# Second Quarter 2006
# Groundwater Monitoring Report

## Former Simpson Remanufacturing Facility
## Arcata, California

Prepared for:

**Simpson Timber Company**

**Consulting Engineers & Geologists, Inc.**

812 W. Wabash
Eureka, CA 95501-2138
707/441-8855

July 2006
003154

CONSULTING ENGINEERS & GEOLOGISTS, INC.
812 W. Wabash • Eureka, CA 95501-2138 • 707/441-8855 • FAX: 707/441-8877 • shninfo@shn-engr.com

Reference: 003154

July 10, 2006

Mr. Ryan Miya
Department of Toxic Substances Control
Northern California-Coastal Cleanup Operations Branch
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2721

**Subject: Second Quarter 2006 Groundwater Monitoring Report, Former Simpson Remanufacturing Facility; Arcata, California**

Dear Mr. Miya:

SHN Consulting Engineers & Geologists, Inc (SHN) is providing you with the second quarter 2006, groundwater-monitoring report for the former Simpson Remanufacturing Facility, Arcata, California. SHN performed the groundwater monitoring on May 10, 2006.

Please call me at 441-8855 if you have any questions.

Sincerely,

**SHN Consulting Engineers & Geologists, Inc.**

Frans B. Lowman, P. G.
Project Manager

FBL/ADM:kas
Enclosure: Report
copy w/encl: Kasey Ashley, RWQCB
Rob Ricci, Simpson Timber Company
Lane Devries, Sun Valley Floral Farms

Reference: 003154

# Second Quarter 2006 Groundwater Monitoring Report

## Former Simpson Remanufacturing Facility Arcata, California

Prepared for:

**Simpson Timber Company**

Prepared by:

Consulting Engineers & Geologists, Inc.
812 W. Wabash
Eureka, CA 95501-2138
707/441-8855

July 2006

PROFESSIONAL GEOLOGIST
FRANS BARTON LOWMAN
No. 6705
CHG No. 665
Exp. _____
STATE OF CALIFORNIA

QA/QC: FBL___

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# Abbreviations and Acronyms

| | |
|---|---|
| < | denotes a value that is "less than" the method detection limit |
| mV | millivolts |
| ppm | parts per million |
| mg/L | milligrams per Liter |
| ug/L | micrograms per Liter |
| | |
| BGS | Below Ground Surface |
| DCE | Dichloroethene |
| $DCO_2$ | Dissolved Carbon Dioxide |
| DO | Dissolved Oxygen |
| DTSC | California Department of Toxic Substances Control |
| EPA | Environmental Protection Agency |
| MW-# | Monitoring Well-# |
| NCL | North Coast Laboratories, Ltd. |
| ND | Not Detected |
| ORP | Oxidation-Reduction Potential |
| PCP | Pentachlorophenol |
| RWQCB | California Regional Water Quality Control Board, North Coast Region |
| SHN | SHN Consulting Engineers & Geologists, Inc. |
| TCP | Tetrachlorophenol |
| VOCs | Volatile Organic Compounds |

# 1.0 Introduction

This report presents the results of groundwater monitoring activities for the second quarter 2006, conducted at the former Simpson Remanufacturing Facility located in, Arcata, California (Figure 1). SHN Consulting Engineers & Geologists, Inc. (SHN) performed this work on behalf of the Simpson Timber Company. This work was requested by the California Department of Toxic Substances Control (DTSC), and the California Regional Water Quality Control Board, North Coast Region (RWQCB).

## 1.1 Vicinity Information

The former remanufacturing facility is located at 3315 Foster Avenue, Arcata, Humboldt County, California (Figure 2). The majority of the site is located in the southeast quarter of Section 19, T6N, R1E, Humboldt Base and Meridian. The area is zoned industrial and agricultural exclusive. Site elevation is approximately 20 feet (North American Vertical Datum 1929) and the topography is relatively flat.

## 1.2 Site History

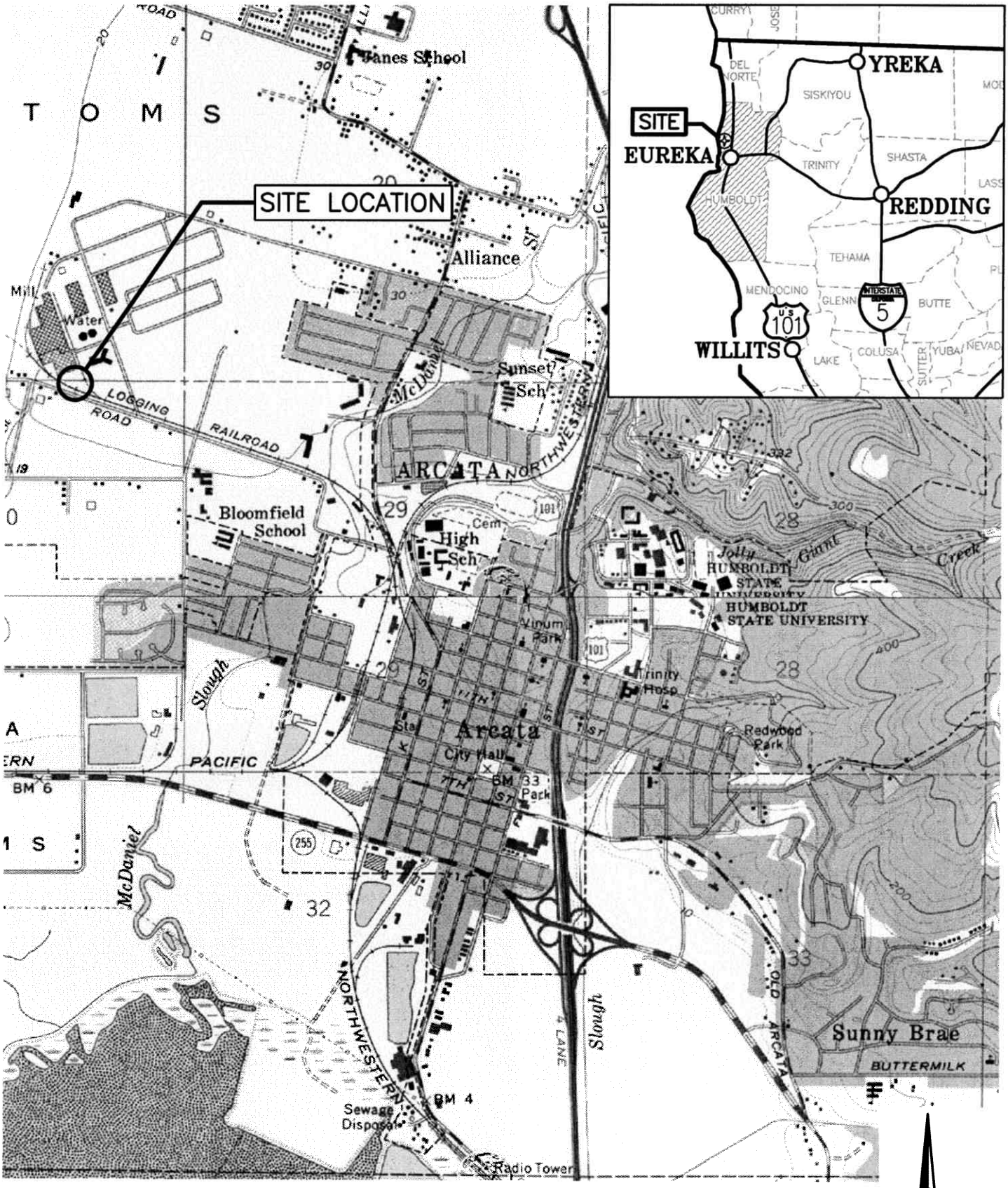
The site was initially developed in 1951. Operations included processing rough sawn boards into finished dimensional lumber and siding. In 1989, the facility was closed and the plant equipment was sold. In May 1999, Sun Valley Floral Farms purchased the site. Subsurface investigations have been performed at various locations throughout the site, including soil excavation at several locations. A detailed description of previous activities is included in the final removal action work plan (EnviroNet, 1997).

On January 21 and 22, 2004, SHN supervised the installation of monitoring wells MW-7 and MW-8 (Figure 3). Wells were installed by Fisch Environmental of Valley Springs, California. Wells MW-7 and MW-8 were subsequently added to the existing monitoring well network.

Groundwater beneath the site was monitored on a quarterly basis in 2004. Groundwater monitoring ceased after that time, but was resumed during the third quarter of 2005.

## 1.3 Geology and Hydrology

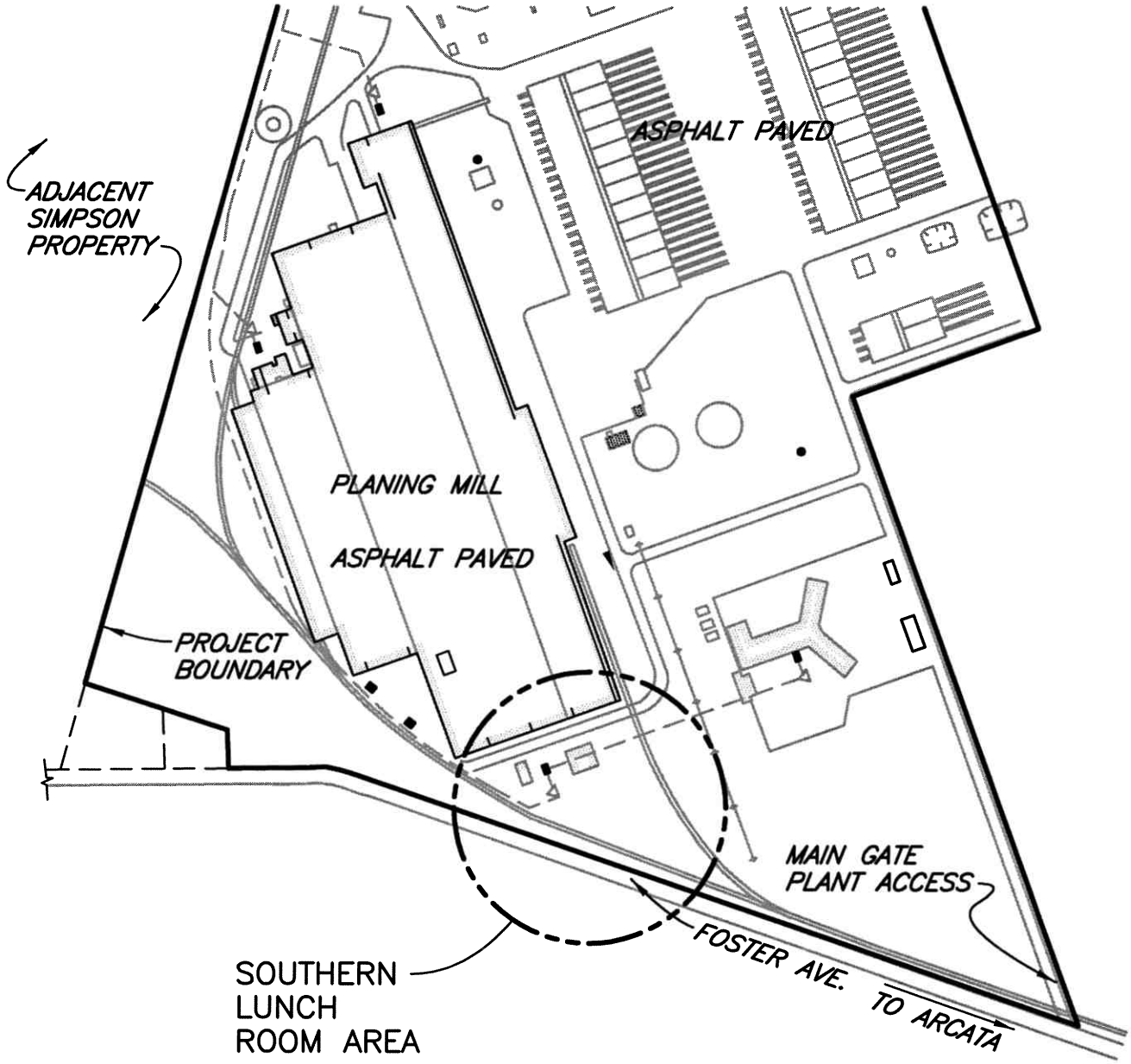
The site is located within the Arcata Bottoms, a floodplain/coastal plain of low relief. Geology in the vicinity of the site was mapped as Holocene alluvium consisting of coarse to fine sand and silt (Kelley, 1984). Gravel fill material was encountered from the ground surface to a depth of approximately 2 feet Below Ground Surface (BGS) underlain by two to five feet of silt (SHN, 2004). Sands and gravels are present below the silt from approximately 5 to 27 feet BGS. A deeper silt layer was observed at 27 feet BGS in well point SLR-1. Although no soil samples were collected below 28 feet BGS, the ease of advancement of the Geoprobe® rods from 28 to 59 feet BGS indicates that the silt layer extends to the bottom of the boring (approximately 59 feet BGS) (SHN, 2004). Previous subsurface investigations (EnviroNet, 1997) characterized the subsurface as approximately 3-15 feet of silt/clay deposits, underlain by sands and rounded gravels, with a low permeability layer of silt and/or clay present at depths ranging from approximately 23 to 30 feet BGS.




SOURCE:
U.S.G.S. QUADS OF
ARCATA NORTH AND ARCATA SOUTH

NO SCALE

| | | |
|---|---|---|
| SHN Consulting Engineers & Geologists, Inc. | Simpson Timber Company<br>Arcata Remanufacturing Facility<br>Arcata, California | Site Location Map<br>SHN 003154 |
| | June 2006 | 003154-SITE-LCTN | Figure 1 |




BASIS OF MAPPING

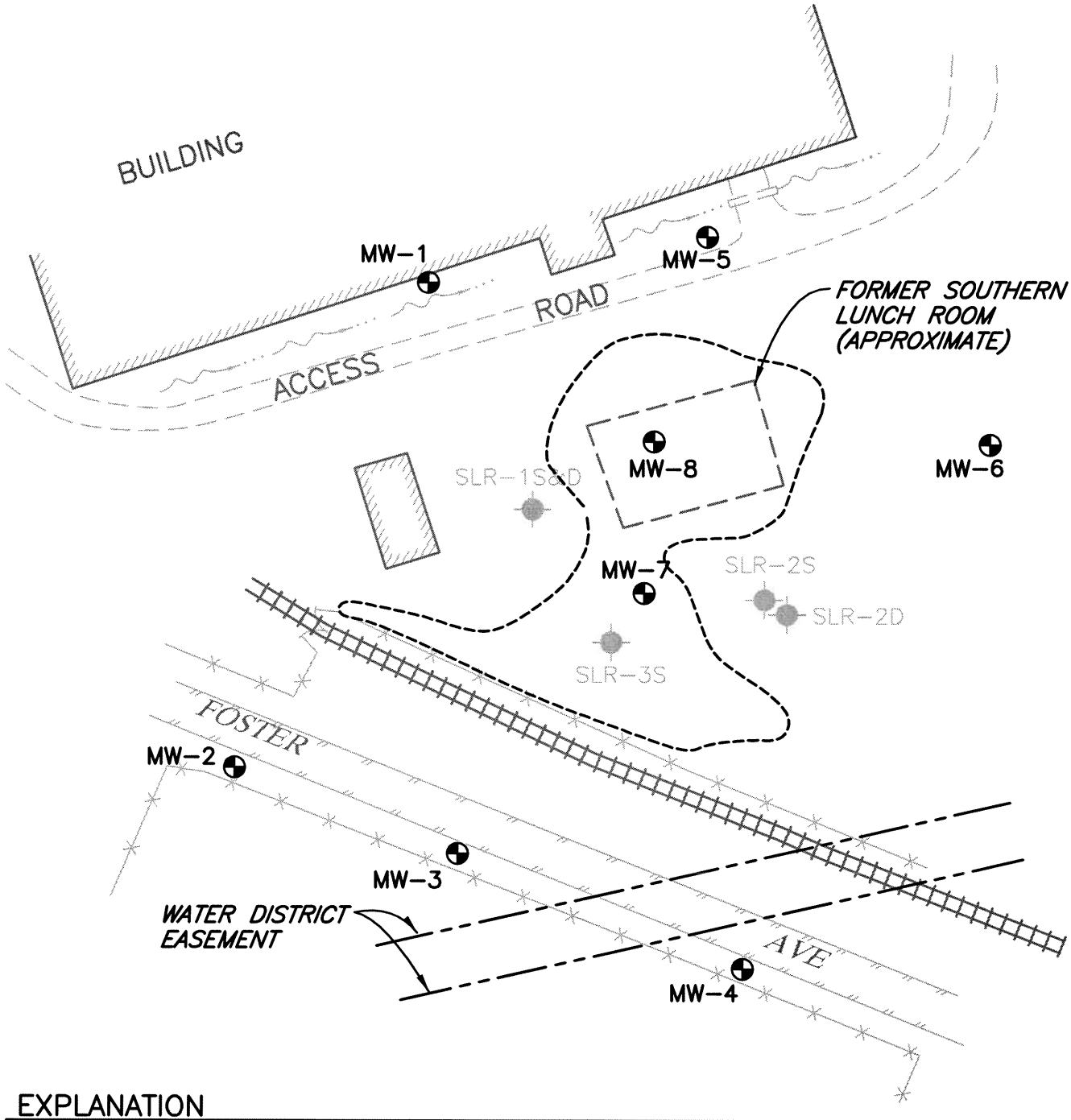
1. MARSH & McLENNAN, INC., SEATTLE INSURANCE BROKERS, NOVEMBER, 1964 SIMPSON TIMBER COMPANY, ARCATA, CALIFORNIA

2. CITY OF ARCATA, DEPARTMENT OF PUBLIC WORKS, HUMBOLDT COUNTY CALIFORNIA. 10-3-89 AERIAL PHOTO, RECTIFIED PHOTOMAP BY CH2M HILL, (38 & 39)

N

1"=300'± 0 300

| | | |
|---|---|---|
| SHN Consulting Engineers & Geologists, Inc. | Simpson Timber Company<br>Arcata Remanufacturing Facility<br>Arcata, California | Former Site Layout<br>SHN 003154 |
| | March, 2006 | 003154-f2 | Figure 2 |




## EXPLANATION

- MW-2 — MONITORING WELL LOCATION AND DESIGNATION
- SLR-1 — SOIL BORING/WELL POINT LOCATION AND DESIGNATION (SHN, JANUARY, 2004 SITE INVESTIGATION)
- EXISTING STRUCTURE
- APPROXIMATE EXCAVATION EXTENTS
- EXISTING FENCE
- EXISTING RAILROAD TRACKS
- EXISTING SURFACE DRAINAGE
- S — SHALLOW BORING
- D — DEEP BORING

N

0 1"=60' 60

| | | |
|---|---|---|
| SHN Consulting Engineers & Geologists, Inc. | Simpson Timber Company<br>Former Remanufacturing Facility<br>Arcata, California | Site Plan - Southern Lunch Room Area<br>SHN 003154 |
| | March 2006 | 003154-SLR-Plan | Figure 3 |

# 2.0 Field Activities

## 2.1 Monitoring Well Sampling

SHN conducted groundwater monitoring on May 10, 2006. As part of the monitoring program, wells MW-2, MW-3, MW-7, and MW-8 were purged and sampled. Prior to purging, each well was measured for depth to water, and checked for the presence of floating product (none was observed). Electrical Conductivity, pH, and temperature were monitored periodically during purging activities using portable instrumentation. Groundwater samples were collected from wells MW-2, MW-3, MW-7, and MW-8 using disposable polyethylene bailers. Each of these four wells was also measured for Dissolved Oxygen (DO), Oxidation-Reduction Potential (ORP), and Dissolved Carbon Dioxide ($DCO_2$) before purging. A duplicate sample was collected from groundwater monitoring well MW-3 and analyzed for all analytes. The water samples were immediately placed in an ice-filled cooler and submitted to the laboratory for analyses, under appropriate chain-of-custody. Groundwater monitoring data sheets are included in Appendix A.

## 2.2 Laboratory Analysis

The groundwater samples collected on May 10, 2006, were analyzed for:

- Volatile Organic Compounds (VOCs), in general accordance with U.S. Environmental Protection Agency (EPA) Method No. 8260B.
- Pentachlorophenol (PCP) and Tetrachlorophenol (TCP), in general accordance with the Canadian Pulp Report Method.
- Alkalinity, in general accordance with Standard Method 19th Edition 2320B.
- Chloride, Sulfate, and Nitrate, in general accordance with EPA Method No. 300.0.
- Dissolved Iron and Dissolved Manganese, in general accordance with EPA Method No. 200.7.
- Phenols, in general accordance with EPA Method No. SW8270C.

All of the sample analyses (with the exception of Phenols) were performed by North Coast Laboratories, Ltd. (NCL), a California-certified analytical laboratory located in Arcata, California. The phenol analyses were performed (under contract to NCL) by Severn Trent Laboratories, of Sacramento, California.

## 2.3 Equipment Decontamination Procedures

All monitoring and sampling equipment was cleaned prior to being transported to the Former Simpson Remanufacturing Facility site. All equipment that required on-site cleaning was initially washed in a water solution containing Liquinox® cleaner, followed by a distilled water rinse, then by a second distilled water rinse.

## 2.4 Investigation-Derived Waste Management

All water used for decontaminating field-sampling equipment and all well purge water was temporarily stored on site in 50-gallon plastic drums. The water was then transported to SHN's 1,000-gallon purge water storage tank located at 812 West Wabash Avenue in Eureka, California. Approximately 41 gallons of decontamination and purge water from the May 10, 2006, sampling event were tested and discharged, under permit, to the City of Eureka municipal sewer system. Discharge receipts for the 43 gallons of purge/decontamination water generated during the first quarter 2006 and the 41 gallons generated during the second quarter 2006 monitoring event are included in Appendix A.

# 3.0 Groundwater Monitoring Results

## 3.1 Hydrogeology

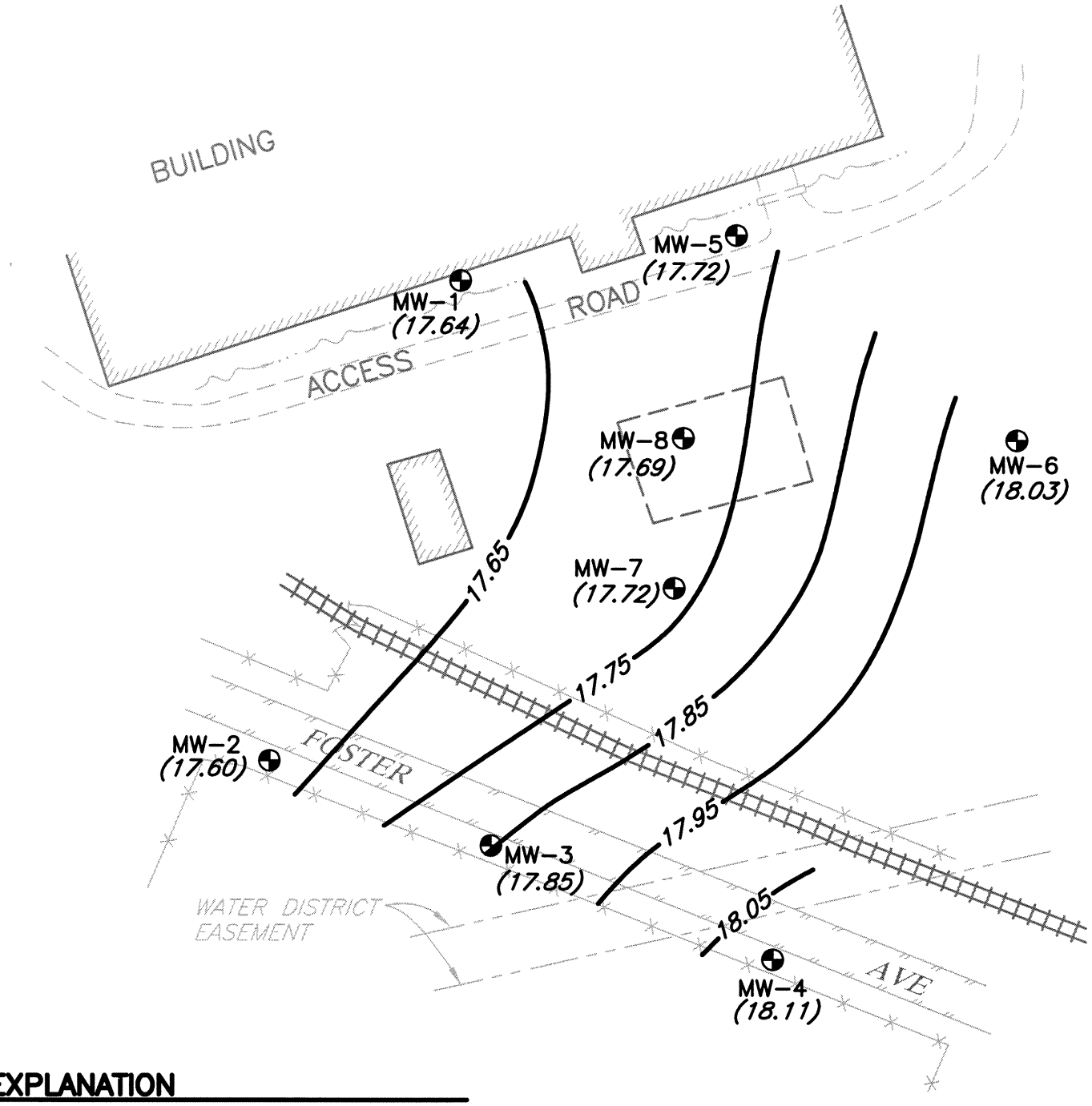
SHN measured depth-to-groundwater in the existing monitoring wells during the second quarter 2006, monitoring event (Table 1).

**Table 1**
**Groundwater Elevations, May 10, 2006**
**Former Simpson Remanufacturing Facility, Arcata, California**

| Sample Location | Top of Casing Elevation[1] (feet) | Depth to Groundwater[2] (feet) | Groundwater Elevation[1] (feet) |
|---|---|---|---|
| MW-1 | 20.69 | 3.05 | 17.64 |
| MW-2 | 22.10 | 4.50 | 17.60 |
| MW-3 | 22.85 | 5.00 | 17.85 |
| MW-4 | 22.48 | 4.37 | 18.11 |
| MW-5 | 21.82 | 4.10 | 17.72 |
| MW-6 | 23.03 | 5.00 | 18.03 |
| MW-7 | 21.48 | 3.76 | 17.72 |
| MW-8 | 21.56 | 3.87 | 17.69 |

1. Relative to National Geodetic Vertical Datum 1929
2. Below top of casing

On May 10, 2006, the direction of groundwater flow beneath the site was to the northwest, with an approximate gradient of 0.002. A groundwater contour map for the May 10, 2006, monitoring event is presented as Figure 4. Historic groundwater elevation data is included in Appendix B, Table B-1.




## EXPLANATION

MW-2 MONITORING WELL LOCATION AND DESIGNATION

(17.60) GROUNDWATER ELEVATION (IN FEET NGVD 29)

17.65 GROUNDWATER CONTOUR (IN FEET NGVD 29)

N

0 1"=60' 60

| | | |
|---|---|---|
| SHN Consulting Engineers & Geologists, Inc. | Simpson Timber Company<br>Former Remanufacturing Facility<br>Arcata, California | Groundwater Contours<br>May 10, 2006<br>SHN 003154 |
| | June 2006 | 003154-GWC-MAY-06 | Figure 4 |

## 3.2 Groundwater Analytical Results

Table 2 summarizes the laboratory analytical results for organic compounds.

**Table 2**
**Organic Compound Groundwater Analytical Results, May 10, 2006**
**Former Simpson Remanufacturing Facility, Arcata, California**
**(in ug/L)[1]**

| Sample Location | Phenols[2] | PCP[3] | TCP[3] | trans-1,2-DCE[4] | cis-1,2-DCE[4] | Vinyl Chloride[5] | Benzene[5] |
|---|---|---|---|---|---|---|---|
| MW-2 | ND[6] | <0.30[7] | <1.0 | <1.0 | <1.0 | <1.0 | <0.50 |
| MW-3 | ND | <0.30 | <1.0 | **1.0** | **31** | **4.8** | **0.76** |
| Dup[8] | ND | <0.30 | <1.0 | **1.4** | **31** | **5.1** | **0.80** |
| MW-7 | ND | <0.30 | <1.0 | <1.0 | <1.0 | **1.7** | **0.60** |
| MW-8 | ND | <0.30 | <1.0 | <1.0 | <1.0 | **2.1** | <0.50 |

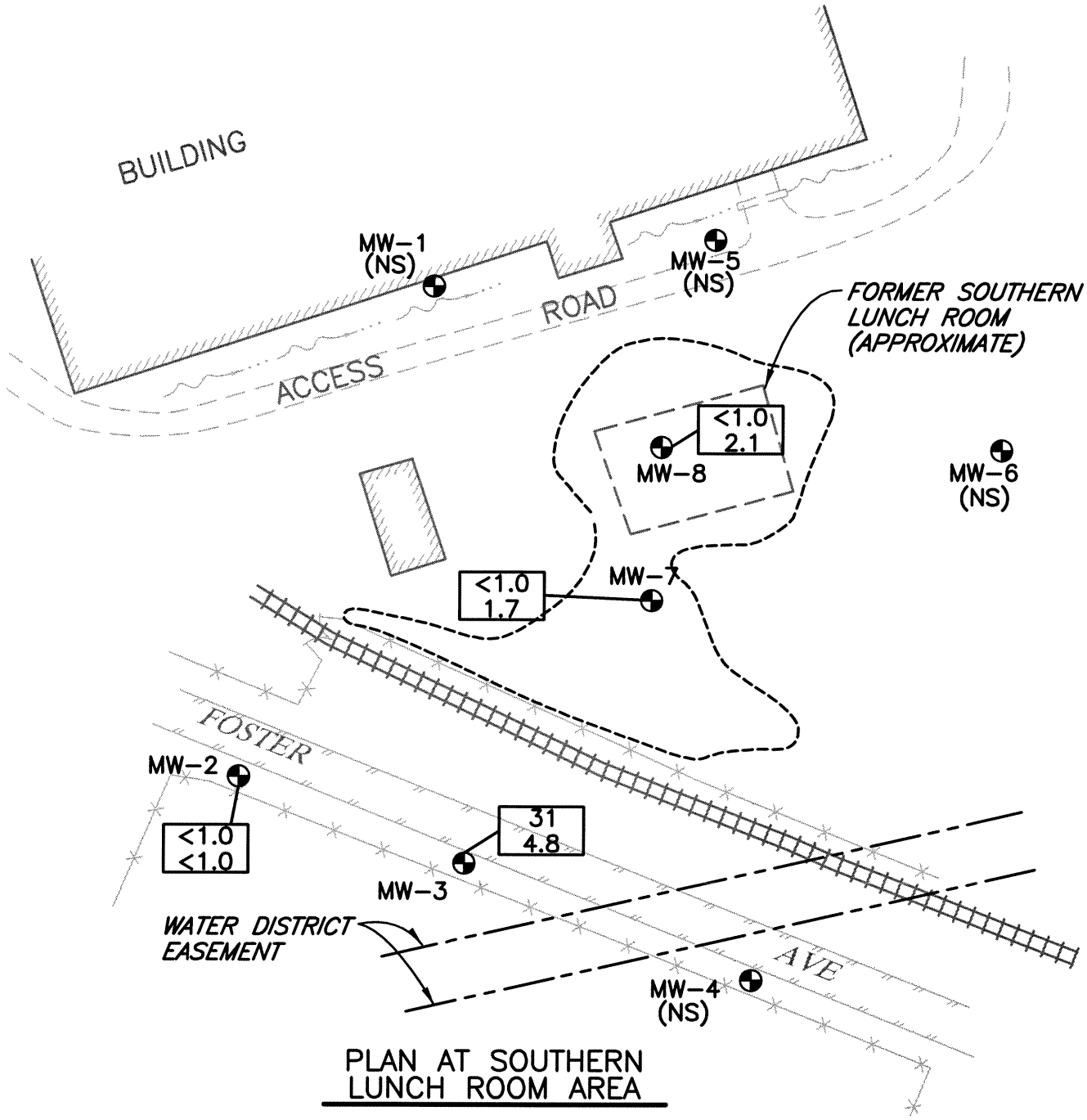
1. ug/L: micrograms per Liter
2. Analyzed in general accordance with U.S. Environmental Protection Agency (EPA) Method No. SW8270C.
3. Pentachlorophenol (PCP) and tetrachlorophenol (TCP), analyzed in general accordance with the Canadian Pulp Report Method.
4. DCE: Dichloroethene, analyzed in general accordance with EPA Method Nos. 5030B/8260B.
5. Analyzed in general accordance with EPA Method Nos. 5030B/8260B.
6. ND: Not Detected. See laboratory analytical report for constituent list and corresponding method detection limits.
7. <: Denotes a value that is "less than" the method detection limit.
8. Duplicate groundwater sample collected from monitoring well MW-3.

The complete analytical laboratory reports, chain-of-custody, and laboratory quality control data are included in Appendix C. A site map showing selected VOC concentrations in groundwater on May 10, 2006, is presented as Figure 5. Historic groundwater analytical data are included in Appendix B, Table B-2.

## 3.3 Natural Attenuation Parameters

Table 3 summarizes the analytical results of select inorganic constituents used to assess whether or not reductive de-chlorination of organic compounds is occurring.

When reductive de-chlorination is occurring, alkalinity, chloride, dissolved iron, and dissolved manganese concentrations typically increase within the source plume, while sulfate and nitrate concentrations typically decrease. Monitoring wells MW-7 and MW-8 are considered representative of the source area. Well MW-2 is considered representative of conditions outside of the contaminant plume. As shown in Table 3, these trends were followed for all constituents.




PLAN AT SOUTHERN
LUNCH ROOM AREA

## EXPLANATION

MW-2 *MONITORING WELL LOCATION AND DESIGNATION*

<1.0 *CIS-1,2 DICHLOROETHENE*
<1.0 *VINYL CHLORIDE* } *RESULTS IN ug/L*

-------- *APPROXIMATE LIMITS OF EXCAVATION*

(NS) *NOT SAMPLED*

N

0 1"=60' 60

| | | |
|---|---|---|
| SHN Consulting Engineers & Geologists, Inc. | Simpson Timber Company<br>Former Remanufacturing Facility<br>Arcata, California | VOC Concentrations in Groundwater<br>May 10, 2006<br>SHN 003154 |
| | June 2006 | 003154-VOC-CONC-MAY-06 | Figure 5 |

| Table 3<br>Reductive De-chlorination Indicator Results, May 10, 2006<br>Former Simpson Remanufacturing Facility, Arcata, California | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Location** | **Alkalinity[1] (mg/L as $CaCO_3$)[2]** | **Chloride[3] (mg/L)** | **Sulfate[3] (mg/L)** | **Nitrate[3] (mg/L)** | **Dissolved Iron[4] (ug/L)[5]** | **Dissolved Manganese[4] (ug/L)** |
| MW-2 | **36** | **5.1** | **5.6** | **5.5** | <100[6] | **2.3** |
| MW-3 | **150** | **9.8** | **1.1** | <0.10 | **2,400** | **890** |
| Dup[7] | **150** | **9.8** | **1.1** | <0.10 | **2,500** | **890** |
| MW-7 | **210** | **8.3** | **5.2** | <0.10 | **4,000** | **1,100** |
| MW-8 | **190** | **17** | <0.50 | <0.10 | **13,000** | **1,600** |

1. Analyzed in general accordance with Standard Method 19th Edition 2320B
2. mg/L: milligrams per Liter
3. Analyzed in general accordance with U.S. Environmental Protection Agency (EPA) Method No. 300.0
4. Analyzed in general accordance with EPA Method No. 200.7
5. ug/L: micrograms per Liter.
6. <: Denotes a value that is "less than" the method detection limit.
7. Duplicate groundwater sample collected from monitoring well MW-3.

DO, $DCO_2$, and ORP were measured in monitoring wells MW-2, MW-3, MW-7, and MW-8 on May 10, 2006, prior to sampling, and are summarized in Table 4.

| Table 4<br>DO, $DCO_2$, and ORP, Measurement Results, May 10, 2006<br>Former Simpson Remanufacturing Facility, Arcata, California | | | |
|---|---|---|---|
| **Sample Location** | **DO[1] (ppm)[2]** | **$DCO_2$[3] (ppm)** | **ORP[4] (mV)[5]** |
| MW-2 | 8.09 | 45 | 268 |
| MW-3 | 2.19 | 70 | 158 |
| MW-7 | 1.30 | 95 | 62 |
| MW-8 | 1.27 | 300 | -31 |

1. DO: Dissolved Oxygen, field measured using portable instrumentation.
2. ppm: Measurement concentration, in parts per million.
3. $DCO_2$: Dissolved Carbon Dioxide, measured using a field test kit.
4. ORP: Oxidation-Reduction Potential measured using portable instrumentation.
5. mV: millivolts

During this monitoring event, DO concentrations ranged from 1.27 parts per million (ppm) in well MW-8, to 8.09 ppm in well MW-2. These DO concentrations may be sufficient to support aerobic biodegradation. $DCO_2$ levels within the source area (300 and 95 ppm in wells MW-8 and MW-7, respectively) are greater than background levels (45 ppm in well MW-2), indicating that biodegradation is occurring. ORP measurements ranged from -31 millivolts (mV) in well MW-8, to 268 mV in well MW-2. These concentrations are representative of anaerobic to mildly aerobic conditions. Historic DO, $DCO_2$, and ORP measurement results are presented in Appendix B, Table B-3.

An analysis of degradation indicators shows that both aerobic degradation and reductive de-chlorination is occurring. Depleted DO concentrations across the site along with increased $DCO_2$ concentrations within the source area indicate that conditions within the source area are becoming anaerobic. The trends of the reductive de-chlorination indicators in the source area, along with the continued presence of vinyl chloride in wells MW-3, MW-7, and MW-8, indicate that chlorinated compounds are degrading.

## 3.4 Quality Assurance

Precision goals outlined in the quality assurance project plan appended in the site investigation work plan (SHN, 2003), were reviewed with respect to the duplicate sample collected from monitoring well MW-3. Vinyl chloride, trans-1,2-DCE, cis-1,2-DCE, and benzene concentrations in the duplicate sample from MW-3 were within the precision goals.

# 4.0 Discussion and Recommendations

Information collected during this quarterly groundwater-monitoring event indicates:

- The groundwater elevations on May 10, 2006, have decreased when compared to those collected during the February 2006 groundwater-monitoring event. During this monitoring event, the direction of groundwater flow beneath the site was to the northwest, and is consistent with the direction of flow during the February 2006 (northwest) monitoring event.
- PCP, TCP, and Phenols were not detected in any of the groundwater samples that were collected on May 10, 2006.
- Cis-1,2-DCE and trans-1,2-DCE were detected in the groundwater sample collected from monitoring well MW-3.
- Vinyl chloride was detected in the groundwater samples collected from monitoring wells MW-3, MW-7, and MW-8.
- Benzene was detected in the groundwater samples collected from monitoring wells MW-3 and MW-7.

The presence of vinyl chloride (a decay product of VOCs, including cis-1,2-DCE) in site wells indicates that VOC biodegradation is occurring. In addition, reductive de-chlorination indicators show that VOC degradation is occurring.

In the work plan, *Amended Subsurface Investigation, Monitoring Well Installation, and Groundwater Monitoring Work Plan*, dated November 2003, SHN recommended that groundwater monitoring be conducted for a period of one year upon completion of wells MW-7 and MW-8. This work plan was approved by the DTSC and the RWQCB in December 2003. In November 2004, the approved one year of quarterly monitoring was completed.

On March 15, 2005, SHN submitted a Five-Year Review Report to the DTSC, presenting the results of work conducted at the site in 2004, along with a summary of the work completed over the past five years. In a letter dated July 6, 2005, the DTSC concurred with the recommendation presented in the five-year review report. Therefore, in accordance with the site recommendations, SHN will continue quarterly monitoring. Quarterly monitoring will continue until July 2006, at which time, recommendations for the site will be made. The next monitoring event is scheduled for July 2006.

# 5.0 References Cited

Kelley, Frederic. (1984). Geology and Geomorphic Features Related to Landsliding, Arcata North 7.5-minute quadrangle, Humboldt County, California. NR: CDMG.

Pacific Northwest EnviroNet Group, Inc. (1997). *Final Removal Action Work Plan Prepared for the Former Simpson Timber Company Remanufacturing Plant Site.* Santa Rosa: EnviroNet.

SHN Consulting Engineers & Geologists, Inc. (2003). *Amended Subsurface Investigation, Monitoring Well Installation, and Groundwater Monitoring Work Plan, Former Simpson Remanufacturing Plant, Arcata, California.* Eureka: SHN.

---. (2004). *Report of Findings and First Quarter 2004 Groundwater Monitoring Report, Former Simpson Remanufacturing Facility, Arcata, California.* Eureka: SHN.

# Appendix A

# Field Notes / Discharge Receipts

CONSULTING ENGINEERS & GEOLOGISTS, INC.
480 Hemsted Drive • Redding, CA 96002• Tel: 530.221.5424 • FAX: 530.221.0135 •E-mail: shninfo@shn-redding.com
812 W. Wabash • Eureka, CA 95501 • Tel: 707.441.8855 • FAX: 707.441.8877 •E-mail: shninfo@shn-engr.com

# DAILY FIELD REPORT

JOB NO 003154

Page of

| | | |
|---|---|---|
| PROJECT NAME: Simpson Reman Facility | CLIENT/OWNER: Simpson Reman Company | DAILY FIELD REPORT SEQUENCE NO |
| GENERAL LOCATION OF WORK: Arcata CA. | OWNER/CLIENT REPRESENTATIVE: Rob Ricci | DATE: 5/10/06 — DAY OF WEEK: Wed. |
| TYPE OF WORK: Sampling | WEATHER: Partly Cloudy | PROJECT ENGINEER/ SUPERVISOR: Frans Lowrman / Roland Rueber |
| SOURCE & DESCRIPTION OF FILL MATERIAL | KEY PERSONS CONTACTED | TECHNICIAN: Dustin Tibbets |

DESCRIBE EQUIPMENT USED FOR HAULING, SPREADING, WATERING, CONDITIONING, & COMPACTING

| | | |
|---|---|---|
| 1005 | On site open up well's taking water levels & DO readings. | |
| 1059 | Purging MW-2 with a disposable bailer. All purge water was caught in 5gal. buckets. | |
| 1140 | Sampled MW-2 with it's bailer. Locked up well. | MW-2 |
| 1158 | Purging MW-3 with a disposable bailer. All purge water was caught in 5gal. buckets. | |
| 1223 | Sampled MW-3 with it's bailer. | MW-3 |
| | Took Dup sample on MW-3. Locked up well. | Dup. |
| 1255 | Purging MW-7 with a disposable bailer. All purge water was caught in 5gal buckets. | |
| 1430 | Sampled MW-7 with it's bailer. Locked up well | MW-7 |
| 1445 | Purging MW-8 with a disposable bailer. All purge water was caught in 5gal. buckets. | |
| 1520 | Sampled MW-8 with it's bailer. Locked up well. | MW-8 |
| 1540 | Off site. | |

Note: All purge water and decon water was transported to SHN's P.W.S.T. located at 812 W. Wabash Ave. Eureka CA 41 gal. total.

| | Purge | Sampled |
|---|---|---|
| MW-1 | No | No |
| MW-2 | Yes | Yes |
| MW-3 | Yes | Yes |
| MW-4 | No | NO |
| MW-5 | No | NO |
| MW-6 | NO | NO |
| MW-7 | Yes | Yes |
| MW-8 | Yes | Yes |

COPY GIVEN TO:

REPORTED BY: Dustin Tibbets

CONSULTING ENGINEERS & GEOLOGISTS, INC.
812 W. Wabash • Eureka, CA 95501-2138 • 707/441-8855 • FAX: 707/441-8877 •shninfo@shn-engr.com

# Groundwater Elevations

Job No.: 003154 Name: Dustin Tibbets

Client: Simpson Timber Company Date: 5/10/06

Location: Arcata Weather: Partly cloudy

| Sample Location | Time of Reading | Top of Casing Elevation (feet) | Depth To Water (feet) | Water Surface Elevation (feet) |
|---|---|---|---|---|
| MW-1 | 1325 | 20.69 | 3.05 | 17.64 |
| MW-2 | 1029 | 22.10 | 4.50 | 17.60 |
| MW-3 | 1035 | 22.85 | 5.00 | 17.85 |
| MW-4 | 1033 | 22.48 | 4.37 | 18.11 |
| MW-5 | 1322 | 21.82 | 4.10 | 17.72 |
| MW-6 | 1302 | 23.03 | 5.00 | 18.03 |
| MW-7 | 1330 | 21.48 | 3.76 | 17.72 |
| MW-8 | 1332 | 21.56 | 3.87 | 17.69 |

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# EQUIPMENT CALIBRATION SHEET

Name: Dustin Tibbets

Project Name: Simpson Reman Facility

Reference No.: 003154

Date: 5/10/06

Equipment: ☒ pH & EC ☐ PID ☐ $GTCO_2$ ☐ GTLEL
☐ Turbidity ☒ Other Dissolved Oxygen meter

Description of Calibration Procedure and Results:

pH & EC meter calibrated using a 2 buffer method with a pH 7.00 and 4.01, meter was set exactly to 7.00 and 4.01 and conductivity was set at 700 umhos.

DO meter is self calibrating with the Altimeter set at 0.

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# Water Sampling Data Sheet

| | | | |
|---|---|---|---|
| Project Name: | Simpson Reman Facility | Date/Time: | 5/10/06 |
| Project No.: | 003154 | Sampler Name: | Dustin Tibbets |
| Location: | Arcata CA. | Sample Type: | Water |
| Well #: | MW-2 | Weather | Partly Cloudy |
| Hydrocarbon Thickness/Depth (feet): | | Key Needed: | Dolphin |

| Total Well Depth (feet) | - | Initial Depth to Water (feet) | = | Height of Water Column (feet) | x | 0.163 gal/ft (2-inch well) / 0.653 gal/ft (4-inch well) | = | 1 Casing Volume (gal) |
|---|---|---|---|---|---|---|---|---|
| 25.10 | - | 4.50 | = | 20.06 | x | .163 | = | 3.30X3= 9.89 |

| Time | DO (ppm) | $CO_2$ (ppm) | ORP (mV) | EC (uS/cm) | Temp (°F) | pH | Water Removed (gal) | Comments |
|---|---|---|---|---|---|---|---|---|
| 1049 | 8.09 | | | | | | 0 gal. | |
| 1109 | | 45 | 268 | | | | .25 gal. | |
| 1114 | | | | 143 | 56.8° | 6.19 | 3.50 gal. | |
| 1119 | No flow | | | 143 | 56.9° | 6.19 | 7 gal. | |
| 1125 | thur cell | | | 142 | 57° | 6.16 | 10 gal. | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Purge Method: Bailer

Total Volume Removed: 10 (gal)

## Laboratory Information

| Sample ID | # & Type of Containers | Preservative / Type | Laboratory | Analyses |
|---|---|---|---|---|
| MW-2 | 3 | HCL | NCL | 8260 list 9 |
| | 1 | | | PCP/TCP can Pulp |
| | 1 | | | 8270 Phenols |
| | 1 | | | Dis Fe + Manganese |
| | 1 | | | $NO_3$, $SO_4$, Alk, Chloride |

Well Condition:

Remarks:

Recharge to 4.50 at sample time. - 1140

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# Water Sampling Data Sheet

Project Name: Simpson Renzan Facility
Date/Time: 5/10/06
Project No.: 003154
Sampler Name: Dustin Tibbets
Location: Arcata Ca.
Sample Type: Water
Well #: MW-3
Weather: Partly Cloudy
Hydrocarbon Thickness/Depth (feet):
Key Needed: Dolphin

| Total Well Depth (feet) | - | Initial Depth to Water (feet) | = | Height of Water Column (feet) | x | 0.163 gal/ft (2-inch well) / 0.653 gal/ft (4-inch well) | = | 1 Casing Volume (gal) |
|---|---|---|---|---|---|---|---|---|
| 25.25 | - | 5.00 | = | 20.25 | x | .163 | = | 3.24 x3= 9.72 |

| Time | DO (ppm) | $CO_2$ (ppm) | ORP (mV) | EC (uS/cm) | Temp (°F) | pH | Water Removed (gal) | Comments |
|---|---|---|---|---|---|---|---|---|
| 1056 | 2.19 | | | | | | 0 | |
| 1200 | | 70 | 158 | | | | .25 gal. | |
| 1204 | | | | 297 | 57.6° | 6.46 | 3.25 gal | |
| 1208 | No flow | | | 299 | 57.7° | 6.47 | 6.5 gal | |
| 1214 | thru cell | | | 299 | 57.9° | 6.51 | 9.75 gal | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Purge Method: Bailer
Total Volume Removed: 9.75 (gal)

**Laboratory Information**

| Sample ID | # & Type of Containers | Preservative / Type | Laboratory | Analyses |
|---|---|---|---|---|
| MW-3 | 3 | HCL | NCL | 8260 1:5+9 |
| | 1 | | | PCP/TCP can Pulp |
| | 1 | | | 8270 Phenols |
| | 1 | | | Dis Fe + Manganese |
| | 1 | | | Na, SO4, Alk, Chloride |

Well Condition:

Remarks: Took Dup sample on MW-3
Recharge to 5.00 at sample time. - 1225

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# Water Sampling Data Sheet

| | | | |
|---|---|---|---|
| Project Name: | Simpson Redman Facility | Date/Time: | 5/10/06 |
| Project No.: | 003154 | Sampler Name: | Dustin Tibbets |
| Location: | Arcata CA. | Sample Type: | Water |
| Well #: | MW-7 | Weather | Partly cloudy |
| Hydrocarbon Thickness/Depth (feet): | | Key Needed: | Dolphin |

| Total Well Depth (feet) | - | Initial Depth to Water (feet) | = | Height of Water Column (feet) | x | 0.163 gal/ft (2-inch well) / 0.653 gal/ft (4-inch well) | = | 1 Casing Volume (gal) |
|---|---|---|---|---|---|---|---|---|
| 24.05 | - | 3.76 | = | 20.29 | x | .163 | = | 3.25x3=9.74 |

| Time | DO (ppm) | $CO_2$ (ppm) | ORP (mV) | EC (uS/cm) | Temp (°F) | pH | Water Removed (gal) | Comments |
|---|---|---|---|---|---|---|---|---|
| 1343 | 1.30 | | | | | | 0 gal. | |
| 1358 | | 95 | 62 | | | | .25 gal. | |
| 1403 | | | | 515 | 55.8° | 6.27 | 3.25 gal. | |
| 1413 | No flow | | | 479 | 55.4° | 6.26 | 6.5 gal | |
| 1418 | thru cell | | | 390 | 55.9° | 6.24 | 9.75 gal | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Purge Method: Bailer

Total Volume Removed: 9.75 (gal)

**Laboratory Information**

| Sample ID | # & Type of Containers | Preservative / Type | Laboratory | Analyses |
|---|---|---|---|---|
| MW-7 | 3 | HCL | NCL | 8270 list 9 |
| | 1 | | | PCP/TCP can Pulp |
| | 1 | | | 8270 Phenols |
| | 1 | | | Dis Fe & Manganese |
| | 1 | | | $NO_3$, $SO_4$, Alk, Chloride |

Well Condition:

Remarks:

Recharge to 3.76 at sample time. - 1430

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# Water Sampling Data Sheet

Project Name: Simpson Reman Facility
Date/Time: 5/10/06
Project No.: 003154
Sampler Name: Dustin Tibbets
Location: Arcata CA.
Sample Type: Water
Well #: MW-8
Weather: Partly Cloudy
Hydrocarbon Thickness/Depth (feet):
Key Needed: Dolphin

| Total Well Depth (feet) | - | Initial Depth to Water (feet) | = | Height of Water Column (feet) | x | 0.163 gal/ft (2-inch well) / 0.653 gal/ft (4-inch well) | = | 1 Casing Volume (gal) |
|---|---|---|---|---|---|---|---|---|
| 24.08 | - | 3.87 | = | 20.21 | x | .163 | = | 3.23x3=9.70 |

| Time | DO (ppm) | $CO_2$ (ppm) | ORP (mV) | EC (uS/cm) | Temp (°F) | pH | Water Removed (gal) | Comments |
|---|---|---|---|---|---|---|---|---|
| 1348 | 1.27 | | | | | | 0 | |
| 1451 | | 300 | -31 | | | | .25 gal. | |
| 1455 | | | | 610 | 56.4° | 5.98 | 3.25 gal. | |
| 1500 | No flow | | | 504 | 56.7° | 6.07 | 6.5 gal | |
| 1506 | thur cell | | | 455 | 57° | 6.09 | 9.75 gal. | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Purge Method: Bailer
Total Volume Removed: 9.75 (gal)

**Laboratory Information**

| Sample ID | # & Type of Containers | Preservative / Type | Laboratory | Analyses |
|---|---|---|---|---|
| MW-8 | 3 | HCL | NCL | 8270 list+9 |
| | 1 | | | PCP/TCP can Pulp |
| | 1 | | | 8270 Phenols |
| | 1 | | | Dis Fe + Manganese |
| | | | | $NO_3$, $SO_4$, Alk, Chloride |

Well Condition:

Remarks:

Recharge to 3.88 at sample time. - 1520

Client Name: **SIMPSON ARCATA REMAN**

The water from your site: **3315 FOSTER AVENUE, ARCATA, CA**

SHN ref # **003154** Collected On: **5/10/2006**

---

Has been tested and certified as acceptable to be discharged into the City of Eureka municipal sewer system.

Amount Discharged: **41 GALLONS**

Date Discharged: **6/6/2006**

Certified by: **AARON MELODY**

**SHN CONSULTING ENGINEERS & GEOLOGISTS, INC.**

City of Eureka Wastewater Discharge Permit #65

Client Name: **SIMPSON ARCATA REMAN**

The water from your site: **3315 FOSTER AVENUE, ARCATA, CA**

SHN ref # **003154** Collected On: **2/9/2006**

---

Has been tested and certified as acceptable to be discharged into the City of Eureka municipal sewer system.

Amount Discharged: **43 GALLONS**

Date Discharged: **4/25/2006**

Certified by: **AARON MELODY**

**SHN CONSULTING ENGINEERS & GEOLOGISTS, INC.**

City of Eureka Wastewater Discharge Permit #65

# Appendix B

# Historic Monitoring Data

**Table B-1**
**Historic Groundwater Elevations**
**Former Simpson Remanufacturing Facility, Arcata, California**

| Sample Location | Sampling Date | Top of Casing Elevation (feet)[1] | Depth to Water (feet)[2] | Groundwater Elevation (feet)[3] |
|---|---|---|---|---|
| MW-1 | 2/5/04 | 20.69 | 3.13 | 17.56 |
| | 5/19/04 | | 4.37 | 16.32 |
| | 8/30/04 | | 8.59 | 12.10 |
| | 11/9/04 | | 8.93 | 11.76 |
| | 7/20/05 | | 4.73 | 15.96 |
| | 10/24/05 | | 7.90 | 12.79 |
| | 2/9/06 | | 2.19 | 18.50 |
| | 5/10/06 | | 3.05 | 17.64 |
| MW-2 | 2/5/04 | 22.10 | 4.53 | 17.57 |
| | 5/19/04 | | 5.80 | 16.30 |
| | 8/30/04 | | 9.96 | 12.14 |
| | 11/9/04 | | 10.36 | 11.74 |
| | 7/20/05 | | 6.15 | 15.95 |
| | 10/24/05 | | 9.28 | 12.82 |
| | 2/9/06 | | 3.60 | 18.50 |
| | 5/10/06 | | 4.50 | 17.60 |
| MW-3 | 2/5/04 | 22.85 | 5.04 | 17.81 |
| | 5/19/04 | | 6.94 | 15.91 |
| | 8/30/04 | | 11.40 | 11.45 |
| | 11/9/04 | | 12.14 | 10.71 |
| | 7/20/05 | | 7.23 | 15.62 |
| | 10/24/05 | | 10.62 | 12.23 |
| | 2/9/06 | | 3.45 | 19.40 |
| | 5/10/06 | | 5.00 | 17.85 |
| MW-4 | 2/5/04 | 22.48 | 4.57 | 17.91 |
| | 5/19/04 | | 6.71 | 15.77 |
| | 8/30/04 | | 11.16 | 11.32 |
| | 11/9/04 | | 11.96 | 10.52 |
| | 7/20/05 | | 6.95 | 15.53 |
| | 10/24/05 | | 10.33 | 12.15 |
| | 2/9/06 | | 2.60 | 19.88 |
| | 5/10/06 | | 4.37 | 18.11 |
| MW-5 | 2/5/04 | 21.82 | 4.20 | 17.62 |
| | 5/19/04 | | 5.47 | 16.35 |
| | 8/30/04 | | 9.73 | 12.09 |
| | 11/9/04 | | 10.02 | 11.80 |
| | 7/20/05 | | 5.81 | 16.01 |
| | 10/24/05 | | 9.03 | 12.79 |
| | 2/9/06 | | 3.22 | 18.60 |
| | 5/10/06 | | 4.10 | 17.72 |
| MW-6 | 2/5/04 | 23.03 | 5.13 | 17.90 |
| | 5/19/04 | | 7.09 | 15.94 |
| | 8/30/04 | | 11.59 | 11.44 |
| | 11/9/04 | | 12.31 | 10.72 |
| | 7/20/05 | | 7.37 | 15.66 |
| | 10/24/05 | | 10.78 | 12.25 |
| | Not able to locate well | | | |
| | 5/10/06 | | 5.00 | 18.03 |
| MW-7 | 2/5/04 | 21.48 | 3.84 | 17.64 |
| | 5/19/04 | | 5.19 | 16.29 |
| | 8/30/04 | | 9.42 | 12.06 |
| | 11/9/04 | | 9.81 | 11.67 |
| | 7/20/05 | | 5.52 | 15.96 |
| | 10/24/05 | | 8.73 | 12.75 |
| | 2/9/06 | | 2.90 | 18.58 |
| | 5/10/06 | | 3.76 | 17.72 |
| MW-8 | 2/5/04 | 21.56 | 3.94 | 17.62 |
| | 5/19/04 | | 5.24 | 16.32 |
| | 8/30/04 | | 9.47 | 12.09 |
| | 11/9/04 | | 9.79 | 11.77 |
| | 7/20/05 | | 5.58 | 15.98 |
| | 10/24/05 | | 8.78 | 12.78 |
| | 2/9/06 | | 2.96 | 18.60 |
| | 5/10/06 | | 3.87 | 17.69 |

1. Relative to National Geodetic Vertidal Datum 1929
2. Below top of casing

**Table B-2**
**Historic Groundwater Analytical Results**
**Former Simpson Remanufacturing Facility, Arcata, California**
**(in µg/L)[1]**

| Sample Location | Sample Date | Phenols[2] | PCP[3] | TCP[3] | trans-1,2-DCE[4] | cis-1,2-DCE | Vinyl Chloride | Benzene | Total Xylenes |
|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 2/5/04 | ND[5] | <0.30[6] | <1.0 | <1.0 | <1.0 | <1.0 | <0.50 | <0.50 |
| | 5/19/04 | Groundwater sampling of this wll no longer required. | | | | | | | |
| MW-2 | 2/5/04 | ND | <0.30 | <1.0 | <1.0 | <1.0 | <1.0 | <0.50 | <0.50 |
| | 5/19/04 | NS[7] | NS | NS | NS | NS | NS | NS | NS |
| | 8/30/04 | ND | **0.58** | <1.0 | <1.0 | <1.0 | <1.0 | <0.50 | <0.50 |
| | 11/9/04 | ND | <0.30 | <1.0 | <1.0 | <1.0 | <1.0 | <0.50 | <1.0 |
| | 7/20/05 | NA[8] | <0.30 | <1.0 | <1.0 | <1.0 | <1.0 | <0.50 | <0.50 |
| | 8/1/05 | ND | NA | NA | NA | NA | NA | NA | NA |
| | 10/24/05 | ND | <0.30 | <1.0 | <1.0 | <1.0 | <1.0 | <0.50 | <0.50 |
| | 2/9/06 | ND | <0.30 | <1.0 | <1.0 | <1.0 | <1.0 | <0.50 | <0.50 |
| | 5/10/06 | ND | <0.30 | <1.0 | <1.0 | <1.0 | <1.0 | <0.50 | <1.0 |
| MW-3 | 2/5/04 | ND | <0.30 | <1.0 | <1.0 | **14** | **1.6** | <0.50 | <0.50 |
| | 5/19/04 | ND | <0.30 | <1.0 | <1.0 | **19** | **2.4** | **0.70** | <0.50 |
| | 8/30/04 | ND | <0.30 | <1.0 | <1.0 | **30** | **2.8** | **0.66** | <0.50 |
| | 11/9/04 | ND | <0.30 | <1.0 | **2.0** | **24** | **1.7** | **0.82** | <1.0 |
| | 7/20/05 | NA | <0.30 | <1.0 | <1.0 | **15** | **1.7** | <0.50 | <0.50 |
| | 8/1/05 | ND | NA | NA | NA | NA | NA | NA | NA |
| | 10/24/05 | ND | <0.30 | <1.0 | <1.0 | **12** | **1.1** | <0.50 | <0.50 |
| | 2/9/06 | ND | <0.30 | <1.0 | <1.0 | **25** | **2.6** | **0.58** | <0.50 |
| | 5/10/06 | ND | <0.30 | <1.0 | **1.0** | **31** | **4.8** | **0.76** | <1.0 |
| MW-4 | 2/5/04 | ND | <0.30 | <1.0 | <1.0 | **1.5** | <1.0 | <0.50 | <0.50 |
| | 5/19/04 | Groundwater sampling of this well no longer required | | | | | | | |
| MW-5 | 2/5/04 | ND | <0.30 | <1.0 | <1.0 | <1.0 | <1.0 | <0.50 | <0.50 |
| | 5/19/04 | Groundwater sampling of this well no longer required | | | | | | | |
| MW-6 | 2/5/04 | ND | <0.30 | <1.0 | <1.0 | <1.0 | <1.0 | <0.50 | <0.50 |
| | 5/19/04 | Groundwater sampling of this well no longer required | | | | | | | |
| MW-7 | 2/5/04 | ND | <0.30 | <1.0 | <1.0 | **4.2** | **77** | **2.6** | <0.50 |
| | 5/19/04 | ND | <0.30 | <1.0 | <1.0 | **3.8** | **64** | **2.8** | <0.50 |
| | 8/30/04 | ND | <0.30 | <1.0 | <1.0 | **1.7** | **29** | **2.5** | <0.50 |

**Table B-2**
**Historic Groundwater Analytical Results**
**Former Simpson Remanufacturing Facility, Arcata, California**
**(in µg/L)[1]**

| Sample Location | Sample Date | Phenols[2] | PCP[3] | TCP[3] | trans-1,2-DCE[4] | cis-1,2-DCE | Vinyl Chloride | Benzene | Total Xylenes |
|---|---|---|---|---|---|---|---|---|---|
| MW-7 cont'd | 11/9/04 | ND | <0.30 | <1.0 | <1.0 | **1.2** | **8.9** | **2.5** | <1.0 |
| | 7/20/05 | NA | <0.30 | <1.0 | <1.0 | <1.0 | **6.6** | **2.0** | <0.50 |
| | 8/1/05 | ND | NA | NA | NA | NA | NA | NA | NA |
| | 10/24/05 | ND | <0.30 | <1.0 | <1.0 | <1.0 | **3.9** | **1.8** | <0.50 |
| | 2/9/06 | ND | <0.30 | <1.0 | <1.0 | <1.0 | <1.0 | **0.66** | <0.50 |
| | 5/10/06 | ND | <0.30 | <1.0 | <1.0 | <1.0 | **1.7** | **0.60** | <1.0 |
| MW-8 | 2/5/04 | ND | <0.30 | <1.0 | <1.0 | <1.0 | **6.6** | <0.50 | **0.70** |
| | 5/19/04 | ND | <0.30 | <1.0 | <1.0 | <1.0 | **3.4** | <0.50 | **0.99** |
| | 8/30/04 | ND | **0.52** | <1.0 | <1.0 | <1.0 | **2.4** | <0.50 | <0.50 |
| | 11/9/04 | ND | <0.30 | <1.0 | <1.0 | <1.0 | **2.6** | <0.50 | <1.0 |
| | 7/20/05 | NA | <0.30 | <1.0 | <1.0 | <1.0 | **4.1** | <0.50 | <0.50 |
| | 8/1/05 | ND | NA | NA | NA | NA | NA | NA | NA |
| | 10/24/05 | ND | <0.30 | <1.0 | <1.0 | <1.0 | **5.4** | <0.50 | <0.50 |
| | 2/9/06 | ND | <0.30 | <1.0 | <1.0 | <1.0 | **2.0** | <0.50 | **0.72** |
| | 5/10/06 | ND | <0.30 | <1.0 | <1.0 | <1.0 | **2.1** | <0.50 | <1.0 |

1. µg/L: micrograms per Liter
2. Analyzed in general accordance with U.S. Environmental Protection Agency (EPA) Method No. 8270
3. Pentachlorophenol (PCP) and tetrachlorophenol (TCP), analyzed in general accordance with the Canadian Pulp Report Method
4. DCE: Dichloroethene
5. ND: Not Detected.
6. <: Denotes a value that is "less than" laboratory method detection limit.
7. NS: Not Sampled
8. NA: Not Analyzed

**Table B-3**
**Historic Biodegradation Indicator Measurement Results**
**Former Simpson Remanufacturing Facility, Arcata, California**

| Sample Location | Sample Date | DO [1] (ppm) [2] | $DCO_2$ [3] (ppm) | ORP [4] (mV) [5] |
|---|---|---|---|---|
| MW-1 | 2/5/04 | 1.34 | 100 | 301 |
| | 5/19/04 | Groundwater sampling of this well no longer required. | | |
| MW-2 | 2/5/04 | 9.89 | 25 | 296 |
| | 5/19/04 | NM[6] | NM | NM |
| | 8/30/04 | 0.48 | 40 | 2 |
| | 11/9/04 | 0.82 | 30 | 105 |
| | 7/20/05 | 0.46 | 30 | 184 |
| | 10/24/05 | 1.07 | 30 | 88 |
| | 2/9/06 | 7.99 | 40 | 110 |
| | 5/10/06 | 8.09 | 45 | 268 |
| MW-3 | 2/5/04 | 5.98 | 30 | -116 |
| | 5/19/04 | 0.74 | 35 | 130 |
| | 8/30/04 | 0.43 | 60 | -32 |
| | 11/9/04 | 0.69 | 35 | 66 |
| | 7/20/05 | 0.48 | 30 | 186 |
| | 10/24/05 | 1.02 | 30 | -60 |
| | 2/9/06 | 2.63 | 45 | -13 |
| | 5/10/06 | 2.19 | 70 | 158 |
| MW-4 | 2/5/04 | 5.63 | 50 | 298 |
| | 5/19/04 | Groundwater sampling of this well no longer required. | | |
| MW-5 | 2/5/04 | 1.37 | 80 | 323 |
| | 5/19/04 | Groundwater sampling of this well no longer required. | | |
| MW-6 | 2/5/04 | 3.36 | 70 | 332 |
| | 5/19/04 | Groundwater sampling of this well no longer required. | | |
| MW-7 | 2/5/04 | 1.29 | 120 | 245 |
| | 5/19/04 | 0.51 | 90 | 34 |
| | 8/30/04 | 0.45 | 100 | 49 |
| | 11/9/04 | 0.70 | 110 | 94 |
| | 7/20/05 | 0.44 | 150 | 33 |
| | 10/24/05 | 1.05 | 50 | 54 |
| | 2/9/06 | 2.69 | 175 | -42 |
| | 5/10/06 | 1.30 | 95 | 62 |
| MW-8 | 2/5/04 | 1.33 | 120 | 219 |
| | 5/19/04 | 0.78 | 600 | -31 |
| | 8/30/04 | 0.52 | 400 | 43 |
| | 11/9/04 | 0.72 | 350 | 30 |
| | 7/20/05 | 0.49 | 500 | -18 |
| | 10/24/05 | 1.02 | 250 | -51 |
| | 2/9/06 | 2.58 | 400 | -61 |
| | 5/10/06 | 1.27 | 300 | -31 |

1. DO: Dissolved Oxygen; field measured using portable instrumentation
2. ppm: parts per million
3. $DCO_2$: Dissolved Carbon Dioxide; ; field measured using portable instrumentation
4. ORP: Oxidation-Reduction Potential
5. mV: millivolts
6. NM: Not Measured

Appendix C

# Laboratory Analytical Reports

REC'D MAY 30 2006

NORTH COAST LABORATORIES LTD.

May 24, 2006

SHN Consulting Engineers and Geologists
812 West Wabash Avenue
Eureka, CA 95501

Attn: Diana Monroe

RE: 003154 Simpson Reman Facility

Order No.: 0605199
Invoice No.: 58316
PO No.:
ELAP No. 1247-Expires July 2006

**SAMPLE IDENTIFICATION**

| Fraction | Client Sample Description |
|---|---|
| 01A | MW-2 |
| 01B | MW-2 (Dissolved) |
| 01C | MW-2 |
| 01D | MW-2 |
| 02A | MW-3 |
| 02B | MW-3 (Dissolved) |
| 02C | MW-3 |
| 02D | MW-3 |
| 03A | MW-7 |
| 03B | MW-7 (Dissolved) |
| 03C | MW-7 |
| 03D | MW-7 |
| 04A | MW-8 |
| 04B | MW-8 (Dissolved) |
| 04C | MW-8 |
| 04D | MW-8 |
| 05A | Dup |
| 05B | Dup (Dissolved) |
| 05C | Dup |
| 05D | Dup |

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

All solid results are expressed on a wet-weight basis unless otherwise noted.

**REPORT CERTIFIED BY**

Laboratory Supervisor(s) Collin Blackstone

QA Unit

Jesse G. Chaney, Jr.
Laboratory Director

5680 West End Road • Arcata California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Printed on Recycled Paper

**CLIENT:** SHN Consulting Engineers and Geologists
**Project:** 003154 Simpson Reman Facility
**Lab Order:** 0605199

# CASE NARRATIVE

Chloride:
Matrix spike was not quantifiable (NQ) due to the large amount of analyte in the sample which was spiked.



NORTH COAST LABORATORIES
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**Date:** 24-May-06
**WorkOrder:** 0605199

# ANALYTICAL REPORT

**Client Sample ID:** MW-2 **Received:** 5/10/06 **Collected:** 5/10/06 11:40
**Lab ID:** 0605199-01A

**Test Name:** Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Tetrachlorophenol | ND | 1.0 | µg/L | 1.0 | 5/17/06 | 5/17/06 |
| Pentachlorophenol | ND | 0.30 | µg/L | 1.0 | 5/17/06 | 5/17/06 |
| Surrogate: Dibromophenol | 95.8 | 66.5-118 | % Rec | 1.0 | 5/17/06 | 5/17/06 |

**Client Sample ID:** MW-2 (Dissolved) **Received:** 5/10/06 **Collected:** 5/10/06 11:40
**Lab ID:** 0605199-01B

**Test Name:** ICAP Metals with Acid Digestion **Reference:** EPA 200.7

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Iron | ND | 100 | µg/L | 1.0 | 5/11/06 | 5/19/06 |
| Manganese | 2.3 | 2.0 | µg/L | 1.0 | 5/11/06 | 5/19/06 |

**Client Sample ID:** MW-2 **Received:** 5/10/06 **Collected:** 5/10/06 11:40
**Lab ID:** 0605199-01C

**Test Name:** Alkalinity **Reference:** Std. Meth. 19th Ed. 2320 B

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Alkalinity | 36 | 1.0 | mg/L CaCO3 | 1.0 | | 5/11/06 |

**Test Name:** Chloride, sulfate, fluoride, bromide **Reference:** EPA 300.0

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Chloride | 5.1 | 0.10 | mg/L | 1.0 | | 5/11/06 |
| Sulfate | 5.6 | 0.50 | mg/L | 1.0 | | 5/11/06 |

**Test Name:** Nitrate/Nitrite **Reference:** EPA 300.0

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Nitrate (as Nitrogen) | 5.5 | 0.10 | mg/L | 1.0 | | 5/11/06 |



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**Date:** 24-May-06
**WorkOrder:** 0605199

# ANALYTICAL REPORT

**Client Sample ID:** MW-2 **Received:** 5/10/06 **Collected:** 5/10/06 11:40
**Lab ID:** 0605199-01D

**Test Name:** EPA 8260B **Reference:** EPA 5030B/8260B

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Chloromethane | ND | 2.0 | µg/L | 1.0 | | 5/19/06 |
| Vinyl chloride | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Bromomethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Chloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Trichlorofluoromethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1-Dichloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Methylene chloride | ND | 2.0 | µg/L | 1.0 | | 5/19/06 |
| trans-1,2-Dichloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1-Dichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| cis-1,2-Dichloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Chloroform | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Carbon Tetrachloride | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1,1-Trichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Benzene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| 1,2-Dichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Trichloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,2-Dichloropropane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Bromodichloromethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| cis-1,3-Dichloropropene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Toluene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| Tetrachloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| trans-1,3-Dichloropropene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1,2-Trichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Dibromochloromethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Chlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Ethylbenzene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| m,p-Xylene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| o-Xylene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| Bromoform | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,3-Dichlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,4-Dichlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,2-Dichlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Surrogate: 1,2-Dichloroethane-d4 | 109 | 80-120 | % Rec | 1.0 | | 5/19/06 |
| Surrogate: 1,4-Dichlorobenzene-d4 | 94.8 | 80-120 | % Rec | 1.0 | | 5/19/06 |
| Surrogate: Dibromofluoromethane | 108 | 80-120 | % Rec | 1.0 | | 5/19/06 |
| Surrogate: Toluene-d8 | 99.2 | 80-120 | % Rec | 1.0 | | 5/19/06 |



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**Date:** 24-May-06
**WorkOrder:** 0605199

# ANALYTICAL REPORT

**Client Sample ID:** MW-3 **Received:** 5/10/06 **Collected:** 5/10/06 12:25
**Lab ID:** 0605199-02A

**Test Name:** Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Tetrachlorophenol | ND | 1.0 | µg/L | 1.0 | 5/17/06 | 5/17/06 |
| Pentachlorophenol | ND | 0.30 | µg/L | 1.0 | 5/17/06 | 5/17/06 |
| Surrogate: Dibromophenol | 95.2 | 66.5-118 | % Rec | 1.0 | 5/17/06 | 5/17/06 |

**Client Sample ID:** MW-3 (Dissolved) **Received:** 5/10/06 **Collected:** 5/10/06 12:25
**Lab ID:** 0605199-02B

**Test Name:** ICAP Metals with Acid Digestion **Reference:** EPA 200.7

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Iron | 2,400 | 100 | µg/L | 1.0 | 5/11/06 | 5/19/06 |
| Manganese | 890 | 2.0 | µg/L | 1.0 | 5/11/06 | 5/19/06 |

**Client Sample ID:** MW-3 **Received:** 5/10/06 **Collected:** 5/10/06 12:25
**Lab ID:** 0605199-02C

**Test Name:** Alkalinity **Reference:** Std. Meth. 19th Ed. 2320 B

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Alkalinity | 150 | 1.0 | mg/L CaCO3 | 1.0 | | 5/11/06 |

**Test Name:** Chloride, sulfate, fluoride, bromide **Reference:** EPA 300.0

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Chloride | 9.8 | 0.10 | mg/L | 1.0 | | 5/11/06 |
| Sulfate | 1.1 | 0.50 | mg/L | 1.0 | | 5/11/06 |

**Test Name:** Nitrate/Nitrite **Reference:** EPA 300.0

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Nitrate (as Nitrogen) | ND | 0.10 | mg/L | 1.0 | | 5/11/06 |



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**Date:** 24-May-06
**WorkOrder:** 0605199

# ANALYTICAL REPORT

**Client Sample ID:** MW-3 **Received:** 5/10/06 **Collected:** 5/10/06 12:25
**Lab ID:** 0605199-02D

**Test Name:** EPA 8260B **Reference:** EPA 5030B/8260B

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Chloromethane | ND | 2.0 | µg/L | 1.0 | | 5/19/06 |
| Vinyl chloride | 4.8 | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Bromomethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Chloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Trichlorofluoromethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1-Dichloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Methylene chloride | ND | 2.0 | µg/L | 1.0 | | 5/19/06 |
| trans-1,2-Dichloroethene | 1.0 | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1-Dichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| cis-1,2-Dichloroethene | 31 | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Chloroform | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Carbon Tetrachloride | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1,1-Trichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Benzene | 0.76 | 0.50 | µg/L | 1.0 | | 5/19/06 |
| 1,2-Dichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Trichloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,2-Dichloropropane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Bromodichloromethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| cis-1,3-Dichloropropene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Toluene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| Tetrachloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| trans-1,3-Dichloropropene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1,2-Trichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Dibromochloromethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Chlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Ethylbenzene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| m,p-Xylene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| o-Xylene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| Bromoform | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,3-Dichlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,4-Dichlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,2-Dichlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Surrogate: 1,2-Dichloroethane-d4 | 109 | 80-120 | % Rec | 1.0 | | 5/19/06 |
| Surrogate: 1,4-Dichlorobenzene-d4 | 96.5 | 80-120 | % Rec | 1.0 | | 5/19/06 |
| Surrogate: Dibromofluoromethane | 109 | 80-120 | % Rec | 1.0 | | 5/19/06 |
| Surrogate: Toluene-d8 | 99.6 | 80-120 | % Rec | 1.0 | | 5/19/06 |



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**Date:** 24-May-06
**WorkOrder:** 0605199

# ANALYTICAL REPORT

**Client Sample ID:** MW-7 **Received:** 5/10/06 **Collected:** 5/10/06 14:30
**Lab ID:** 0605199-03A

**Test Name:** Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Tetrachlorophenol | ND | 1.0 | µg/L | 1.0 | 5/17/06 | 5/17/06 |
| Pentachlorophenol | ND | 0.30 | µg/L | 1.0 | 5/17/06 | 5/17/06 |
| Surrogate: Dibromophenol | 94.3 | 66.5-118 | % Rec | 1.0 | 5/17/06 | 5/17/06 |

**Client Sample ID:** MW-7 (Dissolved) **Received:** 5/10/06 **Collected:** 5/10/06 14:30
**Lab ID:** 0605199-03B

**Test Name:** ICAP Metals with Acid Digestion **Reference:** EPA 200.7

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Iron | 4,000 | 100 | µg/L | 1.0 | 5/11/06 | 5/19/06 |
| Manganese | 1,100 | 2.0 | µg/L | 1.0 | 5/11/06 | 5/19/06 |

**Client Sample ID:** MW-7 **Received:** 5/10/06 **Collected:** 5/10/06 14:30
**Lab ID:** 0605199-03C

**Test Name:** Alkalinity **Reference:** Std. Meth. 19th Ed. 2320 B

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Alkalinity | 210 | 1.0 | mg/L CaCO3 | 1.0 | | 5/11/06 |

**Test Name:** Chloride, sulfate, fluoride, bromide **Reference:** EPA 300.0

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Chloride | 8.3 | 0.10 | mg/L | 1.0 | | 5/11/06 |
| Sulfate | 5.2 | 0.50 | mg/L | 1.0 | | 5/11/06 |

**Test Name:** Nitrate/Nitrite **Reference:** EPA 300.0

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Nitrate (as Nitrogen) | ND | 0.10 | mg/L | 1.0 | | 5/11/06 |



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**Date:** 24-May-06
**WorkOrder:** 0605199

# ANALYTICAL REPORT

**Client Sample ID:** MW-7 **Received:** 5/10/06 **Collected:** 5/10/06 14:30
**Lab ID:** 0605199-03D

**Test Name:** EPA 8260B **Reference:** EPA 5030B/8260B

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Chloromethane | ND | 2.0 | µg/L | 1.0 | | 5/19/06 |
| Vinyl chloride | 1.7 | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Bromomethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Chloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Trichlorofluoromethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1-Dichloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Methylene chloride | ND | 2.0 | µg/L | 1.0 | | 5/19/06 |
| trans-1,2-Dichloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1-Dichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| cis-1,2-Dichloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Chloroform | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Carbon Tetrachloride | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1,1-Trichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Benzene | 0.60 | 0.50 | µg/L | 1.0 | | 5/19/06 |
| 1,2-Dichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Trichloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,2-Dichloropropane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Bromodichloromethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| cis-1,3-Dichloropropene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Toluene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| Tetrachloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| trans-1,3-Dichloropropene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1,2-Trichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Dibromochloromethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Chlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Ethylbenzene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| m,p-Xylene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| o-Xylene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| Bromoform | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,3-Dichlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,4-Dichlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,2-Dichlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Surrogate: 1,2-Dichloroethane-d4 | 111 | 80-120 | % Rec | 1.0 | | 5/19/06 |
| Surrogate: 1,4-Dichlorobenzene-d4 | 95.0 | 80-120 | % Rec | 1.0 | | 5/19/06 |
| Surrogate: Dibromofluoromethane | 110 | 80-120 | % Rec | 1.0 | | 5/19/06 |
| Surrogate: Toluene-d8 | 99.1 | 80-120 | % Rec | 1.0 | | 5/19/06 |



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**Date:** 24-May-06
**WorkOrder:** 0605199

# ANALYTICAL REPORT

**Client Sample ID:** MW-8 **Received:** 5/10/06 **Collected:** 5/10/06 15:20
**Lab ID:** 0605199-04A

**Test Name:** Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Tetrachlorophenol | ND | 1.0 | µg/L | 1.0 | 5/17/06 | 5/17/06 |
| Pentachlorophenol | ND | 0.30 | µg/L | 1.0 | 5/17/06 | 5/17/06 |
| Surrogate: Dibromophenol | 94.7 | 66.5-118 | % Rec | 1.0 | 5/17/06 | 5/17/06 |

**Client Sample ID:** MW-8 (Dissolved) **Received:** 5/10/06 **Collected:** 5/10/06 15:20
**Lab ID:** 0605199-04B

**Test Name:** ICAP Metals with Acid Digestion **Reference:** EPA 200.7

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Iron | 13,000 | 100 | µg/L | 1.0 | 5/11/06 | 5/19/06 |
| Manganese | 1,600 | 2.0 | µg/L | 1.0 | 5/11/06 | 5/19/06 |

**Client Sample ID:** MW-8 **Received:** 5/10/06 **Collected:** 5/10/06 15:20
**Lab ID:** 0605199-04C

**Test Name:** Alkalinity **Reference:** Std. Meth. 19th Ed. 2320 B

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Alkalinity | 190 | 1.0 | mg/L CaCO3 | 1.0 | | 5/11/06 |

**Test Name:** Chloride, sulfate, fluoride, bromide **Reference:** EPA 300.0

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Chloride | 17 | 0.10 | mg/L | 1.0 | | 5/11/06 |
| Sulfate | ND | 0.50 | mg/L | 1.0 | | 5/11/06 |

**Test Name:** Nitrate/Nitrite **Reference:** EPA 300.0

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Nitrate (as Nitrogen) | ND | 0.10 | mg/L | 1.0 | | 5/11/06 |



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**Date:** 24-May-06
**WorkOrder:** 0605199

# ANALYTICAL REPORT

**Client Sample ID:** MW-8 **Received:** 5/10/06 **Collected:** 5/10/06 15:20
**Lab ID:** 0605199-04D

**Test Name:** EPA 8260B **Reference:** EPA 5030B/8260B

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Chloromethane | ND | 2.0 | µg/L | 1.0 | | 5/19/06 |
| Vinyl chloride | 2.1 | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Bromomethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Chloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Trichlorofluoromethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1-Dichloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Methylene chloride | ND | 2.0 | µg/L | 1.0 | | 5/19/06 |
| trans-1,2-Dichloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1-Dichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| cis-1,2-Dichloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Chloroform | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Carbon Tetrachloride | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1,1-Trichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Benzene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| 1,2-Dichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Trichloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,2-Dichloropropane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Bromodichloromethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| cis-1,3-Dichloropropene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Toluene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| Tetrachloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| trans-1,3-Dichloropropene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1,2-Trichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Dibromochloromethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Chlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Ethylbenzene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| m,p-Xylene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| o-Xylene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| Bromoform | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,3-Dichlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,4-Dichlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,2-Dichlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Surrogate: 1,2-Dichloroethane-d4 | 111 | 80-120 | % Rec | 1.0 | | 5/19/06 |
| Surrogate: 1,4-Dichlorobenzene-d4 | 95.3 | 80-120 | % Rec | 1.0 | | 5/19/06 |
| Surrogate: Dibromofluoromethane | 111 | 80-120 | % Rec | 1.0 | | 5/19/06 |
| Surrogate: Toluene-d8 | 99.0 | 80-120 | % Rec | 1.0 | | 5/19/06 |



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**Date:** 24-May-06
**WorkOrder:** 0605199

# ANALYTICAL REPORT

**Client Sample ID:** Dup **Received:** 5/10/06 **Collected:** 5/10/06 0:00
**Lab ID:** 0605199-05A

**Test Name:** Penta- and Tetrachlorophenol **Reference:** Canadian Pulp Report

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Tetrachlorophenol | ND | 1.0 | µg/L | 1.0 | 5/17/06 | 5/17/06 |
| Pentachlorophenol | ND | 0.30 | µg/L | 1.0 | 5/17/06 | 5/17/06 |
| Surrogate: Dibromophenol | 93.9 | 66.5-118 | % Rec | 1.0 | 5/17/06 | 5/17/06 |

**Client Sample ID:** Dup (Dissolved) **Received:** 5/10/06 **Collected:** 5/10/06 0:00
**Lab ID:** 0605199-05B

**Test Name:** ICAP Metals with Acid Digestion **Reference:** EPA 200.7

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Iron | 2,500 | 100 | µg/L | 1.0 | 5/11/06 | 5/19/06 |
| Manganese | 890 | 2.0 | µg/L | 1.0 | 5/11/06 | 5/19/06 |

**Client Sample ID:** Dup **Received:** 5/10/06 **Collected:** 5/10/06 0:00
**Lab ID:** 0605199-05C

**Test Name:** Alkalinity **Reference:** Std. Meth. 19th Ed. 2320 B

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Alkalinity | 150 | 1.0 | mg/L CaCO3 | 1.0 | | 5/11/06 |

**Test Name:** Chloride, sulfate, fluoride, bromide **Reference:** EPA 300.0

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Chloride | 9.8 | 0.10 | mg/L | 1.0 | | 5/11/06 |
| Sulfate | 1.1 | 0.50 | mg/L | 1.0 | | 5/11/06 |

**Test Name:** Nitrate/Nitrite **Reference:** EPA 300.0

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Nitrate (as Nitrogen) | ND | 0.10 | mg/L | 1.0 | | 5/11/06 |



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**Date:** 24-May-06
**WorkOrder:** 0605199

# ANALYTICAL REPORT

**Client Sample ID:** Dup
**Lab ID:** 0605199-05D

**Received:** 5/10/06 **Collected:** 5/10/06 0:00

**Test Name:** EPA 8260B **Reference:** EPA 5030B/8260B

| Parameter | Result | Limit | Units | DF | Extracted | Analyzed |
|---|---|---|---|---|---|---|
| Chloromethane | ND | 2.0 | µg/L | 1.0 | | 5/19/06 |
| Vinyl chloride | 5.1 | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Bromomethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Chloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Trichlorofluoromethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1-Dichloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Methylene chloride | ND | 2.0 | µg/L | 1.0 | | 5/19/06 |
| trans-1,2-Dichloroethene | 1.4 | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1-Dichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| cis-1,2-Dichloroethene | 31 | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Chloroform | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Carbon Tetrachloride | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1,1-Trichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Benzene | 0.80 | 0.50 | µg/L | 1.0 | | 5/19/06 |
| 1,2-Dichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Trichloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,2-Dichloropropane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Bromodichloromethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| cis-1,3-Dichloropropene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Toluene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| Tetrachloroethene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| trans-1,3-Dichloropropene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1,2-Trichloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Dibromochloromethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Chlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Ethylbenzene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| m,p-Xylene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| o-Xylene | ND | 0.50 | µg/L | 1.0 | | 5/19/06 |
| Bromoform | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,3-Dichlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,4-Dichlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| 1,2-Dichlorobenzene | ND | 1.0 | µg/L | 1.0 | | 5/19/06 |
| Surrogate: 1,2-Dichloroethane-d4 | 111 | 80-120 | % Rec | 1.0 | | 5/19/06 |
| Surrogate: 1,4-Dichlorobenzene-d4 | 97.0 | 80-120 | % Rec | 1.0 | | 5/19/06 |
| Surrogate: Dibromofluoromethane | 111 | 80-120 | % Rec | 1.0 | | 5/19/06 |
| Surrogate: Toluene-d8 | 98.4 | 80-120 | % Rec | 1.0 | | 5/19/06 |



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North Coast Laboratories, Ltd.

**Date:** 24-May-06

**CLIENT:** SHN Consulting Engineers and Geologists
**Work Order:** 0605199
**Project:** 003154 Simpson Reman Facility

# QC SUMMARY REPORT

## Method Blank

Sample ID **MB 051906** Batch ID: **R41402** Test Code: **8260W** Units: **µg/L** Analysis Date **5/19/06 6:20:00 AM** Prep Date

Client ID: Run ID: **ORGCMS3_060519A** SeqNo: **594138**

| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | 0.2135 | 2.0 | | | | | | | | | J |
| Vinyl chloride | ND | 1.0 | | | | | | | | | |
| Bromomethane | 0.8804 | 1.0 | | | | | | | | | J |
| Chloroethane | ND | 1.0 | | | | | | | | | |
| Trichlorofluoromethane | ND | 1.0 | | | | | | | | | |
| 1,1-Dichloroethene | ND | 1.0 | | | | | | | | | |
| Methylene chloride | ND | 2.0 | | | | | | | | | |
| trans-1,2-Dichloroethene | ND | 1.0 | | | | | | | | | |
| 1,1-Dichloroethane | ND | 1.0 | | | | | | | | | |
| cis-1,2-Dichloroethene | ND | 1.0 | | | | | | | | | |
| Chloroform | ND | 1.0 | | | | | | | | | |
| Carbon Tetrachloride | ND | 1.0 | | | | | | | | | |
| 1,1,1-Trichloroethane | ND | 1.0 | | | | | | | | | |
| Benzene | ND | 0.50 | | | | | | | | | |
| 1,2-Dichloroethane | ND | 1.0 | | | | | | | | | |
| Trichloroethene | ND | 1.0 | | | | | | | | | |
| 1,2-Dichloropropane | ND | 1.0 | | | | | | | | | |
| Bromodichloromethane | ND | 1.0 | | | | | | | | | |
| cis-1,3-Dichloropropene | ND | 1.0 | | | | | | | | | |
| Toluene | ND | 0.50 | | | | | | | | | |
| Tetrachloroethene | ND | 1.0 | | | | | | | | | |
| trans-1,3-Dichloropropene | ND | 1.0 | | | | | | | | | |
| 1,1,2-Trichloroethane | ND | 1.0 | | | | | | | | | |
| Dibromochloromethane | ND | 1.0 | | | | | | | | | |
| Chlorobenzene | ND | 1.0 | | | | | | | | | |
| Ethylbenzene | ND | 0.50 | | | | | | | | | |
| m,p-Xylene | ND | 0.50 | | | | | | | | | |
| o-Xylene | ND | 0.50 | | | | | | | | | |

**Qualifiers:**
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

**CLIENT:** SHN Consulting Engineers and Geologists
**Work Order:** 0605199
**Project:** 003154 Simpson Reman Facility

# QC SUMMARY REPORT

Method Blank

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bromoform | ND | 1.0 | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | | | | | | | | | | |
| 1,3-Dichlorobenzene | ND | 1.0 | | | | | | | | | | |
| 1,4-Dichlorobenzene | 0.09152 | 1.0 | | | | | | | | | | J |
| 1,2-Dichlorobenzene | ND | 1.0 | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | 1.08 | 0.10 | 1.00 | 0 | 108% | 80 | 120 | 0 | | | | |
| 1,4-Dichlorobenzene-d4 | 0.955 | 0.10 | 1.00 | 0 | 95.5% | 80 | 120 | 0 | | | | |
| Dibromofluoromethane | 1.08 | 0.10 | 1.00 | 0 | 108% | 80 | 120 | 0 | | | | |
| Toluene-d8 | 0.991 | 0.10 | 1.00 | 0 | 99.1% | 80 | 120 | 0 | | | | |

Sample ID **MBLK 051106** Batch ID: **R41234** Test Code: **ICIONW** Units: **mg/L** Analysis Date **5/11/06 2:07:36 PM** Prep Date
Client ID: Run ID: **INIC2_060511A** SeqNo: **591844**

| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | 0.10 | | | | | | | | | |
| Sulfate | ND | 0.50 | | | | | | | | | |

Sample ID **MBLK 051106** Batch ID: **R41234** Test Code: **ICNOW** Units: **mg/L** Analysis Date **5/11/06 2:07:36 PM** Prep Date
Client ID: Run ID: **INIC2_060511A** SeqNo: **591832**

| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate (as Nitrogen) | ND | 0.10 | | | | | | | | | |

Sample ID **MB-15682P** Batch ID: **15682** Test Code: **ICPX** Units: **µg/L** Analysis Date **5/19/06 2:06:00 PM** Prep Date **5/11/06**
Client ID: Run ID: **INICP1_060519B** SeqNo: **594031**

| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Iron | ND | 100 | | | | | | | | | |
| Manganese | 0.5000 | 2.0 | | | | | | | | | J |

**Qualifiers:**
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

**CLIENT:** SHN Consulting Engineers and Geologists
**Work Order:** 0605199
**Project:** 003154 Simpson Reman Facility

# QC SUMMARY REPORT

## Method Blank

Sample ID **MB-15721** Batch ID: **15721** Test Code: **PCPTW** Units: **µg/L** Analysis Date **5/17/06 5:15:39 PM** Prep Date **5/17/06**
Client ID: Run ID: **ORGC4_060517A** SeqNo: **593231**

| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tetrachlorophenol | ND | 1.0 | | | | | | | | | |
| Pentachlorophenol | ND | 0.30 | | | | | | | | | |
| Dibromophenol | 4.51 | 0.10 | 5.00 | 0 | 90.1% | 67 | 118 | 0 | | | |

**Qualifiers:**
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

**Date:** 24-May-06

**CLIENT:** SHN Consulting Engineers and Geologists
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**Project:** 003154 Simpson Reman Facility

# QC SUMMARY REPORT

## Laboratory Control Spike

Sample ID **LCS-06306** Batch ID: **R41402** Test Code: **8260W** Units: **µg/L** Analysis Date **5/19/06 3:47:00 AM** Prep Date

Client ID: Run ID: **ORGCMS3_060519A** SeqNo: **594135**

| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | 16.88 | 2.0 | 20.0 | 0 | 84.4% | 80 | 120 | 0 | | | |
| Vinyl chloride | 18.53 | 1.0 | 20.0 | 0 | 92.7% | 80 | 120 | 0 | | | |
| Bromomethane | 19.44 | 1.0 | 20.0 | 0 | 97.2% | 80 | 120 | 0 | | | |
| Chloroethane | 19.96 | 1.0 | 20.0 | 0 | 99.8% | 80 | 120 | 0 | | | |
| Trichlorofluoromethane | 22.05 | 1.0 | 20.0 | 0 | 110% | 80 | 120 | 0 | | | |
| 1,1-Dichloroethene | 20.42 | 1.0 | 20.0 | 0 | 102% | 80 | 120 | 0 | | | |
| Methylene chloride | 20.39 | 2.0 | 20.0 | 0 | 102% | 80 | 120 | 0 | | | |
| trans-1,2-Dichloroethene | 20.71 | 1.0 | 20.0 | 0 | 104% | 80 | 120 | 0 | | | |
| 1,1-Dichloroethane | 20.90 | 1.0 | 20.0 | 0 | 104% | 80 | 120 | 0 | | | |
| cis-1,2-Dichloroethene | 21.23 | 1.0 | 20.0 | 0 | 106% | 80 | 120 | 0 | | | |
| Chloroform | 20.87 | 1.0 | 20.0 | 0 | 104% | 80 | 120 | 0 | | | |
| Carbon Tetrachloride | 21.02 | 1.0 | 20.0 | 0 | 105% | 80 | 120 | 0 | | | |
| 1,1,1-Trichloroethane | 20.86 | 1.0 | 20.0 | 0 | 104% | 80 | 120 | 0 | | | |
| Benzene | 20.39 | 0.50 | 20.0 | 0 | 102% | 80 | 120 | 0 | | | |
| 1,2-Dichloroethane | 20.69 | 1.0 | 20.0 | 0 | 103% | 80 | 120 | 0 | | | |
| Trichloroethene | 20.77 | 1.0 | 20.0 | 0 | 104% | 80 | 120 | 0 | | | |
| 1,2-Dichloropropane | 20.02 | 1.0 | 20.0 | 0 | 100% | 80 | 120 | 0 | | | |
| Bromodichloromethane | 20.20 | 1.0 | 20.0 | 0 | 101% | 80 | 120 | 0 | | | |
| cis-1,3-Dichloropropene | 21.12 | 1.0 | 20.0 | 0 | 106% | 80 | 120 | 0 | | | |
| Toluene | 20.08 | 0.50 | 20.0 | 0 | 100% | 80 | 120 | 0 | | | |
| Tetrachloroethene | 20.68 | 1.0 | 20.0 | 0 | 103% | 80 | 120 | 0 | | | |
| trans-1,3-Dichloropropene | 20.88 | 1.0 | 20.0 | 0 | 104% | 80 | 120 | 0 | | | |
| 1,1,2-Trichloroethane | 19.94 | 1.0 | 20.0 | 0 | 99.7% | 80 | 120 | 0 | | | |
| Dibromochloromethane | 19.49 | 1.0 | 20.0 | 0 | 97.4% | 80 | 120 | 0 | | | |
| Chlorobenzene | 20.15 | 1.0 | 20.0 | 0 | 101% | 80 | 120 | 0 | | | |
| Ethylbenzene | 19.46 | 0.50 | 20.0 | 0 | 97.3% | 80 | 120 | 0 | | | |
| m,p-Xylene | 40.18 | 0.50 | 40.0 | 0 | 100% | 80 | 120 | 0 | | | |
| o-Xylene | 20.49 | 0.50 | 20.0 | 0 | 102% | 80 | 120 | 0 | | | |

**Qualifiers:**
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

**CLIENT:** SHN Consulting Engineers and Geologists
**Work Order:** 0605199
**Project:** 003154 Simpson Reman Facility

# QC SUMMARY REPORT

## Laboratory Control Spike

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Bromoform | 18.25 | 1.0 | 20.0 | 0 | 91.3% | 80 | 120 | 0 |
| 1,1,2,2-Tetrachloroethane | 19.17 | 1.0 | 20.0 | 0 | 95.9% | 80 | 120 | 0 |
| 1,3-Dichlorobenzene | 19.93 | 1.0 | 20.0 | 0 | 99.6% | 80 | 120 | 0 |
| 1,4-Dichlorobenzene | 19.92 | 1.0 | 20.0 | 0 | 99.6% | 80 | 120 | 0 |
| 1,2-Dichlorobenzene | 19.58 | 1.0 | 20.0 | 0 | 97.9% | 80 | 120 | 0 |
| 1,2-Dichloroethane-d4 | 1.03 | 0.10 | 1.00 | 0 | 103% | 61 | 127 | 0 |
| 1,4-Dichlorobenzene-d4 | 0.977 | 0.10 | 1.00 | 0 | 97.7% | 77 | 129 | 0 |
| Dibromofluoromethane | 1.05 | 0.10 | 1.00 | 0 | 105% | 80 | 120 | 0 |
| Toluene-d8 | 1.01 | 0.10 | 1.00 | 0 | 101% | 80 | 120 | 0 |

**Qualifiers:**
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

**CLIENT:** SHN Consulting Engineers and Geologists
**Work Order:** 0605199
**Project:** 003154 Simpson Reman Facility

# QC SUMMARY REPORT

## Laboratory Control Spike Duplicate

Sample ID **LCSD-06306** Batch ID: **R41402** Test Code: **8260W** Units: **µg/L** Analysis Date **5/19/06 4:13:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_060519A** SeqNo: **594136**

| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloromethane | 18.05 | 2.0 | 20.0 | 0 | 90.3% | 80 | 120 | 16.9 | 6.71% | 20 | |
| Vinyl chloride | 18.08 | 1.0 | 20.0 | 0 | 90.4% | 80 | 120 | 18.5 | 2.46% | 20 | |
| Bromomethane | 19.91 | 1.0 | 20.0 | 0 | 99.6% | 80 | 120 | 19.4 | 2.41% | 20 | |
| Chloroethane | 19.30 | 1.0 | 20.0 | 0 | 96.5% | 80 | 120 | 20.0 | 3.35% | 20 | |
| Trichlorofluoromethane | 21.23 | 1.0 | 20.0 | 0 | 106% | 80 | 120 | 22.0 | 3.76% | 20 | |
| 1,1-Dichloroethene | 19.93 | 1.0 | 20.0 | 0 | 99.7% | 80 | 120 | 20.4 | 2.44% | 20 | |
| Methylene chloride | 20.34 | 2.0 | 20.0 | 0 | 102% | 80 | 120 | 20.4 | 0.236% | 20 | |
| trans-1,2-Dichloroethene | 20.40 | 1.0 | 20.0 | 0 | 102% | 80 | 120 | 20.7 | 1.51% | 20 | |
| 1,1-Dichloroethane | 20.62 | 1.0 | 20.0 | 0 | 103% | 80 | 120 | 20.9 | 1.34% | 20 | |
| cis-1,2-Dichloroethene | 20.74 | 1.0 | 20.0 | 0 | 104% | 80 | 120 | 21.2 | 2.30% | 20 | |
| Chloroform | 20.86 | 1.0 | 20.0 | 0 | 104% | 80 | 120 | 20.9 | 0.0680% | 20 | |
| Carbon Tetrachloride | 20.56 | 1.0 | 20.0 | 0 | 103% | 80 | 120 | 21.0 | 2.21% | 20 | |
| 1,1,1-Trichloroethane | 20.25 | 1.0 | 20.0 | 0 | 101% | 80 | 120 | 20.9 | 2.98% | 20 | |
| Benzene | 20.20 | 0.50 | 20.0 | 0 | 101% | 80 | 120 | 20.4 | 0.964% | 20 | |
| 1,2-Dichloroethane | 20.55 | 1.0 | 20.0 | 0 | 103% | 80 | 120 | 20.7 | 0.702% | 20 | |
| Trichloroethene | 20.47 | 1.0 | 20.0 | 0 | 102% | 80 | 120 | 20.8 | 1.47% | 20 | |
| 1,2-Dichloropropane | 19.96 | 1.0 | 20.0 | 0 | 99.8% | 80 | 120 | 20.0 | 0.287% | 20 | |
| Bromodichloromethane | 20.15 | 1.0 | 20.0 | 0 | 101% | 80 | 120 | 20.2 | 0.255% | 20 | |
| cis-1,3-Dichloropropene | 21.22 | 1.0 | 20.0 | 0 | 106% | 80 | 120 | 21.1 | 0.509% | 20 | |
| Toluene | 19.77 | 0.50 | 20.0 | 0 | 98.9% | 80 | 120 | 20.1 | 1.51% | 20 | |
| Tetrachloroethene | 20.19 | 1.0 | 20.0 | 0 | 101% | 80 | 120 | 20.7 | 2.39% | 20 | |
| trans-1,3-Dichloropropene | 20.59 | 1.0 | 20.0 | 0 | 103% | 80 | 120 | 20.9 | 1.38% | 20 | |
| 1,1,2-Trichloroethane | 19.62 | 1.0 | 20.0 | 0 | 98.1% | 80 | 120 | 19.9 | 1.58% | 20 | |
| Dibromochloromethane | 19.28 | 1.0 | 20.0 | 0 | 96.4% | 80 | 120 | 19.5 | 1.06% | 20 | |
| Chlorobenzene | 20.25 | 1.0 | 20.0 | 0 | 101% | 80 | 120 | 20.2 | 0.496% | 20 | |
| Ethylbenzene | 19.07 | 0.50 | 20.0 | 0 | 95.4% | 80 | 120 | 19.5 | 1.99% | 20 | |
| m,p-Xylene | 39.11 | 0.50 | 40.0 | 0 | 97.8% | 80 | 120 | 40.2 | 2.70% | 20 | |
| o-Xylene | 20.23 | 0.50 | 20.0 | 0 | 101% | 80 | 120 | 20.5 | 1.24% | 20 | |
| Bromoform | 17.84 | 1.0 | 20.0 | 0 | 89.2% | 80 | 120 | 18.2 | 2.29% | 20 | |

**Qualifiers:**
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

**CLIENT:** SHN Consulting Engineers and Geologists
**Work Order:** 0605199
**Project:** 003154 Simpson Reman Facility

# QC SUMMARY REPORT

## Laboratory Control Spike Duplicate

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 18.71 | 1.0 | 20.0 | 0 | 93.6% | 80 | 120 | 19.2 | 2.41% | 20 |
| 1,3-Dichlorobenzene | 19.85 | 1.0 | 20.0 | 0 | 99.3% | 80 | 120 | 19.9 | 0.378% | 20 |
| 1,4-Dichlorobenzene | 19.77 | 1.0 | 20.0 | 0 | 98.8% | 80 | 120 | 19.9 | 0.762% | 20 |
| 1,2-Dichlorobenzene | 19.42 | 1.0 | 20.0 | 0 | 97.1% | 80 | 120 | 19.6 | 0.796% | 20 |
| 1,2-Dichloroethane-d4 | 1.03 | 0.10 | 1.00 | 0 | 103% | 61 | 127 | 1.03 | 0.185% | 20 |
| 1,4-Dichlorobenzene-d4 | 0.975 | 0.10 | 1.00 | 0 | 97.5% | 77 | 129 | 0.977 | 0.212% | 20 |
| Dibromofluoromethane | 1.05 | 0.10 | 1.00 | 0 | 105% | 80 | 120 | 1.05 | 0.184% | 20 |
| Toluene-d8 | 0.998 | 0.10 | 1.00 | 0 | 99.7% | 80 | 120 | 1.01 | 0.842% | 20 |

Sample ID **LCS 05100606** Batch ID: **R41234** Test Code: **ICIONW** Units: **mg/L** Analysis Date **5/11/06 2:23:13 PM** Prep Date
Client ID: Run ID: **INIC2_060511A** SeqNo: **591845**

| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 0.9783 | 0.10 | 1.00 | 0 | 97.8% | 90 | 110 | 0 | | | |
| Sulfate | 9.799 | 0.50 | 10.0 | 0 | 98.0% | 90 | 110 | 0 | | | |

Sample ID **LCS 05100606** Batch ID: **R41234** Test Code: **ICNOW** Units: **mg/L** Analysis Date **5/11/06 2:23:13 PM** Prep Date
Client ID: Run ID: **INIC2_060511A** SeqNo: **591833**

| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate (as Nitrogen) | 1.005 | 0.10 | 1.00 | 0 | 101% | 90 | 110 | 0 | | | |

Sample ID **LCS-15682P** Batch ID: **15682** Test Code: **ICPX** Units: **µg/L** Analysis Date **5/19/06 2:10:00 PM** Prep Date **5/11/06**
Client ID: Run ID: **INICP1_060519B** SeqNo: **594032**

| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Iron | 497.5 | 100 | 500 | 0 | 99.5% | 85 | 115 | 0 | | | |
| Manganese | 485.8 | 2.0 | 500 | 0.500 | 97.1% | 85 | 115 | 0 | | | |

**Qualifiers:**
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

**CLIENT:** SHN Consulting Engineers and Geologists
**Work Order:** 0605199
**Project:** 003154 Simpson Reman Facility

# QC SUMMARY REPORT

## Laboratory Control Spike

Sample ID **LCS-15721** Batch ID: **15721** Test Code: **PCPTW** Units: **µg/L** Analysis Date **5/17/06 5:36:24 PM** Prep Date **5/17/06**
Client ID: Run ID: **ORGC4_060517A** SeqNo: **593232**

| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tetrachlorophenol | 4.455 | 1.0 | 5.00 | 0 | 89.1% | 69 | 112 | 0 | | | |
| Pentachlorophenol | 1.243 | 0.30 | 1.50 | 0 | 82.9% | 65 | 107 | 0 | | | |
| Dibromophenol | 4.67 | 0.10 | 5.00 | 0 | 93.4% | 67 | 118 | 0 | | | |

Sample ID **LCSD-15721** Batch ID: **15721** Test Code: **PCPTW** Units: **µg/L** Analysis Date **5/17/06 5:57:13 PM** Prep Date **5/17/06**
Client ID: Run ID: **ORGC4_060517A** SeqNo: **593233**

| Analyte | Result | Limit | SPK value | SPK Ref Val | % Rec | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Tetrachlorophenol | 4.566 | 1.0 | 5.00 | 0 | 91.3% | 69 | 112 | 4.46 | 2.46% | 15 | |
| Pentachlorophenol | 1.277 | 0.30 | 1.50 | 0 | 85.2% | 65 | 107 | 1.24 | 2.70% | 15 | |
| Dibromophenol | 4.67 | 0.10 | 5.00 | 0 | 93.3% | 67 | 118 | 4.67 | 0.0641% | 15 | |

**Qualifiers:**
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831



# Chain of Custody

LABORATORY NUMBER: 0605-199

Attention: Dianna Monroe
Results & Invoice to: SHN
Address: 812 West Wabash Avenue
Eureka, CA 95501
Phone: 441-8855
Copies of Report to:
Sampler (Sign & Print): Dusti Sillet

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☑ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By:__/__/__
Final Report: FAX ☐ Verbal ☐ By:__/__/__

**PROJECT INFORMATION**
Project Number: 003154
Project Name: Simpson Renwan Facility
Purchase Order Number:

| LAB ID | SAMPLE ID | DATE | TIME | MATRIX* | ANALYSIS | CONTAINER | PRESERVATIVE |
|---|---|---|---|---|---|---|---|
| | MW-2 | 5/10/06 | 1140 | GW | 8270 Phenols | 7 | |
| | MW-3 | | 1225 | | RPTCP | 10 | |
| | MW-7 | | 1430 | | Carbon Pulp | | |
| | MW-8 | | 1520 | | Diss Fe, Mn | 2 | |
| | Dup | | | | Alk, SO4, NO3 | 7 | |
| | | | | | Chloride | | |
| | | | | | 8260 1,2,3 | 9 | b |

**CONTAINER CODES:** 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

**PRESERVATIVE CODES:** a—$HNO_3$; b—HCl; c—$H_2SO_4$; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

**SAMPLE CONDITION/SPECIAL INSTRUCTIONS**
EDF

| RELINQUISHED BY (Sign & Print) | DATE/TIME | RECEIVED BY (Sign) | DATE/TIME |
|---|---|---|---|
| Dusti Sillet 5/10/06 | | [signature] | 5/10/06 |
| | | | 1550 |
| | | | |

**SAMPLE DISPOSAL**
☐ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

**CHAIN OF CUSTODY SEALS Y/N/NA**
**SHIPPED VIA:** UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

**ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT**

SEVERN TRENT STL

**STL Sacramento**
880 Riverside Parkway
West Sacramento, CA 95605

Tel: 916 373 5600 Fax: 916 372 1059
www.stl-inc.com

June 6, 2006

**STL SACRAMENTO PROJECT NUMBER: G6E130129**
PO/CONTRACT:

Laura Miller
North Coast Labs
5680 West End Road
Arcata, CA 95521

Dear Ms. Miller,

This report contains the analytical results for the samples received under chain of custody by STL Sacramento on May 12, 2006. These samples are associated with your 0605225 project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4384.

Sincerely,

Karen Dahl
Project Manager

# CASE NARRATIVE

## STL SACRAMENTO PROJECT NUMBER G6E130129

**WATER, 8270C, Phenols**
Matrix spikes (performed on another client's samples) were extracted and analyzed but were not reported due to numerous quality control failures.

There were no other anomalies associated with this project.

SEVERN TRENT STL

ACCREDITED IN ACCORDANCE WITH nelac

## STL Sacramento Certifications/Accreditations

| Certifying State | Certificate # | Certifying State | Certificate # |
|---|---|---|---|
| Alaska | UST-055 | Oregon* | CA 200005 |
| Arizona | AZ0615 | Pennsylvania | 68-1272 |
| Arkansas | 04-067-0 | South Carolina | 87014002 |
| California* | 01119CA | Texas | TX 270-2004A |
| Colorado | NA | Utah* | QUAN1 |
| Connecticut | PH-0691 | Virginia | 00178 |
| Florida* | E87570 | Washington | C087 |
| Georgia | 960 | West Virginia | 9930C, 334 |
| Hawaii | NA | Wisconsin | 998204680 |
| Louisiana* | 01944 | NFESC | NA |
| Michigan | 9947 | USACE | NA |
| Nevada | CA44 | USDA Foreign Plant | 37-82605 |
| New Jersey* | CA005 | USDA Foreign Soil | S-46613 |
| New York* | 11666 | | |

*NELAP accredited. A more detailed parameter list is available upon request. Updated 1/27/05

## QC Parameter Definitions

**QC Batch:** The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

**Method Blank:** An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

**Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD):** An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also used to evaluate the precision of the process.

**Duplicate Sample (DU):** Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

**Surrogates:** Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

**Matrix Spike and Matrix Spike Duplicate (MS/MSD):** An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

**Isotope Dilution:** For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

**Control Limits:** The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

# SAMPLE SUMMARY

G6E130129

| WO # | SAMPLE# | CLIENT SAMPLE ID | SAMPLED DATE | SAMP TIME |
|---|---|---|---|---|
| H5CWD | 001 | MW-2 | 05/10/06 | 11:40 |
| H5CWJ | 002 | MW-3 | 05/10/06 | 12:25 |
| H5CWK | 003 | MW-7 | 05/10/06 | 14:30 |
| H5CWL | 004 | MW-8 | 05/10/06 | 15:20 |
| H5CWP | 005 | DUP | 05/10/06 | |

**NOTE(S):**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

NORTH COAST LABORATORIES LTD.

# Sub-Contract
# Chain of Custody Record

Date Shipped: 5/11/06 Carrier: fedex

Air Bill #: _____ Cooler #: _____

**Subcontractor:** Severn Trent Laboratories (West Sac
880 Riverside Parkway
West Sacramento, CA 95605

**Phone:** 916-373-5600
**Attention Line:** Sample Control

**Send Results to:** North Coast Labs
5680 West End Road
Arcata, CA 95521
Attn: Laura Miller or Trudie Haughy
(707) 822-4649

| Relinquished By: (signature) | Date/Time | Received By: (signature) | Date/Time |
|---|---|---|---|
| [signature] | 5/11/06 1232 | [signature] | 5-12-06 1215 |
| | | | |
| | | | |

## Analysis Request

| NCL Sample #: | Sample ID: | Date Sampled: | Analysis / Matrix: |
|---|---|---|---|
| 0605225-1A | MW-2 | 5/10/06 11:40:00 AM | EPA 8270 - Water/Waste Water |
| 0605225-2A | MW-3 | 5/10/06 12:25:00 PM | EPA 8270 - Water/Waste Water |
| 0605225-3A | MW-7 | 5/10/06 2:30:00 PM | EPA 8270 - Water/Waste Water |
| 0605225-4A | MW-8 | 5/10/06 3:20:00 PM | EPA 8270 - Water/Waste Water |
| 0605225-5A | DUP | 5/10/06 | EPA 8270 - Water/Waste Water |
| | | | Phenols |

Special Instructions: **Please include Sample ID on analytical report.**
Please include QC Data

Date Due: 5/24/06 Rush Charges Authorized: [signature] Preservative: 0

Return Chain of Custody to NCL

SEVERN TRENT STL

# LOT RECEIPT CHECKLIST
## STL Sacramento

CLIENT North Coast Lab PM KD LOG # 38834

LOT# (QUANTIMS ID) G6E130129 QUOTE# 29173 LOCATION W11D

| | Initials | Date |
|---|---|---|
| DATE RECEIVED 5/12/06 TIME RECEIVED 0905 | CN | 5/12/06 |

DELIVERED BY
- [x] FEDEX
- [ ] CA OVERNIGHT
- [ ] CLIENT
- [ ] AIRBORNE
- [ ] GOLDENSTATE
- [ ] DHL
- [ ] UPS
- [ ] BAX GLOBAL
- [ ] GO-GETTERS
- [ ] STL COURIER
- [ ] COURIERS ON DEMAND
- [ ] OTHER

CUSTODY SEAL STATUS [ ] INTACT [ ] BROKEN [x] N/A

CUSTODY SEAL #(S) _____

SHIPPPING CONTAINER(S) [ ] STL [x] CLIENT [ ] N/A

TEMPERTURE RECORD (IN °C) IR 1 [ ] 3 [x] [ ] OTHER _____

COC #(S) NA

TEMPERATURE BLANK Observed: ✓ Corrected: _____

SAMPLE TEMPERATURE

Observed: 4 5 9 Average: 6 Corrected Average: 6

COLLECTOR'S NAME: [ ] Verified from COC [x] Not on COC

pH MEASURED [ ] YES [ ] ANOMALY [x] N/A

LABELED BY..... CN 5-13-06

LABELS CHECKED BY.....

PEER REVIEW _____ [x] NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING

WETCHEM [x] N/A

VOA-ENCORES [x] N/A

[ ] METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL [x] N/A

[x] COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES [ ] N/A

[ ] Clouseau [ ] TEMPERATURE EXCEEDED (2 °C – 6 °C)*1 [x] N/A

[ ] WET ICE [ ] BLUE ICE [ ] GEL PACK [ ] NO COOLING AGENTS USED [ ] PM NOTIFIED

Notes: _____

*1 Acceptable temperature range for State of Wisconsin samples is ≤ 4°C.

G6E130129 NO SPACES BLANK. USE "N/A" IF NOT APPLICABLE. INITIAL AND DATE ALL "N/A" ENTRIES.

SEVERN TRENT STL

# Bottle Lot Inventory

Lot ID: G6E130129

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VOA* | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| VOAh* | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / | / |
| AGB | | | | | | | | | | | | | | | | | | | | |
| AGBs | | | | | | | | | | | | | | | | | | | | |
| 250AGB | | | | | | | | | | | | | | | | | | | | |
| 250AGBs | | | | | | | | | | | | | | | | | | | | |
| 250AGBn | | | | | | | | | | | | | | | | | | | | |
| 500AGB | | | | | | | | | | | | | | | | | | | | |
| ____AGJ | / | / | / | / | / | | | | | | | | | | | | | | | |
| 500AGJ | | | | | | | | | | | | | | | | | | | | |
| 250AGJ | | | | | | | | | | | | | | | | | | | | |
| 125AGJ | | | | | | | | | | | | | | | | | | | | |
| ____CGJ | | | | | | | | | | | | | | | | | | | | |
| 500CGJ | | | | | | | | | | | | | | | | | | | | |
| 250CGJ | | | | | | | | | | | | | | | | | | | | |
| 125CGJ | | | | | | | | | | | | | | | | | | | | |
| PJ | | | | | | | | | | | | | | | | | | | | |
| PJn | | | | | | | | | | | | | | | | | | | | |
| 500PJ | | | | | | | | | | | | | | | | | | | | |
| 500PJn | | | | | | | | | | | | | | | | | | | | |
| 500PJna | | | | | | | | | | | | | | | | | | | | |
| 500PJzn/na | | | | | | | | | | | | | | | | | | | | |
| 250PJ | | | | | | | | | | | | | | | | | | | | |
| 250PJn | | | | | | | | | | | | | | | | | | | | |
| 250PJna | | | | | | | | | | | | | | | | | | | | |
| 250PJzn/na | | | | | | | | | | | | | | | | | | | | |
| Acetate Tube | | | | | | | | | | | | | | | | | | | | |
| _____"CT | | | | | | | | | | | | | | | | | | | | |
| Encore | | | | | | | | | | | | | | | | | | | | |
| Folder/filter | | | | | | | | | | | | | | | | | | | | |
| PUF | | | | | | | | | | | | | | | | | | | | |
| Petri/Filter | | | | | | | | | | | | | | | | | | | | |
| XAD Trap | | | | | | | | | | | | | | | | | | | | |
| Ziploc | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |

h = hydrochloric acid s = sulfuric acid na = sodium hydroxide n = nitric acid zn = zinc acetate

Number of VOAs with air bubbles present / total number of VOA's

QA-185 3/05 EM

Page 2

North Coast Laboratories LTD

Client Sample ID: MW-2

GC/MS Semivolatiles

Lot-Sample #...: G6E130129-001 Work Order #...: H5CWD1AA Matrix.....: WATER
Date Sampled...: 05/10/06 Date Received..: 05/12/06
Prep Date.....: 05/16/06 Analysis Date..: 05/31/06
Prep Batch #...: 6136307
Dilution Factor: 1.07 Method.....: SW846 8270C

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| 4-Chloro-3-methylphenol | ND | 11 | ug/L |
| 2-Chlorophenol | ND | 11 | ug/L |
| 2,4-Dichlorophenol | ND | 11 | ug/L |
| 2,4-Dimethylphenol | ND | 11 | ug/L |
| 2,4-Dinitrophenol | ND | 54 | ug/L |
| 2-Methylphenol | ND | 11 | ug/L |
| 3-Methylphenol & 4-Methylphenol | ND | 21 | ug/L |
| 2-Nitrophenol | ND | 11 | ug/L |
| 4-Nitrophenol | ND | 54 | ug/L |
| Pentachlorophenol | ND | 54 | ug/L |
| Phenol | ND | 11 | ug/L |
| 2,3,5,6-Tetrachlorophenol | ND | 54 | ug/L |
| 2,4,5-Trichloro-phenol | ND | 11 | ug/L |
| 2,4,6-Trichloro-phenol | ND | 11 | ug/L |
| 4,6-Dinitro-2-methylphenol | ND | 54 | ug/L |
| 2,6-Dichlorophenol | ND | 11 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| 2-Chlorophenol-d4 | 55 | (25 - 101) |
| 2-Fluorophenol | 36 | (10 - 70 ) |
| Phenol-d5 | 24 | (10 - 47 ) |
| 2,4,6-Tribromophenol | 62 | (21 - 127) |

North Coast Laboratories LTD

Client Sample ID: MW-3

GC/MS Semivolatiles

Lot-Sample #...: G6E130129-002 Work Order #...: H5CWJ1AA Matrix.....: WATER
Date Sampled...: 05/10/06 Date Received..: 05/12/06
Prep Date.....: 05/16/06 Analysis Date..: 05/31/06
Prep Batch #...: 6136307
Dilution Factor: 1.02 Method.....: SW846 8270C

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| 4-Chloro-3-methylphenol | ND | 10 | ug/L |
| 2-Chlorophenol | ND | 10 | ug/L |
| 2,4-Dichlorophenol | ND | 10 | ug/L |
| 2,4-Dimethylphenol | ND | 10 | ug/L |
| 2,4-Dinitrophenol | ND | 51 | ug/L |
| 2-Methylphenol | ND | 10 | ug/L |
| 3-Methylphenol & 4-Methylphenol | ND | 20 | ug/L |
| 2-Nitrophenol | ND | 10 | ug/L |
| 4-Nitrophenol | ND | 51 | ug/L |
| Pentachlorophenol | ND | 51 | ug/L |
| Phenol | ND | 10 | ug/L |
| 2,3,5,6-Tetrachlorophenol | ND | 51 | ug/L |
| 2,4,5-Trichloro-phenol | ND | 10 | ug/L |
| 2,4,6-Trichloro-phenol | ND | 10 | ug/L |
| 4,6-Dinitro-2-methylphenol | ND | 51 | ug/L |
| 2,6-Dichlorophenol | ND | 10 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| 2-Chlorophenol-d4 | 64 | (25 - 101) |
| 2-Fluorophenol | 38 | (10 - 70 ) |
| Phenol-d5 | 27 | (10 - 47 ) |
| 2,4,6-Tribromophenol | 64 | (21 - 127) |

North Coast Laboratories LTD

Client Sample ID: MW-7

GC/MS Semivolatiles

Lot-Sample #...: G6E130129-003 Work Order #...: H5CWK1AA Matrix.....: WATER
Date Sampled...: 05/10/06 Date Received..: 05/12/06
Prep Date.....: 05/16/06 Analysis Date..: 06/01/06
Prep Batch #...: 6136307
Dilution Factor: 1.01 Method.....: SW846 8270C

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| 4-Chloro-3-methylphenol | ND | 10 | ug/L |
| 2-Chlorophenol | ND | 10 | ug/L |
| 2,4-Dichlorophenol | ND | 10 | ug/L |
| 2,4-Dimethylphenol | ND | 10 | ug/L |
| 2,4-Dinitrophenol | ND | 50 | ug/L |
| 2-Methylphenol | ND | 10 | ug/L |
| 3-Methylphenol & 4-Methylphenol | ND | 20 | ug/L |
| 2-Nitrophenol | ND | 10 | ug/L |
| 4-Nitrophenol | ND | 50 | ug/L |
| Pentachlorophenol | ND | 50 | ug/L |
| Phenol | ND | 10 | ug/L |
| 2,3,5,6-Tetrachlorophenol | ND | 50 | ug/L |
| 2,4,5-Trichloro-phenol | ND | 10 | ug/L |
| 2,4,6-Trichloro-phenol | ND | 10 | ug/L |
| 4,6-Dinitro-2-methylphenol | ND | 50 | ug/L |
| 2,6-Dichlorophenol | ND | 10 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| 2-Chlorophenol-d4 | 61 | (25 - 101) |
| 2-Fluorophenol | 42 | (10 - 70 ) |
| Phenol-d5 | 26 | (10 - 47 ) |
| 2,4,6-Tribromophenol | 67 | (21 - 127) |

North Coast Laboratories LTD

Client Sample ID: MW-8

GC/MS Semivolatiles

Lot-Sample #...: G6E130129-004 Work Order #...: H5CWL1AA Matrix.....: WATER
Date Sampled...: 05/10/06 Date Received..: 05/12/06
Prep Date.....: 05/16/06 Analysis Date..: 05/31/06
Prep Batch #...: 6136307
Dilution Factor: 1 Method.....: SW846 8270C

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| 4-Chloro-3-methylphenol | ND | 10 | ug/L |
| 2-Chlorophenol | ND | 10 | ug/L |
| 2,4-Dichlorophenol | ND | 10 | ug/L |
| 2,4-Dimethylphenol | ND | 10 | ug/L |
| 2,4-Dinitrophenol | ND | 50 | ug/L |
| 2-Methylphenol | ND | 10 | ug/L |
| 3-Methylphenol & 4-Methylphenol | ND | 20 | ug/L |
| 2-Nitrophenol | ND | 10 | ug/L |
| 4-Nitrophenol | ND | 50 | ug/L |
| Pentachlorophenol | ND | 50 | ug/L |
| Phenol | ND | 10 | ug/L |
| 2,3,5,6-Tetrachlorophenol | ND | 50 | ug/L |
| 2,4,5-Trichloro-phenol | ND | 10 | ug/L |
| 2,4,6-Trichloro-phenol | ND | 10 | ug/L |
| 4,6-Dinitro-2-methylphenol | ND | 50 | ug/L |
| 2,6-Dichlorophenol | ND | 10 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| 2-Chlorophenol-d4 | 49 | (25 - 101) |
| 2-Fluorophenol | 32 | (10 - 70 ) |
| Phenol-d5 | 20 | (10 - 47 ) |
| 2,4,6-Tribromophenol | 48 | (21 - 127) |

North Coast Laboratories LTD

Client Sample ID: DUP

GC/MS Semivolatiles

Lot-Sample #...: G6E130129-005 Work Order #...: H5CWP1AA Matrix.....: WATER
Date Sampled...: 05/10/06 Date Received..: 05/12/06
Prep Date.....: 05/16/06 Analysis Date..: 05/31/06
Prep Batch #...: 6136307
Dilution Factor: 1.02 Method.....: SW846 8270C

| PARAMETER | RESULT | REPORTING LIMIT | UNITS |
|---|---|---|---|
| 4-Chloro-3-methylphenol | ND | 10 | ug/L |
| 2-Chlorophenol | ND | 10 | ug/L |
| 2,4-Dichlorophenol | ND | 10 | ug/L |
| 2,4-Dimethylphenol | ND | 10 | ug/L |
| 2,4-Dinitrophenol | ND | 51 | ug/L |
| 2-Methylphenol | ND | 10 | ug/L |
| 3-Methylphenol & 4-Methylphenol | ND | 20 | ug/L |
| 2-Nitrophenol | ND | 10 | ug/L |
| 4-Nitrophenol | ND | 51 | ug/L |
| Pentachlorophenol | ND | 51 | ug/L |
| Phenol | ND | 10 | ug/L |
| 2,3,5,6-Tetrachlorophenol | ND | 51 | ug/L |
| 2,4,5-Trichloro-phenol | ND | 10 | ug/L |
| 2,4,6-Trichloro-phenol | ND | 10 | ug/L |
| 4,6-Dinitro-2-methylphenol | ND | 51 | ug/L |
| 2,6-Dichlorophenol | ND | 10 | ug/L |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| 2-Chlorophenol-d4 | 54 | (25 - 101) |
| 2-Fluorophenol | 35 | (10 - 70 ) |
| Phenol-d5 | 22 | (10 - 47 ) |
| 2,4,6-Tribromophenol | 54 | (21 - 127) |

# QC DATA ASSOCIATION SUMMARY

G6E130129

Sample Preparation and Analysis Control Numbers

| SAMPLE# | MATRIX | ANALYTICAL METHOD | LEACH BATCH # | PREP BATCH # | MS RUN# |
|---|---|---|---|---|---|
| 001 | WATER | SW846 8270C | | 6136307 | |
| 002 | WATER | SW846 8270C | | 6136307 | |
| 003 | WATER | SW846 8270C | | 6136307 | |
| 004 | WATER | SW846 8270C | | 6136307 | |
| 005 | WATER | SW846 8270C | | 6136307 | |

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: G6E130129 Work Order #...: H5GL01AA Matrix.....: WATER
MB Lot-Sample #: G6E160000-307

Prep Date.....: 05/16/06
Analysis Date..: 06/01/06 Prep Batch #...: 6136307
Dilution Factor: 1

| PARAMETER | RESULT | REPORTING LIMIT | UNITS | METHOD |
|---|---|---|---|---|
| 4-Chloro-3-methylphenol | ND | 10 | ug/L | SW846 8270C |
| 2-Chlorophenol | ND | 10 | ug/L | SW846 8270C |
| 2,4-Dichlorophenol | ND | 10 | ug/L | SW846 8270C |
| 2,4-Dimethylphenol | ND | 10 | ug/L | SW846 8270C |
| 4,6-Dinitro-2-methylphenol | ND | 50 | ug/L | SW846 8270C |
| 2,4-Dinitrophenol | ND | 50 | ug/L | SW846 8270C |
| 2-Methylphenol | ND | 10 | ug/L | SW846 8270C |
| 2-Nitrophenol | ND | 10 | ug/L | SW846 8270C |
| 4-Nitrophenol | ND | 50 | ug/L | SW846 8270C |
| Pentachlorophenol | ND | 50 | ug/L | SW846 8270C |
| Phenol | ND | 10 | ug/L | SW846 8270C |
| 2,4,5-Trichlorophenol | ND | 10 | ug/L | SW846 8270C |
| 2,4,6-Trichlorophenol | ND | 10 | ug/L | SW846 8270C |
| 2,6-Dichlorophenol | ND | 10 | ug/L | SW846 8270C |
| 3-Methylphenol & 4-Methylphenol | ND | 20 | ug/L | SW846 8270C |
| 2,3,5,6-Tetrachlorophenol | ND | 50 | ug/L | SW846 8270C |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| 2-Chlorophenol-d4 | 67 | (25 - 101) |
| 2-Fluorophenol | 48 | (10 - 70) |
| Phenol-d5 | 29 | (10 - 47) |
| 2,4,6-Tribromophenol | 70 | (21 - 127) |

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: G6E130129 Work Order #...: H5GL01AC Matrix.....: WATER
LCS Lot-Sample#: G6E160000-307
Prep Date.....: 05/16/06 Analysis Date..: 05/26/06
Prep Batch #...: 6136307
Dilution Factor: 1

| PARAMETER | SPIKE AMOUNT | MEASURED AMOUNT | UNITS | PERCENT RECOVERY | METHOD |
|---|---|---|---|---|---|
| 4-Chloro-3-methylphenol | 100 | 79.9 | ug/L | 80 | SW846 8270C |
| 2-Chlorophenol | 100 | 70.7 | ug/L | 71 | SW846 8270C |
| 2,4-Dichlorophenol | 100 | 78.6 | ug/L | 79 | SW846 8270C |
| 2,4-Dimethylphenol | 100 | 69.1 | ug/L | 69 | SW846 8270C |
| 4,6-Dinitro-2-methylphenol | 100 | 102 | ug/L | 102 | SW846 8270C |
| 2,4-Dinitrophenol | 100 | 84.4 | ug/L | 84 | SW846 8270C |
| 2-Methylphenol | 100 | 68.5 | ug/L | 68 | SW846 8270C |
| 2-Nitrophenol | 100 | 82.9 | ug/L | 83 | SW846 8270C |
| 4-Nitrophenol | 100 | 32.2 | ug/L | 32 | SW846 8270C |
| Pentachlorophenol | 100 | 90.6 | ug/L | 91 | SW846 8270C |
| Phenol | 100 | 35.8 | ug/L | 36 | SW846 8270C |
| 2,4,5-Trichlorophenol | 100 | 89.8 | ug/L | 90 | SW846 8270C |
| 2,4,6-Trichlorophenol | 100 | 86.0 | ug/L | 86 | SW846 8270C |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| 2-Chlorophenol-d4 | 72 | (25 - 101) |
| 2-Fluorophenol | 51 | (10 - 70) |
| Phenol-d5 | 33 | (10 - 47) |
| 2,4,6-Tribromophenol | 86 | (21 - 127) |

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: G6E130129 Work Order #...: H5GL01AC Matrix.....: WATER
LCS Lot-Sample#: G6E160000-307
Prep Date.....: 05/16/06 Analysis Date..: 05/26/06
Prep Batch #...: 6136307
Dilution Factor: 1

| PARAMETER | PERCENT RECOVERY | RECOVERY LIMITS | METHOD |
|---|---|---|---|
| 4-Chloro-3-methylphenol | 80 | (60 - 100) | SW846 8270C |
| 2-Chlorophenol | 71 | (48 - 102) | SW846 8270C |
| 2,4-Dichlorophenol | 79 | (52 - 99) | SW846 8270C |
| 2,4-Dimethylphenol | 69 | (49 - 89) | SW846 8270C |
| 4,6-Dinitro-2-methylphenol | 102 | (35 - 127) | SW846 8270C |
| 2,4-Dinitrophenol | 84 | (10 - 131) | SW846 8270C |
| 2-Methylphenol | 68 | (49 - 91) | SW846 8270C |
| 2-Nitrophenol | 83 | (45 - 108) | SW846 8270C |
| 4-Nitrophenol | 32 | (18 - 63) | SW846 8270C |
| Pentachlorophenol | 91 | (35 - 118) | SW846 8270C |
| Phenol | 36 | (16 - 56) | SW846 8270C |
| 2,4,5-Trichlorophenol | 90 | (56 - 106) | SW846 8270C |
| 2,4,6-Trichlorophenol | 86 | (49 - 108) | SW846 8270C |

| SURROGATE | PERCENT RECOVERY | RECOVERY LIMITS |
|---|---|---|
| 2-Chlorophenol-d4 | 72 | (25 - 101) |
| 2-Fluorophenol | 51 | (10 - 70) |
| Phenol-d5 | 33 | (10 - 47) |
| 2,4,6-Tribromophenol | 86 | (21 - 127) |

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

NORTH COAST LABORATORIES LTD.

# Sub-Contract
# Chain of Custody Record

**Date Shipped:** 5/11/06 **Carrier:** fedex

**Air Bill #:** _____ **Cooler #:** _____

**Subcontractor:** Severn Trent Laboratories (West Sac
880 Riverside Parkway
West Sacramento, CA 95605

**Phone:** 916-373-5600
**Attention Line:** Sample Control

**Send Results to:** North Coast Labs
5680 West End Road
Arcata, CA 95521
Attn: Laura Miller or Trudie Haughy
(707) 822-4649

| Relinquished By: (signature) | Date/Time | Received By: (signature) | Date/Time |
|---|---|---|---|
| [signature] | 5/11/06 1232 | | |
| | | | |
| | | | |

## Analysis Request

| NCL Sample #: | Sample ID: | Date Sampled: | Analysis / Matrix: |
|---|---|---|---|
| 0605225-1A | MW-2 | 5/10/06 11:40:00 AM | EPA 8270 - Water/Waste Water |
| 0605225-2A | MW-3 | 5/10/06 12:25:00 PM | EPA 8270 - Water/Waste Water |
| 0605225-3A | MW-7 | 5/10/06 2:30:00 PM | EPA 8270 - Water/Waste Water |
| 0605225-4A | MW-8 | 5/10/06 3:20:00 PM | EPA 8270 - Water/Waste Water |
| 0605225-5A | DUP | 5/10/06 | EPA 8270 - Water/Waste Water |

Special Instructions: **Please include Sample ID on analytical report.**
Please include QC Data

Date Due: 5/24/06 Rush Charges Authorized: no Preservative: 0

Return Chain of Custody to NCL

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

# Chain of Custody

LABORATORY NUMBER: 0605225 (004) 5/11/06

Attention: Diana Monroe
Results & Invoice to: SHN
Address: 812 West Wabash Avenue
Eureka, CA 95501
Phone: 441-8855
Copies of Report to:
Sampler (Sign & Print):

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☒ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☐ Verbal ☐ By: __/__/__
Final Report: FAX ☐ Verbal ☐ By: __/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—$HNO_3$; b—HCl; c—$H_2SO_4$; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

## PROJECT INFORMATION

Project Number: 0231EU
Project Name: Simpson Reuman Facility
Purchase Order Number:

| LAB ID | SAMPLE ID* | DATE | TIME | MATRIX* | CONTAINER | PRESERVATIVE | 8260 Phenols | Fe/Mn | Cl, Sulfate | Diff. Mn | Alk, Sol. Mn | Chloride | 8260 L-19 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MW-2 | 5/10/06 | 1110 | GW | 2 | | 1 | | | | | | |
| | MW-3 | | 1225 | | | | | | | | | | |
| | MW-7 | | 1130 | | | | | | | | | | |
| | MW-8 | | 1520 | | | | | | | | | | |
| | Dup | | | | | | | | | | | | |

## SAMPLE CONDITION/SPECIAL INSTRUCTIONS

F INF

| RELINQUISHED BY (Sign & Print) | DATE/TIME | RECEIVED BY (Sign) | DATE/TIME |
|---|---|---|---|
| 5/10/06 | | | 5/12/06 |
| | | | |
| | | | |

SAMPLE DISPOSAL
☐ NCL Disposal of Non-Contaminated
☒ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

*MATRIX: DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

**ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT**