon Tetrachloride	6/27/2011	7/6/2011	9.00 days	14 days	OK
TW4-60	Nitrogen	6/27/2011	6/30/2011	3.00 days	28 days	OK
TW4-60	Chloride	6/27/2011	7/8/2011	11.00 days	28 days	OK
TW4-65	Chloroform	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-65	Chloromethane	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-65	Methylene chloride	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-65	Carbon Tetrachloride	5/25/2011	6/3/2011	9.00 days	14 days	OK
TW4-65	Nitrogen	5/25/2011	5/27/2011	2.00 days	28 days	OK
TW4-65	Chloride	5/25/2011	6/2/2011	8.00 days	28 days	OK
TW4-70	Chloroform	6/28/2011	7/7/2011	9.00 days	14 days	OK
TW4-70	Chloromethane	6/28/2011	7/7/2011	9.00 days	14 days	OK
TW4-70	Methylene chloride	6/28/2011	7/7/2011	9.00 days	14 days	OK
TW4-70	Carbon Tetrachloride	6/28/2011	7/7/2011	9.00 days	14 days	OK
TW4-70	Nitrogen	6/28/2011	6/30/2011	2.00 days	28 days	OK
TW4-70	Chloride	6/28/2011	7/8/2011	10.00 days	28 days	OK

Table I-3 Recipt Temperature Check

Sample Batch	Wells in Batch	Temperature
C11050927	TW4-3, TW4-3R, TW4-5, TW4-6, TW4-8, TW4-9, TW4-12, TW4-13, TW4-14,TW4-16, TW4-18, TW4-23, TW4-24,TW4-24R, TW4-25, TW4-26, MW-32, TW4-65, Trip Blank	2.8 °C
C11020714	MW-4,TW4-1,TW4-2,TW4-2R,TW4-4,TW4-7,TW4-10,TW4-11,TW4-15,TW4-20,TW4-21,TW4-21R,TW4-22,TW4-60,TW4-70, Trip Blank	2.2 °C
C11060430	TW4-19	2.6 °C
C11061150	TW4-21, TW4-21R, TW4-70, TW4-60	2.2 °C

I-4 Analytical Method Check

Parameter	Method	Method Used by Lab
Carbon Tetrachloride	SW8260B	SW8260B
Chloride	A4500-Cl B	A4500-Cl B
Chloroform	SW8260B	SW8260B
Chloromethane	SW8260B	SW8260B
Methylene chloride	SW8260B	SW8260B
Nitrogen	E353.2	E353.2

All parameters were analyzed using the reporting method specificied in the QAP

I-5 Reporting Limit Evaluation

Location	Constituent	Lab Reporting Limit	Rqd' Reporting Limit	Qualifier Check
MW-4	Chloroform	50 ug/L	1.0 ug/L	OK
MW-4	Chloromethane	1 ug/L	1.0 ug/L	OK
MW-4	Methylene chloride	1 ug/L	1.0 ug/L	OK
MW-4	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
MW-4	Nitrogen	0.5 mg/L	0.1 mg/L	OK
MW-4	Chloride	1 mg/L	1 mg/L	OK
TW4-1	Chloroform	500 ug/L	1.0 ug/L	OK
TW4-1	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-1	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-1	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-1	Nitrogen	0.5 mg/L	0.1 mg/L	OK
TW4-1	Chloride	1 mg/L	1 mg/L	OK
TW4-2	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-2	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-2	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-2	Nitrogen	0.5 mg/L	0.1 mg/L	OK
TW4-2	Chloride	1 mg/L	1 mg/L	OK
TW4-3	Chloroform	1 ug/L	1.0 ug/L	OK
TW4-3	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-3	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-3	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-3	Nitrogen	0.5 mg/L	0.1 mg/L	OK
TW4-3	Chloride	1 mg/L	1 mg/L	OK
TW4-4	Chloroform	500 ug/L	1.0 ug/L	OK
TW4-4	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-4	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-4	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-4	Nitrogen	1 mg/L	0.1 mg/L	OK
TW4-4	Chloride	1 mg/L	1 mg/L	OK
TW4-5	Chloroform	1 ug/L	1.0 ug/L	OK
TW4-5	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-5	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-5	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-5	Nitrogen	0.5 mg/L	0.1 mg/L	OK
TW4-5	Chloride	1 mg/L	1 mg/L	OK
TW4-6	Chloroform	1 ug/L	1.0 ug/L	OK
TW4-6	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-6	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-6	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-6	Nitrogen	0.1 mg/L	0.1 mg/L	OK
TW4-6	Chloride	1 mg/L	1 mg/L	OK
TW4-7	Chloroform	500 ug/L	1.0 ug/L	OK
TW4-7	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-7	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-7	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-7	Nitrogen	0.2 mg/L	0.1 mg/L	OK
TW4-7	Chloride	1 mg/L	1 mg/L	OK

I-5 Reporting Limit Evaluation

Location	Constituent	Lab Reporting Limit	Rqd' Reporting Limit	Qualifier Check
TW4-8	Chloroform	1 ug/L	1.0 ug/L	OK
TW4-8	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-8	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-8	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-8	Nitrogen	0.1 mg/L	0.1 mg/L	OK
TW4-8	Chloride	1 mg/L	1 mg/L	OK
TW4-9	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-9	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-9	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-9	Nitrogen	0.2 mg/L	0.1 mg/L	OK
TW4-9	Chloride	1 mg/L	1 mg/L	OK
TW4-10	Chloroform	50 ug/L	1.0 ug/L	OK
TW4-10	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-10	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-10	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-10	Nitrogen	0.2 mg/L	0.1 mg/L	OK
TW4-10	Chloride	1 mg/L	1 mg/L	OK
TW4-11	Chloroform	500 ug/L	1.0 ug/L	OK
TW4-11	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-11	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-11	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-11	Nitrogen	0.5 mg/L	0.1 mg/L	OK
TW4-11	Chloride	1 mg/L	1 mg/L	OK
TW4-12	Chloroform	1 ug/L	1.0 ug/L	OK
TW4-12	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-12	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-12	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-12	Nitrogen	1 mg/L	0.1 mg/L	OK
TW4-12	Chloride	1 mg/L	1 mg/L	OK
TW4-13	Chloroform	1 ug/L	1.0 ug/L	OK
TW4-13	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-13	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-13	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-13	Nitrogen	0.5 mg/L	0.1 mg/L	OK
TW4-13	Chloride	1 mg/L	1 mg/L	OK
TW4-14	Chloroform	1 ug/L	1.0 ug/L	OK
TW4-14	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-14	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-14	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-14	Nitrogen	0.1 mg/L	0.1 mg/L	OK
TW4-14	Chloride	1 mg/L	1 mg/L	OK
TW4-15	Chloroform	500 ug/L	1.0 ug/L	OK
TW4-15	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-15	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-15	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-15	Nitrogen	0.1 mg/L	0.1 mg/L	OK
TW4-15	Chloride	1 mg/L	1 mg/L	OK
TW4-16	Chloroform	1 ug/L	1.0 ug/L	OK

I-5 Reporting Limit Evaluation

Location	Constituent	Lab Reporting Limit	Rqd' Reporting Limit	Qualifier Check
TW4-16	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-16	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-16	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-16	Nitrogen	0.5 mg/L	0.1 mg/L	OK
TW4-16	Chloride	1 mg/L	1 mg/L	OK
MW-32	Chloroform	1 ug/L	1.0 ug/L	OK
MW-32	Chloromethane	1 ug/L	1.0 ug/L	OK
MW-32	Methylene chloride	1 ug/L	1.0 ug/L	OK
MW-32	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
MW-32	Nitrogen	0.1 mg/L	0.1 mg/L	OK
MW-32	Chloride	1 mg/L	1 mg/L	OK
TW4-18	Chloroform	1 ug/L	1.0 ug/L	OK
TW4-18	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-18	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-18	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-18	Nitrogen	1 mg/L	0.1 mg/L	OK
TW4-18	Chloride	1 mg/L	1 mg/L	OK
TW4-19	Chloroform	50 ug/L	1.0 ug/L	OK
TW4-19	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-19	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-19	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-19	Nitrogen	1 mg/L	0.1 mg/L	OK
TW4-19	Chloride	1 mg/L	1 mg/L	OK
TW4-20	Chloroform	500 ug/L	1.0 ug/L	OK
TW4-20	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-20	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-20	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-20	Nitrogen	0.5 mg/L	0.1 mg/L	OK
TW4-20	Chloride	1 mg/L	1 mg/L	OK
TW4-21	Chloroform	10 ug/L	1.0 ug/L	OK
TW4-21	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-21	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-21	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-21	Nitrogen	1 mg/L	0.1 mg/L	OK
TW4-21	Chloride	1 mg/L	1 mg/L	OK
TW4-22	Chloroform	50 ug/L	1.0 ug/L	OK
TW4-22	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-22	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-22	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-22	Nitrogen	1 mg/L	0.1 mg/L	OK
TW4-22	Chloride	1 mg/L	1 mg/L	OK
TW4-23	Chloroform	1 ug/L	1.0 ug/L	OK
TW4-23	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-23	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-23	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-23	Nitrogen	0.1 mg/L	0.1 mg/L	OK
TW4-23	Chloride	1 mg/L	1 mg/L	OK
TW4-24	Chloroform	1 ug/L	1.0 ug/L	OK

I-5 Reporting Limit Evaluation

Location	Constituent	Lab Reporting Limit	Rqd' Reporting Limit	Qualifier Check
TW4-24	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-24	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-24	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-24	Nitrogen	1 mg/L	0.1 mg/L	OK
TW4-24	Chloride	1 mg/L	1 mg/L	OK
TW4-25	Chloroform	1 ug/L	1.0 ug/L	OK
TW4-25	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-25	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-25	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-25	Nitrogen	1 mg/L	0.1 mg/L	OK
TW4-25	Chloride	1 mg/L	1 mg/L	OK
TW4-26	Chloroform	1 ug/L	1.0 ug/L	OK
TW4-26	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-26	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-26	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-26	Nitrogen	1 mg/L	0.1 mg/L	OK
TW4-26	Chloride	1 mg/L	1 mg/L	OK
TW4-60	Chloroform	1 ug/L	1.0 ug/L	OK
TW4-60	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-60	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-60	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-60	Nitrogen	0.1 mg/L	0.1 mg/L	OK
TW4-60	Chloride	1 mg/L	1 mg/L	OK
TW4-60	Chloroform	1 ug/L	1.0 ug/L	OK
TW4-60	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-60	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-60	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-60	Nitrogen	0.1 mg/L	0.1 mg/L	OK
TW4-60	Chloride	1 mg/L	1 mg/L	OK
TW4-65	Chloroform	100 ug/L	1.0 ug/L	OK
TW4-65	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-65	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-65	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-65	Nitrogen	0.1 mg/L	0.1 mg/L	OK
TW4-65	Chloride	1 mg/L	1 mg/L	OK
TW4-70	Chloroform	10 ug/L	1.0 ug/L	OK
TW4-70	Chloromethane	1 ug/L	1.0 ug/L	OK
TW4-70	Methylene chloride	1 ug/L	1.0 ug/L	OK
TW4-70	Carbon Tetrachloride	1 ug/L	1.0 ug/L	OK
TW4-70	Nitrogen	1 mg/L	0.1 mg/L	OK
TW4-70	Chloride	1 mg/L	1 mg/L	OK

U = Analyte was not detected at the RL

D = RL was increased due to sample matrix or required dilution due to the sample concentration. In all

I-6 Trip Blank Evaluation

Lab Report	Constituent	Result	
C11050927	Carbon tetrachloride	ND	ug/L
	Chloroform	ND	ug/L
	Chloromethane	ND	ug/L
	Methylene chloride	ND	ug/L
C11060152	Carbon tetrachloride	ND	ug/L
	Chloroform	ND	ug/L
	Chloromethane	ND	ug/L
	Methylene chloride	ND	ug/L
C11060430	Carbon tetrachloride	ND	ug/L
	Chloroform	ND	ug/L
	Chloromethane	ND	ug/L
	Methylene chloride	ND	ug/L
C11061150	Carbon tetrachloride	ND	ug/L
	Chloroform	ND	ug/L
	Chloromethane	ND	ug/L
	Methylene chloride	ND	ug/L

I-7 QA/QC Evaluation for Sample Duplicates

Constituent	MW-32	TW4-65	%RPD
Carbon Tetrachloride	ND	ND	NC
Chloride	31	34	9
Chloroform	ND	ND	NC
Chloromethane	ND	ND	NC
Methylene Chloride	ND	ND	NC
Nitrate	ND	ND	NC

Constituent	TW4-21	TW4-70	%RPD
Chloride (mg/L)	290	286	1.39
Nitrate + Nitrite (as N)	12	12	0.00
Carbon Tetrachloride	4.8	4.7	2.11
Chloroform	290	300	3.39
Chloromethane	0	0	0.00
Dichloromethane (Methyl	0	0	0.00

I-8 QC Control Limits for Analysis and Blanks

Matrix Spike % Recovery Comparison

Lab Report	Lab Sample ID	Well	Analyte	MS %REC	MSD %REC	REC Range	RPD
C11050927	C11050938-001	NA	Nitrogen	88	86	90-110	2.9
C11060430	C11060430-001	TW4-19	Chloroform	140	124	70 - 130	3

NA - Not a Denison sample

Surrogate % Recovery

Lab Report	Well/Sample	Analyte	Surrogate %REC	Lab Specified REC Range	QAP Required Range
C1106152	Method Blank	Dichlorobenzene-d4	128	80-120	None

I-9 Rinsate Evaluation

Rinsate Sample	Parameter	Rinsate Result		Previous Well Sampled	Result for Previous Well Sampled		Qualifier	Rinsate Reporting Limit
TW4-2R	Chloroform	2.8	ug/L	TW4-4	1700	ug/L	D	1.0 ug/L

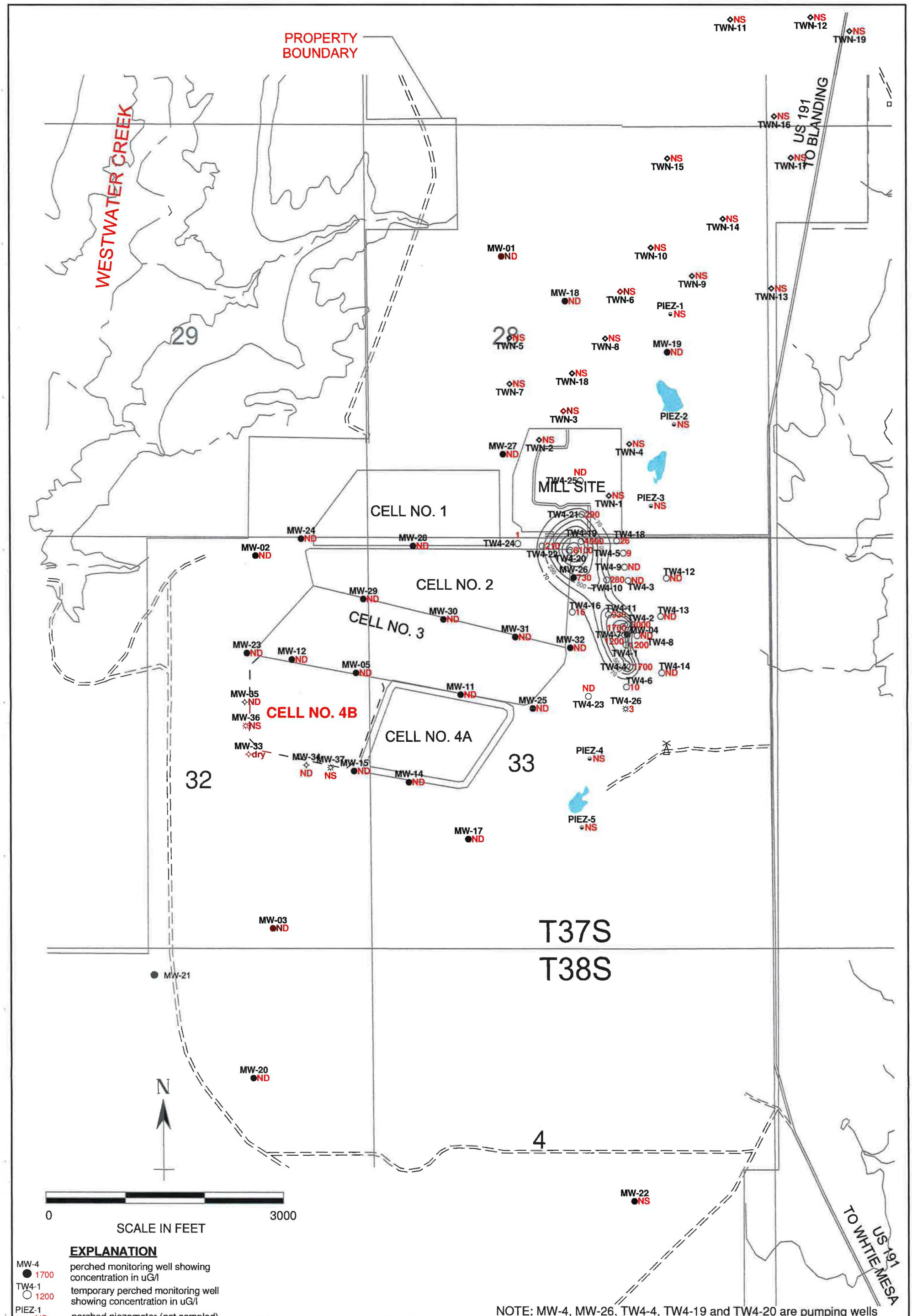
Previous well sampled is the well that the pump was used to purge prior to the rinsate sample.

D = Reporting limit raised due to dilution/sample matrix.

** Only rinsates with detections are listed. TW4-3R, TW4-24R, and TW4-21R results were ND

Tab J

Kriged Current Quarter Chloroform Isoconcentration Map


PROPERTY BOUNDARY
WESTWATER CREEK
US 191 TO BLANDING
US 191 TO WHITE MESA
MILL SITE
CELL NO. 1
CELL NO. 2
CELL NO. 3
CELL NO. 4A
CELL NO. 4B
29
28
32
33
4
T37S
T38S
N
0
3000
SCALE IN FEET
EXPLANATION
MW-4 1700 perched monitoring well showing concentration in uG/l
TW4-1 1200 temporary perched monitoring well showing concentration in uG/l
PIEZ-1 NS perched piezometer (not sampled)
TWN-4 NS temporary perched nitrate monitoring well (not sampled)
MW-34 ND perched monitoring well installed August/September, 2010 showing concentration in uG/l
MW-36 NS perched monitoring well installed April, 2011 (not sampled)
NOTE: MW-4, MW-26, TW4-4, TW4-19 and TW4-20 are pumping wells
HYDRO GEO CHEM, INC.
KRIGED 2nd QUARTER, 2011 CHLOROFORM (uG/L)
WHITE MESA SITE
APPROVED SJS
DATE
REFERENCE H:/718000/aug11/chl0611.srf
FIGURE J-1

Tab K

Analyte Concentrations Over Time

MW-4	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
28-Sep-99	6200					
28-Sep-99	5820					
28-Sep-99	6020					
15-Mar-00	5520					
15-Mar-00	5430					
2-Sep-00	5420				9.63	
30-Nov-00	6470				9.37	
29-Mar-01	4360				8.77	
22-Jun-01	6300				9.02	
20-Sep-01	5300				9.45	
8-Nov-01	5200				8	
26-Mar-02	4700				8.19	
22-May-02	4300				8.21	
12-Sep-02	6000				8.45	
24-Nov-02	2500				8.1	
28-Mar-03	2000				8.3	
30-Apr-03	3300				NA	
30-May-03	3400				8.2	
23-Jun-03	4300				8.2	
30-Jul-03	3600				8.1	
29-Aug-03	4100				8.4	
12-Sep-03	3500				8.5	
15-Oct-03	3800				8.1	
8-Nov-03	3800				8	
29-Mar-04	NA				NA	
22-Jun-04	NA				NA	
17-Sep-04	3300				6.71	
17-Nov-04	4300				7.5	
16-Mar-05	2900				6.3	
25-May-05	3170	NA	NA	NA	7.1	NA
31-Aug-05	3500	<10	<10	<10	7.0	NA
1-Dec-05	3000	<50	<50	<50	7.0	NA
9-Mar-06	3100	<50	<50	50	6	49
14-Jun-06	3000	<50	<50	50	6	49
20-Jul-06	2820	<50	<50	<50	1.2	48
9-Nov-06	2830	2.1	1.4	<1	6.4	50
28-Feb-07	2300	1.6	<1	<1	6.3	47
27-Jun-07	2000	1.8	<1	<1	7	45
15-Aug-07	2600	1.9	<1	<1	6.2	47
10-Oct-07	2300	1.7	<1	<1	6.2	45
26-Mar-08	2400	1.7	<1	<1	5.8	42
25-Jun-08	2500	1.6	<1	<1	6.09	42
10-Sep-08	1800	1.8	<1	<1	6.36	35
15-Oct-08	2100	1.7	<1	<1	5.86	45
4-Mar-09	2200	1.5	<1	<1	5.7	37

MW-4	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
23-Jun-09	1800	1.3	<1	<1	5.2	34
14-Sep-09	2000	1.4	<1	<1	5.3	43
14-Dec-09	1800	1.6	ND	ND	5.8	44
17-Feb-10	1600	1.2	ND	ND	4	45
14-Jun-10	2100	1.2	ND	ND	5.1	41
16-Aug-10	1900	1.5	ND	ND	4.8	38
11-Oct-10	1500	1.4	ND	ND	4.9	41
23-Feb-11	1700	1.5	ND	ND	4.6	40
1-Jun-11	1700	1.4	ND	ND	4.9	35

TW4-1	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
28-Jun-99	1700				7.2	
10-Nov-99	5.8					
15-Mar-00	1100					
10-Apr-00	1490					
6-Jun-00	1530					
2-Sep-00	2320				5.58	
30-Nov-00	3440				7.79	
29-Mar-01	2340				7.15	
22-Jun-01	6000				8.81	
20-Sep-01					12.8	
8-Nov-01	3200				12.4	
26-Mar-02	3200				13.1	
22-May-02	2800				12.7	
12-Sep-02	3300				12.8	
24-Nov-02	3500				13.6	
28-Mar-03	3000				12.4	
23-Jun-03	3600				12.5	
12-Sep-03	2700				12.5	
8-Nov-03	3400				11.8	
29-Mar-04	3200				11	
22-Jun-04	3100				8.78	
17-Sep-04	2800				10.8	
17-Nov-04	3000				11.1	
16-Mar-05	2700				9.1	
25-May-05	3080	NA	NA	NA	10.6	NA
31-Aug-05	2900	<10	<10	<10	9.8	NA
1-Dec-05	2400	<50	<50	<50	9.7	NA
9-Mar-06	2700	<50	<50	<50	9.4	49
14-Jun-06	2200	<50	<50	<50	9.8	48
20-Jul-06	2840	<50	<50	<50	9.7	51
8-Nov-06	2260	1.4	<1	<1	9.4	47
28-Feb-07	1900	1.2	<1	<1	8.9	47
27-Jun-07	1900	1.4	<1	<1	9	45
15-Aug-07	2300	1.3	<1	<1	8.4	43
10-Oct-07	2000	1.3	<1	<1	7.8	43
26-Mar-08	2000	1.3	<1	<1	7.6	39
25-Jun-08	1900	1.1	<1	<1	8.68	39
10-Sep-08	1700	1.3	<1	<1	8.15	35
15-Oct-08	1700	1.3	<1	<1	9.3	41

TW4-1	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
11-Mar-09	1700	1.1	<1	<1	7.5	37
24-Jun-09	1500	1	<1	<1	6.9	37
15-Sep-09	1700	<1	<1	<1	7.3	36
29-Dec-09	1400	<1	<1	<1	6.8	41
3-Mar-10	1300	<1	<1	<1	7.1	35
15-Jun-10	1600	1.2	<1	<1	6.8	40
24-Aug-10	1500	<1	<1	<1	6.8	35
14-Oct-10	1500	<1	<1	<1	6.6	40
24-Feb-11	1300	ND	ND	ND	6.6	41
1-Jun-11	1200	ND	ND	ND	7	35

TW4-2	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
10-Nov-99	2510					
2-Sep-00	5220					
28-Nov-00	4220				10.7	
29-Mar-01	3890				10.2	
22-Jun-01	5500				9.67	
20-Sep-01	4900				11.4	
8-Nov-01	5300				10.1	
26-Mar-02	5100				9.98	
23-May-02	4700				9.78	
12-Sep-02	6000				9.44	
24-Nov-02	5400				10.4	
28-Mar-03	4700				9.5	
23-Jun-03	5100				9.6	
12-Sep-03	3200				8.6	
8-Nov-03	4700				9.7	
29-Mar-04	4200				9.14	
22-Jun-04	4300				8.22	
17-Sep-04	4100				8.4	
17-Nov-04	4500				8.6	
16-Mar-05	3700				7.7	
25-May-05	3750				8.6	
31-Aug-05	3900	<10	<10	<10	8	NA
1-Dec-05	3500	<50	<50	<50	7.8	NA
9-Mar-06	3800	<50	<50	<50	7.5	56
14-Jun-06	3200	<50	<50	<50	7.1	56
20-Jul-06	4120	<50	<50	<50	7.4	54
8-Nov-06	3420	2.3	<1	<1	7.6	55
28-Feb-07	2900	1.8	<1	<1	7.3	54
27-Jun-07	3000	2.5	<1	<1	7.8	50
15-Aug-07	340	2.2	<1	<1	7.3	49
10-Oct-07	3200	2.1	<1	<1	6.9	51
26-Mar-08	3300	2.3	<1	<1	6.9	48
25-Jun-08	3100	2.2	<1	<1	7.44	46
10-Sep-08	2800	2.4	<1	<1	7.1	42
15-Oct-08	3200	2.4	<2	<2	7.99	47
11-Mar-09	3100	2.2	<1	<1	6.5	46
24-Jun-09	2800	2	<1	<1	6.4	44
15-Sep-09	3000	2	<1	<1	6.6	43
29-Dec-09	1600	2	<1	<1	6.4	46

TW4-2	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
3-Mar-10	2600	2	<1	<1	6.8	42
15-Jun-10	3300	2.6	<1	<1	6.7	43
16-Aug-10	3300	2.5	<1	<1	6.6	43
14-Oct-10	3000	2.1	<1	<1	6.5	41
24-Feb-11	3100	2.4	ND	ND	7	46
2-Jun-11	3000	2.2	ND	ND	6.8	42

TW4-3	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
28-Jun-99	3500				7.6	
29-Nov-99	702					
15-Mar-00	834					
2-Sep-00	836				1.56	
29-Nov-00	836				1.97	
27-Mar-01	347				1.85	
21-Jun-01	390				2.61	
20-Sep-01	300				3.06	
7-Nov-01	170				3.6	
26-Mar-02	11				3.87	
21-May-02	204				4.34	
12-Sep-02	203				4.32	
24-Nov-02	102				4.9	
28-Mar-03	0				4.6	
23-Jun-03	0				4.8	
12-Sep-03	0				4.3	
8-Nov-03	0				4.8	
29-Mar-04	0				4.48	
22-Jun-04	0				3.68	
17-Sep-04	0				3.88	
17-Nov-04	0				4.1	
16-Mar-05	0				3.5	
25-May-05	<1	NA	NA	NA	3.7	NA
31-Aug-05	<1	<1	6.4	<1	3.5	NA
1-Dec-05	<1	<1	2.3	<1	3.3	NA
9-Mar-06	<1	<1	2.2	<1	3.3	26
14-Jun-06	<1	<1	<1	<1	3.2	26
20-Jul-06	<1	<1	1.6	<1	2.9	26
8-Nov-06	<1	<1	<1	<1	1.5	23
28-Feb-07	<1	<1	<1	<1	3.1	22
27-Jun-07	<1	<1	<1	<1	3.3	23
15-Aug-07	<1	<1	<1	<1	3.1	24
10-Oct-07	<1	<1	<1	<1	2.8	27
26-Mar-08	<1	<1	<1	<1	2.8	21
25-Jun-08	<1	<1	<1	<1	2.85	19
10-Sep-08	<1	<1	<1	<1	2.66	19
15-Oct-08	<1	<1	<1	<1	2.63	22
4-Mar-09	<1	<1	<1	<1	2.5	21
24-Jun-09	<1	<1	<1	<1	2.9	20

TW4-3	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
15-Sep-09	<1	<1	<1	<1	2.8	21
16-Dec-09	<1	<1	<1	<1	2.5	22
23-Feb-10	<1	<1	<1	<1	2.8	23
8-Jun-10	<1	<1	<1	<1	3	24
10-Aug-10	<1	<1	<1	<1	3.1	22
5-Oct-10	<1	<1	<1	<1	3.3	26
15-Feb-11	ND	ND	ND	ND	3.5	23
25-May-11	ND	ND	ND	ND	3.7	23

TW4-4	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
6-Jun-00	0					
2-Sep-00	0					
28-Nov-00	3.9					
28-Mar-01	2260				1.02	
20-Jun-01	3100				14.5	
20-Sep-01	3200				14	
8-Nov-01	2900				14.8	
26-Mar-02	3400				15	
22-May-02	3200				13.2	
12-Sep-02	4000				13.4	
24-Nov-02	3800				12.6	
28-Mar-03	3300				13.4	
23-Jun-03	3600				12.8	
12-Sep-03	2900				12.3	
8-Nov-03	3500				12.3	
29-Mar-04	3200				12.2	
22-Jun-04	3500				12.1	
17-Sep-04	3100				11.1	
17-Nov-04	3600				10.8	
16-Mar-05	3100				11.6	
25-May-05	2400	NA	NA	NA	11.3	NA
31-Aug-05	3200	<10	<10	<10	9.9	NA
1-Dec-05	2800	<50	<50	<50	10.2	NA
9-Mar-06	2900	<50	<50	<50	9.5	51
14-Jun-06	2600	<50	<50	<50	8.6	48
20-Jul-06	2850	<50	<50	<50	9.7	50
8-Nov-06	2670	1.7	<1	<1	10.1	49
28-Feb-07	2200	1.5	<1	<1	9	49
27-Jun-07	2400	1.7	<1	<1	9.4	47
15-Aug-07	2700	1.5	<1	<1	9.5	45
10-Oct-07	2500	1.5	<1	<1	9.5	47
26-Mar-08	2800	1.6	<1	<1	9.2	43
25-Jun-08	2500	1.5	<1	<1	10.8	42
10-Sep-08	2200	1.4	<1	<1	8.83	39
15-Oct-08	2500	2	<2	<2	10.1	44
4-Mar-09	2200	1.2	<1	<1	10.2	37
24-Jun-09	1800	1.2	<1	<1	8.2	34
15-Sep-09	2000	1.1	<1	<1	8.4	39
29-Dec-09	950	1.1	<1	<1	7.6	41

TW4-4	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
17-Feb-10	1700	1	<1	<1	6.6	48
10-Jun-10	2000	1.2	<1	<1	7.6	35
16-Aug-10	2100	1.3	<1	<1	7.3	36
11-Oct-10	1700	1.3	<1	<1	7.1	38
23-Feb-11	1800	1.4	ND	ND	7	41
1-Jun-11	1700	1.2	ND	ND	7	35

TW4-5	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
20-Dec-99	29.5					
15-Mar-00	49.0					
2-Sep-00	124					
29-Nov-00	255					
28-Mar-01	236					
20-Jun-01	240					
20-Sep-01	240					
7-Nov-01	260					
26-Mar-02	260					
22-May-02	300					
12-Sep-02	330					
24-Nov-02	260					
28-Mar-03	240					
23-Jun-03	290					
12-Sep-03	200					
8-Nov-03	240					
29-Mar-04	210					
22-Jun-04	200					
17-Sep-04	150					
17-Nov-04	180					
16-Mar-05	120					
25-May-05	113	NA	NA	NA	3.7	NA
31-Aug-05	82.0	<2.5	5.8	<2.5	6	NA
1-Dec-05	63.0	<2.5	2.5	<2.5	6	NA
9-Mar-06	66.0	<2.5	3.1	<2.5	6	52
14-Jun-06	51.0	<1	<2.5	<2.5	5.9	51
20-Jul-06	53.7	<1	<1	<1	6.7	54
8-Nov-06	47.1	<1	<1	<1	2.9	55
28-Feb-07	33.0	<1	<1	<1	7.8	57
27-Jun-07	26.0	<1	<1	<1	7	45
15-Aug-07	9.2	<1	<1	<1	7.7	38
10-Oct-07	9.4	<1	<1	<1	8.2	39
26-Mar-08	11.0	<1	<1	<1	7.4	36
25-Jun-08	9.3	<1	<1	<1	8.7	37
10-Sep-08	11.0	<1	<1	<1	7.91	34
15-Oct-08	10.0	<1	<1	<1	9.3	37
4-Mar-09	12.0	<1	<1	<1	7.9	34
24-Jun-09	13.0	<1	<1	<1	7.5	37
15-Sep-09	12.0	<1	<1	<1	8.3	48

TW4-5	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
22-Dec-09	8.5	<1	<1	<1	7.5	41
25-Feb-10	13.0	<1	<1	<1	6.8	43
9-Jun-10	12.0	<1	<1	<1	7.1	28
11-Aug-10	12.0	<1	<1	<1	7	38
13-Oct-10	11.0	<1	<1	<1	7.2	41
22-Feb-11	10.0	ND	ND	ND	7	34
26-May-11	9.0	ND	ND	ND	7.2	35

TW4-6	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
6-Jun-00	0					
2-Sep-00	0					
28-Nov-00	0				ND	
26-Mar-01	0				0.13	
20-Jun-01	0				ND	
20-Sep-01	4				ND	
7-Nov-01	1				ND	
26-Mar-02	0				ND	
21-May-02	0				ND	
12-Sep-02	0				ND	
24-Nov-02	0				ND	
28-Mar-03	0				0.1	
23-Jun-03	0				ND	
12-Sep-03	0				ND	
8-Nov-03	0				ND	
29-Mar-04	0				ND	
22-Jun-04	0				ND	
17-Sep-04	0				ND	
17-Nov-04	0				ND	
16-Mar-05	0				0.2	
25-May-05	2.5	NA	NA	NA	0.4	NA
31-Aug-05	10.0	<1	2.8	<1	0.8	NA
1-Dec-05	17.0	<1	1.3	<1	0.9	NA
9-Mar-06	31.0	<1	<1	<1	1.2	31
14-Jun-06	19.0	<1	<1	<1	1	30
20-Jul-06	11.0	<1	<1	<1	0.6	37
8-Nov-06	42.8	<1	<1	<1	1.4	65
28-Feb-07	46.0	<1	<1	<1	1.5	32
27-Jun-07	11.0	<1	<1	<1	0.6	38
15-Aug-07	18.0	<1	<1	<1	0.7	36
10-Oct-07	18.0	<1	<1	<1	0.8	38
26-Mar-08	52.0	<1	<1	<1	1.1	33
25-Jun-08	24.0	<1	<1	<1	0.9	35
10-Sep-08	39.0	<1	<1	<1	1.14	35
15-Oct-08	37.0	<1	<1	<1	1.01	33
11-Mar-09	81.0	<1	<1	<1	2.2	35
24-Jun-09	120	<1	<1	<1	2.7	37
15-Sep-09	280	<1	<1	<1	5.0	37
22-Dec-09	250	<1	<1	<1	6.1	41
25-Feb-10	1000	<1	<1	<1	1.6	45
10-Jun-10	590	<1	<1	<1	2.5	33
12-Aug-10	630	<1	<1	<1	3.9	31
13-Oct-10	420	<1	<1	<1	4.3	41
23-Feb-11	47	ND	ND	ND	0.7	40

TW4-6	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
26-May-11	10	ND	ND	ND	0.3	42

TW4-7	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
29-Nov-99	256					
15-Mar-00	616					
2-Sep-00	698					
29-Nov-00	684				1.99	
28-Mar-01	747				2.46	
20-Jun-01	1100				2.65	
20-Sep-01	1200				3.38	
8-Nov-01	1100				2.5	
26-Mar-02	1500				3.76	
23-May-02	1600				3.89	
12-Sep-02	1500				3.18	
24-Nov-02	2300				4.6	
28-Mar-03	1800				4.8	
23-Jun-03	5200				7.6	
12-Sep-03	3600				7.6	
8-Nov-03	4500				7.1	
29-Mar-04	2500				4.63	
22-Jun-04	2900				4.83	
17-Sep-04	3100				5.59	
17-Nov-04	3800				6	
16-Mar-05	3100				5.2	
25-May-05	2700	NA	NA	NA	5.4	NA
31-Aug-05	3100	<10	<10	<10	5.2	NA
1-Dec-05	2500	<50	<50	<50	5.3	NA
9-Mar-06	1900	<50	<50	<50	1	48
14-Jun-06	2200	<50	<50	<50	4.5	47
20-Jul-06	2140	<50	<50	<50	4.7	51
8-Nov-06	2160	1.5	<1	<1	4.6	49
28-Feb-07	1800	1.1	<1	<1	5	47
27-Jun-07	2600	1.5	<1	<1	5.1	45
14-Aug-07	2300	1.4	<1	<1	4.7	44
10-Oct-07	1900	1.2	<1	<1	4.7	45
26-Mar-08	2200	1.3	<1	<1	4.2	43
25-Jun-08	1800	1.3	<1	<1	4.8	43
10-Sep-08	1600	1.4	<1	<1	4.16	35
15-Oct-08	1900	<2	<2	<2	4.01	40
11-Mar-09	1800	1.2	<1	<1	3.7	35
24-Jun-09	1400	<1	<1	<1	3.8	37
15-Sep-09	1500	1.0	<1	<1	4.1	37

TW4-7	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
29-Dec-09	1300	<1	<1	<1	4.2	37
3-Mar-10	1200	<1	<1	<1	3.8	36
10-Jun-10	1100	<1	<1	<1	3.9	31
18-Aug-10	1500	1.1	<1	<1	3.9	36
13-Oct-10	1100	1.1	<1	<1	4	38
23-Feb-11	1300	ND	ND	ND	3.6	45
1-Jun-11	1200	ND	ND	ND	4	35

TW4-8	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
29-Nov-99	0					
15-Mar-00	21.8					
2-Sep-00	102					
29-Nov-00	107				ND	
26-Mar-01	116				ND	
20-Jun-01	180				ND	
20-Sep-01	180				0.35	
7-Nov-01	180				ND	
26-Mar-02	190				0.62	
22-May-02	210				0.77	
12-Sep-02	300				ND	
24-Nov-02	450				ND	
28-Mar-03	320				0.8	
23-Jun-03	420				ND	
12-Sep-03	66.0				ND	
8-Nov-03	21.0				0.1	
29-Mar-04	24.0				0.65	
22-Jun-04	110				0.52	
17-Sep-04	120				ND	
17-Nov-04	120				ND	
16-Mar-05	10.0				ND	
25-May-05	<1	NA	NA	NA	0.2	NA
31-Aug-05	1.1	<1	1.7	<1	<0.1	NA
30-Nov-05	<1	<1	<1	<1	<0.1	NA
9-Mar-06	1.3	<1	2.1	<1	0.3	39
14-Jun-06	1.0	<1	1.8	<1	<0.1	37
20-Jul-06	<1	<1	<1	<1	0.1	39
8-Nov-06	<1	<1	<1	<1	<0.1	40
28-Feb-07	2.5	<1	<1	<1	0.7	39
27-Jun-07	2.5	<1	<1	<1	0.2	42
15-Aug-07	1.5	<1	<1	<1	<0.1	42
10-Oct-07	3.5	<1	<1	<1	0.5	43
26-Mar-08	<1	<1	<1	<1	0.1	46
25-Jun-08	<1	<1	<1	<1	<0.05	45
10-Sep-08	<1	<1	<1	<1	<0.05	39
15-Oct-08	<1	<1	<1	<1	<0.05	44
4-Mar-09	<1	<1	<1	<1	<0.1	42
24-Jun-09	<1	<1	<1	<1	<0.1	44
15-Sep-09	<1	<1	<1	<1	<1	44

TW4-8	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
17-Dec-09	<1	<1	<1	<1	<0.1	51
24-Feb-10	<1	<1	<1	<1	<0.1	57
9-Jun-10	<1	<1	<1	<1	<0.1	42
11-Aug-10	<1	<1	<1	<1	<0.1	45
5-Oct-10	<1	<1	<1	<1	<0.1	46
16-Feb-11	ND	ND	ND	ND	ND	52
25-May-11	ND	ND	ND	ND	0.1	45

TW4-9	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
20-Dec-99	4.2					
15-Mar-00	1.9					
2-Sep-00	14.2					
29-Nov-00	39.4				ND	
27-Mar-01	43.6				ND	
20-Jun-01	59.0				0.15	
20-Sep-01	19.0				0.4	
7-Nov-01	49.0				0.1	
26-Mar-02	41.0				0.5	
22-May-02	38.0				0.65	
12-Sep-02	49.0				0.2	
24-Nov-02	51.0				0.6	
28-Mar-03	34.0				0.6	
23-Jun-03	33.0				0.8	
12-Sep-03	32.0				1.1	
8-Nov-03	46.0				1.1	
29-Mar-04	48.0				0.82	
22-Jun-04	48.0				0.75	
17-Sep-04	39.0				0.81	
17-Nov-04	26.0				1.2	
16-Mar-05	3.8				1.3	
25-May-05	1.2	NA	NA	NA	1.3	NA
31-Aug-05	<1	<1	2.9	<1	1.3	NA
1-Dec-05	<1	<1	<1	<1	1.3	NA
9-Mar-06	<1	<1	2.6	<1	1.5	38
14-Jun-06	<1	<1	2.7	<1	1.5	39
20-Jul-06	<1	<1	<1	<1	0.9	41
8-Nov-06	<1	<1	<1	<1	0.7	44
28-Feb-07	<1	<1	<1	<1	0.6	44
27-Jun-07	21	<1	<1	<1	1.3	42
15-Aug-07	9.5	<1	<1	<1	1.8	38
10-Oct-07	8.7	<1	<1	<1	2	40
26-Mar-08	1.3	<1	<1	<1	2.1	35
25-Jun-08	1.0	<1	<1	<1	2.3	35
10-Sep-08	<1	<1	<1	<1	2.79	28
15-Oct-08	<1	<1	<1	<1	1.99	58
4-Mar-09	<1	<1	<1	<1	2.5	30
24-Jun-09	<1	<1	<1	<1	2.3	30
15-Sep-09	<1	<1	<1	<1	2.5	30

TW4-9	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
17-Dec-09	<1	<1	<1	<1	1.7	37
23-Feb-10	<1	<1	<1	<1	1.7	47
9-Jun-10	<1	<1	<1	<1	1.5	33
11-Aug-10	<1	<1	<1	<1	1.2	40
6-Oct-10	<1	<1	<1	<1	1.8	34
17-Feb-11	ND	ND	ND	ND	1.3	41
25-May-11	ND	ND	ND	ND	3.4	38

TW4-10	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
21-Jan-02	14					
26-Mar-02	16				0.14	
21-May-02	17				0.11	
12-Sep-02	6				ND	
24-Nov-02	14				ND	
28-Mar-03	29				0.2	
23-Jun-03	110				0.4	
12-Sep-03	74				0.4	
8-Nov-03	75				0.3	
29-Mar-04	22				0.1	
22-Jun-04	32				ND	
17-Sep-04	63				0.46	
17-Nov-04	120				0.4	
16-Mar-05	140				1.6	
25-May-05	62.4	NA	NA	NA	0.8	NA
31-Aug-05	110	<2.5	6.2	<2.5	1.1	NA
1-Dec-05	300	<2.5	<2.5	<2.5	3.3	NA
9-Mar-06	190	<5	<50	<50	2.4	50
14-Jun-06	300	<5	<50	<50	3.5	54
20-Jul-06	504	<5	<50	<50	6.8	61
8-Nov-06	452	<1	1.6	1	5.7	58
28-Feb-07	500	<1	<1	1	7.6	62
27-Jun-07	350	<1	<1	1	5.1	54
15-Aug-07	660	<1	<1	1	7.3	59
10-Oct-07	470	<1	<1	1	6.7	59
26-Mar-08	620	<1	<1	1	7.3	55
25-Jun-08	720	<1	<1	1	9.91	58
10-Sep-08	680	<1	<1	1	9.23	51
15-Oct-08	1200	<2	<2	2	10.5	61
11-Mar-09	1100	<1	<1	1	11.6	64
24-Jun-09	1200	<1	<1	1	9.8	62
15-Sep-09	910	<1	<1	1	8.1	51
22-Dec-09	300	<1	<1	<1	3.5	51
3-Mar-10	460	<1	<1	<1	5	49
10-Jun-10	220	<1	<1	<1	1.6	42
12-Aug-10	100	<1	<1	<1	0.8	38
13-Oct-10	1100	<1	<1	<1	11	52
23-Feb-11	620	ND	ND	ND	9	62
1-Jun-11	280	ND	ND	ND	3.3	42

TW4-11	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
21-Jan-02	4700					
26-Mar-02	4900				9.6	
22-May-02	5200				9.07	
12-Sep-02	6200				8.84	
24-Nov-02	5800				9.7	
28-Mar-03	5100				9.7	
23-Jun-03	5700				9.4	
12-Sep-03	4600				9.9	
8-Nov-03	5200				9.3	
29-Mar-04	5300				9.07	
22-Jun-04	5700				8.74	
17-Sep-04	4800				8.75	
17-Nov-04	5800				9.7	
16-Mar-05	4400				8.7	
25-May-05	3590	NA	NA	NA	10.3	NA
31-Aug-05	4400	<10	<10	<10	9.4	NA
1-Dec-05	4400	<100	<100	<100	9.4	NA
9-Mar-06	4400	<50	<50	<50	9.2	56
14-Jun-06	4300	<50	<50	<50	10	56
20-Jul-06	4080	<50	<50	<50	10	55
8-Nov-06	3660	1.7	2.7	1.3	10	55
28-Feb-07	3500	1.3	<1	1.6	10.1	54
27-Jun-07	3800	1.6	<1	1.1	10.6	53
15-Aug-07	4500	1.7	<1	1.1	10.2	53
10-Oct-07	4400	1.6	<1	1.2	9.8	53
26-Mar-08	340	<1	<1	<1	7.7	63
25-Jun-08	640	<1	<1	<1	7.28	46
10-Sep-08	900	<1	<1	<1	7.93	42
15-Oct-08	1000	<2	<2	<2	9.46	47
11-Mar-09	1100	<1	<1	<1	7.3	49
24-Jun-09	980	<1	<1	<1	6.8	44
15-Sep-09	1000	<1	<1	<1	7	49
29-Dec-09	860	<1	<1	<1	6.6	46
3-Mar-10	820	<1	<1	<1	6.8	42
10-Jun-10	820	<1	<1	<1	6.9	40
12-Aug-10	800	<1	<1	<1	6.7	43
13-Oct-10	720	<1	<1	<1	6.4	49
23-Feb-11	1000	ND	ND	ND	6.5	46
1-Jun-11	930	ND	ND	ND	7.3	49

TW4-12	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
12-Sep-02	2				2.54	
24-Nov-02	0				2.2	
28-Mar-03	0				1.9	
23-Jun-03	0				1.8	
12-Sep-03	0				1.8	
9-Nov-03	0				1.6	
29-Mar-04	0				1.58	
22-Jun-04	0				1.4	
17-Sep-04	0				1.24	
17-Nov-04	0				1.5	
16-Mar-05	0				1.4	
25-May-05	<1	NA	NA	NA	1.6	NA
31-Aug-05	<1	<1	5.8	<1	1.5	NA
1-Dec-05	<1	<1	1.9	<2	1.4	NA
9-Mar-06	<1	<1	2.6	<1	1.3	19
14-Jun-06	<1	<1	1.4	<1	1.4	16
20-Jul-06	<1	<1	<1	<1	1.4	16
8-Nov-06	<1	<1	<1	<1	1.4	16
28-Feb-07	<1	<1	<1	<1	1.5	16
27-Jun-07	<1	<1	<1	<1	1,5	18
15-Aug-07	<1	<1	<1	<1	1.4	29
10-Oct-07	<1	<1	<1	<1	1.4	16
26-Mar-08	<1	<1	<1	<1	1.6	16
25-Jun-08	<1	<1	<1	<1	2.69	19
10-Sep-08	<1	<1	<1	<1	2.65	18
15-Oct-08	<1	<1	<1	<1	2.47	22
4-Mar-09	<1	<1	<1	<1	2.4	23
24-Jun-09	<1	<1	<1	<1	3.8	22
15-Sep-09	<1	<1	<1	<1	5.1	22
16-Dec-09	<1	<1	<1	<1	3.6	23
23-Feb-10	<1	<1	<1	<1	4	22
8-Jun-10	<1	<1	<1	<1	11	29
10-Aug-10	<1	<1	<1	<1	9	35
5-Oct-10	<1	<1	<1	<1	8	31
15-Feb-11	ND	ND	ND	ND	6.5	31
25-May-11	ND	ND	ND	ND	7	32

TW4-13	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
12-Sep-02	ND				ND	
24-Nov-02	ND				ND	
28-Mar-03	ND				0.2	
23-Jun-03	ND				0.2	
12-Sep-03	ND				ND	
9-Nov-03	ND				0.9	
29-Mar-04	ND				0.12	
22-Jun-04	ND				0.17	
17-Sep-04	ND				4.43	
17-Nov-04	ND				4.7	
16-Mar-05	ND				4.2	
25-May-05	<1	NA	NA	NA	4.3	NA
31-Aug-05	<1	<1	3.1	<1	4.6	NA
1-Dec-05	<1	<1	<1	<1	4.3	NA
9-Mar-06	<1	<1	1.7	<1	4.2	67
14-Jun-06	<1	<1	1.4	<1	4.9	66
20-Jul-06	<1	<1	<1	<1	4.3	65
8-Nov-06	<1	<1	<1	<1	0.8	33
28-Feb-07	<1	<1	<1	<1	4	59
27-Jun-07	<1	<1	<1	<1	4.6	59
15-Aug-07	<1	<1	<1	<1	4.4	58
10-Oct-07	<1	<1	<1	<1	4.1	58
26-Mar-08	<1	<1	<1	<1	3.8	54
25-Jun-08	<1	<1	<1	<1	4.24	58
10-Sep-08	<1	<1	<1	<1	4.26	50
15-Oct-08	<1	<1	<1	<1	4.63	58
4-Mar-09	<1	<1	<1	<1	3.7	58
24-Jun-09	<1	<1	<1	<1	1.2	57
15-Sep-09	<1	<1	<1	<1	4.7	63
16-Dec-09	<1	<1	<1	<1	4.1	60
24-Feb-10	<1	<1	<1	<1	4.3	53
8-Jun-10	<1	<1	<1	<1	5.2	52
10-Aug-10	<1	<1	<1	<1	5.6	55
5-Oct-10	<1	<1	<1	<1	5.8	55
15-Feb-11	ND	ND	ND	ND	5.5	60
25-May-11	ND	ND	ND	ND	5.4	56

TW4-14	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
8-Nov-06	<1	<1	<1	<1	2.4	37
28-Feb-07	<1	<1	<1	<1	2.3	38
27-Jun-07	<1	<1	<1	<1	1.4	38
15-Aug-07	<1	<1	<1	<1	1.1	36
10-Oct-07	<1	<1	<1	<1	0.8	36
26-Mar-08	<1	<1	<1	<1	0.04	57
25-Jun-08	<1	<1	<1	<1	1.56	35
10-Sep-08	<1	<1	<1	<1	1.34	34
15-Oct-08	<1	<1	<1	<1	0.76	40
4-Mar-09	<1	<1	<1	<1	1.6	35
24-Jun-09	<1	<1	<1	<1	1.4	36
15-Sep-09	<1	<1	<1	<1	1.5	38
16-Dec-09	<1	<1	<1	<1	1.4	34
3-Mar-10	<1	<1	<1	<1	2.5	33
8-Jun-10	<1	<1	<1	<1	2.9	49
10-Aug-10	<1	<1	<1	<1	2.8	35
6-Oct-10	<1	<1	<1	<1	2.9	29
15-Feb-11	ND	ND	ND	ND	1.8	25

MW-26	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
12-Sep-02	3				ND	
24-Nov-02	0				ND	
28-Mar-03	0				0.1	
23-Jun-03	7800				14.5	
15-Aug-03	7400				16.8	
12-Sep-03	2500				2.7	
25-Sep-03	2600				2.5	
29-Oct-03	3100				3.1	
8-Nov-03	3000				2.8	
29-Mar-04	NA				NA	
22-Jun-04	NA				NA	
17-Sep-04	1400				0.53	
17-Nov-04	300				0.2	
16-Mar-05	310				0.3	
30-Mar-05	230				0.2	
25-May-05	442	NA	NA	NA	0.2	NA
31-Aug-05	960	<5	5.4	<5	0.2	NA
1-Dec-05	1000	<50	<50	<50	0.3	NA
9-Mar-06	1100	<50	<50	<50	0.2	52
14-Jun-06	830	<50	<50	<50	0.2	52
20-Jul-06	2170	<50	<50	<50	1.4	65
8-Nov-06	282	<1	<1	2.8	0.3	54
28-Feb-07	570	<1	<1	5.5	0.5	56
27-Jun-07	300	<1	<1	13	0.4	49
15-Aug-07	1400	<1	<1	36	1	57
10-Oct-07	2000	<1	<1	14	0.6	57
26-Mar-08	930	<1	<1	40	0.1	49
25-Jun-08	1300	<1	<1	53	0.56	57
10-Sep-08	630	<1	<1	24	0.24	44
15-Oct-08	1700	<1	<1	100	0.65	64
4-Mar-09	950	<1	<1	51	0.4	49
24-Jun-09	410	<1	<1	12	0.2	48
15-Sep-09	850	<1	<1	30	0.1	46
14-Dec-09	1100	<1	<1	40	2.3	60
17-Feb-10	780	<1	<1	19	0.2	57
9-Jun-10	1900	<1	<1	28	1.1	58
16-Aug-10	2200	<1	<1	21	0.6	49
11-Oct-10	970	<1	<1	6.5	0.7	65
23-Feb-11	450	ND	ND	3.6	0.5	57

31-May-11	1800	ND	ND	1.3	0.4	88

TW4-16	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
12-Sep-02	140				ND	
24-Nov-02	200				ND	
28-Mar-03	260				ND	
23-Jun-03	370				ND	
12-Sep-03	350				ND	
8-Nov-03	400				ND	
29-Mar-04	430				ND	
22-Jun-04	530				ND	
17-Sep-04	400				ND	
17-Nov-04	350				ND	
16-Mar-05	240				ND	
25-May-05	212	NA	NA	NA	<0.1	NA
31-Aug-05	85	<1	3.2	43	<0.1	NA
1-Dec-05	14	<2.5	2.6	5.9	1.4	NA
9-Mar-06	39.0	<1	1.1	21	3	60
14-Jun-06	13.0	<1	2.4	8.9	1.9	55
20-Jul-06	5.2	<1	<1	2.7	2.7	60
8-Nov-06	13.6	<1	<1	9.2	5.6	62
28-Feb-07	8.7	<1	<1	6.5	12.3	79
27-Jun-07	2.6	<1	<1	1.8	9.9	75
15-Aug-07	7.1	<1	<1	5.1	5.4	66
10-Oct-07	1.4	<1	<1	<1	4.4	69
26-Mar-08	11.0	<1	<1	26	ND	52
25-Jun-08	<1	<1	<1	<1	1.46	58
10-Sep-08	10	<1	<1	14	10.5	71
15-Oct-08	3.9	<1	<1	6.6	9.82	89
4-Mar-09	<1	<1	<1	<1	9.6	78
24-Jun-09	<1	<1	<1	<1	8.9	76
15-Sep-09	<1	<1	<1	<1	8.8	79
17-Dec-09	<1	<1	<1	<1	5.2	76
24-Feb-10	<1	<1	<1	<1	4.2	77
9-Jun-10	2.1	<1	<1	<1	4.7	64
24-Aug-10	4.3	<1	<1	<1	4.6	72
6-Oct-10	3.0	<1	<1	<1	3.3	72
22-Feb-11	15.0	ND	ND	ND	7	86
26-May-11	16.0	ND	ND	ND	5	81

MW-32	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
12-Sep-02	1.6				ND	
24-Nov-02	ND				ND	
28-Mar-03	ND				ND	
23-Jun-03	ND				ND	
12-Sep-03	ND				ND	
8-Nov-03	ND				ND	
29-Mar-04	ND				ND	
22-Jun-04	ND				ND	
17-Sep-04	ND				ND	
17-Nov-04	ND				ND	
16-Mar-05	ND				ND	
30-Mar-05	ND				ND	
25-May-05	<1	NA	NA	NA	<0.1	NA
31-Aug-05	<1	<1	3.2	<1	<0.1	NA
1-Dec-05	<1	<1	<1	<1	<0.1	NA
9-Mar-06	<1	<1	<1	<1	<0.1	32
14-Jun-06	<1	<1	3.5	<1	<0.1	30
20-Jul-06	<1	<1	1.8	<1	<0.1	32
8-Nov-06	<1	<1	1.5	<1	<0.1	31
28-Feb-07	<1	<1	<1	<1	<0.1	32
27-Jun-07	<1	<1	<1	<1	<0.1	32
15-Aug-07	<1	<1	<1	<1	<0.1	31
10-Oct-07	<1	<1	<1	<1	<0.1	32
26-Mar-08	<1	<1	<1	<1	<0.1	31
25-Jun-08	<1	<1	<1	<1	<0.05	29
10-Sep-08	<1	<1	<1	<1	<0.05	30
15-Oct-08	<1	<1	<1	<1	<0.05	26
4-Mar-09	<1	<1	<1	<1	<0.1	30
24-Jun-09	<1	<1	<1	<1	<0.1	31
15-Sep-09	<1	<1	<1	<1	<0.1	33
16-Dec-09	<1	<1	<1	<1	<0.1	34
17-Feb-10	<1	<1	<1	<1	<0.1	38
14-Jun-10	<1	<1	<1	<1	<0.1	32
16-Aug-10	<1	<1	<1	<1	<0.1	28
6-Oct-10	<1	<1	<1	<1	<0.1	24
23-Feb-11	ND	ND	ND	ND	ND	40
25-May-11	ND	ND	ND	ND	ND	31

TW4-18	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
12-Sep-02	440				1.49	
24-Nov-02	240				13.3	
28-Mar-03	160				13.1	
23-Jun-03	110				19	
12-Sep-03	68.0				19.9	
9-Nov-03	84.0				20.7	
29-Mar-04	90.0				14	
22-Jun-04	82.0				12.2	
17-Sep-04	38.0				14.5	
17-Nov-04	51.0				17.3	
16-Mar-05	38.0				14.1	
25-May-05	29.8	NA	NA	NA	12.9	NA
31-Aug-05	39	<1	2.8	<1	13.3	NA
1-Dec-05	14	<1	1.1	<1	7.3	NA
9-Mar-06	12.0	<1	1.1	<1	5.9	5.9
14-Jun-06	12.0	<1	1.6	<1	4.7	35
20-Jul-06	10.8	<1	2.7	<1	6.1	35
8-Nov-06	139	<1	<1	<1	8.7	34
28-Feb-07	9.2	<1	<1	<1	5.1	30
27-Jun-07	8.0	<1	<1	<1	4.9	28
15-Aug-07	8.9	<1	<1	<1	5	32
10-Oct-07	7.4	<1	<1	<1	4.4	27
26-Mar-08	6.4	<1	<1	<1	0.7	23
25-Jun-08	5.7	<1	<1	<1	4.55	23
10-Sep-08	8.0	<1	<1	<1	4.68	26
15-Oct-08	9.4	<1	<1	<1	5,15	30
4-Mar-09	11.0	<1	<1	<1	5.2	29
24-Jun-09	16.0	<1	<1	<1	6.2	30
15-Sep-09	13.0	<1	<1	<1	5.9	26
22-Dec-09	8.2	<1	<1	<1	5.4	30
24-Feb-10	69.0	<1	<1	<1	5.1	41
9-Jun-10	29.0	<1	<1	<1	9	35
12-Aug-10	29.0	<1	<1	<1	9	37
13-Oct-10	30.0	<1	<1	<1	10	50
22-Feb-11	39.0	ND	ND	ND	10	52
26-May-11	26.0	ND	ND	ND	9	36

TW4-19	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
12-Sep-02	7700				47.6	
24-Nov-02	5400				42	
28-Mar-03	4200				61.4	
15-May-03	4700				NA	
23-Jun-03	4500				11.4	
15-Jul-03	2400				6.8	
15-Aug-03	2600				4	
12-Sep-03	2500				5.7	
25-Sep-03	4600				9.2	
29-Oct-03	4600				7.7	
9-Nov-03	2600				4.8	
29-Mar-04	NA				NA	
22-Jun-04	NA				NA	
16-Aug-04	7100				9.91	
17-Sep-04	2600				4.5	
17-Nov-04	1800				3.6	
16-Mar-05	2200				5.3	
25-May-05	1200				5.7	
31-Aug-05	1400	<5	<5	<5	4.6	NA
1-Dec-05	2800	<50	<50	<50	<0.1	NA
9-Mar-06	1200	<50	<50	<50	4	86
14-Jun-06	1100	<50	<50	<50	5.2	116
20-Jul-06	1120	<50	<50	<50	4.3	123
8-Nov-06	1050	1.6	2.6	<1	4.6	134
28-Feb-07	1200	1.3	<1	<1	4	133
27-Jun-07	1800				2.3	
15-Aug-07	1100	1.9	<1	<1	4.1	129
10-Oct-07	1100	1.9	<1	<1	4	132
26-Mar-08	1800	2.9	<1	<1	2.2	131
25-Jun-08	1000	1	<1	<1	2.81	128
10-Sep-08	3600	8.6	<1	<1	36.2	113
15-Oct-08	4200	12	<1	<1	47.8	124
4-Mar-09	1100	1.2	<1	<1	3.2	127
24-Jun-09	990	1.2	<1	<1	2.4	132
15-Sep-09	6600	15	<1	<1	0.1	43
14-Dec-09	4700	16	<1	<1	26.7	124
17-Feb-10	940	1.3	<1	<1	2	144
9-Jun-10	1800	4.2	<1	<1	4.4	132
16-Aug-10	2000	4.9	<1	<1	5.9	142

11-Oct-10	1200	1.3	<1	<1	2.7	146
17-Feb-11	3400	17	ND	ND	17	135
7-Jun-11	4000	8.3	ND	ND	12	148

TW4-20	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
25-May-05	39000	NA	NA	NA	10.1	NA
31-Aug-05	3800	<10	<10	<10	2.9	NA
1-Dec-05	19000	<250	<250	<250	1.8	NA
9-Mar-06	9200	<500	<500	<500	3.8	120
14-Jun-06	61000	<500	<500	<500	9.4	235
20-Jul-06	5300	<1000	<1000	<1000	2.9	134
8-Nov-06	11000	7.1	1.9	2.2	3.5	124
28-Feb-07	4400	3.1	<1	1.1	4.2	124
27-Jun-07	1800	2.2	<1	<1	2.3	112
15-Aug-07	5200	3.5	<1	1.8	2.1	117
10-Oct-07	9000	6.8	<1	1.9	5.6	170
26-Mar-08	13000	9	<1	1.5	0.9	132
25-Jun-08	30000	13	<1	1.2	7.96	191
10-Sep-08	21000	15	<1	3.7	4.44	156
15-Oct-08	NA	NA	NA	NA	5.51	166
4-Mar-09	8200	5.7	<1	5.2	5.1	164
24-Jun-09	6800	4.9	<2	4.2	2.9	164
15-Sep-09	13000	8.4	<2	4.4	3.3	153
14-Dec-09	15000	14	<1	3	5.3	187
17-Feb-10	3500	2.7	<1	3.2	2	179
14-Jun-10	18000	11	<1	3.7	5.6	200
16-Aug-10	15000	12	<1	2.2	5.3	196
11-Oct-10	24000	20	<1	5.5	4.6	203
23-Feb-11	31000	27	ND	19	4.4	220
1-Jun-11	8100	10	ND	2.1	4.8	177

TW4-21	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
25-May-05	192	NA	NA	NA	14.6	NA
31-Aug-05	78	<5	<5	<5	10.1	NA
1-Dec-05	86	<1	1.0	<1	9.6	NA
9-Mar-06	120	<2.5	<2.5	<2.5	8.5	347
14-Jun-06	130	<2.5	<2.5	<2.5	10.2	318
20-Jul-06	106	<2.5	<2.5	<2.5	8.9	357
8-Nov-06	139	2	<1	<1	8.7	296
28-Feb-07	160	1.8	<1	<1	8.7	306
27-Jun-07	300	5.8	<1	<1	8.6	327
15-Aug-07	140	<1	<1	<1	8.6	300
10-Oct-07	120	<1	<1	<1	8.3	288
26-Mar-08	380	7	<1	<1	14.3	331
25-Jun-08	160	1.7	<1	<1	8.81	271
10-Sep-08	120	1.6	<1	<1	7.57	244
15-Oct-08	170	2	<1	<2	8.00	284
11-Mar-09	180	<1	<1	<1	8.3	279
24-Jun-09	200	<1	<1	<1	8.1	291
15-Sep-09	140	<1	<1	<1	9.2	281
22-Dec-09	160	<1	<1	<1	8.4	256
25-Feb-10	170	<1	<1	<1	8.4	228
10-Jun-10	210	1.2	<1	<1	12	266
12-Aug-10	390	9.2	<1	<1	14	278
13-Oct-10	200	1.2	<1	<1	7	210
22-Feb-11	230	1.2	ND	ND	9	303
28-Jun-11	290	4.8	ND	ND	12	290

TW4-22	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
25-May-05	340	NA	NA	NA	18.2	NA
31-Aug-05	290	<5	<5	<5	15.7	NA
1-Dec-05	320	<5	<5	<5	15.1	NA
9-Mar-06	390	<10	<10	<10	15.3	236
14-Jun-06	280	<10	<10	<10	14.3	221
20-Jul-06	864	<10	<10	<10	14.5	221
8-Nov-06	350	<1	1.6	<1	15.9	236
28-Feb-07	440	<1	<1	<1	20.9	347
27-Jun-07	740	<1	<1	<1	19.3	273
15-Aug-07	530	<1	<1	<1	19.3	259
10-Oct-07	440	<1	<1	<1	18.8	238
26-Mar-08	1400	<1	<1	<1	39.1	519
25-Jun-08	1200	<1	<1	<1	41.9	271
10-Sep-08	6300	1.3	<1	<1	38.7	524
15-Oct-08	630	<2	<2	<2	36.3	539
11-Mar-09	390	<1	<1	<1	20.7	177
24-Jun-09	730	<1	<1	<1	20.6	177
15-Sep-09	2300	<1	<1	<1	40.3	391
29-Dec-09	380	<1	<1	<1	17.8	175
3-Mar-10	2200	<1	<1	<1	36.6	427
15-Jun-10	540	<1	<1	<1	19	134
24-Aug-10	340	<1	<1	<1	15	130
13-Oct-10	340	<1	<1	<1	16	134
23-Feb-11	1300	ND	ND	ND	18	114
1-Jun-11	210	ND	ND	ND	17	138

TW4-23	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
27-Jun-07	<1	<1	<1	<1	<0.1	47
15-Aug-07	<1	<1	<1	<1	<0.1	46
10-Oct-07	<1	<1	<1	<1	<0.1	43
26-Mar-08	<1	<1	<1	<1	<0.1	41
25-Jun-08	<1	<1	<1	<1	<0.05	41
10-Sep-08	<1	<1	<1	<1	<0.05	35
15-Oct-08	<2	<2	<2	<2	<0.05	51
4-Mar-09	<1	<1	<1	<1	<0.1	41
24-Jun-09	<1	<1	<1	<1	<0.1	43
15-Sep-09	<1	<1	<1	<1	<0.1	43
16-Dec-09	<1	<1	<1	<1	<0.1	37
24-Feb-10	<1	<1	<1	<1	<0.1	45
8-Jun-10	<1	<1	<1	<1	<0.1	40
10-Aug-10	<1	<1	<1	<1	<0.1	40
5-Oct-10	<1	<1	<1	<1	<0.1	34
16-Feb-11	ND	ND	ND	ND	ND	44
25-May-11	ND	ND	ND	ND	ND	44

TW4-24	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
27-Jun-07	2.6	<1	<1	<1	26.1	770
15-Aug-07	2.2	<1	<1	<1	29	791
10-Oct-07	1.5	<1	<1	<1	24.7	692
26-Mar-08	1.5	<1	<1	<1	24.4	740
25-Jun-08	1.4	<1	<1	<1	45.3	834
10-Sep-08	2.9	<1	<1	<1	38.4	1180
15-Oct-08	<2	<2	<2	<2	44.6	1130
4-Mar-09	1.4	<1	<1	<1	30.5	1010
24-Jun-09	1.5	<1	<1	<1	30.4	759
15-Sep-09	1.4	<1	<1	<1	30.7	618
17-Dec-09	1.2	<1	<1	<1	28.3	1080
25-Feb-10	1.3	<1	<1	<1	33.1	896
9-Jun-10	1.7	<1	<1	<1	30	639
24-Aug-10	1.8	<1	<1	<1	31	587
6-Oct-10	1.4	<1	<1	<1	31	522
17-Feb-11	1.8	ND	ND	ND	31	1100
26-May-11	1.1	ND	ND	ND	35	1110

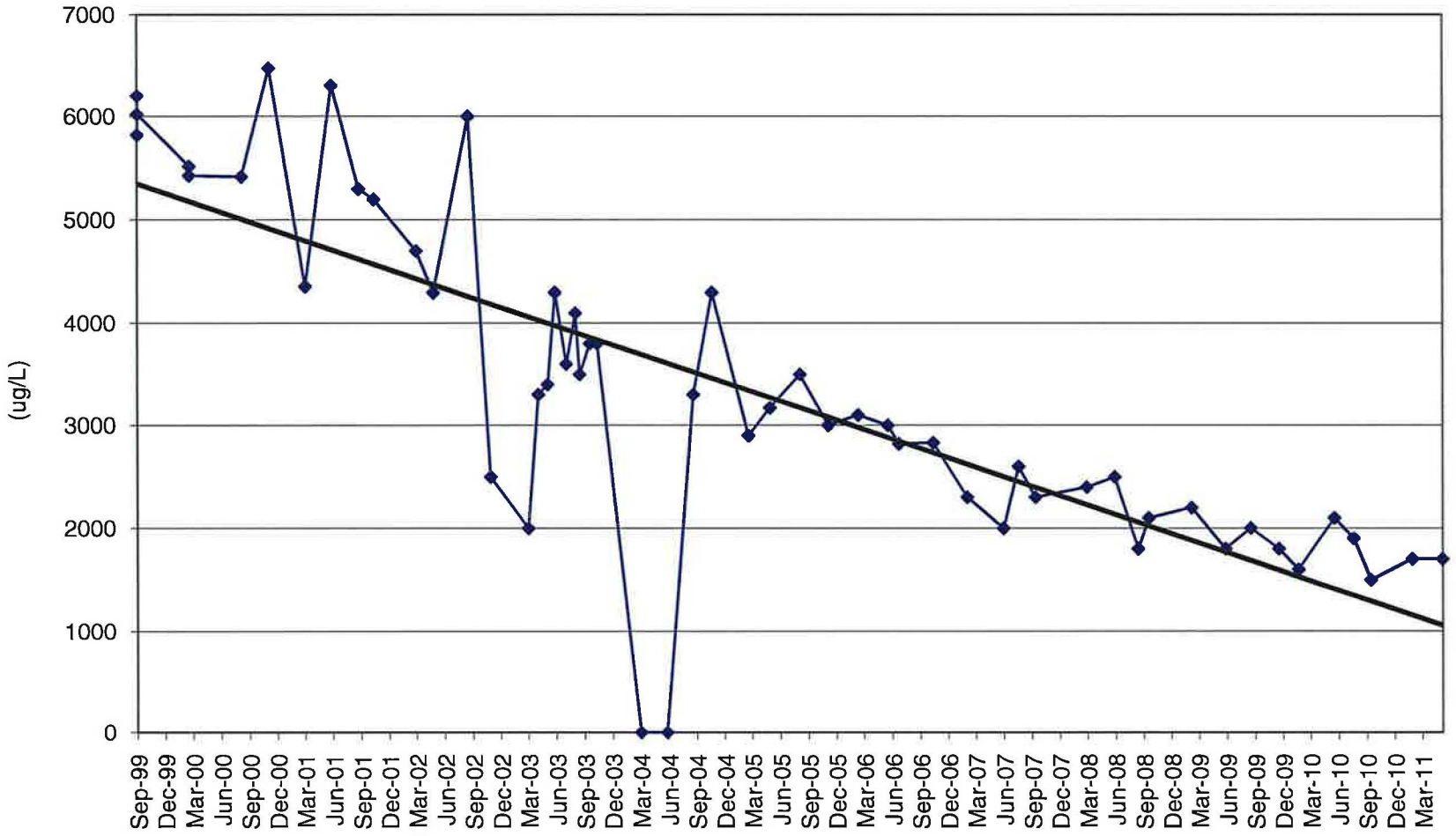
TW4-25	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
27-Jun-07	<1	<1	<1	<1	17.1	395
15-Aug-07	<1	<1	<1	<1	16.7	382
10-Oct-07	<1	<1	<1	<1	17	356
26-Mar-08	<1	<1	<1	<1	18.7	374
25-Jun-08	<1	<1	<1	<1	22.1	344
10-Sep-08	<1	<1	<1	<1	18.8	333
15-Oct-08	<2	<2	<2	<2	21.3	366
4-Mar-09	<1	<1	<1	<1	15.3	332
24-Jun-09	<1	<1	<1	<1	15.3	328
15-Sep-09	<1	<1	<1	<1	3.3	328
16-Dec-09	<1	<1	<1	<1	14.2	371
23-Feb-10	<1	<1	<1	<1	14.4	296
8-Jun-10	<1	<1	<1	<1	16	306
10-Aug-10	<1	<1	<1	<1	14	250
5-Oct-10	<1	<1	<1	<1	15	312
16-Feb-11	ND	ND	ND	ND	15	315
25-May-11	ND	ND	ND	ND	16	321

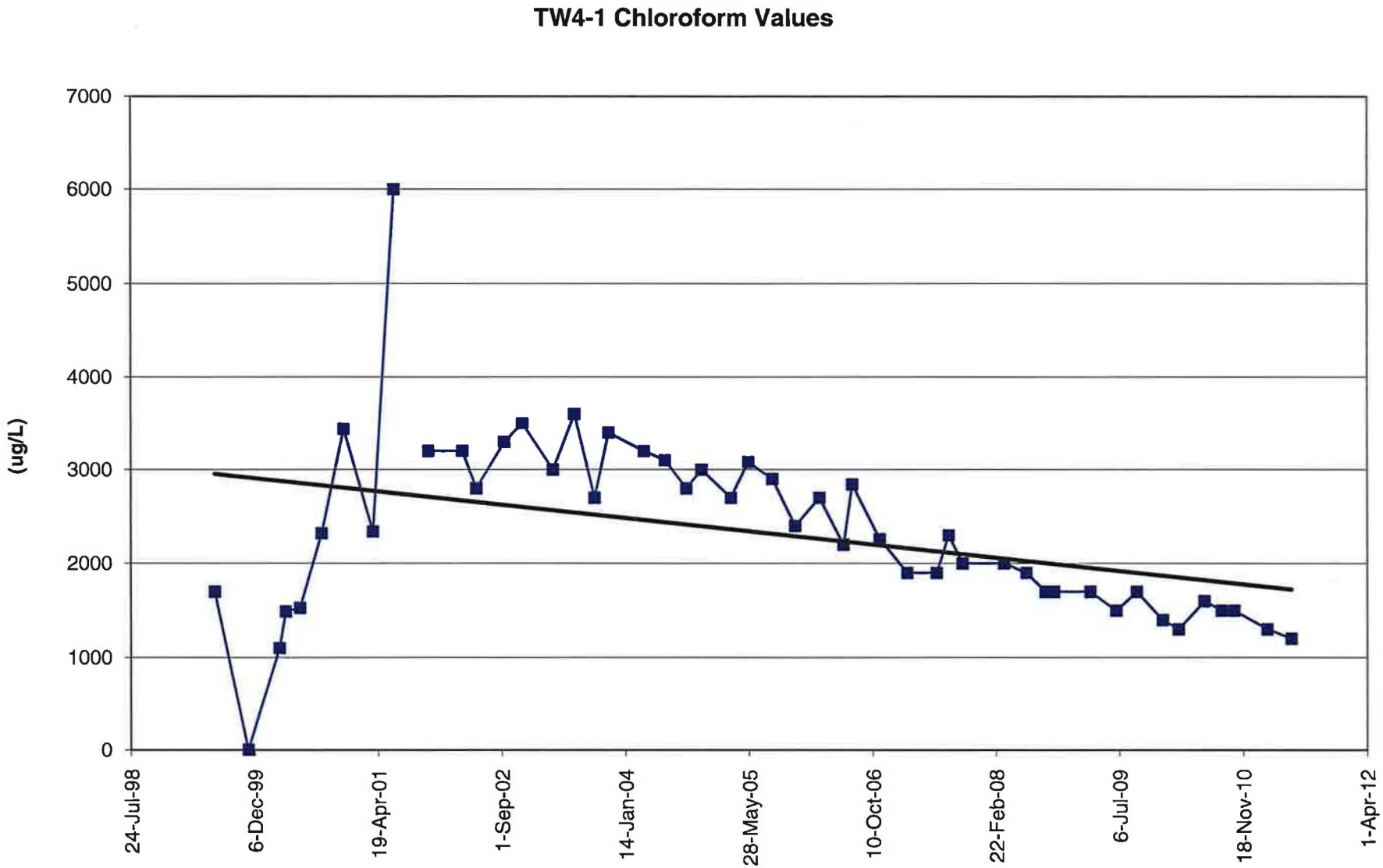
TW4-26	Chloroform (ug/l)	Carbon Tetrachloride (ug/l)	Chloromethane (ug/l)	Methylene Chloride (ug/l)	Nitrate (mg/l)	Chloride (mg/l)
15-Jun-10	13	<1	<1	<1	7.9	33
11-Aug-10	5	<1	<1	<1	9	17
6-Oct-10	5.4	<1	<1	<1	9.6	22
22-Feb-11	2.0	ND	ND	ND	10	30
26-May-11	2.9	ND	ND	ND	10	15

Tab L

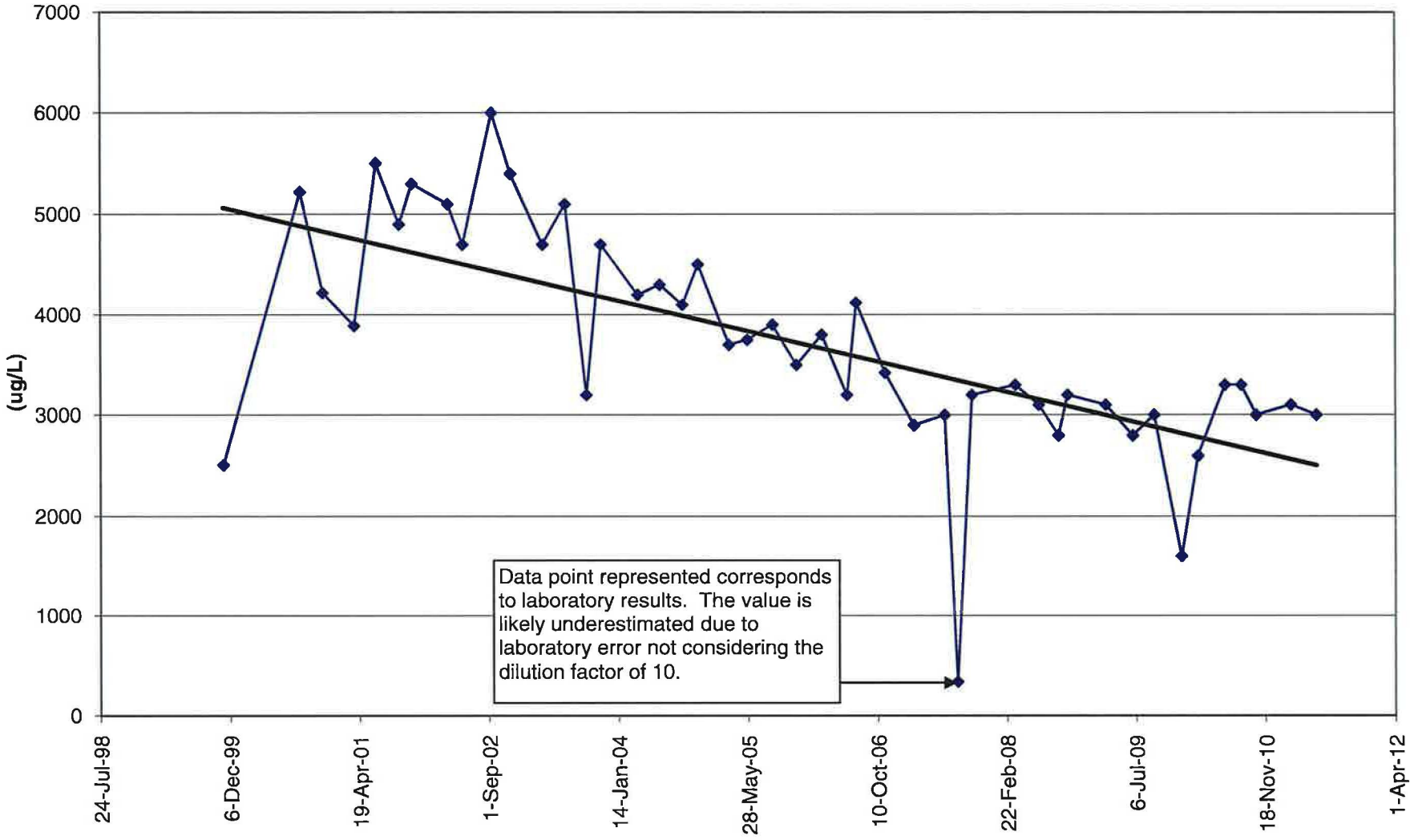
Chloroform Concentration Trend Graphs

MW4-Chloroform Values

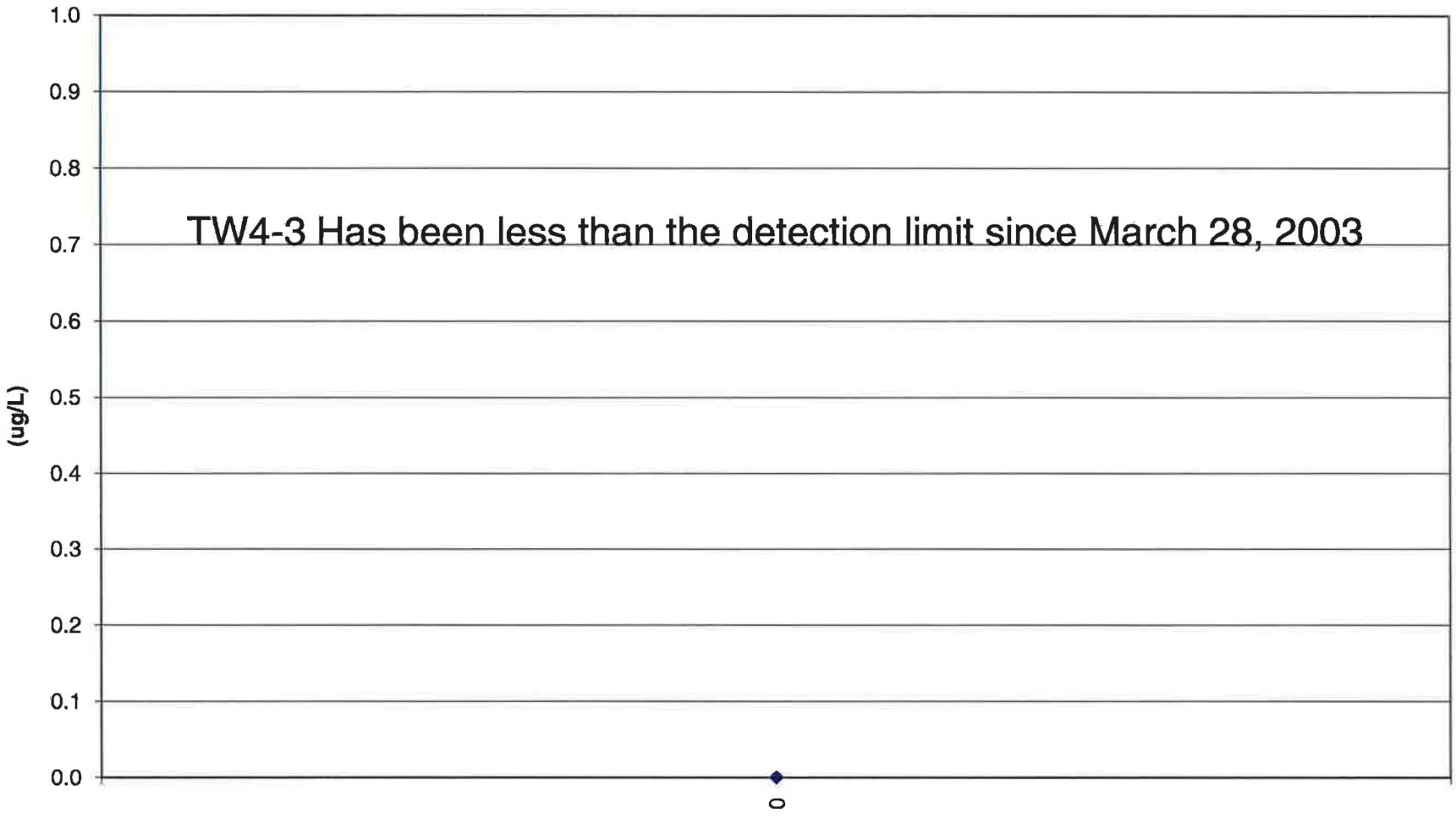


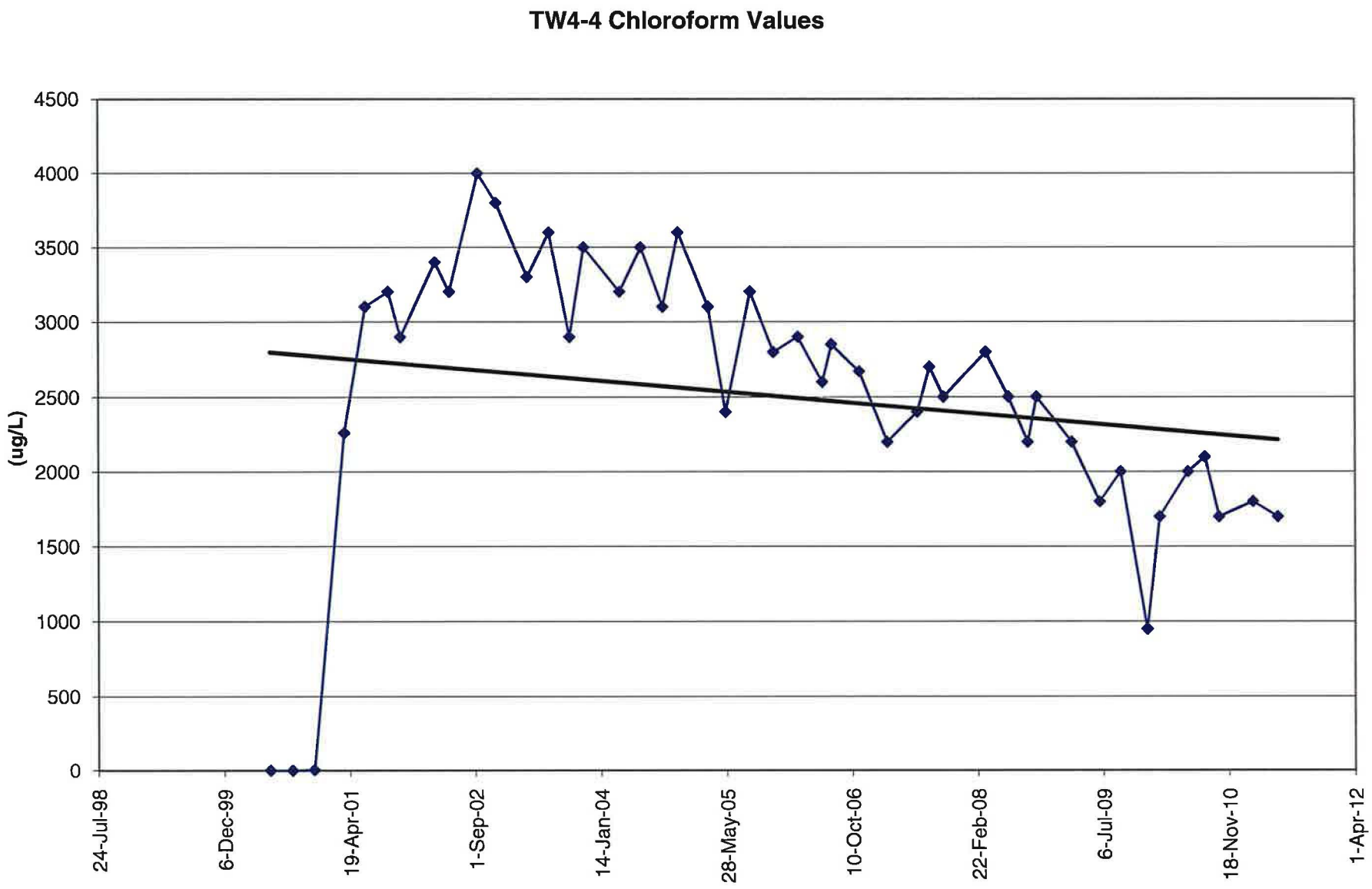

TW4-1 Chloroform Values
(ug/L)
7000
6000
5000
4000
3000
2000
1000
0
24-Jul-98
6-Dec-99
19-Apr-01
1-Sep-02
14-Jan-04
28-May-05
10-Oct-06
22-Feb-08
6-Jul-09
18-Nov-10
1-Apr-12

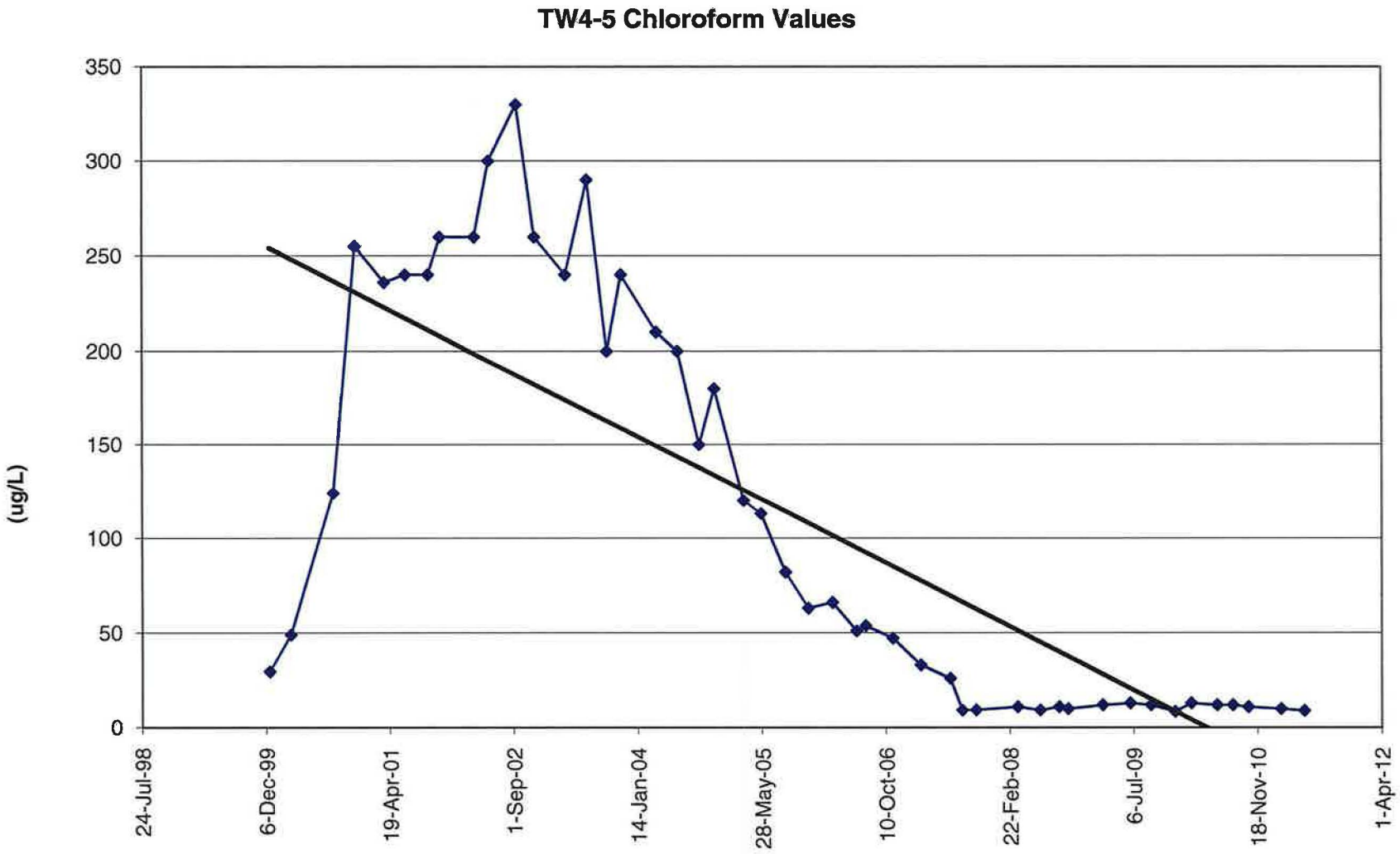
TW4-2 Chloroform Values

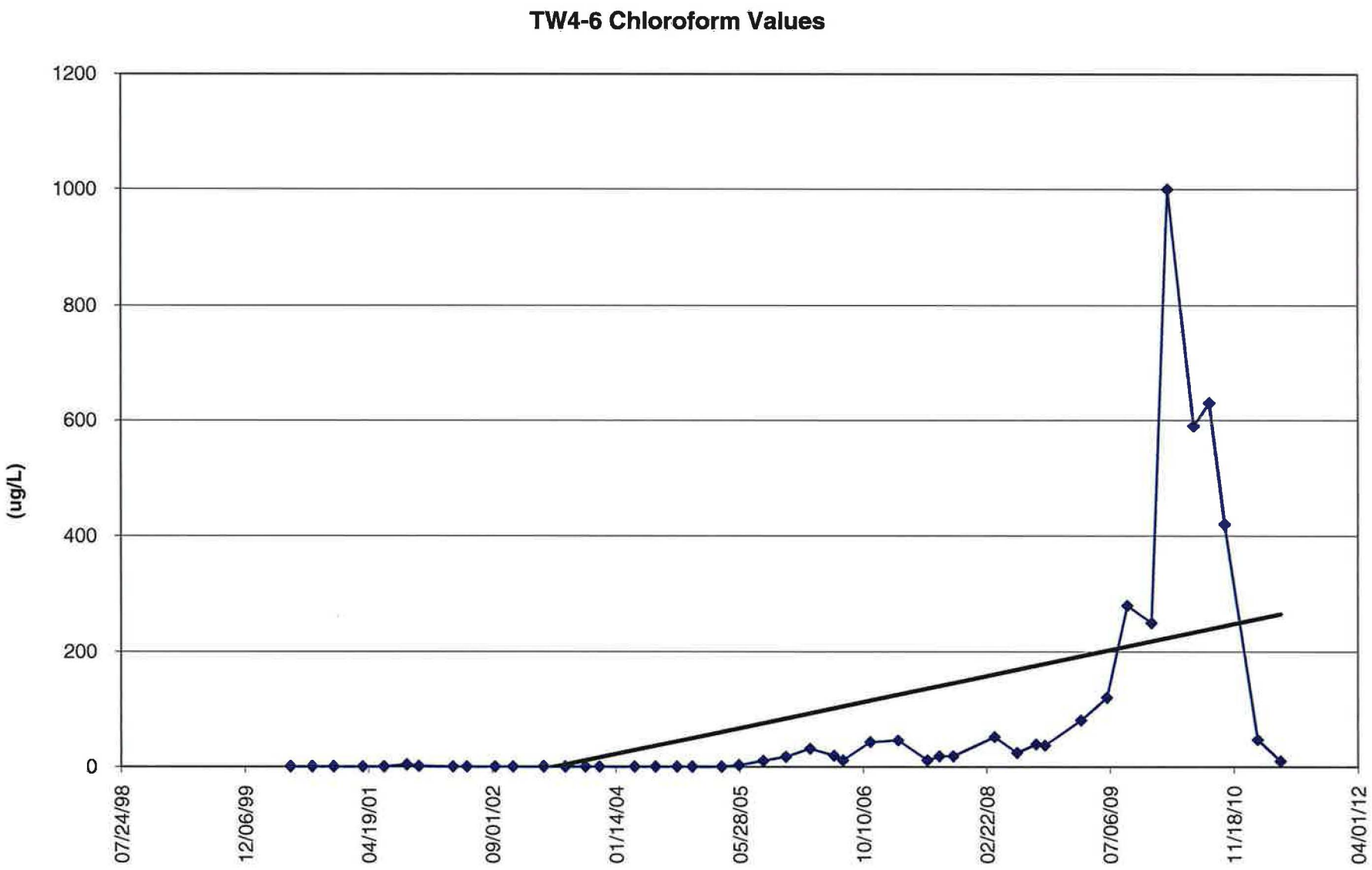


TW-4-3 Chloroform Values

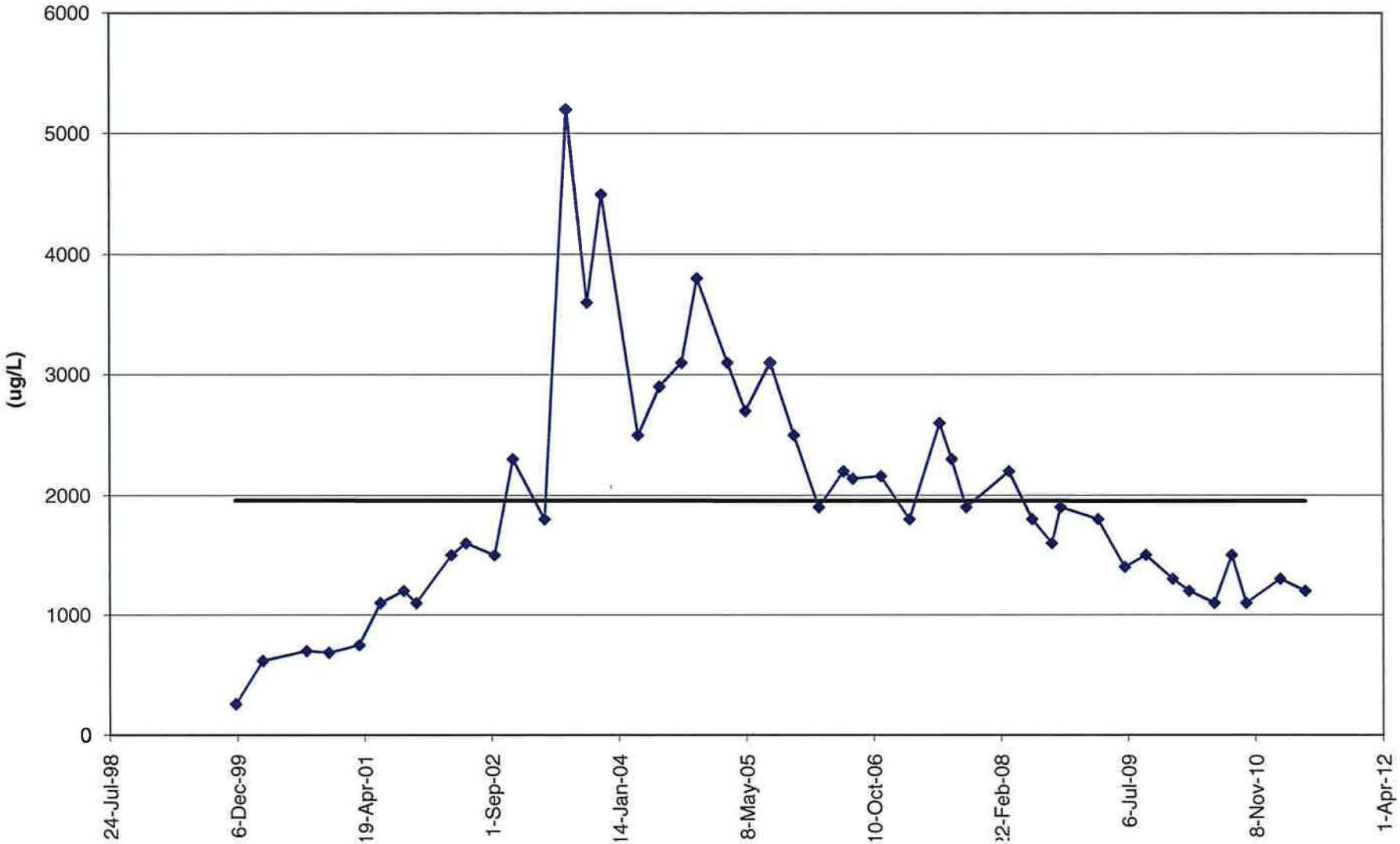



TW4-4 Chloroform Values
(ug/L)
4500
4000
3500
3000
2500
2000
1500
1000
500
0
24-Jul-98
6-Dec-99
19-Apr-01
1-Sep-02
14-Jan-04
28-May-05
10-Oct-06
22-Feb-08
6-Jul-09
18-Nov-10
1-Apr-12

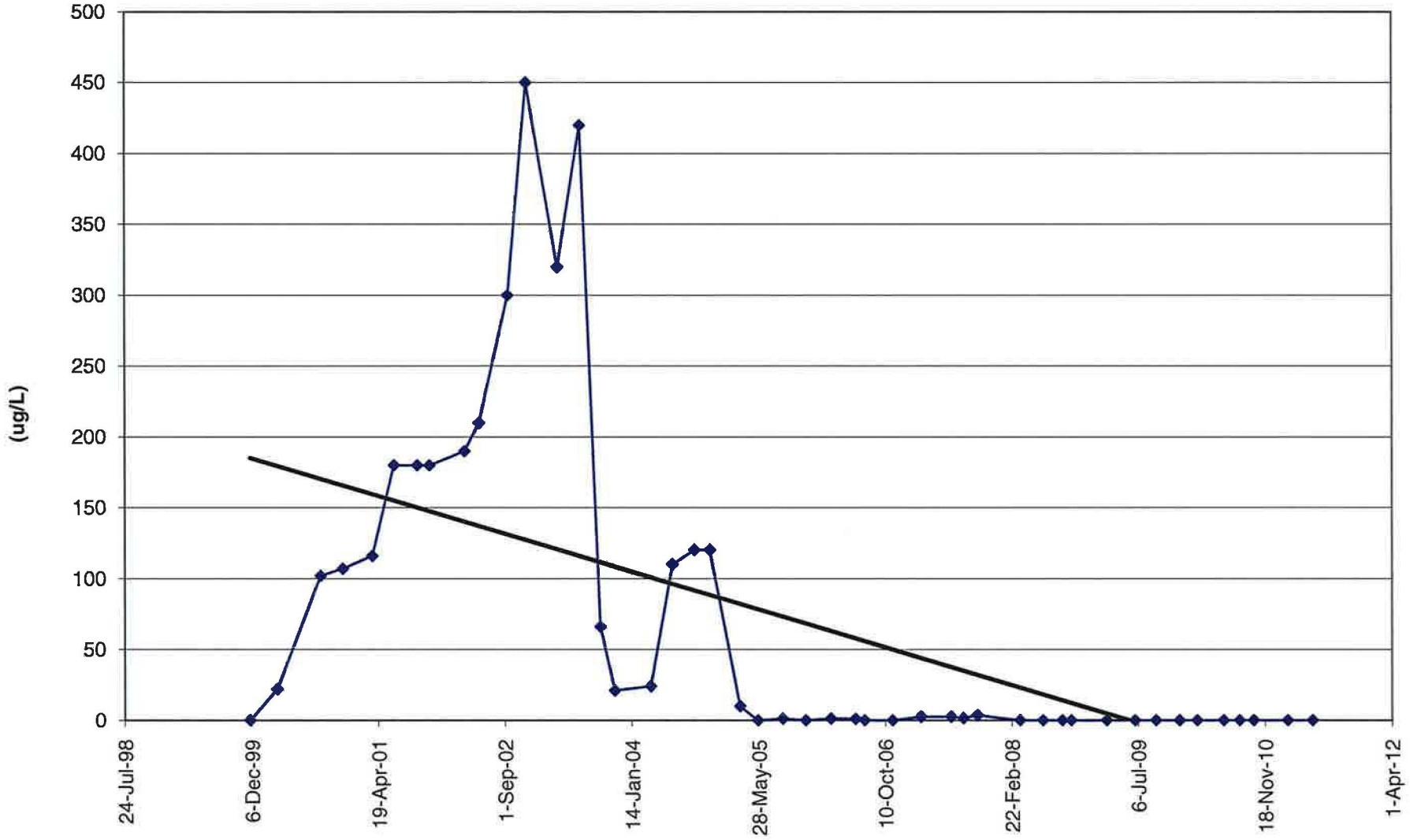

TW4-5 Chloroform Values
(ug/L)
350
300
250
200
150
100
50
0
24-Jul-98
6-Dec-99
19-Apr-01
1-Sep-02
14-Jan-04
28-May-05
10-Oct-06
22-Feb-08
6-Jul-09
18-Nov-10
1-Apr-12

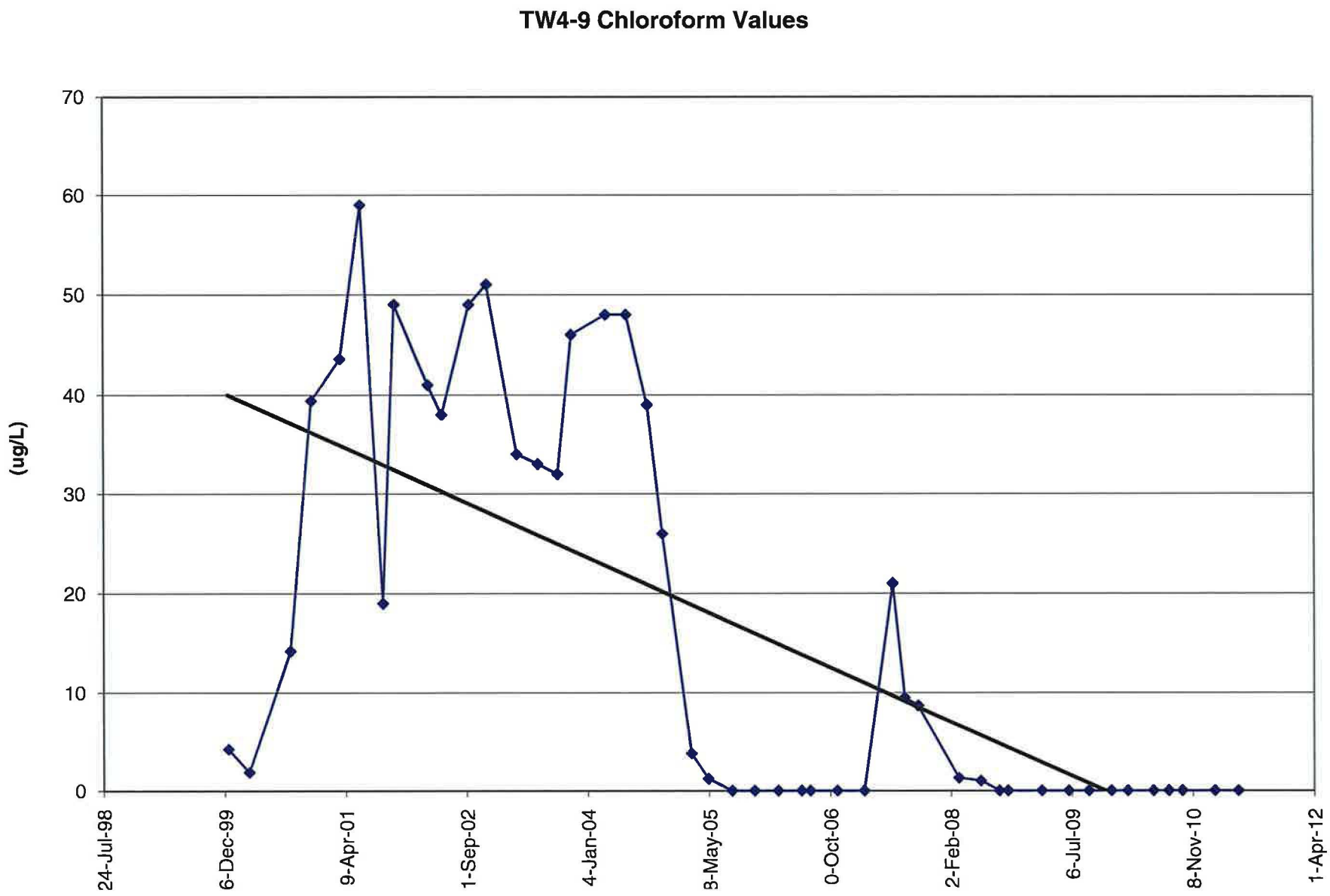

TW4-6 Chloroform Values
(ug/L)
1200
1000
800
600
400
200
0
07/24/98
12/06/99
04/19/01
09/01/02
01/14/04
05/28/05
10/10/06
02/22/08
07/06/09
11/18/10
04/01/12

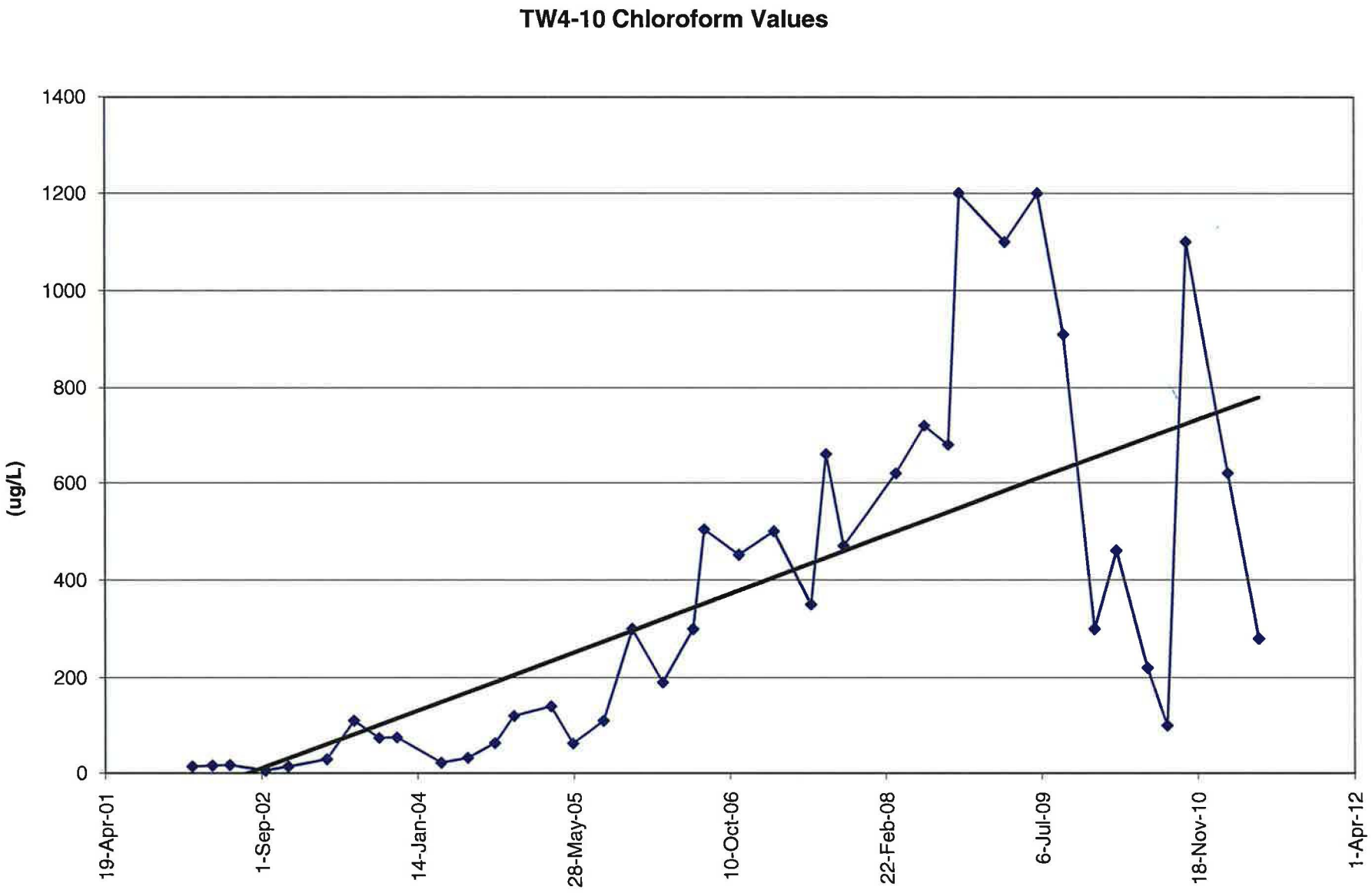
TW4-7 Chloroform Values

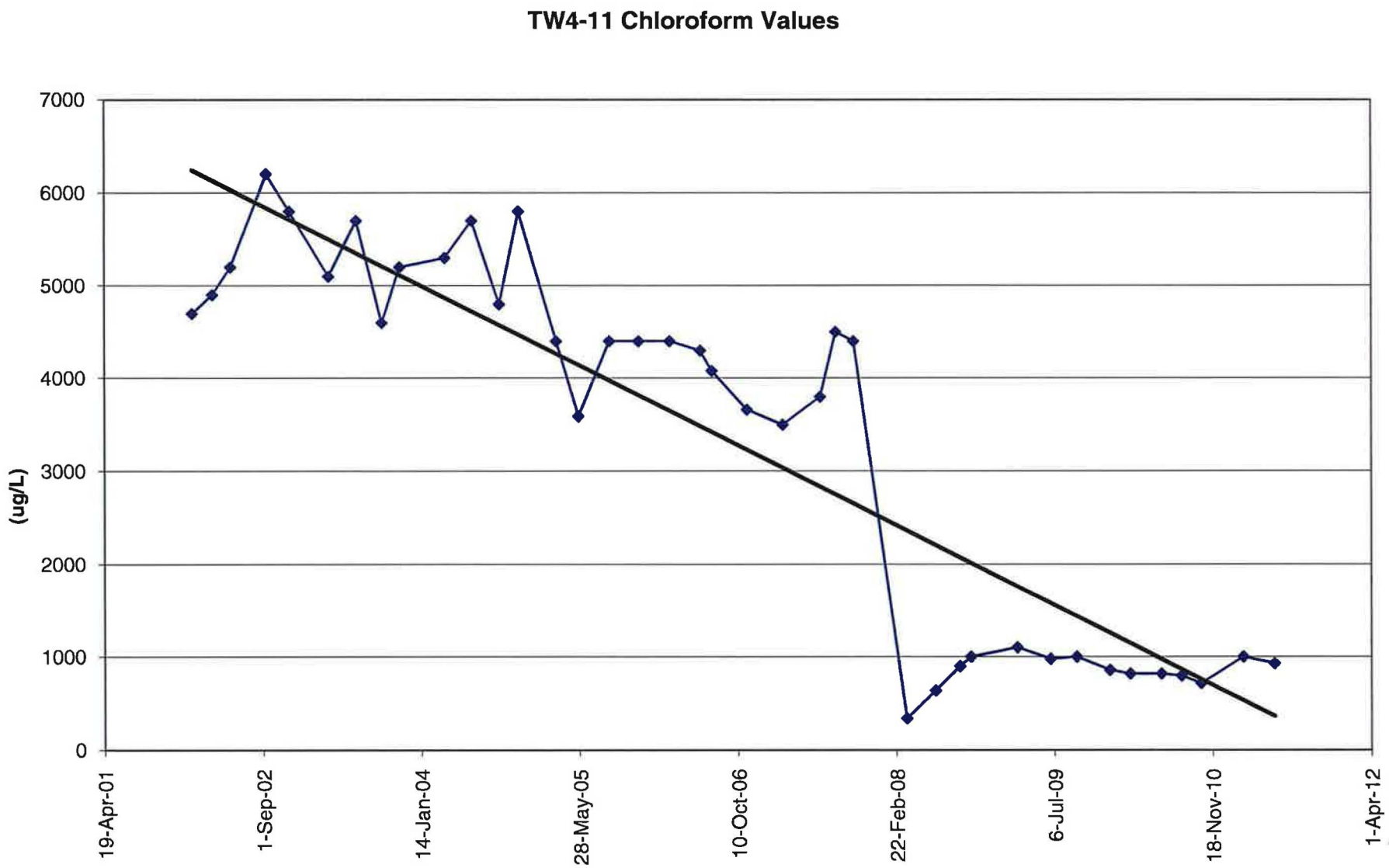


TW4-8 Chloroform Values

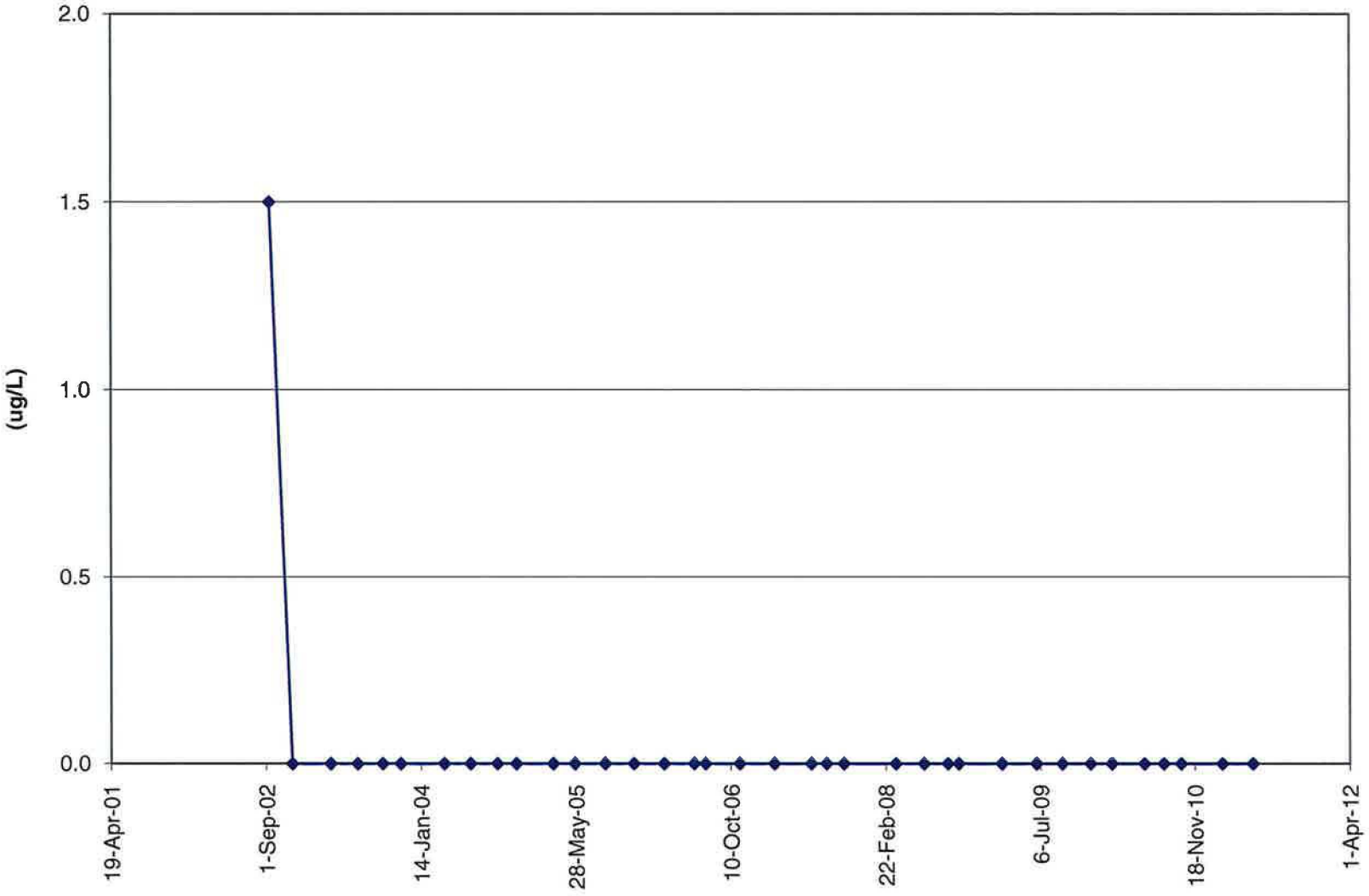


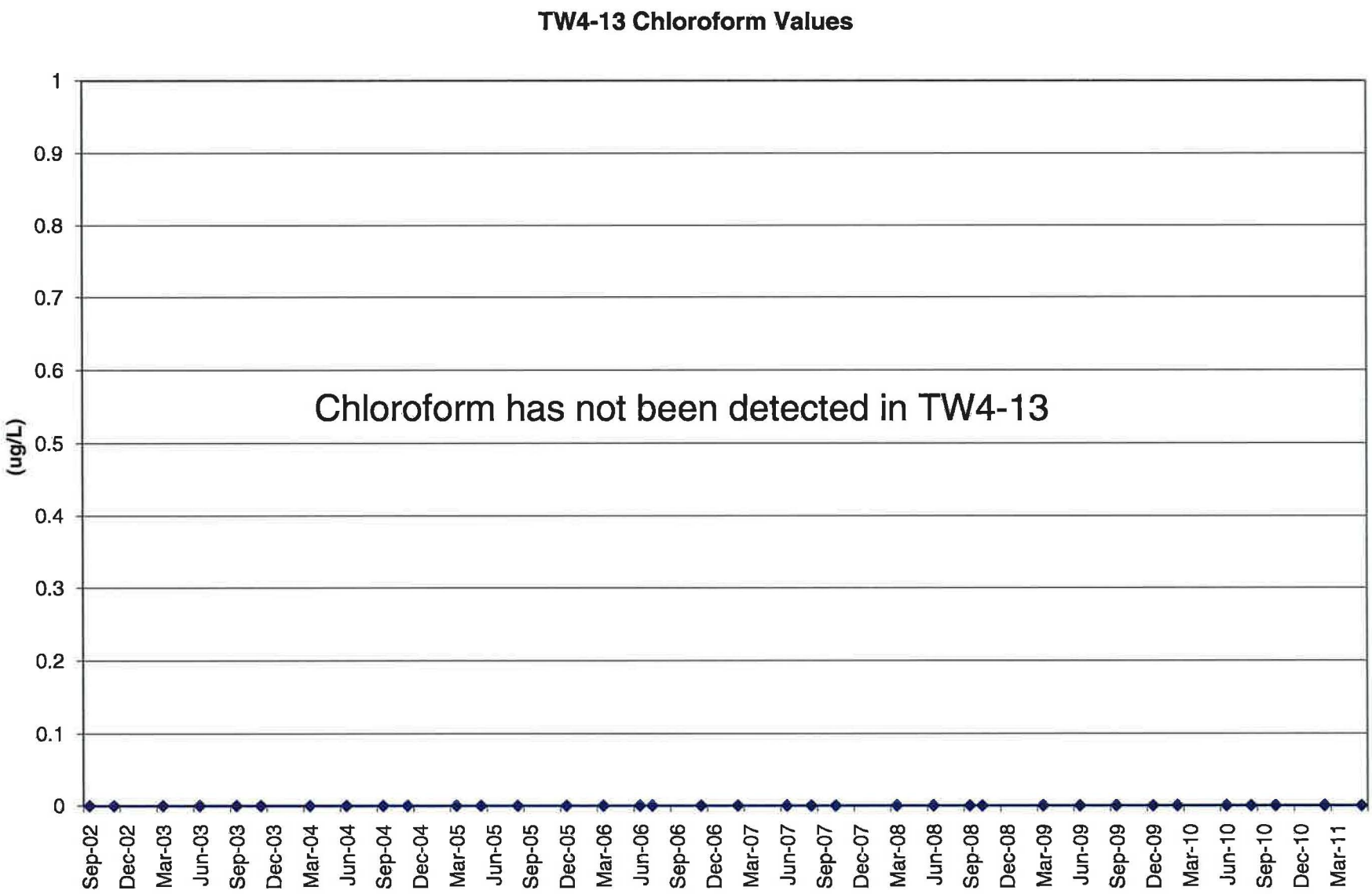

TW4-9 Chloroform Values
(µg/L)
70
60
50
40
30
20
10
0
24-Jul-98
6-Dec-99
9-Apr-01
1-Sep-02
4-Jan-04
3-May-05
0-Oct-06
2-Feb-08
6-Jul-09
8-Nov-10
1-Apr-12


TW4-10 Chloroform Values
(ug/L)
1400
1200
1000
800
600
400
200
0
19-Apr-01
1-Sep-02
14-Jan-04
28-May-05
10-Oct-06
22-Feb-08
6-Jul-09
18-Nov-10
1-Apr-12

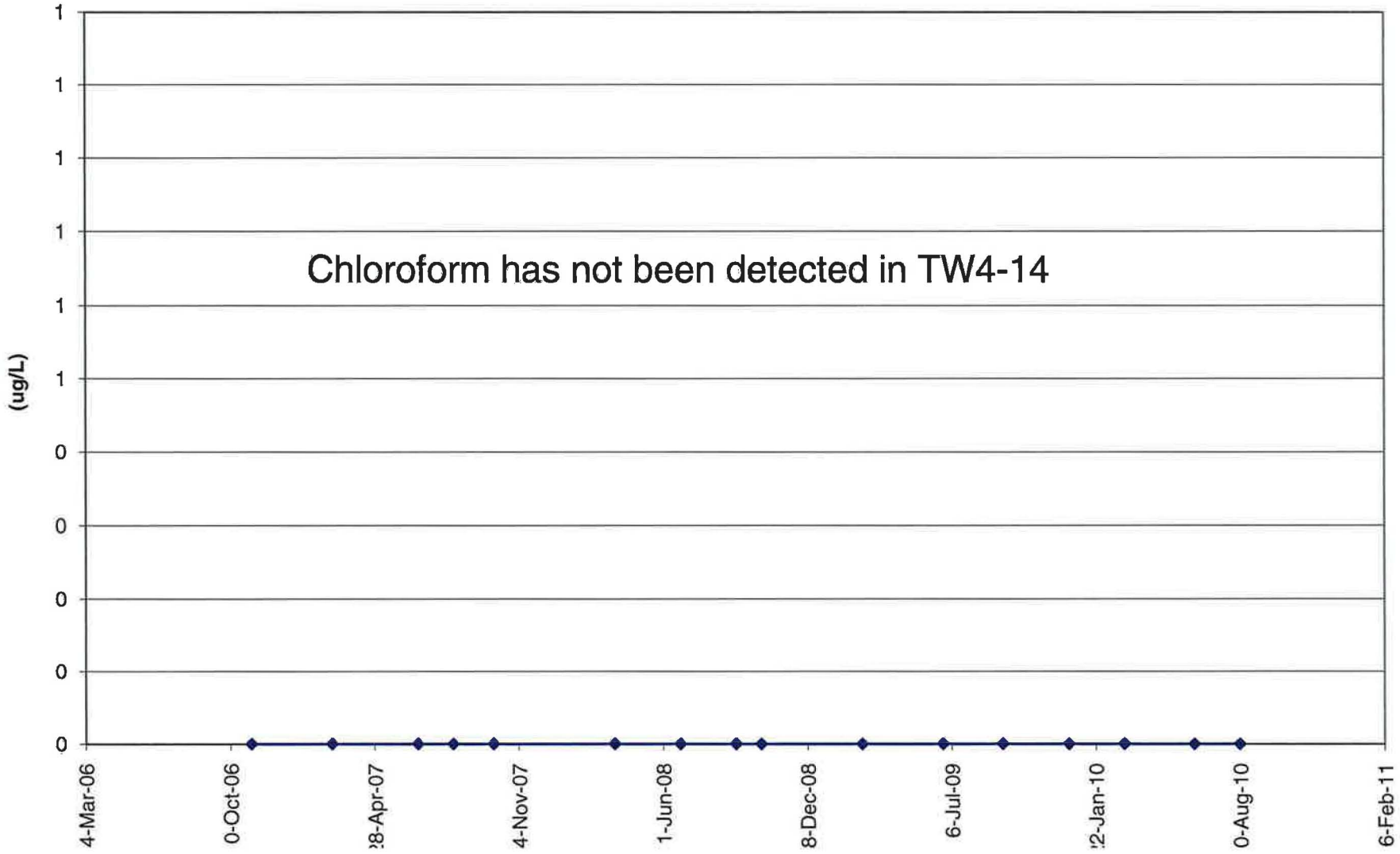

TW4-11 Chloroform Values
(ug/L)
7000
6000
5000
4000
3000
2000
1000
0
19-Apr-01
1-Sep-02
14-Jan-04
28-May-05
10-Oct-06
22-Feb-08
6-Jul-09
18-Nov-10
1-Apr-12

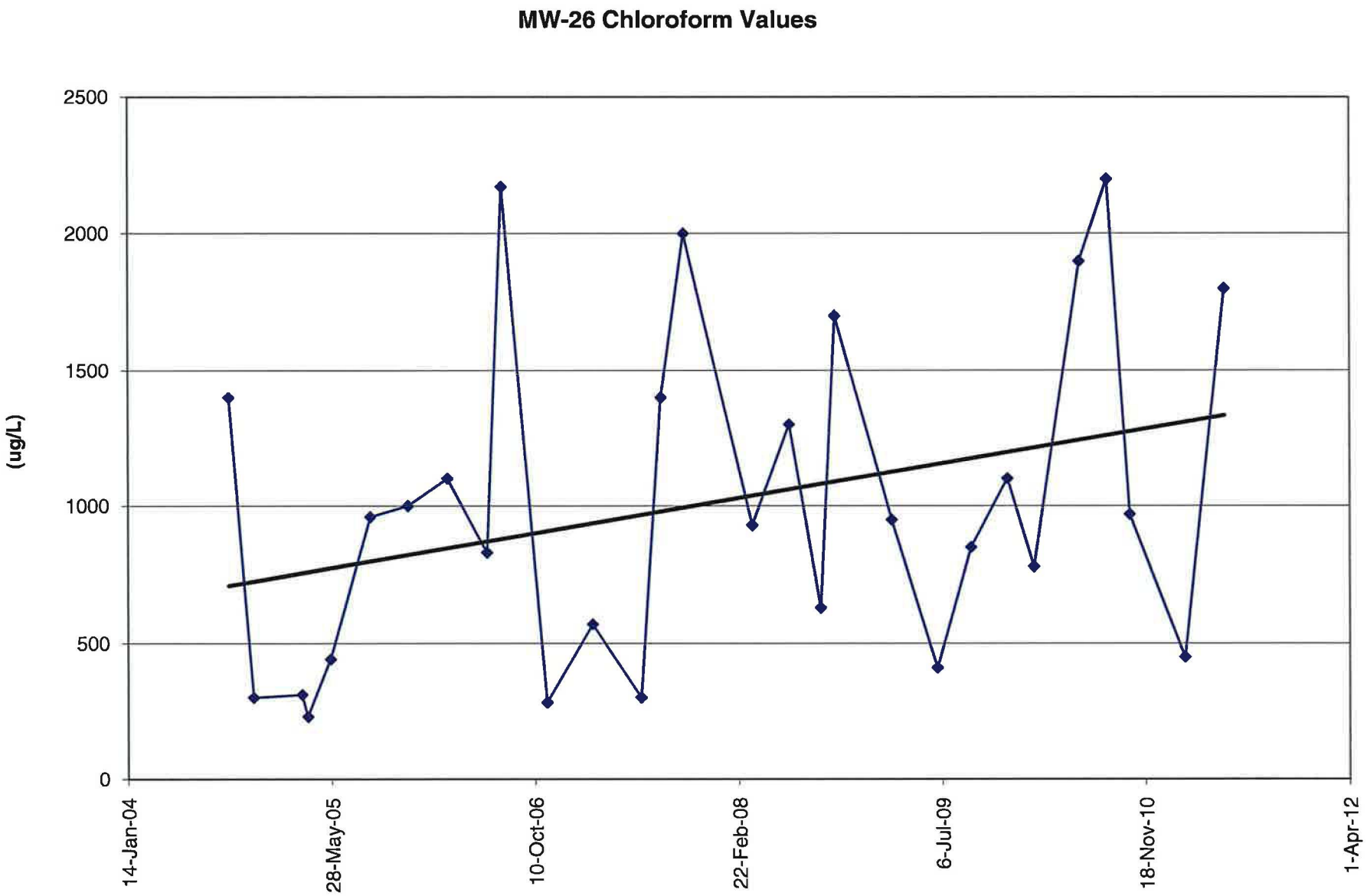
TW4-12 Chloroform Values



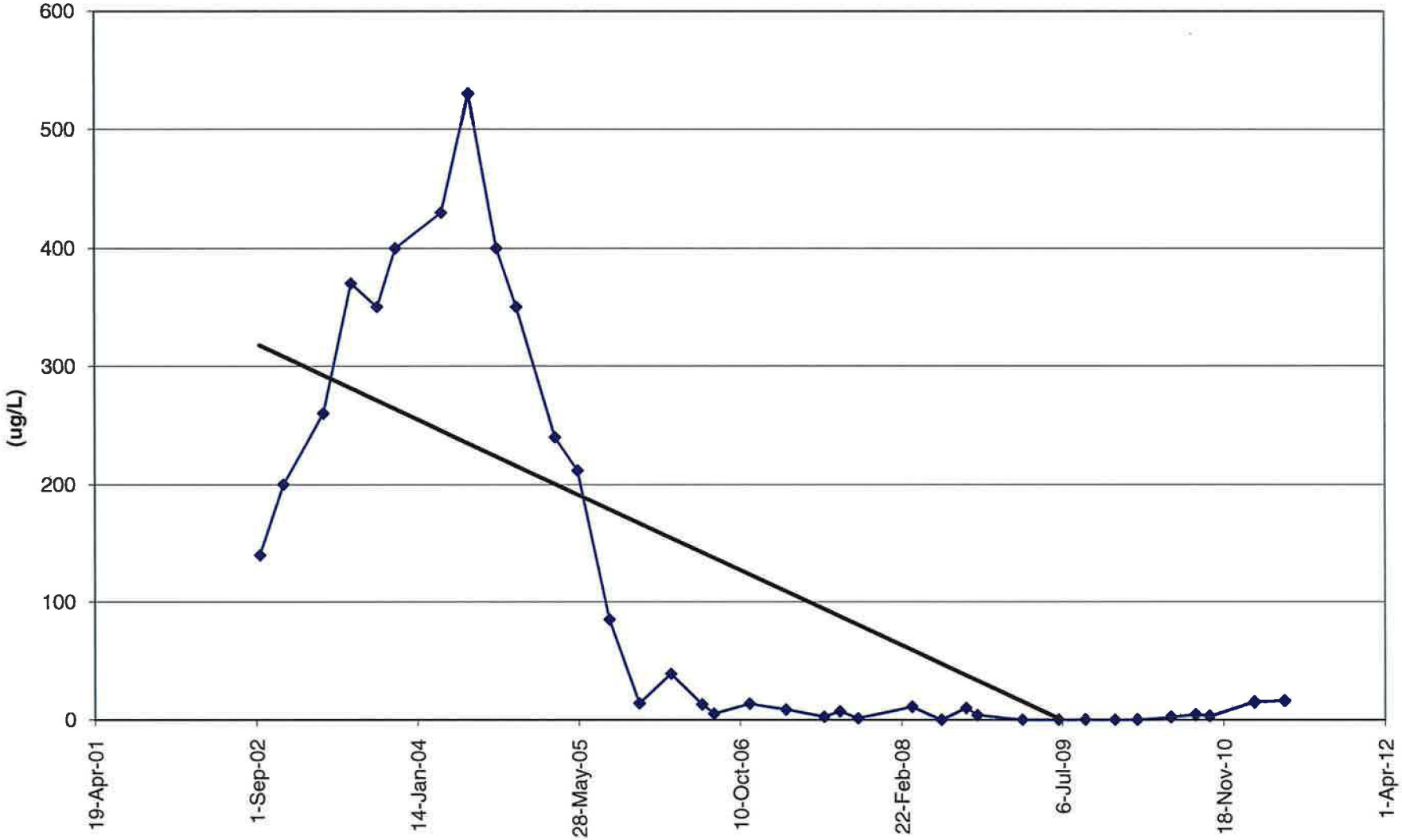

TW4-13 Chloroform Values
Chloroform has not been detected in TW4-13
(ug/L)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Sep-02
Dec-02
Mar-03
Jun-03
Sep-03
Dec-03
Mar-04
Jun-04
Sep-04
Dec-04
Mar-05
Jun-05
Sep-05
Dec-05
Mar-06
Jun-06
Sep-06
Dec-06
Mar-07
Jun-07
Sep-07
Dec-07
Mar-08
Jun-08
Sep-08
Dec-08
Mar-09
Jun-09
Sep-09
Dec-09
Mar-10
Jun-10
Sep-10
Dec-10
Mar-11

TW4-14 Chloroform Values

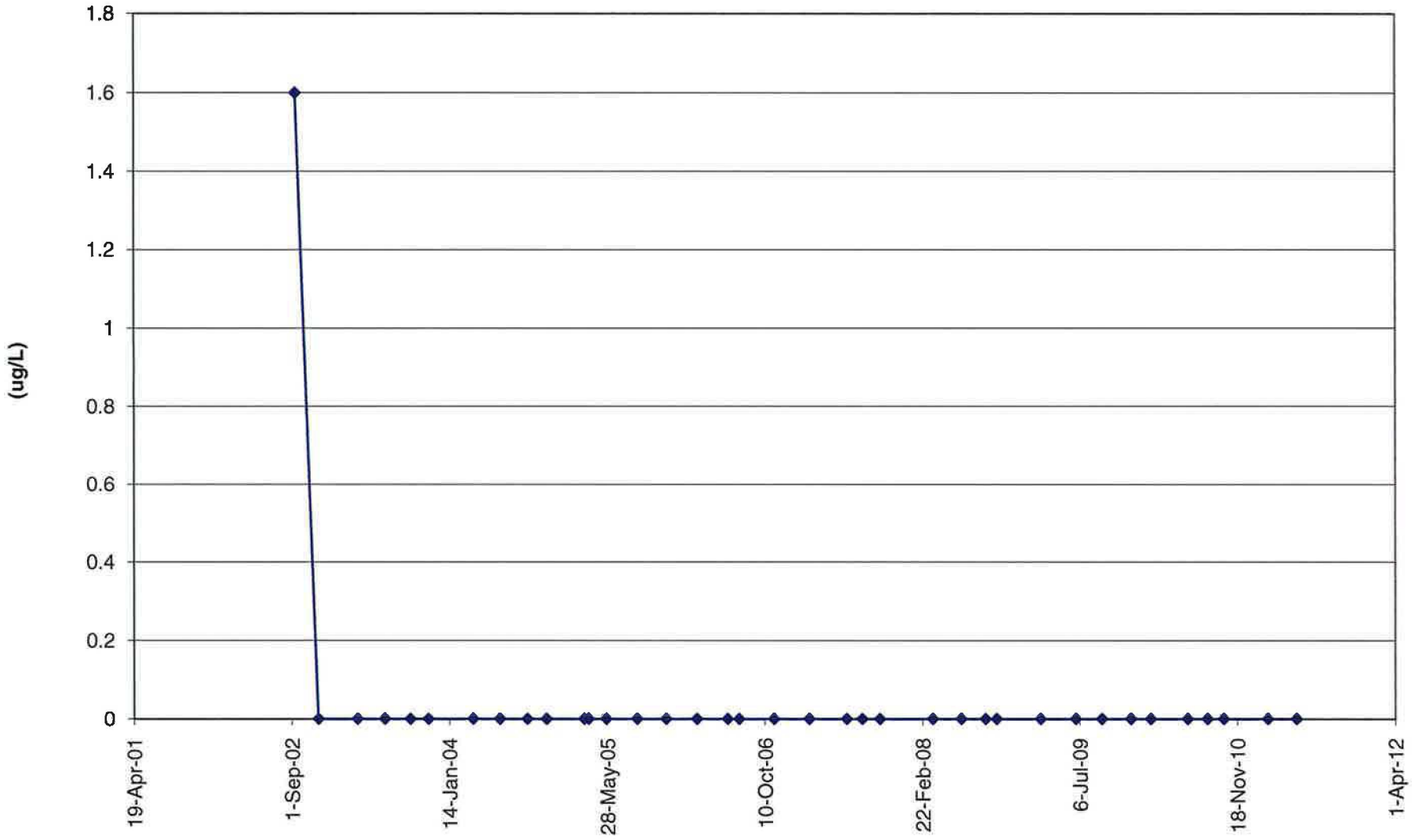



MW-26 Chloroform Values
(ug/L)
2500
2000
1500
1000
500
0
14-Jan-04
28-May-05
10-Oct-06
22-Feb-08
6-Jul-09
18-Nov-10
1-Apr-12

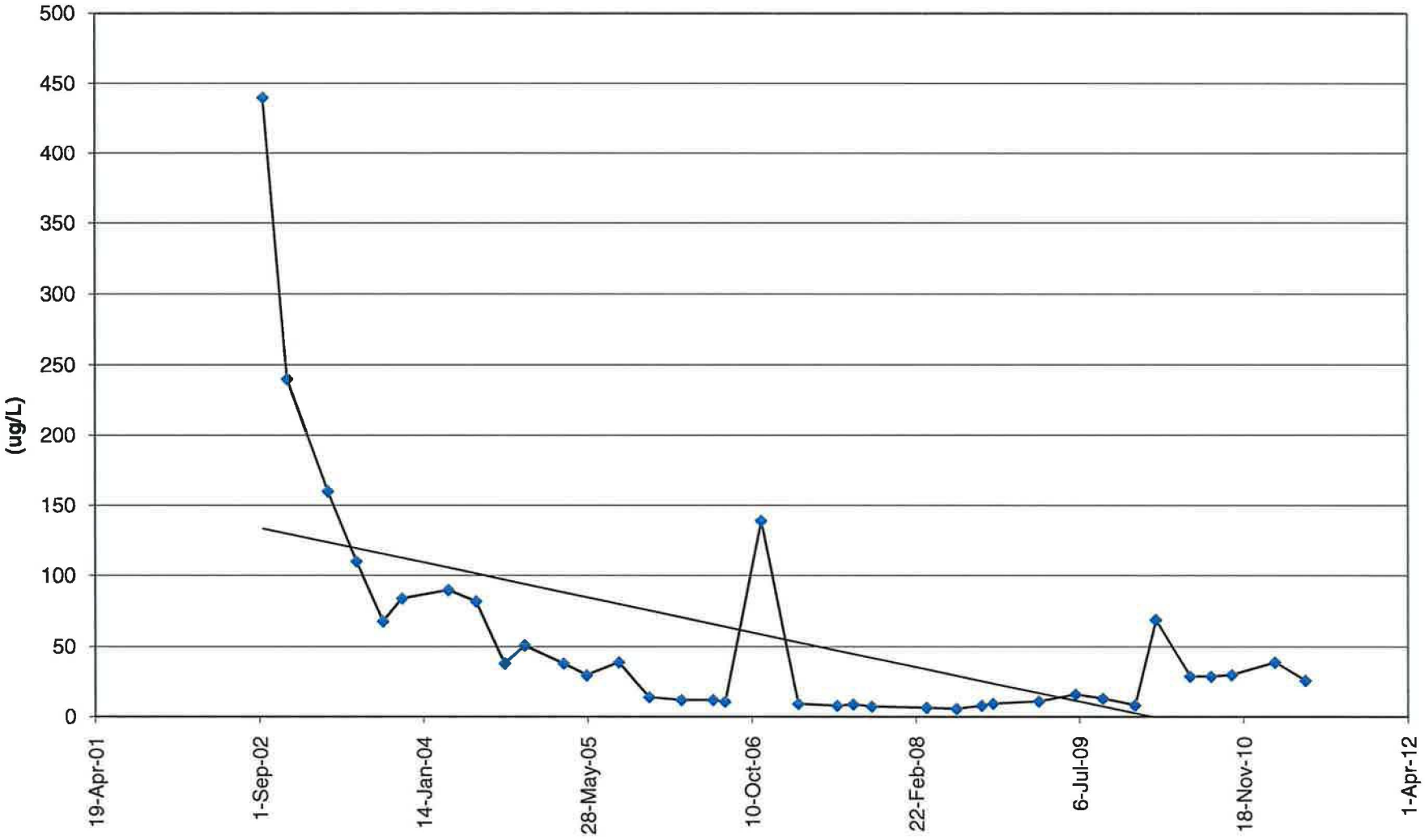
TW4-16 Chloroform Values

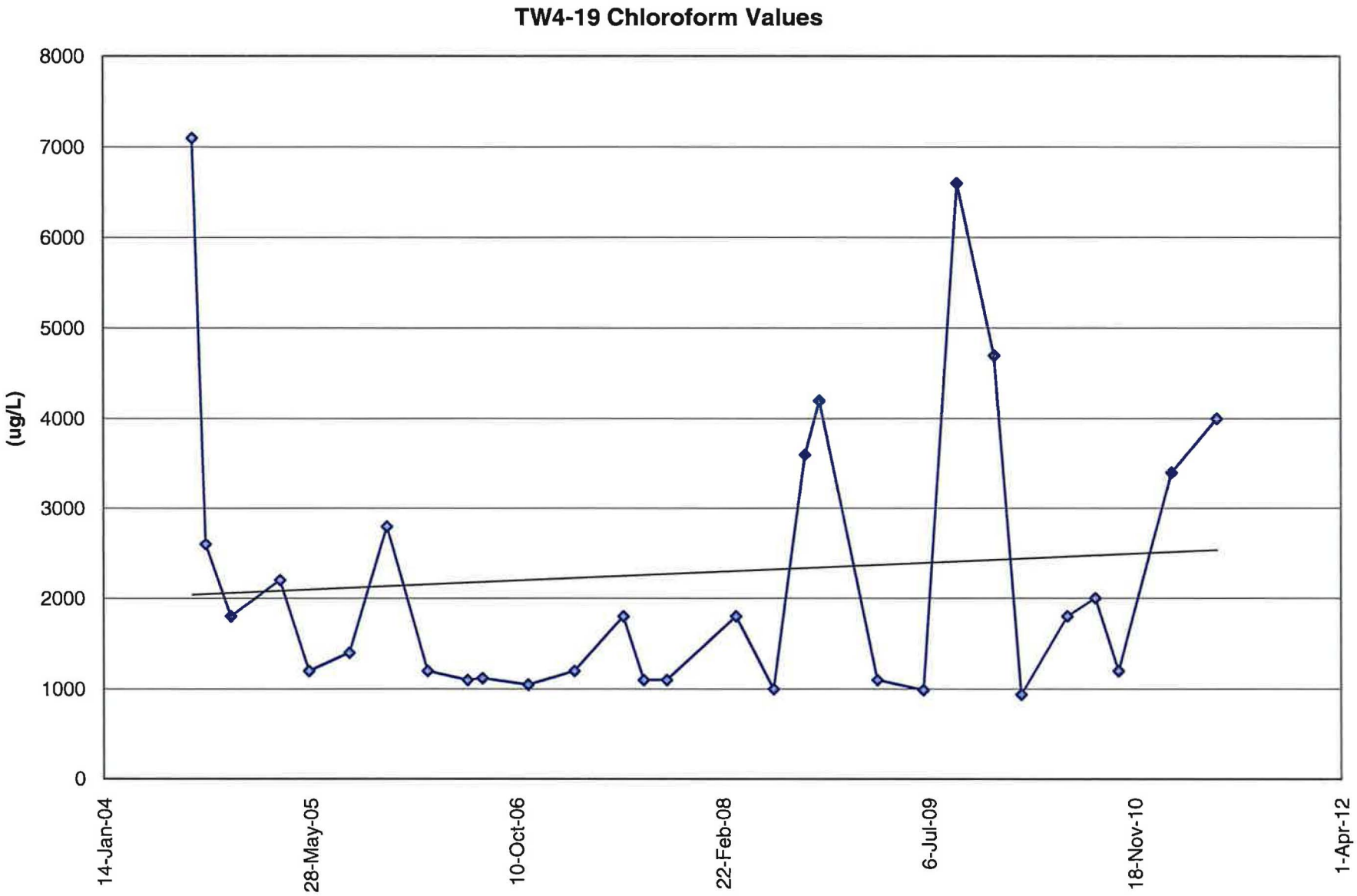


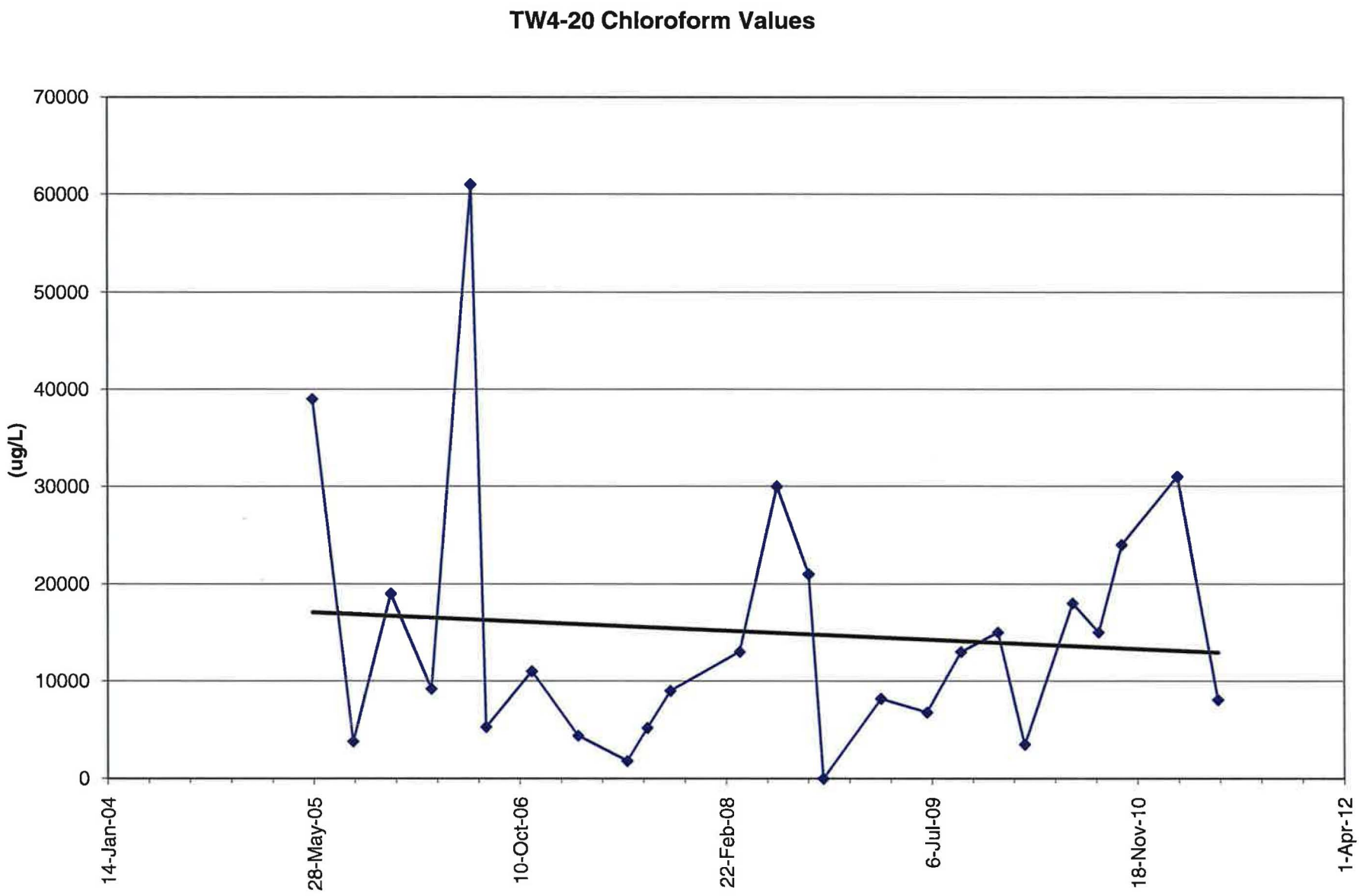
MW-32 Chloroform Values

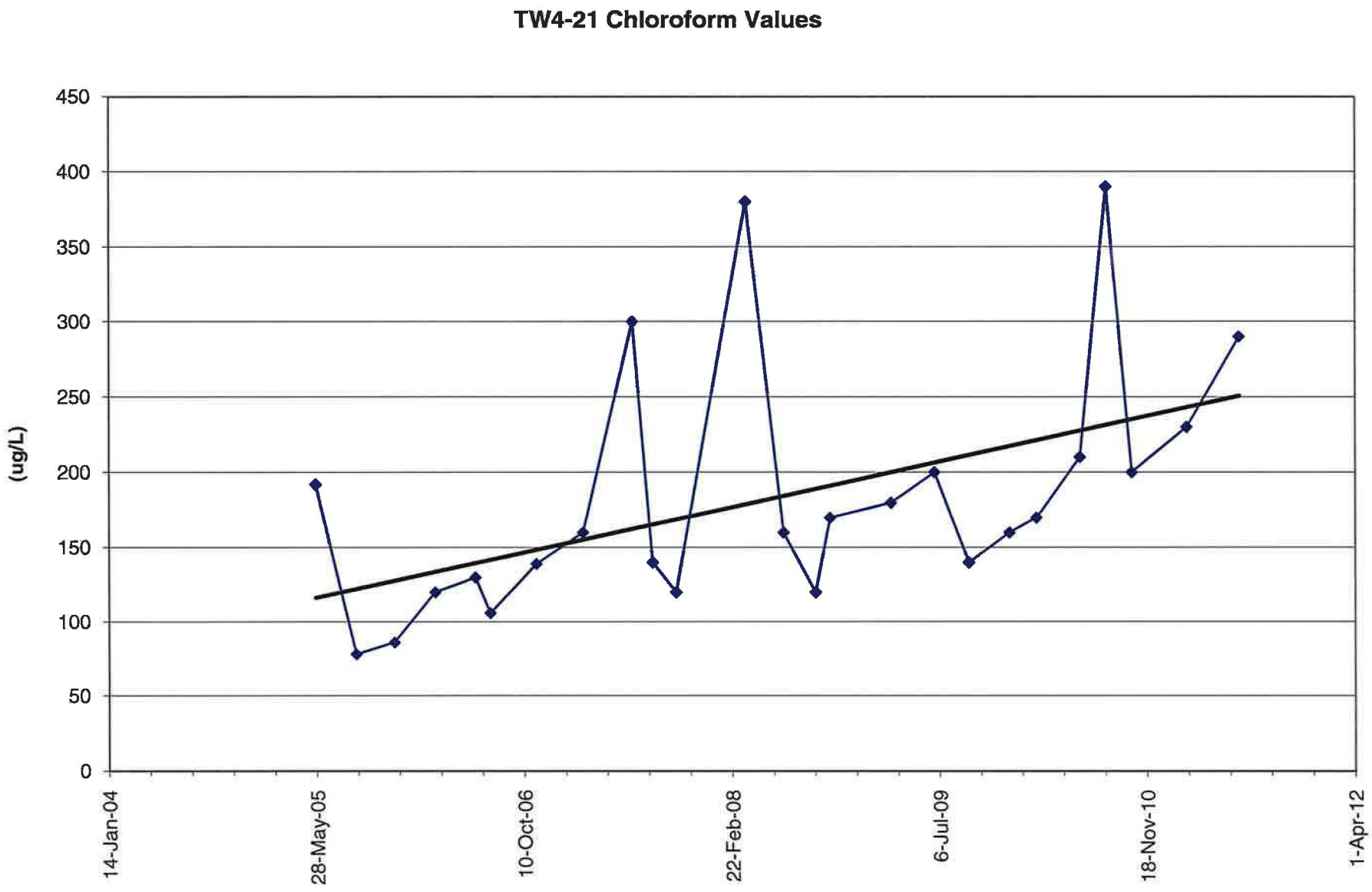


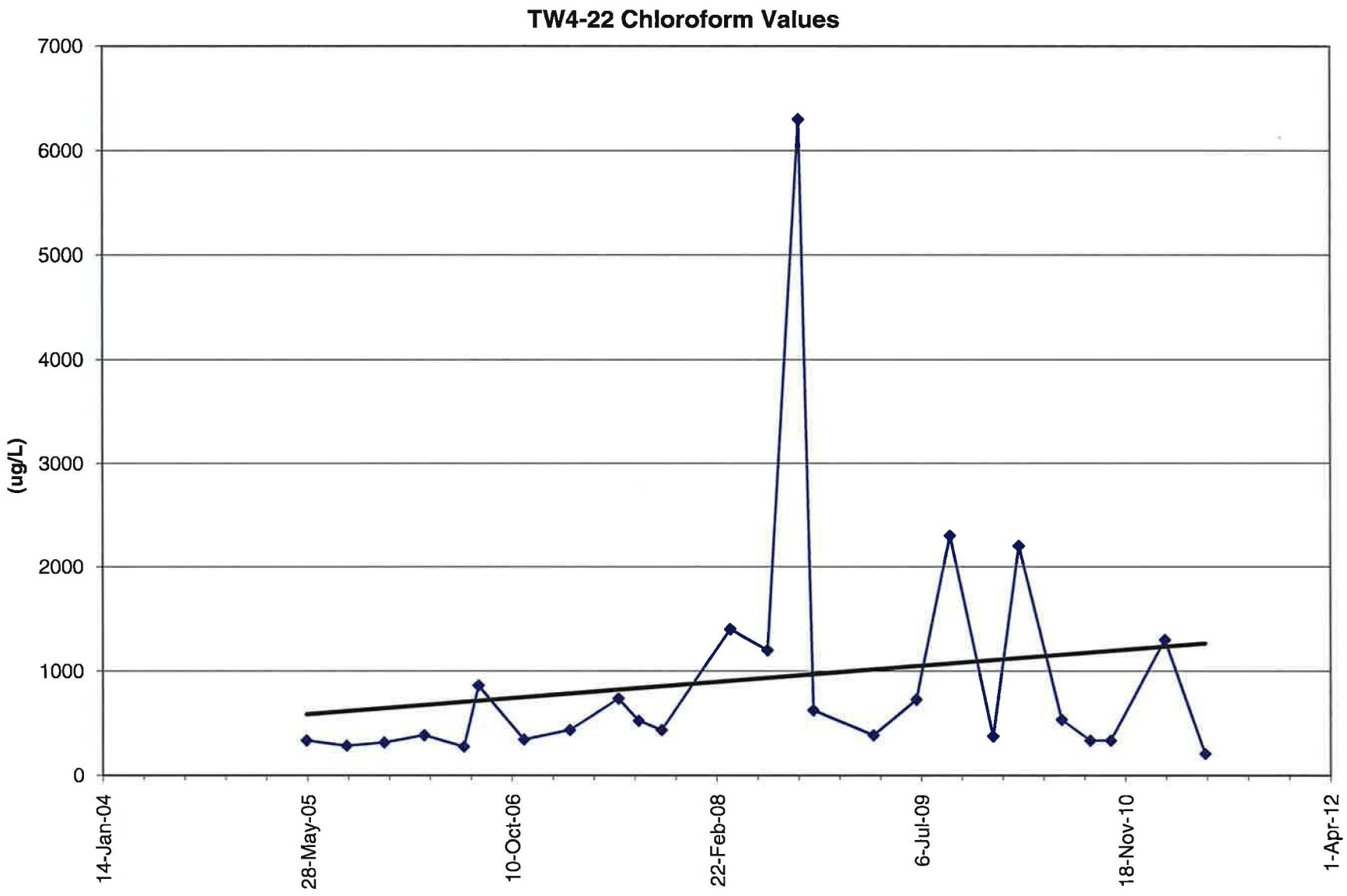
TW4-18 Chloroform Values



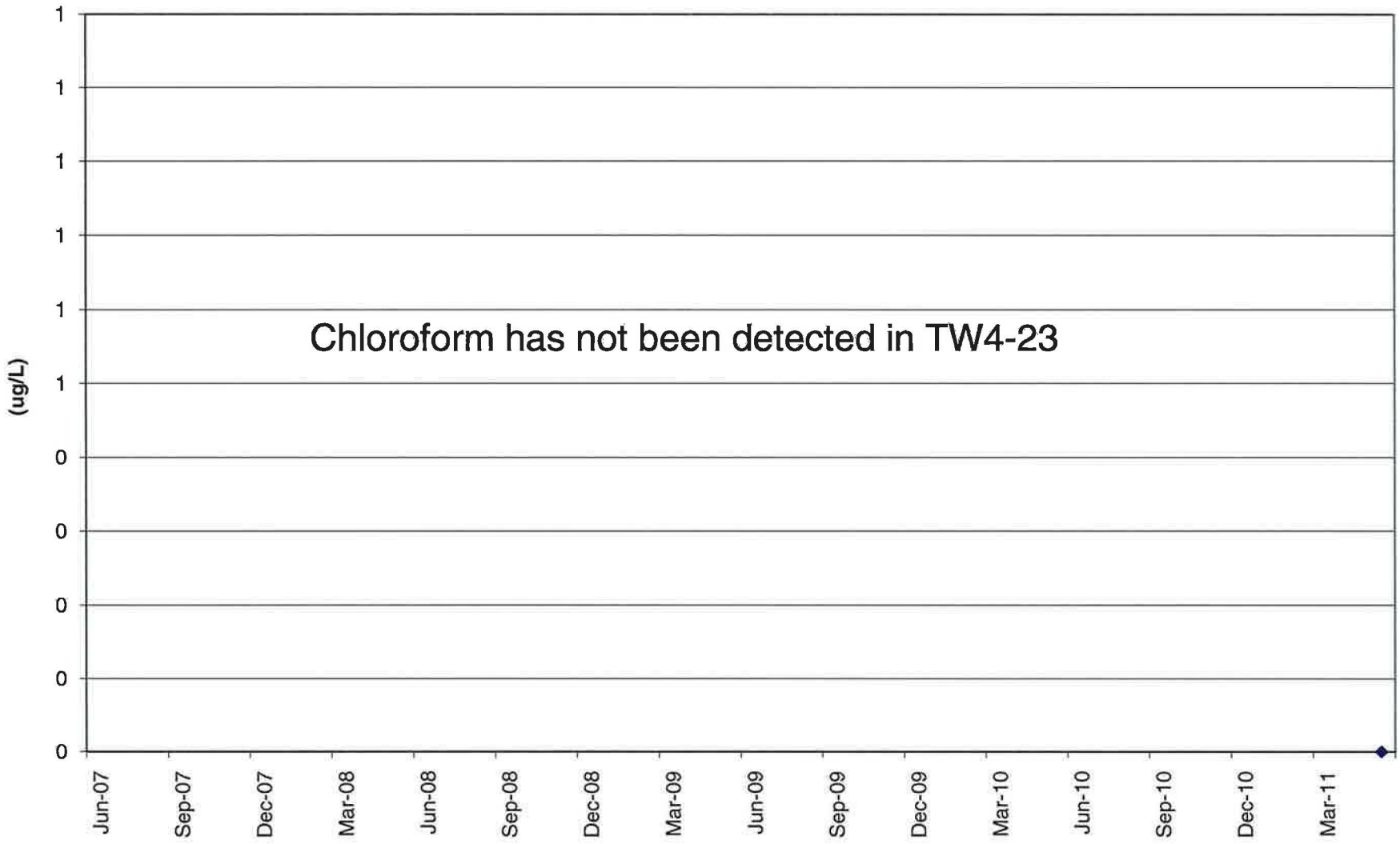

TW4-19 Chloroform Values
(ug/L)
8000
7000
6000
5000
4000
3000
2000
1000
0
14-Jan-04
28-May-05
10-Oct-06
22-Feb-08
6-Jul-09
18-Nov-10
1-Apr-12

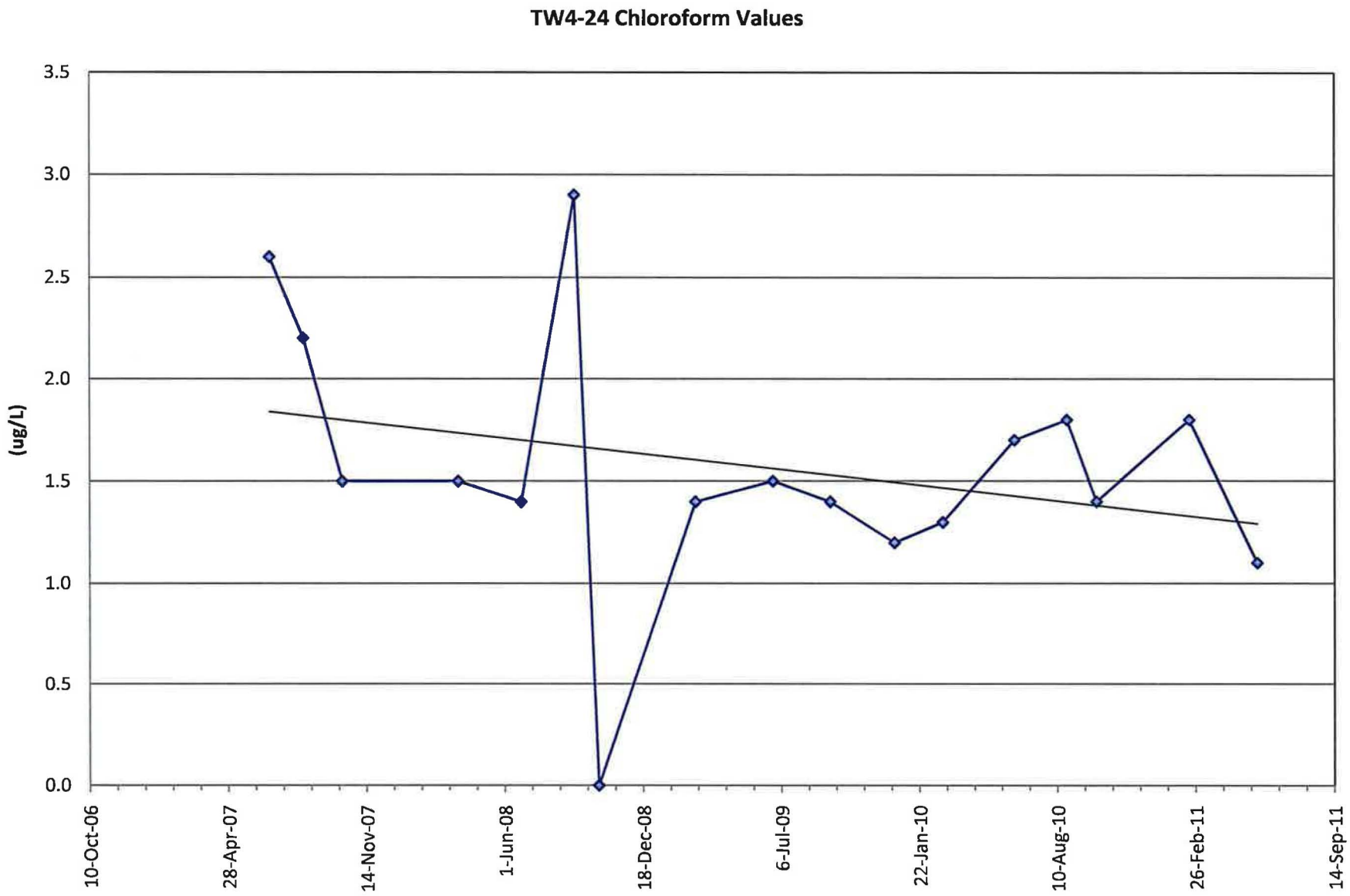

TW4-20 Chloroform Values
70000
60000
50000
40000
30000
20000
10000
0
(ug/L)
14-Jan-04
28-May-05
10-Oct-06
22-Feb-08
6-Jul-09
18-Nov-10
1-Apr-12

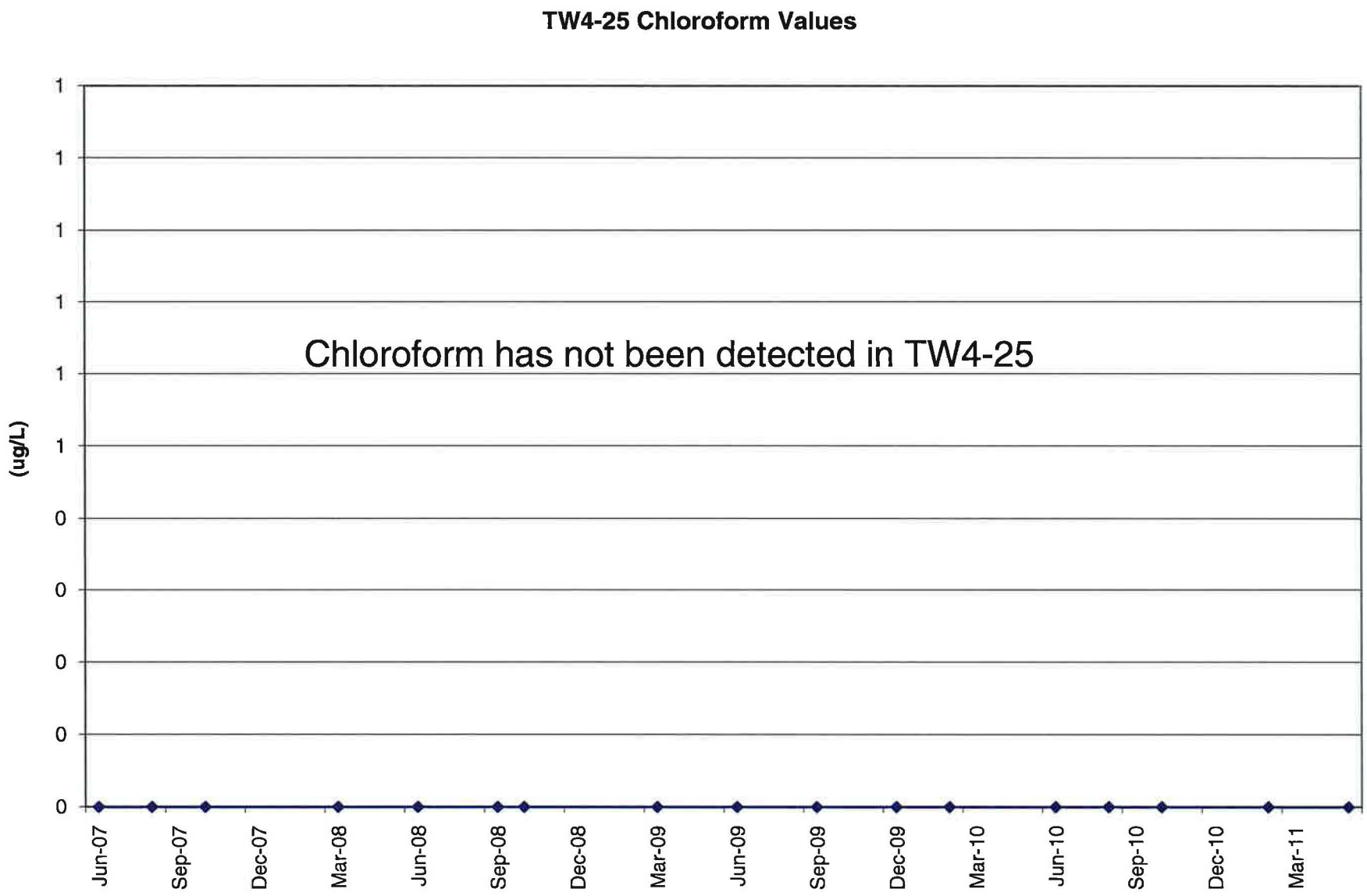

TW4-21 Chloroform Values
(ug/L)
450
400
350
300
250
200
150
100
50
0
14-Jan-04
28-May-05
10-Oct-06
22-Feb-08
6-Jul-09
18-Nov-10
1-Apr-12

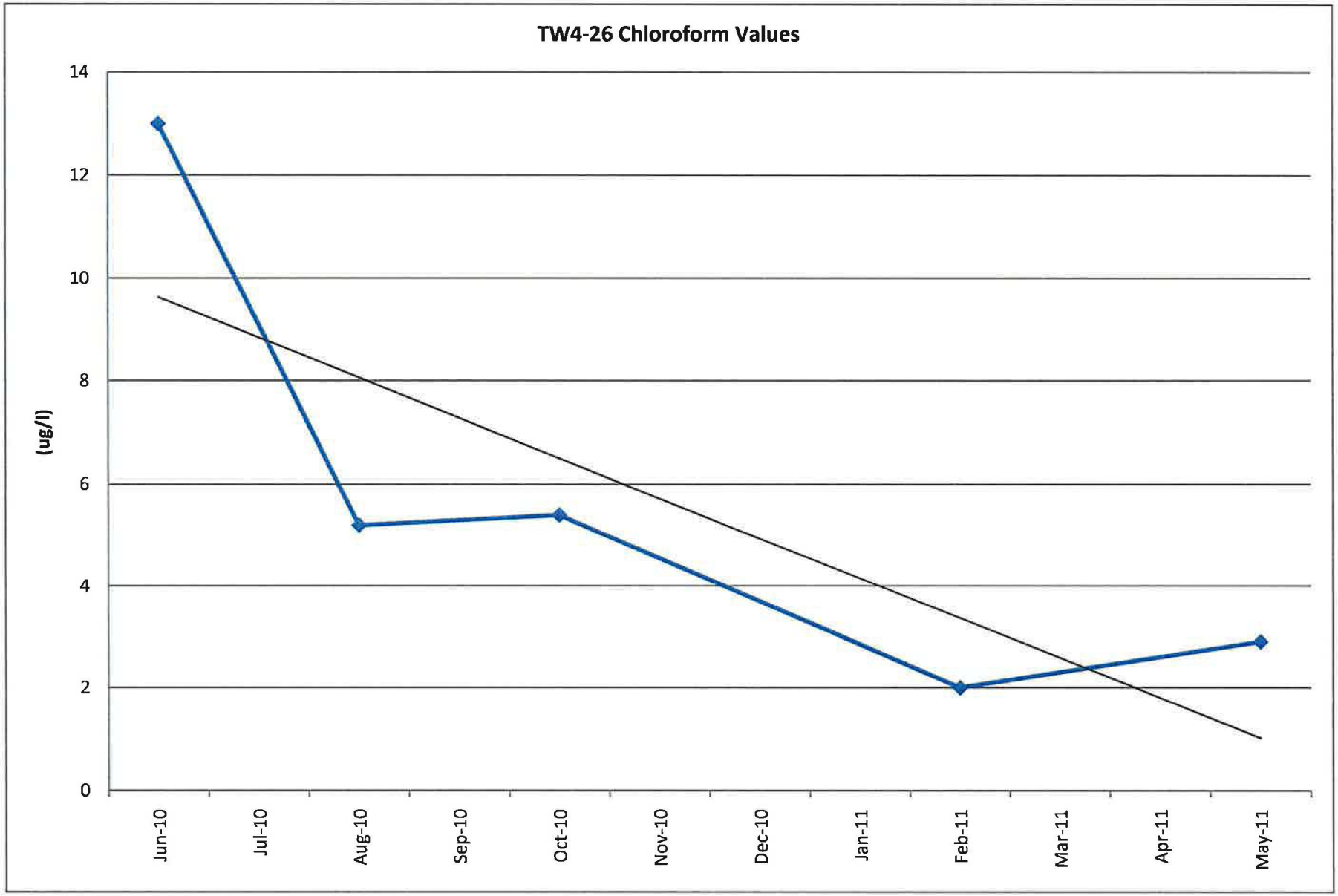

TW4-22 Chloroform Values
7000
6000
5000
4000
3000
2000
1000
0
(ug/L)
14-Jan-04
28-May-05
10-Oct-06
22-Feb-08
6-Jul-09
18-Nov-10
1-Apr-12

TW4-23 Chloroform Values




TW4-24 Chloroform Values
(ug/L)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
10-Oct-06
28-Apr-07
14-Nov-07
1-Jun-08
18-Dec-08
6-Jul-09
22-Jan-10
10-Aug-10
26-Feb-11
14-Sep-11


TW4-25 Chloroform Values
Chloroform has not been detected in TW4-25
(ug/L)
1
1
1
1
1
1
0
0
0
0
0
Jun-07
Sep-07
Dec-07
Mar-08
Jun-08
Sep-08
Dec-08
Mar-09
Jun-09
Sep-09
Dec-09
Mar-10
Jun-10
Sep-10
Dec-10
Mar-11


TW4-26 Chloroform Values
(ug/l)
14
12
10
8
6
4
2
0
Jun-10
Jul-10
Aug-10
Sep-10
Oct-10
Nov-10
Dec-10
Jan-11
Feb-11
Mar-11
Apr-11
May-11

Tab M

CSV Transmittal Letter

Kathy Weinel

From: Kathy Weinel
Sent: Thursday, July 28, 2011 1:05 PM
To: 'rlundberg@utah.gov'
Cc: Jo Ann Tischler; David Frydenlund; Jaime Massey
Subject: Transmittal of CSV Files White Mesa Mill 2011 Q2 Chloroform Monitoring
Attachments: C11050927.CSV; C11060152.CSV; C11060430.CSV; C11061150.CSV

Dear Mr. Lundberg,

Attached to this e-mail is an electronic copy of laboratory results for chloroform monitoring conducted at the White Mesa Mill during the second quarter of 2011, in Comma Separated Value (CSV) format.

Please contact me at 303-389-4134 if you have any questions on this transmittal.

Yours Truly

Kathy Weinel
Denison Mines (USA) Corp.
Quality Assurance Manager

Tab N

Disinfection Byproducts - Trihalomethanes

EPA United States Environmental Protection Agency

Basic Information about Regulated Drinking Water Contaminants

Basic Information about Disinfection Byproducts in Drinking Water: Total Trihalomethanes, Haloacetic Acids, Bromate, and Chlorite

To protect drinking water from disease-causing organisms, or pathogens, water suppliers often add a disinfectant, such as chlorine, to drinking water. However, disinfection practices can be complicated because certain microbial pathogens, such as *Cryptosporidium*, are highly resistant to traditional disinfection practices. Also, disinfectants themselves can react with naturally-occurring materials in the water to form byproducts, which may pose health risks.

A major challenge for water suppliers is how to control and limit the risks from pathogens and disinfection byproducts. It is important to provide protection from pathogens while simultaneously minimizing health risks to the population from disinfection byproducts. For more information, see fact sheets on Pathogens and Indicators and Disinfectants.

- What disinfection byproducts does EPA regulate, how are they formed, and what are their health effects in drinking water at levels above the maximum contaminant level?
- What are EPA's drinking water regulations for disinfection byproducts?
- How will I know if disinfection byproducts are in my drinking water?
- How will disinfection byproducts be removed from my drinking water?
- How do I learn more about my drinking water?

What disinfection byproducts does EPA regulate, how are they formed, and what are their health effects in drinking water at levels above the maximum contaminant level?

Disinfection Byproduct (Chemical Abstract Service Registry Number)	How is it formed?	Health Effects
Total Trihalomethanes		
Bromodichloromethane (75-27-4)		
Bromoform (75-25-2)	Trihalomethanes occur when naturally-occurring organic and inorganic materials in the water react with the disinfectants, chlorine and chloramine.	Some people who drink water containing total trihalomethanes in excess of the MCL over many years could experience liver, kidney, or central nervous system problems and increased risk of cancer.
Dibromochloromethane (124-48-1)		
Chloroform (67-66-3)		
Haloacetic acids:		
Dichloroacetic acid (79-43-6)		
Trichloroacetic acid (76-03-9)		
Chloroacetic acid (79-11-8)	Haloacetic acids occur when naturally-occurring organic and inorganic materials in the water react with the disinfectants, chlorine and chloramine.	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Bromoacetic acid(79-08-3)		
Dibromoacetic acid (631-64-1)		
Bromate (15541-45-4)	Bromate occurs when bromide in the water reacts with the disinfectant, ozone.	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.
Chlorite (7758-19-2)	Chlorite occurs when chlorine dioxide breaks down.	Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.

This health effects language is not intended to catalog all possible health effects for disinfection byproducts. Rather, it is intended to inform consumers of some of the possible health effects associated with disinfection byproducts in drinking water when the rule was finalized.

What are EPA's drinking water regulations for disinfection byproducts?

In 1974, Congress passed the Safe Drinking Water Act. This law requires EPA to determine the level of contaminants in drinking water at which no adverse health effects are likely to occur. These non-enforceable health goals, based solely on possible health risks and exposure over a lifetime, with an adequate margin of safety, are called maximum contaminant level goals (MCLG). Contaminants are any physical, chemical, biological or radiological substances or matter in water. EPA sets MCLGs based on the best available science to prevent potential health problems.

Based on the MCLG, EPA sets an enforceable regulation called a maximum contaminant level (MCL). MCLs are set as close to the health goals as possible, considering cost, benefits and the ability of public water systems to detect and remove contaminants using suitable treatment technologies. MCLs for disinfection byproducts are set at the following levels:

Disinfection Byproduct	MCLG	MCL
Total Trihalomethanes		
Bromodichloromethane	Zero	
Bromoform	Zero	0.080 mg/L or 80 ppb (Sum of the concentrations of all five trihalomethanes) as an annual average
Dibromochloromethane	0.06 mg/L or 60 ppb	
Chloroform	0.07 mg/L or 70 ppb	
Haloacetic acids		
Dichloroacetic acid	Zero	
Trichloroacetic acid	0.02 mg/L or 20 ppb	
Monochloroacetic acid	0.07 mg/L or 70 ppb	0.060 mg/L or 60 ppb (Sum of the concentrations of all five haloacetic acids) as an annual average
Bromoacetic acid	Regulated with this group but has no MCLG	
Dibromoacetic acid	Regulated with this group but has no MCLG	
Bromate	Zero	0.010 milligrams per liter (mg/L) or 10 parts per billion (ppb) as an annual average
Chlorite	0.80 mg/L or 800 ppb	1.0 mg/L or 1 part per million (ppm)

MCLs are set as close to the health goals as possible, considering cost, benefits and the ability of public water systems to detect and remove contaminants using suitable treatment technologies. States may set more stringent drinking water MCLGs and MCLs for disinfection byproducts than EPA.

The following drinking water regulations apply to disinfectants and disinfection byproducts:

- Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1 DBP) (December 16, 1998)
  The Stage 1 Disinfectants and Disinfection Byproducts Rule reduces exposure to disinfection byproducts for customers of community water systems and non-transient non-community systems, including those serving fewer than 10,000 people, that add a disinfectant to the drinking water during any part of the treatment process.
- Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBP) (December 15, 2005)
  Stage 2 DBP rule builds upon earlier rules that addressed disinfection byproducts to improve your drinking water quality and provide additional public health protection from disinfection byproducts.

The Safe Drinking Water Act requires EPA to periodically review the national primary drinking water regulation for each contaminant and revise the regulation, if appropriate, based on new scientific data. EPA will include the Disinfectants and Disinfection Byproducts rules in a future review cycle.

- More information on the Six Year Review of Drinking Water Standards

How will I know if disinfection byproducts are in my drinking water?
When routine monitoring indicates that disinfection byproduct levels are above the MCL, your water supplier must take steps to reduce the amount of disinfection byproductsso that they are below that level. Water suppliers must notify their customers as soon as practical, but no later than 30 days after the system learns of the violation. Additional actions, such as providing alternative drinking water supplies, may be required to prevent serious risks to public health.

- See EPA's public notification requirements for public water systems.

How will disinfection byproducts be removed from my drinking water?
Water systems that use surface water or ground water under the direct influence of surface water and use conventional filtration treatment are required to remove specified percentages of organic materials that may react with disinfectants to form disinfection byproducts, prior to disinfection. Other control strategies include modification of disinfection practices in a manner that still provides adequate protection against pathogens.

How do I learn more about my drinking water?
EPA strongly encourages people to learn more about their drinking water, and to support local efforts to protect the supply of safe drinking water and upgrade the community water system. Your water bill or telephone book's government listings are a good starting point for local information.

Contact your water utility. EPA requires all community water systems to prepare and deliver an annual consumer confidence report (CCR) (sometimes called a water quality report) for their customers by July 1 of each year. If your water provider is not a community water system, or if you have a private water supply, request a copy from a nearby community water system.

- The CCR summarizes information regarding sources used (i.e., rivers, lakes, reservoirs, or aquifers), detected contaminants, compliance and educational information.
- Some water suppliers have posted their annual reports on EPA's Web site.

Other EPA Web sites

- Find an answer or ask a question about drinking water contaminants on EPA's Question and Answer Web site or call EPA's Safe Drinking Water Hotline at (800) 426-4791
- EPA's Microbials and Disinfection Byproducts Web site
  - Stage 2 Disinfectant/Disinfection Byproducts Rule
  - Stage 1 Disinfectant/Disinfection Byproducts Rule

- EPA's Envirofacts ICR Web site
  - Disinfection Byproduct Information
  - Disinfection Byproducts: A Reference Resource
  - Disinfection Byproducts Health Effects
- EPA's Guidance Manual Alternative Disinfectants and Oxidants PDF
- EPA's Integrated Risk Information System
- EPA History of Drinking Water Treatment PDF
- EPA Drinking Water Treatment Fact Sheet PDF

Other Federal Departments and Agencies

- **Bromate**
  - Centers for Disease & Prevention Control's National Institute for Occupational Safety and Health International Chemical Safety Card for Sodium Bromate
- **Chlorite**
  - Agency for Toxic Substances and Disease Registry, ToxFAQs, Chlorine Dioxide and Chlorite
  - Agency for Toxic Substances and Disease Registry, Toxicological Profile, Chlorine Dioxide and Chlorite

Last updated on Monday, June 14, 2010.

Disinfection By-Products Trihalomethanes

Trihalomethanes (THM) are a group of four chemicals that are formed along with other disinfection by products when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water. The trihalomethanes are chloroform, bromodichloromethane, dibromochloromethane, and bromoform. EPA has published the Stage 1 Disinfectants and Disinfection Byproducts Rule to regulate total trihalomethanes (TTHM) at a maximum allowable annual average level of 80 parts per billion.

The four trihalomethanes (THM's) listed below:

Trichloromethane (chloroform)	$CHCl_3$
Dibromochloromethane	$CHClBr_2$
Bromodichloromethane	$CHCl_2Br$
Tribromomethane (bromoform)	$CHBr_3$

are all by-products of chlorination. They are Cancer Group B carcinogens (shown to cause cancer in laboratory animals). Trichloromethane (chloroform) is by far the most common in most water systems. Dibromochloromethane is the most serious cancer risk, (0.6 ug/l to cause a 10^{-6} cancer risk increase) followed in order by Bromoform (4 ug/l), and Chloroform (6 ug/l). Current regulations limit the concentration of these 4 chemicals added together (total trihalomethane or TTHM levels) to 100 ug/l.

Treatment

THM levels tend to increase with pH, temperature, time, and the level of "precursors" present. Precursors are organic material which reacts with chlorine to form THM's. One way to decrease THM's is to eliminate or reduce chlorination before the filters and to reduce precursors.. There are more

precursors present before filtration, so we want to reduce or eliminate the time chlorine is in contact with this water. If some oxidation before filtration is required, an alternative disinfectant like potassium permanganate or peroxide could be considered. Note that this may not be an option if prechlorination is necessary to achieve required CT values.

The EPA has indicated that the best available technology for THM control at treatment plants is removal of precursors through "enhanced coagulation". Enhanced coagulation refers to the process of optimizing the filtration process to maximize removal of precursors. Removal is improved by decreasing pH (to levels as low as 4 or 5), increasing the feed rate of coagulants, and possibly using ferric coagulants instead of alum.

For point of use systems at homes, activated carbon filters are the most effective treatment. Reverse osmosis units will also eliminate trihalomethanes.

Upcoming Regulations

The EPA is considering extensive revisions to the regulations covering disinfection by-products (DBP's). The limit for TTHM's would be lowered to 80 ug/l, and three additional categories of DBP's . This standard will replace the current standard of a maximum allowable annual average level of 100 parts per billion in December 2001 for large surface water public water systems. The standard will become effective for the first time in December 2003 for small surface water and all ground water systems

Haloacetic acids (monobromoacetic acid, dibromoacetic acid, monochloroacetic acid, dichloroacetic acid, and trichloroacetic acid) are byproducts of chlorination similar to THM's. An MCL for total haloacetic acids of 60 ug/l is expected. Excessive levels can cause nervous system and liver effects.

Chlorite is to be regulated with an MCL set at 1 mg/l. Excessive levels can cause hemolytic anemia.

Bromate, the other newly regulated DBP , is a concern only for systems using ozone. An MCL of 10 ug/l is expected. Excessive levels causes gastrointestinal, kidney, and hearing effects.

Stage 1 Disinfectants and Disinfection Byproducts Rule

More Comprehensive Information on Trihalomethanes

University of Florida
http://www.agen.ufl.edu/~wq/thm/

Canadian Website
http://www.watermill.com.au/chlorine.htm

Water Quality Help Guides
Glossary of Water Terminology

Note: ug/l is used as an abbreviation for micrograms/liter or parts per billion.

Note: THM's are not a major concern for treating groundwater wells with low organic matter content. THM's form through the partial oxidation of organic material, therefore it is a more important concern to