



Department of Energy
Office of Legacy Management

December 20, 2006

Ms. Wendy Naugle
Colorado Department of Public Health and Environment
Remedial Programs Section
Hazardous Materials & Waste Management Division
4300 Cherry Creek Drive
Denver, CO 80246-1530

Subject: Data Validation Package for the Durango, Colorado, Disposal and Processing Sites, June 2006

Dear Ms. Naugle:

Enclosed is a copy of the Data Validation Package for the water sampling conducted at the Durango, Colorado, Disposal and Processing sites in June 2006.

Water quality data was collected from 20 monitor wells and 7 surface water locations. Ground water sampling data from this sampling round did not indicate any unexpected movement of contaminated ground water.

If you have any question or comments, please call me at (970) 248-6073.

Sincerely,

Richard Bush
Site Manager

Enclosure

cc:

B. Von Till, NRC
W. Urbonas, San Juan Basin Health Department
Durango Public Library

cc w/o enclosures:

C. Carpenter, Stoller (e)
D. Miller, Stoller (e)
Project Files DUP 410.02 (Thru D. Roberts)

Data Validation Package

**June 2006
Durango, Colorado,
Disposal and Processing Sites**

September 2006



**U.S. Department of Energy
Office of Legacy Management**

*Work Performed by the S.M. Stoller Corporation under DOE Contract No. DE-AC01-02GJ79491
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Sampling Event Summary

Site: Durango, Colorado, Disposal and Processing Sites

Sampling Period: June 6-12, 2006

The *Long-Term Surveillance Plan (LTSP) for the Bodo Canyon Disposal Site, Durango, Colorado* (September 1996) requires annual monitoring to verify the performance of the disposal cell. Point-of-compliance wells 0607, 0612, 0621, and monitor wells 0605, 0608, 0618, and 0623 were sampled as specified in the plan.

The *Preliminary Final Ground Water Compliance Action Plan for the Durango, Colorado, UMTRA Project Site* (July 2003) requires annual monitoring of ground water and surface water from the mill tailings area to determine progress of the natural flushing process in meeting compliance standards. Ground water and surface water samples were collected at the Raffinate Ponds Area as a best management practice to monitor selenium and uranium concentrations.

Sampling and analysis was conducted as specified in the *FY 2006 Sampling Frequencies and Analyses* (October 2005) and the *Environmental Procedures Catalog (STO 6)*. The water level was measured at each sampled well.

For the ground water samples collected at the disposal site, the concentrations of the indicator parameters (molybdenum, selenium, uranium) were below their respective U.S. Environmental Protection Agency (EPA) ground water standard (40 CFR 192). The uranium concentration in well 0618 has been fluctuating since 2004 and is now 0.041 mg/L.

For the ground water samples collected at the processing site, EPA ground water standards for molybdenum and uranium were exceeded in samples collected from monitor wells listed in Table 1 on the following page.

Results from this sampling event are generally consistent with values previously obtained. In reviewing the time-concentration graphs included in this report, it is noted that the uranium concentration at locations 0879 and 0884 decreased where increases were previously observed.

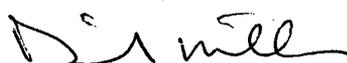
Surface water contaminant concentrations were compared to the values obtained at upgradient locations on the Animas River (0652) and South Creek (0588). The uranium concentration (0.026 mg/L) from location 0588 is an indicator of the quality of water entering the site. The surface water results for most processing site locations show contaminant concentrations near or below the method detection limit and below the respective upgradient values, which indicate that the natural flushing strategy is not adversely affecting the water quality in the Animas River.

Table 1. Durango Processing Site Wells Exceeding EPA Standards in June 2005

| Analyte | Standard ^a | Site Code ^b | Location | Concentration |
|------------|-----------------------|------------------------|----------|---------------|
| Cadmium | 0.01 | DUR01 | 0612 | 0.046 |
| Molybdenum | 0.1 | DUR01 | 0612 | 0.11 |
| Selenium | 0.01 | DUR01 | 0630 | 0.016 |
| | | | 0612 | 1.7 |
| | | | 0617 | 0.17 |
| | | | 0630 | 0.24 |
| | | | 0631 | 0.14 |
| | | | 0633 | 1.2 |
| | | | 0634 | 0.056 |
| Selenium | 0.01 | DUR02 | 0598 | 0.99 |
| | | | 0607 | 0.67 |
| | | | 0879 | 0.018 |
| | | | 0884 | 1.2 |
| Uranium | 0.044 | DUR02 | 0598 | 0.22 |
| | | | 0879 | 0.078 |
| | | | 0884 | 0.097 |

^a Standards are listed in 40 CFR 192.02 Table 1 to Subpart A; concentrations are in mg/L.

^b DUR01 = Mill Tailings Area; DUR02 = Raffinate Ponds Area.



 David Miller
 Site Lead, S.M. Stoller Corporation

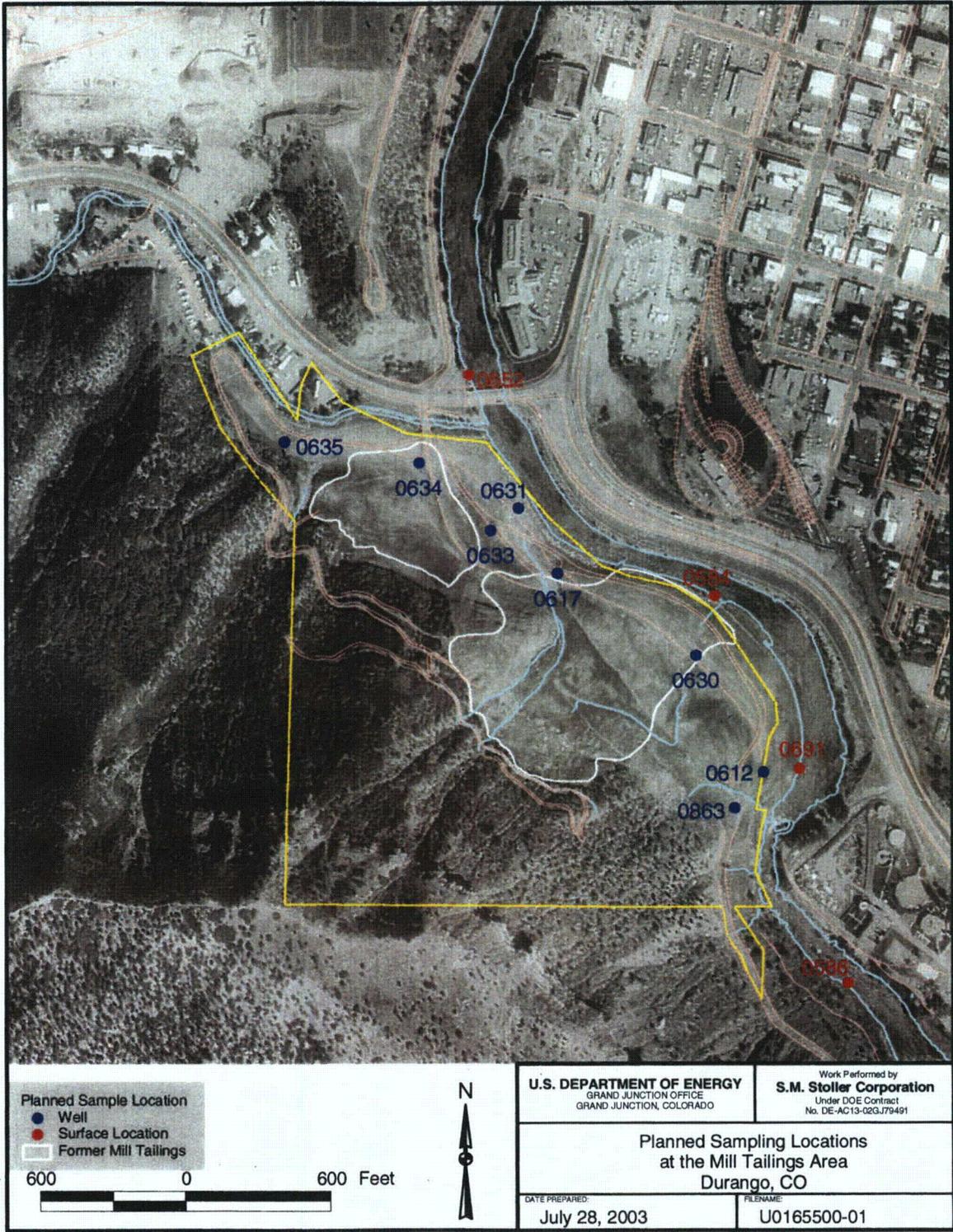
9/29/06

 Date



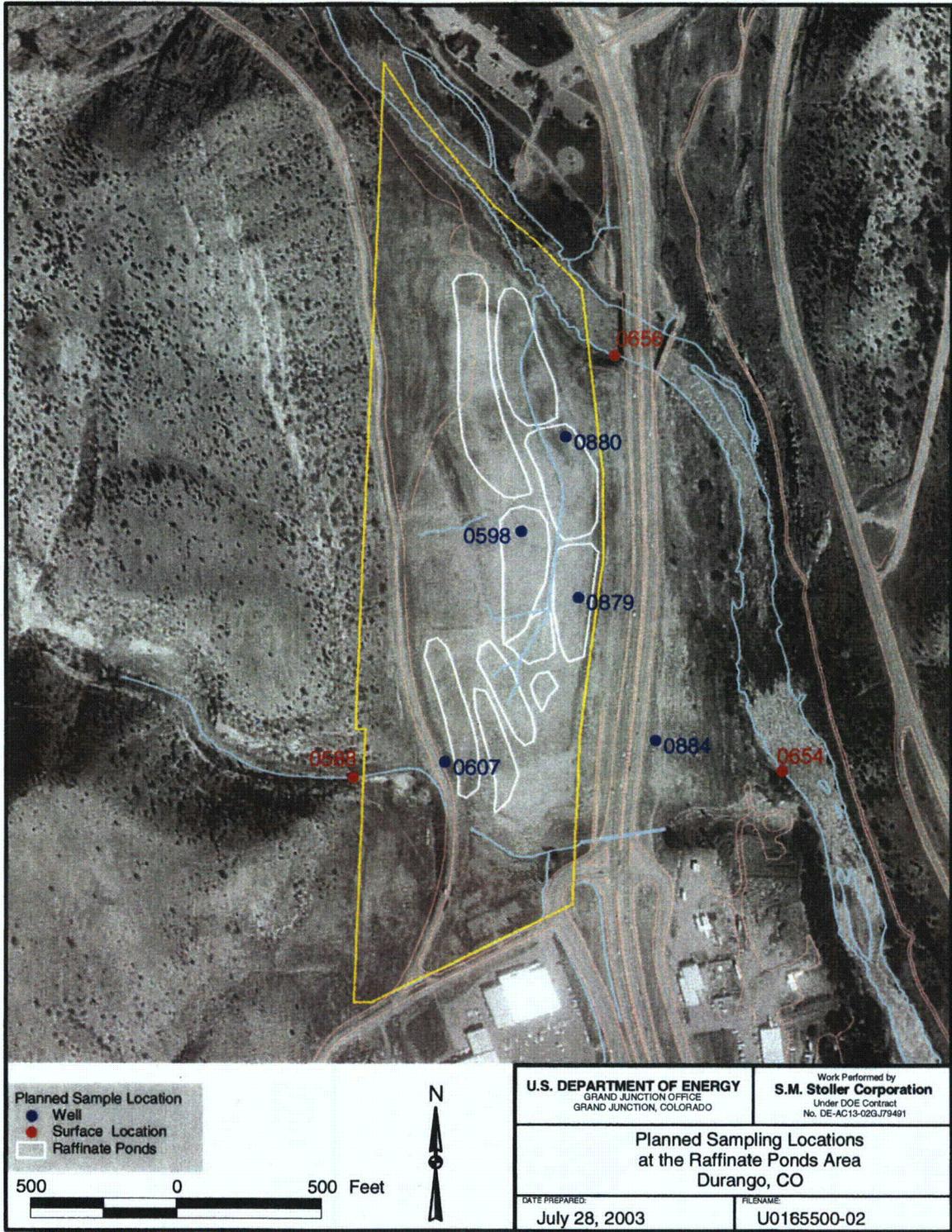
- Legend**
- Existing Well
 - Fence
 - Road
 - Site Boundary
 - Stream/Ditch
 - Disposal Cell
 - Water Body
 - River/Pond

Durango Disposal Site Sample Location Map



m:\ugw\511\000\613u\01655\U0165500.apr carverh 7/28/2003, 10:50

Durango Processing Site Mill Tailings Area Sample Location Map



m:\ugw\511\0006\13\U01655\U0165500.apr carverh 7/28/2003, 10:57

Durango Processing Site Raffinate Ponds Area Sample Location Map

Data Assessment Summary

Water Sampling Field Activities Verification Checklist

| | | | |
|--------------------------------|--------------------------|----------------------------------|------------------------|
| Project | <u>Durango, Colorado</u> | Date(s) of Water Sampling | <u>June 6-12, 2006</u> |
| Date(s) of Verification | <u>August 18, 2006</u> | Name of Verifier | <u>Steve Donovan</u> |

| | Response (Yes, No, NA) | Comments |
|--|---------------------------|---|
| 1. Is the SAP the primary document directing field procedures? List other documents, SOP's, instructions. | Yes | <u>Work Order Letter dated May 4, 2006</u> |
| 2. Were the sampling locations specified in the planning documents sampled? | Yes | |
| 3. Was a pre-trip calibration conducted as specified in the above named documents? | Yes | |
| 4. Was an operational check of the field equipment conducted twice daily? Did the operational checks meet criteria? | Yes Yes | |
| 5. Were the number and types (alkalinity, temperature, Ec, pH, turbidity, DO, ORP) of field measurements taken as specified? | Yes | <u>Alkalinity was not measured at location 0621, pH = 4.28.</u> |
| 6. Was the Category of the well documented? | Yes | |
| 7. Were the following conditions met when purging a Category I well: Was one pump/tubing volume purged prior to sampling? | Yes | |
| Did the water level stabilize prior to sampling? | Yes | |
| Did pH, specific conductance, and turbidity measurements stabilize prior to sampling? | Yes | |
| Was the flow rate less than 500 mL/min? | Yes | |
| If a portable pump was used, was there a 4-hour delay between pump installation and sampling? | NA | |

Water Sampling Field Activities Verification Checklist (continued)

| | Response (Yes, No, NA) | Comments |
|---|---------------------------|--|
| 8. Were the following conditions met when purging a Category II well: | | |
| Was the flow rate less than 500 mL/min? | Yes | |
| Was one pump/tubing volume removed prior to sampling? | Yes | |
| 9. Were duplicates taken at a frequency of one per 20 samples? | Yes | |
| 10. Were equipment blanks taken at a frequency of one per 20 samples that were collected with nondedicated equipment? | Yes | |
| 11. Were trip blanks prepared and included with each shipment of VOC samples? | NA | |
| 12. Were QC samples assigned a fictitious site identification number? | Yes | |
| Was the true identity of the samples recorded on the Quality Assurance Sample Log? | Yes | |
| 13. Were samples collected in the containers specified? | Yes | |
| 14. Were samples filtered and preserved as specified? | Yes | |
| 15. Were the number and types of samples collected as specified? | Yes | |
| 16. Were chain of custody records completed and was sample custody maintained? | Yes | |
| 17. Are field data sheets signed and dated by both team members? | No | Only one signature at three locations. |
| 18. Was all other pertinent information documented on the field data sheets? | Yes | |
| 19. Was the presence or absence of ice in the cooler documented at every sample location? | Yes | |
| 20. Were water levels measured at the locations specified in the planning documents? | Yes | |

Laboratory Performance Assessment

General Information

Report Number (RIN): 06050387
Sample Event: June 6-12, 2006
Site(s): Durango, Colorado
Laboratory: Paragon Analytics
Work Order No.: 0606078
Analysis: Metals and Inorganics
Validator: Steve Donivan
Review Date: July 28, 2006

This validation was performed according to the *Environmental Procedures Catalog* (STO 6), "Standard Practice for Validation of Laboratory Data," GT-9(P) (2004). See attached Data Validation Worksheets for supporting documentation on the data review and validation. All analyses were successfully completed. The samples were prepared and analyzed using accepted procedures based on methods specified by line item code, which are listed in Table 2.

Table 2. Analytes and Methods

| Analyte | Line Item Code | Prep Method | Analytical Method |
|----------------------------|----------------|--------------|-------------------|
| Cadmium, Cd | MET-A-026 | SW-846 3005A | SW-846 6020A |
| Chloride, Cl | MIS-A-039 | SW-846 9056 | SW-846 9056 |
| Iron, Fe | GJO-16 | SW-846 3005A | SW-846 6010B |
| Manganese, Mn | GJO-17 | SW-846 3005A | SW-846 6010B |
| Metals, Ca, K, Mg, Na | MET-A-020 | SW-846 3005A | SW-846 6010B |
| Molybdenum, Mo | GJO-15 | SW-846 3005A | SW-846 6020A |
| Selenium, Se | GJO-14 | SW-846 3005A | SW-846 6020A |
| Sulfate, SO ₄ | MIS-A-044 | SW-846 9056 | SW-846 9056 |
| Total Dissolve Solids, TDS | WCH-A-033 | MCAWW 160.1 | MCAWW 160.1 |
| Uranium, U | GJO-01 | SW-846 3005A | SW-846 6020A |

Data Qualifier Summary

Analytical results were qualified as listed in Table 3. Refer to the sections following Table 3 for an explanation of the data qualifiers applied.

Table 3. Data Qualifier Summary

| Sample Number | Location | Analyte(s) | Flag | Reason |
|---------------|--------------------|------------|------|---|
| 0606078-1 | 0584 | Cd | U | Less than 5 times the calibration blank |
| 0606078-1 | 0584 | Mo | U | Less than 5 times the calibration blank |
| 0606078-1 | 0584 | Se | U | Less than 5 times the calibration blank |
| 0606078-2 | 0586 | Cd | U | Less than 5 times the calibration blank |
| 0606078-2 | 0586 | Mo | U | Less than 5 times the calibration blank |
| 0606078-2 | 0586 | Se | U | Less than 5 times the calibration blank |
| 0606078-10 | 0652 | Cd | U | Less than 5 times the calibration blank |
| 0606078-10 | 0652 | Mo | U | Less than 5 times the calibration blank |
| 0606078-10 | 0652 | Se | U | Less than 5 times the calibration blank |
| 0606078-11 | 0691 | Mo | U | Less than 5 times the calibration blank |
| 0606078-11 | 0691 | Se | U | Less than 5 times the calibration blank |
| 0606078-12 | 0863 | Cd | U | Less than 5 times the calibration blank |
| 0606078-12 | 0863 | Mo | U | Less than 5 times the calibration blank |
| 0606078-13 | 2347 (0612 Dup) | Fe | U | Less than 5 times the calibration blank |
| 0606078-14 | 2348 (0607 Dup) | Fe | U | Less than 5 times the calibration blank |
| 0606078-14 | 2348 (0607 Dup) | Mo | U | Less than 5 times the calibration blank |
| 0606078-14 | 2348 (0607 Dup) | Se | U | Less than 5 times the calibration blank |
| 0606078-14 | 2348 (0607 Dup) | U | U | Less than 5 times the calibration blank |
| 0606078-15 | 0588 | Cd | U | Less than 5 times the calibration blank |
| 0606078-19 | 0654 | Mo | U | Less than 5 times the calibration blank |
| 0606078-19 | 0654 | Se | U | Less than 5 times the calibration blank |
| 0606078-20 | 0656 | Cd | U | Less than 5 times the calibration blank |
| 0606078-20 | 0656 | Mo | U | Less than 5 times the calibration blank |
| 0606078-20 | 0656 | Se | U | Less than 5 times the calibration blank |
| 0606078-22 | 0618 | Mo | U | Less than 5 times the calibration blank |
| 0606078-24 | 0607 | Fe | U | Less than 5 times the calibration blank |
| 0606078-24 | 0607 | Se | U | Less than 5 times the calibration blank |
| 0606078-24 | 0607 | U | U | Less than 5 times the calibration blank |
| 0606078-26 | 0605 | Se | U | Less than 5 times the calibration blank |
| 0606078-26 | 0605 | U | U | Less than 5 times the calibration blank |
| 0606078-28 | 0623 | Fe | U | Less than 5 times the calibration blank |
| 0606078-29 | 0608 | Mo | U | Less than 5 times the calibration blank |
| 0606078-30 | 2349 (Equip Blank) | Ca | U | Less than 5 times the calibration blank |
| 0606078-30 | 2349 (Equip Blank) | Mg | U | Less than 5 times the calibration blank |
| 0606078-30 | 2349 (Equip Blank) | Na | U | Less than 5 times the calibration blank |
| 0606078-30 | 2349 (Equip Blank) | U | U | Less than 5 times the calibration blank |

Sample Shipping/Receiving

Paragon Analytics in Fort Collins, Colorado, received 30 water samples on June 13, 2006, accompanied by a Chain of Custody (COC) form. The COC form was checked to confirm that all of the samples were listed on the form with sample collection dates and times, and that signatures

and dates were present indicating sample relinquishment and receipt. The sample submittal documents including the COC form and the sample tickets had no errors or omissions.

Preservation and Holding Times

The sample shipment was received cool and intact with temperatures within the iced cooler of 2.4 °C, which complies with requirements. All samples were received in the correct container types and had been preserved correctly for the requested analyses. All samples were analyzed within the applicable holding times.

Laboratory Instrument Calibration

Compliance requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing acceptable qualitative and quantitative data for all analytes. Initial calibration demonstrates that the instrument is capable of acceptable performance in the beginning of the analytical run and of producing a linear curve. Compliance requirements for continuing calibration checks are established to ensure that the instrument continues to be capable of producing acceptable qualitative and quantitative data. All laboratory instrument calibrations were performed correctly in accordance with the cited methods.

Method SW-846 6010B

Calibration for calcium, iron, magnesium, manganese, potassium, and sodium was performed on July 25, 2006, using three calibration standards resulting in calibration curve correlation coefficient (r^2) values greater than 0.995. The absolute values of the calibration curve intercepts were less than three times the method detection limit (MDL). Calibration and laboratory spike standards were prepared from independent sources. Initial and continuing calibration verification (CCV) checks were made at the required frequency resulting in ten CCVs. All calibration checks met the acceptance criteria. Reporting limit verification checks were made at the beginning and end of the analytical sequence to verify the linearity of the calibration curve near the practical quantitation limit and all results were within the acceptance range.

Method SW-846 6020A

Calibrations for cadmium, molybdenum and uranium were performed on July 27, 2006, and for selenium on July 13, 2006, and July 20, 2006. The initial calibrations were performed using six calibration standards resulting in calibration curves with r^2 values greater than 0.995. The absolute values of the intercept of the calibration curves were less than 3 times the MDL. Calibration and laboratory spike standards were prepared from independent sources. Initial and CCV checks were made at the required frequency resulting in seven CCVs for cadmium, molybdenum, and uranium, and 13 CCVs for selenium. All calibration checks met the acceptance criteria with the exception of molybdenum CCV1 and uranium CCV7. There were no sample results associated with these CCVs. A reporting limit verification check was made at the required frequency to verify the linearity of the calibration curve near the practical quantitation limit. The check results met the acceptance criteria for all analytes. The mass calibration and resolution was checked at the beginning of each analytical run in accordance with the procedure. Internal standard recoveries were stable and within acceptance ranges.

Method SW-846 9056

Initial calibrations were performed for chloride and sulfate using five calibration standards on June 12, 2006. The calibration curve r^2 values were greater than 0.995 and intercepts less than 3 times the MDL. Initial calibration and calibration check standards were prepared from independent sources. Initial and continuing calibration verification checks were made at the required frequency resulting in 24 CCVs. All calibration checks met the acceptance criteria.

Method EPA 160.1

No calibration requirements are associated with the determination of total dissolved solids.

Method and Calibration Blanks

Method blanks are analyzed to assess any contamination that may have occurred during sample preparation. Calibration blanks are analyzed to assess instrument contamination prior to and during sample analysis. All initial and continuing calibration blank (CCB) results were below the practical quantitation limits. All method blanks, initial and CCB results were below the practical quantitation limits for method 6010B and 6020A metals, chloride, and sulfate, with the exception of CCB1 for molybdenum and CCB7 for uranium. There were no sample results associated with these CCBs. In cases where blank concentration exceeded the instrument detection limit, the associated sample results are qualified with a "U" flag (not detected) when the sample result is greater than the MDL but less than 5 times the blank concentration.

Inductively Coupled Plasma (ICP) Interference Check Sample (ICS) Analysis

ICP interference check samples ICSA and ICSAB were analyzed at the required frequency to verify the instrumental interelement and background correction factors. All check sample results met the acceptance criteria.

Matrix Spike Analysis

Matrix spike and matrix spike duplicate samples (MS/MSD) were analyzed for method 6010B and 6020A metals as a measure of method performance in the sample matrix. The MS/MSD analyses resulted in acceptable recovery and precision for all analytes. The MS/MSD results for calcium and sodium were not evaluated because the analyte concentration in the unspiked sample was greater than four times the spike concentration.

Laboratory Replicate Analysis

The laboratory replicate sample results demonstrate acceptable laboratory precision. The relative percent difference (RPD) values for the laboratory replicate samples and matrix spike duplicate sample results for all analytes were less than 20 percent.

Laboratory Control Sample

Laboratory control samples (LCS) were analyzed at the correct frequency to provide information on the accuracy of the analytical method and the overall laboratory performance, including sample preparation. The LCS results were acceptable for all analysis categories.

Metals Serial Dilution

Serial dilutions were prepared and analyzed for calcium, magnesium, manganese, potassium, and sodium to monitor chemical or physical interferences in the sample matrix. All of the serial dilution results met the acceptance criteria.

Detection Limits/Dilutions

Samples were diluted in a consistent and acceptable manner when required. The samples were diluted prior to analysis of uranium to reduce interferences. The required detection limits were met for all analytes.

Completeness

Results were reported in the correct units for all analytes requested using contract-required laboratory qualifiers.

Chromatography Peak Integration

The integration of analyte peaks was reviewed for all ion chromatography data. There were no manual integrations performed and all peak integrations were satisfactory.

Electronic Data Deliverable (EDD) File

The revised EDD file arrived on June 30, 2006. The Sample Management System EDD validation module was used to verify that the EDD file was complete and in compliance with requirements. The module compares the contents of the file to the requested analyses to ensure all and only the requested data are delivered. The contents of the EDD were manually examined to verify that the sample results accurately reflect the data contained in the sample data package.

SAMPLE MANAGEMENT SYSTEM

General Data Validation Worksheet

Page 1 of 1

RIN: 6050387 Lab Code: PAR Validator: Steve Donivan Validation Date: 7/28/2006
 Site: DURANGO Analysis Type: Metals General Chem Rad Organics
 # of Samples: 30 Matrix: WATER Requested Analysis Completed: Yes

Chain of Custody
 Present: OK Signed: OK Dated: OK

Sample
 Integrity: OK Preservation: OK Temperature: OK

Exceptions

| Method | Analyte | Location | Ticket | Collection Date | Preparation Date | Analysis Date | Dilution Factor | Holding Time Met | Detection Limit Met |
|--------|---------|----------|--------|-----------------|------------------|---------------|-----------------|------------------|---------------------|
| | | | | | | | | | |

Comments: The reported detection limits are equal to or below contract requirements.
 All samples were analyzed within the applicable holding times.

SAMPLE MANAGEMENT SYSTEM
Metals Data Validation Worksheet

RIN: 06050387 Lab Code: PAR Date Due: 7/7/2006
 Matrix: Water Site Code: DUR Date Completed: 7/6/2006

| Analyte | Date Analyzed | CALIBRATION | | | | | | Method | LCS %R | MS %R | MSD %R | Dup. RPD | ICSAB %R | Serial Dil. %R | CRI %R |
|------------|---------------|-------------|--------|-----|-----|-----|-----|--------|--------|-------|--------|----------|----------|----------------|--------|
| | | Int. | R^2 | ICV | CCV | ICB | CCB | | | | | | | | |
| Cadmium | 06/27/2006 | 0.0000 | 1.0000 | OK | OK | OK | OK | | 103.0 | 104.0 | 1.0 | 98.0 | | 97.2 | |
| Cadmium | 06/27/2006 | | | | | | | | 101.0 | 103.0 | 3.0 | | | | |
| Calcium | 06/23/2006 | 0.0000 | 1.0000 | OK | OK | OK | OK | | 62.0 | 57.0 | 0.0 | 100.0 | 2.0 | 94.0 | |
| Calcium | 06/23/2006 | | | | | | | | | | | 103.0 | | 94.9 | |
| Iron | 06/23/2006 | 0.0000 | 1.0000 | OK | OK | OK | OK | | 90.0 | 93.0 | 3.0 | 100.0 | | 114.0 | |
| Iron | 06/23/2006 | | | | | | | | | | | 102.0 | | 91.0 | |
| Magnesium | 06/23/2006 | 0.0000 | 1.0000 | OK | OK | OK | OK | | 84.0 | 81.0 | 0.0 | 102.0 | 0.0 | 98.2 | |
| Magnesium | 06/23/2006 | | | | | | | | | | | 104.0 | | 99.5 | |
| Manganese | 06/23/2006 | 0.0000 | 1.0000 | OK | OK | OK | OK | | 93.0 | 91.0 | 1.0 | 90.0 | 7.0 | 105.0 | |
| Manganese | 06/23/2006 | | | | | | | | | | | 91.0 | 0.0 | | |
| Molybdenum | 06/27/2006 | 0.0000 | 1.0000 | OK | OK | OK | OK | | 108.0 | 113.0 | 4.0 | 113.0 | | 128.0 | |
| Molybdenum | 06/27/2006 | | | | | | | | 112.0 | 117.0 | 4.0 | | | | |
| Potassium | 06/23/2006 | 0.0000 | 1.0000 | OK | OK | OK | OK | | 112.0 | 109.0 | 2.0 | | 6.0 | 89.2 | |
| Selenium | 06/13/2006 | 0.0000 | 1.0000 | OK | OK | OK | OK | OK | 97.0 | | | 98.0 | | 92.1 | |
| Selenium | 06/28/2006 | 0.0000 | 1.0000 | OK | OK | OK | OK | OK | 93.0 | 97.0 | 98.0 | 2.0 | 101.0 | 86.4 | |
| Sodium | 06/23/2006 | 0.0000 | 1.0000 | OK | OK | OK | OK | | | 53.0 | 62.0 | 1.0 | 5.0 | 89.9 | |
| Uranium | 06/27/2006 | 0.0000 | 0.9999 | OK | OK | OK | OK | | 115.0 | 116.0 | 1.0 | 109.0 | | 90.0 | |
| Uranium | 06/27/2006 | | | | | | | | 115.0 | 119.0 | 3.0 | | | | |

Comments: _____

SAMPLE MANAGEMENT SYSTEM
Inorganics Data Validation Worksheet

RIN: 06050387 Lab Code: PAR Date Due: 7/7/2006
 Matrix: Water Site Code: DUR Date Completed: 7/6/2006

| Analyte | Date Analyzed | CALIBRATION | | | | | | Method Blank | LCS %R | MS %R | MSD %R | DUP RPD | Serial Dil. %R |
|------------------------|---------------|-------------|----------------|-----|-----|-----|-----|-----------------|-----------|----------|-----------|------------|-------------------|
| | | Int. | R ² | ICV | CCV | ICB | CCB | | | | | | |
| Chloride | 06/14/2006 | 0 | 1.0000 | OK | OK | OK | OK | 95.0 | | | | | |
| Chloride | 06/14/2006 | | | | | | OK | 101.0 | | | | | |
| Sulfate | 06/12/2006 | 0 | 1.0000 | OK | OK | OK | OK | 100.0 | | | | | |
| Sulfate | 06/14/2006 | | | | | OK | OK | 102.0 | | | | | |
| Sulfate | 06/14/2006 | | | | | | OK | 105.0 | | | | | |
| Total Dissolved Solids | 06/13/2006 | | | | | | OK | 98.0 | | | | | |
| Total Dissolved Solids | 06/14/2006 | | | | | | OK | 103.0 | | | | | |
| Total Dissolved Solids | 06/15/2006 | | | | | | OK | 106.0 | | | 1.00 | | |

Comments: _____

Sampling Quality Control Assessment

Sampling Protocol

Results from all monitor wells were qualified with an "F" flag in the database indicating that the wells were purged and sampled using the low-flow method.

The drawdown specification in the low-flow procedure was exceeded at wells 0607-02, 0607-03, 0612, 0623, 0634, and 0635, because of the low yield of these wells. Therefore, results from these wells were qualified with a "Q" flag in the database indicating that the data is qualitative because of the sampling technique.

Equipment Blank Assessment

One equipment blank was collected for the locations sampled using non-dedicated equipment. The results for the equipment blank that was collected during this sampling event were all less than 10 times the required detection limits and are acceptable.

Field Duplicate Assessment

Field duplicate samples are collected and analyzed as an indication of overall precision of the measurement process. The precision observed includes both field and laboratory precision and has more variability than laboratory duplicates which measure only laboratory performance. Duplicate samples were collected from wells 0607-03 and 0612-01. The duplicate results met the EPA recommended laboratory duplicate criteria of having an RPD of less than 20 percent for results that are greater than 5 times the practical quantitation limit and are acceptable.

Certification

All laboratory analytical quality control criteria were met except as qualified in this report. The data qualifiers listed on the SEEPro database reports are defined on the last page of each report. All data in this package are considered validated and available for use.

Laboratory Coordinator: Steve Donivan 9-27-2006
Steve Donivan Date

Data Validation Lead: Steve Donivan 9-27-2006
Steve Donivan Date

Attachment 1
Assessment of Anomalous Data

Minimums and Maximums Report

Minimums and Maximums Report

The Minimums and Maximums Report is generated by a data validation application used to query the SEEPro database. The application compares the new data set with historical data and lists all new data that fall outside the historical data range. Data listed in the report require further review if:

- (1) Identified low concentrations are not the result of improved detection limits.
- (2) The concentration detected is not within 50 percent of historical minimum or maximum values.
- (3) There were five or more historical sample results for comparison.

Eight results required further review based on the criteria above and are listed on the Anomalous Data Review Checksheet. There were no laboratory errors detected that would account for the anomalous values observed.

The contaminant concentrations that had been previously noted as anomalously high or low in 2005 returned to between the historical low and high values with the following exception: the manganese concentration at location 0623 previously noted as anomalously low was reported below the method detection limit indicating continued reduced manganese concentration in that well.

Data Validation Minimums and Maximums Report - No Field Parameters
 Laboratory: PARAGON (Fort Collins, CO)
 RIN: 06050387
 Comparison: History Begin Date: 1/6/1996
 Report Date: 8/18/2006

| Site Code | Location Code | Sample Date | Analyte | Current | | | Historical Maximum | | | Historical Minimum | | | Count | |
|-----------|---------------|-------------|------------------------|----------|------------|---|--------------------|------------|----------|--------------------|------------|----|-------|----------------|
| | | | | Result | Qualifiers | | Result | Qualifiers | | Result | Qualifiers | | N | N Below Detect |
| DUR01 | 0584 | 06/07/2006 | Selenium | 0.000039 | B | U | 0.0015 | U | 0.000096 | B | | 11 | 6 | |
| DUR01 | 0612 | 06/07/2006 | Calcium | 370 | | F | 365 | | 268 | | | 10 | 0 | |
| DUR01 | 0612 | 06/07/2006 | Potassium | 42 | | F | 32.7 | | 27 | | | 11 | 0 | |
| DUR01 | 0612 | 06/07/2006 | Sodium | 550 | | F | 803 | | 611 | E | JF | 12 | 0 | |
| DUR01 | 0617 | 06/07/2006 | Manganese | 0.6 | | F | 0.0594 | L | 0.0015 | B | F | 16 | 0 | |
| DUR01 | 0617 | 06/07/2006 | Selenium | 0.0063 | | F | 0.072 | | 0.0406 | | | 16 | 0 | |
| DUR01 | 0631 | 06/07/2006 | Selenium | 0.00012 | | F | 0.0035 | B | 0.0002 | U | F | 15 | 8 | |
| DUR01 | 0631 | 06/07/2006 | Sulfate | 240 | | F | 1600 | | 255 | | F | 15 | 0 | |
| DUR01 | 0631 | 06/07/2006 | Total Dissolved Solids | 710 | | F | 3090 | | 908 | | | 11 | 0 | |
| DUR01 | 0631 | 06/07/2006 | Uranium | 0.14 | | F | 0.63 | | 0.168 | | F | 15 | 0 | |
| DUR01 | 0633 | 06/06/2006 | Manganese | 0.98 | | F | 0.285 | | 0.005 | B | F | 16 | 0 | |
| DUR01 | 0633 | 06/06/2006 | Selenium | 0.0082 | | F | 0.123 | | 0.0215 | | F | 16 | 0 | |
| DUR01 | 0652 | 06/07/2006 | Selenium | 0.000044 | B | U | 0.0015 | U | 0.000096 | B | | 18 | 12 | |
| DUR01 | 0691 | 06/07/2006 | Selenium | 0.000044 | B | U | 0.0015 | U | 0.000097 | B | | 15 | 10 | |
| DUR02 | 0594 | 06/07/2006 | Total Dissolved Solids | 2300 | | F | 6480 | | 2680 | | | 5 | 0 | |
| DUR02 | 0598 | 06/06/2006 | Total Dissolved Solids | 7700 | | F | 12000 | | 9000 | | F | 10 | 0 | |
| DUR02 | 0654 | 06/07/2006 | Selenium | 0.000038 | B | U | 0.0015 | U | 0.0001 | | | 15 | 9 | |
| DUR02 | 0656 | 06/07/2006 | Selenium | 0.000039 | B | U | 0.0015 | U | 0.000082 | B | | 14 | 8 | |
| DUR02 | 0879 | 06/06/2006 | Total Dissolved Solids | 9700 | | F | 9310 | L | 7490 | | F | 5 | 0 | |
| DUR02 | 0879 | 06/06/2006 | Uranium | 0.078 | | F | 0.4 | F | 0.0994 | | F | 9 | 0 | |

Data Validation Minimums and Maximums Report - No Field Parameters

Laboratory: PARAGON (Fort Collins, CO)

RIN: 06050387

Comparison: History Begin Date: 1/6/1996

Report Date: 8/18/2006

| Site Code | Location Code | Sample Date | Analyte | Current | | | Historical Maximum | | | Historical Minimum | | | Count | |
|-----------|---------------|-------------|-----------|----------|------------|------|--------------------|------------|------|--------------------|------------|------|-------|----------------|
| | | | | Result | Qualifiers | | Result | Qualifiers | | Result | Qualifiers | | N | N Below Detect |
| | | | | | Lab | Data | | Lab | Data | | Lab | Data | | |
| DUR03 | 0605 | 06/08/2006 | Sodium | 260 | | F | 408 | | | 270 | | F | 11 | 0 |
| DUR03 | 0607 | 06/08/2006 | Chloride | 13 | | FQ | 30.3 | | F | 14 | | F | 9 | 0 |
| DUR03 | 0607 | 06/08/2006 | Potassium | 9.9 | | FQ | 9.6 | | F | 4.32 | | F | 9 | 0 |
| DUR03 | 0607 | 06/08/2006 | Potassium | 10 | | FQ | 9.6 | | F | 4.32 | | F | 9 | 0 |
| DUR03 | 0607 | 06/08/2006 | Selenium | 0.000062 | B | UFQ | 0.001 | U | F | 0.000072 | B | F | 9 | 7 |
| DUR03 | 0607 | 06/08/2006 | Selenium | 0.000041 | B | UFQ | 0.001 | U | F | 0.000072 | B | F | 9 | 7 |
| DUR03 | 0608 | 06/08/2006 | Iron | 3.4 | | F | 0.073 | | UF | 0.001 | UE | JF | 9 | 7 |
| DUR03 | 0608 | 06/08/2006 | Magnesium | 250 | | F | 199 | | | 110 | | F | 9 | 0 |
| DUR03 | 0608 | 06/08/2006 | Manganese | 0.34 | | F | 0.0027 | B | F | 0.0001 | U | F | 9 | 5 |
| DUR03 | 0608 | 06/08/2006 | Selenium | 0.00021 | | F | 0.01 | | | 0.0032 | | F | 9 | 0 |
| DUR03 | 0608 | 06/08/2006 | Uranium | 0.0024 | | F | 0.01 | | | 0.0029 | | F | 9 | 1 |
| DUR03 | 0612 | 06/08/2006 | Chloride | 56 | | FQ | 54.1 | | L | 34.3 | | L | 10 | 0 |
| DUR03 | 0612 | 06/08/2006 | Manganese | 0.0089 | B | FQ | 0.0284 | | Q | 0.01 | | FQ | 10 | 0 |
| DUR03 | 0621 | 06/08/2006 | Iron | 150 | | F | 374 | | F | 164 | E | JF | 9 | 0 |
| DUR03 | 0621 | 06/08/2006 | Manganese | 2.9 | | F | 5.59 | | F | 3.23 | | F | 9 | 0 |
| DUR03 | 0621 | 06/08/2006 | Potassium | 17 | | F | 15 | | F | 10.5 | | F | 9 | 0 |
| DUR03 | 0623 | 06/08/2006 | Magnesium | 130 | | FQ | 245 | | L | 170 | | FQ | 11 | 0 |
| DUR03 | 0623 | 06/08/2006 | Manganese | 0.00023 | U | FQ | 0.483 | | L | 0.014 | | Q | 11 | 0 |
| DUR03 | 0623 | 06/08/2006 | Potassium | 9.8 | | FQ | 4.4 | | Q | 2.1 | | FQ | 11 | 0 |
| DUR03 | 0623 | 06/08/2006 | Selenium | 0.0039 | | FQ | 0.0037 | | Q | 0.0001 | U | L | 11 | 9 |

Data Validation Minimums and Maximums Report - No Field Parameters

Laboratory: PARAGON (Fort Collins, CO)

RIN: 06050387

Comparison: History Begin Date: 1/6/1996

Report Date: 8/18/2006

| Site Code | Location Code | Sample Date | Analyte | Current | | | Historical Maximum | | | Historical Minimum | | | Count | |
|-----------|---------------|-------------|------------------------|---------|------------|--|--------------------|------------|--|--------------------|------------|---|-------|----------------|
| | | | | Result | Qualifiers | | Result | Qualifiers | | Result | Qualifiers | | N | N Below Detect |
| DUR03 | 0623 | 06/08/2006 | Sodium | 79 | FQ | | 166 | L | | 95 | FQ | | 11 | 0 |
| DUR03 | 0623 | 06/08/2006 | Sulfate | 730 | FQ | | 1520 | QF | | 920 | FQ | | 11 | 0 |
| DUR03 | 0623 | 06/08/2006 | Total Dissolved Solids | 1500 | FQ | | 2690 | L | | 1800 | FQ | | 10 | 0 |
| DUR03 | 0623 | 06/08/2006 | Uranium | 0.0061 | FQ | | 0.0041 | Q | | 0.00099 | B | L | 11 | 1 |

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- P > 25% difference in detected pesticide or Aroclor concentrations between 2 columns.
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X,Y,Z Laboratory defined qualifier, see case narrative.

DATA QUALIFIERS:

- F Low flow sampling method used.
- L Less than 3 bore volumes purged prior to sampling.
- U Parameter analyzed for but was not detected.
- G Possible grout contamination, pH > 9.
- Q Qualitative result due to sampling technique.
- X Location is undefined.
- J Estimated value.
- R Unusable result.

Anomalous Data Review Checksheet

Attachment 2
Data Presentation

Ground Water Quality Data

Ground Water Quality Data by Location (USEE100) FOR SITE DUR01, Durango Mill Tailings Process Site
 REPORT DATE: 9/7/2006
 Location: 0612 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft.BLS) | | Result | Qualifiers | | | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|---------|--------|------------|------|----|-----------------|-------------|
| | | | | | | | Lab | Data | QA | | |
| Alkalinity, Total (As CaCO3) | mg/L | 06/07/2006 | 0001 | 37.41 | - 57.41 | 466 | | F | # | | |
| Cadmium | mg/L | 06/07/2006 | 0001 | 37.41 | - 57.41 | 0.046 | | F | # | .0001 | |
| Calcium | mg/L | 06/07/2006 | 0002 | 37.41 | - 57.41 | 370 | | F | # | .011 | |
| Chloride | mg/L | 06/07/2006 | 0002 | 37.41 | - 57.41 | 380 | | F | # | 10 | |
| Iron | mg/L | 06/07/2006 | 0002 | 37.41 | - 57.41 | 0.033 | B | UF | # | .027 | |
| Magnesium | mg/L | 06/07/2006 | 0002 | 37.41 | - 57.41 | 180 | | F | # | .014 | |
| Manganese | mg/L | 06/07/2006 | 0001 | 37.41 | - 57.41 | 5.7 | | F | # | .00069 | |
| Manganese | mg/L | 06/07/2006 | 0002 | 37.41 | - 57.41 | 5.4 | | F | # | .00046 | |
| Molybdenum | mg/L | 06/07/2006 | 0001 | 37.41 | - 57.41 | 0.11 | | F | # | .001 | |
| Molybdenum | mg/L | 06/07/2006 | 0002 | 37.41 | - 57.41 | 0.1 | | F | # | .001 | |
| Oxidation Reduction Potential | mV | 06/07/2006 | N001 | 37.41 | - 57.41 | 56.9 | | F | # | | |
| pH | s.u. | 06/07/2006 | N001 | 37.41 | - 57.41 | 6.65 | | F | # | | |
| Potassium | mg/L | 06/07/2006 | 0002 | 37.41 | - 57.41 | 42 | | F | # | .15 | |
| Selenium | mg/L | 06/07/2006 | 0001 | 37.41 | - 57.41 | 0.0039 | | F | # | .00002 | |
| Selenium | mg/L | 06/07/2006 | 0002 | 37.41 | - 57.41 | 0.0036 | | F | # | .00002 | |
| Sodium | mg/L | 06/07/2006 | 0002 | 37.41 | - 57.41 | 550 | | F | # | .18 | |
| Specific Conductance | umhos/cm | 06/07/2006 | N001 | 37.41 | - 57.41 | 4997 | | F | # | | |
| Sulfate | mg/L | 06/07/2006 | 0001 | 37.41 | - 57.41 | 2200 | | F | # | 50 | |
| Sulfate | mg/L | 06/07/2006 | 0002 | 37.41 | - 57.41 | 2100 | | F | # | 25 | |
| Temperature | C | 06/07/2006 | N001 | 37.41 | - 57.41 | 13.48 | | F | # | | |
| Total Dissolved Solids | mg/L | 06/07/2006 | 0001 | 37.41 | - 57.41 | 4300 | | F | # | 80 | |
| Total Dissolved Solids | mg/L | 06/07/2006 | 0002 | 37.41 | - 57.41 | 4400 | | F | # | 80 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR01, Durango Mill Tailings Process Site
 REPORT DATE: 9/7/2006
 Location: 0612 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (FT BLS) | Result | Lab | Qualifiers Data | QA | Detection Limit | Uncertainty |
|-----------|-------|-------------|-----------|----------------------|--------|-----|-----------------|----|-----------------|-------------|
| Turbidity | NTU | 06/07/2006 | N001 | 37.41 - 57.41 | 5.35 | | F | # | | |
| Uranium | mg/L | 06/07/2006 | 0001 | 37.41 - 57.41 | 1.7 | | F | # | .00017 | |
| Uranium | mg/L | 06/07/2006 | 0002 | 37.41 - 57.41 | 1.7 | | F | # | .00017 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR01, Durango Mill Tailings Process Site
 REPORT DATE: 9/7/2006
 Location: 0617 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft BLS) | Result | Lab | Qualifiers Data | QA | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|--------|-----|-----------------|----|-----------------|-------------|
| Alkalinity, Total (As CaCO3) | mg/L | 06/07/2006 | 0001 | 14 - 29 | 421 | | F | # | | |
| Manganese | mg/L | 06/07/2006 | 0001 | 14 - 29 | 0.6 | | F | # | .00046 | |
| Molybdenum | mg/L | 06/07/2006 | 0001 | 14 - 29 | 0.0021 | | F | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/07/2006 | N001 | 14 - 29 | -76 | | F | # | | |
| pH | s.u. | 06/07/2006 | N001 | 14 - 29 | 6.83 | | F | # | | |
| Selenium | mg/L | 06/07/2006 | 0001 | 14 - 29 | 0.0063 | | F | # | .00002 | |
| Specific Conductance | umhos/cm | 06/07/2006 | N001 | 14 - 29 | 3637 | | F | # | | |
| Sulfate | mg/L | 06/07/2006 | 0001 | 14 - 29 | 2100 | | F | # | 25 | |
| Temperature | C | 06/07/2006 | N001 | 14 - 29 | 12.81 | | F | # | | |
| Total Dissolved Solids | mg/L | 06/07/2006 | 0001 | 14 - 29 | 3500 | | F | # | 80 | |
| Turbidity | NTU | 06/07/2006 | N001 | 14 - 29 | 2.59 | | F | # | | |
| Uranium | mg/L | 06/07/2006 | 0001 | 14 - 29 | 0.17 | | F | # | .000017 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR01, Durango Mill Tailings Process Site
 REPORT DATE: 9/7/2006
 Location: 0630 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft:BLS) | | Result | Qualifiers | | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|--------|--------|------------|---------|-----------------|-------------|
| | | | | | | | Lab | Data QA | | |
| Alkalinity, Total (As CaCO3) | mg/L | 06/07/2006 | 0001 | 28.3 | - 38.3 | 297 | F | # | | |
| Manganese | mg/L | 06/07/2006 | 0001 | 28.3 | - 38.3 | 0.78 | F | # | .00046 | |
| Molybdenum | mg/L | 06/07/2006 | 0001 | 28.3 | - 38.3 | 0.0043 | F | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/07/2006 | N001 | 28.3 | - 38.3 | -7.3 | F | # | | |
| pH | s.u. | 06/07/2006 | N001 | 28.3 | - 38.3 | 6.88 | F | # | | |
| Selenium | mg/L | 06/07/2006 | 0001 | 28.3 | - 38.3 | 0.016 | F | # | .00002 | |
| Specific Conductance | umhos/cm | 06/07/2006 | N001 | 28.3 | - 38.3 | 3385 | F | # | | |
| Sulfate | mg/L | 06/07/2006 | 0001 | 28.3 | - 38.3 | 1900 | F | # | 25 | |
| Temperature | C | 06/07/2006 | N001 | 28.3 | - 38.3 | 12.47 | F | # | | |
| Total Dissolved Solids | mg/L | 06/07/2006 | 0001 | 28.3 | - 38.3 | 3300 | F | # | 80 | |
| Turbidity | NTU | 06/07/2006 | N001 | 28.3 | - 38.3 | 2.27 | F | # | | |
| Uranium | mg/L | 06/07/2006 | 0001 | 28.3 | - 38.3 | 0.24 | F | # | .000017 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR01, Durango Mill Tailings Process Site
 REPORT DATE: 9/7/2006
 Location: 0631 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft BLS) | | Result | Lab | Qualifiers Data | QA | Detection Limit | Uncertainty |
|-------------------------------|-----------|-------------|-----------|----------------------|------|---------|-----|-----------------|----|-----------------|-------------|
| Alkalinity, Total (As CaCO3) | mg/L | 06/07/2006 | 0001 | 6 | - 16 | 310 | | F | # | | |
| Manganese | mg/L | 06/07/2006 | 0001 | 6 | - 16 | 0.22 | | F | # | .00023 | |
| Molybdenum | mg/L | 06/07/2006 | 0001 | 6 | - 16 | 0.0073 | | F | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/07/2006 | N001 | 6 | - 16 | -30.6 | | F | # | | |
| pH | s.u. | 06/07/2006 | N001 | 6 | - 16 | 7.14 | | F | # | | |
| Selenium | mg/L | 06/07/2006 | 0001 | 6 | - 16 | 0.00012 | | F | # | .00002 | |
| Specific Conductance | umhos /cm | 06/07/2006 | N001 | 6 | - 16 | 1096 | | F | # | | |
| Sulfate | mg/L | 06/07/2006 | 0001 | 6 | - 16 | 240 | | F | # | 10 | |
| Temperature | C | 06/07/2006 | N001 | 6 | - 16 | 14.02 | | F | # | | |
| Total Dissolved Solids | mg/L | 06/07/2006 | 0001 | 6 | - 16 | 710 | | F | # | 20 | |
| Turbidity | NTU | 06/07/2006 | N001 | 6 | - 16 | 0.58 | | F | # | | |
| Uranium | mg/L | 06/07/2006 | 0001 | 6 | - 16 | 0.14 | | F | # | .000017 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR01, Durango Mill Tailings Process Site
 REPORT DATE: 9/7/2006
 Location: 0633 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft BLS) | Result | Lab | Qualifiers Data | QA | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|--------|-----|-----------------|----|-----------------|-------------|
| Alkalinity, Total (As CaCO3) | mg/L | 06/06/2006 | 0001 | 4 - 14 | 638 | | F | # | | |
| Manganese | mg/L | 06/06/2006 | 0001 | 4 - 14 | 0.98 | | F | # | .00069 | |
| Molybdenum | mg/L | 06/06/2006 | 0001 | 4 - 14 | 0.0017 | | F | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/06/2006 | N001 | 4 - 14 | -140.8 | | F | # | | |
| pH | s.u. | 06/06/2006 | N001 | 4 - 14 | 6.71 | | F | # | | |
| Selenium | mg/L | 06/06/2006 | 0001 | 4 - 14 | 0.0082 | | F | # | .00002 | |
| Specific Conductance | umhos/cm | 06/06/2006 | N001 | 4 - 14 | 6185 | | F | # | | |
| Sulfate | mg/L | 06/06/2006 | 0001 | 4 - 14 | 3600 | | F | # | 50 | |
| Temperature | C | 06/06/2006 | N001 | 4 - 14 | 15.27 | | F | # | | |
| Total Dissolved Solids | mg/L | 06/06/2006 | 0001 | 4 - 14 | 6300 | | F | # | 200 | |
| Uranium | mg/L | 06/06/2006 | 0001 | 4 - 14 | 1.2 | | F | # | .00017 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR01, Durango Mill Tailings Process Site

REPORT DATE: 9/7/2006

Location: 0634 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft BLS) | Result | Lab | Qualifiers Data | QA | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|---------|-----|-----------------|----|-----------------|-------------|
| Alkalinity, Total (As CaCO3) | mg/L | 06/06/2006 | 0001 | 8 - 18 | 475 | | FQ | # | | |
| Manganese | mg/L | 06/06/2006 | 0001 | 8 - 18 | 0.17 | | FQ | # | .00069 | |
| Molybdenum | mg/L | 06/06/2006 | 0001 | 8 - 18 | 0.0018 | | FQ | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/06/2006 | N001 | 8 - 18 | 19.2 | | FQ | # | | |
| pH | s.u. | 06/06/2006 | N001 | 8 - 18 | 6.89 | | FQ | # | | |
| Selenium | mg/L | 06/06/2006 | 0001 | 8 - 18 | 0.00002 | U | FQ | # | .00002 | |
| Specific Conductance | umhos/cm | 06/06/2006 | N001 | 8 - 18 | 3975 | | FQ | # | | |
| Sulfate | mg/L | 06/06/2006 | 0001 | 8 - 18 | 2200 | | FQ | # | 25 | |
| Temperature | C | 06/06/2006 | N001 | 8 - 18 | 16.04 | | FQ | # | | |
| Total Dissolved Solids | mg/L | 06/06/2006 | 0001 | 8 - 18 | 3800 | | FQ | # | 80 | |
| Turbidity | NTU | 06/06/2006 | N001 | 8 - 18 | 8.12 | | FQ | # | | |
| Uranium | mg/L | 06/06/2006 | 0001 | 8 - 18 | 0.056 | | FQ | # | .0000034 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR01, Durango Mill Tailings Process Site
 REPORT DATE: 9/7/2006
 Location: 0635 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft BLS) | Result | Lab | Qualifiers Data | QA | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|---------|-----|-----------------|----|-----------------|-------------|
| Alkalinity, Total (As CaCO3) | mg/L | 06/06/2006 | 0001 | 5.5 - 15.5 | 448 | | FQ | # | | |
| Manganese | mg/L | 06/06/2006 | 0001 | 5.5 - 15.5 | 0.32 | | FQ | # | .00046 | |
| Molybdenum | mg/L | 06/06/2006 | 0001 | 5.5 - 15.5 | 0.0032 | | FQ | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/06/2006 | N001 | 5.5 - 15.5 | -88.5 | | FQ | # | | |
| pH | s.u. | 06/06/2006 | N001 | 5.5 - 15.5 | 6.86 | | FQ | # | | |
| Selenium | mg/L | 06/06/2006 | 0001 | 5.5 - 15.5 | 0.00092 | | FQ | # | .00002 | |
| Specific Conductance | umhos/cm | 06/06/2006 | N001 | 5.5 - 15.5 | 2669 | | FQ | # | | |
| Sulfate | mg/L | 06/06/2006 | 0001 | 5.5 - 15.5 | 1300 | | FQ | # | 25 | |
| Temperature | C | 06/06/2006 | N001 | 5.5 - 15.5 | 14.39 | | FQ | # | | |
| Total Dissolved Solids | mg/L | 06/06/2006 | 0001 | 5.5 - 15.5 | 2400 | | FQ | # | 40 | |
| Turbidity | NTU | 06/06/2006 | N001 | 5.5 - 15.5 | 5.54 | | FQ | # | | |
| Uranium | mg/L | 06/06/2006 | 0001 | 5.5 - 15.5 | 0.01 | | FQ | # | .0000034 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR01, Durango Mill Tailings Process Site
 REPORT DATE: 9/7/2006
 Location: 0863 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft-BLS) | Result | Lab | Qualifiers Data | QA | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|----------|-----|-----------------|----|-----------------|-------------|
| Alkalinity, Total (As CaCO3) | mg/L | 06/07/2006 | 0001 | 58 - 67.5 | 530 | | F | # | | |
| Cadmium | mg/L | 06/07/2006 | 0001 | 58 - 67.5 | 0.000092 | B | UF | # | .00002 | |
| Manganese | mg/L | 06/07/2006 | 0001 | 58 - 67.5 | 0.11 | | F | # | .00046 | |
| Molybdenum | mg/L | 06/07/2006 | 0001 | 58 - 67.5 | 0.00098 | B | UF | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/07/2006 | N001 | 58 - 67.5 | -68.2 | | F | # | | |
| pH | s.u. | 06/07/2006 | N001 | 58 - 67.5 | 6.99 | | F | # | | |
| Selenium | mg/L | 06/07/2006 | 0001 | 58 - 67.5 | 0.00002 | U | F | # | .00002 | |
| Specific Conductance | umhos/cm | 06/07/2006 | N001 | 58 - 67.5 | 2189 | | F | # | | |
| Sulfate | mg/L | 06/07/2006 | 0001 | 58 - 67.5 | 620 | | F | # | 25 | |
| Temperature | C | 06/07/2006 | N001 | 58 - 67.5 | 13.16 | | F | # | | |
| Total Dissolved Solids | mg/L | 06/07/2006 | 0001 | 58 - 67.5 | 1600 | | F | # | 40 | |
| Turbidity | NTU | 06/07/2006 | N001 | 58 - 67.5 | 6.92 | | F | # | | |
| Uranium | mg/L | 06/07/2006 | 0001 | 58 - 67.5 | 0.00033 | E | F | # | .0000034 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR02, Durango Raffinate Pond Process Site
 REPORT DATE: 9/7/2006
 Location: 0594 WELL Original location DH-116.

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft BLS) | Result | Lab | Qualifiers Data | QA | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|--------|-----|-----------------|----|-----------------|-------------|
| Alkalinity, Total (As CaCO3) | mg/L | 06/07/2006 | 0001 | 8.5 - 38.5 | 363 | | F | # | | |
| Oxidation Reduction Potential | mV | 06/07/2006 | N001 | 8.5 - 38.5 | 108.5 | | F | # | | |
| pH | s.u. | 06/07/2006 | N001 | 8.5 - 38.5 | 6.84 | | F | # | | |
| Selenium | mg/L | 06/07/2006 | 0001 | 8.5 - 38.5 | 0.0079 | | F | # | .00002 | |
| Specific Conductance | umhos/cm | 06/07/2006 | N001 | 8.5 - 38.5 | 3082 | | F | # | | |
| Temperature | C | 06/07/2006 | N001 | 8.5 - 38.5 | 14.47 | | F | # | | |
| Total Dissolved Solids | mg/L | 06/07/2006 | 0001 | 8.5 - 38.5 | 2300 | | F | # | 80 | |
| Turbidity | NTU | 06/07/2006 | N001 | 8.5 - 38.5 | 8.67 | | F | # | | |
| Uranium | mg/L | 06/07/2006 | 0001 | 8.5 - 38.5 | 0.042 | | F | # | .0000034 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR02, Durango Raffinate Pond Process Site

REPORT DATE: 9/7/2006

Location: 0598 WELL Original location Bureau of Rec well DH-110.

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft.BLS) | Result | Qualifiers | | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|--------|------------|---------|-----------------|-------------|
| | | | | | | Lab | Data QA | | |
| Alkalinity, Total (As CaCO3) | mg/L | 06/06/2006 | 0001 | 66.2 - 96.2 | 352 | | F # | | |
| Oxidation Reduction Potential | mV | 06/06/2006 | N001 | 66.2 - 96.2 | 183.4 | | F # | | |
| pH | s.u. | 06/06/2006 | N001 | 66.2 - 96.2 | 6.75 | | F # | | |
| Selenium | mg/L | 06/06/2006 | 0001 | 66.2 - 96.2 | 0.99 | | F # | .002 | |
| Specific Conductance | umhos/cm | 06/06/2006 | N001 | 66.2 - 96.2 | 8033 | | F # | | |
| Temperature | C | 06/06/2006 | N001 | 66.2 - 96.2 | 14.77 | | F # | | |
| Total Dissolved Solids | mg/L | 06/06/2006 | 0001 | 66.2 - 96.2 | 7700 | | F # | 200 | |
| Turbidity | NTU | 06/06/2006 | N001 | 66.2 - 96.2 | 5.25 | | F # | | |
| Uranium | mg/L | 06/06/2006 | 0001 | 66.2 - 96.2 | 0.22 | | F # | .000017 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR02, Durango Raffinate Pond Process Site
 REPORT DATE: 9/7/2006
 Location: 0607 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft.BLS) | Result | Lab | Qualifiers Data | QA | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|--------|-----|-----------------|----|-----------------|-------------|
| Alkalinity, Total (As CaCO3) | mg/L | 06/06/2006 | 0001 | 35 - 55 | 334 | | FQ | # | | |
| Oxidation Reduction Potential | mV | 06/06/2006 | N001 | 35 - 55 | 166.4 | | FQ | # | | |
| pH | s.u. | 06/06/2006 | N001 | 35 - 55 | 7.57 | | FQ | # | | |
| Selenium | mg/L | 06/06/2006 | 0001 | 35 - 55 | 0.67 | | FQ | # | .002 | |
| Specific Conductance | umhos/cm | 06/06/2006 | N001 | 35 - 55 | 2731 | | FQ | # | | |
| Temperature | C | 06/06/2006 | N001 | 35 - 55 | 21.03 | | FQ | # | | |
| Total Dissolved Solids | mg/L | 06/06/2006 | 0001 | 35 - 55 | 2300 | | FQ | # | 40 | |
| Turbidity | NTU | 06/06/2006 | N001 | 35 - 55 | 6.19 | | FQ | # | | |
| Uranium | mg/L | 06/06/2006 | 0001 | 35 - 55 | 0.0037 | | FQ | # | .0000034 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR02, Durango Raffinate Pond Process Site
 REPORT DATE: 9/7/2006
 Location: 0879 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft/BLS) | Result | Qualifiers | | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|--------|------------|---------|-----------------|-------------|
| | | | | | | Lab | Data QA | | |
| Alkalinity, Total (As CaCO3) | mg/L | 06/06/2006 | 0001 | 27 - 36.9 | 537 | | F # | | |
| Oxidation Reduction Potential | mV | 06/06/2006 | N001 | 27 - 36.9 | 84.1 | | F # | | |
| pH | s.u. | 06/06/2006 | N001 | 27 - 36.9 | 6.72 | | F # | | |
| Selenium | mg/L | 06/06/2006 | 0001 | 27 - 36.9 | 0.018 | | F # | .001 | |
| Specific Conductance | umhos/cm | 06/06/2006 | N001 | 27 - 36.9 | 10190 | | F # | | |
| Temperature | C | 06/06/2006 | N001 | 27 - 36.9 | 13.41 | | F # | | |
| Total Dissolved Solids | mg/L | 06/06/2006 | 0001 | 27 - 36.9 | 9700 | | F # | 200 | |
| Turbidity | NTU | 06/06/2006 | N001 | 27 - 36.9 | 3.23 | | F # | | |
| Uranium | mg/L | 06/06/2006 | 0001 | 27 - 36.9 | 0.078 | | F # | .000017 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR02, Durango Raffinate Pond Process Site
 REPORT DATE: 9/7/2006
 Location: 0884 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (ft BLS) | | Result | Qualifiers | | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|--------|--------|------------|---------|-----------------|-------------|
| | | | | | | | Lab | Data QA | | |
| Alkalinity, Total (As CaCO3) | mg/L | 06/07/2006 | 0001 | 36.5 | - 46.5 | 347 | F | # | | |
| Oxidation Reduction Potential | mV | 06/07/2006 | N001 | 36.5 | - 46.5 | 109.3 | F | # | | |
| pH | s.u. | 06/07/2006 | N001 | 36.5 | - 46.5 | 7.1 | F | # | | |
| Selenium | mg/L | 06/07/2006 | 0001 | 36.5 | - 46.5 | 1.2 | F | # | .002 | |
| Specific Conductance | umhos/cm | 06/07/2006 | N001 | 36.5 | - 46.5 | 4438 | F | # | | |
| Temperature | C | 06/07/2006 | N001 | 36.5 | - 46.5 | 14.4 | F | # | | |
| Total Dissolved Solids | mg/L | 06/07/2006 | 0001 | 36.5 | - 46.5 | 3700 | F | # | 80 | |
| Turbidity | NTU | 06/07/2006 | N001 | 36.5 | - 46.5 | 6.56 | F | # | | |
| Uranium | mg/L | 06/07/2006 | 0001 | 36.5 | - 46.5 | 0.097 | F | # | .000017 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR03, Durango Disposal Site
 REPORT DATE: 9/7/2006
 Location: 0605 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft./BLS) | | Result | Qualifiers | | | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|-----------------------|---|--------|------------|------|----|-----------------|-------------|
| | | | | | | | Lab | Data | QA | | |
| Alkalinity, Total (As CaCO3) | mg/L | 06/08/2006 | 0001 | 36 | - | 56 | | F | # | | |
| Calcium | mg/L | 06/08/2006 | 0001 | 36 | - | 56 | | F | # | .011 | |
| Chloride | mg/L | 06/08/2006 | 0001 | 36 | - | 56 | | F | # | 2 | |
| Iron | mg/L | 06/08/2006 | 0001 | 36 | - | 56 | | U | F | # | .027 |
| Magnesium | mg/L | 06/08/2006 | 0001 | 36 | - | 56 | | F | # | .014 | |
| Manganese | mg/L | 06/08/2006 | 0001 | 36 | - | 56 | | F | # | .00046 | |
| Molybdenum | mg/L | 06/08/2006 | 0001 | 36 | - | 56 | | U | F | # | .00021 |
| Oxidation Reduction Potential | mV | 06/08/2006 | N001 | 36 | - | 56 | | F | # | | |
| pH | s.u. | 06/08/2006 | N001 | 36 | - | 56 | | F | # | | |
| Potassium | mg/L | 06/08/2006 | 0001 | 36 | - | 56 | | F | # | .15 | |
| Selenium | mg/L | 06/08/2006 | 0001 | 36 | - | 56 | | B | UF | # | .00002 |
| Sodium | mg/L | 06/08/2006 | 0001 | 36 | - | 56 | | F | # | .18 | |
| Specific Conductance | umhos/cm | 06/08/2006 | N001 | 36 | - | 56 | | F | # | | |
| Sulfate | mg/L | 06/08/2006 | 0001 | 36 | - | 56 | | F | # | 25 | |
| Temperature | C | 06/08/2006 | N001 | 36 | - | 56 | | F | # | | |
| Total Dissolved Solids | mg/L | 06/08/2006 | 0001 | 36 | - | 56 | | F | # | 80 | |
| Turbidity | NTU | 06/08/2006 | N001 | 36 | - | 56 | | F | # | | |
| Uranium | mg/L | 06/08/2006 | 0001 | 36 | - | 56 | | B | UF | # | .0000034 |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR03, Durango Disposal Site
 REPORT DATE: 9/7/2006
 Location: 0607 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft BLS) | Result | Qualifiers | | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|----------|------------|---------|-----------------|-------------|
| | | | | | | Lab | Data QA | | |
| Alkalinity, Total (As CaCO3) | mg/L | 06/08/2006 | 0001 | 36.7 - 56.7 | 376 | | FQ # | | |
| Calcium | mg/L | 06/08/2006 | 0001 | 36.7 - 56.7 | 290 | | FQ # | .011 | |
| Calcium | mg/L | 06/08/2006 | 0002 | 36.7 - 56.7 | 290 | | FQ # | .011 | |
| Chloride | mg/L | 06/08/2006 | 0001 | 36.7 - 56.7 | 14 | | FQ # | 1 | |
| Chloride | mg/L | 06/08/2006 | 0002 | 36.7 - 56.7 | 13 | | FQ # | 1 | |
| Iron | mg/L | 06/08/2006 | 0001 | 36.7 - 56.7 | 0.099 | B | UFQ # | .027 | |
| Iron | mg/L | 06/08/2006 | 0002 | 36.7 - 56.7 | 0.06 | B | UFQ # | .027 | |
| Magnesium | mg/L | 06/08/2006 | 0001 | 36.7 - 56.7 | 190 | | FQ # | .014 | |
| Magnesium | mg/L | 06/08/2006 | 0002 | 36.7 - 56.7 | 190 | | FQ # | .014 | |
| Manganese | mg/L | 06/08/2006 | 0001 | 36.7 - 56.7 | 0.089 | | FQ # | .00046 | |
| Manganese | mg/L | 06/08/2006 | 0002 | 36.7 - 56.7 | 0.091 | | FQ # | .00046 | |
| Molybdenum | mg/L | 06/08/2006 | 0001 | 36.7 - 56.7 | 0.00021 | U | FQ # | .00021 | |
| Molybdenum | mg/L | 06/08/2006 | 0002 | 36.7 - 56.7 | 0.00022 | B | UFQ # | .00021 | |
| Oxidation Reduction Potential | mV | 06/08/2006 | N001 | 36.7 - 56.7 | -168.8 | | FQ # | | |
| pH | s.u. | 06/08/2006 | N001 | 36.7 - 56.7 | 6.8 | | FQ # | | |
| Potassium | mg/L | 06/08/2006 | 0001 | 36.7 - 56.7 | 9.9 | | FQ # | .15 | |
| Potassium | mg/L | 06/08/2006 | 0002 | 36.7 - 56.7 | 10 | | FQ # | .15 | |
| Selenium | mg/L | 06/08/2006 | 0001 | 36.7 - 56.7 | 0.000062 | B | UFQ # | .00002 | |
| Selenium | mg/L | 06/08/2006 | 0002 | 36.7 - 56.7 | 0.000041 | B | UFQ # | .00002 | |
| Sodium | mg/L | 06/08/2006 | 0001 | 36.7 - 56.7 | 290 | | FQ # | .18 | |
| Sodium | mg/L | 06/08/2006 | 0002 | 36.7 - 56.7 | 290 | | FQ # | .18 | |
| Specific Conductance | umhos/cm | 06/08/2006 | N001 | 36.7 - 56.7 | 3335 | | FQ # | | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR03, Durango Disposal Site
 REPORT DATE: 9/7/2006
 Location: 0607 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft BLS) | Result | Lab | Qualifiers Data | QA | Detection Limit | Uncertainty |
|------------------------|-------|-------------|-----------|----------------------|---------|-----|-----------------|----|-----------------|-------------|
| Sulfate | mg/L | 06/08/2006 | 0001 | 36.7 - 56.7 | 1800 | | FQ | # | 25 | |
| Sulfate | mg/L | 06/08/2006 | 0002 | 36.7 - 56.7 | 1800 | | FQ | # | 25 | |
| Temperature | C | 06/08/2006 | N001 | 36.7 - 56.7 | 11.19 | | FQ | # | | |
| Total Dissolved Solids | mg/L | 06/08/2006 | 0001 | 36.7 - 56.7 | 3100 | | FQ | # | 80 | |
| Total Dissolved Solids | mg/L | 06/08/2006 | 0002 | 36.7 - 56.7 | 3000 | | FQ | # | 80 | |
| Turbidity | NTU | 06/08/2006 | N001 | 36.7 - 56.7 | 1.43 | | FQ | # | | |
| Uranium | mg/L | 06/08/2006 | 0001 | 36.7 - 56.7 | 0.00017 | | FQ | # | .0000034 | |
| Uranium | mg/L | 06/08/2006 | 0002 | 36.7 - 56.7 | 0.00008 | B | UFQ | # | .0000034 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR03, Durango Disposal Site
 REPORT DATE: 9/7/2006
 Location: 0608 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft:BLS) | Result | Qualifiers | | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|---------|------------|---------|-----------------|-------------|
| | | | | | | Lab | Data QA | | |
| Alkalinity, Total (As CaCO3) | mg/L | 06/08/2006 | 0001 | 29 - 39 | 374 | | F # | | |
| Calcium | mg/L | 06/08/2006 | 0001 | 29 - 39 | 280 | | F # | .0056 | |
| Chloride | mg/L | 06/08/2006 | 0001 | 29 - 39 | 35 | | F # | 4 | |
| Iron | mg/L | 06/08/2006 | 0001 | 29 - 39 | 3.4 | | F # | .014 | |
| Magnesium | mg/L | 06/08/2006 | 0001 | 29 - 39 | 250 | | F # | .0068 | |
| Manganese | mg/L | 06/08/2006 | 0001 | 29 - 39 | 0.34 | | F # | .00023 | |
| Molybdenum | mg/L | 06/08/2006 | 0001 | 29 - 39 | 0.00091 | B | UF # | .00021 | |
| Oxidation Reduction Potential | mV | 06/08/2006 | N001 | 29 - 39 | 78 | | F # | | |
| pH | s.u. | 06/08/2006 | N001 | 29 - 39 | 7.05 | | F # | | |
| Potassium | mg/L | 06/08/2006 | 0001 | 29 - 39 | 4.3 | | F # | .074 | |
| Selenium | mg/L | 06/08/2006 | 0001 | 29 - 39 | 0.00021 | | F # | .00002 | |
| Sodium | mg/L | 06/08/2006 | 0001 | 29 - 39 | 110 | | F # | .18 | |
| Specific Conductance | umhos/cm | 06/08/2006 | N001 | 29 - 39 | 1793 | | F # | | |
| Sulfate | mg/L | 06/08/2006 | 0001 | 29 - 39 | 1200 | | F # | 10 | |
| Temperature | C | 06/08/2006 | N001 | 29 - 39 | 10.55 | | F # | | |
| Total Dissolved Solids | mg/L | 06/08/2006 | 0001 | 29 - 39 | 2200 | | F # | 40 | |
| Turbidity | NTU | 06/08/2006 | N001 | 29 - 39 | 2.86 | | F # | | |
| Uranium | mg/L | 06/08/2006 | 0001 | 29 - 39 | 0.0024 | | F # | .0000034 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR03, Durango Disposal Site
 REPORT DATE: 9/7/2006
 Location: 0612 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft BLS) | Result | Lab | Qualifiers Data | QA | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|---------|-----|-----------------|----|-----------------|-------------|
| Alkalinity, Total (As CaCO3) | mg/L | 06/08/2006 | 0001 | 98.09 - 108.09 | 2119 | | FQ | # | | |
| Calcium | mg/L | 06/08/2006 | 0001 | 98.09 - 108.09 | 6.2 | | FQ | # | .011 | |
| Chloride | mg/L | 06/08/2006 | 0001 | 98.09 - 108.09 | 56 | | FQ | # | 1 | |
| Iron | mg/L | 06/08/2006 | 0001 | 98.09 - 108.09 | 0.027 | U | FQ | # | .027 | |
| Magnesium | mg/L | 06/08/2006 | 0001 | 98.09 - 108.09 | 3.9 | | FQ | # | .014 | |
| Manganese | mg/L | 06/08/2006 | 0001 | 98.09 - 108.09 | 0.0089 | B | FQ | # | .00046 | |
| Molybdenum | mg/L | 06/08/2006 | 0001 | 98.09 - 108.09 | 0.00021 | U | FQ | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/08/2006 | N001 | 98.09 - 108.09 | -368 | | FQ | # | | |
| pH | s.u. | 06/08/2006 | N001 | 98.09 - 108.09 | 7.88 | | FQ | # | | |
| Potassium | mg/L | 06/08/2006 | 0001 | 98.09 - 108.09 | 11 | | FQ | # | .15 | |
| Selenium | mg/L | 06/08/2006 | 0001 | 98.09 - 108.09 | 0.0016 | | FQ | # | .00002 | |
| Sodium | mg/L | 06/08/2006 | 0001 | 98.09 - 108.09 | 850 | | FQ | # | .18 | |
| Specific Conductance | umhos/cm | 06/08/2006 | N001 | 98.09 - 108.09 | 3790 | | FQ | # | | |
| Sulfate | mg/L | 06/08/2006 | 0001 | 98.09 - 108.09 | 24 | | FQ | # | 2.5 | |
| Temperature | C | 06/08/2006 | N001 | 98.09 - 108.09 | 12.14 | | FQ | # | | |
| Total Dissolved Solids | mg/L | 06/08/2006 | 0001 | 98.09 - 108.09 | 2700 | | FQ | # | 80 | |
| Turbidity | NTU | 06/08/2006 | N001 | 98.09 - 108.09 | 4.06 | | FQ | # | | |
| Uranium | mg/L | 06/08/2006 | 0001 | 98.09 - 108.09 | 0.0001 | | FQ | # | .0000034 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR03, Durango Disposal Site
 REPORT DATE: 9/7/2006
 Location: 0618 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft.BLS) | Result | Lab | Qualifiers Data | QA | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|---------|-----|-----------------|----|-----------------|-------------|
| Alkalinity, Total (As CaCO3) | mg/L | 06/08/2006 | 0001 | 29.77 - 49.77 | 389 | | F | # | | |
| Calcium | mg/L | 06/08/2006 | 0001 | 29.77 - 49.77 | 350 | | F | # | .0056 | |
| Chloride | mg/L | 06/08/2006 | 0001 | 29.77 - 49.77 | 42 | | F | # | 10 | |
| Iron | mg/L | 06/08/2006 | 0001 | 29.77 - 49.77 | 0.014 | U | F | # | .014 | |
| Magnesium | mg/L | 06/08/2006 | 0001 | 29.77 - 49.77 | 200 | | F | # | .0068 | |
| Manganese | mg/L | 06/08/2006 | 0001 | 29.77 - 49.77 | 0.00023 | U | F | # | .00023 | |
| Molybdenum | mg/L | 06/08/2006 | 0001 | 29.77 - 49.77 | 0.00078 | B | UF | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/08/2006 | N001 | 29.77 - 49.77 | 18.3 | | F | # | | |
| pH | s.u. | 06/08/2006 | N001 | 29.77 - 49.77 | 6.94 | | F | # | | |
| Potassium | mg/L | 06/08/2006 | 0001 | 29.77 - 49.77 | 4.4 | | F | # | .074 | |
| Selenium | mg/L | 06/08/2006 | 0001 | 29.77 - 49.77 | 0.007 | | F | # | .00002 | |
| Sodium | mg/L | 06/08/2006 | 0001 | 29.77 - 49.77 | 110 | | F | # | .0071 | |
| Specific Conductance | umhos/cm | 06/08/2006 | N001 | 29.77 - 49.77 | 2562 | | F | # | | |
| Sulfate | mg/L | 06/08/2006 | 0001 | 29.77 - 49.77 | 1300 | | F | # | 25 | |
| Temperature | C | 06/08/2006 | N001 | 29.77 - 49.77 | 9.91 | | F | # | | |
| Total Dissolved Solids | mg/L | 06/08/2006 | 0001 | 29.77 - 49.77 | 2300 | | F | # | 80 | |
| Turbidity | NTU | 06/08/2006 | N001 | 29.77 - 49.77 | 0.51 | | F | # | | |
| Uranium | mg/L | 06/08/2006 | 0001 | 29.77 - 49.77 | 0.041 | | F | # | .0000034 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR03, Durango Disposal Site
 REPORT DATE: 9/7/2006
 Location: 0621 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft BLS) | | Result | Qualifiers | | | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------------------|---------|----------|------------|------|----|-----------------|-------------|
| | | | | | | | Lab | Data | QA | | |
| Calcium | mg/L | 06/08/2006 | 0001 | 78.46 | - 88.46 | 470 | | F | # | .011 | |
| Chloride | mg/L | 06/08/2006 | 0001 | 78.46 | - 88.46 | 10 | | F | # | 1 | |
| Iron | mg/L | 06/08/2006 | 0001 | 78.46 | - 88.46 | 150 | | F | # | .027 | |
| Magnesium | mg/L | 06/08/2006 | 0001 | 78.46 | - 88.46 | 380 | | F | # | .014 | |
| Manganese | mg/L | 06/08/2006 | 0001 | 78.46 | - 88.46 | 2.9 | | F | # | .00046 | |
| Molybdenum | mg/L | 06/08/2006 | 0001 | 78.46 | - 88.46 | 0.00021 | U | F | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/08/2006 | N001 | 78.46 | - 88.46 | 246 | | F | # | | |
| pH | s.u. | 06/08/2006 | N001 | 78.46 | - 88.46 | 4.28 | | F | # | | |
| Potassium | mg/L | 06/08/2006 | 0001 | 78.46 | - 88.46 | 17 | | F | # | .15 | |
| Selenium | mg/L | 06/08/2006 | 0001 | 78.46 | - 88.46 | 0.00002 | U | F | # | .00002 | |
| Sodium | mg/L | 06/08/2006 | 0001 | 78.46 | - 88.46 | 190 | | F | # | .0071 | |
| Specific Conductance | umhos/cm | 06/08/2006 | N001 | 78.46 | - 88.46 | 4212 | | F | # | | |
| Sulfate | mg/L | 06/08/2006 | 0001 | 78.46 | - 88.46 | 3200 | | F | # | 25 | |
| Temperature | C | 06/08/2006 | N001 | 78.46 | - 88.46 | 13.47 | | F | # | | |
| Total Dissolved Solids | mg/L | 06/08/2006 | 0001 | 78.46 | - 88.46 | 4800 | | F | # | 80 | |
| Turbidity | NTU | 06/08/2006 | N001 | 78.46 | - 88.46 | 2.89 | | F | # | | |
| Uranium | mg/L | 06/08/2006 | 0001 | 78.46 | - 88.46 | 0.000048 | B | UF | # | .0000034 | |

Ground Water Quality Data by Location (USEE100) FOR SITE DUR03, Durango Disposal Site
 REPORT DATE: 9/7/2006
 Location: 0623 WELL

| Parameter | Units | Sample Date | Sample ID | Depth Range (Ft. BLS) | Result | Lab | Qualifiers Data | QA | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|-----------------------|---------|-----|-----------------|----|-----------------|-------------|
| Alkalinity, Total (As CaCO3) | mg/L | 06/08/2006 | 0001 | 19.35 - 39.35 | 416 | | FQ | # | | |
| Calcium | mg/L | 06/08/2006 | 0001 | 19.35 - 39.35 | 220 | | FQ | # | .0056 | |
| Chloride | mg/L | 06/08/2006 | 0001 | 19.35 - 39.35 | 24 | | FQ | # | 4 | |
| Iron | mg/L | 06/08/2006 | 0001 | 19.35 - 39.35 | 0.016 | B | UFQ | # | .014 | |
| Magnesium | mg/L | 06/08/2006 | 0001 | 19.35 - 39.35 | 130 | | FQ | # | .0068 | |
| Manganese | mg/L | 06/08/2006 | 0001 | 19.35 - 39.35 | 0.00023 | U | FQ | # | .00023 | |
| Molybdenum | mg/L | 06/08/2006 | 0001 | 19.35 - 39.35 | 0.001 | | FQ | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/08/2006 | N001 | 19.35 - 39.35 | 38.6 | | FQ | # | | |
| pH | s.u. | 06/08/2006 | N001 | 19.35 - 39.35 | 6.25 | | FQ | # | | |
| Potassium | mg/L | 06/08/2006 | 0001 | 19.35 - 39.35 | 9.8 | | FQ | # | .074 | |
| Selenium | mg/L | 06/08/2006 | 0001 | 19.35 - 39.35 | 0.0039 | | FQ | # | .00002 | |
| Sodium | mg/L | 06/08/2006 | 0001 | 19.35 - 39.35 | 79 | | FQ | # | .0035 | |
| Specific Conductance | umhos/cm | 06/08/2006 | N001 | 19.35 - 39.35 | 2544 | | FQ | # | | |
| Sulfate | mg/L | 06/08/2006 | 0001 | 19.35 - 39.35 | 730 | | FQ | # | 10 | |
| Temperature | C | 06/08/2006 | N001 | 19.35 - 39.35 | 11.93 | | FQ | # | | |
| Total Dissolved Solids | mg/L | 06/08/2006 | 0001 | 19.35 - 39.35 | 1500 | | FQ | # | 40 | |
| Turbidity | NTU | 06/08/2006 | N001 | 19.35 - 39.35 | 9.65 | | FQ | # | | |
| Uranium | mg/L | 06/08/2006 | 0001 | 19.35 - 39.35 | 0.0061 | | FQ | # | .0000034 | |

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.

C Pesticide result confirmed by GC-MS.
D Analyte determined in diluted sample.
E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
H Holding time expired, value suspect.
I Increased detection limit due to required dilution.
J Estimated
N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
P > 25% difference in detected pesticide or Aroclor concentrations between 2 columns.
U Analytical result below detection limit.
W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
X,Y,Z Laboratory defined qualifier, see case narrative.

DATA QUALIFIERS:

| | | | | | |
|---|--|---|---|---|------------------|
| F | Low flow sampling method used. | G | Possible grout contamination, pH > 9. | J | Estimated value. |
| L | Less than 3 bore volumes purged prior to sampling. | Q | Qualitative result due to sampling technique. | R | Unusable result. |
| U | Parameter analyzed for but was not detected. | X | Location is undefined. | | |

QA QUALIFIER:

Validated according to quality assurance guidelines.

Surface Water Quality Data

Ground Water Quality Data by Location (USEE102) FOR SITE DUR01, Durango Mill Tailings Process Site
 REPORT DATE: 9/7/2006
 Location: 0584 SURFACE LOCATION

| Parameter | Units | Sample Date | Sample ID | Result | Lab | Qualifiers Data | QA | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------|-----|-----------------|----|-----------------|-------------|
| Alkalinity, Total (As CaCO3) | mg/L | 06/07/2006 | 0001 | 51 | | | # | | |
| Cadmium | mg/L | 06/07/2006 | 0001 | 0.00027 | B | U | # | .00002 | |
| Molybdenum | mg/L | 06/07/2006 | 0001 | 0.00042 | B | U | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/07/2006 | N001 | -7.1 | | | # | | |
| pH | s.u. | 06/07/2006 | N001 | 7.55 | | | # | | |
| Selenium | mg/L | 06/07/2006 | 0001 | 0.000039 | B | U | # | .00002 | |
| Specific Conductance | umhos/cm | 06/07/2006 | N001 | 204 | | | # | | |
| Temperature | C | 06/07/2006 | N001 | 11.91 | | | # | | |
| Uranium | mg/L | 06/07/2006 | 0001 | 0.00024 | | | # | .0000034 | |

Ground Water Quality Data by Location (USEE102) FOR SITE DUR01, Durango Mill Tailings Process Site
 REPORT DATE: 9/7/2006
 Location: 0586 SURFACE LOCATION

| Parameter | Units | Sample | | Result | Qualifiers | | | Detection Limit | Uncertainty |
|-------------------------------|----------|------------|------|----------|------------|------|----|-----------------|-------------|
| | | Date | ID | | Lab | Data | QA | | |
| Alkalinity, Total (As CaCO3) | mg/L | 06/06/2006 | 0001 | 51 | | | # | | |
| Cadmium | mg/L | 06/06/2006 | 0001 | 0.0002 | B | U | # | .00002 | |
| Molybdenum | mg/L | 06/06/2006 | 0001 | 0.0004 | B | U | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/06/2006 | N001 | 194 | | | # | | |
| pH | s.u. | 06/06/2006 | N001 | 7.6 | | | # | | |
| Selenium | mg/L | 06/06/2006 | 0001 | 0.000038 | B | U | # | .00002 | |
| Specific Conductance | umhos/cm | 06/06/2006 | N001 | 178 | | | # | | |
| Temperature | C | 06/06/2006 | N001 | 12.49 | | | # | | |
| Uranium | mg/L | 06/06/2006 | 0001 | 0.00021 | | | # | .0000034 | |

Ground Water Quality Data by Location (USEE102) FOR SITE DUR01, Durango Mill Tailings Process Site
 REPORT DATE: 9/7/2006
 Location: 0652 SURFACE LOCATION SURFACE WATER AND SED.

| Parameter | Units | Sample | | Result | Qualifiers | | | Detection Limit | Uncertainty |
|-------------------------------|----------|------------|------|----------|------------|------|----|-----------------|-------------|
| | | Date | ID | | Lab | Data | QA | | |
| Alkalinity, Total (As CaCO3) | mg/L | 06/07/2006 | 0001 | 38 | | | # | | |
| Cadmium | mg/L | 06/07/2006 | 0001 | 0.00022 | B | U | # | .00002 | |
| Molybdenum | mg/L | 06/07/2006 | 0001 | 0.00041 | B | U | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/07/2006 | N001 | 146 | | | # | | |
| pH | s.u. | 06/07/2006 | N001 | 7.37 | | | # | | |
| Selenium | mg/L | 06/07/2006 | 0001 | 0.000044 | B | U | # | .00002 | |
| Specific Conductance | umhos/cm | 06/07/2006 | N001 | 203 | | | # | | |
| Temperature | C | 06/07/2006 | N001 | 11.58 | | | # | | |
| Uranium | mg/L | 06/07/2006 | 0001 | 0.00022 | | | # | .0000034 | |

Ground Water Quality Data by Location (USEE102) FOR SITE DUR01, Durango Mill Tailings Process Site
 REPORT DATE: 9/7/2006
 Location: 0691 SURFACE LOCATION

| Parameter | Units | Sample | | Result | Qualifiers | | | Detection Limit | Uncertainty |
|-------------------------------|----------|------------|------|----------|------------|------|----|-----------------|-------------|
| | | Date | ID | | Lab | Data | QA | | |
| Alkalinity, Total (As CaCO3) | mg/L | 06/07/2006 | 0001 | 74 | | | # | | |
| Cadmium | mg/L | 06/07/2006 | 0001 | 0.0003 | | | # | .00002 | |
| Molybdenum | mg/L | 06/07/2006 | 0001 | 0.00037 | B | U | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/07/2006 | N001 | 106.8 | | | # | | |
| pH | s.u. | 06/07/2006 | N001 | 7.59 | | | # | | |
| Selenium | mg/L | 06/07/2006 | 0001 | 0.000044 | B | U | # | .00002 | |
| Specific Conductance | umhos/cm | 06/07/2006 | N001 | 205 | | | # | | |
| Temperature | C | 06/07/2006 | N001 | 11.71 | | | # | | |
| Uranium | mg/L | 06/07/2006 | 0001 | 0.00022 | | | # | .0000034 | |

Ground Water Quality Data by Location (USEE102) FOR SITE DUR02, Durango Raffinate Pond Process Site
 REPORT DATE: 9/7/2006
 Location: 0588 SURFACE LOCATION

| Parameter | Units | Sample Date | Sample ID | Result | Qualifiers | | | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|---------|------------|------|----|-----------------|-------------|
| | | | | | Lab | Data | QA | | |
| Alkalinity, Total (As CaCO3) | mg/L | 06/06/2006 | 0001 | 348 | | | # | | |
| Cadmium | mg/L | 06/06/2006 | 0001 | 0.00017 | B | U | # | .00002 | |
| Molybdenum | mg/L | 06/06/2006 | 0001 | 0.0012 | | | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/06/2006 | N001 | 143.6 | | | # | | |
| pH | s.u. | 06/06/2006 | N001 | 7.88 | | | # | | |
| Selenium | mg/L | 06/06/2006 | 0001 | 0.00046 | | | # | .00002 | |
| Specific Conductance | umhos/cm | 06/06/2006 | N001 | 1976 | | | # | | |
| Temperature | C | 06/06/2006 | N001 | 17.38 | | | # | | |
| Uranium | mg/L | 06/06/2006 | 0001 | 0.026 | | | # | .0000034 | |

Ground Water Quality Data by Location (USEE102) FOR SITE DUR02, Durango Raffinate Pond Process Site
 REPORT DATE: 9/7/2006
 Location: 0654 SURFACE LOCATION RESERVED FOR CDAY

| Parameter | Units | Sample Date | Sample ID | Result | Qualifiers | | | Detection Limit | Uncertainty |
|-------------------------------|----------|-------------|-----------|----------|------------|------|----|-----------------|-------------|
| | | | | | Lab | Data | QA | | |
| Alkalinity, Total (As CaCO3) | mg/L | 06/07/2006 | 0001 | 34 | | | # | | |
| Cadmium | mg/L | 06/07/2006 | 0001 | 0.00047 | | | # | .00002 | |
| Molybdenum | mg/L | 06/07/2006 | 0001 | 0.00032 | B | U | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/07/2006 | N001 | 156.1 | | | # | | |
| pH | s.u. | 06/07/2006 | N001 | 7.54 | | | # | | |
| Selenium | mg/L | 06/07/2006 | 0001 | 0.000038 | B | U | # | .00002 | |
| Specific Conductance | umhos/cm | 06/07/2006 | N001 | 199 | | | # | | |
| Temperature | C | 06/07/2006 | N001 | 11.56 | | | # | | |
| Uranium | mg/L | 06/07/2006 | 0001 | 0.00026 | | | # | .0000034 | |

Ground Water Quality Data by Location (USEE102) FOR SITE DUR02, Durango Raffinate Pond Process Site
 REPORT DATE: 9/7/2006
 Location: 0656 SURFACE LOCATION RESERVED FOR CDAY

| Parameter | Units | Sample | | Result | Qualifiers | | | Detection Limit | Uncertainty |
|-------------------------------|----------|------------|------|----------|------------|------|----|-----------------|-------------|
| | | Date | ID | | Lab | Data | QA | | |
| Alkalinity, Total (As CaCO3) | mg/L | 06/07/2006 | 0001 | 31 | | | # | | |
| Cadmium | mg/L | 06/07/2006 | 0001 | 0.00023 | B | U | # | .00002 | |
| Molybdenum | mg/L | 06/07/2006 | 0001 | 0.00034 | B | U | # | .00021 | |
| Oxidation Reduction Potential | mV | 06/07/2006 | N001 | 56.2 | | | # | | |
| pH | s.u. | 06/07/2006 | N001 | 7.54 | | | # | | |
| Selenium | mg/L | 06/07/2006 | 0001 | 0.000039 | B | U | # | .00002 | |
| Specific Conductance | umhos/cm | 06/07/2006 | N001 | 194 | | | # | | |
| Temperature | C | 06/07/2006 | N001 | 13.74 | | | # | | |
| Uranium | mg/L | 06/07/2006 | 0001 | 0.00023 | | | # | .0000034 | |

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- P > 25% difference in detected pesticide or Aroclor concentrations between 2 columns.
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X,Y,Z Laboratory defined qualifier, see case narrative.

DATA QUALIFIERS:

- F Low flow sampling method used.
- L Less than 3 bore volumes purged prior to sampling.
- U Parameter analyzed for but was not detected.
- G Possible grout contamination, pH > 9.
- Q Qualitative result due to sampling technique.
- X Location is undefined.
- J Estimated value.
- R Unusable result.

QA QUALIFIER:

- # Validated according to quality assurance guidelines.

Equipment Blank Data

BLANKS REPORT
 LAB: PARAGON (Fort Collins, CO)
 RIN: 06050387
 Report Date: 9/7/2006

| Parameter | Site Code | Location ID | Sample Date | Sample ID | Units | Result | Qualifiers Lab | Data | Detection Limit | Uncertainty | Sample Type |
|------------------------|-----------|-------------|-------------|-----------|-------|---------|----------------|------|-----------------|-------------|-------------|
| Calcium | DUR03 | 0999 | 06/12/2006 | 0001 | mg/L | .2 | B | U | .0056 | | E |
| Chloride | DUR03 | 0999 | 06/12/2006 | 0001 | mg/L | .2 | U | | .2 | | E |
| Iron | DUR03 | 0999 | 06/12/2006 | 0001 | mg/L | .014 | U | | .014 | | E |
| Magnesium | DUR03 | 0999 | 06/12/2006 | 0001 | mg/L | .14 | B | U | .0068 | | E |
| Manganese | DUR03 | 0999 | 06/12/2006 | 0001 | mg/L | .00023 | U | | .00023 | | E |
| Molybdenum | DUR03 | 0999 | 06/12/2006 | 0001 | mg/L | .00021 | U | | .00021 | | E |
| Potassium | DUR03 | 0999 | 06/12/2006 | 0001 | mg/L | .85 | B | | .074 | | E |
| Selenium | DUR03 | 0999 | 06/12/2006 | 0001 | mg/L | .00002 | U | | .00002 | | E |
| Sodium | DUR03 | 0999 | 06/12/2006 | 0001 | mg/L | .22 | B | U | .0035 | | E |
| Sulfate | DUR03 | 0999 | 06/12/2006 | 0001 | mg/L | .5 | U | | .5 | | E |
| Total Dissolved Solids | DUR03 | 0999 | 06/12/2006 | 0001 | mg/L | 20 | U | | 20 | | E |
| Uranium | DUR03 | 0999 | 06/12/2006 | 0001 | mg/L | .000042 | B | U | .0000034 | | E |
| Uranium | DUR03 | 0999 | 06/12/2006 | 0001 | mg/L | .000042 | B | U | .0000034 | | E |

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- P > 25% difference in detected pesticide or Aroclor concentrations between 2 columns.
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X,Y,Z Laboratory defined qualifier, see case narrative.

DATA QUALIFIERS:

F Low flow sampling method used.

L Less than 3 bore volumes purged prior to sampling.

U Parameter analyzed for but was not detected.

G Possible grout contamination, pH > 9.

J Estimated value.

Q Qualitative result due to sampling technique. R Unusable result.

X Location is undefined.

SAMPLE TYPES:

E Equipment Blank.

Static Water Level Data

STATIC WATER LEVELS (USEE700) FOR SITE DUR01, Durango Mill Tailings Process Site
 REPORT DATE: 9/7/2006

| Location Code | Flow Code | Top of Casing Elevation (Ft) | Measurement Date | Measurement Time | Depth From Top of Casing (Ft) | Water Elevation (Ft) | Water Level Flag |
|---------------|-----------|------------------------------|------------------|------------------|-------------------------------|----------------------|------------------|
| 0612 | D | 6500.94 | 07-JUN-06 | 09:31:00 | 40.51 | 6460.43 | |
| 0617 | D | 6498.11 | 07-JUN-06 | 12:11:00 | 28.96 | 6469.15 | |
| 0630 | D | 6494.44 | 07-JUN-06 | 10:33:00 | 32.5 | 6461.94 | |
| 0631 | D | 6477.91 | 07-JUN-06 | 13:08:00 | 8.14 | 6469.77 | |
| 0633 | D | 6481.81 | 06-JUN-06 | 17:28:00 | 9.55 | 6472.26 | |
| 0634 | D | 6491.75 | 06-JUN-06 | 15:20:00 | 13.45 | 6478.3 | |
| 0635 | D | 6497.68 | 06-JUN-06 | 16:13:00 | 13.65 | 6484.03 | |
| 0863 | | 6513.32 | 07-JUN-06 | 08:31:00 | 56.5 | 6456.82 | |
| 0863 | | 6513.32 | 07-JUN-06 | 08:31:00 | 56.5 | 6456.82 | |

STATIC WATER LEVELS (USEE700) FOR SITE DUR02, Durango Raffinate Pond Process Site
 REPORT DATE: 9/7/2006

| Location Code | Flow Code | Top of Casing Elevation (Ft) | Measurement Date | Measurement Time | Depth From Top of Casing (Ft) | Water Elevation (Ft) | Water Level Flag |
|---------------|-----------|------------------------------|------------------|------------------|-------------------------------|----------------------|------------------|
| 0594 | O | 6472.49 | 07-JUN-06 | 15:11:00 | 20.42 | 6452.07 | |
| 0598 | O | 6479.09 | 06-JUN-06 | 08:22:00 | 22.93 | 6456.16 | |
| 0607 | U | 6527.95 | 06-JUN-06 | 13:00:00 | 51.16 | 6476.79 | |
| 0879 | | 6473.91 | 06-JUN-06 | 10:08:00 | 14.6 | 6459.31 | |
| 0884 | | 6476.37 | 07-JUN-06 | 16:29:00 | 20.91 | 6455.46 | |
| 0884 | | 6476.37 | 07-JUN-06 | 16:29:00 | 20.91 | 6455.46 | |

STATIC WATER LEVELS (USEE700) FOR SITE DUR03, Durango Disposal Site
 REPORT DATE: 9/7/2006

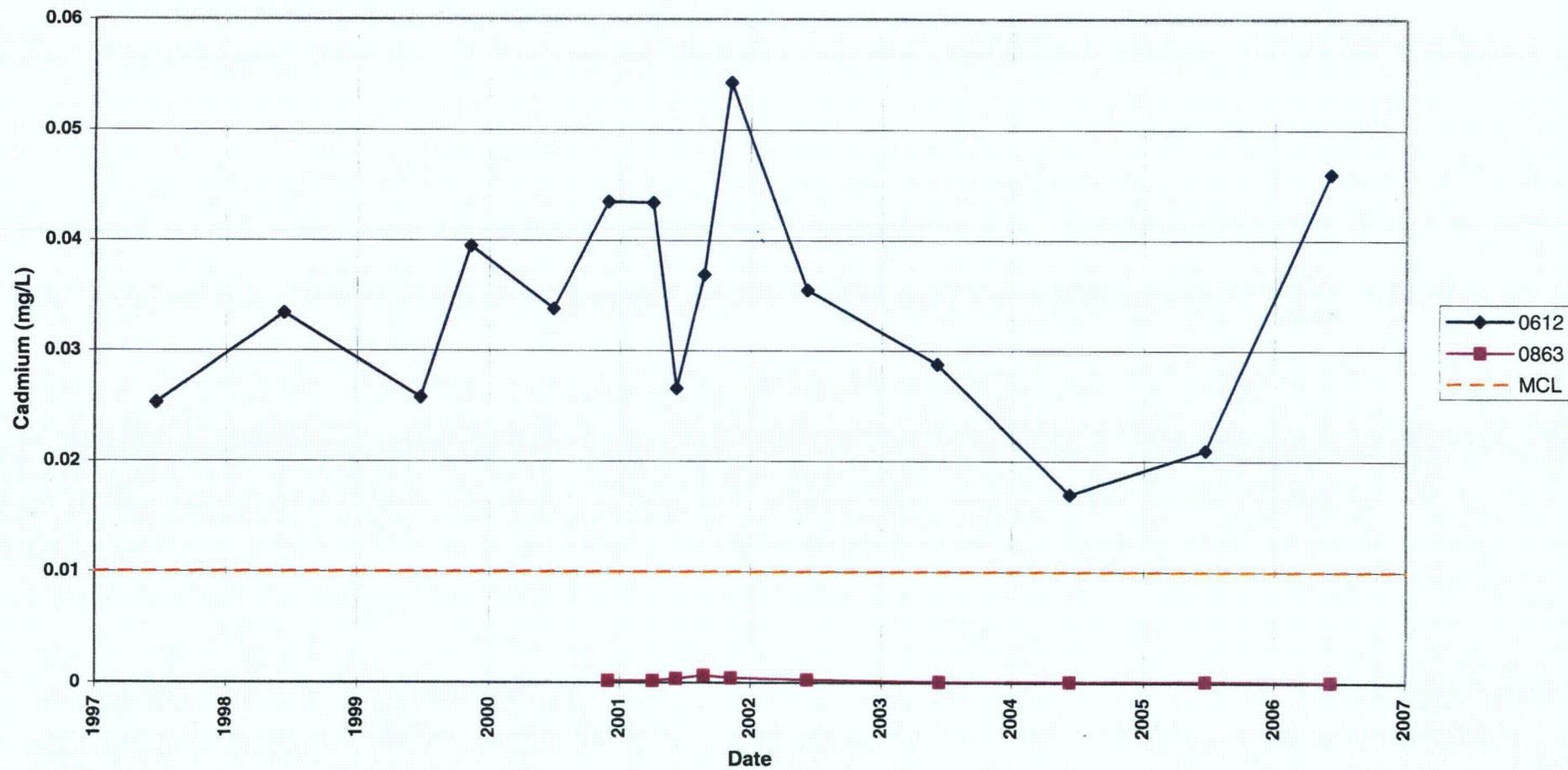
| Location Code | Flow Code | Top of Casing Elevation (Ft) | Measurement Date | Measurement Time | Depth From Top of Casing (Ft) | Water Elevation (Ft) | Water Level Flag |
|---------------|-----------|------------------------------|------------------|------------------|-------------------------------|----------------------|------------------|
| 0605 | U | 7189.6 | 08-JUN-06 | 10:33:00 | 38.58 | 7151.02 | |
| 0607 | D | 7099.1 | 08-JUN-06 | 07:58:00 | 43.22 | 7055.88 | |
| 0608 | D | 7035 | 08-JUN-06 | 16:33:00 | 35.28 | 6999.72 | |
| 0612 | D | 7109.8 | 08-JUN-06 | 09:17:00 | 81.14 | 7028.66 | |
| 0618 | D | 7036.41 | 08-JUN-06 | 11:29:00 | 37.35 | 6999.06 | |
| 0621 | U | 7035.77 | 08-JUN-06 | 15:39:00 | 47.42 | 6988.35 | |
| 0623 | U | 7048.67 | 08-JUN-06 | 17:10:00 | 32.94 | 7015.73 | |
| 0623 | U | 7048.67 | 08-JUN-06 | 17:10:00 | 32.94 | 7015.73 | |

FLOW CODES: B BACKGROUND C CROSS GRADIENT D DOWN GRADIENT O ON SITE
 U UPGRADIENT

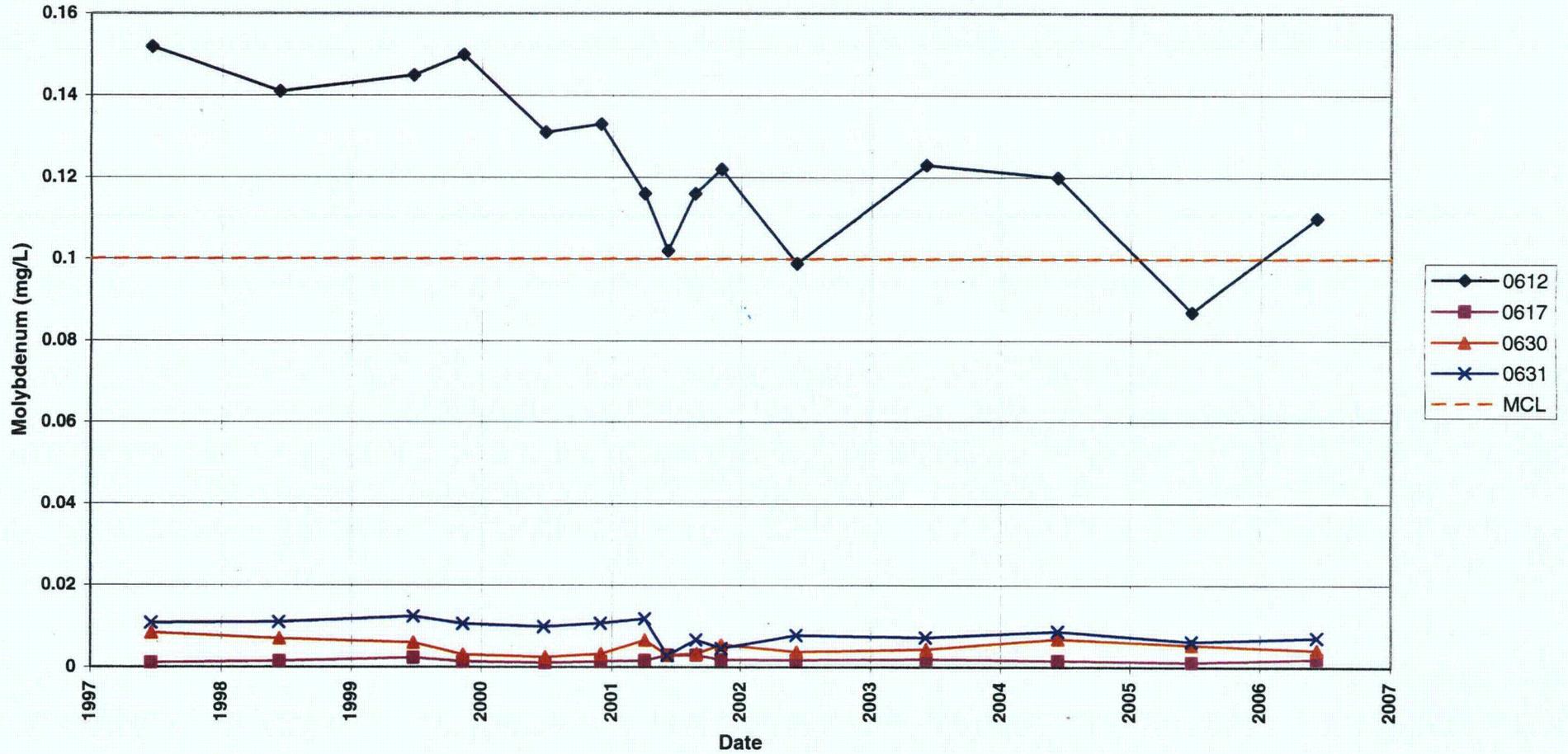
WATER LEVEL FLAGS: D Dry

Time Versus Concentration Graphs

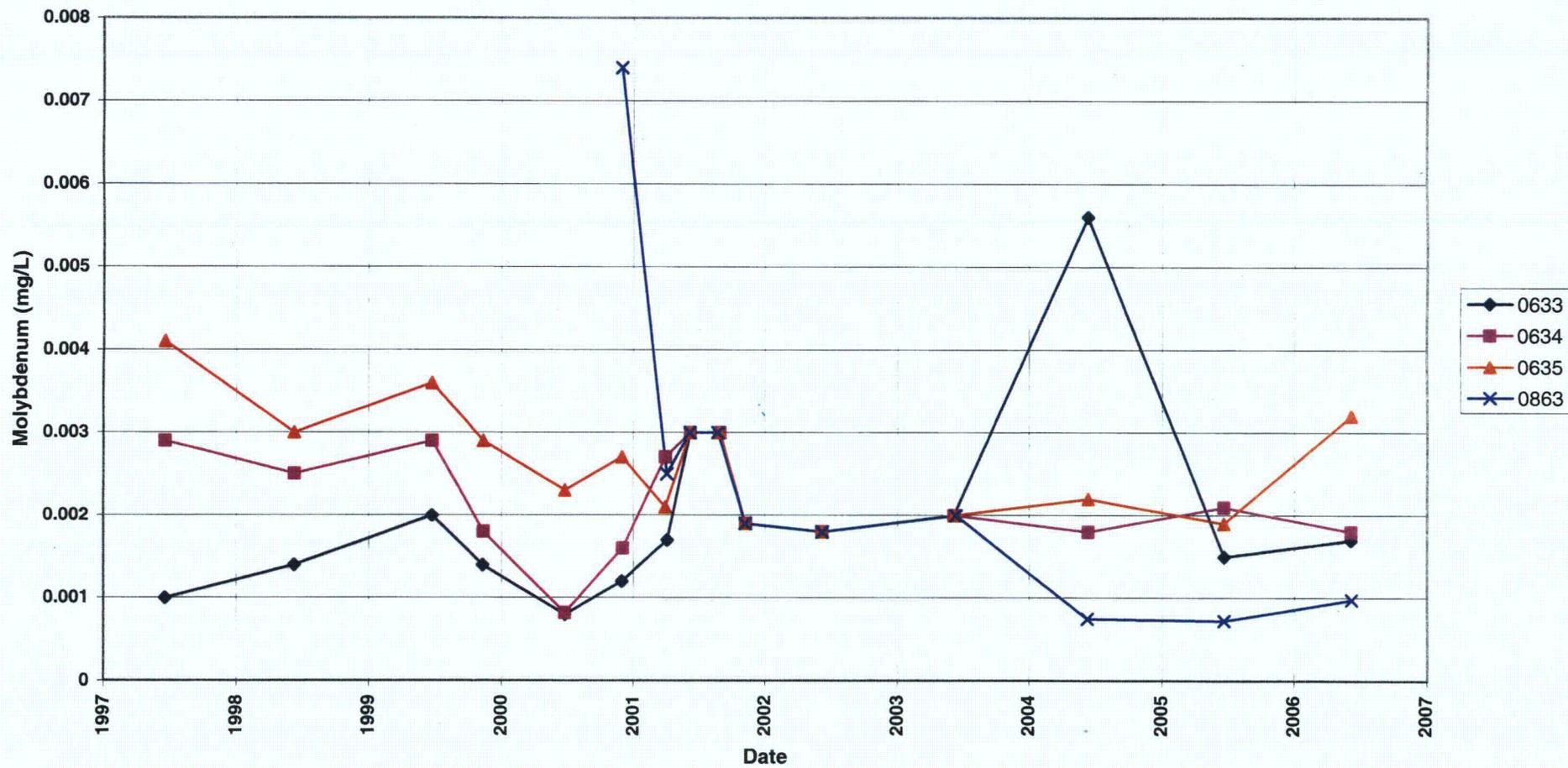
Durango Mill Tailings Process Site
Cadmium Concentration
Maximum Contaminant Level = 0.01 mg/L



Durango Mill Tailings Process Site
Molybdenum Concentration
Maximum Contaminant Level = 0.1 mg/L

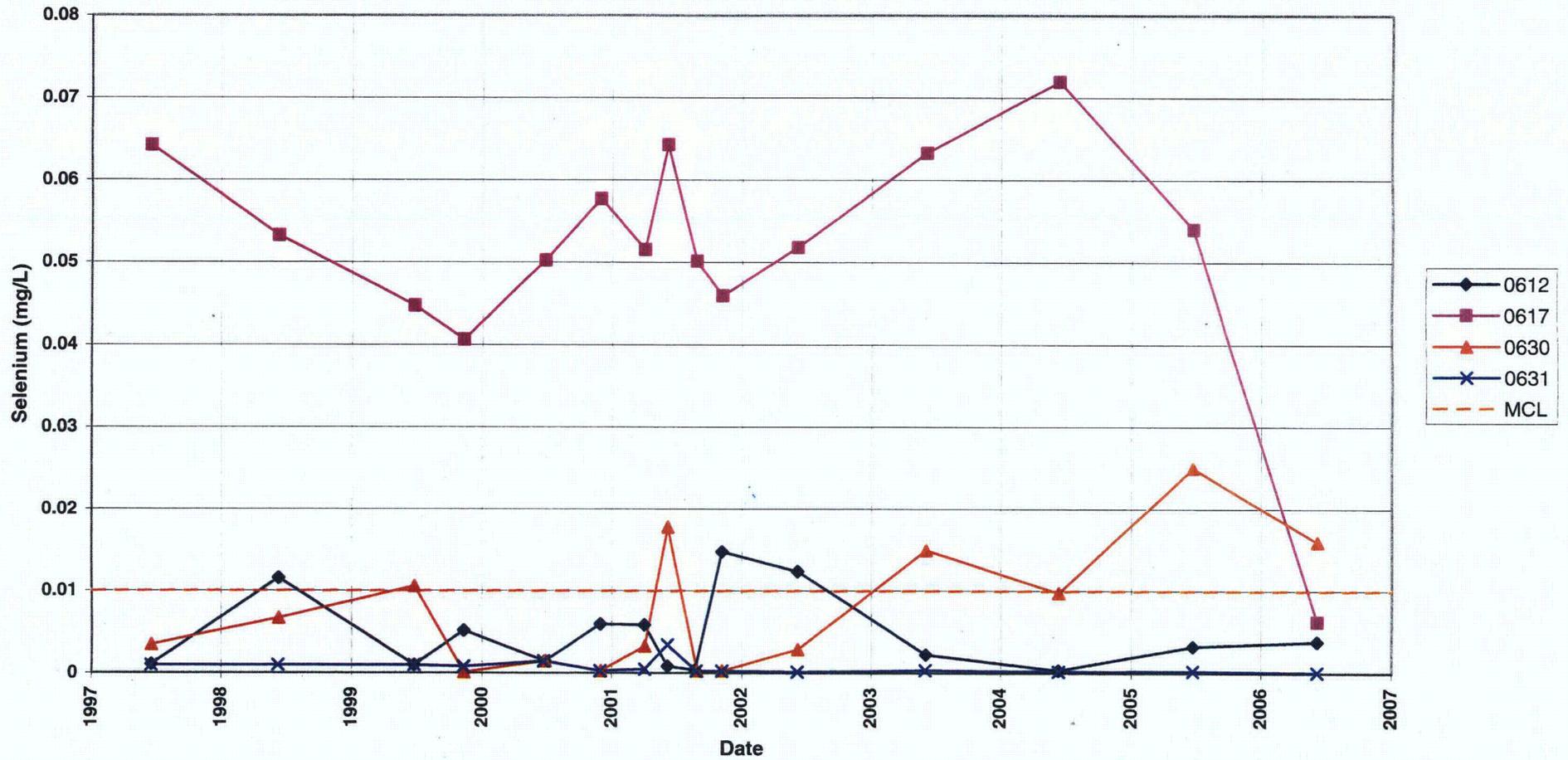


Durango Mill Tailings Process Site
Molybdenum Concentration
Maximum Contaminant Level = 0.1 mg/L



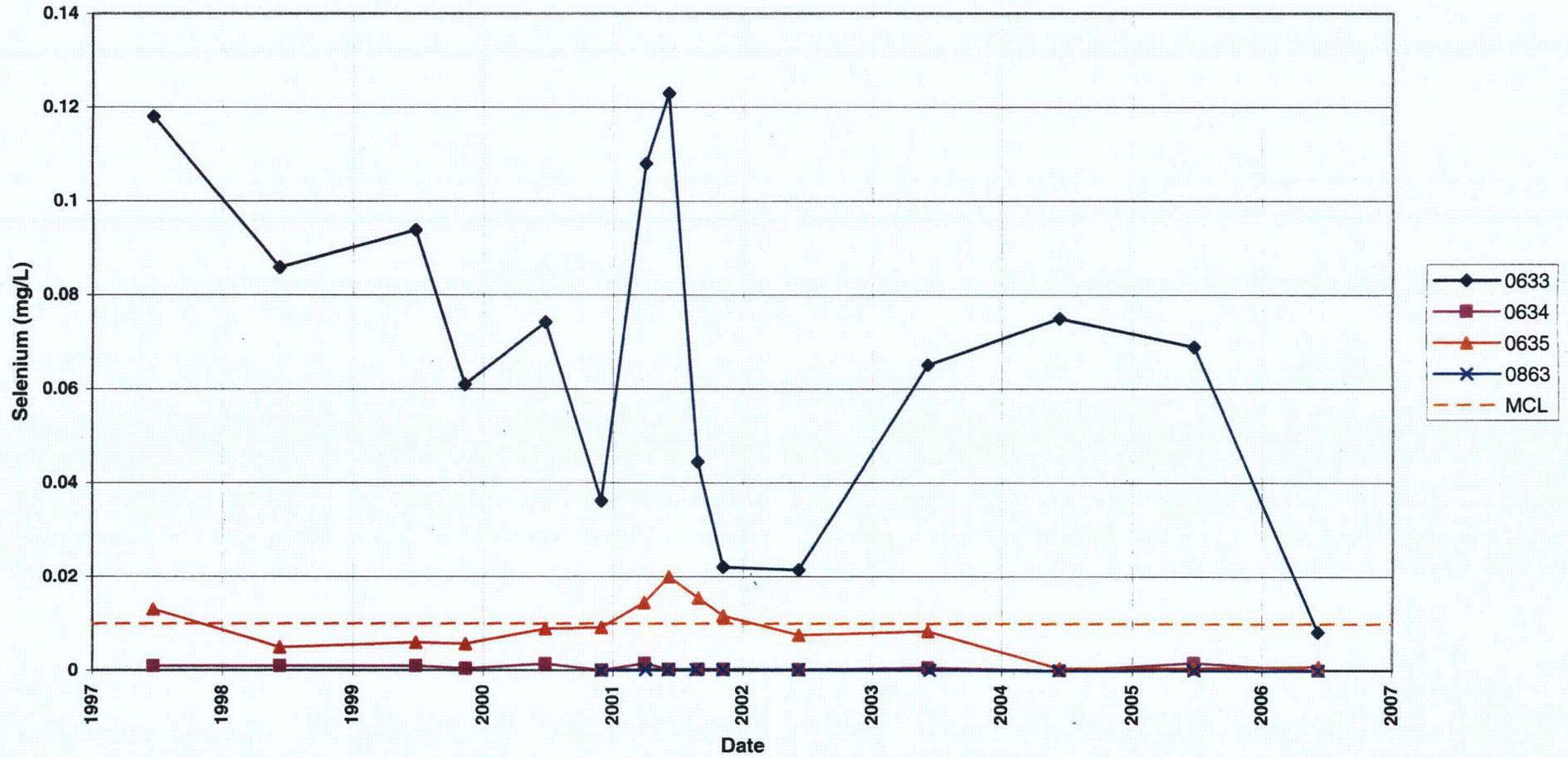
Durango Mill Tailings Process Site
Selenium Concentration

Maximum Contaminant Level = 0.01 mg/L

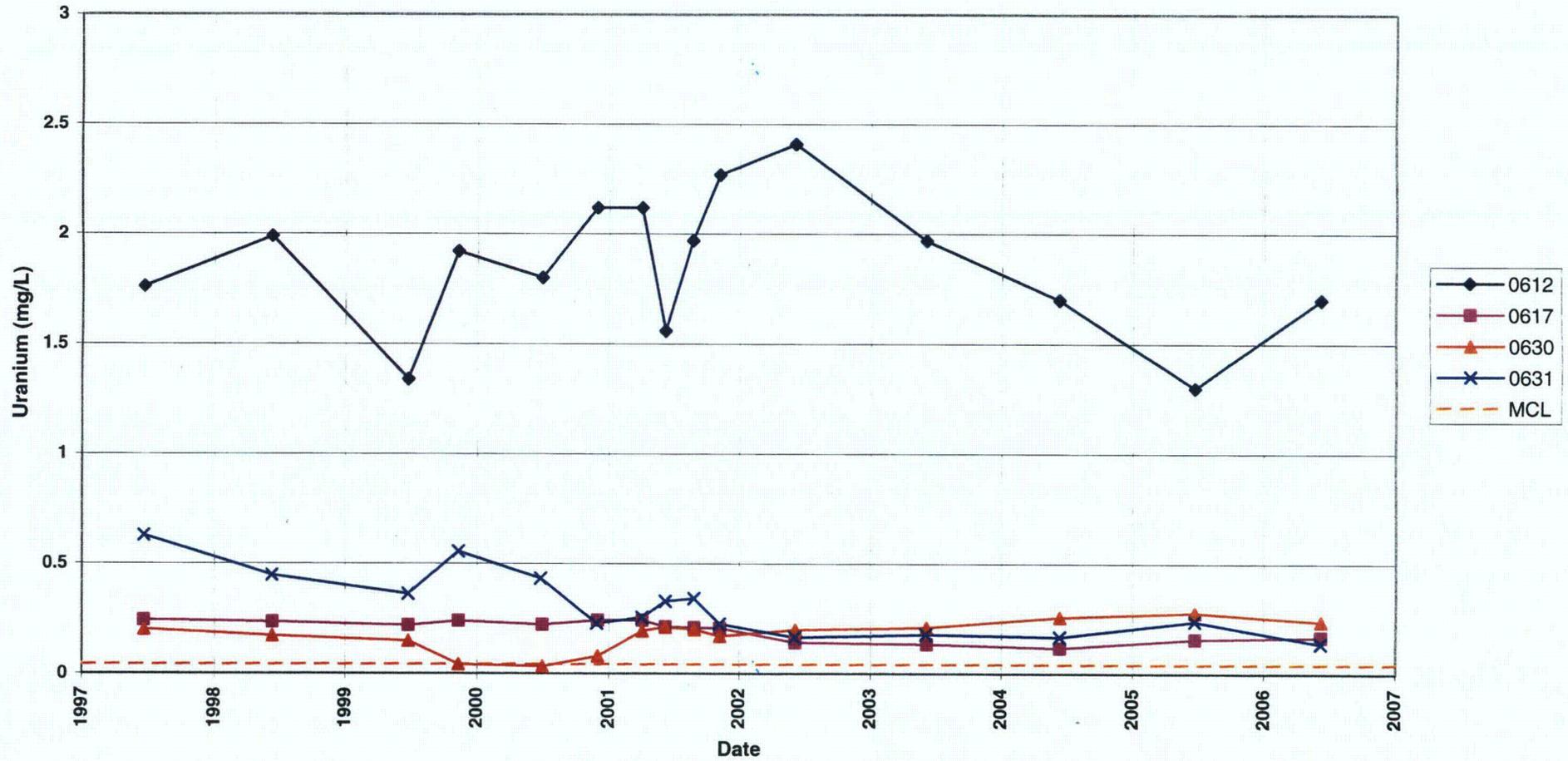


Durango Mill Tailings Process Site Selenium Concentration

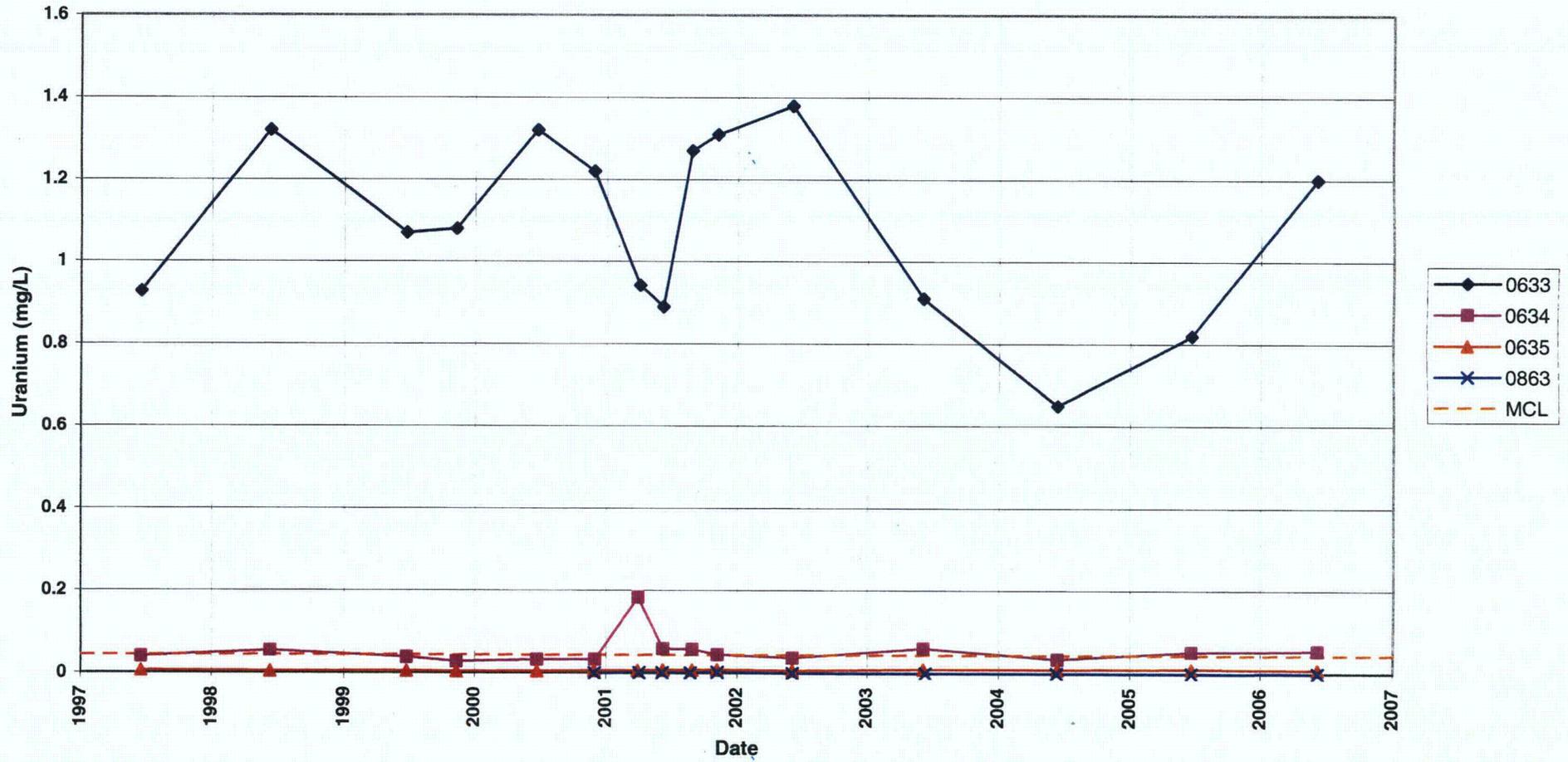
Maximum Contaminant Level = 0.01 mg/L



Durango Mill Tailings Process Site
Uranium Concentration
Maximum Contaminant Level = 0.044 mg/L

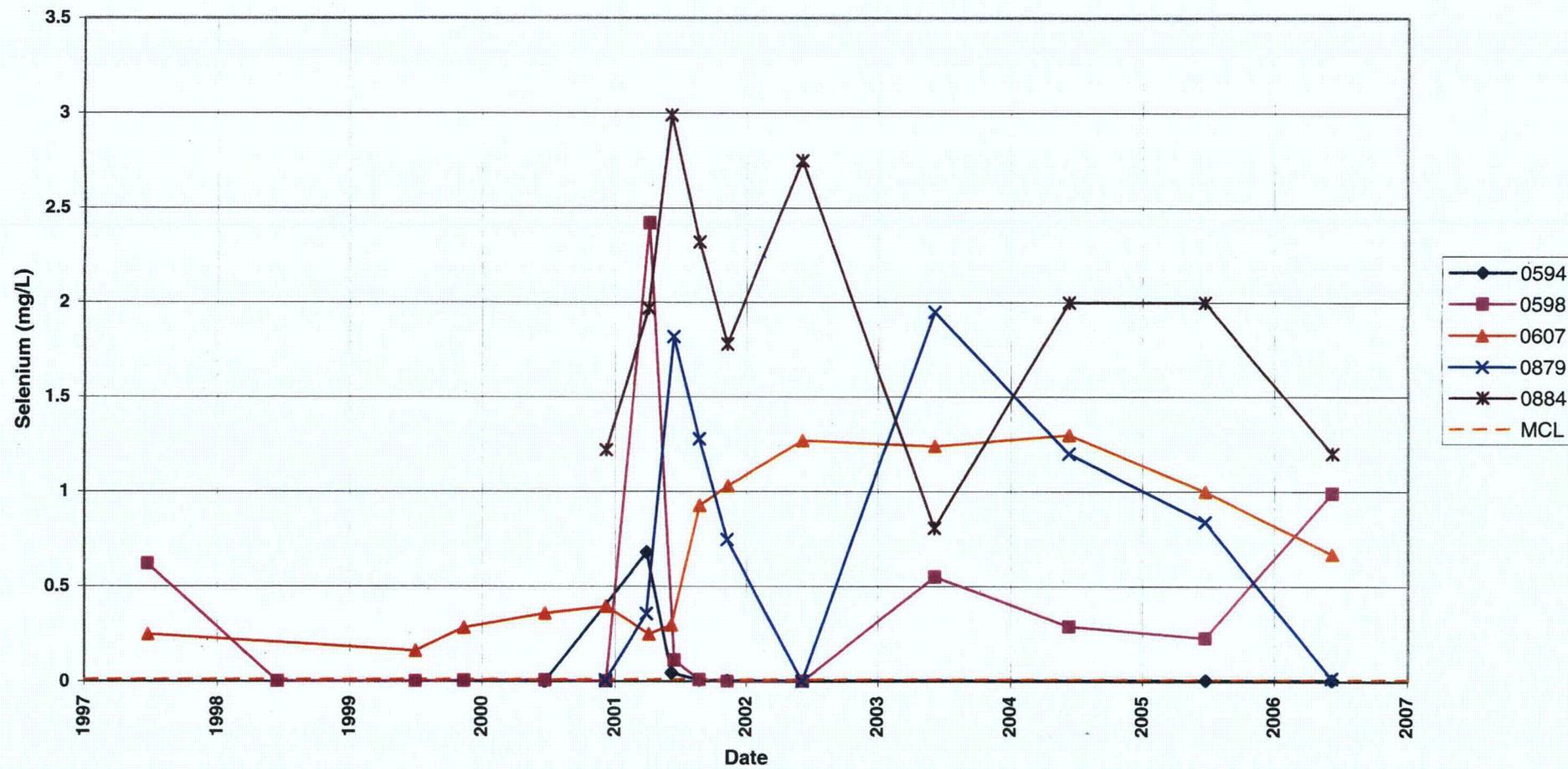


Durango Mill Tailings Process Site
Uranium Concentration
Maximum Contaminant Level = 0.044 mg/L

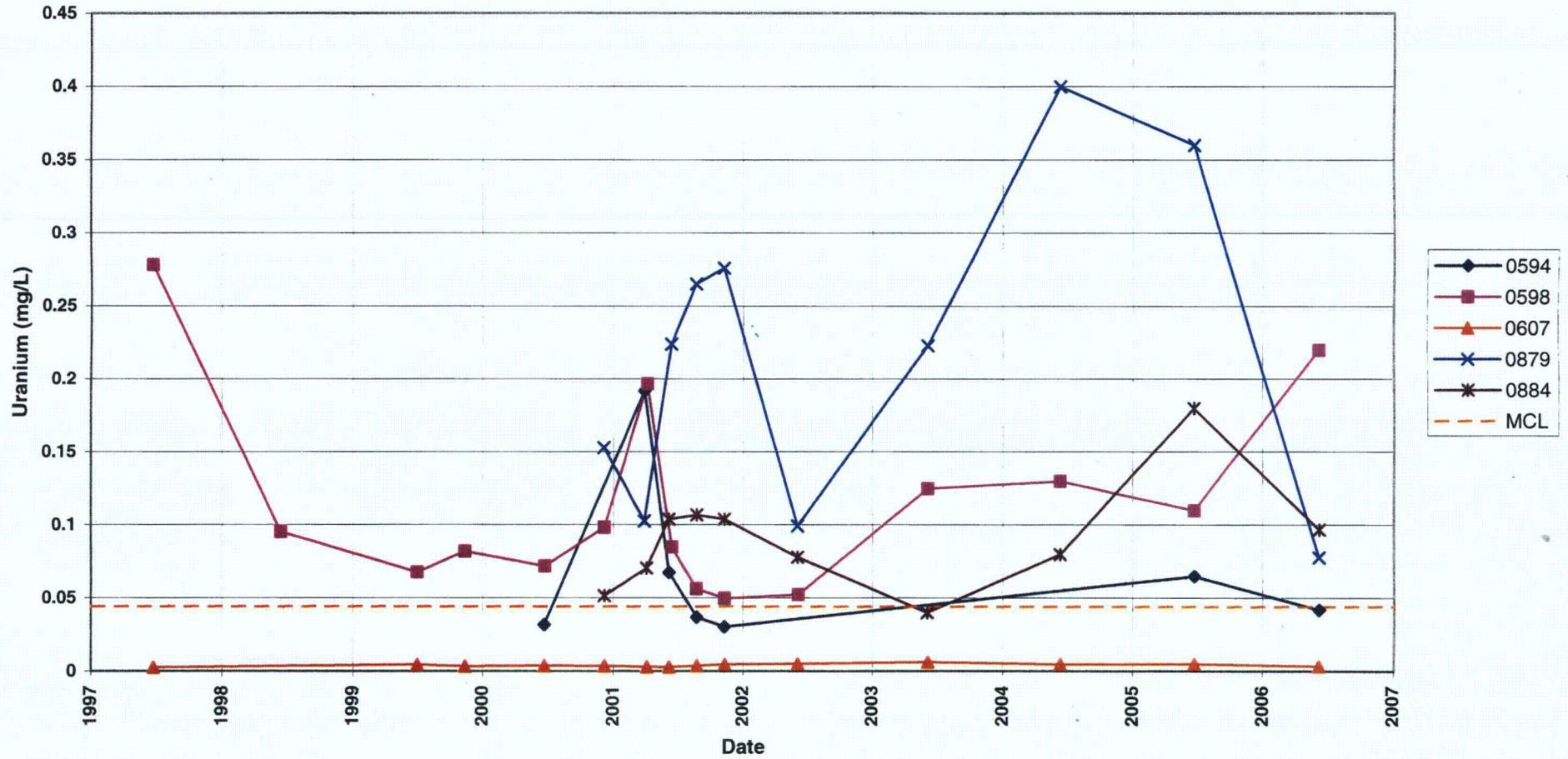


Durango Raffinate Pond Process Site Selenium Concentration

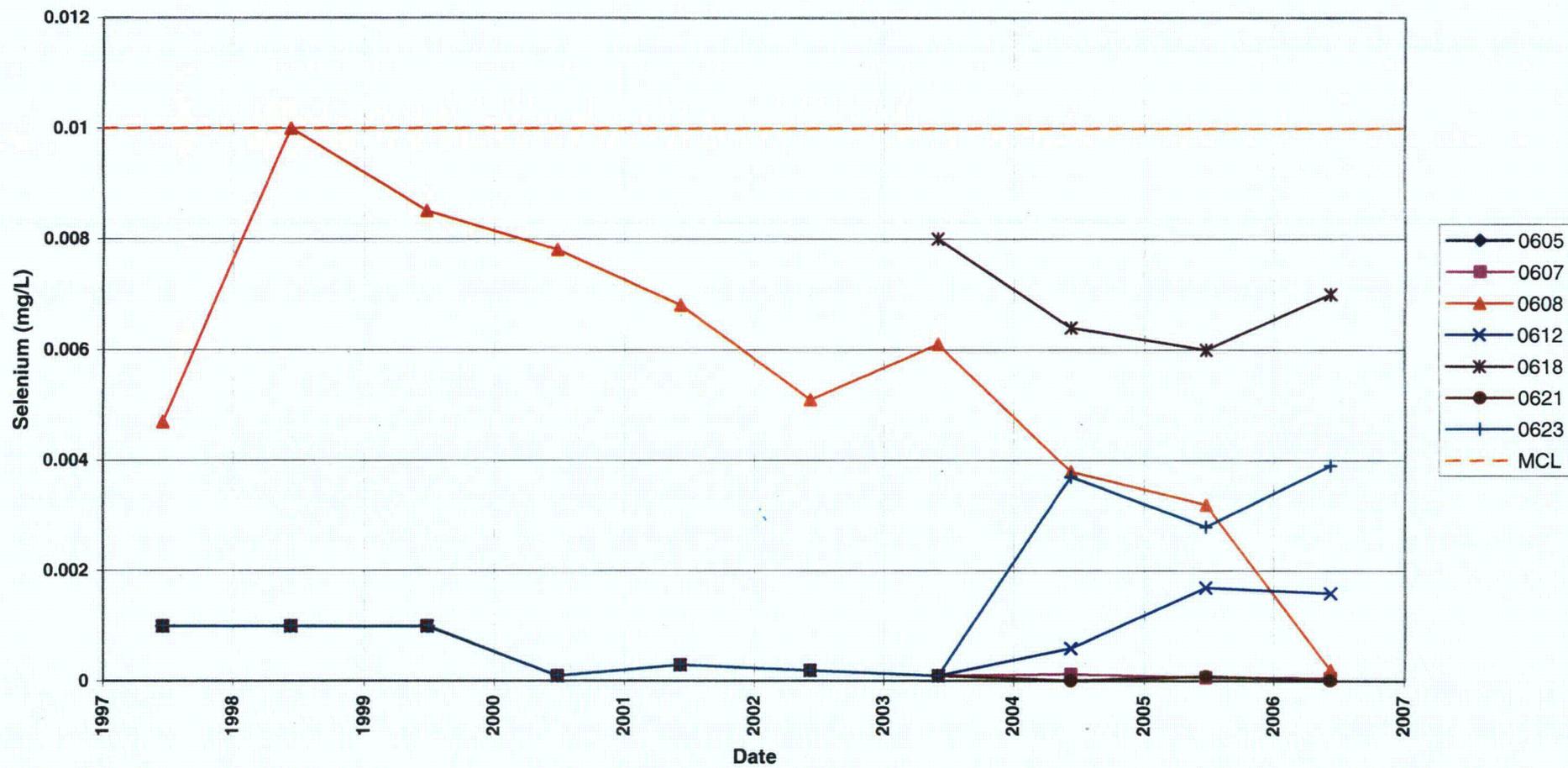
Maximum Contaminant Level = 0.01 mg/L



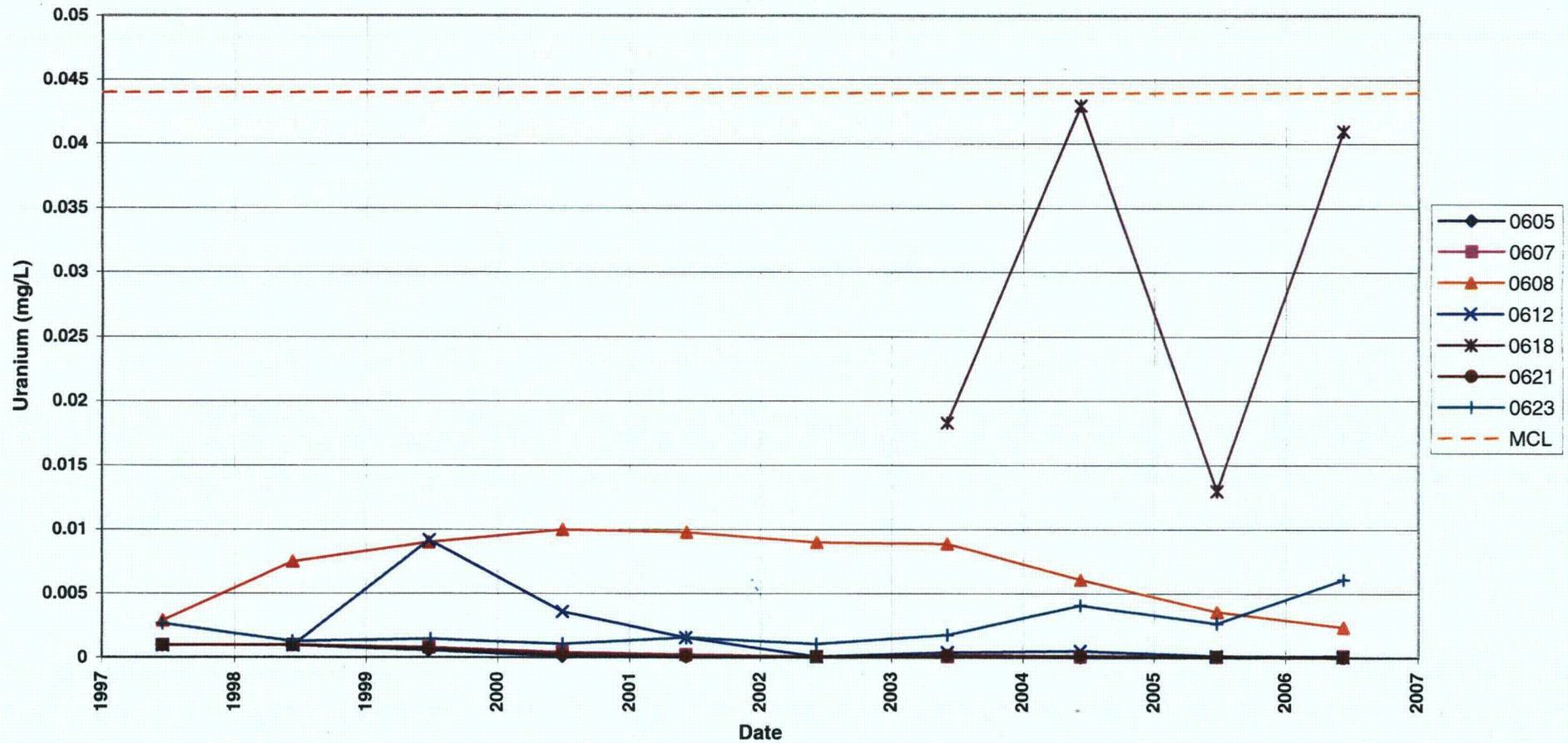
Durango Raffinate Pond Process Site
Uranium Concentration
Maximum Contaminant Level = 0.044 mg/L



Durango Disposal Site
Selenium Concentration
Maximum Contaminant Level = 0.01 mg/L



Durango Disposal Site
Uranium Concentration
Maximum Contaminant Level = 0.044 mg/L



Attachment 3
Sampling and Analysis Work Order

Stoller

established 1959

Task Order ST06-102
Control Number 1000-T06-1157

May 4, 2006

Richard P. Bush
Program Manager
U.S. Department of Energy
Office of Legacy Management
2597 B ¾ Road
Grand Junction, CO 81503

SUBJECT: Contract No. DE-AC01-02GJ79491, Stoller
June 2006 Environmental Sampling at Durango, Colorado, Processing and
Disposal Sites

Reference: FY 2006 LM Task Order No. ST06-102-08

Dear Mr. Bush:

The purpose of this letter is to inform you of the upcoming sampling at Durango, Colorado. Enclosed are the maps and tables specifying sample locations and analytes for monitoring at the Durango, Colorado, processing and disposal sites. Water quality data will be collected from monitor wells and surface water locations at these sites as part of the routine environmental sampling currently scheduled to begin the week of June 5, 2006.

The following lists show the monitor wells (with zone of completion) and surface locations scheduled to be sampled during this event.

Monitor Wells (filtered)*

DUR01 Mill Site

| | | | | | | |
|-----------|-----------|-----------|--------|--------|--------|--------|
| 612 Al/Km | 630 Al/Km | 631 Al/Km | 633 Km | 634 Km | 635 Km | 863 Al |
| 617 Al | | | | | | |

DUR02 Raffinate Pond

| | | | | | | |
|--------|-----------|--------|--------|--------|--|--|
| 594 Mf | 598 Mf/Pl | 607 Al | 879 Mf | 884 Al | | |
|--------|-----------|--------|--------|--------|--|--|

DUR03 Bodo Canyon

| | | | | | | |
|--------|--------|--------|--------|--------|--------|--------|
| 605 Cf | 607 Cf | 608 Al | 612 Km | 618 Al | 621 Cf | 623 Al |
|--------|--------|--------|--------|--------|--------|--------|

*NOTE: Al = Alluvium; Cf = Cliff House Formation; Km = Mancos Shale; Mf = Menefee Formation; Pl = Point Lookout Formation

Surface Locations (filtered)

DUR01

584 586 652 691

DUR02

588 654 656

QA/QC samples will be collected as directed in the *Ground Water and Surface Water Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites*. Access agreements are being reviewed and are expected to be complete by the beginning of fieldwork.

If you have any questions, please call me at extension 6588 or Dave Miller at extension 6652.

Sincerely,

Signature on original

Clay Carpenter
Project Manager

CC/lcg/mat
Enclosures (3)

cc: C. I. Bahrke, Stoller
 S. E. Donovan, Stoller (e)
 L. C. Goodknight, Stoller (e)
 D. E. Miller, Stoller (e)
 K. E. Miller, Stoller
 D. G. Traub, Stoller (e)

cc w/o enclosures:
 Correspondence Control File (Thru V. Creagar)

**Constituent Sampling
Breakdown
For Individual Sites**

| Site | Durango | |
|---------------------------------------|--|---------------|
| | Ground Water | Surface Water |
| Approx. No. Samples/yr | 20 | 7 |
| <i>Field Measurements</i> | | |
| Alkalinity | X | X |
| Dissolved Oxygen | | |
| Redox Potential | X | X |
| pH | X | X |
| Specific Conductance | X | X |
| Turbidity | X | |
| Temperature | X | X |
| <i>Laboratory Measurements</i> | | |
| Aluminum | | |
| Ammonia as N (NH3-N) | | |
| Antimony | | |
| Arsenic | | |
| Beryllium | | |
| Bromide | | |
| Cadmium | 612 & 863 only | X |
| Calcium | DUR03 only | |
| Chloride | DUR03 only | |
| Chromium | | |
| Copper | | |
| Fluoride | | |
| Gross Alpha | | |
| Gross Beta | | |
| Iron | DUR03 only | |
| Lead | | |
| Lead-210 | | |
| Magnesium | DUR03 only | |
| Manganese | All Mill Tailings Area and Bodo Canyon locations | |
| Molybdenum | All Mill Tailings Area and Bodo Canyon locations | X |
| Nickel | | |
| Nickel-63 | | |
| Nitrate + Nitrite as N (NO3+NO2)-N | | |
| PCBs | | |

| Analyte | Ground Water | Surface Water |
|--------------------------------|--|---------------|
| <i>Laboratory Measurements</i> | | |
| Phosphate | | |
| Polonium-210 | | |
| Potassium | DUR03 only | |
| Radium-226 | | |
| Radium-228 | | |
| Selenium | X | X |
| Silica | | |
| Sodium | DUR03 only | |
| Strontium | | |
| Sulfate | All Mill Tailings Area and Bodo Canyon locations | |
| Sulfide | | |
| Thallium | | |
| Thorium-230 | | |
| Tin | | |
| Total Dissolved Solids | X | |
| Total Organic Carbon | | |
| Uranium | X | X |
| Vanadium | | |
| Zinc | | |
| Total No. of Analytes | 13 | 4 |

Attachment 4
Trip Report

Memorandum

Control Number N/A

DATE: July 18, 2006
TO: David E. Miller
FROM: Jeff W. Walters
SUBJECT: Trip Report

Site: Durango, Colorado, Processing and Disposal Sites

Dates of Sampling Event: June 5 through June 9, 2006

Team Members: Jeff Walters and Dave Traub

Number of Locations Sampled: 20 monitor wells, 7 surface water locations, 2 duplicate samples and 1 equipment blank for a total of 30 samples.

Locations Not Sampled/Reason: None.

Location Specific Information:

| Ticket Number | Location | Sample Date | Description |
|---------------|----------|-------------|--|
| NDU 166 | 0598-02 | 6/6/06 | Cat I |
| NDU 167 | 0879-02 | 6/6/06 | Cat I |
| NDU 168 | 0586-01 | 6/6/06 | Surface Water |
| NDU 169 | 0607-03 | 6/6/06 | Cat II; surface installation has been bumped |
| NDU 170 | 0588-02 | 6/6/06 | Surface Water |
| NDU 171 | 0634-01 | 6/6/06 | Cat II |
| NDU 172 | 0635-01 | 6/6/06 | Cat III |
| NDU 173 | 0633-01 | 6/6/06 | Cat I |
| NDU 174 | 0652-01 | 6/7/06 | Surface Water |
| NDU 175 | 0863-01 | 6/7/06 | Cat I |
| NFJ 601 | 0612-01 | 6/7/06 | Cat I |
| NFJ 602 | 0691-01 | 6/7/06 | Surface Water |
| NFJ 603 | 0630-01 | 6/7/06 | Cat I |
| NFJ 604 | 0584-01 | 6/7/06 | Surface Water |
| NFJ 605 | 2347-01 | 6/7/06 | Duplicate of 0612-01 |
| NFJ 606 | 0617-01 | 6/7/06 | Cat I |
| NFJ 607 | 0631-01 | 6/7/06 | Cat I |
| NFJ 608 | 0656-02 | 6/7/06 | Surface Water |
| NFJ 609 | 0594-02 | 6/7/06 | Cat I |

| Ticket Number | Location | Sample Date | Description |
|---------------|----------|-------------|--|
| NFJ 610 | 0884-02 | 6/7/06 | Cat I; pump reinstalled on 6/6/06 |
| NFJ 611 | 0654-02 | 6/7/06 | Surface Water |
| NFJ 612 | 0607-03 | 6/8/06 | Cat I |
| NFJ 613 | 0612-03 | 6/8/06 | Cat II |
| NFJ 614 | 0605-03 | 6/8/06 | Cat I; pump needs to be replaced |
| NFJ 615 | 2348-03 | 6/8/06 | Duplicate of 0607-03 |
| NFJ 616 | 0618-03 | 6/8/06 | Cat I |
| NFJ 617 | 0621-03 | 6/8/06 | Cat I; pH too low for alkalinity measurement |
| NFJ 618 | 0608-03 | 6/8/06 | Cat I |
| NFJ 619 | 0623-03 | 6/8/06 | Cat II |
| NFJ 620 | 2349-03 | 6/8/06 | Equipment Blank after 0623-03 |

Field Variance: None.

Quality Control Sample Cross Reference: The following are the false identifications assigned to the quality control samples:

| False ID | True ID | Sample Type | Associated Matrix | Ticket Number |
|----------|---------------|-----------------|-------------------|---------------|
| 2347-01 | 0612-01 | Duplicate | Ground water | NFJ 605 |
| 2348-03 | 0607-03 | Duplicate | Ground water | NFJ 615 |
| 2349-03 | After 0623-03 | Equipment Blank | DI Water | NFJ 620 |

Requisition Numbers Assigned: All samples were assigned to RIN 06050387.

Sample Shipment: Samples with ticket numbers NDU 166 through NDU 175, and NFJ 601 through NFJ 616, were shipped overnight FedEx to Paragon Analytics, Inc. from Durango, Colorado, on June 8, 2006. Samples with ticket numbers NFJ 617 through NFJ 620 were shipped overnight FedEx to Paragon Analytics, Inc. from Grand Junction, Colorado, on June 12, 2006.

Water Level Measurements: Water level measurements were collected in all sampled wells. Water level data are provided in the table below. These data represent depth to water (ft btoc) measurements:

| Well | Date | Depth to water (ft.) |
|---------|--------|----------------------|
| 0598-02 | 6/6/06 | 22.93 |
| 0879-02 | 6/6/06 | 14.60 |
| 0607-03 | 6/6/06 | 51.16 |
| 0634-01 | 6/6/06 | 13.45 |
| 0635-01 | 6/6/06 | 13.65 |
| 0633-01 | 6/6/06 | 9.55 |
| 0863-01 | 6/7/06 | 56.50 |
| 0612-01 | 6/7/06 | 40.51 |
| 0630-01 | 6/7/06 | 32.50 |
| 0617-01 | 6/7/06 | 28.96 |
| 0631-01 | 6/7/06 | 8.14 |

| Well | Date | Depth to water (ft.) |
|---------|--------|----------------------|
| 0594-02 | 6/7/06 | 20.42 |
| 0884-02 | 6/7/06 | 20.91 |
| 0607-03 | 6/8/06 | 43.22 |
| 0612-03 | 6/8/06 | 81.14 |
| 0605-03 | 6/8/06 | 38.58 |
| 0618-03 | 6/8/06 | 37.55 |
| 0621-03 | 6/8/06 | 47.42 |
| 0608-03 | 6/8/06 | 35.28 |
| 0623-03 | 6/8/06 | 32.94 |

Well Inspection Summary: Well inspections were conducted at all sampled wells. Monitor well 0598-02 needs a well label. Monitor well 0607-03 has an upset (bumped?) protective casing from nearby activity. Monitor well 0594-02 needs a riser cap. All other wells were in good condition.

Equipment: 14 wells were equipped with dedicated submersible pumps. 5 wells were sampled using a peristaltic pump. 7 surface water samples were collected using a peristaltic pump. 1 well (0618-03) did not have the sampling equipment used recorded.

Institutional Controls: Did not examine: all gates were appropriately closed and locked during the sampling event.

Fences, Gates, Locks: OK

Signs: N/A

Trespassing/Site Disturbances: N/A

Site Issues:

Disposal Cell/Drainage Structure Integrity: N/A

Vegetation/Noxious Weed Concerns: N/A

Maintenance Requirements: None observed

Corrective Action Taken: None.

NOTE: Well DUR02-0889 is not abandoned. The database has it marked as being decommissioned.

(JWW/lcg)

cc: R. P. Bush, DOE (e)
C. I. Bahrke, Stoller (e)
S. E. Donovan, Stoller (e)
K. E. Miller, Stoller (e)