

START 9613453.0910

0044650

W0859
/Am



Quanterra Incorporated
2800 George Washington Way
Richland, Washington 99352

509 375-3131 Telephone
509 375-5590 Fax

CERTIFICATE OF ANALYSIS



Bechtel Hanford, Inc.
345 Hills
Richland, WA 99352

January 24, 1996

Attention: Joan Kessner

| | | |
|-------------------|---|-----------------|
| SAF Number | : | B96-036 |
| Date SDG Closed | : | January 4, 1996 |
| Number of Samples | : | Two (2) |
| Sample Type | : | Water |
| SDG Number | : | W0859 |
| Data Deliverable | : | Summary |

I. Introduction

On January 4, 1996, two samples were received by the Quanterra Environmental Services Richland Laboratory (QTESRL) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Bechtel Hanford, Inc. (BHI) specific IDs:

| <u>QTESRL ID</u> | <u>BHI ID</u> | <u>MATRIX</u> | <u>DATE OF RECEIPT</u> |
|------------------|---------------|---------------|------------------------|
| 60105901 | B0GZG1 | WATER | 01/04/96 |
| 60105902 | B0GZG3 | WATER | 01/04/96 |

II. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analysis was: Strontium-90 by method RICHRC-5006

000002

Bechtel Hanford, Inc.
January 24, 1996
Page 2

III. Quality Control

The analytical results for each analysis performed under SDG W0859 include a minimum of one Laboratory Control Sample (LCS), one method (reagent) blank, and one duplicate. Any exceptions have been noted in the "Comments" section.

Quality control sample results are reported in the same units as sample results.

IV. Comments

Strontium-90 by method RICHRC-5006

The blank yield was greater than 105% (105.9% achieved) due to a possible incomplete planchette drying prior to counting or some NH_4CO_3 or Barium cold carrier from the Cr_2O_4 precipitation carried through the separation column. Except as noted, the LCS, batch blank, sample, and sample duplicate (duplicate of sample B0GZG3) are within contractual limits.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Reviewed and approved:



Suzanne Gaines
Project Manager

fg
S.G.
1-24-96

9613453.0912



SAMPLE RESULTS

LAB NAME: ITAS-RICHLAND SDG: W0859
LAB SAMPLE ID: 60105901 MATRIX: WATER
CLIENT ID: B0GZG1 DATE RECEIVED: 1/4/96 9:30:00 AM

| ISOTOPE | RESULT | COUNTING ERROR (2s) | TOTAL ERROR (2s) | MDA | REPORT UNIT | YIELD | METHOD NUMBER |
|-----------|----------|---------------------|------------------|----------|-------------|---------|---------------|
| STRONTIUM | 6.07E+02 | 6.0E+00 | 1.8E+02 | 7.82E-01 | pCi/L | 100.00% | RD3204 |

Number of Results:

000004

9613453.0913



SAMPLE RESULTS

LAB NAME: ITAS-RICHLAND SDG: W0859
LAB SAMPLE ID: 60105902 MATRIX: WATER
CLIENT ID: B0GZG3 DATE RECEIVED: 1/4/96 9:30:00 AM

| ISOTOPE | RESULT | COUNTING ERROR (2s) | TOTAL ERROR (2s) | MDA | REPORT UNIT | YIELD | METHOD NUMBER |
|-----------|----------|------------------------|---------------------|----------|----------------|---------|------------------|
| STRONTIUM | 4.36E+01 | 1.6E+00 | 1.3E+01 | 8.08E-01 | pCi/L | 100.00% | RD3204 |

Number of Results:

000005

9613453.0914



DUPLICATE RESULTS

LAB NAME: ITAS-RICHLAND SDG: W0859
LAB SAMPLE ID: C0105902 MATRIX: WATER
CLIENT ID: B0GZG3 DATE RECEIVED: 1/4/96 9:30:00 AM
ORIG LAB SAMPLE ID: 60105902

| ISOTOPE | DUP RESULT | COUNTING ERROR % | TOTAL ERROR (2 s) | MDA | REPORT UNIT | YIELD | METHOD NUMBER | ORIG RESULT | RPD |
|-----------|------------|------------------|-------------------|----------|-------------|---------|---------------|-------------|-------|
| STRONTIUM | 4.19E+01 | 1.6E+00 | 1.3E+01 | 7.74E-01 | pCi/L | 100.00% | RD3204 | 4.36E+01 | 3.77% |

Number of Results:

000006

9613453.0915



BLANK RESULTS

LAB NAME: ITAS-RICHLAND SDG: W0859
LAB SAMPLE ID: P010591B MATRIX: WATER

| ISOTOPE | RESULT | COUNTING ERROR (2s) | TOTAL ERROR (2s) | MDA | REPORT UNIT | YIELD | METHOD NUMBER |
|-----------|----------|---------------------|------------------|----------|-------------|---------|---------------|
| STRONTIUM | 5.99E-01 | 2.8E-01 | 3.3E-01 | 7.48E-01 | pCi/L | 100.00% | RD3204 |

Number of Results:

000007

9613453.0916



LABORATORY CONTROL SAMPLE

LAB NAME: ITAS-RICHLAND SDG: W0859
LAB SAMPLE ID: P010591S MATRIX: WATER

| ISOTOPE | RESULT | COUNTING ERROR (2 s) | TOTAL ERROR (2 s) | MDA | REPORT UNIT | YIELD | EXPECTED | RECOVERY |
|-----------|----------|-------------------------|----------------------|----------|----------------|---------|----------|----------|
| STRONTIUM | 1.33E+01 | 9.1E-01 | 4.2E+00 | 8.03E-01 | pCi/L | 100.00% | 1.35E+01 | 98.33% |

Number of Results:

000008

1-19



Environmental Services

Data Review Checklist
RADIOCHEMISTRY

Work Order No(s): 601059 BHI
WATER

Lab Sample Numbers or SDG: W0859

Method/Test/Parameter: TOTAL SR

| Review Item | Yes (✓) | No (✗) | N/A (N/A) | 2 nd Level review (✓) |
|--|---------|--------|-----------|----------------------------------|
| A. Calibration | | | ✓ | ✓ |
| 1. Is the calibration documentation included where applicable? | | | | ✓ |
| B. Sample Analysis | ✓ | | | ✓ |
| 1. Are the sample Yields within acceptance criteria? | ✓ | | | ✓ |
| 2. Were all sample holding times met? | ✓ | | | ✓ |
| C. QC Samples | | N/A | | ✓ |
| 1. Is the Blank Yield within acceptance criteria? | | N/A | | ✓ |
| 2. Is the Minimum Detectable Activity for the Blank result ≤ the Contract Detection Limit? | ✓ | | | ✓ |
| 3. Is the Blank result ≤ the Contract Detection Limit? | ✓ | | | ✓ |
| 4. Is the Blank result greater than the Contract Detection Limit but the Sample result less than the Contract Detection Limit? | | | ✓ | ✓ |
| 5. Is the LCS result within acceptance criteria? | ✓ | | | ✓ |
| 6. Is the LCS yield within acceptance criteria? | ✓ | | | ✓ |
| 7. Is the LCS Minimum Detectable Activity less than or equal to the Contract Detection Limit? | ✓ | | | ✓ |
| 8. MS/MSD results and yield meet acceptance criteria? | | | ✓ | ✓ |
| 9. Duplicate sample results and yield meet acceptance criteria? | ✓ | | | ✓ |
| D. Other | ✓ | | | ✓ |
| 1. Are all nonconformances included and noted? | ✓ | | | ✓ |
| 2. Are all required forms filled out? | ✓ | | | ✓ |
| 3. Correct methodology used? | ✓ | | | ✓ |
| 4. Transcription checked? | SK | | | TR |
| 5. Were all calculations checked at a minimum frequency? | ✓ | | | ✓ |
| 6. Units checked? | ✓ | | | ✓ |

Comments on any "No" response:

Analyst: Joel Dominguez
Second Level Review: Deborah J. [Signature]
Form No: LS-038, 3/94, Rev 2

Date: 1-16-96
Date: 1-19-96

055

QUANTERRA LABORATORY NONCONFORMANCE MEMO (NCM)

PAGE 1 OF 2

LOG #: RD-96-_____

Project ID: BHE NCM Initiated by: Jelt Kengana 1-16-96
 Sample Numbers: P010591B
 Tests: Total Sr
 Matrix: Water W0859

Analytical Area (check appropriate area):

- | | | | |
|--|--------------------------------|--|--|
| <input type="checkbox"/> Sample control | <input type="checkbox"/> GC | <input type="checkbox"/> Wet chemistry | <input checked="" type="checkbox"/> Data review |
| <input type="checkbox"/> Organic preparation | <input type="checkbox"/> HPLC | <input type="checkbox"/> Metals | <input checked="" type="checkbox"/> Radiochemistry |
| <input type="checkbox"/> Inorganic preparation | <input type="checkbox"/> GC/MS | <input type="checkbox"/> Reporting | <input type="checkbox"/> Bioassay |

Nonconformance (check appropriate area):

Holding Time Violations (exceeded by _____ days)

Category I: Laboratory Independent

- 1. Holding time expired in transit
- 2. Sample received > 48 hrs. or 1/2 holding time has expired
- 3. Test added by client after expiration

Category II: Laboratory Dependent

- 4. Instrument failure
- 5. Analyst error
- 6. Login error
- 7. Miscommunication
- 8. Other (complete description required)

Category III: Analysis Reruns (QA/QC)

- 9. Surrogates
- 10. Internal Standards
- 11. Spike Recoveries
- 12. Blank Contamination

Category IV: Analysis Reruns (Confirmation)

- 13. Second column
- 14. Contamination check
- 15. Confirmation of matrix effects
- 16. Other (complete description required)

Quality Assurance/Quality Control

- 17. QC data reported outside of controls
- 18. Incorrect procedure used
- 19. SOP intentionally modified with QA and Tech. approval
- 20. Invalid instrument calibration
- 21. Insufficient sample received for proper analysis

Incorrect or Incomplete Client Deliverable

- 22. Hardcopy deliverable error
- 23. Electronic deliverable error

Reported detection limits elevated due to:

- 24. Sample matrix
- 25. Insufficient sample volume
- 26. Other (complete description required)
- 27. Other (specify): Blank yield 105.9%

Comments/Explanation: LCS & Sample yields rang 102.4% - 103.8%

Notification (check appropriate area):

| | |
|---|--|
| Client notified by (name and date): _____ | Client's name and response: _____ |
| <input type="checkbox"/> in writing | <input type="checkbox"/> process "as is" |
| <input type="checkbox"/> by telephone | <input type="checkbox"/> on hold until _____ |
| <input type="checkbox"/> by facsimile | <input type="checkbox"/> re-sample |
| <input type="checkbox"/> other (explain) | <input type="checkbox"/> other (explain) |

Project Manager (signature and date): [Signature] 1-19-96

QUANTERRA LABORATORY NONCONFORMANCE MEMO (NCM)

LOG#: RD-96-_____

Corrective Action

Root Cause

Initial and date: 1/16-96

Suspect ~~ca~~ ^{is} ~~water~~ ^{is} not complete drying of ~~planchet~~, possible that some Ba²⁺ ~~old~~ carrier from ~~Cr₂O₄~~ precipitation carried through. Also possible ~~NH₄Cl~~ carry through from ~~final ppt~~.

Corrective Action

Initial and Date: 1/16-96

Data accepted - note increase narrative yield > 105% of the discussion with P.M.

Responsibility for performing CA assigned to: _____

Actions to prevent recurrence

Initial and Date: _____

First Level Supervisor: Joel Thompson

Date: 1-16-96

Responsible Manager: W. Mackellen

Date: 1/25/96

Quality Assurance Review

Anomaly

Deficiency

Rerun

Further action required: _____

Assigned to: _____

QA signature: Benedict

Date: 1/25/96

Corrective Action Verification

Verified

Cannot Verify (specify reason): _____

Nonconformance Memo Closure

QA signature/date: Benedict

1/25/96

9613453.0920

**CHAIN OF
CUSTODY FORMS**

000012

| | | | | | | | | | |
|--|---------|--|-----------------------------------|-------|--------------------------------------|----------------------|------------------|--|--|
| Bechtel Hanford, Inc. | | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | | | | | | Page <u>1</u> of <u>1</u> | |
| Collector <i>A. Rizzo / B. Reinhart</i> | | Company Contact J.V. Borghese | | | Telephone (509) 373-4790 | | | Data Turnaround <input checked="" type="checkbox"/> Priority <input type="checkbox"/> Normal | |
| Project Designation 100-NR-2 Monthly Performance Monitoring - Jan. | | Sampling Location 100 N | | | SAF No. B96-036 | | | | |
| Ice Chest No. <i>EN-20</i> | | Field Logbook No. <i>EFL-1076</i> | | | Method of Shipment Hand Delivered | | | | |
| Shipped To Quanterra | | Offsite Property No. NA | | | Bill of Lading/Air Bill No. NA | | | | |
| Possible Sample Hazards/Remarks | | Preservation | | | | | HNO ₃ | Cool 4°C | |
| | | Type of Container | | | | | P/G | P/G | |
| | | No. of Container(s) | | | | | 3 | 1 | |
| Special Handling and/or Storage Maintain samples between 2°C and 6°C. | | Volume | | | | | 1L | 20mL | |
| | | | | | | | Sr-90 | Activity Scan | |
| SAMPLE ANALYSIS <i>60105901</i> | | <i>SD6</i> <i>W0859</i> | | | | | | | |
| Sample No. | Matrix* | Date Sampled | Time Sampled | | | | | | |
| BOGZG1 | W | 1-3-96 | 1152 | | | | <i>2</i> | <i>2</i> | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| CHAIN OF POSSESSION | | Sign/Print Names | | | | SPECIAL INSTRUCTIONS | | | Matrix* |
| Relinquished By <i>R. Fahlberg</i> | | Date/Time 12:55 | Received By <i>R. Fahlberg</i> | | Date/Time 12:55 | <i>NO CAN</i> | | | <ul style="list-style-type: none"> S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Air DS - Drum Solids DL - Drum Liquids T - Tissue WI - Wipe L - Liquid V - Vegetation X - Other |
| Relinquished By <i>R. Fahlberg</i> | | Date/Time 1/3/96 | Received By <i>R. Fahlberg</i> | | Date/Time 1-3-96 | | | | |
| Relinquished By <i>R. Fahlberg</i> | | Date/Time 9:30 | Received By <i>Quanterra</i> | | Date/Time 9:30 | | | | |
| Relinquished By <i>R. Fahlberg</i> | | Date/Time 1-4-96 | Received By <i>Quanterra</i> | | Date/Time 1-4-96 | | | | |
| Relinquished By | | Date/Time | Received By | | Date/Time | | | | |
| LABORATORY SECTION | | Received By | | Title | | Date/Time | | | |
| FINAL SAMPLE DISPOSITION | | Disposal Method | | | Disposed By | | Date/Time | | |

9613453.0921

000013

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround

- Priority
- Normal

Collector: A. Rizzo / B. Fehlbach Company Contact: J.V. Borghase Telephone: (509) 373-4790

Project Designation: 100-NR-2 Monthly Performance Monitoring - Jan. Sampling Location: 100 N SAF No.: B96-036

Ice Chest No.: EP-20 Field Logbook No.: ERL-1056 Method of Shipment: Hand Delivered

Shipped To: Quanterra Offsite Property No.: NA Bill of Lading/Air Bill No.: NA

| Possible Sample Hazards/Remarks | Preservation | HNO ₃ | Cool 4°C |
|---------------------------------|---------------------------------|------------------|----------|
| | Type of Container | P/G | P/G |
| | No. of Container(s) | 3 | 1 |
| | Special Handling and/or Storage | Volume | 1L |

Maintain samples between 2°C and 6°C.

SAMPLE ANALYSIS
60105902 SDU
W0859

| Sample No. | Matrix* | Date Sampled | Time Sampled | HNO ₃ | Cool 4°C |
|------------|---------|--------------|--------------|------------------|----------|
| BOGZG3 | W | 1-3-96 | 1035 | X | X |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| CHAIN OF POSSESSION | Sign/Print Names | SPECIAL INSTRUCTIONS | Matrix* |
|--|---|----------------------|-------------------|
| Relinquished By: <u>R. Fehlbach</u> Date/Time: <u>12:55</u> | Received By: <u>ERL</u> Date/Time: <u>1255</u> | <u>100 CAP</u> | S = Soil |
| Relinquished By: <u>R. Fehlbach</u> Date/Time: <u>1/3/96</u> | Received By: <u>B. Whitt</u> Date/Time: <u>1-3-96</u> | | SE = Sediment |
| Relinquished By: <u>ERL</u> Date/Time: <u>9:30</u> | Received By: <u>ERL</u> Date/Time: <u>9:30</u> | | SO = Solid |
| Relinquished By: <u>B. Whitt</u> Date/Time: <u>1-4-96</u> | Received By: <u>Baron</u> Date/Time: <u>1-4-96</u> | | SL = Sludge |
| Relinquished By: _____ Date/Time: _____ | Received By: _____ Date/Time: _____ | | W = Water |
| Relinquished By: _____ Date/Time: _____ | Received By: _____ Date/Time: _____ | | O = Oil |
| Relinquished By: _____ Date/Time: _____ | Received By: _____ Date/Time: _____ | | A = Air |
| Relinquished By: _____ Date/Time: _____ | Received By: _____ Date/Time: _____ | | DS = Drum Solids |
| Relinquished By: _____ Date/Time: _____ | Received By: _____ Date/Time: _____ | | DL = Drum Liquids |
| Relinquished By: _____ Date/Time: _____ | Received By: _____ Date/Time: _____ | | T = Tissue |
| Relinquished By: _____ Date/Time: _____ | Received By: _____ Date/Time: _____ | | WI = Wipe |
| Relinquished By: _____ Date/Time: _____ | Received By: _____ Date/Time: _____ | | L = Liquid |
| Relinquished By: _____ Date/Time: _____ | Received By: _____ Date/Time: _____ | | V = Vegetation |
| Relinquished By: _____ Date/Time: _____ | Received By: _____ Date/Time: _____ | | X = Other |

| LABORATORY SECTION | Received By | Title | Date/Time |
|--------------------------|-----------------|-------------|-----------|
| | | | |
| FINAL SAMPLE DISPOSITION | Disposal Method | Disposed By | Date/Time |
| | | | |

000014

9613453-0922

Environmental
Restoration
Contractor

ERC Team

Interoffice Memorandum

Job No. 22192

Written Response Required: NO

CCN: N/A

OU: 100-NR-2

TSD: N/A

ERA: N/A

Subject Code: 5850

TO: W. S. Thompson N3-06 DATE: July 18, 1995
COPIES: R. L. Biggerstaff H4-91 FROM: S. K. De Mers
Radiological Controls
T7-05/373-1913
SUBJECT: 1995 sampling 100-NR-2

There is no need to perform total activities prior to offsite shipment to NRC licensed labs of samples taken from the list of wells in Attachment 1.

All of the wells listed in the first attachment were reviewed for radiological content based on the previous 4 years of sampling data. No well listed has a β activity in excess of 100,000 pCi/l (<.1 uCi/sample based on a 1 liter sample size) nor any α activity in excess of 10,000 pCi/l (<.01 uCi/l based on a 1 liter sample). All wells show activities < 2,000 pCi/gm (< 2 nCi/gm D.O.T. limit). The highest activity in recent samples is 3,260 pCi/l β and 5.2 pCi/l α .

The remaining wells are in locations that may have a credible path whereby they could become contaminated at the above listed levels and therefor will need to have total activities run on them prior to shipment. Radiological monitoring will be required for the wells and seeps listed in Attachment 2.

Radiological monitoring during sampling will only be required for the wells in Attachment 1, if the wells are located in radiological areas or if the wells themselves are labeled with radiological stickers. Monitoring requirements for down hole work such as pump removal will be determined based on the history of each well on a case by case basis.

skd

ATTACHMENT 1

WELLS THAT DO NOT REQUIRE TOTAL ACTIVITIES

Wells

- 199-N-14
- 199-N-75
- 199-N-29
- 199-N-2
- 199-N-3
- 199-N-31
- 199-N-46
- 199-N-67
- 199-N-76
- 199-N-16
- 199-N-17
- 199-N-18
- 199-N-19
- 199-N-20
- 199-N-21
- 199-N-25
- 199-N-26
- 199-N-32
- 199-N-50
- 199-N-51
- 199-N-54
- 199-N-64
- 199-N-66
- 199-N-67
- 199-N-70
- 199-N-71
- 199-N-73
- 199-N-74
- 199-N-75
- 199-N-77
- 199-N-80

SDG
W0859

Figure 1

SAMPLE CHECK-IN LIST

(1 Per Shipping Container)

Date/Time Received 1-4-96 9:30 Client Name BHI

Project/Client # B96036 Batch or Case # _____

- Cooler ID (if noted on outside of cooler) ER-20

1. Condition of shipping container? OK.

2. Custody Seals on cooler intact? Yes [] No []

3. Custody Seals dated and signed? Yes [] No []

4. Chain of Custody record is taped on inside of cooler lid? Yes [] No []

5. Vermiculite/packing material is: Wet [] Dry [] _____

6. Each sample is in a plastic bag? Yes [] No [] _____

7. Number of sample containers in cooler: 8

8. Samples have: tape _____ hazard labels

custody seals _____ appropriate sample labels

9. Samples are: in good condition _____ leaking

_____ broken _____ have air bubbles

_____ other

10. Coolant Present? Yes [] No [] Sample Temperature 4°C

11. The following paperwork should be accounted for (N/A if not applicable):

Chain of Custody #(s) N/A

Request for Analysis #(s) _____

Airbill # _____ Carrier N/A

12. Have any anomalies been identified above? Yes [] No []

13. Memos have been initiated for all anomalies identified above? Yes []

Printed Name/Signature Karen Patterson Date/Time 1-4-96 9:30

601059-Rad

SDG W0859

Client Sample Screening Results

04-Jan-96

P2 1-11-96

| CLIENT CODE ID | MATRIX | RECEIVED | DETECTOR | ACQ DATE | SAMPLE | MINUTES | CNTSA | NET CPMA | CNTS B | NET CPM B |
|------------------|-----------------------|-------------------|---------------------|-------------------|-----------------|-----------------|-----------|------------|---------|-----------|
| WHC B0GZG1 | | 1/4/96 9:30:00 AM | QUAD23B | 1/4/96 2:32:08 PM | B0GZG1 | 30 | 16 | 0.48083333 | 372 | 11.475 |
| 01 | LIQUID | | Bkg: | 1/4/96 4:29:26 AM | BKG | 800 | 42 | 0.0525 | 740 | 0.925 |
| Anl Date: 1/4/96 | Tot Sa, Alq: 1.00E+00 | 1.00E+01 | Alp; (Dpm/ | 1.18E+00 | (uCV/ 5.31E-05 | (pCV/ 5.31E+01 | ± 2.3E+01 | CAT | 4.7E-01 | Lab |
| Ppt mg: 1 ✓ | Units: L | ml | Bet; Alq): 2.15E+01 | Sa): 9.69E-04 | L/g): 9.69E+02 | ± 5.5E+01 | I ✓ | 5.2E-02 | Alq | L/g |
| WHC B0GZG3 | | 1/4/96 9:30:00 AM | QUAD23C | 1/4/96 2:32:08 PM | B0GZG3 | 30 | 19 | 0.60083333 | 105 | 2.5875 |
| 02 | LIQUID | | Bkg: | 1/4/96 4:29:26 AM | BKG | 800 | 26 | 0.0325 | 730 | 0.9125 |
| Anl Date: 1/4/96 | Tot Sa, Alq: 1.00E+00 | 1.00E+01 | Alp; (Dpm/ | 1.70E+00 | (uCV/ 7.68E-05 | (pCV/ 7.68E+01 | ± 2.4E+01 | CAT | 3.3E-01 | Lab |
| Ppt mg: 2.1 ✓ | Units: L | ml | Bet; Alq): 4.66E+00 | Sa): 2.10E-04 | L/g): 2.10E+02 | ± 2.9E+01 | I ✓ | 2.4E-01 | Alq | L/g |
| WHC TEDF0401961 | | 1/4/96 9:30:00 AM | QUAD23D | 1/4/96 2:32:08 PM | TEDF0401961 | 30 | 1 | -0.0091667 | 32 | 0.1141667 |
| | LIQUID | | Bkg: | 1/4/96 4:29:26 AM | BKG | 800 | 34 | 0.0425 | 762 | 0.9525 |
| Anl Date: 1/4/96 | Tot Sa, Alq: 1.00E+00 | 1.00E+01 | Alp; (Dpm/ | -3.12E-02 | (uCV/ -1.41E-06 | (pCV/ -1.41E+00 | ± 1.9E+01 | CAT | 1.0E+00 | Lab |
| Ppt mg: 2.6 ✓ | Units: L | ml | Bet; Alq): 2.24E-01 | Sa): 1.01E-05 | L/g): 1.01E+01 | ± 1.7E+01 | I ✓ | 5.0E+00 | Alq | L/g |

9613453.0926

000018

04-Jan-96

1

CHAIN-OF-CUSTODY BATCH ANALYSIS RECORD

*Dup
1-19-96*

CUSTOMER: BHI *SAF* SAMPLE DELIVERY GROUP *W0859*
 MATRIX : WATER *B96-036* BATCH NUMBER *01-059*

| ITAS ID | DUP | ACCOUNT | CUSTOMER ID | COMMENTS |
|---------|-----|-----------------------------|---------------------|-----------------------------|
| 1) | | 60105901 | BHI BOGZG1 | |
| 2) | | 60105902 <i>Col05902</i> | BHI BOGZG3 | |
| 3) | | P010591B | BHI | |
| 4) | | P010591S | BHI <i>EQL 1410</i> | <i>30.046 ± 0.42381 DPM</i> |

ACTIONS (Initial & Date)

- 1) INITIATED *JH 1/4/96*
- 2) PREP LAB RECEIVED *QR 1/5/96*
- 3) SAMPLE REMAINDER STORED *QR 1/5/96*
- 4) SEPARATION LAB RECEIVED *QR 1/5/96*
RICKRCS000
- 5) COUNTING/MEASUREMENT LAB *AB 1-10-96* *RD 407*
- 6) DATA REVIEWED AND ANALYTICAL PREP STORED *MR 1-16-96 RICKRCS000*

PRIORITY