

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III ENVIRONMENTAL SCIENCE CENTER 701 MAPES ROAD FORT MEADE, MARYLAND 20755-5350



DATE : July 8, 2005

SUBJECT: Region III Data QA Review

FROM : Khin-Cho Thaung KCT Region III ESAT RPO (3EA21)

TO : Christian Matta Regional Project Manager (3HS23)

Attached is the inorganic data validation report for the Big John Salvage-Hoult Road Site (Case#: 34031; SDG#: MC1AR0, MC1AS4, MC1AW5) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2743.

Attachments

cc: Tad Yancheski (TETRA)

TO File #: 0023 TDF#: 0578

ANALYTICAL SERVICES AND QUALITY ASSURANCE BRANCH



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DATE: June 14, 2005

SUBJECT: Inorganic Data Validation (IM2 Level) Case: 34031 SDGs: MC1AR0, MC1AS4 and MC1AW5 Site: Big John Salvage - Hoult Road

FROM: Donald M. Brown $\mathcal{D}^{\mathcal{W}}$ Inorganic Data Reviewer

> Mahboobeh Mecanic^M Senior Oversight Chemist

TO: Khin-Cho Thaung ESAT Region 3 Project Officer

OVERVIEW

Case 34031, Sample Delivery Groups (SDGs) MC1AR0, MC1AS4 and MC1AW5, consisted of forty-seven (47) filtrate aqueous samples analyzed for dissolved metals. All samples were analyzed by Ceimic Corporation (CEIMIC). The sample set contained three (3) filtrate rinsate blanks and five (5) field duplicate pairs. Samples were analyzed in accordance with Contract Laboratory Program (CLP) Statement of Work (SOW) ILM05.3 through Routine Analytical Services (RAS) program.

SUMMARY

All samples were successfully analyzed for all Target Analyte List (TAL) parameters with the exception of silver (Ag) in SDGs MC1AS4 and MC1AW5. Areas of concern with respect to data usability are listed below.

Rinsate blanks were utilized to evaluate sample results for field contamination based on corresponding sampling dates and/or corresponding samplers for this case.

Data in this case have been impacted by outliers present in the laboratory and rinsate blanks as well as the continuing calibration verification and laboratory control sample analyses. Details of these outliers are discussed under "Major and Minor Problems"; specific samples affected are outlined in "Table 1A" and qualified analytical results for all samples are summarized on the Data Summary Forms (DSFs).

The CCV standard recovery was slightly low (<90%) for Na in SDG MC1AR0. Positive results reported for this analyte in affected samples in this SDG may be biased low and have been qualifed "L" on the DSFs.

<u>NOTES</u>

Reported results between MDLs and Contract Required Quantitation Limits (CRQLs) were qualified "J" on the DSFs unless superseded by "B".

The Chain of Custody (CoC) Records list all samples in this data set (SDGs MC1AR0, MC1AS4 and MC1AW5) for total metals, dissolved metals and cyanide analyses. However, the SDG Narratives explain that these SDGs report the results for dissolved metals analysis only. The total metals and cyanide analyses results are provided in separate SDGs.

For the samples in this data set, the sampler assigned the same EPA sample numbers for both total and dissolved metals analyses. The SDG Narratives explain that the Sample Management Office (SMO) has assigned new CLP sample identification (ID) numbers for the dissolved metals portion of the sample IDs listed on the CoC Records.

One (1) of the CCV standard recoveries (CCV05) was high (>110%) for Sb and selenium (Se) in the second analytical run of SDG MC1AS4; however, the samples affected (MC1AX8, MC1AX9, MC1AW2 and MC1AW4) had non-detected results for these analytes in this SDG. Therefore, data were not qualified due to this outlier.

One (1) of the CRQL check standard recoveries (CRI04) was low (<70%) for Fe in the second analytical run of SDG MC1AS4. The laboratory did not reanalyze this CRQL check standard for this analyte; however, the sample associated with this check standard (MC1AW4) had a reported result greater than two times the CRQL (>2XCRQL). Therefore, no data were qualified based on this finding.

Reported results for field duplicate pairs MC1AR1/MC1AR7, MC1AS2/MC1AT9, MC1AT3/MC1AT8, MC1AW3/MC1AX6 and MC1AW7/MC1AX5 were within 20% RPD, ±CRQL for all analytes.

Data for Case 34031, SDGs MC1AR0, MC1AS4 and MC1AW5, were reviewed in accordance with National Functional Guidelines for Evaluating Inorganic Analyses with Modification for use within Region III.

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TABLE 1A SUMMARY OF QUALIFIERS ON DATA SUMMARY FORM AFTER DATA VALIDATION

Case 34031, SDG MC1AR0

| <u>ANALYTE</u> | SAMPLES AFFECTED | POSITIVE <u>VALUES</u> | NON- DETECTED <u>VALUES</u> | BIAS | COMMENTS* |
|----------------|--------------------------------------------------------------------------------------------|---------------------------|-----------------------------------|------|------------------------------------|
| Sb | MC1AR0, MC1AR1, MC1AR2, MC1AR5, MC1AR6 | | UL | Low | CBN (-3.912 J μg/L) ` |
| As | MC1AR6, MC1AR9 | J | | | >MDL <crql CVH (117%)</crql |
| | MC1AR4, MC1AS2 | K | | High | CVH (117%) |
| Ве | MC1AR0, MC1AR1, MC1AR2, MC1AR3, MC1AR4, MC1AR5, MC1AR6, MC1AR7, MC1AS0, MC1AS2 | • • | UL | Low | CBN (-0.119 J μg/L) |
| | MC1AS1, MC1AS3, MC1AS5, MC1AS6, MC1AT3, MC1AT4, MC1AT5, MC1AT8, MC1AT9 | | UL | Low | CBN (-0.129 J µg/L) |
| Ca | MC1AR0, MC1AS2, MC1AT3, MC1AT8, MC1AT9 | В | | High | RB (344 J μg/L) |
| Cu | MC1AR3, MC1AR6, MC1AR7, MC1AS1, MC1AS5, MC1AS6, MC1AT5 | B | · · | High | RB (2.7 J μg/L) |

* See explanation of comments in Table 1B

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TABLE 1A SUMMARY OF QUALIFIERS ON DATA SUMMARY FORM AFTER DATA VALIDATION

Case 34031, SDG MC1AR0

| <u>ANALYTE</u> | SAMPLES AFFECTED | POSITIVE VALUES | NON- DETECTED <u>VALUES</u> | BIAS | <u>COMMENTS*</u> |
|----------------|--------------------------------------------------------------------------------------------|--------------------|-----------------------------------|------|-------------------------------------|
| Ag | MC1AS1, MC1AS3, MC1AS5, MC1AS6, MC1AT3, MC1AT4, MC1AT5, MC1AT8, MC1AT9 | | UL . | Low | CBN (-1.536 J µg/L) |
| Na | MC1AR2 | J | | | >MDL <crql CVL (89.6%)</crql |
| | MC1AR0, MC1AR1, MC1AR3, MC1AR4, MC1AR5, MC1AR6, MC1AR7, MC1AR9, MC1AS0, MC1AS2 | , , | ÷ | Low | CVL (89.6%) |
| Zn | MC1AR9, MC1AS0 | В | | High | RB (22.0 J μg/L) CVH (111%) |

* See explanation of comments in Table 1B

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TABLE 1A SUMMARY OF QUALIFIERS ON DATA SUMMARY FORM AFTER DATA VALIDATION

Case 34031, SDG MC1AS4

| ANALYTE | SAMPLES <u>AFFECTED</u> | POSITIVE <u>VALUES</u> | NON- DETECTED <u>VALUES</u> | BIAS | COMMENTS* |
|---------|--------------------------------------------------------------------------------------------|---------------------------|-----------------------------------|------|----------------------|
| Cu | MC1AS4, MC1AS7, MC1AS8, MC1AS9, MC1AT0, MC1AT1, MC1AT2, MC1AT6, MC1AT7, MC1AW4 | В | | High | RB (2.7 J μg/L) |
| | MC1AW2, MC1AW3 MC1AX3, MC1AX6 | , В | / | High | RB (2.5 J μg/L) |
| (| MCÍAW7, MCIAX0, MCIAX5 | , В | | High | RB (2.1 J μg/L) |
| Fe | MC1AS4, MC1AS7, MC1AS8, MC1AT0, MC1AT1, MC1AT2, MC1AT6, MC1AT7 | | UL | Low | CBN (-37.704 J μg/L) |
| | MC1AX1, MC1AX3 | | UL | Low | CBN (-26.108 J µg/L) |
| | MC1AX9 | | UL | Low | CBN (-25.283 J µg/L) |
| Рb | MC1AW2, MC1AX8, MC1AX9 | | UL | Low | CBN (-3.101 J μg/L) |
| | MC1AW4 | | UL | Low | CBN (-3.218 J µg/L) |
| Mg | MC1AT0, MC1AT1, MC1AT2 | В | | High | RB (50.9 J μg/L) |
| | MC1AX8, MC1AX9 | | UL | Low | CBN (-33.846 J µg/L) |

* See explanation of comments in Table 1B

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TABLE 1A SUMMARY OF QUALIFIERS ON DATA SUMMARY FORM AFTER DATA VALIDATION

Case 34031, SDG MC1AS4

| ANALYTE | SAMPLES <u>AFFECTED</u> | POSITIVE <u>VALUES</u> | NON- DETECTED <u>VALUES</u> | BIAS | <u>COMMENTS*</u> |
|---------|----------------------------------|---------------------------|-----------------------------------|------|-----------------------------------------------|
| Na | MC1AX8, MC1AX9 | J | | | >MDL <crql CBN (-209.084 J μg/L)</crql |
| Zn | MC1AT7 | B | · . | High | RB (22.0 J µg/L) |
| · | MC1AW2, MC1AW3 MC1AX3, MC1AX6 | • | Ň | High | RB (16.4 J μg/L) |

* See explanation of comments in Table 1B

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TABLE 1A SUMMARY OF QUALIFIERS ON DATA SUMMARY FORM AFTER DATA VALIDATION

Case 34031, SDG MC1AW5

| ANALYTE | SAMPLES | POSITIVE VALUES | L | NON- DETECTEI YALUES |) BIAS | COMMENTS* |
|---------|----------------|--------------------|---|----------------------------|-----------|------------------|
| Zn | MC1AW6, MC1AX4 | | | · . | High | RB (22.0 J μg/L) |
| | ١ | | | | | |

* See explanation of comments in Table 1B

Appendix A

Glossary of Data Qualifier Codes

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E.

Appendix B

Data Summary Forms

O.P.C.

Case #: 34031 Site : Lab. :

Number of Soil Samples: 0
Number of Water Samples: 20

| | | | ALL D | ISSOLVED N | ETAL | S | | | | | |
|-----------------------------------|------|---------------------------------------|----------------------|----------------|--------------|------------|------------|------------|-----------------------------------------|-------------------------------------------------|----------------------|
| Sample Number : | | MC1AR0 | | MC1AR1 | | MC1AR2 | | MC1AR3 | | MC1AR4 | |
| Sampling Location : Prefix : BJS- | | MW04C-04 | 05 | MW06C-0405 | | MW11B-0405 | | MW12B-0405 | | MW12C-04 | 05 |
| Field QC : | | , | | Dup of MC1AR7 | | | | | | | |
| Matrix : | | Water | | Water | | Water | | Water | | Water | |
| Units : | | ug/L | | ug/L | | ug/L | | ug/L | | ug/L | |
| Date Sampled : | | 4/11/2005 | | 4/12/2005 | | 4/11/2005 | | 4/11/2005 | | 4/11/2005 | |
| Time Sampled : | | 12:50 | | 13:00 | | 12:30 | | 11:10 | | 10:15 | |
| Dilution Factor : | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | |
| ANALYTE | CRQL | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag |
| ALUMINUM | 200 | 68.7 | J | | | | | | | | |
| ANTIMONY | 60 | | -ÚL | | UL | | UL. | | | | |
| *ARSENIC | 10 | | | • | | | | | ł | 12.6 | к |
| BARIUM | 200 | 17.6 | ₫J\ | 79.5 | J | 31,3 | J | 338 | 1.2007.00 1.100 1.100 1.100 | - 367 | |
| BERYLLIUM | 5 | | UL | | UL | | UL | | UL | | UL |
| *GADMIUM | 5 | | | | | | | | | | |
| CALCIUM | 5000 | 680 | В | 2510 | J | 88200 | | 39600 | | 16100 | |
| CHROMIUM | 10. | | | | | | | | | | |
| COBALT | 50 | | THE REAL PROPERTY OF | | | d' | - | | - | | |
| COPPER | 25 | | | | | | | 1.8 | B | | |
| IRON | 100 | TATION CONTRACTOR | | | | 19.8 | В | 141 | В | 422 | |
| LEAD | 10 | 6-15-16-175 | | | | | | | | | |
| MAGNESIUM | 5000 | 120 | B | 509 | J | 16700 | 100000-000 | 9010 | | 4570 | J |
| MANGANESE | 15 | 1.1 . | B | 5:5 | B | 1.3 | 8 | 302 | | 1.18. | |
| MERCURY | 0.2 | And the real of the second states and | - | | THE PARTY OF | 127 | | | 200000000000000000000000000000000000000 | | |
| *NICKEL | 40 | | | | id and the | | | | | | |
| POTASSIUM | 5000 | 446 | В | 726 | J | 1340 | J | 2250 | J | 1860 | J |
| SELENIUM | 35. | | | | | | | | | | |
| SILVER | 10 | | UL | | UL | | UL | | UL | | UL |
| SODIUM | 5000 | 176000 | i Lines | 327000 | T | 4080 | j, | 88100 | L, | 523000 | <u>.</u> |
| THALLIUM | 25 | | | | CALCOLUMN 1 | | | | • | No. of Concession, Surgery of Concession, State | 1000 - 1 1000 - 1000 |
| VANADIUM | 50 | | | A COLORADOR ST | | | 244 | | | | |
| ZINC | 60 | | | | | | | | | | |

CRQL = Contract Required Quantitation Limit

To calculate sample quantitation limits: (CRQL * Dilution Factor)

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*Action Level Exists

Revised 09/99

SEE NARRATIVE FOR CODE DEFINITIONS

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|---|------|
| | |

Case #: 34031

Site :

Lab. :

SDG : MC1AR0 BIG JOHN SALVAGE HOULT RD CEIMIC

| Lao | | | ALL D | ISSOLVED N | IETAL | S · | | | | | | |
|-------------------------------------------|------|------------|--------|----------------|---------------------|-----------|----------------------|-----------------------------------------------------------------------------------------------------------------|-------------------|-------------|------|--|
| Sample Number : | | MC1AR5 | | MC1AR6 | MC1AR6 MC | | MC1AR7 | | MC1AR9 | | | |
| Sampling Location : Prefix : BJS- | | MW17B-0405 | | MW17C-04 | MW17C-0405 MW18-040 | | 5 MW01A1-0405 | | 405 | MW01A2-0405 | | |
| Field QC: | , | | | | Dup | | Dup of MC1AR1 | | | | | |
| Matrix : | | Water | | Water | | Water | | Water | | Water | | |
| Units : | | ug/L | | ug/L | | ug/L | | ug/L | | ug/L | | |
| Date Sampled : | | 4/12/2005 | | 4/12/2005 | | 4/12/2005 | | 4/13/2005 | | 4/13/2005 | | |
| Time Sampled : | | 09:40 | | 09:00 | | 12:15 | ` | 11:10 | | 10:15 | | |
| Dilution Factor : | | .1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | |
| ANALYTE | CRQL | Result | Fiag | Result | Flag | Result | Flag | Result | Flag | Result | Flag | |
| ALUMINUM | 200 | | | 468 | | 51.4 | J | | | | | |
| ANTIMONY | 60, | | ULS | | UL | | | | | | | |
| *ARSENIC | 10 | | | 8.5 | J | | | 7.9 | J. | | 1 | |
| BARIUM | 200 | | 刮尿 | 29.4 | J | 80.1 | J | 70.1 | 的器 | 31113 | -J. | |
| BERYLLIUM | 5 | • | UL | | UL | | UL | 0.55 | J | | UL | |
| CADMIUM | 5 | | e e | | | | | | | | | |
| CALCIUM | 5000 | 20600 | | 3660 | J | 2480 | J | 7230 | | 37800 | | |
| CHROMIUM | 10 | | | 2.0., | IJŢ | | | | | 8.0 | J | |
| COBALT | 50 | | | | | | | 28.6 | J | 90.4 | | |
| COPPER | 25 | | | 3:0 | B | - 2.1 | B. | | 武 迎 | | 制設 | |
| IRON | 100 | | | 523 | | | | 9540 | | 3110 | | |
| LEAD | - 10 | | | | | | | - 1900 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 - 1975 | 19-20-07-07-0 | | | |
| MAGNESIUM | 5000 | 5870 | | 890 | J | 476 | J | 7600 | | 13200 | | |
| MANGANESE | 15. | 17.5 | B | 19.7 | B | 5.4 | B | 430 | | 16000 | | |
| MERCURY | 0.2 | | | | | | | | | | | |
| NICKEL | 40 | | | 4.4 | J | | Sal k | 37.8 | 的語 | 26.5 | Ĵ | |
| POTASSIUM | 5000 | 1360 | J | 3370 | J | 828 | J | 935 | J | 2200 | J | |
| SELENIUM | 35 | | | | | | 14. 2013 14. 2013 | | | Quels all | | |
| SILVER | 10 | | UL | | UL . | | UĽ | | UL | | UL | |
| SODIUM | 5000 | 86800 | | 219000 | <u>ال</u> | 316000 | L. | 21900- | 1 s | 15400 | L. | |
| THALLIUM | 25 | | | | | | | | | | | |
| VANADIUM | -50 | | | 3.3 | J. | | | | 包括公 | | | |
| ZINC | 60 | | | | | | | 10.0 | в | 24.1 | в | |
| CRQL = Contract Required Quantitation Lin | | | *Actio | n Level Exists | ــــــا ۶ | L | SEE N | IARRATIVE F | | | _ | |

CRQL = Contract Required Quantitation Limit To calculate sample quantitation limits: (CRQL * Dilution Factor)

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ORIGINIA,

Case #: 34031

Site : Lab. : SDG : MC1AR0

BIG JOHN SALVAGE HOULT RD

CEIMIC

| | | | ALL D | ISSOLVED M | ETALS | 3 | | | | | |
|-------------------------------------------|--------|------------|--------|------------------|-------|-----------|---------------------|--------------|------|-------------|----------|
| Sample Number : | | MC1AS1 | | MC1AS2 | | MC1AS3 | MC1AS5 | | | MC1AS6 | |
| Sampling Location : Prefix : BJS- | | MW01B-0405 | | MW01C-0405 MW03B | | MW03B-04 | MW03B-0405 MW05B-04 | | 05 | MW05C-04 | 105 |
| Field QC : | | | | Dup of MC1AT9 | | | | | | | |
| Matrix : | | Water | | Water | | Water | | Water | | Water | |
| Units : | | ug/L | | ug/L | | ug/L | | ug/L | | ug/L | |
| Date Sampled : | | 4/13/2005 | | 4/13/2005 | | 4/12/2005 | | 4/12/2005 | | 4/12/2005 | |
| Time Sampled : | | .12:00 | | 08:55 | | 15:25 | | 12:20 | | 17:00 | |
| Dilution Factor : | 1 | 1.0 | | 1.0 <u>.</u> | | 1.0 | | 1.0 | | 1.0 | |
| ANALYTE | CRQL | Result - | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag |
| ALUMINUM | 200 | | | | | | | | | 81.5 | J |
| ANTIMONY | 60 | | | | | | | | | | 100 at 1 |
| ARSENIC | 10 | | | 47.5 | к | | | | | | |
| BARIUM | 200 | 349 | | 53.0 | J | 46.1 | J | 300 | | 60.1 | J., |
| BERYLLIUM | 5 | | UL | | UL | | UL | | UL | | UL |
| CADMIUM | 5 | | | | | | - 3 165 | | | | |
| CALCIUM | 5000 | 73000 | | 1380 | в | 93100 | | 42800 | | 2020 | J |
| GHROMIUM | 10 | | | | | | | | | | |
| COBALT | 50 | | | | | | | | | | |
| COPPER | n. 25. | 2:0 | B | | | | | s 1.7 | В | 1.8 | B |
| IRON | 100 | 3490 | | | | 630 | | | | | |
| UEAD | 10 | | | | | | | | | | |
| MAGNESIUM | 5000 | 10500 | | 305 | J | 19000 | | 6310 | | 279 | J |
| MANGANESE | 15 | 308 | | | В | 841 | | 58.6 | | 1.8 | B |
| MERCURY | 0.2 | 0.085 | В | | | • | | 0.029 | В | 0.059 | в |
| NICKEL | 40 | | | | | | | | | | |
| POTASSIUM | 5000 | 1410 | ́ J | 486 | В | 1540 | J | 1500 | J | 683 | J |
| SELENIUM | 35 | | | | | | | | | | |
| SILVER | _10 | | UL | | UL | | UL | | UL | | UL |
| SODIUM | 5000 | 29600 | | 46000 | Ľ. | 45500 | | 55600 | | 193000 | |
| THALLIUM | 25 | | | | | | | | | | |
| VANADIUM | 50 | | | | | | | | | 2.0 | J |
| ZINC | 60 | | | | | | | | | | |
| CRQL = Contract Required Quantitation Lin | nit | | *Actio | n Level Exists | 5 | | SEE N | IARRATIVE F | ORCO | DDE DEFINIT | IONS |

CRQL = Contract Required Quantitation Limit To calculate sample quantitation limits: (CRQL * Dilution Factor)

Revised 09/99

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| Case # | #: 34031 |
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Site : Lab. :

SDG : MC1AR0 BIG JOHN SALVAGE HOULT RD CEIMIC

| | | | ALL D | ISSOLVED M | IETALS | <u> </u> | | | | | | |
|----------------------------------------------------------------------------------------------------------------|------|----------------|----------------------|----------------|--------------|-----------|------------|------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--|
| Sample Number : | | MC1AT3 | | MC1AT4 | | MC1AT5 | MC1AT5 | | MC1AT8 | | | |
| Sampling Location : Prefix : BJS- | | MW10C-04 | 05 | MW15B-04 | MW15B-0405 M | | MW15C-0405 | | MW19-0405 | | 5 | |
| Field QC : | | Dup of MC1 | IAT8 | | | | | | Dup of MC1AT3 | | Dup of MC1AS2 | |
| Matrix : | | Water | | Water | | Water | | Water | | Water | | |
| Units : | | ug/L | | ug/L | | ug/L | | ug/L | | ug/L | | |
| Date Sampled : | | 4/13/2005 | | 4/12/2005 | | 4/12/2005 | | 4/13/2005 | | 4/13/2005 | | |
| Time Sampled : | | 08:45 | | 16:15 | | 17:00 | | 08:00 | | 09:20 | | |
| Dilution Factor : | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | |
| ANALYTE | CRQL | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag | |
| ALUMINUM | 200 | | | | | • | | | | | | |
| ANTIMONY | 60, | 977 - S. S. Ba | Value (1 | | | | | | | | | |
| *ARSENIC | 10 | . 5.9 | J | | | | | | | 49.3 | | |
| BARIUM | 200 | 30:7 | J | - 105 | ÷J == | 34,2 | J | . 31.6 | Jest | 55:8 | -Dista | |
| BERYLLIUM | 5 | | UL | | UL | | UL | | UL | | UL | |
| *CADMIUM | 5 | | | | | | | | | | | |
| CALCIUM | 5000 | 1100 | В | 81400 | | 4930 | J | 1140 | в | 1430 | В | |
| CHROMIUM | 10 | | | | | | | | | | | |
| COBALT | 50 | | | | | ۲. | | | | | | |
| COPPER | 25 | | | | 10 5 | 1.7 | В | | | | | |
| IRON | 100 | 19.1 | В | 638 | | | | 20.5 | В | | | |
| LEAD I HAR I I WAR AND I HAR I H | 10 | | | | 影響 | | | | | | | |
| MAGNESIUM | 5000 | 248 | В | 18400 | | 1030 | J | 272 | J | 300 | J | |
| MANGANESE | . 15 | 0.81 | B . | 93.2 | | 7.2 | В | 1.1 | Bar | 4.8 | B | |
| MERCURY | 0.2 | | inter and the second | 0.084 | В | 0.12 | В | This was not a start of the second | | (14) Marson and an a | No. 40111 | |
| NICKEL | 40 | | | | n fransfi | 5.4 | J . | | | and the second second | 1997 - 1997 1997 - 1997 1997 - 1997 - 1997 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 | |
| POTASSIUM | 5000 | 544 | B | 1600 | J | 962 | J | 608 | B | 593 | В | |
| SELENIUM | .35 | | | | | 研究教育 | | | 17.2 FC | | | |
| SILVER | 10 | | UL | | UL | | UL | | UL | | UL | |
| SODIUM | 5000 | 282000 | | 165000 | | 185000 | 的短期 | 295000 | | 149000 | | |
| THALLIUM | 25 | | NAMES OF TAXABLE | | | | | | | | 10.00 Contractor of | |
| VANADIUM | - 50 | | | | | | | And Section . | AD SOL | | | |
| ZINC | 60 | | | | | | | | | | | |
| CRQL = Contract Required Quantitation Lim | it | | *Actio | n Level Exists | 3 | | SEEN | IARRATIVE F | ORCO | DDE DEFINIT | IONS | |

To calculate sample quantitation limits: (CRQL * Dilution Factor)

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Revised 09/99

Prefix : All sample locations are prefixed BJS-

AR119217

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Case #: 34031

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Site : Lab. :

| SDG MUTA34 | |
|---------------------------|--|
| BIG JOHN SALVÅGE HOULT RD | |
| CEIMIC | |

000.000000

| Number | of | Soil | Samples | : |
|-----------|----|------|-----------|---|
| 110111001 | ς. | 000 | 001110100 | • |

Number of Water Samples: 20

| | | CLIMIC | | ALL D | ISSOLVED M | ETAL | 6 | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------|-----------|---------------------------------------|----------------|------|-----------|----------------------|-------------|-----------------------|-------------|------|
| Matrix : Water Ug/L Ug/L< | Sample Number : | | MC1AS4 | | MC1AS7 | | MC1AS8 | * x | MC1AS9 | | MC1AT0 | |
| Mark Units: Ug/L | Sampling Location : Prefix : BJS- | | MW03C-04 | 05 | MW06B-04 | 05 | MW07B-04 | 0 5 | MW07C-04 | 05 | MW09B-04 | 05 |
| Date Sampled : 4/12/2005 4/12/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 4/13/2005 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:15 11:16 11:16 11:16 11:16 11:16 11:16 11:16 11:16 11:16 11:16 11:16 11:16 11:16 11:16 11:16 | Matrix : | | Water | | Water | | Water | | Water | | Water | |
| Time Sampled : 16:15 13:30 15:45 14:30 11:15 Dilution Factor : 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 | Units : | | ug/L | | ug/L | | ug/L | | ug/L | | ug/L | |
| Dilution Factor : 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 ANALYTE CRQL Result Flag | Date Sampled : | | 4/12/2005 | | 4/12/2005 | | 4/13/2005 | | 4/13/2005 | | 4/13/2005 | |
| Dilution Factor : 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 ANALYTE CRQL Result Flag | Time Sampled : | | 16:15 | | 13:30 | | 15:45 | | 14:30 | | 11:15 | , |
| ALUMINUM 200 86.1 J I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I < | | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | |
| ANTIMONY 600 10 10 10 110 117.9 11 1600 112 100 BARIUM 7200 4333 10 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 | ANALYTE | CRQL | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag |
| ARSENIC 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 | ALUMINUM | 200 | , | | 86.1 | J | | | | | | |
| BARIUM 200 433 J 683 J 17.9 J 160 J 663.4 J BERYLLIUM 5 UL 9380 UL UL UL 9380 UL UL UL 9380 UL UL UL 0.015 B UL <td>ANTIMONY.</td> <td>60</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>s or door Lagrande</td> <td></td> <td></td> | ANTIMONY. | 60 | | | | | | | | s or door Lagrande | | |
| BERYLLIUM 5 UL | *ARSENIC | | - | | | | | | `` | | | |
| CADMIUM 55 37700 13500 2280 J 32200 996 B CALCIUM 5000 37700 13500 2280 J 32200 996 B CAROMIUM 100 100 100 13500 2280 J 32200 996 B COBALT 50 100 125 42.7 B 221 B 225 B 222 B IRON 100 UL UL UL UL 9380 UL UL TEAD 100 UL UL UL 9380 UL UL MAGNESIUM 5000 7330 2540 J 498 J 6430 156 B MARGANESE 115 106 11344 12.77 B 514 2.88 B NICKEL 400 1488 J 996 J 1410 J 631 B SELENIUM 5000 2450 J 1750 J 996 J 1410 J 631 | BARIUM | 200 | 43.3 | | 68.3 | J. | 17.9 | J | 160- | J | 63.4 | Ð. |
| CALCIUM 5000 37700 13500 2280 J 32200 996 B CCHROMIUM 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 | BERYLLIUM | | | UL | | UL | | UL | | UL | • | UL |
| CHROMIUM 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 | *CADMIUM - | 5 | | | | | | | | | | |
| COBALT 50 I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I <thi< th=""> <thi< td="" th<=""><td>CALCIUM</td><td>5000</td><td>37700</td><td></td><td>13500</td><td></td><td>2280</td><td>J</td><td>32200</td><td></td><td>996</td><td>в</td></thi<></thi<> | CALCIUM | 5000 | 37700 | | 13500 | | 2280 | J | 32200 | | 996 | в |
| COPPER 225 227 B 124 B 211 B 225 B 222 B IRON 100 UL UL UL UL 9380 UL UL MAGNESIUM 5000 7330 2540 J 498 J 6430 156 B MAGNESIUM 5000 7330 2540 J 498 J 6430 156 B MARCURY 0.2 166 1344 127 B 5514 228 B NICKEL 400 418 J 6430 156 B SELENIUM 5000 2450 J 1750 J 996 J 1410 J 631 B SILVER 10 R R R R R 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 </td <td>CHROMIUM</td> <td>10</td> <td></td> <td></td> <td>Charles and</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | CHROMIUM | 10 | | | Charles and | | | | | | | |
| IRON 100 UL UL UL 9380 UL UL MAGNESIUM 5000 7330 2540 J 498 J 6430 156 B MANGANESE 115 166 11344 12.77 B 5144 288 B MERCURY 0.2 1 116 116 116 116 116 116 B NICKEL 400 115 116 11750 J 996 J 1410 J 631 B SILVER 10 R R R R R R R 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 <td>COBALT</td> <td>50</td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | COBALT | 50 | | • | | | | | | | | |
| LEAD 10 20 2540 J 498 J 6430 156 B MAGNESIUM 5000 7330 2540 J 498 J 6430 156 B MAGNESIUM 115 1166 11343 1277 B 15144 218 B MERCURY 0.2 0.2 0.015 B 156 B 156 </td <td>COPPER</td> <td>25</td> <td>2.7</td> <td>B</td> <td>2.4</td> <td>В</td> <td>2,1</td> <td>B</td> <td>2.5</td> <td>B</td> <td>2.2</td> <td>8</td> | COPPER | 25 | 2.7 | B | 2.4 | В | 2,1 | B | 2.5 | B | 2.2 | 8 |
| MAGNESIUM 5000 7330 2540 J 498 J 6430 156 B MANGANESE 115 166 11344 12:7 B 5144 28 B MERCURY 0.2 1 116 11344 0.015 B 115 28 B NICKEL 400 1418 J 0.015 B 115 166 11344 115 116 B 115 28 B 115 116 B 116 28 B 115 116 B 115 116 B 116 116 B 116 116 B 116 116 B 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 116 <td>IRON</td> <td>100</td> <td></td> <td>· · · · · · · · · · · · · · · · · · ·</td> <td></td> <td>UL</td> <td></td> <td>UL</td> <td>9380</td> <td></td> <td></td> <td>UL</td> | IRON | 100 | | · · · · · · · · · · · · · · · · · · · | | UL | | UL | 9380 | | | UL |
| MANGANESE1 15 166 1134 12.7 B 514 28 B MERCURY 0.2 - - 0.015 B - 28 B NICKEL 40 438 J - 0.015 B - 1631 B POTASSIUM 5000 2450 J 1750 J 996 J 1410 J 631 B SILVER 10 R R R R R 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 4 199000 </td <td>ALEAD</td> <td>10</td> <td></td> <td>a la come</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | ALEAD | 10 | | a la come | | | | | | | | |
| MERCURY 0.2 Image: second | MAGNESIUM | 5000 | 7330 | · . | 2540 | J | 498 | | 6430 | | 156 | |
| NICKEL 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40. 40.< | MANGANESE | 15 | 166 | | 134 | | | B | 514 | | 2.8.(| B |
| POTASSIUM 5000 2450 J 1750 J 996 J 1410 J 631 B SELENIUM 355 355 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 9 3 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 <td>MERCURY</td> <td>0.2</td> <td></td> <td></td> <td></td> <td></td> <td>0.015</td> <td>В</td> <td></td> <td></td> <td></td> <td></td> | MERCURY | 0.2 | | | | | 0.015 | В | | | | |
| SELENIUM 35 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 9 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 199000 | INICKEL | . 40. | | | 4.8 | j⊆, | | | | | | |
| SILVER 10 R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R R </td <td>POTASSIUM</td> <td></td> <td>2450</td> <td>-</td> <td>1750</td> <td>J</td> <td>996</td> <td>J</td> <td>1410</td> <td>J</td> <td>631</td> <td>в</td> | POTASSIUM | | 2450 | - | 1750 | J | 996 | J | 1410 | J | 631 | в |
| SODIUM 5000 201000 474000 40 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 47 199000 | SELENIUM | 35 | | | | | | 10-10-10 10-10-10 | | | | |
| THALLIUM 25 | SILVER | 10 | | R | | | | R | | R | | R |
| VANADIUM 50 2/8 J 2/8 J 2/4 J 4 2/8 J 2/8 J 2/4 J 4 2/8 J 2/8 J 2/4 J 4 4 2/8 J 2/8 | SODIUM | 5000 | 201000 | | 174000 | | 206000 | | 199000 | 2.5 | 4 199000 - | |
| ZINC 60 | THALLIUM | | | | | | | | | | · | |
| | VANADIUM | 50 | - 2.8 | J. | . 2:8 | J | 2.4 | J277 | | | 2.8 | J |
| CRQL = Contract Required Quantitation Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS | ZINC | 60 | | | | | | | | | | |
| | CRQL = Contract Required Quantitation Lin | nit | | *Actio | n Level Exists | 3 | | SEEN | IARRATIVE F | OR CO | DDE DEFINIT | IONS |

*Action Level Exists To calculate sample quantitation limits: (CRQL * Dilution Factor)

Revised 09/99

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ORIGINAL

Case #: 34031

Site : Lab. : SDG : MC1AS4 BIG JOHN SALVAGE HOULT RD CEIMIC

| | | | ALL D | ISSOLVED N | IETALS | <u> </u> | • | | | | | |
|-----------------------------------|-----------|----------------------|-------------|----------------|----------|-----------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------|------|--|
| Sample Number : | | MC1AT1 | | MC1AT2 | • | MC1AT6 | | MC1AT7 | | MC1AW2 | | |
| Sampling Location : Prefix : BJS- | | MW09C-04 | 05 | MW10B-04 | 05 È | MW16B-04 | 05 | MW16C-04 | MW02A-04 | 05 | | |
| Matrix : | | Water | | Water | | Water | | Water | | Water | | |
| Units : | | ug/L | | ug/L | | ug/L | | ug/L | | ug/L | | |
| Date Sampled : | | 4/13/2005 | | 4/13/2005 | | 4/13/2005 | | 4/13/2005 | | 4/14/2005 | | |
| Time Sampled : | | 12:05 | | 13:05 | | 16:10 | | 14:30 | | 08:10 | | |
| Dilution Factor : | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | |
| ANALYTE | CRQL | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag | |
| ALUMINUM | 200 | | | 62.8 | J | | | 53.2 | J | | | |
| ANTIMONY | 60 | | | | | | | | 1000 (1995) 1997 - 1995 | | UL. | |
| *ARSENIC | 10 | | | 8.1 | Ĵ | | | | | | | |
| BARIUM | 200 | 90.3 | J P | . 22.2 | 创新 | -42.9 | IJ | | $\mathbf{J}_{1,2}^{h}$ | 179 | J AL | |
| BERYLLIUM | 5 | | UL | | UL | | UL | | ŮL | | UL | |
| *CADMIUM | 5 | | | | | | | | | | | |
| CALCIUM | 5000 | 1350 | В | 1260 | В | 1820 | J | 2530 | J | 39200 | | |
| *CHROMIUM | 10 | | | | | | | | 22.7 | | | |
| COBALT | 50 | | - | | | | | | | 9.2 | J | |
| COPPER + | 25 | 3.5 | B 2. | 2.2 | B | 2:2 | .В. у | 3.0. | B | | B | |
| IRON | 100 | | UL | | UL | | UL | | UL | 9580 | | |
| *LEAD | 10 | | | | | | | | | | ULED | |
| MAGNESIUM | 5000 | 228 | В | 182 | В | 428 | J | 560 | J | 11700 | | |
| MANGANESE | <u>15</u> | | B.2 | 1.7 | B | 5.6 | В., | 5.8 | B | 1390 | | |
| MERCURY | 0.2 | 0.016 | В | | | ***** | Transfer to | | and the second | | | |
| INICKEL | 40 | | | | | | | | | 11.5 | J. | |
| POTASSIUM | 5000 | 893 | В | 1090 | J | 883 | В | 1300 | J | 2800 | J | |
| SELENIUM | 35 | | | | | | | | | | | |
| SILVER | 10 | THE REAL PROPERTY OF | R | | R | | R | | R | | R | |
| SODIUM | 5000 | 303000 | | 259000 | | 115000 | 100.07 | 114000 | | 40100 | | |
| THALLIUM | 25 | | - | | - | | The Station | THE CONTRACTOR OF STREET, STREE | - | | | |
| VANADIUM | 50 | 3.4; | Jec | - 5.3 | <u>J</u> | 2.2 | 1) | 2.7 | J | | | |
| ZINC | 60 | | | n Level Existe | | | | | В | 19.6 | В | |

CRQL = Contract Required Quantitation Limit To calculate sample quantitation limits: (CRQL * Dilution Factor) *Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS Revised 09/99

Page __7__ of __10__

ORIGINAI

Case #: 34031

Site : Lab. :

SDG : MC1AS4

BIG JOHN SALVAGE HOULT RD

CEIMIC

| Lab. : | CEIMIC | | ALL D | ISSOLVED M | | <u> </u> | | | | | |
|-----------------------------------|--------|-----------------------|----------|------------|------|------------|------------|---------------|------|------------------------------------------|-----|
| Sample Number : | | MC1AW3 | | MC1AW4 | | MC1AW7 | | MC1AX0 | | MC1AX1 | |
| Sampling Location : Prefix : BJS- | | MW03A-0405 MW04A-0405 | | | | MW08A-04 | 05 | MW13A-04 | 05 | MW13B-04 | 405 |
| Field QC : | | Dup of MC | 1AX6 | | • | Dup of MC1 | IAX5 | | | | |
| Matrix : | | Water | | Water | | Water | | Water | | Water | |
| Units : | | ug/L | | ug/L | | ug/L | | ug/L | | ug/L | |
| Date Sampled : | | 4/14/2005 | | 4/13/2005 | | 4/14/2005 | | 4/14/2005 | | 4/14/2005 | |
| Time Sampled : | | 13:15 | | 17:45 | | 12:00 | | 14:50 | | 13:30 | |
| Dilution Factor : | | 1.0 | | 1.0 | • | 1.0 | | 1.0 | | 1.0 | |
| ANALYTE | CRQL | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Fla |
| ALUMINUM | 200 | | | 59.2 | J | 97.2 | J | 195 | J | | |
| ANTIMONY | 60 | | | | ULE | | i and | Carlot St. 2 | | | |
| ARSENIC | 10 | 23.4 | | | | | | | | | |
| BARIUM | 200 | 107 | J | 140 | J | 41.4 | Ĵ. | 125 | J | 422 | |
| BERYLLIUM | 5 | | UL | | UL | 0.65 | J. | 0.20 | J . | | U |
| CADMIUM | 5 | | | | | 0:40 | J | 0.71 | Ĵ | | |
| CALCIUM | 5000 | 30800 | | 20900 | | 3860 | J | 4900 | J | 39000 | |
| CHROMIUM | - 10- | . 21 | IJ | 1.9 | J. | | | 1.5 | J | | |
| COBALT | 50 | 4.3 | J. | 1.2 | J | 10.8 | J | 17.2 | J | | |
| COPPER | 25 | | B | 2.9 | B | - 3.0 | . B | 4.1 | В | | |
| IRON | 100 | 40400 | | 39700 | | 64.4 | J | 279 | | | UL |
| LEAD | 10 | | | | UL | | | | | | C. |
| MAGNESIUM | 5000 | 12600 | | 8420 | | 4210 | J | 4440 | J | 7890 | |
| MANGANESE | 15 | 3830 | | 37007 | | 354 | | 594 | | 371 | |
| MERCURY | 0.2 | | | | | | ١ | | | | |
| NICKEL | 40 | | 的感 | | | 15.9 | IJ | 23.8 | Ĵ. | 19 (19 (19 (19 (19 (19 (19 (19 (19 (19 (| |
| POTASSIUM | 5000 | 1790 | J | 2050 | J | 2190 | J | 2030 | J | 2260 | J |
| SELENIUM | .35 | | | | | | | 22. V. 74. 51 | | | |
| SILVER | 10 | | R | | R | | R | | R | | R |
| SODIUM | 5000 | 19200 | | 20000 | | 13400 | | .2240 | J | 32400 | |
| THALLIUM | 25 | | | | | (| | | | | |
| VANADIUM | - 50 | | | | | | | | | | |
| ZINC | 60 | 14.3 | в | | | 25.9 | J | 42.9 | J | | |

CRQL = Contract Required Quantitation Limit To calculate sample quantitation limits: (CRQL * Dilution Factor)

Revised 09/99

Prefix : All sample locations are prefixed BJS-

AR119220

ORIGINAL

| Case #: | 34031 |
|---------|-------|
| Site : | |

Lab. :

SDG : MC1AS4 BIG JOHN SALVAGE HOULT RD CEIMIC

| Lad. : | CEIMIC | | ALL D | ISSOLVED M | ETAL | S . | | | | | |
|-----------------------------------|----------|----------------------------------------------------------------------------------------------------------------|---------|------------|---------------------------------------------|------------|------------|-------------|------------------|-------------|-------------------------------------------|
| Sample Number : | | MC1AX3 | | MC1AX5 | | MC1AX6 | | MC1AX8 | | MC1AX9 | |
| Sampling Location : Prefix : BJS- | | MW14C-04 | 05 | MW21-040 | MW22-040 | 5 | GWEQ-02 | | GWEQ-03 | | |
| Field QC : | | Dup of | | | AW7 | Dup of MC1 | IAW3 | Rinsate Bla | ink | Rinsate Bla | ank |
| Matrix : | | Water | | Water | | Water | | Water | | Water | |
| Units : | | ug/L | | ug/L | | ug/L | | ug/L | | ug/L | |
| Date Sampled : | | 4/14/2005 | | 4/14/2005 | | 4/14/2005 | | 4/14/2005 | · | 4/14/2005 | |
| Time Sampled : | | 11:30 | | 11:40 . | | 13:00 | | 14:30 | | 15:45 | |
| Dilution Factor : | - | 1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | |
| ANALYTE | CROL | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Fla |
| ALUMINUM | 200 | 46.3 | J | 102 | J | | | 1 | | | 1 |
| TANTIMONY | 60. | | | | | | 1.1 | | UL | | UE |
| *ARSENIC | 10 | 7.3 | J | | | 20.6 | . . |] | | | |
| BARIUM | 200 | 87.9 | J | 41.5 | J | 96:0-+ | J | 0.57 | 打扮 | -1.0 | J |
| BERYLLIUM | 5 | | UL | 0.66 | J | | UL | | UL | | UL |
| CADMIUM | 5 | | | 0.47 | J | | | | | | |
| CALCIUM | 5000 | 2660 | J | 3850 | J | 31500 | | 211 | В | 279 | в |
| CHROMIUM | 10 | | | | | 3.4 | J. | | | | |
| COBALT | 50 | | | 10.6 | J | 5.0 | J | , | UL | | UL |
| COPPER | 25 | 3.9 | B | 4.1 | B | 3.4 | B | 2:5 | Ĵ. | 2.1 | Į D |
| IRON | 100 | | UL | 55.9 | J | 38100 | | · 110 | | | UL |
| LIEAD | 10 | | | | | | | | UL | | U |
| MAGNESIUM | 5000 | 441 | J | 4160 | J | 12800 | | | UL | | UL |
| MANGANESE | 15 | 26.1 | B | 343 | a ing ang ang ang ang ang ang ang ang ang a | 4070 | | 8.0 | J | 4.7 | В |
| MERCURY | 0.2 | The second s | | | | | - | | | | |
| NICKEL | 40 | | 13(4)(F | 17.3 | J. | 8.4 | J. | | | | |
| POTASSIUM | 5000 | 1460 | , j | 2130 | J | 1750 | J | 288 | В | 264 | В |
| SELENIUM | 35 | 10.5 | j) si | | | | | | | | |
| SILVER | 10 | | R | | R | | R | , | R | | R |
| SODIUM | 5000 | 314000 | | 13200 | | 18500 | | 173 | J | 142 | IJ |
| THALLIUM | 25 | WALL BURGER AND A STATE | | | - | | | | CONTRACTOR AND A | | |
| VANADIUM | 50 | 6.9 | J., | | 10.XC.27 | | | | | | in an |
| ZINC | 60 | 7.6 | в | 27.4 | J | 14.2 | в | 16.4 | J | i l | I |

To calculate sample quantitation limits: (CRQL * Dilution Factor)

Revised 09/99

.

Prefix : All sample locations are prefixed BJS-

(

Number of Soil Samples: 0

Number of Water Samples: 7

ORIGINAL

Case #: 34031 SDG : MC1AW5 BIG JOHN SALVAGE HOULT RD CEIMIC

| Sample Number : Sampling Location : Prefix : BJS- Matrix : Units : Date Sampled : Time Sampled : Dilution Factor : ANALYTE ALUMINUM ANTIMONY. | CRQL 200 | MC1AW5 MW05A-04 Water ug/L 4/13/2005 18:50 1.0 Result | 05 Flag | MC1AW6 MW06A-04 Water ug/L 4/13/2005 19:45 1.0 Result | | MC1AW8 MW08B-04 Water ug/L 4/14/2005 10:30 1.0 | 05 | MC1AW9 MW08C-04 Water ug/L 4/14/2005 09:25 | 05 | MC1AX2 MW14B-04 Water ug/L 4/14/2005 10:50 | 05 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------------------------------------------------------------------|------------|----------------------------------------------------------------------------|------|------------------------------------------------------------------|------|-----------------------------------------------------------|----------------|-----------------------------------------------------------|------------------------------------------|
| Matrix : Units : Date Sampled : Time Sampled : Dilution Factor : ANALYTE ALUMINUM | 200 | Water ug/L 4/13/2005 18:50 1.0 | | Water ug/L 4/13/2005 19:45 1.0 | | Water ug/L 4/14/2005 10:30 | 05 | Water ug/L 4/14/2005 09:25 | 05 | Water ug/L 4/14/2005 | 05 |
| Units : Date Sampled : Time Sampled : Dilution Factor : ANALYTE ALUMINUM | 200 | ug/L 4/13/2005 18:50 1.0 | Flag | ug/L 4/13/2005 19:45 1.0 | | ug/L 4/14/2005 10:30 | | ug/L 4/14/2005 09:25 | | ug/L 4/14/2005 | |
| Date Sampled : Time Sampled : Dilution Factor : ANALYTE ALUMINUM | 200 | 4/13/2005 18:50 1.0 | Flag | 4/13/2005 19:45 1.0 | | 4/14/2005 10:30 | | 4/14/2005 09:25 | | 4/14/2005 | |
| Time Sampled : Dilution Factor : ANALYTE ALUMINUM | 200 | 18:50 1.0 | Flag | 19:45 1.0 | | 10:30 | | 09:25 | | | |
| Dilution Factor : ANALYTE ALUMINUM | 200 | 1.0 | Flag | 1.0 | | | | | | 10:50 | |
| ANALYTE ALUMINUM | 200 | | Flag | | | 10 | | | | | |
| ALUMINUM | 200 | Result | Flag | Result | | 1.0 | | 1.0 | | 1.0 | |
| | Section and Section 3. | | | 110301 | Flag | Result | Flag | Result | Flag | Result | Flag |
| ANTIMONY | e 60 | | UL | | UL | 72.2 | J | 58.5 | J | | UL |
| | | | | | | | | | | | 1.540 |
| ARSENIC | 10 | 19.2 | | | | | | 6.1 | J | | |
| BARIUM | 200 | · · · 139) | J | 244 | | 342 | | 188 | Jaki | 65:0 | J |
| BERYLLIUM | 5 | | UL | | UL | | UL | | UL | | UL |
| CADMIUM | 5 | | | West second | | | | | | | |
| CALCIUM | 5000 | 13000 | | 26000 | | 40700 | | 8420 | 304 V2.9(6)C22 | 47800 | 22 22 22 20 20 20 20 20 20 20 20 20 20 2 |
| CHROMIUM | 10 | 2.3 | ٥J 🖓 | 2.5 | ĴŚ | | | | | | |
| COBALT | 50 | 2.8 | в | 10.7 | J | | | 0.69 | в | 0.66 | в |
| COPPER | 25 | 4:1 | B | .2.8 | BER | 1 2.3 · | B | 2.4 | B | 2.3 | B |
| IRON | 100 | 25200 | | 19400 | | 34.0 | В | 66.4 | в | 32.2 | В |
| LEAD | * 10 | | | | | 2:0 |) | 2.0 | J | | |
| MAGNESIUM | 5000 | 8650 | | 9410 | | 7200 | | 1360 | J | 9270 | |
| MANGANESE | 15 | 3530 | | 2330 | | 44.9 | | 14.4 | J | 107 | |
| MERCURY | 0.2 | | | | | | | | | | |
| NICKEL | 40 | * . 43- | .Yoc | 10.7 | -D | | | | | | |
| POTASSIUM | 5000 | 1650 | J | 1600 | J | 2130 | J | 1120 | В | 1980 | J |
| SELENIUM | 35 | | | | | | | | | | |
| SILVER | 10 | | R | | R | | R | | R | | R |
| SODIUM | 5000 | 40500 | | 28800 | | 36300 | | 153000 | 5.4 M | 23600 | |
| THALLIUM | 25 | | | | | | | | | | |
| VANADIUM | 50 | | | en a de la TARA | | | | | | | |
| ZINC | 60 | | | 11.7 | В | | | · | | | |

CRQL = Contract Required Quantitation Limit To calculate sample quantitation limits: (CRQL * Dilution Factor)

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS Revised 09/99

Prefix : All sample locations are prefixed BJS-

Site :

Lab. :

OPICINAL

Site : Lab. : SDG : MC1AW5 BIG JOHN SALVAGE HOULT RD CEIMIC

| Lab | CEIMIC | | | ISSOLVED N | ETAL | - | | | | | |
|-------------------------------------------|-------------------|--------------------------------------------------------|-------------|----------------|------|-----------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Sample Number : | | MC1AX4 | ALL D | MC1AX7 | | | | r | | <u></u> | |
| • | | MW15A-04 | 05 | GWEQ-01 | | | | | | | |
| Sampling Location : Prefix : BJS- | | 10100 15/4-04 | 05 | Rinsate Bla | t. | | | | | | |
| | | 1.1.1.1.1.1.1 | | | INK | | | | | | |
| Matrix : | | Water | | Water | | | | | | | |
| Units : | | ug/L | | ug/L | | | | | | | |
| Date Sampled : | | 4/13/2005 | | 4/13/2005 | | | | | | | |
| Time Sampled : | | 19:05 | | 16:45 | | | | | | | |
| Dilution Factor : | | 1.0 | Г <u></u> | 1.0 | T | | · | | 12 | | T |
| ANALYTE | CRQL | Result | Flag | Result | Flag | Result | Flag | Result | Flag | Result | Flag |
| ALUMINUM | 200 | | UL | | UL | | 640-045-04 | and an and a second second | aran sama | | Section 2007 |
| ANTIMONY | - 7 60 | | | | | 1000 Par 1990 | | | 98 8 4 (* 1 | | |
| *ARSENIC | 10 | 10.5 | WOR BEARING | | - | | - | | | | |
| BARIUM | 200 | 67.6 | J | 0.88 | B | | | | | | |
| BERYLLIUM | 5 | | UL | | UL | | | | | COLUMN DESCRIPTION | - |
| CADMIUM | 5 | | | | | | | | | | |
| CALCIUM | 5000 | 37900 | | 344 | В | | t the state of the state of | | | | |
| CHROMIUM | 10 | - 3.4 | Ĵ | | | | 10. Å 19 | | | | |
| COBALT | 50 | 28.8 | J | | | | | | | | |
| COPPER | -25 | 2.5 | B | 2.7 | B | | | | | | 12.13 |
| IRON | 100 | 1630 | | 70.6 | В | | | | | | |
| LEAD | 10 | | | | | | | | | | |
| MAGNESIUM | 5000 | 14500 | | 50.9 | J | | | | | | |
| MANGANESE | -15 | | | 5.8 | B | | | | | | |
| MERCURY | 0.2 | | | | | | | | | | |
| NICKEL | 40 | | J. | | | | | | | | |
| POTASSIUM | 5000 | 1470 | J | 130 | в | | | | | | |
| SELENIUM | | | | | | | | R. S. B. | | | |
| SILVER | 10 | | R | | R | · | | | | | |
| SODIUM | 5000 | 13400 | | 689 | J | | | | | | |
| THALLIUM | 25 | | | | | and the second sector | | | | ANNUAL AND ADDRESS OF ADDRES | |
| VANADIUM | -50 | andra San Alana ang ang ang ang ang ang ang ang ang | | | | and a second | | | 16 X 14 | | |
| ZINC | · 60 | 12.4 | В | 22.0 | J | A COLORADORI SI CALL | | AND DESCRIPTION OF A DE | STATISTICS AND A STATISTICS | arandarak karantaranan (kara | |
| CROL = Contract Required Quantitation Lim | ** | | ** -41 | n Level Eviste | | | | | | | <u> </u> |

CRQL = Contract Required Quantitation Limit To calculate sample quantitation limits: (CRQL * Dilution Factor)

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS Revised 09/99

Appendix C

Chain-of-Custody Records

ORIGINIA,

| Region: Project Code: | 3 T47121.0103 | | | Date Shipped: Carrier Name: | 4/12/2005 FedEx | | Chai | n of Custody I | Record | | Sampler Signature: | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------|-------------------------|--------------------------------|------------------------------|-----------------------|--------|----------------|------------------|---------|-----------------------|---------------|
| Account Code: CERCLIS ID: | 2005T03W30 | 2DD2C | | Airbill: Shipped to: | Ceimic Corpo | | Relind | quished By | (Date | / Time) | Received By | (Date / Time) |
| Spill ID: Site Name/State: | Big John Sal | vage CLP 3 | 4031/WV | | 10 Dean Knau Narragansett | uss Drive RI 02882 | 2 | | | | | <u></u> |
| Project Leader: Action: Sampling Co: | Tad Yanches Remedial Inv Tetra Tech, I | vestigation | | | (401) 782-890 | 10 | 3 4 | | | | | |
| INORGANIC SAMPLE No. | MATRIX/ SAMPLER | CONC/ TYPE | ANALYSIS/ TURNAROUND | | No./ TIVE/ Bottles | STATION LOCATION | | SAMPLE DATE | COLLECT /TIME | - | GANIC PLE No. | QC Type |
| The second second second second | ound Water/ | /G | (21)(ØM(2) | (HNO3) | | BJS-MW02B-04 | 405 | S: 4/12/2005 | 10:35 | C0016 | <u></u> | |
| Ground Gr | derson ound Water/ nnis | /G 🏈 | (21) DM (21) | 1011 (HNO3) | | BJS-MW02C-04 | 405 | S: 4/12/2005 | 9:05 | C0017 | | |
| Group Gro | derson ound Water/ dim Petrov | /G 🖤 | (21) (21) | HIGE (HNO3) | | BJS-MW04B-04 | 405 | S: 4/11/2005 | 10:40 | C0022 | | |
| C0023 Gro | ound Water/ dim Petrov | /g (6 | V (21) (21), TM | (HNO3), 8 550 (NaOH) (3 | 73 (HNO3),)) | BJS-MW04C-04 | 405 | S: 4/11/2005 | 12:50 | C0023 | | |
| C0055 Gro | ound Water/ dim Petrov | /G 👷 Ct | N (21) TN | (HNO3), 1223 (NaOH) | <u>1221 (HNO3),</u> (3) | BJS-MW17B-04 | 405 | S: 4/12/2005 | 9:40 | C0055 | | - |
| C0056 Gr | ound Water/ dim Petrov | /G C I | 1 (21) (21) TM | (HNO3), 1238 (NaOH) | 1231 (HNO3), | BJS-MW17C-0 | 405 | S: 4/12/2005 | 9:00 | C0056 | | |

MCIANI Rec & 4-27-05 grs DM, Hg mcoo ZI neil 4-28-05 grs TM, Ng, Cu

| Shipment for Case Complete? N | Sample(s) to be used for laboratory QC: | Additional Sampler Signature(s): | Chain of Custody Seal Number: |
|----------------------------------|-----------------------------------------------------|-----------------------------------------|-------------------------------|
| Analysis Key: | Concentration: L = Low, M = Low/Medium, H = High | Type/Designate: Composite = C, Grab = G | Shipment Iced? |
| CN = Cyanide, DM ≈ | CLP TAL Dissolved Metals, TM = CLP TAL Total Metals | | |

TR Number: 3-035066262-041205-0009

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax

P - (AR119225

| \$EPA | | | ct Laboratory ffic Report & (| | stody Re | ecord | | | Cas DAS | e No: No: | 34031 | F |
|--------------------------|-------------------------------------------------|---------------|----------------------------------|-----------------------------------------------------|------------------------------|---------------------|----------|---------------|---------------------|---------------------|-----------------------|---------------------------------------|
| Region: Project Code: | 3 | | | Date Shipped: Carrier Name: | 4/12/2005 FedEx | | Cha | in of Custody | Record | | Sampler Signature: | |
| Account Code: | T47121.010 2005T03W3 | 02DD2C | | Airbill: | 8483 3674 43 | 357 | Relir | nquished By | (Date | / Time) | Received By | (Date / Time) |
| CERCLIS ID: | WVD05482 | 7944 | | Shipped to: | Ceimic Corpo | | 1 | | | | | |
| Spill ID: | | | | | 10 Dean Kna | uss Drive | 2 | | | | <u> </u> | |
| Site Name/State | big sonn oc | | _P 34031/WV | | Narragansett (401) 782-89 | | <u> </u> | | | | | · |
| Project Leader: | Tad Yanche | | | | (-101) / 02 00 | | 3 | | | | | |
| Action: Sampling Co: | Remedial Ir Tetra Tech. | • | On | | | | 4. | | | | | · · · · · · · · · · · · · · · · · · · |
| INORGANIC SAMPLE No. | MATRIX/ SAMPLER | CONC/ TYPE | ANALYSIS/ TURNAROUND | TAG N PRESERVATI | | STATION LOCATION | 1 | | E COLLECT E/TIME | | GANIC PLE No. | QC Type |
| MC0030 MC1AR1 | Ground Water/ Dennis Anderson | /G | CN (21) DM (21) TM | (928)(HNO3), 92 936 (NaOH) (3) | 9 (HNO3), | BJS-MW06C-0 | 405 | S: 4/12/2005 | 13:00 | C0030 | | |
| MC0041 MCIAR2 | Ground Water/ Dennis Anderson | /G | CN (21)(DM)(21); TM (21) | (1038)(HNO3), 1 1040 (HNO3), 1 1060 (NaOH), 1 | 041 (HNO3), | BJS-MW11B-0 | 405 | S: 4/11/2005 | 12:30 | C0041 | | MS/MSD |
| MC0043 MCiAR-3 | Ground Water/ Dennis Anderson | /G | CN (21) (DM)(21), TM | (1072)(HNO3), 1 1080 (NaOH) (3 | 073 (HNO3),) | BJS-MW12B-0 | 405 | S: 4/11/2005 | 11:10 | C0043 | | |
| MC0044 MCIAR4 | Ground Water/ Dennis | /G | CN (21) (DM) 21), TM (21) | (1082)(HNO3), 1 1090 (NaOH) (3 | 083 (HNO3),) | BJS-MW12C-0 | 405 | S: 4/11/2005 | 10:15 | C0044 | | |
| мС0057 МСІАК7 | Anderson Ground Water/ Dennis Anderson | /G | CN (21), DM (21), TM (21) | (1240 (HNO3), 1 1248 (NaOH) (3 | 241 (HNO3),) | BJS-MW18-04 | 105 | S: 4/12/2005 | 12:15 | C0057 | | Field Duplicate |

SDG MC0023 4-29-05 TM, CN, Kg JIS

| Shipment for Case Complete? N | Sample(s) to be used for laboratory QC: MC0041 | Additional Sampler Signature(s): | Chain of Custody Seal Number: |
|----------------------------------|---------------------------------------------------|-----------------------------------------|-------------------------------|
| Analysis Key: | Concentration: L = Low, M = Low/Medium, H = High | Type/Designate: Composite = C, Grab = G | Shipment Iced? |
| CN = Cyanide, DM = CL | P TAL Dissolved Metals, TM = CLP TAL Total Metals | | |

TR Number: 3-035066262-041205-0011

PR provides preliminary results. Requests for preliminary results will increase analytical costs. Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax

F2V5.1.047 Page 1 of 1

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| <pre>SEPA</pre> | Inorgan | | rct Laboratory ffic Report & (| Chain of Cu | | ecord | <u> </u> | | DAS | e No: | 34031 Sampler | R |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------|-----------------------------------|--------------------------------------------|------------------------------------|---------------------|----------|---------------|------------------|---------|---------------------------|-----------------|
| Region: Project Code: Account Code [.] | 3 T47121.010 2005T03W3 | | : | Date Shipped: Carrier Name: Airbill: | 4/13/2005 FedEx 8483 3674 44 | 105 · | | in of Custody | | / Time} | Signature: Received By | (Date / Time) |
| CERCLIS ID: Spill ID: | WVD05482 | | | Shipped to: | Ceimic Corpo 10 Dean Kna | uss Drive | 1 2 | | | | | |
| Site Name/State: Project Leader: Action: Sampling Co: | Big John Sa Tad Yanche Remedial Ir Tetra Tech, | eski nvestigat | LP 34031/WV | | Narragansett (401) 782-899 | | 3 | | | | | |
| INORGANIC SAMPLE No. | MATRIX/ SAMPLER | CONC/ TYPE | ANALYSIS/ TURNAROUND | TAG PRESERVAT | | STATION LOCATION | | SAMPLE | COLLECT /TIME | ÷ | I GANIC PLE No. | QC Type |
| CONTRACTOR OF A DESCRIPTION OF A DESCRIP | Ground Water/ Vadim Petrov | /G | CN (21). (21), TM | (HNO3), 7 768 (NaOH) (3) | 81 (HNO3), | BJS-MW01A1-0 | 405 | S: 4/13/2005 | 11:10 | C0011 | <u></u> | |
| | Ground Water/ Vadim Petrov | /G | CN (21), (21), (21), TM | HNO3), 77 778 (NaOH) (3 | 7 <u>0 (HNO3)</u> , | BJS-MW01A2-0 | 405 | S: 4/13/2005 | 10:15 | C0012 | | |
| C0014 | Ground Water/ Vadim Petrov | /G | CN (21) (21); TM | HNO3), 78 796 (NaOH) (3) | 39 (HNO3), | BJS-MW01C-04 | 405 | S: 4/13/2005 | 8:55 | C0014 | | |
| C0039 | Ground Water/ Dennis | /G | CN (21)(21), TM | (HNO3), 1026 (NaOH) (| (019 (HNO3), 3) | BJS-MW10C-04 | 405 | S: 4/13/2005 | 8:45 | C0039 | | |
| | Anderson Ground Water/ Dennis | /G | CN (21), (21), TM | (HNO3), 1258 (NaOH) (| (251 (HNO3), 3) | BJS-MW19-04 | 05 | S: 4/13/2005 | 8:00 | C0058 | | Field Duplicate |
| | Anderson Ground Water/ Vadim Petrov | /G | CN (21), (21), (21), (7) | HNO3), 1268 (NaOH) (| 1261 (HNO3), 3) | BJS-MW20-04 | 05 | S: 4/13/2005 | 9:20 | C0059 | | Field Duplicate |

SDG-MC0023 4-29-05 TM, CN, Hg gTS SDG-MCIARO 5-3-05 DM, Hg JJS

| Shipment for Case Complete? N | Sample(s) to be used for laboratory QC: | Additional Sampler Signature(s): | Chain of Custody Seal Number: |
|----------------------------------|-----------------------------------------------------|-----------------------------------------|-------------------------------|
| | | | |
| Analysis Key: | Concentration: L = Low, M = Low/Medium, H = High | Type/Designate: Composite = C. Grab = G | Shipment Iced? |
| CN = Cyanide, DM = | CLP TAL Dissolved Metals, TM = CLP TAL Total Metals | | |
| TR Number: | 3-035066262-041305-0009 | | |

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax

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|-----------------------------------------------|-------------------------------------------------|--------|----------------------------------|-------------------------------------------------------|-------------------------------|---------------------|-------|--------------|-------------------|---------------------|-----------------------|---------------|
| Region: | 3 | | | Date Shipped: | 1/13/2005 | | Chai | n of Custody | Record | | Sampler Signature: | |
| Project Code: Account Code: CERCLIS ID: | T47121.010 2005T03W3 | 02DD2C | | | FedEx 8483 3674 43 | 68 | Relin | quished By | (Date | / Time) | Received By | (Date / Time) |
| Spill ID: | WVD054827 | 944 | | | Ceimic Corpo 10 Dean Knau | | 1 | | | | | |
| Site Name/State | Dig oonn Oc | - | P 34031/WV | | Narragansett (401) 782-890 | | 2 | | | ۹ | | |
| Project Leader: Action: | Tad Yanche Remedial In | | on | | | ·• | 3 | | | | | |
| Sampling Co: | Tetra Tech, | | | | | | 4 | | | | | |
| INORGANIC SAMPLE No. | MATRIX/ SAMPLER | CONC/ | ANALYSIS/ TURNAROUND | TAG No PRESERVATIVE | - | STATION LOCATION | | | COLLECT F/TIME | • | GANIC PLE No. | QC Type |
| NC0013 | Ground Water/ Vadim Petrov | /G | CN (21), DM (21), TM (21) | 779 (HNO3), 780 787 (NaOH) (3) | (HNO3), | BJS-MW01B-0 | 405 | S: 4/13/2005 | 12:00 | C0013 | · . | |
| MC0028 . LIAS7 | Ground Water/ Dennis Anderson | /G | CN (21), DM (21), TM (21) | 917 (HNO3), 918 925 (NaOH) (3) | (HNO3), | BJS-MW06B-0 | 405 | S: 4/12/2005 | 13:30 | C0028 | | |
| 1C0036 [1A70 | Ground Water/ Dennis | /G | CN (21), DM (21), TM (21) | 988 (HNO3), 989 996 (NaOH) (3) | (HNO3), | BJS-MW09B-0 | 405 | S: 4/13/2005 | 11:15 | C0036 | 、 | |
| 1C0037 | Anderson Ground Water/ Dennis Anderson | ./G | CN (21), DM (21), TM (21) | 1006 (NaOH), 99 999 (HNO3) (3) | 3 (HNO3), | BJS-MW09C-0 | 405 | S: 4/13/2005 | 12:05 | C0037 | | \ |
| 100054 CIA17 | Ground Water/ Vadim Petrov | /G | CN (21), DM (21), TM (21) | 1196 (HNO3), 11 1198 (HNO3), 11 1218 (NaOH), 12 | 99 (HNO3), | BJS-MW16C-0 | 405 | S: 4/13/2005 | 14:30 | C0054 | | MS/MSD |

| Shipment for Case Complete? N | Sample(s) to be used for laboratory QC: | Additional Sampler Signature(s): | Chain of Custody Seal Number: | |
|----------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------|------|
| Completerin | MC0054 | | | |
| Analysis Key: | Concentration: L = Low, M = Low/Medium, H = High | Type/Designate: Composite = C, Grab = G | Shipment Iced? | |
| CN = Cyanide, DM = CL | P TAL Dissolved Metals, TM = CLP TAL Total Metals | | | |
| TR Number: | 3-035066262-041305-0012 | | REGION COPY | Ó.O. |
| PR provides preliminary res | ults. Requests for preliminary results will increase analytical cos | | F2V5.1.047 ² Page 1 of 1 | N. |
| 703/818-4602 | anagement Office, Attn: Heather Bauer, CSC, 15000 Conten | ence Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax | 1200 How Fage 101 | Š. |
| 3 | | | | |

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| € EPA | | | act Laboratory Iffic Report & (| | ustody Re | cord | | | Cas DAS | e No: | 34031 | F | 2 |
|--------------------------|---------------------------------------------|--------------|----------------------------------------|-----------------------------------|-----------------------|---------------------|-------|---------------|-------------------|----------|-----------------------|--------------|----|
| Region: Project Code: | 3 | | ······································ | Date Shipped: | 4/13/2005 | - | Chai | in of Custody | Record | | Sampler Signature: | · · | _ |
| Account Code: | T47121.010 2005T03W3 | | 2 | Carrier Name: Airbill: | FedEx 8483 3674 44 | 16 | Relin | quished By | (Date | / Time} | Received By | (Date / Time | e) |
| CERCLIS ID: | WVD05482 | 7944 | - | Shipped to: | Ceimic Corpo | | 1 | | ····· | <u> </u> | 1 | | -/ |
| Spill (D: | ſ | | | Chipped to: | 10 Dean Knau | | | | | | | | |
| Site Name/State | Big John Sa | alvage C | LP 34031/WV | | Narragansett | | 2 | | | | | | |
| Project Leader: | rad ranone | | | | (401) 782-890 | 0 | 3 | | | <u>-</u> | | | |
| Action: | Remedial In | - | lion | | | | 4 | | | | | | |
| Sampling Co: | Tetra Tech, | Inc. | | | · | | 4 | | | | | | |
| INORGANIC SAMPLE No. | MATRIX/ SAMPLER | CONC TYPE | | TAG PRESERVAT | | STATION LOCATION | | | COLLECT E/TIME | | GANIC PLE No. | QC Туре | |
| 100019 h C1AS | Ground Water/ Vadim Petrov | /G | CN (21), DM (21), TM | (836)(HNO3), 83 844 (NaOH) (3) | | BJS-MW03B-0 | 405 | S: 4/12/2005 | 15:25 | C0019 | | n- | |
| 10025 NCIASS | Ground Water/ Vadim Petrov | /G | CN (21), DA (21), TM | 890 (HNO3), 89 898 (NaOH) (3) | 91 (HNO3), | BJS-MW05B-0 | 405 | S: 4/12/2005 | 12:20 | C0025 | | | |
| 10026 101AS6 | Ground Water/ Vadim Petrov | /G | CN (21), DM(21); TM (21) | (899)(HNO3), 90 907 (NaOH) (3) | | BJS-MW05C-0 | 405 | S: 4/12/2005 | 17:00 | C0026 | , | | |
| 100051 20174 | Ground Water/ Dennis | /G | , CN (21), OM (21), TM (21) | (1166)(HNO3), 1 1174 (NaOH) (3 | 1167 (HNO3), 3) | BJS-MW15B-0 | 405 | S: 4/12/2005 | 16:15 | C0051 | _ | ~ | |
| 1C0052 1C1AT5 | Anderson Ground Water/ Dennis | /G | CN (21) DM (21), TM (21) | (1176 (HNO3), 1184 (NaOH) (| 1177 (HNO3), 3) | BJS-MW15C-0 | 405 | S: 4/12/2005 | 17:00 | C0052 | | | |
| IC0188 | Anderson Field QC/ Dennis | /G | CN (21) (DM)(21), TM (21) | 4241 (HNO3), 4 4249 (NaOH) (| 4242 (HNO3), 3) | EQ-SD1-040 | 5 | S: 4/11/2005 | 14:30 | C0188 | | Rinsate | |
| AC0189 | Anderson Field QC/ Dennis Anderson | /G | CN (21) DM (21), TM (21) | 4250 (HNO3), 4 4258 (NaOH) (3 | | EQ-SW1-040 | 5 | S: 4/11/2005 | 14:00 | C0189 | | Rinsate | |

506 mc0023, Tm, CN, Hg 4-29-05 gTS

| Shipment for Case Complete? N | Sample(s) to be used for laboratory QC: | Additional Sampler Signature(s): | Chain of Custody Seat Number: |
|----------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------|-------------------------------|
| Analysis Key: | Concentration: L = Low, M = Low/Medium, H = High = CLP TAL Dissolved Metals, TM = CLP TAL Total Metals | Type/Designate: Composite = C, Grab = G | Shipment Iced? |

3-035066262-041305-0004 TR Number:

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax

F2V5.1.047 Page 1 of 1 -

| 5 EPA | | | ct Laboratory ffic Report & C | - | stody Re | cord | V | | Case DAS | • No: | 34031 | |
|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------|----------------------------------|----------------------------------|----------------------------------------------------------------------------------|---------------------------------|----------------------|---------------|-------------|--------------|-----------------------|--------------|
| Region: Project Code: | 3 | 2 | | Date Shipped: | 4/13/2005 FedEx | ·····; | Cha | in of Custody | Record | | Sampler Signature: | |
| Account Code: CERCLIS ID: Spill ID: Site Name/State: Project Leader: Action: | T47121.010 2005T03W3 WVD054827 Big John Sa Tad Yanche Remedial Ir | 02DD2C 7944 alvage CL eski | P 34031/WV | Airbill: Shipped to: | 8483 3674 43 Ceimic Corpor 10 Dean Knau Narragansett I (401) 782-890 | ration Iss Drive RI 02882 | Relin 1 2 3 | quished By | (Date | / Time) | Received By | (Date / Time |
| Sampling Co: INORGANIC SAMPLE No. | Tetra Tech, MATRIX/ SAMPLER | Inc. CONC/ TYPE | ANALYSIS/ TURNAROUND | TAG N PRESERVATION | | STATION | 4 | | COLLECT | | GANIC PLE No. | QC Type |
| | Ground Water/ /adim Petrov | /G | CN (21), DM (21), TM (21) | 845 (HNO3), 84 853 (NaOH) (3) | 6 (HNO3), | BJS-MW03C-0 | 405 | S: 4/12/2005 | 16:15 | C0020 | | |
| A58 [| Ground Water/ Dennis Anderson | /G | CN (21), DM (21), TM (21) | 938 (HNO3), 93 946 (NaOH) (3) | 9 (HNO3), | BJS-MW07B-0 | 405 | S: 4/13)2005 | 15:45 | C0031 | | · |
| 120032 C | Ground Water/ Dennis Anderson | /G | CN (21), DM (21), TM (21) | 948 (HNO3), 94 956 (NaOH) (3) | 9 (HNO3), | BJS-MW07C-(| 405 | S: 4/13/2005 | 14:30 | C0032 | | |
| C0038 C | Ground Water/ Dennis Anderson | /G | CN (21), DM (21), TM (21) | 1008 (HNO3), 1 1016 (NaOH) (3 | | BJS-MW10B-(| 405 | S: 4/13/2005 | 13:05 | C0038 | | `. |
| C0053. C | Ground Water/ adim Petrov | /G | CN (21), DM (21), TM (21) | 1186 (HNO3), 1 1194 (NaOH) (3 | | BJS-MW16B-0 | 405 | S: 4/13/2005 | 16:10 | C0053 | | |
| C0196 F | ield QC/ | /G | CN (21), TM (21) | 4332 (HNO3), 4 | 338 (NaOH) | BJS-FBO1-0 | 45 | S: 4/13/2005 | 16:15 | C0196 | | |

| Shipment for Case Complete? N | Sample(s) to be used for laboratory QC: | Additional Sampler Signature(s): | Chain of Custody Seal Number: | - |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------|----------|
| Analysis Key: CN = Cyanide, DM = Cl | Concentration: L = Low, M = Low/Medium, H = High | Type/Designate: Composite = C, Grab = G | Shipment Iced? | ļ |
| PR provides preliminary res | 3-035066262-041305-0016 sults. Requests for preliminary results will increase analytical co anagement Office, Attn: Heather Bauer, CSC, 15000 Confe | sts. rence Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax | F2V\$91.04739age 1 of 1 | - ALCINA |

| €EPA | - 0 | | ct Laboratory ffic Report & C | | ustody Rec | cord | · | | Case DAS N | | 34031 | R | GINA |
|--------------------------------|---------------------------------------------|---------------|----------------------------------|----------------------------------|---------------------------------|---------------------|-------|----------------------|---------------|---------|-----------------------|---------------|------|
| Region: | 3 | | | Date Shipped: | 4/14/2005 | 1 | Chai | in of Custody Re | ecord | | Sampler Signature: | - | 1 21 |
| Project Code: Account Code: | T47121.0103 2005T03W30 | | | Carrier Name: Airbill: | FedEx 8483 3674 4380 | 10 I | Relin | quished By | (Date i | / Time) | Received By | (Date / Time) | 1 |
| CERCLIS ID: | WVD0548279 | | | Shipped to: | Ceimic Corpora | | 1 | <u> </u> | | | | | 1 |
| Spill ID: Site Name/State: | v. Die Jahr Dr | | D 240240004 | | 10 Dean Knaus Narragansett R | ss Drive | 2 | | | | · · | | 1 |
| Project Leader: | Big sonn oan | • | P 34031/WV | | (401) 782-8900 | | 3 | | | | <u></u> | ! | 1 |
| Action: | Remedial Inv | nvestigatio | วก | 1 | | / | [| | | · . | <u> </u> | | 4 |
| Sampling Co: | Tetra Tech, | Inc. | · | <u> </u> | | | 4 | · | | , | | | 1 |
| INORGANIC SAMPLE No. | MATRIX/ SAMPLER | CONC/ TYPE | ANALYSIS/ TURNAROUND | TAGI PRESERVAT | | STATION LOCATION | | SAMPLE CO DATE/TI | | | GANIC PLE No. | QC Type | |
| MCIAWZ | Ground Water/ Dennis Anderson | /G | | 797 (HNO3), 79 806 (NaOH) (3) | | BJS-MW02A-04 | 105 | S: 4/14/2005 | 8:10 | C0015 | | | ı |
| MC0021 | Anderson Ground Water/ Vadim Petrov | /G | CN (21), DM 21), TM | 854 (HNO3), 85 862 (NaOH) (3) | · · // | BJS-MW04A-04 | 405 | S: 4/13/2005 1 | 17:45 | C0021 | | | |
| | Ground Water/ Vadim Petrov | /G | CN (21), DM 21), TM | 881 (HNO3), 88 889 (NaOH) (3) | · // | BJS-MW05A-04 | 405 | S: 4/13/2005 1 | 18:50 | C0024 | | | |
| | Ground Water/ Vadim Petrov | /G | CN (21)(DM (21), TM (21) | 908 (HNO3), 90 916 (NaOH) (3) | | BJS-MW06A-04 | 405 | S: 4/13/2005 1 | 19:45 | C0027 | | | |
| MCIAX4 | Ground Water/ Dennis | /G | CN (21), DM (21), TM | 1156 (HNO3), 1 1164 (NaOH) (3 | | BJS-MW15A-04 | ¥05 | S: 4/13/2005 1 | 19:05 | C0050 | | | |
| MC0195 MCIAX7 | Anderson Field QC/ Dennis Anderson | /G | CN (21) DM (21), TM | 4316 (HNO3), 4 4323 (NaOH) (3 | | BJS-GWEQ-0 | 11 | S: 4/13/2005 1 | 16:45 | C0195 | | Rinsate | |

| Shipment for Case Complete? N | Sample(s) to be used for laboratory QC: | Additional Sampler Signature(s): | Chain of Custody Seal Number: |
|----------------------------------|----------------------------------------------------|-----------------------------------------|-------------------------------|
| Analysis Key: | Concentration: L = Low, M = Low/Medium, H = High | Type/Designate: Composite = C, Grab = G | Shipment iced? |
| CN = Cyanide, DM = C | LP TAL Dissolved Metals, TM = CLP TAL Total Metals | | |

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 TR Number:
 3-035066262-041405-0027

 PR provides preliminary results.
 Requests for preliminary results will increase analytical costs.

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REGIONAR119231 F2V5.1.047 Page 1 of 1.

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| €EPA | | | ct Laboratory ffic Report & C | Program hain of Custody Re | cord | | | Cas DAS | e No: No: | 3403 | 1 | , | R |
|------------------------------|-------------------------------------|-------|----------------------------------|------------------------------------------------|---------------------|----------|------------------------------|-------------------------|------------------------|------------------|-------------------------|------------|---------------------------------------|
| Region: Project Code: | 3 T47121.010 | | | Date Shipped: 4/14/2005 Carrier Name: FedFx | | | | Chain of Custody Record | | | Sampler ~ Signature: | | |
| Account Code: | 2005T03W3 | | | | | Relinqu | elinquished By (Date / Time) | | Received By (Date / Ti | | l'ime) | | |
| CERCLIS ID: | WVD05482 | 7944 | | | | | | | | | | | |
| Spill ID: Site Name/State | | | | 10 Dean Knauss Drive | | 2 | | | | | | | |
| Project Leader: | Dig Joini Od | • | P 34031/WV | (401) 782-890 | 0 \ | | <u> </u> | | | | | | |
| Action: | Tad Yanche Remedial Ir | | on | | | 3 | | | | | | | |
| Sampling Co: | Tetra Tech, | • | | | | 4 | | | - | | | | |
| INORGANIC SAMPLE No. | MATRIX/ SAMPLER | CONC/ | ANALYSIS/ TURNAROUND | TAG No./ PRESERVATIVE/ Bottles | STATION LOCATION | | Sample (Date/ | | | GANIC PLE No. | | QC Type | |
| NCIAW3 | Ground Water/ Dennis Anderson | /G | CN (21), DM (21), TM (21) | 827 (HNO3), 828 (HNO3), 835 (NaOH) (3) | BJS-MW03A-040 | 05 5 | S: 4/14/2005 | 13:15 | C0018 | · · | - - | · | · · · · · · · · · · · · · · · · · · · |
| /C0033 | Ground Water/ Vadim Petrov | /G | CN (21), DM (21), TM (21) | 958 (HNO3), 959 (HNO3), 966 (NaOH) (3) | BJS-MW08A-040 | 05 \$ | S: 4/14/2005 | 12:00 | C0033 | | | · · | |
| | Ground Water/ Vadim Petrov | /G | CN (21), DM (21), TM (21) | 1102 (HNO3), 1103 (HNO3), 1110 (NaOH) (3) | BJS-MW13B-040 | 05 \$ | S: 4/14/2005 | 13:30 | C0046 | | • | | |
| | Ground Water/ Vadim Petrov | _/G | CN (21), DM (21), TM (21) | 1280 (HNO3), 1281 (HNO3), 1288 (NaOH) (3) | BJS-MW21-040 | 5 \$ | S: 4/14/2005 | 11:40 | C0061 | | Field D | uplicate | |
| | Ground Water/ Dennis Anderson | İG | CN (21), DM (21), TM (21) | 1290 (HNO3), 1291 (HNO3), 1298 (NaOH) (3) | BJS-MW22-040 |)5 : | S: 4/14/2005 | 13:00 | C0062 | | Field D | uplicate | |

| Shipment for Case Complete? N | Sample(s) to be used for laboratory QC: | Additional Sampler Signature(s): | Chain of Custody Seal Number: | | |
|----------------------------------|--------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------|-----------|--|
| Analysis Key: | Concentration: L = Low, M = Low/Medium, H = High | Type/Designate: Composite = C, Grab = G | Shipment Iced? | | |
| CN = Cyanide, DM = CL | P TAL Dissolved Metals, TM = CLP TAL Total Metals | · · · · · · · · · · · · · · · · · · · | | | |
| TR Number: | 3-035066262-041405-0010 | | REGION () AR119232 F2V5.1.047 Page 1 of 1 | .1 | |
| | anagement Office, Attn: Heather Bauer, CSC, 15000 Conf | costs. erence Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax | AR119232 F2V5.1.047 Page 1 of 1 | Q. Lis | |

| Sepa | | | ct Laboratory ffic Report & C | - | ustody Re | cord | | | Cas DAS | e No: No: | 34031 | R | Ż |
|------------------------------------|-------------------------------------|-------------------------------|----------------------------------|----------------------------------|-----------------------------------------|---------------------|-----------------|--------------|------------|---------------------|-----------------------|---------------|----------|
| Region: Project Code: | 3 T47121.010 | | | Date Shipped: Carrier Name: | 4/14/2005 FedEx | | Chai | n of Custody | Record | | Sampler Signature: | | |
| Account Code: | 2005T03W3 | | | Airbill: | | | Relinquished By | | (Date | / Time) | Received By | (Date / Time) | - |
| CERCLIS ID: | WVD05482 | 7,944 | | Shipped to: | Ceimic Corpo | | 1 | | | | | | |
| Spill ID: | | | | | 10 Dean Knauss Drive | | 2 | | | | | | \neg |
| Site Name/State Project Leader: | Dig toini o | Big John Salvage CLP 34031/WV | | | Narragansett RI 02882 (401) 782-8900 | | | | | | | | |
| Action: | Tad Yanch Remedial II | | - | | . , | | 3 | | | | [| | |
| Sampling Co: | Tetra Tech | - | | | | | 4 | | | | | | |
| INORGANIC SAMPLE No. | MATRIX/ SAMPLER | CONC/ TYPE | ANALYSIS/ TURNAROUND | TAG PRESERVAT | | STATION LOCATION | . | | COLLECT | | GANIC PLE No. | QC Туре | ن |
| 100034 101AW8 | Ground Water/ Vadim Petrov | /G | CN (21) DM (21), TM | 968 (HNO3), 96 976 (NaOH) (3) | | BJS-MW08B-04 | 405 | S: 4/14/2005 | 10:30 | C0034 | | | — |
| 100035 101AU9 | Ground Water/ Vadim Petrov | /G | CN (21), DM (21), TM | 978 (HNO3), 97 986 (NaOH) (3) | | BJS-MW08C-04 | 405 | S: 4/14/2005 | 9:25 | C0035 | | | |
| 1C0048 1CIAXZ | Ground Water/ Dennis Anderson | /G | CN (21), OM (21), TM (21) | 1124 (HNO3), 1144 (NaOH), 1 | 1125 (HNO3), | BJS-MW14B-04 | 405 | S: 4/14/2005 | 10:50 | C0048 | | MS/MSD | |
| 1C0049 CIAX3 | Ground Water/ Dennis Anderson | /G | DM (21) | (6) 1147 (HNO3) (1 | 1) | BJS-MW14C-04 | 405 | S: 4/14/2005 | 11:30 | C0049 | | | |
| 1C01A1 | Field QC/ Vadim Petrov | /G | CN (21), TM (21) | 4387 (HNO3), 4 (2) | 4396 (NaOH) | BJS-FBO2-04 | 15 | S: 4/14/2005 | 9:15 | C01A1 | | | |
| MC01A2 | Field QC/ Dennis Anderson | /G | CN (21), TM (21) | 4398 (HNO3), 4 (2) | 4406 (NaOH) | BJS-FBO3-04 | 15 | S: 4/14/2005 | 9:50 | C01A2 | | | |

| Shipment for Case Complete? N | Sample(s) to be used for laboratory QC: | Additional Sampler Signature(s): | Chain of Custody Seal Number: |
|----------------------------------|---------------------------------------------------|-----------------------------------------|---------------------------------------------------------------|
| Completes N | MC0048 | | |
| Analysis Key: | Concentration: L = Low, M = Low/Medium, H = High | Type/Designate: Composite = C, Grab = G | Shipment Iced? |
| CN = Cyanide, DM = Cl | P TAL Dissolved Metals, TM = CLP TAL Total Metals | | |
| | | | and a contract attraction descent and the same to a branch of |

 TR Number:
 3-035066262-041405-0003

 PR provides preliminary results. Requests for preliminary results will increase analytical costs.

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 703/818-4602 ۰.

REGION AR119233 F2V5.1.047 Page 1 of 1

| €EPA | | USEPA Contract Laboratory Program Inorganic Traffic Report & Chain of Custody Record | | | | | | | Case DAS I | e No: No: | 34031 | | R |
|-----------------------------------------------|------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------|-----|---------------------------------------|------------------|---------------------|-----------------------|------------|---|
| Region: Project Code: | 3 T47121.010 | | | Date Shipped: Carrier Name: | | | | Chain of Custody Record | | | Sampler Signature: | | |
| Account Code: CERCLIS ID: Spill ID: | 2005T03W3 WVD054823 | | | Airbill: 8511 7210 0648 Relia Shipped to: Ceimic Corporation 1 10 Dean Knauss Drive | | Relinquished By (Date / Time) | | | Received By | (Date) | Time) | | |
| Site Name/State Project Leader: Action: | Big John Sa Tad Yanche Remedial Ir | eski | P 34031/WV | | Narragansett RI 02882 2 (401) 782-8900 3 | | | · · · · · · · · · · · · · · · · · · · | | | | | |
| Sampling Co: | Tetra Tech, | Inc. | | | | | 4 | | | | | | |
| INORGANIC SAMPLE No. | Matrix/ Sampler | CONC/ TYPE | ANALYSIS/ TURNAROUND | ·· F | €No./ TⅣE/ Bottles | STATION LOCATION | | SAMPLE DATE | COLLECT /TIME | | GANIC PLE No. | QC Type | |
| MC0045 MCIAXO | Ground Water/ Vadim Petrov | /G | CN (21), DM (21), TM (21) | 1092 (HNO3), 1100 (NaOH) | 1093 (HNO3), (3) | BJS-MW13A-0 | 405 | S: 4/14/2005 | 14:50 | C0045 | | | |
| мс0049 M CIA X3 | Ground Water/ Dennis Anderson | /G | DM (21) | 1146 (HNO3) | (1) | BJS-MW14C-0 | 405 | S: 4/14/2005 | 11:30 | C0049 | | | |
| MC01A3 MCIAX8 | Field QC/ Dennis Anderson | /G | CN (21), DM (21), TM (21) | 4427 (HNO3), 4435 (NaOH) | | BJS-GWEQ-0 | 02 | S: 4/14/2005 | 14:30 | C01A3 | | Rinsate | |
| MCOIA4 MCIAX9 | Field QC/ Vadim Petrov | /G | CN (21), DM (21), TM (21) | 4436 (HNO3), 4444 (NaOH) | | BJS-GWEQ-0 | 03 | S: 4/14/2005 | 15:45 | C01A4 | | Rinsate | |

| Shipment for Case Complete? N | Sample(s) to be used for laboratory QC: | Additional Sampler Signature(s): | Chain of Custody Seal Number: | | |
|----------------------------------|---------------------------------------------------|-----------------------------------------|-------------------------------|--|--|
| Analysis Key: | Concentration: L = Low, M = Low/Medium, H = High | Type/Designate: Composite = C, Grab = G | Shipment Iced? | | |
| CN = Cyanide, DM = CL | P TAL Dissolved Metals, TM = CLP TAL Total Metals | | | | |

TR Number: 3-035066262-041405-0014

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REGIONAR119234 F2V5.1.047 Page 1 of 1

| U.S EPA Region III Analytical Request Form | | | | | | | | | |
|--------------------------------------------|--------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------|----------|---------------------------------------|-----------------------------------|-------------|--|--|
| RAS CASE #: CT3328 340.3/ | #: | : NSF #: | | | | | | | |
| Date: 3/7/2005 | QAP | P/SAP: Y | (ES | Data Va | lidation Level: M3 & | : IM2 | | | |
| Site: BIG JOHN SALVAGE - Noult | | | | · | | | | | |
| Address: 900 HOULT RD | City: FAIRMO | | | : WV | | | | | |
| Latitude: 39° 29' 54" | | | 0° 7' 12" | | | | - | | |
| Program: SUPERFUND | CERCLIS#: WVD054 | 1827944 | Activity: RI/F | | | | | | |
| Account #: 05T03 N302DD2C0371LA00 | Operable Unit: | ······································ | Spill ID: 035 | | | | | | |
| Preparer: KYLE SWARTZWELDER | Phone: 302-738-755 | | Fax: 302-454-598 | | E-mail: kyle.swart | | | | |
| OSC/RPM: CHRISTIAN MATTA 3452 | | | Fax: 215-814-300 | | | ristian@epamail.epa.go | | | |
| Site Leader: TAD YANCHESKI | Phone: 302-738-755 | | Fax: 302-454-5988 E-ma | | | nail: tad.yancheski@tetratech.com | | | |
| EPA CO: JIM CLARK / Contract Type: RACS | | | | | | | | | |
| Analytical TAT: 14 days /4/16 | | | Analytical + Validation TAT: 30 days | | | | | | |
| Ship Date From: 4/3/05 | | · · · | Ship Date To: 4/1: | 5/05 | | | | | |
| Samples | Method | Paran | | | | Matrix | | | |
| 46 | OLMO4.3 LIBRT | | - SVOCS, PEST/PC | BS ONLY | Y | SOIL | 23362,23354 | | |
| 132 | ILM05.3 CHEN | | AES TAL+Hg+CN | | ····· | SOIL | 23363 | | |
| 86 | OLMO4.3 LIBRI | | | | | SOIL | 23364 | | |
| 123 | OLMO4.3 LIBRI | Y TCL | | | | AQ | 23365 | | |
| 123 246 | ILM05.3 Ceimica | the second s | AES TAL +HG+CN | | | AQ | 23366 | | |
| 123/ | ILM05.3 | | AES TAL +HG - D | <u>M</u> | | AQ | | | |
| 14 | OLC03.2 A4 | TCL | | | | AQ | 23367 | | |
| 14 | ILM05.3 DATAC | | MS TAL+HG+CN | | · · · · · · · · · · · · · · · · · · · | AQ | 23368 | | |
| ++4 | OLM04.3 | TCL | | | | SEDIMEN | | | |
| 114 | TLM05.3 | TCP-A | AES TAL+HG+CN | | | SEDIMEN | T | | |

Instruction: See Big John Salvage - Hoult Road Site Final Ri/Fs Work Plan - February 2005, Section 4.4 (Identification Of Potential Sampling Approaches And Appropriate Analytical Methods) For A Complete Listing Of All Proposed Analytical Methods.

Please Provide Electronic Data Deliverables For All Data

Cirliginal

Big John Salvage – Case 34031 duplicate pairs

| Samples |
|-----------------------------|
| C0018 / MC0018 [,] |
| C0014 / MC0014 |
| C0033 / MC0033 ⁄ |
| C0030 / MC0030- |
| C0039 / MC0039 🦳 |
| C0001 / MC0001 |
| C0002 / MC0002 |
| C00F9 / MC00F9 |
| C00E7 / MC00E7 |
| C00B2 / MC00B2 |
| C00A1 / MC00A1 |
| C0093 / MC0093 |
| C0077 / MC0077 |
| C0182 / MC0182 |
| C0086 / MC0086 |
| C0066 / MC0066 |
| C00L9 / MC00L9 |
| C0111 / MC0111 |
| C0112 / MC0112 |
| C00L1 / MC00L1 |
| C0104 / MC0104 |
| C0105 / MC0105 |

Duplicates

C0062 / MC0062 / C0059 / MC0059 / C0061 / MC0061

C0057 / MC0057 ~ C0058 / MC0058 -C00G1 /MC00G1 C00G2 /MC00G2 C00G4 /MC00G4 63 C00G5 /MC00G5 C00C4 / MC00C4 C00C5 / MC00C5 C00C6 / MC00C6 C00C7 / MC00C7 C00C8 / MC00C8 C00C9 / MC00C9 C00D0 / MC00D0 C0155/MC0155(BJS-SW-WT3-1-0405) ··) 11 2 C0135 / MC0135(·') 3 μ C0156 / MC0156 (C0153 / MC0153 C0134 / MC0134 C0154 / MC0154

ORIGINIAL

ORIGINIA,

Appendix D

Laboratory Case Narrative

AR119237

When ICP-AES raw data have been reprocessed in an SDG, the words "Reprocessed on" followed by the date and time of reprocessing will sometimes be printed in the header of each standard and sample raw data report. The word "Reprocessed" is used when the original sequence data is regenerated after it was collected and processed with incorrect information (such as sample information, standard nomenclature) or settings (such as background correction, internal standard, dilution factor, QC concentration, wrong IEC table, etc.)

QA/QC Samples:

Matrix spike and duplicate analysis – as well as ICP fivefold serial dilution – were performed on sample MC1AR2, as indicated on the Traffic Reports / Chains of Custody for sample MC0041. A post-digestion spike was not required for this SDG.

Observations:

A "U" flag in the C column on the Form IA-IN or any other form indicates that the concentration of that analyte in the sample is undetected at the experimentally-determined method detection limit (MDL). If any analyte is detected at a concentration between the Contract Required Quantitation Limit (CRQL) and the MDL, a "J" flag is shown in the C column on the form.

The "N", "*" and "E" qualifiers do not apply to this SDG. No analyte is detected in any sample in this SDG at a concentration exceeding the experimentally-determined linear range of the ICP-AES instrument, or the high calibration point of the CVAA instrument.

Due to a software limitation, please note that all ICP-AES target analytes are reported on the Form IIB-IN for the CRQL Check (CRI) standard, even though seven target analytes (Al, Ba, Ca, Fe, Mg, K, Na) do not require such monitoring.

Deviations from Contract:

Arsenic and Zinc responses are high (117 and 111%, respectively) in one of the ICP-AES Continuing Calibration Verification [CCV] standards.

End of SDG Narrative.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Ryan Montalbano Supervisor, Inorganic Laboratories

04/29/2005 Date ORIGINA,

When ICP-AES and CVAA raw data have been reprocessed in an SDG, the words "Reprocessed on" followed by the date and time of reprocessing will sometimes be printed in the header of each standard and sample raw data report. The word "Reprocessed" is used when the original sequence data is regenerated after it was collected and processed with incorrect information (such as sample information, standard nomenclature) or settings (such as background correction, internal standard, dilution factor, QC concentration, wrong IEC table, etc.)

QA/QC Samples:

Matrix spike and duplicate analysis – as well as ICP fivefold serial dilution – were performed on sample MC1AT7, as indicated on the Traffic Reports / Chains of Custody for sample MC0054. A post-digestion spike was not required for this SDG.

Observations:

A "U" flag in the C column on the Form IA-IN or any other form indicates that the concentration of that analyte in the sample is undetected at the experimentally-determined method detection limit (MDL). If any analyte is detected at a concentration between the Contract Required Quantitation Limit (CRQL) and the MDL, a "J" flag is shown in the C column on the form.

The "N", "*" and "E" qualifiers do not apply to this SDG. No analyte is detected in any sample in this SDG at a concentration exceeding the experimentally-determined linear range of the ICP-AES instrument, or the high calibration point of the CVAA instrument.

Due to a software limitation, please note that all ICP-AES target analytes are reported on the Form IIB-IN for the CRQL Check (CRI) standard, even though seven target analytes (Al, Ba, Ca, Fe, Mg, K, Na) do not require such monitoring.

Deviations from Contract:

Three Continuing Calibration Verification [CCV] standards had high response for Antimony (111%, 112%, 111%) and one CCV standard had a high response for Selenium (111%).

End of SDG Narrative.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Ryan Montalbano Supervisor, Inorganic Laboratories

OPIGINA,

QA/QC Samples:

Matrix spike and duplicate analysis – as well as ICP fivefold serial dilution – were performed on sample MC1AX2, as indicated on the Traffic Reports / Chains of Custody for sample MC0048. A post-digestion spike was not required for this SDG.

OPICINA,

0003-

AR119240

Observations:

A "U" flag in the C column on the Form IA-IN or any other form indicates that the concentration of that analyte in the sample is undetected at the experimentally-determined method detection limit (MDL). If any analyte is detected at a concentration between the Contract Required Quantitation Limit (CRQL) and the MDL, a "J" flag is shown in the C column on the form.

The "N", "*" and "E" qualifiers do not apply to this SDG. No analyte is detected in any sample in this SDG at a concentration exceeding the experimentally-determined linear range of the ICP-AES instrument, or the high calibration point of the CVAA instrument.

Due to a software limitation, please note that all ICP-AES target analytes are reported on the Form IIB-IN for the CRQL Check (CRI) standard, even though seven target analytes (Al, Ba, Ca, Fe, Mg, K, Na) do not require such monitoring.

Deviations from Contract:

None.

End of SDG Narrative.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Ryan Montalbano Supervisor, Inorganic Laboratories 05/12/2005 Date delivery. NOTE: Regardless of content, this e-mail shall not operate to bind CSC to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of e-mail for such purpose.

-----Original Message-----From: Ryan Montalbano [mailto:rmontalbano@ceimic.com] Sent: Thursday, April 21, 2005_11:45 AM To: 'Benhoff, Michael' Subject: Case 34031 Incorrect/duplicated sample numbers (Thu. 04/14/05) Importance: High

Hi Mike.

For samples received on Thursday 04/14/05 for Case 34031, the sampler continued to use the same sample ID's for the TM and DM samples. The ID's for this shipment are as follows: MC0011-MC0014, MC0019-MC0020, MC0025-MC0026, MC0028, MC0031-MC0032, MC0036-MC0039, MC0051-MC0054, MC0058-MC0059, and MC0188-MC0189. Please provide new IDs for the DM analysis.

Thanks! -Ryan

Ryan Montalbano Internal Coordinator, CLP OLM04.3/ILM05.3 Ceimic Corporation 10 Dean Knauss Drive Narragansett, RI 02882 (401)782-8900 Fax (401)782-8905 rmontalbano@ceimic.com



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delivery. NOTE: Regardless of content, this e-mail shall not operate to bind CSC to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of e-mail for such purpose. ORIGINIA,

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-----Original Message-----From: Ryan Montalbano [mailto:rmontalbano@ceimic.com] Sent: Thursday, April 21, 2005 11:45 AM To: 'Benhoff, Michael' Subject: Case 34031 Incorrect/duplicated sample numbers (Thu. 04/14/05) Importance: High

Hi Mike.

For samples received on Thursday 04/14/05 for Case 34031, the sampler continued to use the same sample ID's for the TM and DM samples. The ID's for this shipment are as follows: MC0011-MC0014, MC0019-MC0020, MC0025-MC0026, MC0028, MC0031-MC0032, MC0036-MC0039, MC0051-MC0054, MC0058-MC0059, and MC0188-MC0189. Please provide new IDs for the DM analysis.

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Thanks! -Ryan

Ryan Montalbano Internal Coordinator, CLP OLM04.3/ILM05.3 Ceimic Corporation 10 Dean Knauss Drive Narragansett, RI 02882 (401)782-8900 Fax (401)782-8905 rmontalbano@ceimic.com -----Original Message-----From: Ryan Montalbano [mailto:rmontalbano@ceimic.com] Sent: Thursday, April 21, 2005 6:19 PM To: 'Benhoff, Michael' Subject: Case 34031 Incorrect/duplicated sample numbers (Fri. 04/15/05)

Hi Mike.

For samples received on Friday 04/15/05 for Case 34031, the sampler continued to use the same sample ID's for the TM and DM samples. The ID's for this shipment are as follows: MC0015, MC0018, MC0021, MC0024, MC0027, MC0033-MC0035, MC0045-MC0046, MC0048-MC0050, MC0061, MC0062, MC0195, MC01A3, MC01A4. Please provide new IDs for the DM analysis.

This appears to be the final shipment for this Case (it is not scheduled for the week of 04/17), although the TRs do NOT indicate Case Complete.

Thanks! -Ryan

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Ryan Montalbano Internal Coordinator, CLP OLM04.3/ILM05.3 Ceimic Corporation 10 Dean Knauss Drive Narragansett, RI 02882 (401)782-8900 Fax (401)782-8905 rmontalbano@ceimic.com ORIGIP