April 2, 2014

Jemellee Cruz
Flood Maintenance Division
County of Los Angeles Department of Public Works
900 South Fremont Avenue
Alhambra, CA 91803

**SUBJECT: WATER QUALITY MONITORING AND ANALYSIS RESULTS FOR THE SAN GABRIEL FEASIBILITY STUDY WORK PLAN, LOS ANGELES COUNTY, CALIFORNIA.**

Dear Ms. Cruz,

Chambers Group, Inc. (Chambers Group) was retained by the County of Los Angeles Flood Maintenance Division (LACFCD) to provide water quality monitoring and analysis for several soft-bottom channel reaches in the San Gabriel Watershed in Los Angeles County, California. These areas are covered by the Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements (WDR) Order number R4-2010-0021. Water quality sampling and analysis was required in accordance with Section 4.3 Water Quality Monitoring and Best Management Plan (BMP) for project sites with inflow or outflow.

Water Quality Sampling

All water quality sampling analyzed of the following:

- pH
- temperature
- dissolved oxygen (DO)
- turbidity
- total suspended solids (TSS)

Sampling occurred at three locations: 1) upstream of the maintenance area; 2) within the maintenance area; and 3) downstream of the maintenance area. Analysis was performed using approved US Environmental Protection Agency methods, where applicable. The pH, temperature, Dissolved Oxygen (DO), and turbidity was analyzed with a YSI multi-probe water quality meter. Total suspended solids (TSS) was sampled and brought to a lab for analysis. Existing site conditions, GPS coordinates, and photos was recorded for each sample area.

Data was recorded on aerial maps, field notes, and daily coordination occurred with Jemellee Cruz and LACFCD staff. Water quality data was recorded in a revised Field Data sheet (provided by LACFCD) and a chain of custody form that will be used to submit the water samples (TSS) to the laboratory. Efforts were made to prevent direct and indirect impacts to water quality downstream during maintenance activities.



SANTA ANA LOS ANGELES REDLANDS PALM DESERT SAN DIEGO EL CENTRO RENO
CORPORATE OFFICE 5 Hutton Centre Drive, Suite 750 | Santa Ana, California 92707
t | 949.261.5414 f | 714.545.2255 w | www.chambersgroupinc.com

Results

The San Jose Creek (Site 42) and Inlet Walnut Creek (Site 98) had inflow/outflow and required water quality monitoring. Chambers Group biologist, Corey Vane, monitored water quality for the San Jose Creek and Inlet Walnut Creek sites from September 12 to September 18, 2013 (see Attachment 1). Photos of water sampling stations were taken to document site conditions (see Attachment 2).

*Reach 42 – San Jose Creek*
Baseline monitoring was conducted within 7 days prior to work within the channel. The baseline data for the pre-maintenance work is provided in Attachment 1. Three areas were sampled: upstream of the work, within the center area of the work, and downstream of the work (see Attachment 3). Turbidity ranged from 9.94 NTUs in the center of the site to 17.1 at the downstream sampling location. Total suspended solids ranged from 19 mg/L at both the upsteam and center locations, to 9 mg/L at the downstream location. During work, turbidity was lower overall, ranging from 9.3 NTUs at the center to 11.1 and 11.4 NTUs at the downstream and upstream locations, respectively. Total suspended solids increased slightly, ranging from 10 mg/L at the downstream location to 20 mg/L at the upstream location. No exceedences occurred during the maintenance operations (see Attachment 5). The turbidity for the post work sampling ranged from 7.78 from the center location to 9.49 at the downstream location. TSS ranged from 18 at the downstream location to 25 at the upstream station. The creek was returned to its pre-maintenance state, and the BMPs were removed. All water quality readings were consistent with the baseline sample.

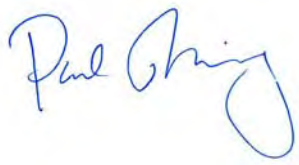
*Reach 98 – Walnut Creek*
Baseline monitoring was conducted within 7 days prior to work within the channel. The baseline data for the pre-maintenance work is provided in Attachment 1. Turbidity ranged from 5.08 NTUs at the downstream location of the site to 16.3 NTUs at the upstream location. Total suspended solids ranged from a Non-Detect (ND) at the upstream location to 27 mg/L at the center location. During work, turbidity was lower overall, ranging from 4.8 NTUs at the downstream to 13.6 NTUs at the center location. Total suspended solids also decreased during work, ranging from a ND at the downstream location to 12 mg/L at the center location. No exceedences occurred during the maintenance operations. The turbidity for the post work sampling ranged from 1.95 NTUs from the upstream location to 2.1 NTUs at the downstream location. TSS ranged from ND at the downstream and upstream locations to 6 mg/L at the center location. The creek was returned to its pre-maintenance state, and the BMPs were removed. All water quality readings were consistent with the baseline sample.

The San Gabriel River – Upper (Site 43) and San Gabriel River – Rubber Dams (Site 44) sites did not have inflow/outflow prior to or during maintenance activities, and therefore did not require water quality monitoring. Chambers Group biologists visited the sites on August 28, 2013 to confirm. At the time of the survey, there was no flow currently entering the main channel, with the exception of nuisance water entering by way of the flood control gates at the north end of the site #43, and from CMPs including San Gabriel River Parkway. Several of these inlets provide direct water connectivity to the site, but no flowing water currently exists. The water was stagnant and ponded in a few areas. Based on the communication from the crew and the direction from LACFCD, the water was avoided for the majority of the work. No mechanical equipment was used for sediment/exotic plant removal in areas with surface water. On few occasions, exotic plant removal was required in areas with surface water, and exotics were removed by hand tools by crews on foot. With no flow out of the site, any sediment disturbed by the activities was

contained within the ponds and allowed to settle, without downstream movement (the ponds itself act as its own siltation basin). In the event a heavy rainfall occurred, the existing rubber dams in site #44 would prevent any downstream flow from leaving the site. However, rain events did not occur so no additional BMPs were required, and the ponded water was entirely contained. Additionally, no releases were scheduled during the activities; therefore, no flow occurred that would provide potential downstream movement.

Please feel free to contact me if you have any questions regarding the reseeding effort. I can be reached at (949) 261-5414 extension 7288 or pmorrissey@chambersgroupinc.com.

Sincerely,
**CHAMBERS GROUP, INC.**



Paul Morrissey
Director of Biology

**Attachments**
Attachment 1: Table 1 – Water Quality Monitoring Data
Attachment 2: Site Photographs
Attachment 3: Water Quality Sampling Station Locations
Attachment 4: SGR Feasibility Study WQ Field Sheets
Attachment 5: TSS Lab Reports Combined

**ATTACHMENT 1 – Table 1: Water Quality Monitoring Data**

CHAMBERS GROUP

**Table 1**
**Water Quality Monitoring Data**

| Site | Sampling Location | GPS (Latitude, Longitude) | Survey | Date (MM/DD/YR) | Time | Temp (Fahrenheit) | DO (mg/l) | Ph | Turbidity (NTU) | Turbidity Limit (NTU) | TSS (mg/l) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site 42 (San Jose Creek) | Downstream | 34.03237, -11800930 | Pre Maintenance | 09/12/13 | 820 | 63.5 | 4.82 | 8.62 | 17.1 | 20.52 | 9 |
| Site 42 (San Jose Creek) | Midpoint | 34.03259, -118.00758 | Pre Maintenance | 09/12/13 | 858 | 67.8 | 12.28 | 9.09 | 9.94 | 11.93 | 19 |
| Site 42 (San Jose Creek) | Upstream | 34.03282, -118.00579 | Pre Maintenance | 09/12/13 | 920 | 72.5 | 12.58 | 8.82 | 11.2 | 13.44 | 19 |
| Site 98 (Walnut Creek) | Upstream | 34.07967, -117.86053 | Pre Maintenance | 09/12/13 | 1046 | 65.5 | 5.32 | 8.51 | 16.3 | 19.56 | 16 |
| Site 98 (Walnut Creek) | Midpoint | 34.0776, -117.86065 | Pre Maintenance | 09/12/13 | 1108 | 71.1 | 20.7 | 9.37 | 10.1 | 12.12 | 27 |
| Site 98 (Walnut Creek) | Downstream | 34.07973, -117.86073 | Pre Maintenance | 09/12/13 | 1122 | 69.3 | 15.4 | 8.91 | 5.08 | 6.10 | ND |
| Site 98 (Walnut Creek) | Midpoint | 34.0776, -117.86065 | Pre Maintenance | 09/12/13 | 1108 | 71.1 | 20.7 | 9.37 | 10.1 | 12.12 | 27 |
| Site 98 (Walnut Creek) | Downstream | 34.07973, -117.86073 | Pre Maintenance | 09/12/13 | 1122 | 69.3 | 15.4 | 8.91 | 5.08 | 6.10 | ND |
| | | | | | | | | | | | |
| Site 98 (Walnut Creek) | Upstream | 34.07967, -117.86053 | During Maintenance | 09/16/13 | 952 | 66.7 | 5.42 | 8.37 | 6.16 | 19.56 | 5 |
| Site 98 (Walnut Creek) | Midpoint | 34.0776, -117.86065 | During Maintenance | 09/16/13 | 1015 | 69.1 | 8.13 | 8.49 | 13.6 | 12.12 | 12 |
| Site 98 (Walnut Creek) | Downstream | 34.07973, -117.86073 | During Maintenance | 09/16/13 | 1242 | 75.6 | 13.42 | 8.91 | 4.88 | 6.096 | ND |
| | | | | | | | | | | | |
| Site 42 (San Jose Creek) | Downstream | 34.03237, -11800930 | During Maintenance | 09/17/13 | 1256 | 85.5 | 8.13 | 8.24 | 11.1 | 20.52 | 10 |
| Site 42 (San Jose Creek) | Midpoint | 34.03259, -118.00758 | During Maintenance | 09/17/13 | 1231 | 87.8 | 13.46 | 9.53 | 9.34 | 11.93 | 16 |
| Site 42 (San Jose Creek) | Upstream | 34.03282, -118.00579 | During Maintenance | 09/17/13 | 1147 | 90.1 | 13.2 | 9.39 | 11.5 | 13.44 | 20 |
| | | | | | | | | | | | |

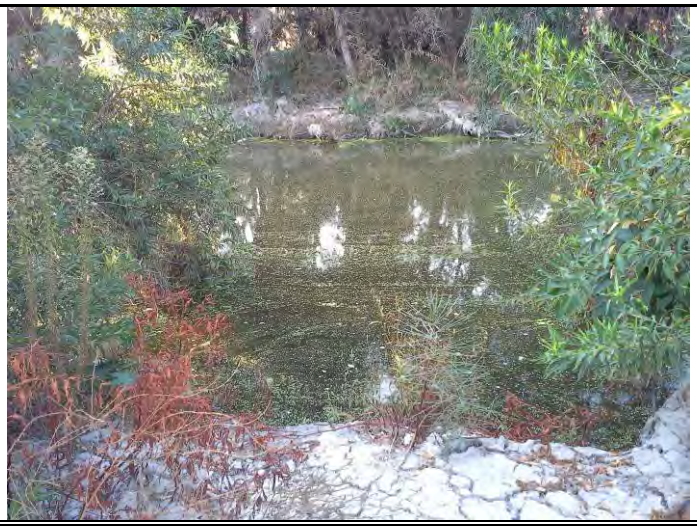
| Site | Sampling Location | GPS (Latitude, Longitude) | Survey | Date (MM/DD/YR) | Time | Temp (Fahrenheit) | DO (mg/l) | Ph | Turbidity (NTU) | Turbidity Limit (NTU) | TSS (mg/l) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site 42 (San Jose Creek) | Downstream | 34.03237, -11800930 | Post Maintenance | 09/18/13 | 1515 | 88.5 | 6.9 | 8.03 | 9.49 | 20.52 | 18 |
| Site 42 (San Jose Creek) | Midpoint | 34.03259, -118.00758 | Post Maintenance | 09/18/13 | 1504 | 90.1 | 10.6 | 9.35 | 7.78 | 11.93 | 19 |
| Site 42 (San Jose Creek) | Upstream | 34.03282, -118.00579 | Post Maintenance | 09/18/13 | 1441 | 93.6 | 11.5 | 9.52 | 8.97 | 13.44 | 25 |
| | | | | | | | | | | | |
| Site 98 (Walnut Creek) | Upstream | 34.07967, -117.86053 | Post Maintenance | 09/18/13 | 1616 | 69.8 | 8.7 | 8.1 | 1.95 | 19.56 | ND |
| Site 98 (Walnut Creek) | Midpoint | 34.0776, -117.86065 | Post Maintenance | 09/18/13 | 1635 | 72.9 | 16.1 | 8.43 | 1.86 | 12.12 | 6 |

ND=Non Detect
Turbidity limits were calculated by 20% over the baseline or pre maintenance survey value
* Denotes an exceedance

**ATTACHMENT 2 – Site Photographs**

**Attachment 2**
**Site Photographs**

| | |
|---|---|
|  | **Photo 1:**<br>Photo was taken facing southeast looking at the downstream water quality sampling station at Site 98 Walnut Creek.<br>GPS 34.07973,-117.86073. |
|  | **Photo 2:**<br>Photo was taken facing north looking at the midpoint water quality sampling station at Site 98 Walnut Creek.<br>GPS 34.0776,-117.86065. |
|  | **Photo 3:**<br>Photo was taken facing north looking at the upstream water quality sampling station at Site 98 Walnut Creek.<br>GPS 34.07967, -117.86053. |

| | |
|---|---|
|  | **Photo 4:**<br>Photo was taken facing south looking at the upstream sampling station at Site 42 San Jose Creek.<br>GPS 34.03282,-118.00579. |
|  | **Photo 5:**<br>Photo was taken facing south looking at the midpoint sampling station at Site 42 San Jose Creek.<br>GPS 34.03259, -118.00758. |
|  | **Photo 6:**<br>Photo was taken facing south looking at the downstream sampling station at Site 42 San Jose Creek.<br>GPS 34.03237,-11800930. |

**ATTACHMENT 3 – Water Quality Sampling Station Locations**


**Legend**

Water Quality Sampling Station

N

0 50 100

Feet

# Water Quality Sampling Station Locations Map

San Gabriel River Water Quality Feasibility Study

Inlet Walnut Creek



Name: 20654 WQ Sampling Station Locations Map.Mxd
Print Date: 11/13/2013, Author: phuls

CHAMBERS GROUP


**Legend**

Water Quality Sampling Station

N

0 50 100 200 300

Feet

# Water Quality Sampling Station Locations Map

San Gabriel River Water Quality Feasibility Study

San Jose Creek



Name: 20654 WQ Sampling Station Locations Map.Mxd
Print Date: 11/13/2013, Author: phuls

CHAMBERS GROUP

**ATTACHMENT 4 – San Gabriel Rive Feasibility Study WQ Field Sheets**

Name: Corey Vane
Date: 9/12/13
Survey: pre maintenance

| Site | Sampling Location | GPS | Date | Time | Temp (Fahrenheit) | DO (Mg/L) | Ph | Turbidity (NTU) | TSS |
|---|---|---|---|---|---|---|---|---|---|
| Site 42 (SJC) | D/S | 34.03237, -118.00930 | 9/12 | 0820 | 63.5 | 4.82 | 8.62 | 17.1 | ✓ |
| Site 42 (SJC) | Midpoint | 34.03259, -118.00758 | 9/12 | 0858 | 67.8 | 12.28 | 9.09 | 9.94 | ✓ |
| Site 42 (SJC) | U/S | 34.03282, -118.00579 | 9/12 | 0920 | 72.5 | 12.58 | 8.82 | 11.2 | ✓ |
| Site 98 Walnut Creek | U/S | 34.07967, -117.86053 | 9/12 | 1046 | 65.5 | 5.32 | 8.51 | 16.3 | ✓ |
| Site 98 Walnut Creek | Midpoint | 34.07760, -117.86065 | 9/12 | 1108 | 71.1 | 20.7 | 9.37 | 10.1 | ✓ |
| Site 98 Walnut Creek | D/S | 34.07973, -117.86073 | 9/17 | 1122 | 69.3 | 15.4 | 8.91 | 5.08 | ✓ |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Name: Corey Vane
Date: 9/16/13
Survey: During Maintenance

| Site | Sampling Location | GPS | Date | Time | Temp (Fahrenheit) | DO (Mg/L) | Ph | Turbidity (NTU) | TSS |
|---|---|---|---|---|---|---|---|---|---|
| Site 98 Walnut Creek | U/S | See Pre Survey | 9/16 | 0952 | 66.7 | 5.42 | 8.37 | 6.16 | ✓ |
| Site 98 Walnut Creek | Midpoint | ↓ | 9/16 | 1015 | 69.1 | 8.13 | 8.49 | 13.6 | ✓ |
| Site 98 Walnut Creek | D/S | ↓ | 9/16 | 1242 | 75.6 | 13.42 | 8.91 | 4.88 | ✓ |
| | | | | | | | | | |
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| | | | | | | | | | |

Name: Corey Vane
Date: 9/17/13
Survey: During Maintenance

| Site | Sampling Location | GPS | Date | Time | Temp (Fahrenheit) | DO (Mg/L) | Ph | Turbidity (NTU) | TSS |
|---|---|---|---|---|---|---|---|---|---|
| Site 42 (SJC) | D/S | See pre survey | 9/17 | 1256 | 85.5 | 8.13 | 8.24 | 11.1 | ✓ |
| Site 42 (SJC) | Midpoint | ↓ | 9/17 | 1231 | 87.8 | 13.46 | 9.53 | 9.34 | ✓ |
| Site 42 (SJC) | U/S | ↓ | 9/17 | 1147 | 90.1 | 13.2 | 9.39 | 11.5 | ✓ |
| | | | | | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Name: Corey Vane
Date: 9/18/13
Survey: post maintenance

| Site | Sampling Location | GPS | Date | Time | Temp (Fahrenheit) | DO (Mg/L) | Ph | Turbidity (NTU) | TSS |
|---|---|---|---|---|---|---|---|---|---|
| Site 42 (SJC) | D/S | See pre survey | 9/18 | 1515 | 88.5 | 6.9 | 8.03 | 9.49 | ✓ |
| Site 42 (SJC) | midpoint | ↓ | 9/18 | 1504 | 90.1 | 10.6 | 9.35 | 7.78 | ✓ |
| Site 42 (SJC) | U/S | ↓ | 9/18 | 1441 | 93.6 | 11.5 | 9.52 | 8.97 | ✓ |
| Site 98 (Walnut creek) | U/S | ↓ | 9/18 | 1616 | 69.8 | 8.7 | 8.1 | 1.95 | ✓ |
| Site 98 (Walnut creek) | midpoint | ↓ | 9/18 | 1635 | 72.9 | 16.1 | 8.43 | 1.86 | ✓ |
| Site 98 (Walnut creek) | D/S | ↓ | 9/18 | 1655 | 73.4 | 19.7 | 8.49 | 2.1 | ✓ |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

**ATTACHMENT 5 – TSS Lab Reports Combined**

# Associated Laboratories

*806 N. Batavia - Orange, CA 92868*
*Tel (714)771-6900 Fax (714)538-1209*
*www.associatedlabs.com*
*Info@associatedlabs.com*


ACCREDITED IN ACCORDANCE WITH nelac
04232CA

| | | | |
|---|---|---|---|
| Client: | Chambers Group | Lab Request: | 328960 |
| Address: | 5 Hutton Centre Drive<br>Suite 750<br>Santa Ana, CA 92707 | Report Date: | 09/19/2013 |
| | | Date Received: | 09/12/2013 |
| Attn: | Corey Vane | Client ID: | 14294 |

Comments: SGR WQ Feasibility Study
#20654

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

| Sample # | Client Sample ID |
|---|---|
| 328960-001 | Site 42 (SJC) D/S |
| 328960-002 | Site 42 (SJC) Midpoint |
| 328960-003 | Site 42 (SJC) V/S |
| 328960-004 | Site 98 (WC) V/S |
| 328960-005 | Site 98 (WC) Midpoint |
| 328960-006 | Site 98 (WC) D/S |

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Nina Prasad
President

NOTE: Unless notified in writing , all samples will be discarded by appropriate disposal protocol 45 days from date reported.



*TESTING & CONSULTING*
*Chemical*
*Microbiological*
*Environmental*

Matrix: Water | Client: Chambers Group | Collector: client
Sampled: 09/12/2013 08:20 | Site:
Sample #: 328960-001 | Client Sample #: Site 42 (SJC) D/S | Sample Type:

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| Method: SM 2540-D | Prep Method: SM 2540-D | | | | | QCBatchID: | QC1139914 |
| Total Suspended Solids | 9 | 1 | 5 | mg/L | 09/13/13 | ame | |

Matrix: Water | Client: Chambers Group | Collector: client
Sampled: 09/12/2013 08:58 | Site:
Sample #: 328960-002 | Client Sample #: Site 42 (SJC) Midpoint | Sample Type:

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| Method: SM 2540-D | Prep Method: SM 2540-D | | | | | QCBatchID: | QC1139914 |
| Total Suspended Solids | 19 | 1 | 5 | mg/L | 09/13/13 | ame | |

Matrix: Water | Client: Chambers Group | Collector: client
Sampled: 09/12/2013 09:20 | Site:
Sample #: 328960-003 | Client Sample #: Site 42 (SJC) V/S | Sample Type:

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| Method: SM 2540-D | Prep Method: SM 2540-D | | | | | QCBatchID: | QC1139914 |
| Total Suspended Solids | 19 | 1 | 5 | mg/L | 09/13/13 | ame | |

Matrix: Water | Client: Chambers Group | Collector: client
Sampled: 09/12/2013 10:46 | Site:
Sample #: 328960-004 | Client Sample #: Site 98 (WC) V/S | Sample Type:

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| Method: SM 2540-D | Prep Method: SM 2540-D | | | | | QCBatchID: | QC1139914 |
| Total Suspended Solids | 16 | 1 | 5 | mg/L | 09/13/13 | ame | |

Matrix: Water | Client: Chambers Group | Collector: client
Sampled: 09/12/2013 11:08 | Site:
Sample #: 328960-005 | Client Sample #: Site 98 (WC) Midpoint | Sample Type:

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| Method: SM 2540-D | Prep Method: SM 2540-D | | | | | QCBatchID: | QC1139914 |
| Total Suspended Solids | 27 | 1 | 5 | mg/L | 09/13/13 | ame | |

Matrix: Water | Client: Chambers Group | Collector: client
Sampled: 09/12/2013 11:22 | Site:
Sample #: 328960-006 | Client Sample #: Site 98 (WC) D/S | Sample Type:

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| Method: SM 2540-D | Prep Method: SM 2540-D | | | | | QCBatchID: | QC1139914 |
| Total Suspended Solids | ND | 1 | 5 | mg/L | 09/13/13 | ame | |

ND = Not Detected or < RDL

RDL = Reporting Detection Limit DF = Dilution Factor

# ASSOCIATED LABORATORIES QC SUMMARY FOR LAB REQUEST #328960

| | | | |
|---|---|---|---|
| **QCBatchID:** QC1139914 | **Analyst:** ame | **Method:** SM 2540-D | |
| **Matrix:** Water | **Analyzed:** 09/13/2013 | **Instrument:** CHEM (group) | |

## *Blank Summary*

| Analyte | Blank Result | Units | | RDL | Notes | |
|---|---|---|---|---|---|---|
| **QC1139914MB1** | | | | | | |
| Total Suspended Solids | ND | mg/L | | 5 | | |

## *Duplicate Summary*

| Analyte | Sample Amount | Duplicate Amount | Units | RPD | Limits RPD | Notes |
|---|---|---|---|---|---|---|
| **QC1139914DUP1** | | | | | | **Source: 328927-001** |
| Total Suspended Solids | 88 | 90 | mg/L | 2.2 | 5 | |

**ND = Not Detected or < RDL** **MDL = Method Detection Limit** **RDL = Reporting Detection Limit** **DF = Dilution Factor**

# Notes and Definitions

| | |
|---|---|
| **B** | Analyte was present in an associated method blank. Associated sample data was reported with qualifier. |
| **C** | Laboratory Contamination. |
| **D** | The sample duplicate RPD was not within control limits, the sample data was reported without further clarification. |
| **DF** | Dilution Factor |
| **DW** | Sample result is calculated on a dry weigh basis |
| **J** | Reported value is estimated |
| **L** | The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier. |
| **M** | The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification. |
| **MDL** | Method Detection Limit |
| **NC** | The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply. |
| **ND** | Analyte was not detected or was less than the detection limit. |
| **P** | Sample was received without proper preservation according to EPA guidelines. |
| **Q1** | Analyte Calibration Verification exceeds criteria and the result was reported with qualifier. |
| **RDL** | Reporting Detection Limit |
| **S** | The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification. |
| **T** | Sample was extracted/analyzed past the holding time. |
| **T2** | Sample was analyzed ASAP but received and analyzed past the 15 minute holding time. |

*ASSOCIATED LABORATORIES*
*806 North Batavia – Orange, California 92868 – 714-771-6900* *FAX 714-538-1209*

## SAMPLE ACCEPTANCE CHECKLIST

**Section 1**
Client: CHAMBERS GROUP Project: SGR WQ FEASIBILITY STUDY
Date Received: 9/12/13 Sampler's Name: (Yes) No
Sample temperature: _____
Sample(s) received in cooler: Yes (No) (Skip Section 2)
Shipping Information: _____

**Section 2**
Was the cooler packed with: ____ Ice ____ Ice Packs ___ Bubble Wrap ___ Styrofoam
____ Paper ____None ___ Other_____
Cooler Temperature:_____
*(Acceptance range is 0 to 6 Deg. C. or arrival on ice; For Microbiology sample ≤10 Deg. C or arrival on ice )*

| **Section 3** | YES | NO | N/A |
|---|---|---|---|
| Was a COC received? | ✓ | | |
| Is it properly completed? (IDs, sampling date and time, signature, test) | ✓ | | |
| Were custody seals present? | | ✓ | |
| If Yes – were they intact? | | | ✓ |
| Were all samples sealed in plastic bags? | | ✓ | |
| Did all samples arrive intact? If no, indicate below. | ✓ | | |
| Did all bottle labels agree with COC? (ID, dates and times) | ✓ | | |
| Were correct containers used for the tests required? | ✓ | | |
| Was a sufficient amount of sample sent for tests indicated? | ✓ | | |
| Was there headspace in VOA vials? | | | ✓ |
| Were the containers labeled with correct preservatives? | | | ✓ |
| Was total residual chlorine measured (Fish Bioassay samples only)? * | | | ✓ |

*: If the answer is no, please inform Fish Bioassay Dept. immediately.

**Section 4**
Explanations/Comments

**Section 5**
Was Project Manager notified of discrepancies: Y / N N/A
Project Manager's response:_____

Completed By: _____ Date: 9/12/13

**ASSOCIATED LABORATORIES**
806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209

# Chain of Custody Record

Lab Job No. 328960
Page _____ of _____

REQUIRED TURN AROUND TIME: Standard: ✓
72 Hours: _____ 48 Hours: _____ 24 Hours: _____

| CUSTOMER INFORMATION | PROJECT INFORMATION |
|---|---|
| COMPANY: Chambers Group | PROJECT NAME: SGR WQ Feasibility Study |
| SEND REPORT TO: Corey Vane | NUMBER: 20654 |
| EMAIL: CVane@Chambersgroupinc.com | ADDRESS: |
| ADDRESS: 5 hutton ctr drive | |
| Ste 750, Santa Ana 92707 | P.O. #: |
| PHONE: 805-267-4912 FAX: | SAMPLED BY: C. Vane |

| | Sample ID | Date | Time | Matrix | Container Number/Size | Pres. | ANALYSIS REQUEST: TSS | Test Instructions & Comments |
|---|---|---|---|---|---|---|---|---|
| 1 | Site 42 (SJC) D/S | 9/12/13 | 0820 | W | 1 | | ✓ | |
| 2 | Site 42 (SJC) MidPoint | 9/12/13 | 0858 | W | 1 | | ✓ | |
| 3 | Site 42 (SJC) U/S | 9/12/13 | 0920 | W | 1 | | ✓ | |
| 4 | Site 98 (WC) U/S | 9/12/13 | 1046 | W | 1 | | ✓ | |
| 5 | Site 98 (WC) Midpoint | 9/12/13 | 1108 | W | 1 | | ✓ | |
| 6 | Site 98 (WC) D/S | 9/12/13 | 1122 | W | 1 | | ✓ | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |

Total No. of Samples: 6 Method of Shipment: delivery

Preservative: 1= Ice 2 =HCl 3 =$HNO_3$ 4 =$H_2SO_4$ 5 =NaOH 6 =Other

| Relinquished by 1. | Received By: 1. | Relinquished by 2. | Received By: 2. | Relinquished by 3. | Received By: 3. |
|---|---|---|---|---|---|
| Chambers Group | | | | | |
| Signature: | Signature: | Signature: | Signature: | Signature: | Signature: |
| Printed Name: Corey Vane | Printed Name: ZAID | Printed Name: | Printed Name: | Printed Name: | Printed Name: |
| Date: 9/12/13 Time: 1254 | Date: 9/12/13 Time: 1255 | Date: Time: | Date: Time: | Date: Time: | Date: Time: |

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

# Associated Laboratories

*806 N. Batavia - Orange, CA 92868*
*Tel (714)771-6900 Fax (714)538-1209*
*www.associatedlabs.com*
*Info@associatedlabs.com*


ACCREDITED IN ACCORDANCE WITH nelac
04232CA

Client: Chambers Group
Address: 5 Hutton Centre Drive
Suite 750
Santa Ana, CA 92707
Attn: Corey Vane

Comments: FMD SGR Feasibility Study
#20654

Lab Request: 329110
Report Date: 09/19/2013
Date Received: 09/16/2013

Client ID: 14294

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

| Sample # | Client Sample ID |
|---|---|
| 329110-001 | Site 98 (WC) U/S |
| 329110-002 | Site 98 (WC) Midpoint |
| 329110-003 | Site 98 (WC) D/S |

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

for

Nina Prasad
President

NOTE: Unless notified in writing , all samples will be discarded by appropriate disposal protocol 45 days from date reported.





*TESTING & CONSULTING*
*Chemical*
*Microbiological*
*Environmental*

| | | | | | |
|---|---|---|---|---|---|
| **Matrix:** Water | **Client:** Chambers Group | | | **Collector:** client | |
| **Sampled:** 09/16/2013 09:52 | **Site:** | | | | |
| **Sample #:** 329110-001 | **Client Sample #:** Site 98 (WC) U/S | | | **Sample Type:** | |

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| **Method:** SM 2540-D | **Prep Method:** SM 2540-D | | | | | **QCBatchID:** | QC1139950 |
| Total Suspended Solids | **5** | 1 | 5 | mg/L | 09/16/13 | ame | |

| | | | | | |
|---|---|---|---|---|---|
| **Matrix:** Water | **Client:** Chambers Group | | | **Collector:** client | |
| **Sampled:** 09/16/2013 10:15 | **Site:** | | | | |
| **Sample #:** 329110-002 | **Client Sample #:** Site 98 (WC) Midpoint | | | **Sample Type:** | |

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| **Method:** SM 2540-D | **Prep Method:** SM 2540-D | | | | | **QCBatchID:** | QC1139950 |
| Total Suspended Solids | **12** | 1 | 5 | mg/L | 09/16/13 | ame | |

| | | | | | |
|---|---|---|---|---|---|
| **Matrix:** Water | **Client:** Chambers Group | | | **Collector:** client | |
| **Sampled:** 09/16/2013 12:42 | **Site:** | | | | |
| **Sample #:** 329110-003 | **Client Sample #:** Site 98 (WC) D/S | | | **Sample Type:** | |

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| **Method:** SM 2540-D | **Prep Method:** SM 2540-D | | | | | **QCBatchID:** | QC1139950 |
| Total Suspended Solids | ND | 1 | 5 | mg/L | 09/16/13 | ame | |

ND = Not Detected or < RDL

RDL = Reporting Detection Limit DF = Dilution Factor

# ASSOCIATED LABORATORIES QC SUMMARY FOR LAB REQUEST #329110

| | | |
|---|---|---|
| **QCBatchID:** QC1139950 | **Analyst:** ame | **Method:** SM 2540-D |
| **Matrix:** Water | **Analyzed:** 09/16/2013 | **Instrument:** CHEM (group) |

## *Blank Summary*

| Analyte | Blank Result | Units | | RDL | Notes | |
|---|---|---|---|---|---|---|
| **QC1139950MB1** | | | | | | |
| Total Suspended Solids | ND | mg/L | | 5 | | |

## *Duplicate Summary*

| Analyte | Sample Amount | Duplicate Amount | Units | RPD | Limits RPD | Notes |
|---|---|---|---|---|---|---|
| **QC1139950DUP1** | | | | | | **Source: 329095-001** |
| Total Suspended Solids | 43 | 42 | mg/L | 2.4 | 5 | |

**ND** = Not Detected or < RDL **MDL** = Method Detection Limit **RDL** = Reporting Detection Limit **DF** = Dilution Factor

# Notes and Definitions

| | |
|---|---|
| **B** | Analyte was present in an associated method blank. Associated sample data was reported with qualifier. |
| **C** | Laboratory Contamination. |
| **D** | The sample duplicate RPD was not within control limits, the sample data was reported without further clarification. |
| **DF** | Dilution Factor |
| **DW** | Sample result is calculated on a dry weigh basis |
| **J** | Reported value is estimated |
| **L** | The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier. |
| **M** | The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification. |
| **MDL** | Method Detection Limit |
| **NC** | The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply. |
| **ND** | Analyte was not detected or was less than the detection limit. |
| **P** | Sample was received without proper preservation according to EPA guidelines. |
| **Q1** | Analyte Calibration Verification exceeds criteria and the result was reported with qualifier. |
| **RDL** | Reporting Detection Limit |
| **S** | The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification. |
| **T** | Sample was extracted/analyzed past the holding time. |
| **T2** | Sample was analyzed ASAP but received and analyzed past the 15 minute holding time. |

*ASSOCIATED LABORATORIES*
*806 North Batavia – Orange, California 92868 – 714-771-6900* *FAX 714-538-1209*

# SAMPLE ACCEPTANCE CHECKLIST

**Section 1**
Client: CHAMBERS GROUP Project: FMD SGP-FEASIBILITY STUDY
Date Received: 9/16/13 Sampler's Name: (Yes) No
Sample temperature: _____
Sample(s) received in cooler: Yes (No) (Skip Section 2)
Shipping Information: _____

**Section 2**
Was the cooler packed with: ____ Ice ____ Ice Packs ___ Bubble Wrap ___ Styrofoam
____ Paper ____None ___ Other_____
Cooler Temperature: _____
*(Acceptance range is 0 to 6 Deg. C. or arrival on ice; For Microbiology sample ≤10 Deg. C or arrival on ice )*

| **Section 3** | YES | NO | N/A |
|---|---|---|---|
| Was a COC received? | ✓ | | |
| Is it properly completed? (IDs, sampling date and time, signature, test) | ✓ | | |
| Were custody seals present? | | ✓ | |
| If Yes – were they intact? | | | ✓ |
| Were all samples sealed in plastic bags? | | ✓ | |
| Did all samples arrive intact? If no, indicate below. | ✓ | | |
| Did all bottle labels agree with COC? (ID, dates and times) | ✓ | | |
| Were correct containers used for the tests required? | ✓ | | |
| Was a sufficient amount of sample sent for tests indicated? | ✓ | | |
| Was there headspace in VOA vials? | | | ✓ |
| Were the containers labeled with correct preservatives? | | | ✓ |
| Was total residual chlorine measured (Fish Bioassay samples only)? * | | | ✓ |

*: If the answer is no, please inform Fish Bioassay Dept. immediately.

**Section 4**
Explanations/Comments

**Section 5**
Was Project Manager notified of discrepancies: Y / N N/A
Project Manager's response: _____

Completed By: _____ Date: 9/16/13

**ASSOCIATED LABORATORIES**
806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209

# Chain of Custody Record

Lab Job No. 329110
Page _____ of _____

REQUIRED TURN AROUND TIME: Standard: _____
72 Hours: ✓ 48 Hours: _____ 24 Hours: _____

| CUSTOMER INFORMATION | | PROJECT INFORMATION | |
|---|---|---|---|
| COMPANY: Chambers Group | | PROJECT NAME: FMD SGR Feasibility Study | |
| SEND REPORT TO: Corey Vane | | NUMBER: 20654 | |
| EMAIL: CVane@Chambersgroupinc.com | | ADDRESS: | |
| ADDRESS: 5 hutton Ctr drive ste 750 | | | |
| Santa Ana 92707 | | P.O. #: | |
| PHONE: 805-207-4912 | FAX: | SAMPLED BY: Corey Vane | |

| | Sample ID | Date | Time | Matrix | Container Number/Size | Pres. | ANALYSIS REQUEST: TSS | Test Instructions & Comments |
|---|---|---|---|---|---|---|---|---|
| 1 | Site 98 (WC) U/S | 9/16/13 | 0952 | W | 1 | | ✓ | |
| 2 | Site 98 (WC) Midpoint | 9/16/13 | 1015 | W | 1 | | ✓ | |
| 3 | Site 98 (WC) D/S | 9/16/13 | 1242 | W | 1 | | ✓ | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |

Total No. of Samples: 3 Method of Shipment: delivery

Preservative: 1= Ice 2 =HCl 3 =$HNO_3$ 4 =$H_2SO_4$ 5 =NaOH 6 =Other

| Relinquished by 1. | Received By: 1. | Relinquished by 2. | Received By: 2. | Relinquished by 3. | Received By: 3. |
|---|---|---|---|---|---|
| Chambers Group | | | | | |
| Signature: | Signature: | Signature: | Signature: | Signature: | Signature: |
| Printed Name: Corey Vane | Printed Name: | Printed Name: | Printed Name: | Printed Name: | Printed Name: |
| Date: 9/16/13 Time: 1355 | Date: 9/16/13 Time: 1355 | Date: Time: | Date: Time: | Date: Time: | Date: Time: |

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

**Associated Laboratories**
*806 N. Batavia - Orange, CA 92868*
*Tel (714)771-6900 Fax (714)538-1209*
*www.associatedlabs.com*
*Info@associatedlabs.com*

ACCREDITED IN ACCORDANCE WITH nelac 04232CA

| | | | |
|---|---|---|---|
| Client: | Chambers Group | Lab Request: | 329162 |
| Address: | 5 Hutton Centre Drive<br>Suite 750<br>Santa Ana, CA 92707 | Report Date: | 09/19/2013 |
| | | Date Received: | 09/17/2013 |
| Attn: | Corey Vane | Client ID: | 14294 |

Comments: FMD SGR Feasibility Study
#20654

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

| Sample # | Client Sample ID |
|---|---|
| 329162-001 | Site 42 (SJC) U/S |
| 329162-002 | Site 42 (SJC) Midpoint |
| 329162-003 | Site 42 (SJC) D/S |

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Nina Prasad
President

NOTE: Unless notified in writing , all samples will be discarded by appropriate disposal protocol 45 days from date reported.





*TESTING & CONSULTING*
*Chemical*
*Microbiological*
*Environmental*

| | | | | | |
|---|---|---|---|---|---|
| **Matrix:** Water | **Client:** Chambers Group | | | **Collector:** client | |
| **Sampled:** 09/17/2013 11:47 | **Site:** | | | | |
| **Sample #:** 329162-001 | **Client Sample #:** Site 42 (SJC) U/S | | | **Sample Type:** | |

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| **Method:** SM 2540-D | **Prep Method:** SM 2540-D | | | | | **QCBatchID:** | QC1139959 |
| Total Suspended Solids | **20** | 1 | 5 | mg/L | 09/17/13 | ame | |

| | | | | | |
|---|---|---|---|---|---|
| **Matrix:** Water | **Client:** Chambers Group | | | **Collector:** client | |
| **Sampled:** 09/17/2013 12:31 | **Site:** | | | | |
| **Sample #:** 329162-002 | **Client Sample #:** Site 42 (SJC) Midpoint | | | **Sample Type:** | |

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| **Method:** SM 2540-D | **Prep Method:** SM 2540-D | | | | | **QCBatchID:** | QC1139959 |
| Total Suspended Solids | **16** | 1 | 5 | mg/L | 09/17/13 | ame | |

| | | | | | |
|---|---|---|---|---|---|
| **Matrix:** Water | **Client:** Chambers Group | | | **Collector:** client | |
| **Sampled:** 09/17/2013 12:56 | **Site:** | | | | |
| **Sample #:** 329162-003 | **Client Sample #:** Site 42 (SJC) D/S | | | **Sample Type:** | |

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| **Method:** SM 2540-D | **Prep Method:** SM 2540-D | | | | | **QCBatchID:** | QC1139959 |
| Total Suspended Solids | **10** | 1 | 5 | mg/L | 09/17/13 | ame | |

ND = Not Detected or < RDL

RDL = Reporting Detection Limit DF = Dilution Factor

# ASSOCIATED LABORATORIES QC SUMMARY FOR LAB REQUEST #329162

| | | | |
|---|---|---|---|
| **QCBatchID:** QC1139959 | **Analyst:** ame | **Method:** SM 2540-D | |
| **Matrix:** Water | **Analyzed:** 09/17/2013 | **Instrument:** CHEM (group) | |

## *Blank Summary*

| Analyte | Blank Result | Units | | RDL | Notes | |
|---|---|---|---|---|---|---|
| **QC1139959MB1** | | | | | | |
| Total Suspended Solids | ND | mg/L | | 5 | | |

## *Duplicate Summary*

| Analyte | Sample Amount | Duplicate Amount | Units | RPD | Limits RPD | Notes |
|---|---|---|---|---|---|---|
| **QC1139959DUP1** | | | | | | **Source: 329094-002** |
| Total Suspended Solids | 610 | 612 | mg/L | 0.3 | 5 | |

ND = Not Detected or < RDL  MDL = Method Detection Limit  RDL = Reporting Detection Limit  DF = Dilution Factor

# Notes and Definitions

| | |
|---|---|
| **B** | Analyte was present in an associated method blank. Associated sample data was reported with qualifier. |
| **C** | Laboratory Contamination. |
| **D** | The sample duplicate RPD was not within control limits, the sample data was reported without further clarification. |
| **DF** | Dilution Factor |
| **DW** | Sample result is calculated on a dry weigh basis |
| **J** | Reported value is estimated |
| **L** | The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier. |
| **M** | The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification. |
| **MDL** | Method Detection Limit |
| **NC** | The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply. |
| **ND** | Analyte was not detected or was less than the detection limit. |
| **P** | Sample was received without proper preservation according to EPA guidelines. |
| **Q1** | Analyte Calibration Verification exceeds criteria and the result was reported with qualifier. |
| **RDL** | Reporting Detection Limit |
| **S** | The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification. |
| **T** | Sample was extracted/analyzed past the holding time. |
| **T2** | Sample was analyzed ASAP but received and analyzed past the 15 minute holding time. |

*ASSOCIATED LABORATORIES*
*806 North Batavia – Orange, California 92868 – 714-771-6900* *FAX 714-538-1209*

# SAMPLE ACCEPTANCE CHECKLIST

**Section 1**
Client: CHAMBERS GROUP
Project: EMD SGR FEASIBILITY STUDY
Date Received: 9/17/13
Sampler's Name: (Yes) No
Sample temperature: _____
Sample(s) received in cooler: Yes (No) (Skip Section 2)
Shipping Information: _____

**Section 2**
Was the cooler packed with: ____ Ice ____ Ice Packs ___ Bubble Wrap ___ Styrofoam
____ Paper ____None ___ Other_____
Cooler Temperature:_____

*(Acceptance range is 0 to 6 Deg. C. or arrival on ice; For Microbiology sample ≤10 Deg. C or arrival on ice )*

| **Section 3** | YES | NO | N/A |
|---|---|---|---|
| Was a COC received? | ✓ | | |
| Is it properly completed? (IDs, sampling date and time, signature, test) | ✓ | | |
| Were custody seals present? | | ✓ | |
| If Yes – were they intact? | | | ✓ |
| Were all samples sealed in plastic bags? | | ✓ | |
| Did all samples arrive intact? If no, indicate below. | ✓ | | |
| Did all bottle labels agree with COC? (ID, dates and times) | ✓ | | |
| Were correct containers used for the tests required? | ✓ | | |
| Was a sufficient amount of sample sent for tests indicated? | ✓ | | |
| Was there headspace in VOA vials? | | | ✓ |
| Were the containers labeled with correct preservatives? | | | ✓ |
| Was total residual chlorine measured (Fish Bioassay samples only)? * | | | ✓ |

*: If the answer is no, please inform Fish Bioassay Dept. immediately.

**Section 4**
Explanations/Comments

**Section 5**
Was Project Manager notified of discrepancies: Y / N N/A
Project Manager's response:_____

Completed By: _____ Date: 9/17/13

**ASSOCIATED LABORATORIES**
806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209

# Chain of Custody Record

Lab Job No. 329162
Page _____ of _____

| CUSTOMER INFORMATION | PROJECT INFORMATION |
|---|---|
| COMPANY: Chambers Group | PROJECT NAME: FMD SGR Feasibility Study |
| SEND REPORT TO: Corey Vane | NUMBER: 20654 |
| EMAIL: CVane@ChambersGroupInc.com | ADDRESS: |
| ADDRESS: 5 Hutton Ctr drive, Ste 750 | |
| Santa Ana CA 92707 | P.O. #: |
| PHONE: 805-267-4912 FAX: | SAMPLED BY: C. Vane |

REQUIRED TURN AROUND TIME: Standard: ~~XX~~
72 Hours: ✓ 48 Hours: _____ 24 Hours: _____

| | Sample ID | Date | Time | Matrix | Container Number/Size | Pres. | ANALYSIS REQUEST: TSS | Test Instructions & Comments |
|---|---|---|---|---|---|---|---|---|
| 1 | Site 42(SJC) U/S | 9/17/13 | 1147 | W | 1 | | ✓ | |
| 2 | Site 42(SJC) Midpoint | 9/17/13 | 1231 | W | 1 | | ✓ | |
| 3 | Site 42(SJC) D/S | 9/17/13 | 1256 | W | 1 | | ✓ | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |

Total No. of Samples: 3 Method of Shipment: delivery

Preservative: 1= Ice 2 =HCl 3 =$HNO_3$ 4 =$H_2SO_4$ 5 =NaOH 6 =Other

| Relinquished by 1. | Received By: 1. | Relinquished by 2. | Received By: 2. | Relinquished by 3. | Received By: 3. |
|---|---|---|---|---|---|
| Chambers Group | | | | | |
| Signature: | Signature: | Signature: | Signature: | Signature: | Signature: |
| Printed Name: Corey Vane | Printed Name: | Printed Name: | Printed Name: | Printed Name: | Printed Name: |
| Date: 9/17/13 Time: 1401 | Date: 9/17/13 Time: 1401 | Date: Time: | Date: Time: | Date: Time: | Date: Time: |

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

# Associated Laboratories

*806 N. Batavia - Orange, CA 92868*
*Tel (714)771-6900 Fax (714)538-1209*
*www.associatedlabs.com*
*Info@associatedlabs.com*


ACCREDITED IN ACCORDANCE WITH nelac
04232CA

| | | | |
|---|---|---|---|
| Client: | Chambers Group | Lab Request: | 329261 |
| Address: | 5 Hutton Centre Drive<br>Suite 750<br>Santa Ana, CA 92707 | Report Date: | 09/20/2013 |
| | | Date Received: | 09/18/2013 |
| Attn: | Corey Vane | Client ID: | 14294 |

Comments: RMD SGR Feasibility Report
#20654

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

| Sample # | Client Sample ID |
|---|---|
| 329261-001 | Site 42 (SJC) V/S |
| 329261-002 | Site 42 (SJC) Midpoint |
| 329261-003 | Site 42 (SJC) D/S |
| 329261-004 | Site 98 (WC) V/S |
| 329261-005 | Site 98 (WC) Midpoint |
| 329261-006 | Site 98 (WC) D/S |

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Nina Prasad
President

NOTE: Unless notified in writing , all samples will be discarded by appropriate disposal protocol 45 days from date reported.





*TESTING & CONSULTING*
*Chemical*
*Microbiological*
*Environmental*

Matrix: Water | Client: Chambers Group | Collector: client
Sampled: 09/18/2013 14:41 | Site:
Sample #: 329261-001 | Client Sample #: Site 42 (SJC) V/S | Sample Type:

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| Method: SM 2540-D | Prep Method: SM 2540-D | | | | | QCBatchID: | QC1140015 |
| Total Suspended Solids | 25 | 1 | 5 | mg/L | 09/19/13 | ame | |

Matrix: Water | Client: Chambers Group | Collector: client
Sampled: 09/18/2013 15:04 | Site:
Sample #: 329261-002 | Client Sample #: Site 42 (SJC) Midpoint | Sample Type:

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| Method: SM 2540-D | Prep Method: SM 2540-D | | | | | QCBatchID: | QC1140015 |
| Total Suspended Solids | 19 | 1 | 5 | mg/L | 09/19/13 | ame | |

Matrix: Water | Client: Chambers Group | Collector: client
Sampled: 09/18/2013 15:19 | Site:
Sample #: 329261-003 | Client Sample #: Site 42 (SJC) D/S | Sample Type:

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| Method: SM 2540-D | Prep Method: SM 2540-D | | | | | QCBatchID: | QC1140015 |
| Total Suspended Solids | 18 | 1 | 5 | mg/L | 09/19/13 | ame | |

Matrix: Water | Client: Chambers Group | Collector: client
Sampled: 09/18/2013 16:16 | Site:
Sample #: 329261-004 | Client Sample #: Site 98 (WC) V/S | Sample Type:

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| Method: SM 2540-D | Prep Method: SM 2540-D | | | | | QCBatchID: | QC1140015 |
| Total Suspended Solids | ND | 1 | 5 | mg/L | 09/19/13 | ame | |

Matrix: Water | Client: Chambers Group | Collector: client
Sampled: 09/18/2013 16:35 | Site:
Sample #: 329261-005 | Client Sample #: Site 98 (WC) Midpoint | Sample Type:

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| Method: SM 2540-D | Prep Method: SM 2540-D | | | | | QCBatchID: | QC1140015 |
| Total Suspended Solids | 6 | 1 | 5 | mg/L | 09/19/13 | ame | |

Matrix: Water | Client: Chambers Group | Collector: client
Sampled: 09/18/2013 16:55 | Site:
Sample #: 329261-006 | Client Sample #: Site 98 (WC) D/S | Sample Type:

| Analyte | Result | DF | RDL | Units | Analyzed | By | Notes |
|---|---|---|---|---|---|---|---|
| Method: SM 2540-D | Prep Method: SM 2540-D | | | | | QCBatchID: | QC1140015 |
| Total Suspended Solids | ND | 1 | 5 | mg/L | 09/19/13 | ame | |

ND = Not Detected or < RDL

RDL = Reporting Detection Limit DF = Dilution Factor

# ASSOCIATED LABORATORIES QC SUMMARY FOR LAB REQUEST #329261

| | | | |
|---|---|---|---|
| **QCBatchID:** QC1140015 | **Analyst:** ame | **Method:** SM 2540-D | |
| **Matrix:** Water | **Analyzed:** 09/19/2013 | **Instrument:** CHEM (group) | |

## *Blank Summary*

| Analyte | Blank Result | Units | | RDL | Notes | |
|---|---|---|---|---|---|---|
| **QC1140015MB1** | | | | | | |
| Total Suspended Solids | **ND** | mg/L | | 5 | | |

## *Duplicate Summary*

| Analyte | Sample Amount | Duplicate Amount | Units | RPD | Limits RPD | Notes |
|---|---|---|---|---|---|---|
| **QC1140015DUP1** | | | | | | **Source: 329250-001** |
| Total Suspended Solids | 38 | 37 | mg/L | 2.7 | 5 | |

**ND** = Not Detected or < RDL **MDL** = Method Detection Limit **RDL** = Reporting Detection Limit **DF** = Dilution Factor

# Notes and Definitions

| | |
|---|---|
| **B** | Analyte was present in an associated method blank. Associated sample data was reported with qualifier. |
| **C** | Laboratory Contamination. |
| **D** | The sample duplicate RPD was not within control limits, the sample data was reported without further clarification. |
| **DF** | Dilution Factor |
| **DW** | Sample result is calculated on a dry weigh basis |
| **J** | Reported value is estimated |
| **L** | The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier. |
| **M** | The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification. |
| **MDL** | Method Detection Limit |
| **NC** | The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply. |
| **ND** | Analyte was not detected or was less than the detection limit. |
| **P** | Sample was received without proper preservation according to EPA guidelines. |
| **Q1** | Analyte Calibration Verification exceeds criteria and the result was reported with qualifier. |
| **RDL** | Reporting Detection Limit |
| **S** | The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification. |
| **T** | Sample was extracted/analyzed past the holding time. |
| **T2** | Sample was analyzed ASAP but received and analyzed past the 15 minute holding time. |

*ASSOCIATED LABORATORIES*
*806 North Batavia – Orange, California 92868 – 714-771-6900* *FAX 714-538-1209*

# SAMPLE ACCEPTANCE CHECKLIST

**Section 1**
Client: CHAMBERS GROUP Project: RMD SGR FEASIBILITY REPORT
Date Received: 9/18/13 Sampler's Name: (Yes) No
Sample temperature: _____
Sample(s) received in cooler: Yes (No) (Skip Section 2)
Shipping Information: _____

**Section 2**
Was the cooler packed with: ____ Ice ____ Ice Packs ___ Bubble Wrap ___ Styrofoam
____ Paper ____ None ___ Other _____
Cooler Temperature: _____

*(Acceptance range is 0 to 6 Deg. C. or arrival on ice; For Microbiology sample ≤10 Deg. C or arrival on ice )*

| **Section 3** | YES | NO | N/A |
|---|---|---|---|
| Was a COC received? | ✓ | | |
| Is it properly completed? (IDs, sampling date and time, signature, test) | ✓ | | |
| Were custody seals present? | | ✓ | |
| If Yes – were they intact? | | | ✓ |
| Were all samples sealed in plastic bags? | | ✓ | |
| Did all samples arrive intact? If no, indicate below. | ✓ | | |
| Did all bottle labels agree with COC? (ID, dates and times) | ✓ | | |
| Were correct containers used for the tests required? | ✓ | | |
| Was a sufficient amount of sample sent for tests indicated? | ✓ | | |
| Was there headspace in VOA vials? | | | ✓ |
| Were the containers labeled with correct preservatives? | | | ✓ |
| Was total residual chlorine measured (Fish Bioassay samples only)? * | | | ✓ |

*: If the answer is no, please inform Fish Bioassay Dept. immediately.

**Section 4**
Explanations/Comments

**Section 5**
Was Project Manager notified of discrepancies: Y / N N/A
Project Manager's response: _____

Completed By: _____ Date: 9/18/13

**ASSOCIATED LABORATORIES**
806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209

# Chain of Custody Record

Lab Job No. 329261
Page _____ of _____

REQUIRED TURN AROUND TIME: Standard: _____
72 Hours: ✓ 48 Hours: _____ 24 Hours: _____

| CUSTOMER INFORMATION | | PROJECT INFORMATION | |
|---|---|---|---|
| COMPANY | Chambers Group | PROJECT NAME: | RIMW SGR Feasibility report |
| SEND REPORT TO: | Corey Vane | NUMBER: | 20654 |
| EMAIL: | CVane@ChambersGroupInc.com | ADDRESS: | |
| ADDRESS: | 5 Hutton Ctr drive, Ste 750 | | |
| | Santa Ana 92707 | P.O. #: | |
| PHONE: | 805-207-4912 FAX: | SAMPLED BY: | Corey Vane |

| | Sample ID | Date | Time | Matrix | Container Number/Size | Pres. | ANALYSIS REQUEST TSS | | | | | | | | | Test Instructions & Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Site 42 (SSC) U/S | 9/18/13 | 1441 | W | 1 | | ✓ | | | | | | | | | |
| 2 | Site 42 (SSC) Midpoint | 9/18/13 | 1504 | W | 1 | | ✓ | | | | | | | | | |
| 3 | Site 42 (SSC) D/S | 9/18/13 | 1519 | W | 1 | | ✓ | | | | | | | | | |
| 4 | Site 98 (WC) U/S | 9/18/13 | 1616 | W | 1 | | ✓ | | | | | | | | | |
| 5 | Site 98 (WC) Midpoint | 9/18/13 | 1635 | W | 1 | | ✓ | | | | | | | | | |
| 6 | Site 98 (WC) D/S | 9/18/13 | 1655 | W | 1 | | ✓ | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | |

Total No. of Samples: 6 Method of Shipment: Delivery Preservative: 1= Ice 2 =HCl 3 =$HNO_3$ 4 =$H_2SO_4$ 5 =NaOH 6 =Other

| Relinquished by 1. | Received By: 1. | Relinquished by 2. | Received By: 2. | Relinquished by 3. | Received By: 3. |
|---|---|---|---|---|---|
| Chambers Group | | | | | |
| Signature: | Signature: | Signature: | Signature: | Signature: | Signature: |
| Printed Name: Corey Vane | Printed Name: ZAID | Printed Name: | Printed Name: | Printed Name: | Printed Name: |
| Date: 9/18/13 Time: 1805 | Date: 9/18/13 Time: 1810. | Date: Time: | Date: Time: | Date: Time: | Date: Time: |

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator