

**Granular Activated Carbon Adsorption of 1,2,3-  
trichloropropane**  
**For the City of Livingston, CA**

July 2014

University of California, Davis

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## Executive Summary

Two rapid small-scale column test (RSSCT) experiments were performed to test five activated carbon samples from Calgon Carbon for their ability to remove 1,2,3-trichloropropane from Livingston groundwater. In the first RSSCT, the experimental source water consisted of Livingston groundwater followed by spiked Davis groundwater. In the second RSSCT, Livingston groundwater was used exclusively.

The small column results were used to project time and volume treated prior to breakthrough at 5 ng/L for the proposed full-scale Livingston system of two parallel trains of two vessels each. Each train would treat a flow of 600 gpm and operate 90% of the time. The scale-up calculations were based on the proportional diffusivity model. Some algal growth occurred in water barrels for the second experiment with Livingston groundwater, so the media life in the actual system will likely be longer than projected.

Table 1 shows the projected operation time and volume treated prior to 5 ng/L trichloropropane breakthrough for two parallel trains, each with two vessels in series, treating a total of 1200 gpm for 90% of the time. The F400 activated carbon had the longest operation time prior to 5 ng/L breakthrough in both experiments. In the first experiment with mixed source water, F400 had an operation time of 3.5 years. In the experiment with Livingston water, F400 had an operation time of 3.0 years. CMR Lincave had the second longest operation time in both cases, at 3.5 years in the first experiment and 2.2 years in the second experiment. Aquacarb CX had the third longest operation time in both experiments. In the first experiment, Aquacarb CX's projected operation time was 2.8 years, only slightly higher than the projected operation time of OLC 12x30 (2.6 years). In the second experiment, Aquacarb CX had a projected lifetime of 1.9 years, which was more than twice as long as the OLC 12x30 (0.8 years). OLC 12x30 and OLC 12x40 had the shortest operation times prior to breakthrough in both experiments, at 2.6 and 2.0 years in the first experiment and 0.8 and 0.7 years in the second experiment respectively.

**Table 1.** Full-scale operation prior to 5 ng/L breakthrough

GAC type	First RSSCT, Livingston and spiked Davis water		Second RSSCT, Livingston water	
	Full-scale years	Volume treated prior to breakthrough, MG	Full-scale years	Volume treated prior to breakthrough, MG
<b>F400</b>	3.5	2030	3.0	1701
<b>CMR LINCAVE</b>	3.5	2016	2.2	1255
<b>AQUACARB CX</b>	2.8	1608	1.9	1078
<b>OLC 12x30</b>	2.6	1484	0.8	434
<b>OLC 12x40</b>	2.0	1119	0.7	420

Note: The operation time for one reactor would be half as long as the value for the series of two reported in the table. The volume treated prior to 5 ng/L breakthrough for one reactor would be one quarter of the value reported in the table (divide by two for the two parallel trains and divide by two again for the two vessels in series).

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## Introduction

Two rapid small-scale column test (RSSCT) experiments were performed to test five activated carbon samples received from Calgon Carbon to contrast their ability to remove 1,2,3-trichloropropane (1,2,3-TCP) from Livingston groundwater. In the first experiment, the Livingston groundwater was depleted prior to the completion of the experiment, so the test was continued with Davis groundwater spiked with a 1,2,3-trichloropropane standard. The second test consisted solely of Livingston groundwater. Results from the RSSCTs were used to calculate operation time and volume treated prior to 5 ng/L breakthrough for the proposed Livingston treatment system.

## Methods

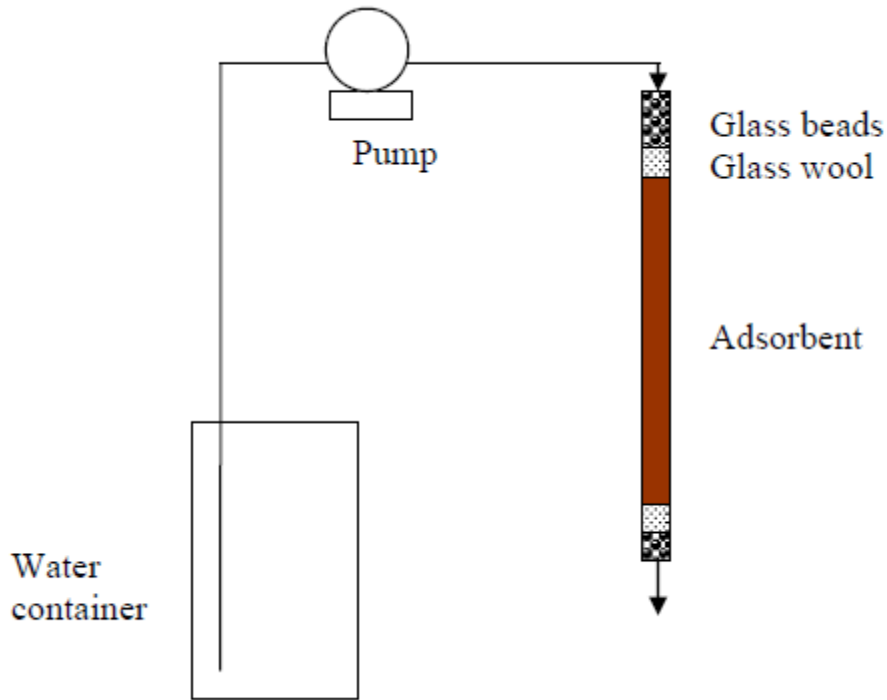
### GAC preparation

Activated carbon was ground and wet sieved through 100x140 US mesh for an average particle diameter of 0.127 mm. It was then injected into the column in a water slurry and packed via tapping to a bed depth of 103 mm. Prior to operation, the media bed was backwashed for an average of 10 minutes to remove fines and entrapped air that could lead to clogging.

### Rapid Small Scale Column Test Setup

Small-scale column tests were conducted in the set-up shown in Figure 1. Water was pumped from the provided barrels through Masterflex tubing to borosilicate glass columns (Kimble-Chase) in a downflow configuration. Glass beads and glass wool were present at the top of the columns to ensure proper flow dispersion.

Samples were collected at the outlet approximately every 24 hours in triplicate. Samples were held in 40-mL VOA vials with 0.2 mL HCl as a preservative and stored in a 4°C refrigerator prior to analysis. Flow rates were measured every 24 hours, and bed height was measured periodically to monitor changes due to backwash or particle agglomeration. The columns were checked a minimum of twice a day to ensure proper operation.



**Figure 1.** RSSCT set-up schematic

### **Backwashing**

As the column experiment progresses, the pressure drop through the bed increases, eventually causing the influent tube to pop off the top of the column. This occurred several times around and after the 5 ng/L breakthrough point. When this occurred, a syringe was used to pump water up through the media bed and break up agglomerated particles. A glass pipette was used as a stirring device to separate difficult clumps when the syringe was not sufficient. The experiments were checked at least twice a day in order to quickly catch and correct this problem, and an estimate of lost operation time was applied to the calculations for effluent concentration.

### **Sample Analysis**

Column effluent samples, untreated water, and laboratory blanks were sent to BC Labs for analysis via EPA method 524.2 for low level 1,2,3-trichloropropane. BC Labs' analytical method information is located in Appendix E.

## Design parameters

**Table 2.** Operation Parameters

	Small-Scale Test		Full-Scale Design (One reactor)	
		Units		Units
Mean particle diameter	0.127	mm	As provided, 12x30 - 12x40 mesh; 1.2 mm average	
Empty bed contact time	0.33	min	8.2-9.7	min
Bed depth	103	mm	8.4-9.8	ft
Inner diameter	7	mm	10	ft
Flow rate	12	mL/min	600	gpm

Table 2 shows operation parameters for the small-scale test and one full-scale reactor that were used for the scale-up calculations. The scale-up calculations for the Livingston system were based on two parallel trains, each with two reactors in series. Each reactor train was modeled to treat 600 gpm for 90% of the time. The EBCT and bed depth for each series of two reactors is twice that of one reactor reported above. The variation in bed depth and contact time results from differences in particle density. Detailed scale-up calculations are reported in Appendix B.

### Untreated water concentrations

An initial water sample was collected from each groundwater barrel. The pump was allowed to rinse the tubing for at least a minute prior to sample collection. Barrels were not mixed beforehand to prevent excess trichloropropane volatilization. The sample was collected in the top half of the barrel, so the average 1,2,3-trichloropropane concentration in the barrel may have been higher than reported.

## First experiment

**Table 3.** Average 1,2,3-trichloropropane concentrations of groundwater, first RSSCT experiment (Livingston and spiked Davis water)

<b>GAC Type</b>	<b>Average 1,2,3-trichloropropane concentration of Groundwater, ng/L</b>
OLC 12x40	206
Aquacarb CX	218
OLC 12x30	173
F400	243
CMR Lincave	230
<b>Average</b>	<b>214</b>
<b>Standard Deviation</b>	<b>24</b>

Table 3 shows the average 1,2,3-trichloropropane concentrations of water used for the first RSSCT experiment. Each RSSCT column had its own water barrels. This includes the original barrels supplied by Livingston and the Davis groundwater spiked with a 1,2,3-trichloropropane standard used when the Livingston water was depleted. The barrels supplied by Livingston had 5-20% headspace, leading to differing amounts of volatilization. A detailed water usage record is shown in Appendix A.

## Second experiment

For the second RSSCT experiment, groundwater from Livingston was used exclusively. The average concentration of 1,2,3-trichloropropane in the barrels used was 197 +/- 47 ng/L. (See Appendix A.) The barrels had no headspace. All column tests drew from one barrel at a time to decrease TCP volatilization. Due to unexpectedly warm temperatures, some algal growth in the barrels was noticed partway into the study on June 5. The barrels were covered with a tarp to prevent further growth.

## Results

Please note that all reported full-scale values are for the proposed Livingston system of two parallel treatment trains of two reactors each. The total flow is 1200 gpm for 90% of the time. The operation time for one reactor would be half as long as the reported value for the series of two. The volume treated prior to 5 ng/L breakthrough for one reactor would be one quarter of the



reported value (divide by two for the two parallel trains and divide by two again for the two vessels in series).

### First experiment, Livingston and spiked Davis water

The operation time and volume treated prior to 5 ng/L breakthrough are shown in Table 4. The small column value is for one small-scale column operating independently. The projected full-scale time and volume are for two treatment trains, each with two reactors in series, treating a total volume of 1200 gpm 90% of the time.

**Table 4.** Operation time prior to 5 ng/L breakthrough, mixed source water

	<b>Small column, days</b>	<b>Full scale, days</b>	<b>Full-scale years</b>	<b>Volume treated prior to breakthrough, MG</b>
<b>F400</b>	26.5	1292	3.5	2029
<b>CMR Lincave</b>	20.6	1283	3.5	2016
<b>AQUACARB CX</b>	16.7	1024	2.8	1608
<b>OLC 12x40</b>	15.5	945	2.6	1484
<b>OLC 12x30</b>	11.7	713	2.0	1119

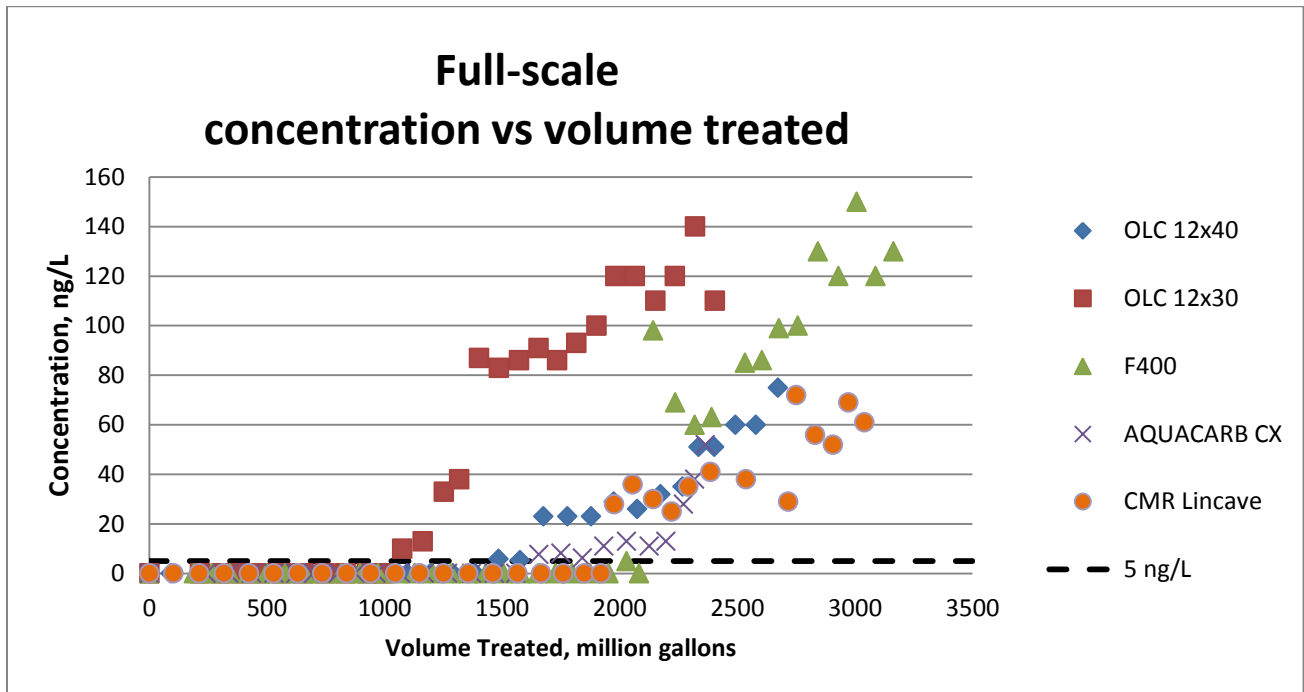
Note: The operation time for one reactor would be half as long as the reported value for the series of two. The volume treated prior to 5 ng/L breakthrough for one reactor would be one quarter of the reported value (divide by two for the two parallel trains and divide by two again for the two vessels in series).

As shown in Table 4, F400 and CMR Lincave had the longest operation times prior to 5 ng/L breakthrough, followed by Aquacarb CX and OLC 12x40. OLC 12x30 performed the worst. This is the best estimate of operation time and will include some error, so the differences in operation time for F400 and CMR Lincave are not significant in this experiment.

As seen in Table 4, the difference in operation time for the small column F400 and CMR Lincave activated carbons is much greater than in the full-scale time and volume treated. This is due to differences in velocity through the different types of activated carbon. The empty bed flowrate for all small columns was a constant 12 mL/min, but bed clogging and structural differences in the carbon led to slightly different flowrates through the bed. The full-scale operation time and volume treated are based on the design flowrate of 1200 gpm assuming no

fouling. The actual flowrate through the full-scale system will depend on frequency of backwashing and fouling dynamics with the larger diameter activated carbon.

The full-scale operation time is based on the design flowrate of 600 gpm per reactor series (1200 gpm total). In the small-scale experiments, fouling at longer operation times caused the flowrate to decrease. The exact time and extent of fouling in the large system is unknown, so the design flowrate is assumed for the calculation of operation time and volume treated.

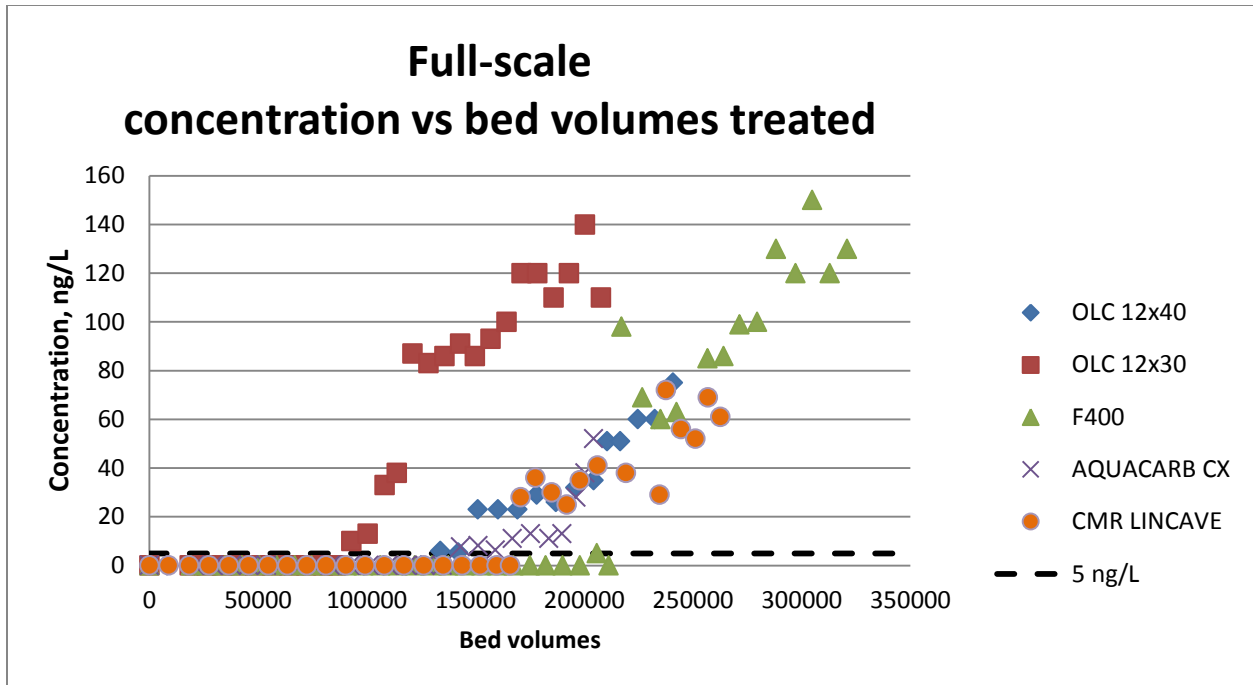


**Figure 2.** Full-scale concentration versus volume treated, 1200 gpm for 90% of the time.

Note: The volume treated prior to 5 ng/L breakthrough for one reactor would be one quarter of the reported value in the graph (divide by two for the two parallel trains and divide by two again for the two vessels in series).

Figure 2 shows the projected effluent concentration as a function of volume in the proposed Livingston system. The 5 ng/L notification limit is represented by the dashed black line. After breakthrough, the 1,2,3-trichloropropane concentration in the effluent increases exponentially. OLC 12x30 (red) and F400 (green) exhibited the steepest increases after breakthrough.

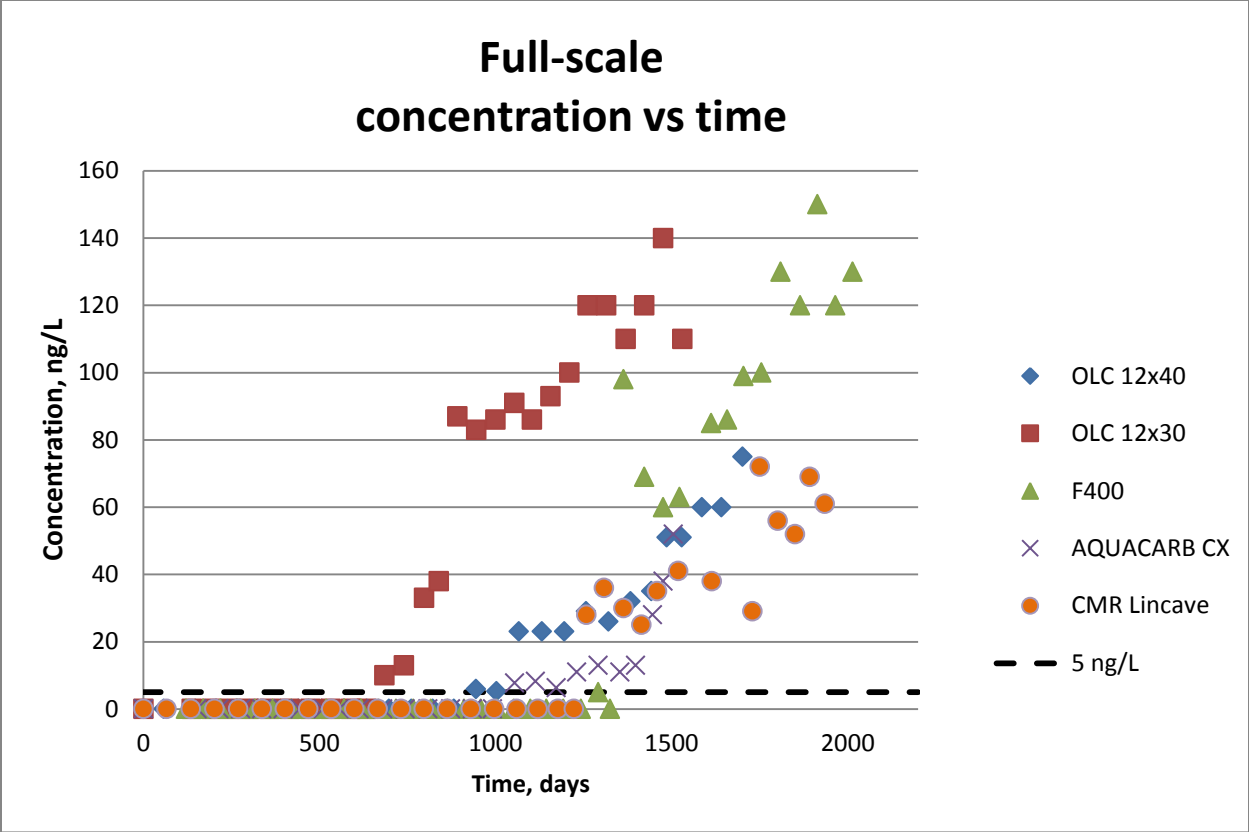
Bed volumes treated versus time is shown in Figure 3 below.



**Figure 3.** Bed volumes treated versus effluent concentration, 1200 gpm for 90% of the time.

Note: The bed volumes treated prior to 5 ng/L breakthrough for one reactor would be one quarter of the reported value (divide by two for the two parallel trains and divide by two again for the two vessels in series).

Bed volumes treated are equal to the cumulative volume treated divided by the volume of the media bed, which varies slightly depending on the particle density of the activated carbon and is displayed in Appendix B. The 5 ng/L notification limit is denoted by the dashed black line.



**Figure 4.** Full-scale concentration versus operation time for two treatment trains of two reactors each, 1200 gpm for 90% of the time. The 5 ng/L notification limit is represented by the dashed line.

Note: The operation time for one reactor would be half as long as the reported value for the series of two.

**Second experiment, Livingston water**

In the second RSSCT experiment, only Livingston groundwater was used. The operation time prior to breakthrough was shorter than in the first experiment, as shown below. As before, the F400 carbon treated the most water prior to breakthrough at 5 ng/L, followed by CMR Lincave. Aquacarb CX treated the third most water prior to breakthrough, followed by OLC 12x40 and OLC 12x30.

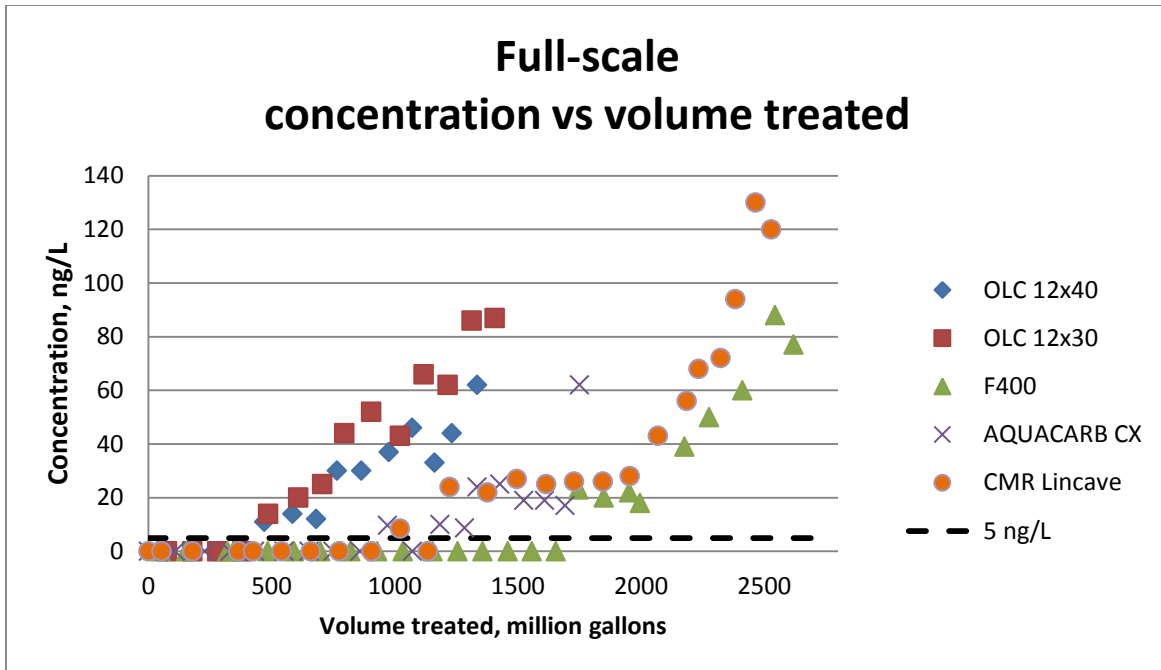
Table 5 shows the operation time prior to 5 ng/L breakthrough for the small-scale columns operating individually and projected operation time and volume treated for the full-scale system configuration (1200 gpm for 90% of the time).

**Table 5.** Operation time prior to 5 ng/L breakthrough, Livingston water

	<b>Small column, days</b>	<b>Full-scale, days</b>	<b>Full-scale years</b>	<b>Volume treated prior to breakthrough, MG</b>
<b>F400</b>	16.0	1083	3.0	1701
<b>CMR Lincave</b>	10.4	799	2.2	1255
<b>AQUACARB CX</b>	9.8	686	1.9	1078
<b>OLC 12x30</b>	4.2	276	0.8	434
<b>OLC 12x40</b>	4.2	267	0.7	420

Note: The operation time for one reactor would be half as long as the reported value for the series of two. The volume treated prior to 5 ng/L breakthrough for one reactor would be one quarter of the reported value (divide by two for the two parallel trains and divide by two again for the two vessels in series).

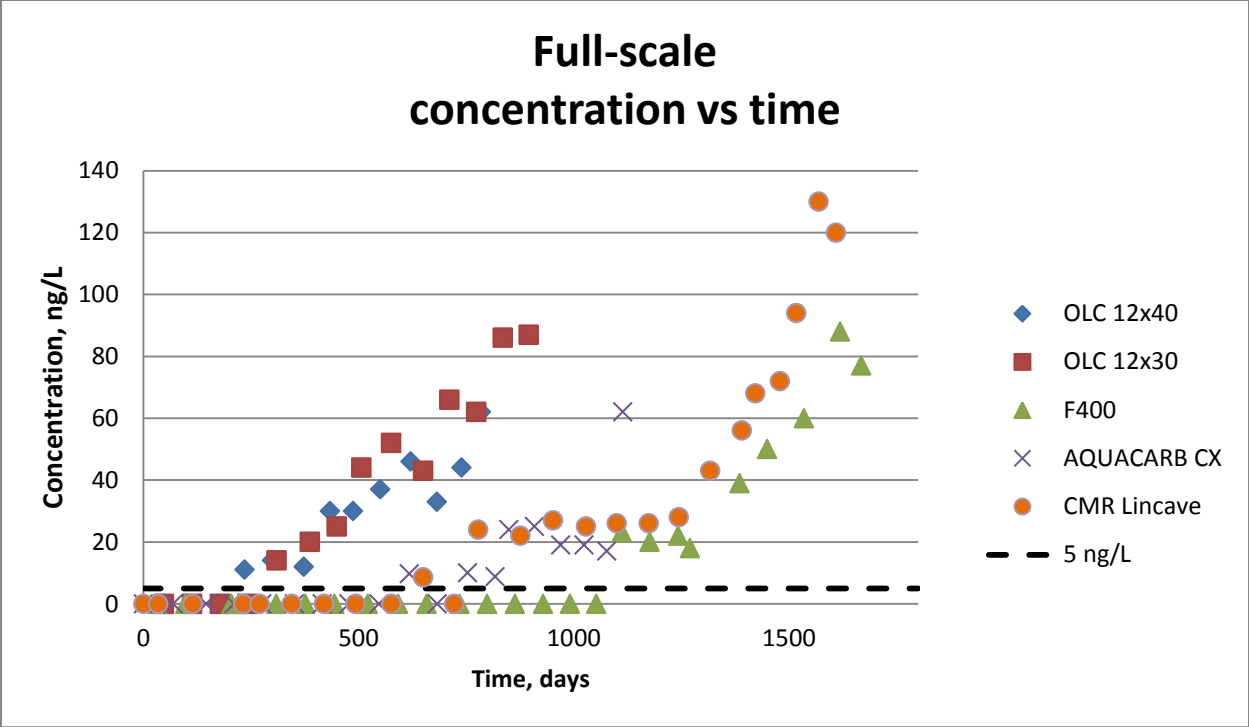
The second RSSCT exhibited much shorter times to breakthrough than the first. F400 again had the longest operation time prior to 5 ng/L breakthrough. CMR Lincave did not perform as well as in the previous experiment. CMR Lincave and Aquacarb had similar operation times, followed by OLC 12x30 and OLC 12x40. The OLC carbons hit breakthrough at approximately the same time.



**Figure 5.** Full-scale concentration versus volume treated, for two treatment trains of two reactors each, 1200 gpm for 90% of the time. The 5 ng/L notification limit is represented by the dashed line.

Note: The volume treated prior to 5 ng/L breakthrough for one reactor would be one quarter of the reported value (divide by two for the two parallel trains and divide by two again for the two vessels in series).

Figure 5 shows the projected concentration versus volume treated breakthrough curve for the full-scale system using Livingston groundwater. Breakthrough patterns are similar to those in the first experiment and are characterized by a sharp increase in the 1,2,3-trichloropropane concentration after breakthrough, sometimes with a brief plateau around 30 ng/L. However, the length of the plateau and carbon types which exhibit plateau behavior vary between the first and second experiment, so this is probably a function of operational parameters such as source water characteristics.



**Figure 7.** Bed volumes treated versus effluent concentration for two treatment trains of two reactors each, 1200 gpm for 90% of the time.

Note: The bed volumes treated prior to 5 ng/L breakthrough for one reactor would be one quarter of the reported value (divide by two for the two parallel trains and divide by two again for the two vessels in series).

Bed volumes treated are equal to the cumulative volume treated divided by the volume of the media bed, which varies slightly depending on the particle density of the activated carbon and is displayed in Appendix B. The 5 ng/L notification limit is denoted by the dashed black line.

## Conclusions

In both experiments, the rank of performance of the activated carbons was roughly equal. In order of most volume treated to least prior to breakthrough, F400 performed the best, followed by CMR Lincave, Aquacarb CX, and then OLC 12x40 and OLC 12x30. The change in source water had a large impact on the operation times prior to breakthrough. In the first RSSCT (mixed source water), operation time prior to breakthrough ranged from 2.0-3.5 years, whereas in the second RSSCT (Livingston water), operation time dropped to 0.7-3.0 years.

Furthermore, the closeness in performance between carbons changed significantly between the two experiments even though the rankings were similar. In the first RSSCT (mixed source water) F400 was projected to outlast CMR Lincave by only 11 days, which is negligible when considering experimental uncertainty. In the second RSSCT (Livingston water), F400 was projected to outlast CMR Lincave by 0.8 years in the full-scale system. The change in operational efficiency with the change in source water indicates that different constituents in the water may affect the activated carbons different amounts. Despite these differences, the results of the two RSSCT experiments show that F400 will probably have the best performance in all cases, followed by CMR Lincave, then Aquacarb CX, and OLC 12x30 or OLC 12x40 will perform the worst.

The estimated operation times and volumes for the Livingston source water experiment were affected by algal growth in the barrels. The additional organic matter from the algae decreased operation time prior to breakthrough by an unknown amount, so the results of the second experiment can be seen as a conservative estimate of the Livingston system operation time. The first experiment with mixed Livingston and spiked Davis groundwater had negligible algal growth. The longer operation times prior to breakthrough in the mixed source water experiment could be due to the lack of algal growth and differences in the mineral content between Davis and Livingston water. All operational parameters other than the source water were the same between the two tests. The mixed water experiment could be used as a high estimate of operation time prior to breakthrough, and the Livingston water experiment could be used as a conservative estimate.



## **Appendix A: Sample Analysis Data from BC Labs**

**Table 6.** 1,2,3-Trichloropropane concentrations measured in barrels for first RSSCT experiment.

<b>GAC Type</b>	<b>Concentration in barrel, ng/L</b>	<b>% utilized</b>	<b>Water source</b>
<b>OLC 12x40</b>	150	100%	Livingston
	250	100%	1,2,3-TCP spiked in Davis Groundwater
	230	50%	1,2,3-TCP spiked in Davis Groundwater
<b>Average</b>	<b>206</b>		
<b>Aquacarb CX</b>	120	100%	Livingston
	310	100%	1,2,3-TCP spiked in Davis Groundwater
	230	50%	1,2,3-TCP spiked in Davis Groundwater
<b>Average</b>	<b>218</b>		
<b>OLC 12x30</b>	110	100%	Livingston
	300	50%	1,2,3-TCP spiked in Davis Groundwater
<b>Average</b>	<b>173</b>		
<b>F400</b>	190	100%	Livingston
	350	50%	1,2,3-TCP spiked in Davis Groundwater
<b>Average</b>	<b>243</b>		
<b>CMR Lincave</b>	160	100%	Livingston
	370	50%	1,2,3-TCP spiked in Davis Groundwater
<b>Average</b>	<b>230</b>		

**Table 7.** 1,2,3-Trichloropropane concentrations measured in barrels from Livingston for second RSSCT experiment.

<b>Barrel label</b>	<b>1,2,3-Trichloropropane, ng/L</b>
1	220
2	240
3	230
4	210
5	130
6	120
7	110
8	140
9	200
10	230
11	no sample
12	250
13	220
14	250
15	170
16	240
17	190
<b>Average</b>	<b>197</b>
<b>Standard Deviation</b>	<b>47</b>
<b>Lowest</b>	<b>110</b>
<b>Highest</b>	<b>250</b>

Table 6 shows the concentrations of 1,2,3-trichloropropane in the barrels received from Livingston for the second experiment. Barrels are numbered in the order they were used. A sample was not collected for Barrel 11.



Date of Report: 04/24/2014

Peter Green

Universtiy of California-Davis

1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

Client Project: [none]

BCL Project: 1,2,3 TCP Project

BCL Work Order: 1409015

Invoice ID: B171711

Enclosed are the results of analyses for samples received by the laboratory on 4/23/2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



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### Sample Results

1409015-01 - 140419_F400_1.....	6
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1409015-03 - 140419_OLC40_1.....	8
1409015-04 - 140419_CM1.....	9
1409015-05 - 140419_QCL30_1.....	10
1409015-06 - Blank.....	11

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Chain of Custody Form



Laboratories, Inc.

Report To: **Client: UC Davis - Civil & Env. Engineering**  
**Attn: Peter Green**  
 Street Address: **1 Shields Ave**  
 City, State, Zip: **Davis, CA 95616**  
 Phone: **530-752-0580** Fax: **530-752-7872**  
 Email Address:  
 Work Order #: **14-09015**

Analysis Requested

*Handwritten notes:*  
 EPA 824.2 SWM/1237CB  
 have refer to the book for this  
 procedure  
 for completion  
 materials and method  
 regard.

Comments:  
 Sample Matrix:  
 Soil \_\_\_\_\_  
 Drinking Water \_\_\_\_\_  
 Ground Water \_\_\_\_\_  
 Waste Water \_\_\_\_\_  
 Other \_\_\_\_\_  
 Turnaround # of work days\* \_\_\_\_\_  
 Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No  
 \* Standard Turnaround = 10 work days

Sample #	Description	Date Sampled	Time Sampled
1	140419 - F400 - 1	4/19/14	1700
2	140419 - AQUA - 1	4/19/14	1700
3	140419 - Q1C40 - 1	4/19/14	1700
4	140419 - CMR1	4/19/14	1700
5	140419 - Q1C30 - 1	4/19/14	1700
6	Blank	4/22/14	0900

**CH-KEY**  
*Handwritten signature*  
 SUB-OUT

**Billing**  
 Same as above  
 Client: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

EDF Required? Geotracker  
 Yes  No  
 Send Copy to State of CA? (EDT)  
 Yes  No

Global ID (Needed for EDF)  
 1. Relinquished By: *Handwritten signature*  
 Date: **4/21/14** Time: **1000**  
 2. Relinquished By: \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 3. Relinquished By: \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_

System # (Needed for EDT)  
 1. Received By: *Handwritten signature*  
 Date: **4/23/14** Time: **1500**  
 2. Received By: \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 3. Received By: \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_

BC Laboratories, Inc. - 4100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.bclabs.com



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 1 of 1

Submission #: 14-09015

<b>SHIPPING INFORMATION</b> Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input type="checkbox"/> Other <input checked="" type="checkbox"/> (Specify) <u>airmail</u>		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/>
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Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.95 Container: pipe Thermometer ID: 207 Date/Time: 4/23/14  
 Temperature: (A) 0.6 °C / (C) 0.6 °C Analyst Initials: nam 0800

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE /NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A(1)	A(1)	A(1)	A(1)	A(1)	A(1)	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: 12 Date/Time: 4/23/14 0920



Universtiy of California-Davis  
1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

**Reported:** 04/24/2014 9:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1409015-01	<b>COC Number:</b>	---		04/23/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 04/19/2014 17:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140419_F400_1		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	---		<b>Sample Type:</b> Drinking Water	
1409015-02	<b>COC Number:</b>	---		04/23/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 04/19/2014 17:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140419_AQUA_1		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	---		<b>Sample Type:</b> Drinking Water	
1409015-03	<b>COC Number:</b>	---		04/23/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 04/19/2014 17:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140419_OLC40_1		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	---		<b>Sample Type:</b> Drinking Water	
1409015-04	<b>COC Number:</b>	---		04/23/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 04/19/2014 17:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140419_CMR1		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	---		<b>Sample Type:</b> Drinking Water	
1409015-05	<b>COC Number:</b>	---		04/23/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 04/19/2014 17:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140419_QCL30_1		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	---		<b>Sample Type:</b> Drinking Water	
1409015-06	<b>COC Number:</b>	---		04/23/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 04/22/2014 09:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	Blank		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	---		<b>Sample Type:</b> Trip Blank	





Universtiy of California-Davis  
1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

**Reported:** 04/24/2014 9:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409015-01	<b>Client Sample Name:</b> 140419_F400_1, 4/19/2014 5:00:00PM								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.19	ug/L	5	0.025		04/23/14	04/23/14 18:04	A01



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Engineering  
Davis, CA 95616

**Reported:** 04/24/2014 9:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409015-02	<b>Client Sample Name:</b> 140419_AQUA_1, 4/19/2014 5:00:00PM								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.12	ug/L	5	0.025		04/23/14	04/23/14 18:29	A01



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Davis, CA 95616

**Reported:** 04/24/2014 9:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409015-03	<b>Client Sample Name:</b> 140419_OLC40_1, 4/19/2014 5:00:00PM								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.15	ug/L	5	0.025		04/23/14	04/23/14 18:54	A01



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Engineering  
Davis, CA 95616

**Reported:** 04/24/2014 9:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409015-04	<b>Client Sample Name:</b> 140419_CM1, 4/19/2014 5:00:00PM								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.16	ug/L	5	0.025		04/23/14	04/23/14 19:19	A01



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Engineering  
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**Reported:** 04/24/2014 9:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409015-05	<b>Client Sample Name:</b> 140419_QCL30_1, 4/19/2014 5:00:00PM								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.11	ug/L	5	0.025		04/23/14	04/23/14 19:44	A01



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**Reported:** 04/24/2014 9:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1409015-06	<b>Client Sample Name:</b>	Blank, 4/22/2014 9:00:00AM						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		04/23/14	04/23/14 15:32	



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**Reported:** 04/24/2014 9:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**Notes And Definitions**

- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- A01 PQL's and MDL's are raised due to sample dilution.
- DW-MCL = MCLs for Title 22 Drinking Water



Date of Report: 05/08/2014

Peter Green

Universtiy of California-Davis

1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

Client Project: 1,2,3 TCP Project

BCL Project: 1,2,3 TCP Project

BCL Work Order: 1409773

Invoice ID: B172818

Enclosed are the results of analyses for samples received by the laboratory on 5/2/2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014





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Chain of Custody Form



Laboratories, Inc.

Report To: **Peter Green - UC Davis**  
 Client: **Peter Green - UC Davis**  
 Attn: \_\_\_\_\_  
 Street Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email Address: \_\_\_\_\_  
 Work Order #: **14-09773**

Page \_\_\_\_\_ of \_\_\_\_\_

Analysis Requested

Project #: \_\_\_\_\_  
Project Name: **TCP**  
Sampler(s): **Jenny White**

Comments:

Sample #	Description	Date Sampled	Time Sampled
1	140428_ OLC40-1	4/2/8	9 AM
2	OLC40-2		
3	OLC40-3		
4	OLC30-1		
5	OLC30-2		
6	OLC30-3		
7	F400-1		
8	F400-2		
9	F400-3		
10	AQUA-1		
11	AQUA-2		
12	AQUA-3		

Sample Matrix	Turnaround # of work days*	Notes
Soil		
Drinking Water		
Ground Water		
Waste Water		
Other		

Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No  
 \* Standard Turnaround = 10 work days

Global ID (Needed for EDF): \_\_\_\_\_  
 EDF Required? Geotracker:  Yes  No  
 Send Copy to State of CA? (EDT)  Yes  No

1. Relinquished By: \_\_\_\_\_ Date: 5/1/14 Time: 9:20 AM  
 2. Relinquished By: \_\_\_\_\_ Date: 5/1/14 Time: 8:00 AM  
 3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

1. Received By: \_\_\_\_\_ Date: 5/1/14 Time: 09:00  
 2. Received By: \_\_\_\_\_ Date: 5/2/14 Time: 08:20  
 3. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

System # (Needed for EDT): \_\_\_\_\_

Billing

Client: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

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Chain of Custody Form



Laboratories, Inc.

Report To: Peter Green  
 Client: Peter Green  
 Attn: \_\_\_\_\_  
 Project #: \_\_\_\_\_  
 Project Name: TCP  
 Street Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 Email Address: \_\_\_\_\_  
 Work Order #: \_\_\_\_\_  
 Sampler(s): Jenny Mital

Analysis Requested  
 Comments:  
 Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No  
 \* Standard Turnaround = 10 work days  
 Sample Matrix  
 Soil  Drinking Water  Ground Water  Waste Water  Other  
 Turnaround # of work days: \_\_\_\_\_  
 Notes

Sample #	Description	Date Sampled	Time Sampled
1	140424 - GMR-3 } 9	4/29	9:03 AM
2	140430 - OLC # 10-17	4/30	9 AM
3	OLC 40-2 } 10	4/30	
4	OLC 40-3 } 10		
5	AQUA-17		
6	AQUA-2 } 11		
7	AQUA-3 } 11		
8	<del>OLC 30-1</del> OLC 30-1		
9	OLC 30-2 } 12		
10	OLC 30-3 } 12		
11	F400-17		
12	F400-2 } 13		
13	F400-3 } 13		

Global ID (Needed for EDT)	Relinquished By	Date	Time	Received By	Date	Time
	Jenny Mital	5/14	9 AM	M. Mital	5/14	9 AM
	M. Mital	5/14	1000	M. Mital	5/14	01:00

Billing:  Same as above  
 Client: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

EDF Required? Geotracker  
 Yes  No  
 Send Copy to State of CA? (EDT)  
 Yes  No



Chain of Custody Form

Report To: Peter Green  
 Client: Peter Green  
 Attn: \_\_\_\_\_  
 Street Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 Email Address: \_\_\_\_\_  
 Work Order #: \_\_\_\_\_

Project #: \_\_\_\_\_  
 Project Name: TCF  
 Sampler(s): Jenny Mitchell

Sample #	Description	Date Sampled	Time Sampled
1	140427 - OLC40-1	4/2/17	9:01 AM
2	OLC40-2		
3	OLC40-3		
4	OLC30-1		
5	OLC30-2		
6	OLC30-3		
7	F400-1		
8	F400-2		
9	F400-3		
10	AQUA-1		
11	AQUA-2		
12	AQUA-3		

Analysis Requested: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No  
 \* Standard Turnaround = 10 work days

Sample Matrix	Turnaround # of work days*	Notes
Soil		
Drinking Water		
Ground Water		
Waste Water		
Other		

**Billing**  
 Same as above  
 Client: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

EDF Required? Geotracker  Yes  No  
 Send Copy to State of CA? (EDT)  Yes  No

Global ID (Needed for EDF): \_\_\_\_\_  
 1. Relinquished By: \_\_\_\_\_ Date: 5/1/14 Time: 9am  
 2. Relinquished By: \_\_\_\_\_ Date: 5/1/14 Time: 1000  
 3. Relinquished By: \_\_\_\_\_ Date: 5/2/14 Time: 0820

System # (Needed for EDT): \_\_\_\_\_  
 Received By: \_\_\_\_\_ Date: 5/1/14 Time: 0800  
 Received By: \_\_\_\_\_ Date: 5/2/14 Time: 0820

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Chain of Custody Form

Report To: Client: Peter Green  
 Project #: \_\_\_\_\_  
 Project Name: TCP  
 Attn: \_\_\_\_\_  
 Street Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email Address: \_\_\_\_\_  
 Work Order #: \_\_\_\_\_  
 Sampler(s): Jerry Alford

Analysis Requested  
 Comments:  
 Sample Matrix  
 Soil \_\_\_\_\_  
 Shading \_\_\_\_\_  
 Drinking Water \_\_\_\_\_  
 Ground Water \_\_\_\_\_  
 Waste Water \_\_\_\_\_  
 Other \_\_\_\_\_  
 Turnaround # of work days \_\_\_\_\_  
 Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No  
 \* Standard Turnaround = 10 work days  
 Notes

Sample #	Description	Date Sampled	Time Sampled
1	140425-OLC40-1 } TCP	4/2/15	9:10 AM
2	OLC40-2 } 1B	4/2/15	
3	OLC40-3 }	4/2/15	
4	OLC30-1 }	4/2/15	
5	OLC30-2 } 19	4/2/15	
6	OLC30-3 }	4/2/15	
7	F400-1 }		
8	F400-2 } 20		
9	F400-3 }		
10	AQUA-1 }		
11	AQUA-2 } 21		
12	AQUA-3 }		

529.2 12.3 TCP

Send report to the back of this page for copy/alteration instructions and what legend.

**Billing**  
 Same as above  
 Client: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

EDF Required? Geotracker  
 Yes  No  
 Send Copy to State of CA? (EDT)  
 Yes  No

Global ID (Needed for EDT)  
 1. Requisitioned By: \_\_\_\_\_ Date: 5/1/14 Time: 9:00 AM  
 2. Requisitioned By: \_\_\_\_\_ Date: 5/1/14 Time: 10:00 AM  
 3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

System # (Needed for EDT)  
 1. Received By: \_\_\_\_\_ Date: 5/1/14 Time: 09:00  
 2. Received By: \_\_\_\_\_ Date: 5/2/14 Time: 08:20  
 3. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

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BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 1 Of 3

Submission #: 14-09773

**SHIPPING INFORMATION**  
 Federal Express  UPS  Hand Delivery   
 BC Lab Field Service  Other  (Specify) neutral

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

**COC Received**  
 YES  NO

Emissivity: 0.97 Container: VOH Thermometer ID: 207  
 Temperature: (A) 5.0 °C / (C) 4.8 °C

Date/Time: 5/2/14  
 Analyst Init: mam 0820

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A.3	A.3	A.3	A.3	A.3	A.3	A.3	A.3	A.3	A.3
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: M Date/Time: 5/2/14 (16:38)





BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 2 of 3

Submission #: 14-09773

<b>SHIPPING INFORMATION</b> Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input type="checkbox"/> Other <input checked="" type="checkbox"/> (Specify) <u>neutral</u>		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/>
---	--	---	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO Emissivity: 0.97 Container: VOA Thermometer ID: 207 Date/Time: 5/2/14  
 Temperature: (A) 5.0 °C / (C) 4.8 °C Analyst Init: MAM 0820

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A.3	A.3	A.3	A.3	A.3	A.3	A.3	A.3	A.3	A.3
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: M Date/Time: 5:22 11635  
 A = Actual / C = Corrected

IS:\MVD\CS\WordPerfect\LAB DOCS\FORMS\SAMRFC151



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 3 Of 3

Submission #: 14-09773

**SHIPPING INFORMATION**  
 Federal Express  UPS  Hand Delivery   
 BC Lab Field Service  Other  (Specify) neutral

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO  
 Emissivity 0.97 Container: VOA Thermometer ID: 207 Date/Time: 5/2/14  
 Temperature: (A) 5.0 °C / (C) 4.8 °C Analyst Init: MAM 0820

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	Z1	Z2	Z3	Z4	Z5	6	7	8	9	10
QT GENERAL MINERAL/GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A.3	A.3	A.3	A.3	A.3	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: M Date/Time: 5:21P 1690  
 A = Actual / C = Corrected

IS:\M\DOCS\WordPerfect\LAB DOCS\FORMS\SAMREC15



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1 Shields Avenue-Dept. of Civil & Environmental  
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Davis, CA 95616

**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1409773-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/02/2014 08:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 04/28/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140428_OLC40_1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1409773-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/02/2014 08:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 04/28/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140428_OLC30_1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1409773-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/02/2014 08:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 04/28/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140428_F400_1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1409773-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/02/2014 08:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 04/28/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140428_AQUA_1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1409773-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/02/2014 08:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 04/29/2014 09:03
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140429_OLC40_1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1409773-06	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/02/2014 08:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 04/29/2014 09:03
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140429_OLC30_1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1409773-07	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/02/2014 08:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 04/29/2014 09:03
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140429_F400_1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		

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Davis, CA 95616

**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1409773-08	<b>COC Number:</b>	---		05/02/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 04/29/2014 09:03	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140429_AQUA_1		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Water	
1409773-09	<b>COC Number:</b>	---		05/02/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 04/29/2014 09:03	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140429_CMR_1		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Water	
1409773-10	<b>COC Number:</b>	---		05/02/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 04/30/2014 09:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140430_OLC40_1		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Water	
1409773-11	<b>COC Number:</b>	---		05/02/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 04/30/2014 09:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140430_AQUA_1		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Water	
1409773-12	<b>COC Number:</b>	---		05/02/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 04/30/2014 09:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140430_OLC30_1		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Water	
1409773-13	<b>COC Number:</b>	---		05/02/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 04/30/2014 09:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140430_F400_1		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Water	
1409773-14	<b>COC Number:</b>	---		05/02/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 04/27/2014 09:01	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140427_OLC40_1		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Water	



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**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1409773-15	<b>COC Number:</b>	---		05/02/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	04/27/2014 09:01
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140427_OLC30_1		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1409773-16	<b>COC Number:</b>	---		05/02/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	04/27/2014 09:01
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140427_F400_1		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1409773-17	<b>COC Number:</b>	---		05/02/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	04/27/2014 09:01
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140427_AQUA_1		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1409773-18	<b>COC Number:</b>	---		05/02/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	04/25/2014 09:10
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140425_OLC40_1		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1409773-19	<b>COC Number:</b>	---		05/02/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	04/25/2014 09:10
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140425_OLC30_1		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1409773-20	<b>COC Number:</b>	---		05/02/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	04/25/2014 09:10
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140425_F400_1		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1409773-21	<b>COC Number:</b>	---		05/02/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	04/25/2014 09:10
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140425_AQUA_1		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water



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**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1409773-22	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/02/2014 08:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	04/26/2014 21:10
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140426_OLC40_1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Water
	<hr/>			
1409773-23	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/02/2014 08:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	04/26/2014 21:10
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140426_OLC30_1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Water
	<hr/>			
1409773-24	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/02/2014 08:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	04/26/2014 21:10
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140426_F400_1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Water
	<hr/>			
1409773-25	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/02/2014 08:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	04/26/2014 21:10
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140426_AQUA_1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Water
	<hr/>			



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**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1409773-01 | **Client Sample Name:** 140428\_OLC40\_1, 4/28/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/07/14 20:07	
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**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-02	<b>Client Sample Name:</b> 140428_OLC30_1, 4/28/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/07/14 20:32	





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**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-03	<b>Client Sample Name:</b> 140428_F400_1, 4/28/2014 9:00:00AM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/07/14 20:57	



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**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1409773-04 | **Client Sample Name:** 140428\_AQUA\_1, 4/28/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/07/14 21:22	
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**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1409773-05 | **Client Sample Name:** 140429\_OLC40\_1, 4/29/2014 9:03:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/07/14 21:47	



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**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-06	<b>Client Sample Name:</b> 140429_OLC30_1, 4/29/2014 9:03:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>

**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/07/14 22:12	
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**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1409773-07 | **Client Sample Name:** 140429\_F400\_1, 4/29/2014 9:03:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/07/14 22:37	
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**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-08	<b>Client Sample Name:</b> 140429_AQUA_1, 4/29/2014 9:03:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.0066	ug/L	1	0.0050		05/07/14	05/07/14 23:02	



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**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1409773-09 | **Client Sample Name:** 140429\_CMV\_1, 4/29/2014 9:03:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/07/14 23:27	
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**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-10	<b>Client Sample Name:</b> 140430_OLC40_1, 4/30/2014 9:00:00AM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/07/14 23:52	





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**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1409773-11 | **Client Sample Name:** 140430\_AQUA\_1, 4/30/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/08/14 00:17	
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Universtiy of California-Davis  
1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-12	<b>Client Sample Name:</b> 140430_OLC30_1, 4/30/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/08/14 00:42	



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Engineering  
Davis, CA 95616

**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-13	<b>Client Sample Name:</b> 140430_F400_1, 4/30/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/08/14 02:22	



Universtiy of California-Davis  
1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-14	<b>Client Sample Name:</b> 140427_OLC40_1, 4/27/2014 9:01:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>

**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/08/14 02:47	
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1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-15	<b>Client Sample Name:</b> 140427_OLC30_1, 4/27/2014 9:01:00AM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/08/14 03:12	



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1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1409773-16 | **Client Sample Name:** 140427\_F400\_1, 4/27/2014 9:01:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/08/14 03:37	



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Engineering  
Davis, CA 95616

**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1409773-17 | **Client Sample Name:** 140427\_AQUA\_1, 4/27/2014 9:01:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/08/14 04:02	
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Universtiy of California-Davis  
1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-18	<b>Client Sample Name:</b> 140425_OLC40_1, 4/25/2014 9:10:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/08/14 04:27	





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1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-19	<b>Client Sample Name:</b> 140425_OLC30_1, 4/25/2014 9:10:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/08/14 04:53	



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Engineering  
Davis, CA 95616

**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-20	<b>Client Sample Name:</b> 140425_F400_1, 4/25/2014 9:10:00AM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/08/14 05:18	
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Engineering  
Davis, CA 95616

**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-21	<b>Client Sample Name:</b> 140425_AQUA_1, 4/25/2014 9:10:00AM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/08/14 05:43	



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Engineering  
Davis, CA 95616

**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-22	<b>Client Sample Name:</b> 140426_OLC40_1, 4/26/2014 9:10:00PM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/08/14 06:08	
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Engineering  
Davis, CA 95616

**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-23	<b>Client Sample Name:</b> 140426_OLC30_1, 4/26/2014 9:10:00PM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/08/14 06:33	



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Engineering  
Davis, CA 95616

**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-24	<b>Client Sample Name:</b> 140426_F400_1, 4/26/2014 9:10:00PM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/08/14 06:58	



Universtiy of California-Davis  
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Engineering  
Davis, CA 95616

**Reported:** 05/08/2014 15:53  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1409773-25	<b>Client Sample Name:</b> 140426_AQUA_1, 4/26/2014 9:10:00PM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/07/14	05/08/14 07:23	



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Engineering  
Davis, CA 95616

**Reported:** 05/08/2014 15:53  
Project: 1,2,3 TCP Project  
Project Number: 1,2,3 TCP Project  
Project Manager: Peter Green

**Notes And Definitions**

- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- DW-MCL = MCLs for Title 22 Drinking Water





Date of Report: 05/09/2014

Peter Green

Universtiy of California-Davis

1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

Client Project: 1,2,3 TCP Project

BCL Project: 1,2,3 TCP Project

BCL Work Order: 1410212

Invoice ID: B172879

Enclosed are the results of analyses for samples received by the laboratory on 5/7/2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



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Chain of Custody Form

Report To: Peter Green  
 Client: Peter Green  
 Attn: \_\_\_\_\_  
 Project #: \_\_\_\_\_  
 Project Name: Tcf  
 Street Address: LC Davis  
 City, State, Zip: \_\_\_\_\_  
 Sampler(s): Jenny Mittel  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 Email Address: \_\_\_\_\_  
 Work Order #: 14-10111

Analysis Requested

Comments:

Sample Matrix

Soil \_\_\_\_\_  
 Sludge \_\_\_\_\_  
 Drinking Water \_\_\_\_\_  
 Ground Water \_\_\_\_\_  
 Waste Water \_\_\_\_\_  
 Other \_\_\_\_\_

Turnaround # of work days\* \_\_\_\_\_

Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No

\* Standard Turnaround = 10 work days

Notes

Sample #	Description	Date Sampled	Time Sampled
-1	M0504	5-10-14	9:30 AM
-2	OLC40-1,2 and 3	5-10-14	9:30 AM
-3	OLC30-1,2, & 3		
-4	AQUA-1,2,3		
-5	F400-1,2,3		
-6	CMR-1,2,3		
-7	OLC40-1,2,3	5-10-15	9 AM
-8	OLC30-1,2,3	"	"
-9	AQUA-1,2,3	"	"
-10	F400-1,2,3	"	"
-11	CMR-1,2,3	"	"
-12	OLC40-1,2,3	5-10-13	9 AM
-13	OLC30-1,2,3		
-14	AQUA-1,2,3		
-15	F400-1,2,3		

EDF Required?  Yes  No

Global ID (Needed for EDF) \_\_\_\_\_

1. Relinquished By: [Signature] Date: 5/16/14 Time: 09:30

2. Relinquished By: [Signature] Date: 5/16/14 Time: 09:30

3. Relinquished By: [Signature] Date: 5/16/14 Time: 09:30

1. Received By: [Signature] Date: 5/16/14 Time: 09:30

2. Received By: [Signature] Date: 5/16/14 Time: 09:30

3. Received By: [Signature] Date: 5/16/14 Time: 09:30

Analysis Requested

Comments:

Sample Matrix

Soil \_\_\_\_\_  
 Sludge \_\_\_\_\_  
 Drinking Water \_\_\_\_\_  
 Ground Water \_\_\_\_\_  
 Waste Water \_\_\_\_\_  
 Other \_\_\_\_\_

Turnaround # of work days\* \_\_\_\_\_

Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No

\* Standard Turnaround = 10 work days

Notes

EDF Required?  Yes  No

Global ID (Needed for EDF) \_\_\_\_\_

1. Relinquished By: [Signature] Date: 5/16/14 Time: 09:30

2. Relinquished By: [Signature] Date: 5/16/14 Time: 09:30

3. Relinquished By: [Signature] Date: 5/16/14 Time: 09:30

1. Received By: [Signature] Date: 5/16/14 Time: 09:30

2. Received By: [Signature] Date: 5/16/14 Time: 09:30

3. Received By: [Signature] Date: 5/16/14 Time: 09:30

BC Laboratories, Inc. - 4100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.bclabs.com



Chain of Custody Form



Laboratories, Inc.

Report To: Peter Green  
 Client: Luc Davis  
 Attn: \_\_\_\_\_  
 Street Address: Luc Davis  
 City, State, Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 Email Address: \_\_\_\_\_  
 Work Order #: 14-10212

Sample #	Description	Date Sampled	Time Sampled
-15	CMR-1,2,3	5+3	9 AM
-16	OLC40-1,2,3	5+3	
-17	OLC30-1,2,3		
-18	AQUA-1,2,3		
-19	F400-1,2,3		
-20	CMR-1,2,3		
-21	OLC40-1,2,3	5-10-11	9 AM
-22	OLC30-1,2,3		
-23	AQUA-1,2,3		
-24	F400-1,2,3		
-25	OLC40-raw	5+2	7 PM

Analysis Requested

Project #: \_\_\_\_\_  
 Project Name: TCP  
 Sampler(s): Jenny Mittel

Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No

\* Standard Turnaround = 10 work days

Sample Matrix:  Soil  Sludge  Drinking Water  Ground Water  Waste Water  Other

Turnaround # of work days: \_\_\_\_\_

Notes: \_\_\_\_\_

Comments: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_

Global ID (Needed for EDF): \_\_\_\_\_

EDF Required? Geotracker:  Yes  No

Send Copy to State of CA? (EDT):  Yes  No

Relinquished By: Jenny Mittel Date: 5-6-14 Time: 8:46

Relinquished By: Michelle Date: 5/6/14 Time: 0930

Relinquished By: Chamc Date: 5/7/14 Time: 8:00

System # (Needed for EDT): \_\_\_\_\_

Received By: Michelle Date: 5/6/14 Time: 0930

Received By: Chamc Date: 5/7/14 Time: 8:00

Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Client: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

BC Laboratories, Inc. - 4100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.bclabs.com



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 1 Of 3

Submission #: 14-10212

<b>SHIPPING INFORMATION</b> Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input type="checkbox"/> Other <input checked="" type="checkbox"/> (Specify) <u>Contract</u>		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/>
--	--	---	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.97 Container: VOA Thermometer ID: 207 Date/Time: 5/7/14  
 Temperature: (A) 9.5 °C / (C) 9.3 °C Analyst Init: NSC 800

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A/B	A/B	A/B	A/B	A/B	A/B	A/B	A/B	A/B	A/B
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: 1 sample received for 3, 1 VOA unlabeled 400-3.  
 Sample Numbering Completed By: M Date/Time: 5-7-14 11:45



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 2 of 3

Submission #: 14-10212

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, BC Lab Field Service, Other (Specify) On Trac. SHIPPING CONTAINER: Ice Chest, None, Box, Other (Specify). FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. Intact? Yes, No. Comments:

All samples received? Yes, No. All samples containers intact? Yes, No. Description(s) match COC? Yes, No.

COC Received: YES, NO. Emissivity: 0.97. Container: VOA. Thermometer ID: 207. Date/Time: 5/7/14. Analyst Init: NSC 800. Temperature: (A) 9.5 °C / (C) 9.3 °C.

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-20). Rows include various sample types like QT GENERAL MINERAL, PT PE UNPRESERVED, etc. Handwritten 'A.B.' is present in row 18.

Comments: 10-20 are 5's, COC says 5-3. 2-85 labeled 5-2, COC says 5-1. Sample Numbering Completed By: [Signature] Date/Time: 5-7-14 10:50



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 3 of 3

Submission #: 14-10212

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, BC Lab Field Service, Other (Specify) EnTrac. SHIPPING CONTAINER: Ice Chest, None, Box, Other (Specify). FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. Intact? Yes, No.

All samples received? Yes, No. All samples containers intact? Yes, No. Description(s) match COC? Yes, No.

COC Received: YES, NO. Emissivity: 0.97, Container: VOA, Thermometer ID: 207, Date/Time: 5/7/14, Analyst Init: NSC 800. Temperature: (A) 9.5, (C) 9.3.

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (2.1 to 2.10). Rows include various test types like QT GENERAL MINERAL, PT PE UNPRESERVED, etc.

Comments: Sample Numbering Completed By: AA Date/Time: 5.7.14 11:55



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1410212-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/07/2014 08:00
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/04/2014 09:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140504_OLC40_1,2, AND 3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1410212-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/07/2014 08:00
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/04/2014 09:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140504_OLC30_1,2, AND 3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1410212-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/07/2014 08:00
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/04/2014 09:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140504_AQUA_1,2, AND 3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1410212-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/07/2014 08:00
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/04/2014 09:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140504_F400_1,2, AND 3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1410212-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/07/2014 08:00
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/04/2014 09:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140504_CMR_1,2, AND 3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1410212-06	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/07/2014 08:00
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/05/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140505_OLC40_1,2, AND 3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1410212-07	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/07/2014 08:00
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/05/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140505_OLC30_1,2, AND 3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		

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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1410212-08	<b>COC Number:</b>	---		05/07/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/05/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140505_AQUA_1,2, AND 3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410212-09	<b>COC Number:</b>	---		05/07/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/05/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140505_F400_1,2, AND 3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410212-10	<b>COC Number:</b>	---		05/07/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/05/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140505_CMR_1,2, AND 3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410212-11	<b>COC Number:</b>	---		05/07/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/03/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140503_OLC40_1,2, AND 3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410212-12	<b>COC Number:</b>	---		05/07/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/03/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140503_OLC30_1,2, AND 3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410212-13	<b>COC Number:</b>	---		05/07/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/03/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140503_AQUA_1,2, AND 3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410212-14	<b>COC Number:</b>	---		05/07/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/03/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140503_F400_1,2, AND 3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1410212-15	<b>COC Number:</b>	---		05/07/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/03/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140503_CMR_1,2, AND 3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410212-16	<b>COC Number:</b>	---		05/07/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/02/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140502_OLC40_1,2, AND 3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410212-17	<b>COC Number:</b>	---		05/07/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/02/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140502_OLC30_1,2, AND 3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410212-18	<b>COC Number:</b>	---		05/07/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/02/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140502_AQUA_1,2, AND 3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410212-19	<b>COC Number:</b>	---		05/07/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/02/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140502_F400_1,2, AND 3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410212-20	<b>COC Number:</b>	---		05/07/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/02/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140502_CMR_1,2, AND 3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410212-21	<b>COC Number:</b>	---		05/07/2014 08:00	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/01/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140501_OLC40_1,2, AND 3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1410212-22	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/07/2014 08:00
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	05/01/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140501_OLC30_1,2, AND 3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Water
1410212-23	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/07/2014 08:00
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	05/01/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140501_AQUA_1,2, AND 3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Water
1410212-24	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/07/2014 08:00
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	05/01/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140501_F400_1,2, AND 3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Water
1410212-25	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/07/2014 08:00
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	05/02/2014 19:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140502_OLC40-RAW	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Water



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410212-01	<b>Client Sample Name:</b> 140504_OLC40_1,2, AND 3, 5/4/2014 9:30:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>

**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/08/14 18:30	
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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410212-02	<b>Client Sample Name:</b> 140504_OLC30_1,2, AND 3, 5/4/2014 9:30:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/08/14 18:55	



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410212-04 | **Client Sample Name:** 140504\_F400\_1,2, AND 3, 5/4/2014 9:30:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/08/14 19:20	



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410212-05	<b>Client Sample Name:</b> 140504_CMV_1,2, AND 3, 5/4/2014 9:30:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/08/14 19:45	



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410212-06 | **Client Sample Name:** 140505\_OLC40\_1,2, AND 3, 5/5/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/08/14 20:10	





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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410212-07 | **Client Sample Name:** 140505\_OLC30\_1,2, AND 3, 5/5/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/08/14 20:35	



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410212-08	<b>Client Sample Name:</b> 140505_AQUA_1,2, AND 3, 5/5/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>

**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/08/14 21:00	
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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410212-09 | **Client Sample Name:** 140505\_F400\_1,2, AND 3, 5/5/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/08/14 21:25	



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410212-10	<b>Client Sample Name:</b> 140505_CMV_1,2, AND 3, 5/5/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/08/14 21:50	



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410212-11 | **Client Sample Name:** 140503\_OLC40\_1,2, AND 3, 5/3/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/08/14 22:15	



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410212-12 | **Client Sample Name:** 140503\_OLC30\_1,2, AND 3, 5/3/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/08/14 22:40	
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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410212-13	<b>Client Sample Name:</b> 140503_AQUA_1,2, AND 3, 5/3/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/08/14 23:05	



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1410212-14	<b>Client Sample Name:</b>	140503_F400_1,2, AND 3, 5/3/2014 9:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/08/14 23:30	





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Engineering  
Davis, CA 95616

**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410212-15	<b>Client Sample Name:</b> 140503_CMV_1,2, AND 3, 5/3/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/08/14 23:55	



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410212-16	<b>Client Sample Name:</b> 140502_OLC40_1,2, AND 3, 5/2/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/09/14 00:20	



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410212-17	<b>Client Sample Name:</b> 140502_OLC30_1,2, AND 3, 5/2/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/09/14 00:45	



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410212-18	<b>Client Sample Name:</b> 140502_AQUA_1,2, AND 3, 5/2/2014 9:00:00AM, Jenny Mital
----------------------------------	--

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/09/14 01:10	



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410212-19 | **Client Sample Name:** 140502\_F400\_1,2, AND 3, 5/2/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/09/14 02:49	



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410212-20	<b>Client Sample Name:</b> 140502_CMV_1,2, AND 3, 5/2/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/09/14 03:14	



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1410212-21	<b>Client Sample Name:</b>	140501_OLC40_1,2, AND 3, 5/1/2014 9:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/09/14 03:39	



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410212-22 | **Client Sample Name:** 140501\_OLC30\_1,2, AND 3, 5/1/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/09/14 04:04	





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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410212-23 | **Client Sample Name:** 140501\_AQUA\_1,2, AND 3, 5/1/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/09/14 04:29	
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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410212-24 | **Client Sample Name:** 140501\_F400\_1,2, AND 3, 5/1/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/08/14	05/09/14 04:54	



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410212-25 | **Client Sample Name:** 140502\_OLC40-RAW, 5/2/2014 7:00:00PM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.25	ug/L	5	0.025		05/08/14	05/09/14 11:10	A01



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**Reported:** 05/09/2014 15:44  
**Project:** 1,2,3 TCP Project  
**Project Number:** 1,2,3 TCP Project  
**Project Manager:** Peter Green

**Notes And Definitions**

- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- A01 PQL's and MDL's are raised due to sample dilution.
- DW-MCL = MCLs for Title 22 Drinking Water



Date of Report: 05/13/2014

Peter Green

Universtiy of California-Davis

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Davis, CA 95616

Client Project: [none]

BCL Project: 1,2,3 TCP Project

BCL Work Order: 1410498

Invoice ID: B173080

Enclosed are the results of analyses for samples received by the laboratory on 5/10/2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



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Chain of Custody Form

Report To: Peter Green  
 Client: Peter Green  
 Attn: Project Name: TCP  
 Street Address: UC Daniels  
 City, State, Zip: Samplers: Jenny Mital  
 Phone: Fax:  
 Email Address:  
 Work Order #: 14-10498

Analysis Requested  
see ref to the back of this  
disc for completion  
assurances and method  
legend

Page 1 of 2

Sample #	Description	Date Sampled	Time Sampled
1	DL40-1,2,3	5-9-06	9 AM
2	AQUA-1,2,3		
3	DL30-1,2,3		
4	F400-1,2,3		
5	CMR-1,2,3		
1	DL40-1,2,3	5-10-07	9 AM
2	AQUA-1,2,3		
3	DL30-1,2,3		
4	F400-1,2,3		
5	CMR-1,2,3		
1	raw DL30	5-10-07	11 AM
2	raw AQUA		
3	raw F400		

Sample Matrix	Turnaround # of work days	Notes
Soil		
Sludge		
Drinking Water		
Ground Water		
Waste Water		
Other		

Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No  
 \* Standard Turnaround = 10 work days

**Billing**  
 Client: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

Global ID (Needed for EDT)  
 1. Relinquished By: Jenny Mital Date: 5-9-06 Time: 0805  
 2. Relinquished By: Jenny Mital Date: 5/14/06 Time: 1145  
 3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

System # (Needed for EDT)  
 1. Received By: Michelle Date: 5/14/06 Time: 0805  
 2. Received By: MW Date: 5/14/06 Time: 1145  
 3. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

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Chain of Custody Form

Report To: Client: Peter Green  
 Attn: Project Name: TCP  
 Street Address: UC Davis  
 City, State, Zip: Samplers: Jenny Mitchell  
 Phone: Fax:  
 Email Address: Work Order #: 14-10498

Analysis Requested  
 Comments: see ref to the back of this page for completion instructions  
 Page 2 of 2

Sample #	Description	Date Sampled	Time Sampled
1	140508_ OLC 40-1,2,3	5+08	9AM
2	AQUA-1,2,3		
3	OLC 30-1,2,3		
4	F400-1,2,3		
5	CNR-1,2,3		

Sample Matrix	Turnaround # of work days	Notes
Soil		
Sludge		
Drinking Water		
Ground Water		
Waste Water		
Other		

Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No  
 \* Standard Turnaround = 10 work days

**Billing**  Same as above

Client: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

Global ID (Needed for EDF)  
 1. Relinquished By: Jenny Mitchell Date: 5-9 Time: 0805  
 2. Relinquished By: Michelle Date: 5/10/10 Time: 1145  
 3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

EDF Required? Geotracker  Yes  No  
 Send Copy to State of CA? (EDT)  Yes  No

System # (Needed for EDT)  
 1. Received By: Michelle Date: 5/10/10 Time: 0805  
 2. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 3. Received By: MW Date: 5/14/10 Time: 1145

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BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 1 of 2

Submission #: 14-10498

<b>SHIPPING INFORMATION</b> Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input type="checkbox"/> Other <input checked="" type="checkbox"/> (Specify) <u>OUTR</u>		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/>
--	--	---	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

**COC Received**  
 YES  NO

Emissivity: 0.97 Container: Glass Vial Thermometer ID: 207 Date/Time: 5/10/14 0840  
 Temperature: (A) 27 °C (C) 26 °C Analyst Init: MW

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A3	A3	A3	A3	A3	A3	A3	A3	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: MW Date/Time: 5/12/14 0945

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BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 2 of 2

Submission #: 14-10498

**SHIPPING INFORMATION**  
 Federal Express  UPS  Hand Delivery   
 BC Lab Field Service  Other  (Specify) OUTR

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

**COC Received**  
 YES  NO

Emissivity: 0.97 Container: Glass Vial Thermometer ID: 207 Date/Time 5/10/14 0840  
 Temperature: (A) 2.7 °C / (C) 2.6 °C Analyst Init AWI

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A(1)	A(1)	A(1)	A(3)	A(3)	A(3)	A(3)	A(3)	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCE VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: MAA/1 Date/Time: 5/10/14 0845



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Davis, CA 95616

**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1410498-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/10/2014 08:40
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/06/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140506_OLC40	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1410498-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/10/2014 08:40
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/06/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140506_AQUA	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1410498-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/10/2014 08:40
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/06/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140506_OLC30	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1410498-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/10/2014 08:40
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/06/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140506_F400	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1410498-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/10/2014 08:40
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/06/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140506_CMR	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1410498-06	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/10/2014 08:40
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/07/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140507_OLC40	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		
1410498-07	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/10/2014 08:40
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/07/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140507_AQUA	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Water
	<hr/>		

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Davis, CA 95616

**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1410498-08	<b>COC Number:</b>	---		05/10/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/07/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140507_OLC30		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410498-09	<b>COC Number:</b>	---		05/10/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/07/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140507_F400		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410498-10	<b>COC Number:</b>	---		05/10/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/07/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140507_CMV		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410498-11	<b>COC Number:</b>	---		05/10/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/07/2014 11:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140507_Raw OLC30		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410498-12	<b>COC Number:</b>	---		05/10/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/07/2014 11:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140507_Raw AQUA		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410498-13	<b>COC Number:</b>	---		05/10/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/07/2014 11:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140507_Raw F400		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water
1410498-14	<b>COC Number:</b>	---		05/10/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/08/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140508_OLC40		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Water



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1410498-15	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/10/2014 08:40
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	05/08/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140508_AQUA	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Water
1410498-16	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/10/2014 08:40
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	05/08/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140508_OLC30	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Water
1410498-17	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/10/2014 08:40
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	05/08/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140508_F400	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Water
1410498-18	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/10/2014 08:40
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	05/08/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140508_CMR	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Water



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410498-01	<b>Client Sample Name:</b> 140506_OLC40, 5/6/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/12/14	05/12/14 18:02	



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410498-02 | **Client Sample Name:** 140506\_AQUA, 5/6/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/12/14	05/12/14 18:28	
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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410498-03	<b>Client Sample Name:</b> 140506_OLC30, 5/6/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.010	ug/L	1	0.0050		05/12/14	05/12/14 18:53	





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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410498-04 | **Client Sample Name:** 140506\_F400, 5/6/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/12/14	05/12/14 19:18	



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410498-05 | **Client Sample Name:** 140506\_CM, 5/6/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/12/14	05/12/14 19:43	



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410498-06 | **Client Sample Name:** 140507\_OLC40, 5/7/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/12/14	05/12/14 20:08	



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410498-07 | **Client Sample Name:** 140507\_AQUA, 5/7/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/12/14	05/12/14 20:33	



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410498-08 | **Client Sample Name:** 140507\_OLC30, 5/7/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.013	ug/L	1	0.0050		05/12/14	05/12/14 20:58	



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410498-09 | **Client Sample Name:** 140507\_F400, 5/7/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/12/14	05/12/14 21:23	



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410498-10	<b>Client Sample Name:</b> 140507_CM, 5/7/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/12/14	05/12/14 21:48	



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410498-11 | **Client Sample Name:** 140507\_Raw OLC30, 5/7/2014 11:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.30	ug/L	10	0.050		05/12/14	05/13/14 10:11	A01





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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410498-12	<b>Client Sample Name:</b> 140507_Raw AQUA, 5/7/2014 11:00:00AM, Jenny Mital
----------------------------------	--

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.31	ug/L	10	0.050		05/12/14	05/13/14 10:36	A01



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410498-13	<b>Client Sample Name:</b> 140507_Raw F400, 5/7/2014 11:00:00AM, Jenny Mital
----------------------------------	--

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.35	ug/L	10	0.050		05/12/14	05/13/14 11:01	A01



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1410498-14	<b>Client Sample Name:</b>	140508_OLC40, 5/8/2014 9:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/12/14	05/12/14 23:29	



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410498-15	<b>Client Sample Name:</b> 140508_AQUA, 5/8/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/12/14	05/12/14 23:54	



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410498-16	<b>Client Sample Name:</b> 140508_OLC30, 5/8/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.033	ug/L	1	0.0050		05/12/14	05/13/14 01:34	



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410498-17 | **Client Sample Name:** 140508\_F400, 5/8/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/12/14	05/13/14 01:59	



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1410498-18	<b>Client Sample Name:</b>	140508_CM, 5/8/2014 9:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/12/14	05/13/14 02:24	



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**Reported:** 05/13/2014 15:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**Notes And Definitions**

- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- A01 PQL's and MDL's are raised due to sample dilution.
- DW-MCL = MCLs for Title 22 Drinking Water





Date of Report: 05/22/2014

Peter Green

Universtiy of California-Davis

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Client Project: TCP

BCL Project: 1,2,3 TCP Project

BCL Work Order: 1410763

Invoice ID: B173860

Enclosed are the results of analyses for samples received by the laboratory on 5/14/2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



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Chain of Custody Form

Report To: **Peter Green**  
 Client: **Peter Green**  
 Attn: **Peter Green**  
 Street Address: **1410763**  
 City, State, Zip: **1410763**  
 Phone: **1410763**  
 Email Address: **1410763**  
 Work Order #: **1410763**

Project #: **1410763**  
 Project Name: **TCP**  
 Sampler(s): **Jenny Mital**

Analysis Requested: **1410763**

Comments: **1410763**

Are there any tests with holding times less than or equal to 48 hours?  Yes  No  
 \* Standard Turnaround = 10 work days

Sample #	Description	Date Sampled	Time Sampled	Turnaround # of work days*	Sample Matrix	Other	Notes
1	OLC 40-1,2,3	5-19	9 AM		Drinking Water		
2	AQUA-1,2,3				Drinking Water		
3	OLC 30-1,2,3				Drinking Water		
4	F400-1,2,3				Drinking Water		
5	CMR-1,2,3				Drinking Water		
1	140510-OLC 40-1,2,3	5-10	9:20 AM		Drinking Water		
2	AQUA-1,2,3				Drinking Water		
3	OLC 30-1,2,3				Drinking Water		
4	F400-1,2,3				Drinking Water		
5	CMR-1,2,3				Drinking Water		
1	140511-OLC 40-1,2,3	5-11	9:15 AM		Drinking Water		
2	AQUA-1,2,3				Drinking Water		
3	OLC 30-1,2,3				Drinking Water		
4	CMR-1,2,3				Drinking Water		

CHK BY: **Jenny Mital**  
 DISTRIBUTION  
 SUB-OUT

Global ID (Needed for EDF): **1410763**

EDF Required? Geotracker:  Yes  No  
 Send Copy to State of CA? (EDT):  Yes  No

Client: **Peter Green**  
 Address: **1410763**  
 City: **1410763** State: **1410763** Zip: **1410763**  
 Attn: **1410763**  
 PO#: **1410763**

1. Relinquished By: **Jenny Mital** Date: **5-12-14** Time: **10 AM**  
 2. Relinquished By: **Jenny Mital** Date: **5-14-14** Time: **10 AM**  
 3. Relinquished By: **Jenny Mital** Date: **5-14-14** Time: **10 AM**

1. Received By: **Jenny Mital** Date: **5-13-14** Time: **10 AM**  
 2. Received By: **Jenny Mital** Date: **5-14-14** Time: **10 AM**  
 3. Received By: **Jenny Mital** Date: **5-14-14** Time: **10 AM**

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Chain of Custody Form

Report To: Peter Green  
 Client: Peter Green  
 Attn: [Blank]  
 Street Address: 140512  
 City, State, Zip: [Blank]  
 Phone: [Blank] Fax: [Blank]  
 Email Address: [Blank]  
 Work Order #: 14-10762

Sample #	Description	Date Sampled	Time Sampled
5	140511-F400-1,2,3	5-11	9:15 AM
1	140512-OLC40-1,2,3	5-12	9:15 AM
2	-AQUA-1,2,3		
3	-OLC30-1,2,3		
4	-F400-1,2,3		
5	-CMR-1,2,3		
1	140512-raw CMR	5-12	11 AM
1	140513-OLC40-1,2,3	5-13	9 AM
2	AQUA-1,2,3		
3	OLC30-1,2,3		
4	F400-1,2,3		
5	CMR-1,2,3		

Analysis Requested: [Blank]  
 Comments: [Blank]  
 Sample Matrix: [Blank]  
 Waste Water: [Blank]  
 Ground Water: [Blank]  
 Drinking Water: [Blank]  
 Sludge: [Blank]  
 Soil: [Blank]  
 Are there any tests with holding times less than or equal to 48 hours?  Yes  No  
 \* Standard Turnaround = 10 work days  
 Notes: [Blank]

Project #: [Blank]  
 Project Name: TCP  
 Sampler(s): Jerry M. H. [Blank]

EDF Required?  Yes  No  
 Send Copy to State of CA? (EDT)  Yes  No

Global ID (Needed for EDT): [Blank]  
 1. Relinquished By: [Blank] Date: 5-13 Time: 10 AM  
 2. Relinquished By: [Blank] Date: 5-12 Time: [Blank]  
 3. Relinquished By: [Blank] Date: 5-12 Time: 1:00

Received By: [Blank] Date: 5/13/11 Time: 10:50  
 2. Received By: [Blank] Date: [Blank] Time: [Blank]  
 3. Received By: [Blank] Date: [Blank] Time: [Blank]

Client: [Blank]  
 Address: [Blank]  
 City: [Blank] State: [Blank] Zip: [Blank]  
 Attn: [Blank]  
 PO#: [Blank]

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BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 1 Of 3

Submission #: 14-10763

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, BC Lab Field Service, Other (Specify) OUTRAC. SHIPPING CONTAINER: Ice Chest, None, Box, Other (Specify). FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. Intact? Yes, No.

All samples received? Yes, No. All samples containers intact? Yes, No. Description(s) match COC? Yes, No.

COC Received: YES, NO. Emissivity: 0.97. Container: VOA. Thermometer ID: 207. Date/Time: 5/14/14. Analyst In: MAMOS'20. Temperature: (A) 2.1 °C, (C) 1.9 °C.

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various sample types like QT GENERAL MINERAL, PT PE UNPRESERVED, etc. Handwritten entries in row 10: A.3, A.3, A.3, A.3, A.3, A.3, A.3, A.3, A.3, A.3.

Comments: Head same in all vials



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 2 of 3

Submission #: 14-10763

<b>SHIPPING INFORMATION</b> Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input type="checkbox"/> Other <input checked="" type="checkbox"/> (Specify) <u>OUTRAC</u>		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/>
--	--	---	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.97 Container: VOA Thermometer ID: 207 Date/Time: 5/14/14

Temperature: (A) 2.1 °C / (C) 1.9 °C Analyst Init: MAM0820

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	20
QT GENERAL MINERAL/GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE /NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A.3	A.3	A.3	A.3	A.3	A.3	A.3	A.3	A.3	A.3
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: Head case in all vials ch. in 1220



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 3 of 3

Submission #: 14-10763

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, BC Lab Field Service, Other (Specify) DELTA. SHIPPING CONTAINER: Ice Chest, None, Box, Other (Specify). FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. Intact? Yes, No. Comments:

All samples received? Yes, No. All samples containers intact? Yes, No. Description(s) match COC? Yes, No.

COC Received: YES, NO. Emissivity: 0.97. Container: VOA. Thermometer ID: 207. Date/Time: 5/14/14. Analyst Initials: PLAMOS20. Temperature: (A) 2.1 °C / (C) 1.9 °C.

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (21-26, 7-10). Rows include various sample types like QT GENERAL MINERAL, PT PE UNPRESERVED, etc. Handwritten entries in row 26: A(1), A(3), A(3), A(3), A(2), A(3).

Comments: Head space in all vials. Sample Numbering Completed By: Date/Time: 5/14/14 12:20



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Engineering  
Davis, CA 95616

**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		Receive Date:	Sampling Date:	Sample Depth:	Lab Matrix:	Sample Type:
1410763-01	<b>COC Number:</b>	---	05/14/2014 08:20	05/09/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140509_OLC40_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1410763-02	<b>COC Number:</b>	---	05/14/2014 08:20	05/09/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140509_AQUA_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1410763-03	<b>COC Number:</b>	---	05/14/2014 08:20	05/09/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140509_OLC30_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1410763-04	<b>COC Number:</b>	---	05/14/2014 08:20	05/09/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140509_F400_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1410763-05	<b>COC Number:</b>	---	05/14/2014 08:20	05/09/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140509_CMR_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1410763-06	<b>COC Number:</b>	---	05/14/2014 08:20	05/10/2014 09:20	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140510_OLC40_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1410763-07	<b>COC Number:</b>	---	05/14/2014 08:20	05/10/2014 09:20	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140510_AQUA_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.





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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1410763-08	<b>COC Number:</b>	---		05/14/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/10/2014 09:20	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140510_OLC30_1,2,3		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1410763-09	<b>COC Number:</b>	---		05/14/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/10/2014 09:20	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140510_F400_1,2,3		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1410763-10	<b>COC Number:</b>	---		05/14/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/10/2014 09:20	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140510_CMR_1,2,3		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1410763-11	<b>COC Number:</b>	---		05/14/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/11/2014 09:15	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140511_OLC40_1,2,3		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1410763-12	<b>COC Number:</b>	---		05/14/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/11/2014 09:15	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140511_AQUA_1,2,3		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1410763-13	<b>COC Number:</b>	---		05/14/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/11/2014 09:15	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140511_OLC30_1,2,3		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1410763-14	<b>COC Number:</b>	---		05/14/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/11/2014 09:15	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140511_CMR_1,2,3		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	



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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1410763-15	<b>COC Number:</b>	---		05/14/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/11/2014 09:15	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140511_F400_1,2,3		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1410763-16	<b>COC Number:</b>	---		05/14/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/12/2014 09:15	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140512_OLC40_1,2,3		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1410763-17	<b>COC Number:</b>	---		05/14/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/12/2014 09:15	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140512_AQUA_1,2,3		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1410763-18	<b>COC Number:</b>	---		05/14/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/12/2014 09:15	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140512_OLC30_1,2,3		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1410763-19	<b>COC Number:</b>	---		05/14/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/12/2014 09:15	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140512_F400_1,2,3		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1410763-20	<b>COC Number:</b>	---		05/14/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/12/2014 09:15	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140512_CMV_1,2,3		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1410763-21	<b>COC Number:</b>	---		05/14/2014 08:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/12/2014 11:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140512_raw CMR		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	



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Davis, CA 95616

**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1410763-22	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/14/2014 08:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	05/13/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140513_OLC40_1,2,3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Groundwater
	<hr/>			
1410763-23	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/14/2014 08:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	05/13/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140513_AQUA_1,2,3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Groundwater
	<hr/>			
1410763-24	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/14/2014 08:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	05/13/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140513_OLC30_1,2,3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Groundwater
	<hr/>			
1410763-25	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/14/2014 08:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	05/13/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140513_F400_1,2,3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Groundwater
	<hr/>			
1410763-26	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/14/2014 08:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	05/13/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140513_CMR_1,2,3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Groundwater
	<hr/>			



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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410763-01	<b>Client Sample Name:</b> 140509_OLC40_1,2,3, 5/9/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.0059	ug/L	1	0.0050		05/19/14	05/19/14 13:39	



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Engineering  
Davis, CA 95616

**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410763-02 | **Client Sample Name:** 140509\_AQUA\_1,2,3, 5/9/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/19/14	05/19/14 14:04	



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Davis, CA 95616

**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410763-03 | **Client Sample Name:** 140509\_OLC30\_1,2,3, 5/9/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
-------------	--------	--------	-------	----------	-----	--------	-----------	---------------	-----------

**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.038	ug/L	1	0.0050		05/19/14	05/19/14 14:32	
------------------------	---------------	-------	------	---	--------	--	----------	----------------	--



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Engineering  
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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410763-04 | **Client Sample Name:** 140509\_F400\_1,2,3, 5/9/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/19/14	05/19/14 17:07	



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Engineering  
Davis, CA 95616

**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410763-05 | **Client Sample Name:** 140509\_CMV\_1,2,3, 5/9/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/19/14	05/19/14 17:32	





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Engineering  
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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410763-06 | **Client Sample Name:** 140510\_OLC40\_1,2,3, 5/10/2014 9:20:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.0053	ug/L	1	0.0050		05/19/14	05/19/14 17:57	
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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1410763-07	<b>Client Sample Name:</b>	140510_AQUA_1,2,3, 5/10/2014 9:20:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/19/14	05/19/14 18:22	



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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410763-08 | **Client Sample Name:** 140510\_OLC30\_1,2,3, 5/10/2014 9:20:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.087	ug/L	1	0.0050		05/19/14	05/19/14 18:47	
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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410763-09	<b>Client Sample Name:</b> 140510_F400_1,2,3, 5/10/2014 9:20:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>

**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/19/14	05/19/14 19:12	
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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410763-10 | **Client Sample Name:** 140510\_CMV\_1,2,3, 5/10/2014 9:20:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/19/14	05/19/14 19:37	
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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410763-11	<b>Client Sample Name:</b> 140511_OLC40_1,2,3, 5/11/2014 9:15:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.023	ug/L	1	0.0050		05/19/14	05/19/14 21:17	



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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410763-12 | **Client Sample Name:** 140511\_AQUA\_1,2,3, 5/11/2014 9:15:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.0077	ug/L	1	0.0050		05/19/14	05/19/14 21:42	
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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410763-13	<b>Client Sample Name:</b> 140511_OLC30_1,2,3, 5/11/2014 9:15:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.083	ug/L	1	0.0050		05/19/14	05/19/14 22:07	





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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1410763-14	<b>Client Sample Name:</b>	140511_CMR_1,2,3, 5/11/2014 9:15:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/19/14	05/19/14 22:32	



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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410763-15 | **Client Sample Name:** 140511\_F400\_1,2,3, 5/11/2014 9:15:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/19/14	05/19/14 22:57	
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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410763-16 | **Client Sample Name:** 140512\_OLC40\_1,2,3, 5/12/2014 9:15:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.023	ug/L	1	0.0050		05/19/14	05/19/14 23:22	
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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410763-17 | **Client Sample Name:** 140512\_AQUA\_1,2,3, 5/12/2014 9:15:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.0082	ug/L	1	0.0050		05/19/14	05/19/14 23:47	
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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410763-18 | **Client Sample Name:** 140512\_OLC30\_1,2,3, 5/12/2014 9:15:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.086	ug/L	1	0.0050		05/19/14	05/20/14 00:12	
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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1410763-19	<b>Client Sample Name:</b>	140512_F400_1,2,3, 5/12/2014 9:15:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/19/14	05/20/14 00:37	



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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1410763-20 | **Client Sample Name:** 140512\_CMV\_1,2,3, 5/12/2014 9:15:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/19/14	05/20/14 01:02	



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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410763-21	<b>Client Sample Name:</b> 140512_raw CMR, 5/12/2014 11:00:00AM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.37	ug/L	10	0.050		05/19/14	05/20/14 16:03	A01





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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410763-22	<b>Client Sample Name:</b> 140513_OLC40_1,2,3, 5/13/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.023	ug/L	1	0.0050		05/19/14	05/20/14 01:52	



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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410763-23	<b>Client Sample Name:</b> 140513_AQUA_1,2,3, 5/13/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.0063	ug/L	1	0.0050		05/19/14	05/20/14 02:17	



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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1410763-24	<b>Client Sample Name:</b> 140513_OLC30_1,2,3, 5/13/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.091	ug/L	1	0.0050		05/19/14	05/20/14 02:42	



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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1410763-25	<b>Client Sample Name:</b>	140513_F400_1,2,3, 5/13/2014 9:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/19/14	05/20/14 03:07	



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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1410763-26	<b>Client Sample Name:</b>	140513_CMV_1,2,3, 5/13/2014 9:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/19/14	05/20/14 03:32	



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**Reported:** 05/22/2014 15:27  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**Notes And Definitions**

- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- A01 PQL's and MDL's are raised due to sample dilution.
- DW-MCL = MCLs for Title 22 Drinking Water



Date of Report: 05/27/2014

Peter Green

Universtiy of California-Davis

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Davis, CA 95616

Client Project: TCP

BCL Project: 1,2,3 TCP Project

BCL Work Order: 1411518

Invoice ID: B174042

Enclosed are the results of analyses for samples received by the laboratory on 5/22/2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



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# Chain of Custody Form

Report To: Deber Green  
 Client: Deber Green  
 Attn: \_\_\_\_\_  
 Project #: \_\_\_\_\_  
 Project Name: TCP  
 Street Address: \_\_\_\_\_  
 City, State, Zip: WC Davis  
 Sampler(s): Jenny Mitchell  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 Email Address: \_\_\_\_\_  
 Work Order #: 14-11518

Analysis Requested  
 (Leave a note on the back of this page for completion)  
 MS/PAHs/AM/MTM/PAH/REPH/

Sample #	Description	Date Sampled	Time Sampled	Global ID (Needed for EDF)	EDF Required? Geotracker	Send Copy to State of CA? (EDT)	Relinquished By	Date	Time	Relinquished By	Date	Time	System # (Needed for EDT)
1	140520- OLC 40-1,2,3	5-20	9:30 AM		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Jenny Mitchell	5-22-14	10:30 AM	ROSA Dickey	5-22-14	11:03	
2	AQUA-1,2,3												
3	OLC 30-1,2,3												
4	F400-1,2,3												
5	CMR-1,2,3												
1	140521 OLC 40-1,2,3	5-21	9:10 AM		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
2	OLC 30-1,2,3												
3	F400-1,2,3												
4	CMR-1,2,3												
1	140522- OLC 40-1,2,3	5-22	9:10 AM		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
2	OLC 30-1,2,3												
3	F400-1,2,3												
4	CMR-1,2,3												

**Billing**  
 Same as above  
 Client: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

Global ID (Needed for EDF)  
 1. Relinquished By: Jenny Mitchell Date: 5-22-14 Time: 10:30 AM  
 2. Relinquished By: ROSA Dickey Date: 5-22-14 Time: 11:03  
 3. Relinquished By: Jenny Mitchell Date: 5-22-14 Time: 11:03

EDF Required? Geotracker  Yes  No  
 Send Copy to State of CA? (EDT)  Yes  No

System # (Needed for EDT)  
 1. Received By: ROSA Dickey Date: 5-22-14 Time: 11:03  
 2. Received By: ROSA Dickey Date: 5-22-14 Time: 11:03  
 3. Received By: Jenny Mitchell Date: 5-22-14 Time: 11:03

Comments:  
 Are there any tests with holding times less than or equal to 48 hours?  Yes  No  
 \* Standard Turnaround = 10 work days  
 Sample Matrix: \_\_\_\_\_  
 Turnaround # of work days: \_\_\_\_\_  
 Other: \_\_\_\_\_  
 Notes: \_\_\_\_\_  
 CHK BY: DISTRIBUTION  
MMJ  
 SUB-OUT

BC Laboratories, Inc. - 4100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.bclabs.com



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 1 of 2

Submission #: 14-11518

<b>SHIPPING INFORMATION</b> Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/>
--	--	---	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_  
Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received YES  NO

Emissivity: 0.97 Container: PE Thermometer ID: 207 Date/Time: 5-20-14 2250  
 Temperature: (A) 1.3 °C (C) 1.5 °C Analyst Init: J

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A-3	A-3	A-3	A-3	A-3	A-3	A-3	A-3	A-3	A-3
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 2 of 2

Submission #: 14-11518

<b>SHIPPING INFORMATION</b> Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/>
--	--	---	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_  
Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received YES  NO

Emissivity: 0.97 Container: PB Thermometer ID: 207 Date/Time: 5-20-14 2250  
 Temperature: (A) 1.3 °C (C) 1.5 °C Analyst Init: J

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A.3	A.3	A.3	( )	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_



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Engineering  
Davis, CA 95616

**Reported:** 05/27/2014 15:24  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		Receive Date:	Sampling Date:	Sample Depth:	Lab Matrix:	Sample Type:
1411518-01	<b>COC Number:</b>	---	05/22/2014 22:30	05/20/2014 09:30	---	Water	Water
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140520_OLC40					
	<b>Sampled By:</b>	Jenny Mital					
1411518-02	<b>COC Number:</b>	---	05/22/2014 22:30	05/20/2014 09:30	---	Water	Water
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140520_AQUA					
	<b>Sampled By:</b>	Jenny Mital					
1411518-03	<b>COC Number:</b>	---	05/22/2014 22:30	05/20/2014 09:30	---	Water	Water
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140520_OLC30					
	<b>Sampled By:</b>	Jenny Mital					
1411518-04	<b>COC Number:</b>	---	05/22/2014 22:30	05/20/2014 09:30	---	Water	Water
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140520_F400					
	<b>Sampled By:</b>	Jenny Mital					
1411518-05	<b>COC Number:</b>	---	05/22/2014 22:30	05/20/2014 09:30	---	Water	Water
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140520_CMV					
	<b>Sampled By:</b>	Jenny Mital					
1411518-06	<b>COC Number:</b>	---	05/22/2014 22:30	05/21/2014 09:10	---	Water	Water
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140521_OLC40					
	<b>Sampled By:</b>	Jenny Mital					
1411518-07	<b>COC Number:</b>	---	05/22/2014 22:30	05/21/2014 09:10	---	Water	Water
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140521_OLC30					
	<b>Sampled By:</b>	Jenny Mital					

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



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Engineering  
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**Reported:** 05/27/2014 15:24  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		Receive Date:	Sampling Date:	Sample Depth:	Lab Matrix:	Sample Type:
1411518-08	<b>COC Number:</b>	---	05/22/2014 22:30	05/21/2014 09:10	---	Water	Water
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140521_F400					
	<b>Sampled By:</b>	Jenny Mital					
1411518-09	<b>COC Number:</b>	---	05/22/2014 22:30	05/21/2014 09:10	---	Water	Water
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140521_CMR					
	<b>Sampled By:</b>	Jenny Mital					
1411518-10	<b>COC Number:</b>	---	05/22/2014 22:30	05/22/2014 09:10	---	Water	Water
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140522_OLC40					
	<b>Sampled By:</b>	Jenny Mital					
1411518-11	<b>COC Number:</b>	---	05/22/2014 22:30	05/22/2014 09:10	---	Water	Water
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140522_OLC30					
	<b>Sampled By:</b>	Jenny Mital					
1411518-12	<b>COC Number:</b>	---	05/22/2014 22:30	05/22/2014 09:10	---	Water	Water
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140522_F400					
	<b>Sampled By:</b>	Jenny Mital					
1411518-13	<b>COC Number:</b>	---	05/22/2014 22:30	05/22/2014 09:10	---	Water	Water
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140522_CMR					
	<b>Sampled By:</b>	Jenny Mital					



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**Reported:** 05/27/2014 15:24  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1411518-01 | **Client Sample Name:** 140520\_OLC40, 5/20/2014 9:30:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.060	ug/L	1	0.0050		05/23/14	05/24/14 01:28	



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**Reported:** 05/27/2014 15:24  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411518-02	<b>Client Sample Name:</b> 140520_AQUA, 5/20/2014 9:30:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.052	ug/L	1	0.0050		05/23/14	05/24/14 01:53	



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**Reported:** 05/27/2014 15:24  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411518-03	<b>Client Sample Name:</b> 140520_OLC30, 5/20/2014 9:30:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.12	ug/L	2	0.010		05/23/14	05/25/14 16:40	A01





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**Reported:** 05/27/2014 15:24  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411518-04	<b>Client Sample Name:</b> 140520_F400, 5/20/2014 9:30:00AM, Jenny Mital
----------------------------------	--

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.0050	ug/L	1	0.0050		05/23/14	05/24/14 02:43	



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**Reported:** 05/27/2014 15:24  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411518-05	<b>Client Sample Name:</b> 140520_CM, 5/20/2014 9:30:00AM, Jenny Mital
----------------------------------	--

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/23/14	05/24/14 03:08	
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**Reported:** 05/27/2014 15:24  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1411518-06 | **Client Sample Name:** 140521\_OLC40, 5/21/2014 9:10:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.060	ug/L	1	0.0050		05/23/14	05/24/14 03:33	
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**Reported:** 05/27/2014 15:24  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411518-07	<b>Client Sample Name:</b> 140521_OLC30, 5/21/2014 9:10:00AM, Jenny Mital
----------------------------------	---

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.14	ug/L	2	0.010		05/23/14	05/25/14 17:05	A01



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**Reported:** 05/27/2014 15:24  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411518-08	<b>Client Sample Name:</b> 140521_F400, 5/21/2014 9:10:00AM, Jenny Mital
----------------------------------	--

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		05/23/14	05/24/14 04:23	



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**Reported:** 05/27/2014 15:24  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411518-09	<b>Client Sample Name:</b> 140521_CM, 5/21/2014 9:10:00AM, Jenny Mital
----------------------------------	--

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
-------------	--------	--------	-------	----------	-----	--------	-----------	---------------	-----------

**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.028	ug/L	1	0.0050		05/23/14	05/24/14 04:48	
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**Reported:** 05/27/2014 15:24  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1411518-10 | **Client Sample Name:** 140522\_OLC40, 5/22/2014 9:10:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.075	ug/L	1	0.0050		05/23/14	05/24/14 05:13	
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**Reported:** 05/27/2014 15:24  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**BCL Sample ID:** 1411518-11 | **Client Sample Name:** 140522\_OLC30, 5/22/2014 9:10:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.11	ug/L	2	0.010		05/25/14	05/27/14 11:39	A01





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**Reported:** 05/27/2014 15:24  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411518-12	<b>Client Sample Name:</b> 140522_F400, 5/22/2014 9:10:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.098	ug/L	2	0.010		05/25/14	05/27/14 12:04	A01



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**Reported:** 05/27/2014 15:24  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411518-13	<b>Client Sample Name:</b> 140522_CM, 5/22/2014 9:10:00AM, Jenny Mital
----------------------------------	--

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.036	ug/L	1	0.0050		05/25/14	05/25/14 18:21	
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**Reported:** 05/27/2014 15:24  
**Project:** 1,2,3 TCP Project  
**Project Number:** TCP  
**Project Manager:** Peter Green

**Notes And Definitions**

- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- A01 PQL's and MDL's are raised due to sample dilution.
- DW-MCL = MCLs for Title 22 Drinking Water



Date of Report: 06/04/2014

Peter Green

Universtiy of California-Davis

1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

Client Project: [none]

BCL Project: 1,2,3 TCP Project

BCL Work Order: 1411861

Invoice ID: B174843

Enclosed are the results of analyses for samples received by the laboratory on 5/29/2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



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Chain of Custody Form



Laboratories, Inc.

Report To: Client: Peter Green Project #: \_\_\_\_\_  
 Attn: \_\_\_\_\_ Project Name: \_\_\_\_\_  
 Street Address: \_\_\_\_\_  
 City, State, Zip: UC Davis Sampler(s): Jenny Michel  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email Address: \_\_\_\_\_  
 Work Order #: 14-11861

Sample #	Description	Date Sampled	Time Sampled
1	140522-e44 1 -1	5-22	3 PM
2	2		
3	3		
4	5		
5	6		
6	7		
7	8		
8	9		
9	10		
10	12		
11	13		
12	140523 - F400-1,2,3 -12	5-23	9 AM
13	140523 - CMR-1,2,3 -13		
14	140523 - raw 1 -14	5-23	1 PM

Analysis Requested: 1, 2, 3, 4  
 Comments: Have refer to the back of this page for complete instructions and matrix legend.

Sample Matrix:  Soil  Sludge  Drinking Water  Ground Water  Waste Water  Other

Turnaround # of work days: \_\_\_\_\_  
 Are there any tests with holding times less than or equal to 48 hours?  Yes  No  
 \* Standard Turnaround = 10 work days

Notes: \_\_\_\_\_

CHK BY: [Signature] DISTRIBUTION   
 SUB-OUT

Global ID (Needed for EDF): \_\_\_\_\_  
 EDF Required? Geotracker  Yes  No  
 Send Copy to State of CA? (EDT)  Yes  No

1. Relinquished By: Jenny Michel Date: 5-28-14 Time: 10 AM  
 2. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

1. Received By: [Signature] Date: 5/29/14 Time: 10:25  
 2. Received By: [Signature] Date: 5/29/14 Time: \_\_\_\_\_  
 3. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

System # (Needed for EDT): \_\_\_\_\_

Client: \_\_\_\_\_ Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Attn: \_\_\_\_\_ PO#: \_\_\_\_\_

BC Laboratories, Inc. - 4100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.bclabs.com



Chain of Custody Form



Report To: **Peter Green** Project #: \_\_\_\_\_  
 Client: **Peter Green** Project Name: \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 Street Address: \_\_\_\_\_  
 City, State, Zip: **MC Davis** Sampler(s): **Jenny Mihal**  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email Address: \_\_\_\_\_  
 Work Order #: **14-11861**

Analysis Requested: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No  
 \* Standard Turnaround = 10 work days

Sample #	Description	Date Sampled	Time Sampled
1	140523 - raw 2	5-23	1 PM
2	140523 - raw 3	5-23	1 PM
1	140524 - F400-1,2,3	5-24	8 AM
2	F400NEW-1,2,3		
3	CMR-1,2,3		
4	CMRNEW-1,2,3		
1	140525 - F400-1,2,3	5-25	9:30 AM
2	F400NEW-1,2,3		
3	CMR-1,2,3		
4	CMRNEW-1,2,3		
1	140526 - F400-1,2,3	5-26	9:45 PM
2	CMR-1,2,3		
3	F400NEW-1,2,3		
4	CMRNEW-1,2,3		

Sample Matrix	Turnaround # of work days*	Notes
Soil		
Sludge		
Drinking Water		
Ground Water		
Waste Water		
Other		

EDF Required?  Same as above  Yes  No  
 Geotracker  Yes  No  
 Send Copy to State of CA? (EDT)  Yes  No

Client: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

Global ID (Needed for EDF): \_\_\_\_\_  
 System # (Needed for EDT): \_\_\_\_\_

1. Relinquished By: **Jenny Mihal** Date: **5-28-14** Time: **10 AM**  
 2. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

1. Received By: **[Signature]** Date: **5/28/14** Time: **10:25**  
 2. Received By: **[Signature]** Date: **5/29/14** Time: **8:40**  
 3. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

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Chain of Custody Form



Laboratories, Inc.

Report To: Peter Green Project #: \_\_\_\_\_ of \_\_\_\_\_  
 Client: Peter Green Project Name: \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 Street Address: UC Davis Sampler(s): Jenny Mitchell  
 City, State, Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email Address: \_\_\_\_\_  
 Work Order #: 14-11861

Sample #	Description	Date Sampled	Time Sampled
1	CMR-1,2,3	5-27	9:45 AM
2	CMR NEW-1,2,3	-30	↓
3	F400-1,2,3	-31	↓
4	F400 NEW-1,2,3	-32	↓
1	CMR-1,2,3	5-28	9:15 AM
2	CMR NEW-1,2,3	-33	↓
3	F400-1,2,3	-34	↓
4	F400 NEW-1,2,3	-35	↓
1	140528-blank-milliQ	5-28	9:15 AM
2	140528-rmw4	5-28	9 AM

Analysis Requested: 1/2, 3, 4  
 Comments: See info to the back of this page for completion instructions and abbreviations legend.  
 Sample Matrix:  Soil  Sludge  Drinking Water  Ground Water  Waste Water  Other  
 Turnaround # of work days: \_\_\_\_\_  
 Are there any tests with holding times less than or equal to 48 hours?  Yes  No  
 \* Standard Turnaround = 10 work days  
 Notes: \_\_\_\_\_

Global ID (Needed for EDF): \_\_\_\_\_  
 EDF Required? Geotracker:  Yes  No  
 Send Copy to State of CA? (EDT)  Yes  No

Client: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

1. Relinquished By: Jenny Mitchell Date: 5-28-14 Time: 10 AM  
 2. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

1. Received By: [Signature] Date: 5/28/14 Time: 1025  
 2. Received By: [Signature] Date: 5/27/14 Time: 0840  
 3. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

System # (Needed for EDT): \_\_\_\_\_

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BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 1 Of 4

Submission #: 14-11861

<b>SHIPPING INFORMATION</b> Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input type="checkbox"/> Other <input checked="" type="checkbox"/> (Specify) <u>EXTRAL</u>		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/>
--	--	---	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  Intact? Yes  No  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO Emissivity: 0.77 Container: VOA Thermometer ID: 207 Date/Time: 5/29/14  
 Temperature: (A) 1.4 °C / (C) 1.7 °C Analyst Initials: MAM 0840

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE /NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A	A	A	A	A	A	A	A	A	A
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: C<sub>0</sub> 5/29/14 1220



Chain of Custody and Cooler Receipt Form for 1411861 Page 5 of 7

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 2 of 4

Submission #: 14-11861

SHIPPING INFORMATION Federal Express [ ] UPS [ ] Hand Delivery [ ] BC Lab Field Service [ ] Other [X] (Specify) AIRMAIL

SHIPPING CONTAINER Ice Chest [X] None [ ] Box [ ] Other [ ] (Specify)

FREE LIQUID YES [ ] NO [ ]

Refrigerant: Ice [X] Blue Ice [ ] None [ ] Other [ ] Comments:

Custody Seals Ice Chest: [ ] Containers: [ ] None [X] Intact? Yes [ ] No [ ]

All samples received? Yes [X] No [ ] All samples containers intact? Yes [X] No [ ] Description(s) match COC? Yes [X] No [ ]

COC Received YES [X] NO [ ] Emissivity: 0.97 Container: VOA Thermometer ID: 207 Date/Time: 5/29/14 Analyst Initials: MAM 0840 Temperature: (A) 1.4 °C (C) 1.7 °C

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various sample types like QT GENERAL MINERAL, PT PE UNPRESERVED, etc. Handwritten entries in row 10: A 1, A 3, A 3, A 1, A 1, A 1, A 3, A 3, A 3, A 3.

Comments: r m. 5/29/14 1230



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 3 of 4

Submission #: 14-11861

<b>SHIPPING INFORMATION</b> Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input type="checkbox"/> Other <input checked="" type="checkbox"/> (Specify) <u>EMERAL</u>		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/>
--	--	---	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received YES  NO

Emissivity: 0.77 Container: VOA Thermometer ID: 207 Date/Time: 5/29/14  
 Temperature: (A) 1.4 °C (C) 1.7 °C Analyst Initials: MGM 0840

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z0
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A 3	A 3	A 3	A 3	A 3	A 3	A 3	A 3	A 3	A 3
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: CO 5/29/14 1230



Chain of Custody and Cooler Receipt Form for 1411861 Page 7 of 7

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 4 Of 4

Submission #: 14-11861

<b>SHIPPING INFORMATION</b> Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input type="checkbox"/> Other <input checked="" type="checkbox"/> (Specify) <u>ENTRAL</u>		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/>
--	--	---	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.77 Container: VOA Thermometer ID: 207 Date/Time: 5/29/14  
 Temperature: (A) 1.4 °C (C) 1.7 °C Analyst Initials: MAK 0840

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	3 1	3 2	3 3	3 4	3 5	3 6	3 7	3 8	9	10
QT GENERAL MINERAL/GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE /NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A 3	A 3	A 3	A 3	A 3	A 3	A 1	A 1		
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: CA 5/29/14 12:20



Universtiy of California-Davis  
1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	Sampling Date:	Sample Depth:	Lab Matrix:	Sample Type:
1411861-01	<b>COC Number:</b>	---		05/29/2014 08:40	05/22/2014 15:00	---	Water	Groundwater
	<b>Project Number:</b>	---						
	<b>Sampling Location:</b>	---						
	<b>Sampling Point:</b>	140522_eff 1						
	<b>Sampled By:</b>	Jenny Mital						
1411861-02	<b>COC Number:</b>	---		05/29/2014 08:40	05/22/2014 15:00	---	Water	Groundwater
	<b>Project Number:</b>	---						
	<b>Sampling Location:</b>	---						
	<b>Sampling Point:</b>	140522_eff 2						
	<b>Sampled By:</b>	Jenny Mital						
1411861-03	<b>COC Number:</b>	---		05/29/2014 08:40	05/22/2014 15:00	---	Water	Groundwater
	<b>Project Number:</b>	---						
	<b>Sampling Location:</b>	---						
	<b>Sampling Point:</b>	140522_eff 3						
	<b>Sampled By:</b>	Jenny Mital						
1411861-04	<b>COC Number:</b>	---		05/29/2014 08:40	05/22/2014 15:00	---	Water	Groundwater
	<b>Project Number:</b>	---						
	<b>Sampling Location:</b>	---						
	<b>Sampling Point:</b>	140522_eff 5						
	<b>Sampled By:</b>	Jenny Mital						
1411861-05	<b>COC Number:</b>	---		05/29/2014 08:40	05/22/2014 15:00	---	Water	Groundwater
	<b>Project Number:</b>	---						
	<b>Sampling Location:</b>	---						
	<b>Sampling Point:</b>	140522_eff 6						
	<b>Sampled By:</b>	Jenny Mital						
1411861-06	<b>COC Number:</b>	---		05/29/2014 08:40	05/22/2014 15:00	---	Water	Groundwater
	<b>Project Number:</b>	---						
	<b>Sampling Location:</b>	---						
	<b>Sampling Point:</b>	140522_eff 7						
	<b>Sampled By:</b>	Jenny Mital						
1411861-07	<b>COC Number:</b>	---		05/29/2014 08:40	05/22/2014 15:00	---	Water	Groundwater
	<b>Project Number:</b>	---						
	<b>Sampling Location:</b>	---						
	<b>Sampling Point:</b>	140522_eff 8						
	<b>Sampled By:</b>	Jenny Mital						

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Engineering  
Davis, CA 95616

**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1411861-08	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/22/2014 15:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140522_eff 9		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1411861-09	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/22/2014 15:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140522_eff 10		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1411861-10	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/22/2014 15:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140522_eff 12		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1411861-11	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/22/2014 15:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140522_eff 13		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1411861-12	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/23/2014 09:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140523_F400_1,2,3		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1411861-13	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/23/2014 09:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140523_CMV_1,2,3		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	
1411861-14	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b> 05/23/2014 13:00	
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	140523_Raw 1		<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b> Groundwater	



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Engineering  
Davis, CA 95616

**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1411861-15	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/23/2014 13:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140523_Raw 2		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-16	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/23/2014 13:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140523_Raw 3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-17	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/24/2014 08:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140524_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-18	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/24/2014 08:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140524_F400NEW_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-19	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/24/2014 08:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140524_CMR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-20	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/24/2014 08:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140524_CMRNEW_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-21	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/25/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140525_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater



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Davis, CA 95616

**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1411861-22	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/25/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140525_F400NEW_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-23	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/25/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140525_CMR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-24	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/25/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140525_CMRNEW_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-25	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/26/2014 21:45
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140526_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-26	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/26/2014 21:45
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140526_CMR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-27	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/26/2014 21:45
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140526_F400NEW_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-28	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/26/2014 21:45
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140526_CMRNEW_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater





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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1411861-29	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/27/2014 09:45
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140527_CMR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-30	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/27/2014 09:45
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140527_CMRNEW_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-31	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/27/2014 09:45
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140527_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-32	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/27/2014 09:45
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140527_F400NEW_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-33	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/28/2014 09:15
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140528_CMR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-34	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/28/2014 09:15
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140528_CMRNEW_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1411861-35	<b>COC Number:</b>	---		05/29/2014 08:40	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/28/2014 09:15
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140528_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1411861-36	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/29/2014 08:40
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	05/28/2014 09:15
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140528_F400NEW_1,2,3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Groundwater
	<hr/>			
1411861-37	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/29/2014 08:40
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	05/28/2014 09:15
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140528_blank_milliQ	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Groundwater
	<hr/>			
1411861-38	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/29/2014 08:40
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	05/28/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140528_raw 4	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Groundwater
	<hr/>			



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-01	<b>Client Sample Name:</b> 140522_eff 1, 5/22/2014 3:00:00PM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.0055	ug/L	1	0.0050		06/02/14	06/02/14 22:48	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-02	<b>Client Sample Name:</b> 140522_eff 2, 5/22/2014 3:00:00PM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/02/14	06/02/14 23:13	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-03	<b>Client Sample Name:</b> 140522_eff 3, 5/22/2014 3:00:00PM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.045	ug/L	1	0.0050		06/02/14	06/02/14 23:38	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-04	<b>Client Sample Name:</b> 140522_eff 5, 5/22/2014 3:00:00PM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/02/14	06/03/14 00:03	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-05	<b>Client Sample Name:</b> 140522_eff 6, 5/22/2014 3:00:00PM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.0077	ug/L	1	0.0050		06/02/14	06/03/14 00:28	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1411861-06	<b>Client Sample Name:</b>	140522_eff 7, 5/22/2014 3:00:00PM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/02/14	06/03/14 00:53	





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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-07	<b>Client Sample Name:</b> 140522_eff 8, 5/22/2014 3:00:00PM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/02/14	06/03/14 01:18	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-08	<b>Client Sample Name:</b> 140522_eff 9, 5/22/2014 3:00:00PM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/02/14	06/03/14 01:43	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-09	<b>Client Sample Name:</b> 140522_eff 10, 5/22/2014 3:00:00PM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/02/14	06/03/14 02:08	
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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-10	<b>Client Sample Name:</b> 140522_eff 12, 5/22/2014 3:00:00PM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.0057	ug/L	1	0.0050		06/02/14	06/03/14 02:33	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-11	<b>Client Sample Name:</b> 140522_eff 13, 5/22/2014 3:00:00PM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/02/14	06/03/14 02:58	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1411861-12 | **Client Sample Name:** 140523\_F400\_1,2,3, 5/23/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.69	ug/L	10	0.050		06/02/14	06/03/14 10:36	A01



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-13	<b>Client Sample Name:</b> 140523_CMR_1,2,3, 5/23/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.030	ug/L	1	0.0050		06/02/14	06/03/14 03:48	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-14	<b>Client Sample Name:</b> 140523_Raw 1, 5/23/2014 1:00:00PM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.22	ug/L	5	0.025		06/02/14	06/03/14 11:01	A01





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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-15		<b>Client Sample Name:</b> 140523_Raw 2, 5/23/2014 1:00:00PM, Jenny Mital							
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.24	ug/L	5	0.025		06/02/14	06/03/14 11:26	A01



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-16	<b>Client Sample Name:</b> 140523_Raw 3, 5/23/2014 1:00:00PM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.23	ug/L	5	0.025		06/02/14	06/03/14 11:51	A01



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1411861-17	<b>Client Sample Name:</b>	140524_F400_1,2,3, 5/24/2014 8:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.060	ug/L	1	0.0050		06/02/14	06/03/14 05:29	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1411861-18 | **Client Sample Name:** 140524\_F400NEW\_1,2,3, 5/24/2014 8:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/02/14	06/03/14 05:54	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-19	<b>Client Sample Name:</b> 140524_CMV_1,2,3, 5/24/2014 8:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.025	ug/L	1	0.0050		06/02/14	06/03/14 06:19	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1411861-20 | **Client Sample Name:** 140524\_CMNEW\_1,2,3, 5/24/2014 8:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/03/14	06/03/14 12:16	



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Engineering  
Davis, CA 95616

**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1411861-21	<b>Client Sample Name:</b>	140525_F400_1,2,3, 5/25/2014 9:30:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.063	ug/L	1	0.0050		06/03/14	06/03/14 12:41	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1411861-22 | **Client Sample Name:** 140525\_F400NEW\_1,2,3, 5/25/2014 9:30:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/03/14	06/03/14 13:07	
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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-23	<b>Client Sample Name:</b> 140525_CMR_1,2,3, 5/25/2014 9:30:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.035	ug/L	1	0.0050		06/03/14	06/03/14 13:32	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1411861-24	<b>Client Sample Name:</b>	140525_CMNEW_1,2,3, 5/25/2014 9:30:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/03/14	06/03/14 13:57	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1411861-25	<b>Client Sample Name:</b>	140526_F400_1,2,3, 5/26/2014 9:45:00PM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.085	ug/L	1	0.0050		06/03/14	06/03/14 14:22	



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Engineering  
Davis, CA 95616

**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-26	<b>Client Sample Name:</b> 140526_CMV_1,2,3, 5/26/2014 9:45:00PM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.041	ug/L	1	0.0050		06/03/14	06/03/14 14:47	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1411861-27 | **Client Sample Name:** 140526\_F400NEW\_1,2,3, 5/26/2014 9:45:00PM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/03/14	06/03/14 15:12	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1411861-28	<b>Client Sample Name:</b>	140526_CMNEW_1,2,3, 5/26/2014 9:45:00PM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/03/14	06/03/14 15:39	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-29	<b>Client Sample Name:</b> 140527_CMR_1,2,3, 5/27/2014 9:45:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.038	ug/L	1	0.0050		06/03/14	06/03/14 16:05	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1411861-30 | **Client Sample Name:** 140527\_CMNEW\_1,2,3, 5/27/2014 9:45:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/03/14	06/03/14 16:30	





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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1411861-31	<b>Client Sample Name:</b>	140527_F400_1,2,3, 5/27/2014 9:45:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.086	ug/L	1	0.0050		06/03/14	06/03/14 16:55	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1411861-32 | **Client Sample Name:** 140527\_F400NEW\_1,2,3, 5/27/2014 9:45:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/03/14	06/03/14 17:20	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1411861-33	<b>Client Sample Name:</b>	140528_CMR_1,2,3, 5/28/2014 9:15:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.040	ug/L	1	0.0050		06/03/14	06/03/14 17:45	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1411861-34 | **Client Sample Name:** 140528\_CMNEW\_1,2,3, 5/28/2014 9:15:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/03/14	06/03/14 18:10	
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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-35	<b>Client Sample Name:</b> 140528_F400_1,2,3, 5/28/2014 9:15:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.099	ug/L	1	0.0050		06/03/14	06/03/14 18:35	



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Engineering  
Davis, CA 95616

**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1411861-36 | **Client Sample Name:** 140528\_F400NEW\_1,2,3, 5/28/2014 9:15:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/03/14	06/03/14 19:01	



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Davis, CA 95616

**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-37	<b>Client Sample Name:</b> 140528_blank_milliQ, 5/28/2014 9:15:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/03/14	06/03/14 19:26	



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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1411861-38	<b>Client Sample Name:</b> 140528_raw 4, 5/28/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.21	ug/L	5	0.025		06/03/14	06/04/14 09:37	A01





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**Reported:** 06/04/2014 17:17  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**Notes And Definitions**

- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- A01 PQL's and MDL's are raised due to sample dilution.
- DW-MCL = MCLs for Title 22 Drinking Water



Date of Report: 06/18/2014

Peter Green

Universtiy of California-Davis

1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

Client Project: [none]

BCL Project: 1,2,3 TCP Project

BCL Work Order: 1412616

Invoice ID: B175925

Enclosed are the results of analyses for samples received by the laboratory on 6/5/2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



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### Executive Summary - MCL Exceedances

Constituent	Result	PQL	MCL	Units	Method	Lab Quals
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No exceedances found



Chain of Custody Form

Report To: Client: Peter Green  
 Attn: Project #:  
Project Name: TCF  
 Street Address: UC DAVIS  
 City, State, Zip: Samplers: Jenny M. H.  
 Phone: Fax:  
 Email Address: 14-12616  
 Work Order #: EPA 524.2 1,2,3 TCF

Analysis Requested  
 Comments:  
 Turnaround # of work days\*  
 Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No  
 \* Standard Turnaround = 10 work days

Sample #	Description	Date Sampled	Time Sampled	EDF Required? Geotracker	Global ID (Needed for EDF)	Reinquinished By	Date	Time	Reinquinished By	Date	Time	System # (Needed for EDF)	Received By	Date	Time
1	140524- raw 5	5-29	4 PM	<input type="checkbox"/> Yes <input type="checkbox"/> No		Jenny Hual	6-14-14	8 AM	M. Hual	6/14/14	8:00		M. Hual	6/14/14	8:00
1	140529- CAR-1,2,3	5-29	9 AM	<input type="checkbox"/> Yes <input type="checkbox"/> No											
2	CARNEW-1,2,3			<input type="checkbox"/> Yes <input type="checkbox"/> No											
3	F400-1,2,3			<input type="checkbox"/> Yes <input type="checkbox"/> No											
4	F400NEW-1,2,3			<input type="checkbox"/> Yes <input type="checkbox"/> No											
1	140530- CAR-1,2,3	5-30	0800	<input type="checkbox"/> Yes <input type="checkbox"/> No											
2	CAR NEW-1,2,3			<input type="checkbox"/> Yes <input type="checkbox"/> No											
3	F400-1,2,3			<input type="checkbox"/> Yes <input type="checkbox"/> No											
4	F400NEW-1,2,3			<input type="checkbox"/> Yes <input type="checkbox"/> No											
5	AQUA-1,2,3			<input type="checkbox"/> Yes <input type="checkbox"/> No											
1	140531- CAR-1,2,3	5-31	9:45 AM	<input type="checkbox"/> Yes <input type="checkbox"/> No											
2	CARNEW-1,2,3			<input type="checkbox"/> Yes <input type="checkbox"/> No											
3	F400-1,2,3			<input type="checkbox"/> Yes <input type="checkbox"/> No											
4	F400NEW-1,2,3			<input type="checkbox"/> Yes <input type="checkbox"/> No											

Billing:  Same as above

Client: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

EDF Required? Geotracker:  Yes  No

Send Copy to State of CA? (EDT):  Yes  No

Global ID (Needed for EDF):  
 1. Reinquinished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 2. Reinquinished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 3. Reinquinished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

System # (Needed for EDF): \_\_\_\_\_

BC Laboratories, Inc. - 4100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.bclabs.com



Laboratories, Inc.

# Chain of Custody Form

Report To: Peter Green  
 Client: Peter Green  
 Attn: TCP  
 Street Address:  
 City, State, Zip: UC Davis  
 Phone: Fax:  
 Email Address:  
 Work Order #: 14-12616

Project #: \_\_\_\_\_  
 Project Name: TCP  
 Sampler(s): Jenny M. Tol

Sample #	Description	Date Sampled	Time Sampled
5	140531 - AQUA-1,2,3	5-3	9:45 AM
1	140601 - F400NEW-1,2 (no 3)	6-1	8:00 AM
2	F400-1,2,3	11-7	
3	CMR-1,2,3	1-18	
4	CMRNEW-1,2,3	1-19	
5	AQUA-1,2,3	2-0	
1	140602 - F400NEW-1,2,3	2-1	9 AM
2	F400-1,2,3	2-2	
3	CMR-1,2,3	2-3	
4	CMRNEW-1,2,3	2-4	
5	AQUA-1,2,3	2-5	
1	140603 - F400NEW-1,2,3	2-6	9 AM
2	F400-1,2,3	2-7	
3	CMR-1,2,3	2-8	

Analysis Requested: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 Turnaround # of work days: \_\_\_\_\_  
 Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No  
 \* Standard Turnaround = 10 work days

Sample Matrix	Turnaround # of work days	Notes
Soil		
Drinking Water		
Ground Water		
Waste Water		
Other		

**Billing**  
 Client: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

Global ID (Needed for EDF): \_\_\_\_\_  
 EDF Required? Geotracker  
 Yes  No  
 Send Copy to State of CA? (EDT)  
 Yes  No

1. Relinquished By: Jenny M. Tol Date: 6-4-14 Time: 8 AM  
 2. Relinquished By: M. J. S. [Signature] Date: 6/4/14 Time: 10:50  
 3. Relinquished By: [Signature] Date: 6/5/14 Time: 8:15

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Chain of Custody Form

Report To: Client: Peter Green  
 Attn: Project Name: TCP  
 Street Address: WC Davis  
 City, State, Zip: Samplers(s): Jimmy Michel  
 Phone: Fax:  
 Email Address: Work Order #: 14-12616

Analysis Requested

Comments: use info to the back of this page for completion instructions and method legend.

Sample #	Description	Date Sampled	Time Sampled	Turnaround # of work days	Sample Matrix	Notes
4	140603-CMRNEW 1,2,3	6-3	9 AM		Drinking Water	
5	140603-ABUA-1,2,3	6-3	9 AM		Drinking Water	
1	140603-rww8	6-3	2 PM		Drinking Water	
	140531-rww6	5-21	9 AM		Drinking Water	
	140602-rww7	6-2	11:30		Drinking Water	
	added to COG per MARK GILIS					
	Mark Gilis					

Global ID (Needed for EDF)	EDF Required? Geotracker	EDF Required? Same as above	Relinquished By	Date	Time	Relinquished By	Date	Time
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Same as above	Jimmy Michel	6-14-14	8 AM	Jimmy Michel	6/14/14	8:00
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Same as above	Jimmy Michel	6/14/14	10:50 AM	Jimmy Michel	6/14/14	8:15
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Same as above						

Client: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

System # (Needed for EDT): \_\_\_\_\_

1. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 2. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 3. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

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BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 1 of 4

Submission #: 14-12616

<b>SHIPPING INFORMATION</b> Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input type="checkbox"/> Other <input checked="" type="checkbox"/> (Specify) <u>Contract</u>		<b>SHIPPING CONTAINER</b> Ice Chest <input type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/>
--	--	--	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: Ice melted

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.97 Container: VOA Thermometer ID: 207 Date/Time: 6/5/14  
 Temperature: (A) 12.8 °C (C) 13.1 mmHg/5 Analyst Init: NFC B15

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE /NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A (1)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: CA Date/Time: 6/5/14 1935  
 A = Actual / C = Corrected (S:\MyDOCS\WordPerfect\LAB\_DOCS\FORMS\SAMREC15)





BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 2 of 4

Submission #: 4-12616

**SHIPPING INFORMATION**  
 Federal Express  UPS  Hand Delivery   
 BC Lab Field Service  Other (Specify) Contract

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO

Refrigerant: Ice  Blue Ice  None  Other  Comments: Ice melted

Custody Seals Ice Chest  Containers  None  Comments:  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

**COC Received**  
 YES  NO

Emissivity: 0.97 Container: VOA Thermometer ID: 207 Date/Time: 6/5/14  
 Temperature: (A) 12.8 °C / (C) 13.1 mmHg/5 Analyst Init: NFC B15

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	20
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A, B	A, B	A, B	A, B	A, B	A, 2	A, B	A, B	A, B	A, B
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: One VOA received broken on 6/5/14  
 Sample Numbering Completed By: [Signature] Date/Time: 6/5/14 1935  
 A = Actual / C = Corrected

[S:\MyDOCS\WordPerfect\LAB\_DOCS\FORMS\SAMREC15]



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 3 of 4

Submission #: 14-12616

<b>SHIPPING INFORMATION</b> Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input type="checkbox"/> Other (Specify) <u>Contract</u>		<b>SHIPPING CONTAINER</b> Ice Chest <input type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other (Specify) _____	<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/>
--	--	---	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: Ice melted

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.97 Container: VOA Thermometer ID: 207 Date/Time: 6/5/14  
 Temperature: (A) 12.8 °C (C) 13.1 mmHg/5 Analyst Init: NFC B15

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	21	22	23	24	25	26	27	28	29	30
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A, C	A, C	A, C	A, C	A, C	A, C	A, C	A, C	A, C	A, C
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: OPR Date/Time: 6/5/14 1735  
 A = Actual / C = Corrected



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 4 of 4

Submission #: 14-12616

**SHIPPING INFORMATION**  
 Federal Express  UPS  Hand Delivery   
 BC Lab Field Service  Other (Specify) Contract

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO

Refrigerant: Ice  Blue Ice  None  Other  Comments: Ice melted

Custody Seals Ice Chest  Containers  None  Comments:  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO  
 Emissivity: 0.97 Container: VOA Thermometer ID: 207  
 Temperature: (A) 12.8 °C, (C) 13.1 mmHg/5  
 Date/Time: 6/5/14  
 Analyst Init: NFC BLS

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	3 1	3 2	3 3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	<u>A</u>	<u>A</u>	<u>A</u>							
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: [Signature] Date/Time: 6/5/14 10:19:35  
 A = Actual / C = Corrected

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Universtiy of California-Davis  
1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1412616-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 06/05/2014 08:10
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/29/2014 16:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140529_raw5	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Groundwater
1412616-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 06/05/2014 08:10
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/29/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140529_CMV_1,2,3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Groundwater
1412616-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 06/05/2014 08:10
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/29/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140529_CMVNEW_1,2,3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Groundwater
1412616-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 06/05/2014 08:10
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/29/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140529_F400_1,2,3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Groundwater
1412616-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 06/05/2014 08:10
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/29/2014 09:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140529_F400NEW_1,2,3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Groundwater
1412616-06	<b>COC Number:</b>	---	<b>Receive Date:</b> 06/05/2014 08:10
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/30/2014 08:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140530_CMV_1,2,3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Groundwater
1412616-07	<b>COC Number:</b>	---	<b>Receive Date:</b> 06/05/2014 08:10
	<b>Project Number:</b>	---	<b>Sampling Date:</b> 05/30/2014 08:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	140530_CMVNEW_1,2,3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b> Groundwater

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



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Engineering  
Davis, CA 95616

**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1412616-08	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/30/2014 08:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140530_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-09	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/30/2014 08:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140530_F400NEW_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-10	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/30/2014 08:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140530_AQUA_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-11	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/31/2014 09:45
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140531_CMR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-12	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/31/2014 09:45
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140531_CMRNEW_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-13	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/31/2014 09:45
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140531_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-14	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/31/2014 09:45
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140531_F400NEW_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater



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Engineering  
Davis, CA 95616

**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1412616-15	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	05/31/2014 09:45
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140531_AQUA_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-16	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/01/2014 08:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140601_F400NEW_1,2 (no 3)		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-17	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/01/2014 08:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140601_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-18	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/01/2014 08:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140601_CMR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-19	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/01/2014 08:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140601_CMRNEW_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-20	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/01/2014 08:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140601_AQUA_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-21	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/02/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140602_F400NEW_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater



Universtiy of California-Davis  
1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1412616-22	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/02/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140602_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-23	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/02/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140602_CMR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-24	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/02/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140602_CMRNEW_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-25	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/02/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140602_AQUA_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-26	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/03/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140603_F400NEW_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-27	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/03/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140603_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1412616-28	<b>COC Number:</b>	---		06/05/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/03/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140603_CMR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater

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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		Receive Date:	Sampling Date:	Sample Depth:	Lab Matrix:	Sample Type:
1412616-29	<b>COC Number:</b>	---	06/05/2014 08:10	06/03/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140603_CMRNEW_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1412616-30	<b>COC Number:</b>	---	06/05/2014 08:10	06/03/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140603_AQUA_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1412616-31	<b>COC Number:</b>	---	06/05/2014 08:10	06/03/2014 14:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140603_raw8					
	<b>Sampled By:</b>	Jenny Mital					
1412616-32	<b>COC Number:</b>	---	06/05/2014 08:10	05/31/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140531_raw6					
	<b>Sampled By:</b>	Jenny Mital					
1412616-33	<b>COC Number:</b>	---	06/05/2014 08:10	06/02/2014 11:30	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140602_raw7					
	<b>Sampled By:</b>	Jenny Mital					





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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-01 | **Client Sample Name:** 140529\_raw5, 5/29/2014 4:00:00PM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.13	ug/L	5	0.025		06/12/14	06/12/14 13:11	A01



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-02 | **Client Sample Name:** 140529\_CMV\_1,2,3, 5/29/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.029	ug/L	1	0.0050		06/06/14	06/06/14 16:29	
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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-03 | **Client Sample Name:** 140529\_CMNEW\_1,2,3, 5/29/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/06/14	06/06/14 16:55	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1412616-04	<b>Client Sample Name:</b>	140529_F400_1,2,3, 5/29/2014 9:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.10	ug/L	1	0.0050		06/06/14	06/06/14 17:20	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-05 | **Client Sample Name:** 140529\_F400NEW\_1,2,3, 5/29/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/06/14	06/06/14 17:45	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1412616-06	<b>Client Sample Name:</b>	140530_CMV_1,2,3, 5/30/2014 8:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.072	ug/L	1	0.0050		06/06/14	06/06/14 18:10	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1412616-07	<b>Client Sample Name:</b>	140530_CMNEW_1,2,3, 5/30/2014 8:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/06/14	06/06/14 18:35	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1412616-08	<b>Client Sample Name:</b>	140530_F400_1,2,3, 5/30/2014 8:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.13	ug/L	2	0.010		06/12/14	06/12/14 13:37	A01





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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1412616-09	<b>Client Sample Name:</b>	140530_F400NEW_1,2,3, 5/30/2014 8:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/06/14	06/06/14 19:26	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-10 | **Client Sample Name:** 140530\_AQUA\_1,2,3, 5/30/2014 8:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/06/14	06/06/14 19:51	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1412616-11	<b>Client Sample Name:</b> 140531_CMR_1,2,3, 5/31/2014 9:45:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.056	ug/L	1	0.0050		06/06/14	06/06/14 20:16	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-12 | **Client Sample Name:** 140531\_CMNEW\_1,2,3, 5/31/2014 9:45:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/06/14	06/06/14 20:41	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1412616-13	<b>Client Sample Name:</b> 140531_F400_1,2,3, 5/31/2014 9:45:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.12	ug/L	2	0.010		06/12/14	06/12/14 14:02	A01



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-14 | **Client Sample Name:** 140531\_F400NEW\_1,2,3, 5/31/2014 9:45:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/06/14	06/06/14 21:31	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1412616-15	<b>Client Sample Name:</b> 140531_AQUA_1,2,3, 5/31/2014 9:45:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/06/14	06/06/14 21:56	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1412616-16	<b>Client Sample Name:</b> 140601_F400NEW_1,2 (no 3), 6/1/2014 8:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>

**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/12/14	06/12/14 14:27	
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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-17 | **Client Sample Name:** 140601\_F400\_1,2,3, 6/1/2014 8:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.15	ug/L	2	0.010		06/12/14	06/12/14 14:53	A01



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-18 | **Client Sample Name:** 140601\_CMR\_1,2,3, 6/1/2014 8:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.052	ug/L	1	0.0050		06/12/14	06/13/14 22:10	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1412616-19	<b>Client Sample Name:</b> 140601_CMNEW_1,2,3, 6/1/2014 8:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/12/14	06/13/14 22:35	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1412616-20	<b>Client Sample Name:</b> 140601_AQUA_1,2,3, 6/1/2014 8:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>

**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/12/14	06/13/14 23:00	
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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-21 | **Client Sample Name:** 140602\_F400NEW\_1,2,3, 6/2/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/12/14	06/13/14 23:25	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-22 | **Client Sample Name:** 140602\_F400\_1,2,3, 6/2/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.12	ug/L	2	0.010		06/12/14	06/12/14 16:59	A01



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-23 | **Client Sample Name:** 140602\_CMV\_1,2,3, 6/2/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.069	ug/L	1	0.0050		06/12/14	06/12/14 17:24	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-24 | **Client Sample Name:** 140602\_CMNEW\_1,2,3, 6/2/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.0085	ug/L	1	0.0050		06/12/14	06/12/14 17:50	





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Engineering  
Davis, CA 95616

**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-25 | **Client Sample Name:** 140602\_AQUA\_1,2,3, 6/2/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/12/14	06/12/14 18:15	



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Engineering  
Davis, CA 95616

**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-26 | **Client Sample Name:** 140603\_F400NEW\_1,2,3, 6/3/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/12/14	06/12/14 18:40	



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Davis, CA 95616

**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-27 | **Client Sample Name:** 140603\_F400\_1,2,3, 6/3/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.13	ug/L	2	0.010		06/12/14	06/12/14 19:05	A01



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-28 | **Client Sample Name:** 140603\_CMV\_1,2,3, 6/3/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.061	ug/L	1	0.0050		06/12/14	06/12/14 19:31	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1412616-29 | **Client Sample Name:** 140603\_CMNEW\_1,2,3, 6/3/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/12/14	06/12/14 19:56	



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1412616-30	<b>Client Sample Name:</b> 140603_AQUA_1,2,3, 6/3/2014 9:00:00AM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
-------------	--------	--------	-------	----------	-----	--------	-----------	---------------	-----------

**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/12/14	06/12/14 20:21	
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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1412616-31	<b>Client Sample Name:</b>	140603_raw8, 6/3/2014 2:00:00PM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.14	ug/L	5	0.025		06/12/14	06/12/14 20:47	A01



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1412616-32	<b>Client Sample Name:</b> 140531_raw6, 5/31/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.12	ug/L	5	0.025		06/12/14	06/12/14 21:12	A01





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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1412616-33	<b>Client Sample Name:</b> 140602_raw7, 6/2/2014 11:30:00AM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.11	ug/L	5	0.025		06/12/14	06/12/14 21:37	A01



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**Reported:** 06/18/2014 13:19  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**Notes And Definitions**

- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- A01 PQL's and MDL's are raised due to sample dilution.
- DW-MCL = MCLs for Title 22 Drinking Water

Date of Report: 06/24/2014

Peter Green

University of California-Davis  
1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

Client Project: [none]  
BCL Project: 1,2,3 TCP Project  
BCL Work Order: 1413049  
Invoice ID: B176478

Enclosed are the results of analyses for samples received by the laboratory on 6/11/2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Contact Person: Misty Orton  
Client Service Rep



Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*  
All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

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## Executive Summary - MCL Exceedances

Constituent	Result	PQL	MCL	Units	Method	Lab Quals
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No exceedances found



Chain of Custody Form



Report To: **Peter Green**  
 Client: **Peter Green**  
 Attn: **Project Name: TCP**  
 Street Address: **WC Design**  
 City, State, Zip: **Samplers: Jenny Mitchell**  
 Phone: **Fax:**  
 Email Address:  
 Work Order #: **14-13049**

Analysis Requested  
 Comments:  
 Sample Matrix  
 Waste Water  
 Ground Water  
 Drinking Water  
 Sludge  
 Soil  
 Turnaround # of work days\*  
 Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No  
 \* Standard Turnaround = 10 work days  
 Notes

Sample #	Description	Date Sampled	Time Sampled
-1	140604 - OLC 30-1,2,3	6-4	9 AM
-2	OLC 40-1,2,3		
-3	F400-1,2,3		
-4	CMR-1,2,3		
-5	AQUA-1,2,3		
-6	140605 - OLC 30-1,2,3	6-5	9:15 AM
-7	OLC 40-1,2,3		
-8	F400-1,2,3		
-9	CMR-1,2,3		
-10	AQUA-1,2,3		
-11	140606 - OLC 30-1,2,3	6-6	9 AM
-12	OLC 40-1,2,3		
-13	F400-1,2,3		
-14	CMR-1,2,3		

CHICKS DISTRIBUTION  
 SUB-OUT

Billing  
 Client: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

EDF Required? Geotracker  
 Yes  No  
 Send Copy to State of CA? (EDT)  
 Yes  No

Global ID (Needed for EDF)  
 1. Relinquished By: **Jenny Mitchell** Date: **6-10-14** Time: **8 AM**  
 2. Relinquished By: **Jenny Mitchell** Date: **6/10/14** Time: **0900**  
 3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

System # (Needed for EDT)  
 Received By: **Jenny Mitchell** Date: **6/10/14** Time: **0900**  
 Received By: \_\_\_\_\_ Date: **6/11/14** Time: **8:10**  
 Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

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Chain of Custody Form

Report To: **Peter Green**  
 Client: **Peter Green**  
 Attn: **Project #:**  
 Project Name: **TCP**  
 Street Address: **UC Davis**  
 City, State, Zip: **Samplers: Jerry Mitchell**  
 Phone: **Fax:**  
 Email Address:  
 Work Order #: **14-13049**

Analysis Requested  
 Comments:  
 Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No  
 \* Standard Turnaround = 10 work days  
 Notes

Sample #	Description	Date Sampled	Time Sampled
-15	140606-AQUA-1,2,3	6-16	9 AM
-16	140607-OLC40-1,2,3	6-17	9:30 AM
-17	OLC30-1,2,3		
-18	AQUA-1,2,3		
-19	CAR-1,2,3		
-20	F400-1,2,3		
-21	140608-AQUA-1,2,3	6-18	9:30 AM
-22	OLC30-1,2,3		
-23	OLC40-1,2,3		
-24	CAR-1,2,3		
-25	F400-1,2,3		

Sample Matrix	Turnaround # of work days	Notes
Soil		
Drinking Water		
Ground Water		
Waste Water		
Other		

**Billing**  
 Same as above  
 Client: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

EDF Required? Geotracker  Yes  No  
 Send Copy to State of CA? (EDT)  Yes  No

Global ID (Needed for EDF)  
 1. Relinquished By: **Jerry Mitchell** Date: **6-10-14** Time: **8 AM**  
 2. Relinquished By: **Jerry Mitchell** Date: **6/10/14** Time: **8:00**  
 3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

System # (Needed for EDT)  
 1. Received By: **Jerry Mitchell** Date: **6/10/14** Time: **8:00**  
 2. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 3. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

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Chain of Custody Form

Report To: **Client:** Peter Green  
**Attn:**   
**Street Address:**   
**City, State, Zip:** UC Davis  
**Phone:**   
**Email Address:**   
**Work Order #:** 14-13049

**Project #:**   
**Project Name:** TCP  
**Sampler(s):** Jenny Mikel

**Analysis Requested:**   
**Sample Matrix:**   
 Waste Water   
 Ground Water   
 Drinking Water   
 Sludge   
 Soil   
 Other

Sample #	Description	Date Sampled	Time Sampled
126	140609 - AQUA-1,2,3	6-9	9:10 AM
127	OLC 20-1,2,3		
128	OLC 40-1,2,3		
129	CAR-1,2,3		
130	F400-1,2,3		
131	140609 - raw 12	6-9	11 AM
132	raw 13		
133	raw 14		
134	140605 - RAW 9	6-5	12 PM
135	140607 - RAW 10	6-7	9 AM
136	140609 - RAW 12	6-9	11 AM
137	140609 - RAW 13	6-9	11 AM
138	140609 - RAW 14	6-9	9 AM

**Comments:**   
 \* added per Mark Ellis  
 mac 6/11/14

**Turnaround # of work days:**   
 Yes  No   
 \* Standard Turnaround = 10 work days

Global ID (Needed for EDF)	EDF Required? Geotracker	EDF Required? Send Copy to State of CA? (EDT)	Relinquished By	Date	Time	Relinquished By	Date	Time
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	Jenny Mikel	6-10-14	8 AM	W. Balle	6-10-14	8:00
			W. Balle	6-11-14	9:00	W. Balle	6-11-14	8:10

**Billing:**  Same as above   
**Client:**   
**Address:**   
**City:**   
**State:**   
**Zip:**   
**Attn:**   
**PO#:**





BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 17 06/05/14 Page 4 of 4

Submission #: 1413049

SHIPPING INFORMATION: Federal Express  UPS  Hand Delivery  BC Lab Field Service  Other  (Specify) Contract

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received:  YES  NO

Emissivity: 0.97 Container: VOA Thermometer ID: 207 Date/Time: 6/11/14

Temperature: (A) 2.1 °C / (C) 2.4 °C Analyst Init: NS-810

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/6080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz Amber EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_

Sample Numbering Completed By: 73P Date/Time: 6/11/14 1648 (S:\WPDoc\WordPerfect\LAB\_DOCS\FORMS\SAMREC16

A = Actual / C = Corrected



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 17 06/05/14 Page 2 of 4

Submission #: 14-13049

**SHIPPING INFORMATION**  
 Federal Express  UPS  Hand Delivery   
 BC Lab Field Service  Other  (Specify) Contract

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

**COC Received**  
 YES  NO

Emissivity: 0.97 Container: Voa Thermometer ID: 207 Date/Time: 6/11/14  
 Temperature: (A) 2.1 °C (C) 2.4 °C Analyst Init: NS-810

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	20
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A.3	A.2	A.3	A.3	A.3	A.3	A.3	A.3	A.3	A.3
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
3oz Amber EPA 548										
PT EPA 549										
PT EPA 632										
PT EPA 8015M										
PT AMBER										
OZ. JAR										
2 OZ. JAR										
OIL SLEEVE										
CB VIAL										
PLASTIC BAG										
ERROUS IRON										
SCORE										
PART KIT										
mma Canister										

Comments: -16-20 time does not match COC  
 Sample Numbering Completed By: 750 Date/Time: 6/11/14



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 17 06/05/14 Page 3 of 4

Submission #: 14-13049

SHIPPING INFORMATION: Federal Express  UPS  Hand Delivery  BC Lab Field Service  Other  (Specify) Contract

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Intact? Yes  No  Intact? Yes  No  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO  Emissivity: 0.97 Container: Voa Thermometer ID: 207 Date/Time: 6/11/14

Temperature: (A) 2.1 °C / (C) 2.4 °C Analyst Init: NS-810

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	21	22	23	24	25	26	27	28	29	30
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz Amber EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
OZ. JAR										
2 OZ. JAR										
OIL SLEEVE										
CB VIAL										
LASTIC BAG										
ERROUS IRON										
NCORE										
ART KIT										
mma Canister										

Comments: - 23 label does not match COC  
 Sample Numbering Completed By: 751 Date/Time: 6/11/14



BC LABORATORIES INC. **COOLER RECEIPT FORM** Rev. No. 17 06/05/14 Page 4 Of 4  
 Submission #: 1413049

**SHIPPING INFORMATION**  
 Federal Express  UPS  Hand Delivery   
 BC Lab Field Service  Other  (Specify) Contract

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

**COC Received**  
 YES  NO

Emissivity: 0.97 Container: VOA Thermometer ID: 207 Date/Time: 6/11/14  
 Temperature: (A) 2.1 °C (C) 2.4 °C Analyst Init: NSC810

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	31	32	33	34	35	6	7	8	9	10
QT GENERAL MINERAL/GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A	A	A	A	A					
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz Amber EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
1 OZ. JAR										
2 OZ. JAR										
OIL SLEEVE										
CB VIAL										
LASTIC BAG										
ERROUS IRON										
NCORE										
MART KIT										
Imma Canister										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: NSP Date/Time: 6/11/14 10:00



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	Sampling Date:	Sample Depth:	Lab Matrix:	Sample Type:
1413049-01	<b>COC Number:</b>	---		06/11/2014 08:10	06/04/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---						
	<b>Sampling Location:</b>	---						
	<b>Sampling Point:</b>	140604_OLC30_1,2,3						
	<b>Sampled By:</b>	Jenny Mital						
1413049-02	<b>COC Number:</b>	---		06/11/2014 08:10	06/04/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---						
	<b>Sampling Location:</b>	---						
	<b>Sampling Point:</b>	140604_OLC40_1,2,3						
	<b>Sampled By:</b>	Jenny Mital						
1413049-03	<b>COC Number:</b>	---		06/11/2014 08:10	06/04/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---						
	<b>Sampling Location:</b>	---						
	<b>Sampling Point:</b>	140604_F400_1,2,3						
	<b>Sampled By:</b>	Jenny Mital						
1413049-04	<b>COC Number:</b>	---		06/11/2014 08:10	06/04/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---						
	<b>Sampling Location:</b>	---						
	<b>Sampling Point:</b>	140604_CMR_1,2,3						
	<b>Sampled By:</b>	Jenny Mital						
1413049-05	<b>COC Number:</b>	---		06/11/2014 08:10	06/04/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---						
	<b>Sampling Location:</b>	---						
	<b>Sampling Point:</b>	140604_AQUA_1,2,3						
	<b>Sampled By:</b>	Jenny Mital						
1413049-06	<b>COC Number:</b>	---		06/11/2014 08:10	06/05/2014 09:15	---	Water	Groundwater
	<b>Project Number:</b>	---						
	<b>Sampling Location:</b>	---						
	<b>Sampling Point:</b>	140605_OLC30_1,2,3						
	<b>Sampled By:</b>	Jenny Mital						
1413049-07	<b>COC Number:</b>	---		06/11/2014 08:10	06/05/2014 09:15	---	Water	Groundwater
	<b>Project Number:</b>	---						
	<b>Sampling Location:</b>	---						
	<b>Sampling Point:</b>	140605_OLC40_1,2,3						
	<b>Sampled By:</b>	Jenny Mital						

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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1413049-08	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/05/2014 09:15
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140605_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-09	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/05/2014 09:15
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140605_CMR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-10	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/05/2014 09:15
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140605_AQUA_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-11	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/06/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140606_OLC30_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-12	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/06/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140606_OLC40_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-13	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/06/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140606_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-14	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/06/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140606_CMR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1413049-15	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/06/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140606_AQUA_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-16	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/07/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140607_OLC40_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-17	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/07/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140607_OLC30_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-18	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/07/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140607_AQUA_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-19	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/07/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140607_CMV_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-20	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/07/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140607_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-21	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/08/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140608_AQUA_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1413049-22	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/08/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140608_OLC30_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-23	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/08/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140608_OLC40_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-24	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/08/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140608_CMR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-25	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/08/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140608_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-26	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/09/2014 09:10
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140609_AQUA_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-27	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/09/2014 09:10
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140609_OLC30_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-28	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/09/2014 09:10
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140609_OLC40_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater





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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1413049-29	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/09/2014 09:10
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140609_CMUR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-30	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/09/2014 09:10
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140609_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-31	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/09/2014 11:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140609_RAW 12		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-32	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/09/2014 11:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140609_RAW 13		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-33	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/09/2014 11:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140609_RAW 14		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-34	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/05/2014 12:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140605_RAW 9		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413049-35	<b>COC Number:</b>	---		06/11/2014 08:10	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/04/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140607_RAW 10		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-01 | **Client Sample Name:** 140604\_OLC30\_1,2,3, 6/4/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/13/14	06/16/14 21:36	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-02 | **Client Sample Name:** 140604\_OLC40\_1,2,3, 6/4/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.011	ug/L	1	0.0050		06/13/14	06/16/14 22:01	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-03 | **Client Sample Name:** 140604\_F400\_1,2,3, 6/4/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/13/14	06/16/14 22:26	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-04 | **Client Sample Name:** 140604\_CMR\_1,2,3, 6/4/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.024	ug/L	1	0.0050		06/13/14	06/16/14 22:51	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413049-05	<b>Client Sample Name:</b>	140604_AQUA_1,2,3, 6/4/2014 9:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/13/14	06/16/14 23:16	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1413049-06	<b>Client Sample Name:</b> 140605_OLC30_1,2,3, 6/5/2014 9:15:00AM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/13/14	06/17/14 04:43	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-07 | **Client Sample Name:** 140605\_OLC40\_1,2,3, 6/5/2014 9:15:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/13/14	06/17/14 05:08	
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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-08 | **Client Sample Name:** 140605\_F400\_1,2,3, 6/5/2014 9:15:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/13/14	06/17/14 05:33	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-09 | **Client Sample Name:** 140605\_CMV\_1,2,3, 6/5/2014 9:15:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.022	ug/L	1	0.0050		06/13/14	06/17/14 05:58	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1413049-10	<b>Client Sample Name:</b> 140605_AQUA_1,2,3, 6/5/2014 9:15:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/13/14	06/17/14 06:23	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-11 | **Client Sample Name:** 140606\_OLC30\_1,2,3, 6/6/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/13/14	06/18/14 07:39	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-12 | **Client Sample Name:** 140606\_OLC40\_1,2,3, 6/6/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/13/14	06/18/14 08:04	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-13 | **Client Sample Name:** 140606\_F400\_1,2,3, 6/6/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/13/14	06/18/14 08:30	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-14 | **Client Sample Name:** 140606\_CMV\_1,2,3, 6/6/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.027	ug/L	1	0.0050		06/16/14	06/18/14 18:03	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1413049-15	<b>Client Sample Name:</b> 140606_AQUA_1,2,3, 6/6/2014 9:00:00AM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/16/14	06/18/14 18:29	
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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-16 | **Client Sample Name:** 140607\_OLC40\_1,2,3, 6/7/2014 9:30:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/16/14	06/18/14 20:34	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-17 | **Client Sample Name:** 140607\_OLC30\_1,2,3, 6/7/2014 9:30:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/16/14	06/18/14 20:59	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-18 | **Client Sample Name:** 140607\_AQUA\_1,2,3, 6/7/2014 9:30:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/16/14	06/18/14 21:24	
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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-19 | **Client Sample Name:** 140607\_CMV\_1,2,3, 6/7/2014 9:30:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.025	ug/L	1	0.0050		06/16/14	06/18/14 21:49	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413049-20	<b>Client Sample Name:</b>	140607_F400_1,2,3, 6/7/2014 9:30:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/16/14	06/18/14 22:15	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413049-21	<b>Client Sample Name:</b>	140608_AQUA_1,2,3, 6/8/2014 9:30:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.0097	ug/L	1	0.0050		06/18/14	06/19/14 01:35	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1413049-22	<b>Client Sample Name:</b> 140608_OLC30_1,2,3, 6/8/2014 9:30:00AM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.014	ug/L	1	0.0050		06/18/14	06/19/14 02:00	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413049-23	<b>Client Sample Name:</b>	140608_OLC40_1,2,3, 6/8/2014 9:30:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.011	ug/L	1	0.0050		06/18/14	06/19/14 02:25	





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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-24 | **Client Sample Name:** 140608\_CMV\_1,2,3, 6/8/2014 9:30:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.026	ug/L	1	0.0050		06/18/14	06/19/14 02:50	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-25 | **Client Sample Name:** 140608\_F400\_1,2,3, 6/8/2014 9:30:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/19/14	06/19/14 10:36	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1413049-26	<b>Client Sample Name:</b> 140609_AQUA_1,2,3, 6/9/2014 9:10:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	ND	ug/L	1	0.0050		06/19/14	06/19/14 12:41	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-27 | **Client Sample Name:** 140609\_OLC30\_1,2,3, 6/9/2014 9:10:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.020	ug/L	1	0.0050		06/19/14	06/19/14 13:06	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-28 | **Client Sample Name:** 140609\_OLC40\_1,2,3, 6/9/2014 9:10:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.014	ug/L	1	0.0050		06/19/14	06/19/14 13:31	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-29 | **Client Sample Name:** 140609\_CMV\_1,2,3, 6/9/2014 9:10:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.026	ug/L	1	0.0050		06/19/14	06/19/14 13:56	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-30 | **Client Sample Name:** 140609\_F400\_1,2,3, 6/9/2014 9:10:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.023	ug/L	1	0.0050		06/19/14	06/19/14 14:21	



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1413049-31	<b>Client Sample Name:</b> 140609_RAW 12, 6/9/2014 11:00:00AM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.25	ug/L	5	0.025		06/19/14	06/20/14 11:39	A01





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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1413049-32	<b>Client Sample Name:</b> 140609_RAW 13, 6/9/2014 11:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.22	ug/L	5	0.025		06/19/14	06/20/14 12:04	A01



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413049-33	<b>Client Sample Name:</b>	140609_RAW 14, 6/9/2014 11:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.25	ug/L	5	0.025		06/19/14	06/20/14 12:47	A01



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413049-34	<b>Client Sample Name:</b>	140605_RAW 9, 6/5/2014 12:00:00PM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.20	ug/L	5	0.025		06/16/14	06/17/14 18:48	A01



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413049-35 | **Client Sample Name:** 140607\_RAW 10, 6/4/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.23	ug/L	5	0.025		06/18/14	06/19/14 10:10	A01,S05



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**Reported:** 06/24/2014 14:47  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**Notes And Definitions**

- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- A01 PQL's and MDL's are raised due to sample dilution.
- S05 The sample holding time was exceeded.
- DW-MCL = MCLs for Title 22 Drinking Water



Date of Report: 07/01/2014

Peter Green

University of California-Davis

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Client Project: [none]

BCL Project: 1,2,3 TCP Project

BCL Work Order: 1413679

Invoice ID: B177012

Enclosed are the results of analyses for samples received by the laboratory on 6/18/2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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1413679-26 - 140617_CM_1,2,3.....	45
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1413679-28 - 140617_F400_1,2,3.....	47
1413679-29 - 140617_OLC40_1,2,3.....	48
1413679-30 - 140617_OLC30_1,2,3.....	49
1413679-31 - 140616_CM_1,2,3.....	50
1413679-32 - 140616_Aqua_1,2,3.....	51
1413679-33 - 140616_F400_1,2,3.....	52
1413679-34 - 140616_OLC40_1,2,3.....	53
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## Notes

Notes and Definitions.....	63
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### Executive Summary - MCL Exceedances

Constituent	Result	PQL	MCL	Units	Method	Lab Quals
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No exceedances found





Chain of Custody Form



Report To: **Client: Peter Green** Project #: \_\_\_\_\_  
**Attn:** \_\_\_\_\_ Project Name: **TCP**  
**Street Address:** \_\_\_\_\_  
**City, State, Zip:** **UC Davis** **Mail**  
**Phone:** \_\_\_\_\_ **Fax:** \_\_\_\_\_  
**Email Address:** \_\_\_\_\_  
**Work Order #:** **14-13679**

Sample #	Description	Date Sampled	Time Sampled
-1	CMR-1,2,3	6-14	11 AM
-2	AQUA-1,2,3		
-3	F400-1,2,3		
-4	OLC40-1,2,3		
-5	OLC30-1,2,3		
101	CMR-1,2,3	6-13	5 PM
102	F400-1,2,3		5 PM
103	OLC40-1,2,3		10 AM
104	OLC30-1,2,3		10 AM
105	AQUA-1,2,3		10 AM
111	CMR-1,2,3	6-12	9 AM
112	AQUA-1,2,3		
113	F400-1,2,3		
114	OLC40-1,2,3		

**Analysis Requested**

Leave this to the back of this page for completion instructions and initial legend.

**Sample Matrix**

Soil	<input type="checkbox"/>
Sludge	<input type="checkbox"/>
Drinking Water	<input type="checkbox"/>
Ground Water	<input type="checkbox"/>
Waste Water	<input type="checkbox"/>

Are there any tests with holding times less than or equal to 48 hours? Yes  No

\* Standard Turnaround = 10 work days

**Comments:**

Sub-out to Distribution

CHK BY: **JKR**

SHORT HOLDING TIME

Cr<sup>6</sup> NO<sub>2</sub> OP SS

DO Cl<sub>2</sub> BOD Manganese/COT

Page 1 of 4

**Billing**

Global ID (Needed for EDF): \_\_\_\_\_

EDF Required? Geotracker: Yes  No

Send Copy to State of CA? (EDT) Yes  No

Client: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 PO#: \_\_\_\_\_

1. Relinquished By: **Granny Mital** Date: **6-18-14** Time: **8:30 AM**  
 2. Relinquished By: **Murphy** Date: **6-18-14** Time: **10:20**  
 3. Relinquished By: **Kerry Sweeney** Date: **6-18-14** Time: **19:30**

Received By: **Murphy** Date: **6-18-14** Time: **19:15**  
 Received By: **Kerry Sweeney** Date: **6-18-14** Time: **16:00**  
 Received By: **Kerry Sweeney** Date: **6-18-14** Time: **19:15**

System # (Needed for EDT): \_\_\_\_\_

BC Laboratories, Inc. - 4100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.bclabs.com

REL **6-18-14 2520** **JKR** **6-18-14 2320**





Chain of Custody Form



Report To: Peter Green  
 Client: Peter Green  
 Attn: Peter Green  
 Street Address: [Blank]  
 City, State, Zip: UC Davis  
 Phone: [Blank]  
 Email Address: [Blank]  
 Work Order #: 14-13679

Project #: [Blank]  
 Project Name: TCP  
 Sampler(s): Jerry Nidal

Analysis Requested: leave for to be back in this preparation / materials and what regard.

Sample #	Description	Date Sampled	Time Sampled	Global ID (Needed for EDF)	EDF Required? Geotracker	EDF Required? Send Copy to State of CA? (EDT)	Relinquished By	Date	Time	Relinquished By	Date	Time	Sample Matrix	Turnaround # of work days*	Notes
261	140617- CAR-1,2,3	6-17	6PM		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	Jerry Nidal	6-18-14	8:30 AM	Michelle	6-18-14	09:25	Soil		
262	AQUA-1,2,3						Michelle	6-18-14	10:20	Michelle	6-18-14	16:20	Drinking Water		
263	F400-1,2,3						Michelle	6-18-14	19:30	Michelle	6-18-14	19:30	Ground Water		
264	OLC40-1,2,3						Michelle	6-18-14	19:30	Michelle	6-18-14	19:30	Waste Water		
265	OLC30-1,2,3						Michelle	6-18-14	19:30	Michelle	6-18-14	19:30	Other		
311	140616- CAR-1,2,3	6-16	10 AM		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	Jerry Nidal			Michelle			Soil		
312	AQUA-1,2,3						Michelle			Michelle			Drinking Water		
313	F400-1,2,3						Michelle			Michelle			Ground Water		
314	OLC40-1,2,3						Michelle			Michelle			Waste Water		
315	OLC30-1,2,3						Michelle			Michelle			Other		
316	140615- CAR-1,2,3	6-15	9:30 AM		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	Jerry Nidal			Michelle			Soil		
317	AQUA-1,2,3						Michelle			Michelle			Drinking Water		
318	F400-1,2,3						Michelle			Michelle			Ground Water		
319	OLC40-1,2,3						Michelle			Michelle			Waste Water		
320	OLC30-1,2,3						Michelle			Michelle			Other		

Are there any tests with holding times less than or equal to 48 hours?  Yes  No  
 \* Standard Turnaround = 10 work days

Comments: EPA 524.2 1,2,3 TCP

System # (Needed for EDT): [Blank]

1. Relinquished By: Michelle Date: 6-18-14 Time: 8:30 AM  
 2. Relinquished By: Michelle Date: 6-18-14 Time: 10:20  
 3. Relinquished By: Michelle Date: 6-18-14 Time: 19:30

Client: [Blank]  
 Address: [Blank]  
 City: [Blank] State: [Blank] Zip: [Blank]  
 Attn: [Blank]  
 PO#: [Blank]

BC Laboratories, Inc. - 4100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.bclabs.com  
 REL. 6-18-14 08:20 Michelle 6-18-14 08:20



Chain of Custody Form

Report To: Client: Peter Green  
 Attn: Project Name: TCP  
 Street Address: City, State, Zip: UC Davis  
 Phone: Fax:  
 Email Address: Work Order #: 14-13679

Analysis Requested  
 Comments:  
 Sample Matrix:  Drinking Water,  Ground Water,  Waste Water,  Soil,  Other  
 Turnaround # of work days: 4  
 Are there any tests with holding times less than or equal to 48 hours?  Yes  No  
 \* Standard Turnaround = 10 work days

Project #: 14-13679  
 Project Name: UC Davis  
 Sampler(s): Jenny Mital  
 Date Sampled: 6-10  
 Time Sampled: 9:30 AM

Sample #	Description	Date Sampled	Time Sampled
<del>140610</del>	<del>CMR-1,2,3</del>	<del>6-10</del>	<del>9:30 AM</del>
<del>140611</del>	<del>AGUA-1,2,3</del>	<del>6-10</del>	<del>11 AM</del>
<del>140612</del>	<del>F400-1,2,3</del>	<del>6-10</del>	<del>11 AM</del>
<del>140613</del>	<del>OLC40-1,2,3</del>	<del>6-10</del>	<del>11 AM</del>
<del>140614</del>	<del>OLC30-1,2,3</del>	<del>6-10</del>	<del>11 AM</del>
140609	raw 15	6-15	9:30 AM
140609	raw 16		
140609	raw 17		
140615	OLC30-1,2,3		

Global ID (Needed for EDF): EPA 524.2 123 TEL

EDF Required?  Yes  No  
 Send Copy to State of CA? (EDT)  Yes  No

Client: UC Davis  
 Address: UC Davis  
 City: UC Davis State: CA Zip: 95616  
 Attn: Jenny Mital  
 PO#: 14-13679

Requisitioned By: Jenny Mital Date: 6-18-14 Time: 8:30 AM  
 Relinquished By: Jenny Mital Date: 6-18-14 Time: 10:00  
 Received By: Jenny Mital Date: 6-18-14 Time: 19:30

System # (Needed for EDT): 61914 015  
 Date: 6-18-14 Time: 19:30  
 Date: 6-18-14 Time: 19:30  
 Date: 6-18-14 Time: 19:30

BC Laboratories, Inc. - 4100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.bclabs.com  
 R.E.L. 6-18-14 6:18-14 2320 6-19-14 0820



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 17 06/05/14 Page 1 Of 5

Submission # 14-13679

<b>SHIPPING INFORMATION</b> Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/>
--	--	---	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

<b>COC Received</b> <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Emissivity: <u>0.97</u> Container: <u>VOA</u> Thermometer ID: <u>207</u> Temperature: (A) <u>1.5</u> °C / (C) <u>1.8</u> °C	Date/Time <u>6/19/14 1035</u> Analyst Init <u>RP</u>
--	--	---

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz Amber EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: Majority of samples received with headspace.  
 Sample Numbering Completed By: MAM Date/Time: 6/19/14 1035 [S:\WPDoc\WordPerfect\LAB\_DOCS\FORMS\ISAMREC16  
 A = Actual / C = Corrected



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 17 06/05/14 Page 2 Of 5

Submission #: 14-13679

**SHIPPING INFORMATION**  
 Federal Express  UPS  Hand Delivery   
 BC Lab Field Service  Other  (Specify) \_\_\_\_\_

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

**COC Received**  
 YES  NO

Emissivity: 0.97 Container: VOA Thermometer ID: 207 Date/Time: 6/19/14 1030  
 Temperature: (A) 1.5 °C (C) 1.8 °C Analyst Init: BP

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	11	12	13	14	15	16	17	18	19	20
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz Amber EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: nam Date/Time: 6/19/14 1035 IS:\WPDoc\WordPerfect\LAB\_DOCS\FORMS\ISAMREC16



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 17 06/05/14 Page 3 Of 5

Submission #: 14-13679

<b>SHIPPING INFORMATION</b> Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/>	
--	--	---	--	--	--

Refrigerant: Ice  Blue Ice  None  Other  Comments:

Custody Seals Ice Chest  Containers  None  Comments:  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO Emissivity: 0.97 Container: VOA Thermometer ID: 207 Date/Time: 6/11/14 2320  
 Temperature: (A) 1.5 °C / (C) 1.8 °C Analyst Init: RP

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	21	22	23	24	25	26	27	28	29	30
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE /NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz Amber EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments:  
 Sample Numbering Completed By: Mam Date/Time: 6/11/14 1035 IS:WPDoc\WordPerfect\LAB\_DOCS\FORMS\SAMREC-16



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 17 06/05/14 Page 4 Of 5

Submission #: 14-13679

**SHIPPING INFORMATION**  
 Federal Express  UPS  Hand Delivery   
 BC Lab Field Service  Other  (Specify) \_\_\_\_\_

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

**COC Received**  
 YES  NO

Emissivity: 0.97 Container: VOA Thermometer ID: 207 Date/Time: 6/11/14 1330  
 Temperature: (A) 1.5 °C / (C) 1.8 °C Analyst Init: RP

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	31	32	33	34	35	36	37	38	39	-1040
QT GENERAL MINERAL/GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (3)	A (1)
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz Amber EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: Mam Date/Time: 6/11/14 1035 IS:\WPDoc\WordPerfect\LAB\_DOCS\FORMS\SAMREC16





BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 17 06/05/14 Page 5 Of 5

Submission #: 14-13679

**SHIPPING INFORMATION**  
 Federal Express  UPS  Hand Delivery   
 BC Lab Field Service  Other  (Specify) \_\_\_\_\_

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

**COC Received**  
 YES  NO

Emissivity: 0.97 Container: VOA Thermometer ID: 207 Date/Time: 6/11/14 7320  
 Temperature: (A) 1.5 °C / (C) 1.8 °C Analyst Init: RP

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A (1)	A (1)	A (3)	( )	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz Amber EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: man Date/Time: 6/11/14 1035 IS:WPDoc\WordPerfect\LAB\_DOCS\FORMS\SAMREC16



University of California-Davis  
1 Shields Avenue-Dept. of Civil & Environmental  
Engineering  
Davis, CA 95616

**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		Receive Date:	Sampling Date:	Sample Depth:	Lab Matrix:	Sample Type:
1413679-01	<b>COC Number:</b>	---	06/18/2014 23:20	06/14/2014 11:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140614_CMR_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1413679-02	<b>COC Number:</b>	---	06/18/2014 23:20	06/14/2014 11:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140614_Aqua_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1413679-03	<b>COC Number:</b>	---	06/18/2014 23:20	06/14/2014 11:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140614_F400_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1413679-04	<b>COC Number:</b>	---	06/18/2014 23:20	06/14/2014 11:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140614_OLC40_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1413679-05	<b>COC Number:</b>	---	06/18/2014 23:20	06/14/2014 11:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140614_OLC30_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1413679-06	<b>COC Number:</b>	---	06/18/2014 23:20	06/13/2014 17:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140613_CMR_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1413679-07	<b>COC Number:</b>	---	06/18/2014 23:20	06/13/2014 17:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140613_F400_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					

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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1413679-08	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/13/2014 10:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140613_OLC40_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-09	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/13/2014 10:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140613_OLC30_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-10	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/13/2014 10:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140613_Aqua_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-11	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/12/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140612_CMR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-12	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/12/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140612_Aqua_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-13	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/12/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140612_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-14	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/12/2014 09:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140612_OLC40_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater

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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		Receive Date:	Sampling Date:	Sample Depth:	Lab Matrix:	Sample Type:
1413679-15	<b>COC Number:</b>	---	06/18/2014 23:20	06/12/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140612_OLC30_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1413679-16	<b>COC Number:</b>	---	06/18/2014 23:20	06/11/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140611_CMR_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1413679-17	<b>COC Number:</b>	---	06/18/2014 23:20	06/11/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140611_Aqua_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1413679-18	<b>COC Number:</b>	---	06/18/2014 23:20	06/11/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140611_F400_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1413679-19	<b>COC Number:</b>	---	06/18/2014 23:20	06/11/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140611_OLC40_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1413679-20	<b>COC Number:</b>	---	06/18/2014 23:20	06/11/2014 09:00	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140611_OLC30_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					
1413679-21	<b>COC Number:</b>	---	06/18/2014 23:20	06/10/2014 09:30	---	Water	Groundwater
	<b>Project Number:</b>	---					
	<b>Sampling Location:</b>	---					
	<b>Sampling Point:</b>	140610_CMR_1,2,3					
	<b>Sampled By:</b>	Jenny Mital					



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**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1413679-22	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/10/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140610_Aqua_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-23	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/10/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140610_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-24	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/10/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140610_OLC40_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-25	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/10/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140610_OLC30_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-26	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/17/2014 18:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140617_CMR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-27	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/17/2014 18:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140617_Aqua_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-28	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/17/2014 18:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140617_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater

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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1413679-29	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/17/2014 18:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140617_OLC40_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-30	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/17/2014 18:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140617_OLC30_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-31	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/16/2014 10:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140616_CMR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-32	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/16/2014 10:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140616_Aqua_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-33	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/16/2014 10:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140616_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-34	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/16/2014 10:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140616_OLC40_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-35	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/16/2014 10:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140616_OLC30_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater



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**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1413679-36	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/15/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140615_CMR_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-37	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/15/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140615_Aqua_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-38	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/15/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140615_F400_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-39	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/15/2014 09:30
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140615_OLC40_1,2,3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-40	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/09/2014 11:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140609_Raw 15		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-41	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/09/2014 11:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140609_Raw 16		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater
1413679-42	<b>COC Number:</b>	---		06/18/2014 23:20	
	<b>Project Number:</b>	---		<b>Sampling Date:</b>	06/09/2014 11:00
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140609_Raw 17		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital		<b>Sample Type:</b>	Groundwater



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1413679-43	<b>COC Number:</b>	---	<b>Receive Date:</b>	06/18/2014 23:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	06/15/2014 09:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	140615_OLC30_1,2,3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Jenny Mital	<b>Sample Type:</b>	Groundwater





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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-01 | **Client Sample Name:** 140614\_CMV\_1,2,3, 6/14/2014 11:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.072	ug/L	1	0.0050		06/23/14	06/24/14 09:16	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-02 | **Client Sample Name:** 140614\_Aqua\_1,2,3, 6/14/2014 11:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.019	ug/L	1	0.0050		06/23/14	06/24/14 09:41	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-03 | **Client Sample Name:** 140614\_F400\_1,2,3, 6/14/2014 11:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.050	ug/L	1	0.0050		06/23/14	06/24/14 10:06	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-04 | **Client Sample Name:** 140614\_OLC40\_1,2,3, 6/14/2014 11:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.046	ug/L	1	0.0050		06/23/14	06/24/14 10:31	
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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1413679-05	<b>Client Sample Name:</b> 140614_OLC30_1,2,3, 6/14/2014 11:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.066	ug/L	1	0.0050		06/23/14	06/24/14 10:56	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-06 | **Client Sample Name:** 140613\_CMV\_1,2,3, 6/13/2014 5:00:00PM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.068	ug/L	1	0.0050		06/23/14	06/24/14 05:55	
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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413679-07	<b>Client Sample Name:</b>	140613_F400_1,2,3, 6/13/2014 5:00:00PM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.039	ug/L	1	0.0050		06/23/14	06/24/14 06:20	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-08 | **Client Sample Name:** 140613\_OLC40\_1,2,3, 6/13/2014 10:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.037	ug/L	1	0.0050		06/23/14	06/24/14 06:45	





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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1413679-09	<b>Client Sample Name:</b> 140613_OLC30_1,2,3, 6/13/2014 10:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.043	ug/L	1	0.0050		06/23/14	06/24/14 07:10	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-10 | **Client Sample Name:** 140613\_Aqua\_1,2,3, 6/13/2014 10:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.025	ug/L	1	0.0050		06/23/14	06/24/14 07:36	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-11 | **Client Sample Name:** 140612\_CM\_1,2,3, 6/12/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.056	ug/L	1	0.0050		06/23/14	06/24/14 02:34	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-12 | **Client Sample Name:** 140612\_Aqua\_1,2,3, 6/12/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.024	ug/L	1	0.0050		06/23/14	06/24/14 04:15	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413679-13	<b>Client Sample Name:</b>	140612_F400_1,2,3, 6/12/2014 9:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.018	ug/L	1	0.0050		06/23/14	06/24/14 04:40	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413679-14	<b>Client Sample Name:</b>	140612_OLC40_1,2,3, 6/12/2014 9:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.030	ug/L	1	0.0050		06/23/14	06/24/14 05:05	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1413679-15	<b>Client Sample Name:</b> 140612_OLC30_1,2,3, 6/12/2014 9:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.052	ug/L	1	0.0050		06/23/14	06/24/14 05:30	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413679-16	<b>Client Sample Name:</b>	140611_CMR_1,2,3, 6/11/2014 9:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.043	ug/L	1	0.0050		06/23/14	06/24/14 00:29	





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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-17 | **Client Sample Name:** 140611\_Aqua\_1,2,3, 6/11/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.0087	ug/L	1	0.0050		06/23/14	06/24/14 00:54	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413679-18	<b>Client Sample Name:</b>	140611_F400_1,2,3, 6/11/2014 9:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.022	ug/L	1	0.0050		06/23/14	06/24/14 01:19	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413679-19	<b>Client Sample Name:</b>	140611_OLC40_1,2,3, 6/11/2014 9:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.030	ug/L	1	0.0050		06/23/14	06/24/14 01:44	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-20 | **Client Sample Name:** 140611\_OLC30\_1,2,3, 6/11/2014 9:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
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**Uncategorized**

1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.044	ug/L	1	0.0050		06/23/14	06/24/14 02:09	
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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-21 | **Client Sample Name:** 140610\_CMR\_1,2,3, 6/10/2014 9:30:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.028	ug/L	1	0.0050		06/23/14	06/23/14 22:23	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413679-22	<b>Client Sample Name:</b>	140610_Aqua_1,2,3, 6/10/2014 9:30:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.010	ug/L	1	0.0050		06/23/14	06/23/14 22:48	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-23 | **Client Sample Name:** 140610\_F400\_1,2,3, 6/10/2014 9:30:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.020	ug/L	1	0.0050		06/23/14	06/23/14 23:13	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413679-24	<b>Client Sample Name:</b>	140610_OLC40_1,2,3, 6/10/2014 9:30:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.012	ug/L	1	0.0050		06/23/14	06/23/14 23:39	





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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1413679-25	<b>Client Sample Name:</b> 140610_OLC30_1,2,3, 6/10/2014 9:30:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.025	ug/L	1	0.0050		06/23/14	06/24/14 00:04	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-26 | **Client Sample Name:** 140617\_CMV\_1,2,3, 6/17/2014 6:00:00PM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.12	ug/L	5	0.025		06/24/14	06/26/14 17:51	A01



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-27 | **Client Sample Name:** 140617\_Aqua\_1,2,3, 6/17/2014 6:00:00PM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.062	ug/L	1	0.0050		06/24/14	06/25/14 16:48	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413679-28	<b>Client Sample Name:</b>	140617_F400_1,2,3, 6/17/2014 6:00:00PM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.077	ug/L	5	0.025		06/25/14	06/26/14 18:17	A01



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-29 | **Client Sample Name:** 140617\_OLC40\_1,2,3, 6/17/2014 6:00:00PM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.062	ug/L	1	0.0050		06/25/14	06/25/14 17:38	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1413679-30	<b>Client Sample Name:</b> 140617_OLC30_1,2,3, 6/17/2014 6:00:00PM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.087	ug/L	1	0.0050		06/25/14	06/25/14 18:03	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-31 | **Client Sample Name:** 140616\_CM\_1,2,3, 6/16/2014 10:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.13	ug/L	5	0.025		06/24/14	06/26/14 18:42	A01



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413679-32	<b>Client Sample Name:</b>	140616_Aqua_1,2,3, 6/16/2014 10:00:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.017	ug/L	1	0.0050		06/24/14	06/25/14 14:42	





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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-33 | **Client Sample Name:** 140616\_F400\_1,2,3, 6/16/2014 10:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.088	ug/L	1	0.0050		06/24/14	06/25/14 15:07	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-34 | **Client Sample Name:** 140616\_OLC40\_1,2,3, 6/16/2014 10:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.044	ug/L	1	0.0050		06/24/14	06/25/14 15:32	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-35 | **Client Sample Name:** 140616\_OLC30\_1,2,3, 6/16/2014 10:00:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.086	ug/L	1	0.0050		06/24/14	06/25/14 15:57	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1413679-36	<b>Client Sample Name:</b> 140615_CMV_1,2,3, 6/15/2014 9:30:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.094	ug/L	1	0.0050		06/23/14	06/24/14 11:47	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413679-37	<b>Client Sample Name:</b>	140615_Aqua_1,2,3, 6/15/2014 9:30:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.019	ug/L	1	0.0050		06/23/14	06/24/14 12:12	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-38 | **Client Sample Name:** 140615\_F400\_1,2,3, 6/15/2014 9:30:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.060	ug/L	1	0.0050		06/24/14	06/24/14 12:37	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**BCL Sample ID:** 1413679-39 | **Client Sample Name:** 140615\_OLC40\_1,2,3, 6/15/2014 9:30:00AM, Jenny Mital

Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.033	ug/L	1	0.0050		06/24/14	06/24/14 13:02	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1413679-40	<b>Client Sample Name:</b> 140609_Raw 15, 6/9/2014 11:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.17	ug/L	5	0.025		06/20/14	06/23/14 19:52	A01





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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1413679-41	<b>Client Sample Name:</b> 140609_Raw 16, 6/9/2014 11:00:00AM, Jenny Mital								
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.24	ug/L	5	0.025		06/20/14	06/23/14 20:17	A01



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b> 1413679-42	<b>Client Sample Name:</b> 140609_Raw 17, 6/9/2014 11:00:00AM, Jenny Mital
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Constituent	Method	Result	Units	Dilution	PQL	DW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.19	ug/L	5	0.025		06/20/14	06/23/14 20:42	A01



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

<b>BCL Sample ID:</b>	1413679-43	<b>Client Sample Name:</b>	140615_OLC30_1,2,3, 6/15/2014 9:30:00AM, Jenny Mital						
<b>Constituent</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>Dilution</b>	<b>PQL</b>	<b>DW-MCL</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Lab Quals</b>
<b>Uncategorized</b>									
1,2,3-Trichloropropane	DHS-1,2,3-TCP	0.062	ug/L	1	0.0050		06/20/14	06/24/14 11:22	



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**Reported:** 07/01/2014 10:22  
**Project:** 1,2,3 TCP Project  
**Project Number:** [none]  
**Project Manager:** Peter Green

**Notes And Definitions**

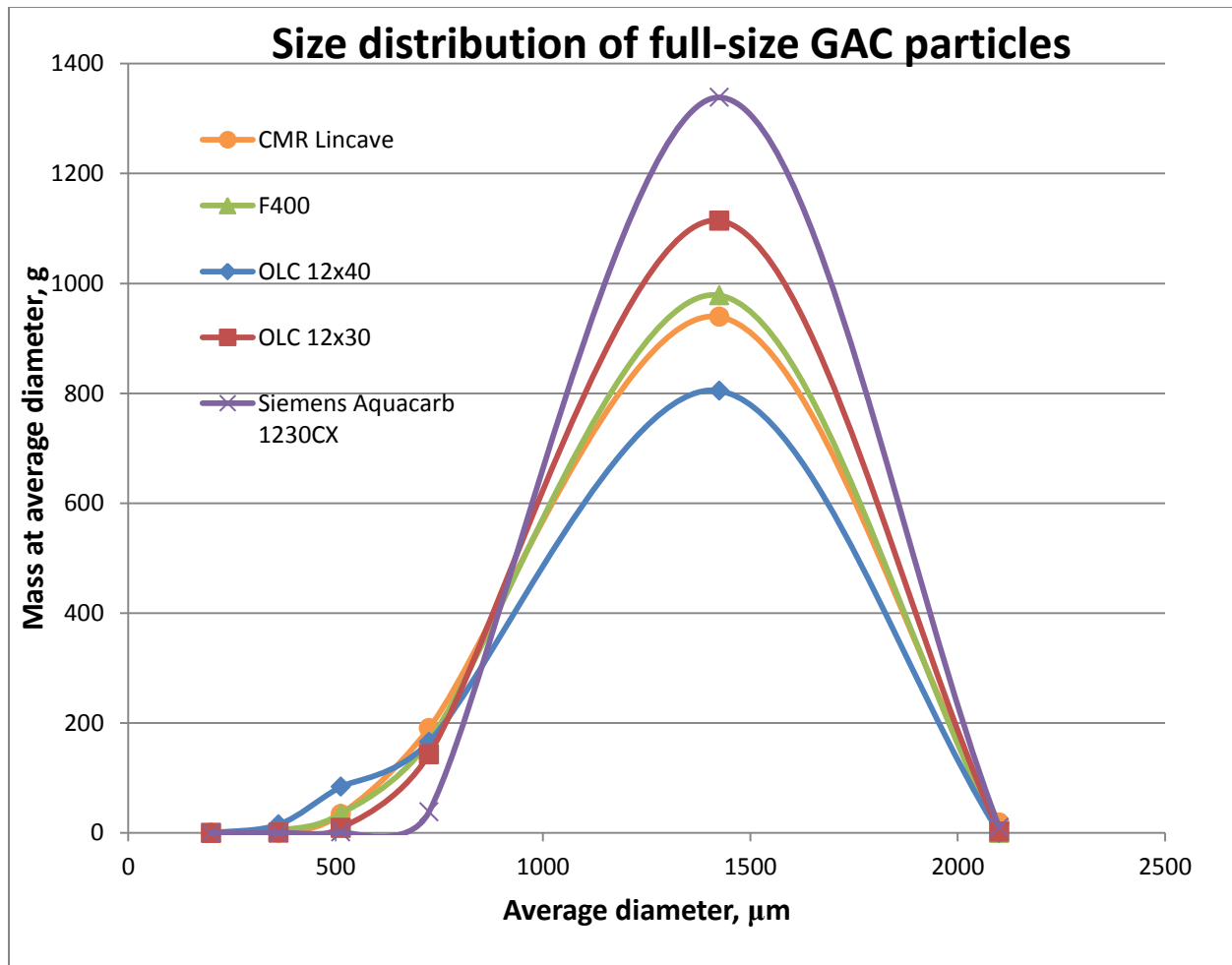
- MDL Method Detection Limit
- PQL Practical Quantitation Limit
- A01 PQL's and MDL's are raised due to sample dilution.
- DW-MCL = MCLs for Title 22 Drinking Water

## **Appendix B: Calculations and Additional Graphs**

**Table 8.** Full-scale column operation parameters

	<b>Apparent Density, g/cm<sup>3</sup></b>	<b>Bed density, g/m<sup>3</sup></b>	<b>Bed density, lb/m<sup>3</sup></b>	<b>Volume of 20,000lb bed, m<sup>3</sup></b>	<b>Reactor bed depth, ft</b>	<b>Series bed height, ft</b>	<b>Reactor EBCT, min</b>	<b>Series EBCT, min</b>
<b>F400</b>	0.54	486000	1071.5	18.7	8.4	16.8	8.2	16.4
<b>OLC12x40</b>	0.48	432000	952.4	21.0	9.4	18.9	9.3	18.5
<b>OLC12x30</b>	0.46	414000	912.7	21.9	9.8	19.7	9.7	19.3
<b>Aquacarb CX</b>	0.46	414000	912.7	21.9	9.8	19.7	9.7	19.3
<b>CMR Lincave</b>	0.46	414000	912.7	21.9	9.8	19.7	9.7	19.3

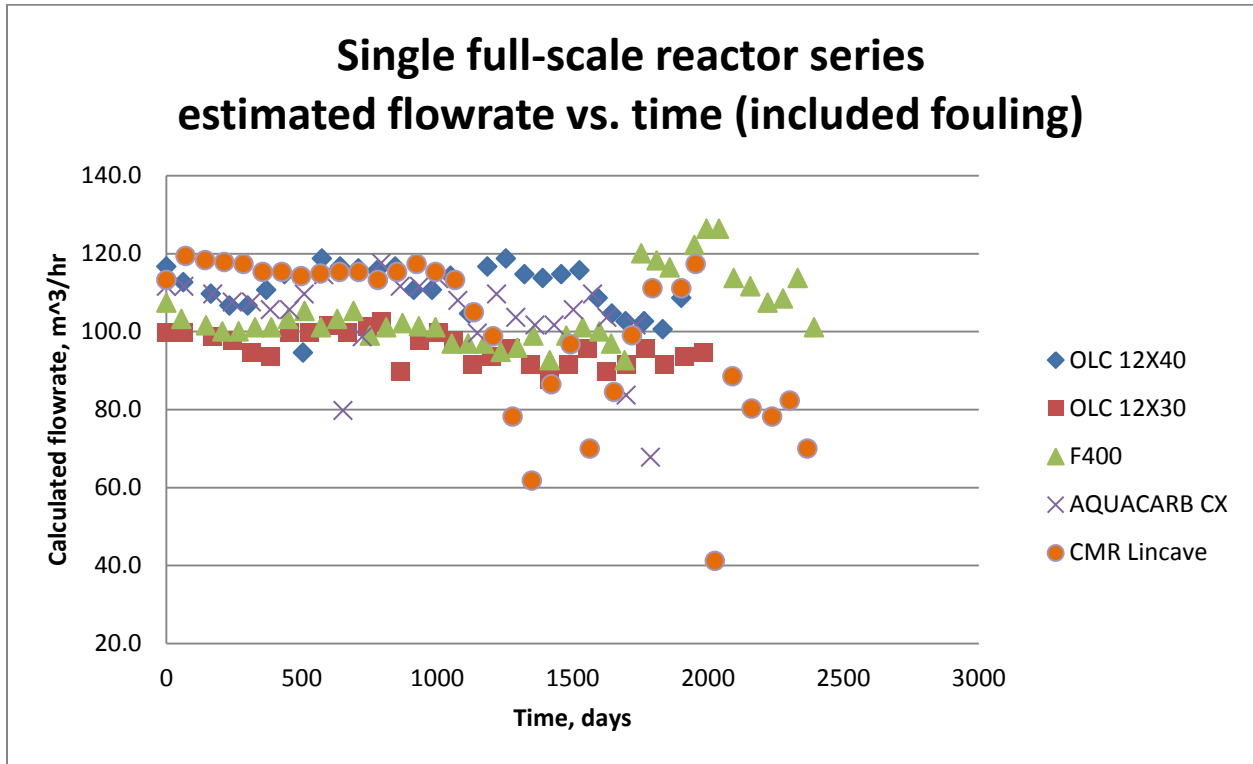
The average densities of the activated carbon samples were obtained from the product data sheets, which are shown in Appendix C. The density was not available for CMR Lincave, so it was assumed to have the same density as OLC 12x30 and Aquacarb CX. The bed density is 90% of the apparent density, based on EPA recommendations (EPA). The volume per vessel is for a 20,000-lb media bed. The empty bed contact time (EBCT) is based on the flow rate of 600 gpm per reactor series.



**Figure 8.** Particle size distribution of granular activated carbon samples.

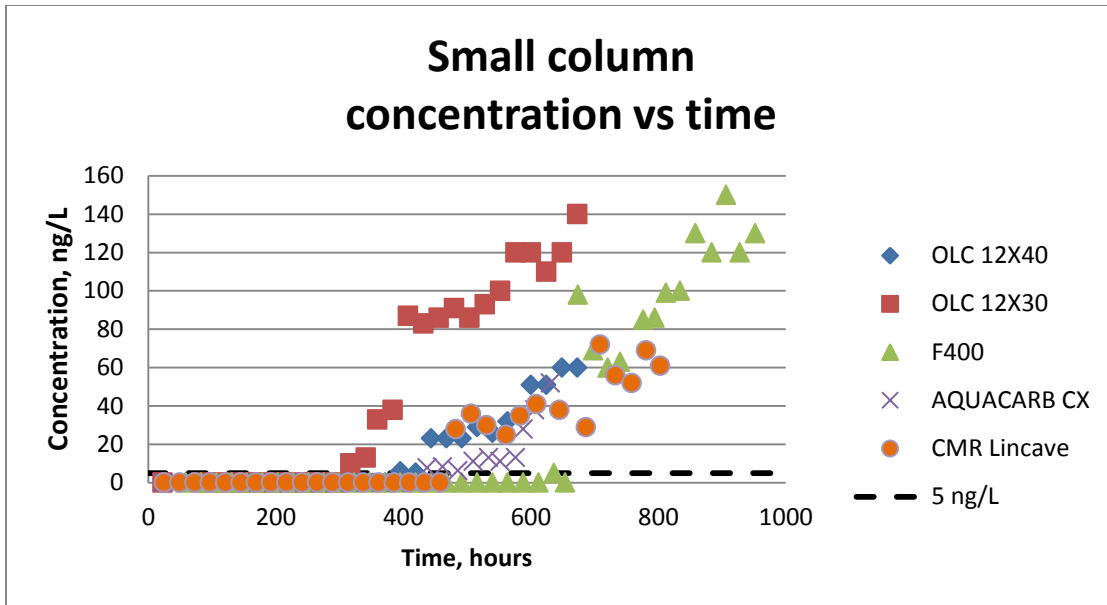
Figure 8 shows the size distribution of the granular activated carbon received. Samples of activated carbon 10 grams in mass were sieved with US standard mesh. Particles were assigned diameters that were the average of the two mesh openings they fell between. The mass average diameter ranged from 1070-1390 µm.

## First experiment, Livingston and spiked Davis water

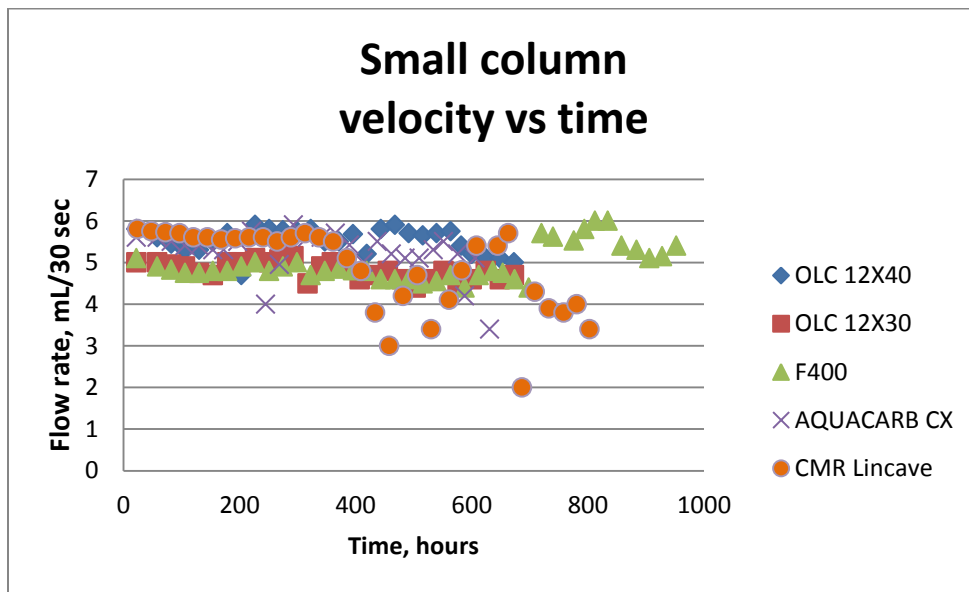


**Figure 9.** The decrease in the projected large column flowrate over time due to fouling. The small column flowrate was extrapolated to full-scale operation parameters. This provides an estimate of the decrease in flowrate due to fouling over an operation time beyond the 5 ng/L breakthrough. The projected flowrates are for one reactor series operating at 600 gpm for 90% of the time.

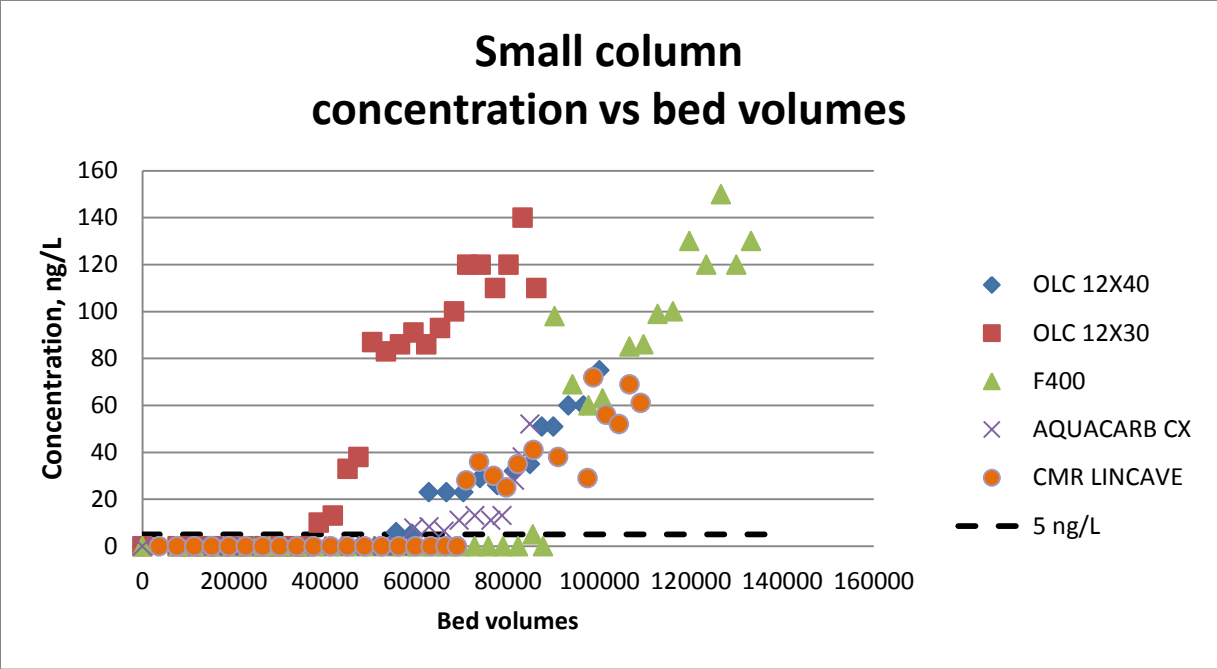




**Figure 10.** Small column concentration versus operation time. The data is for one small-scale column operating independently under experimental conditions.

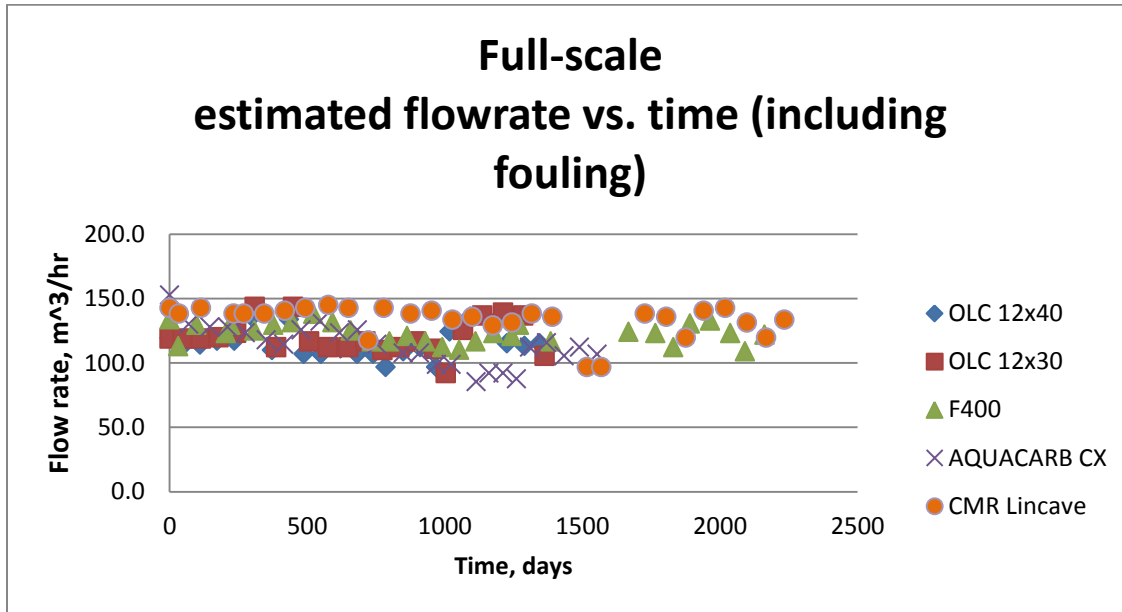


**Figure 11.** Small column velocity versus operation time. Decreased flowrates after a long operation time indicate fouling. The data is for one small-scale column operating independently under experimental conditions.

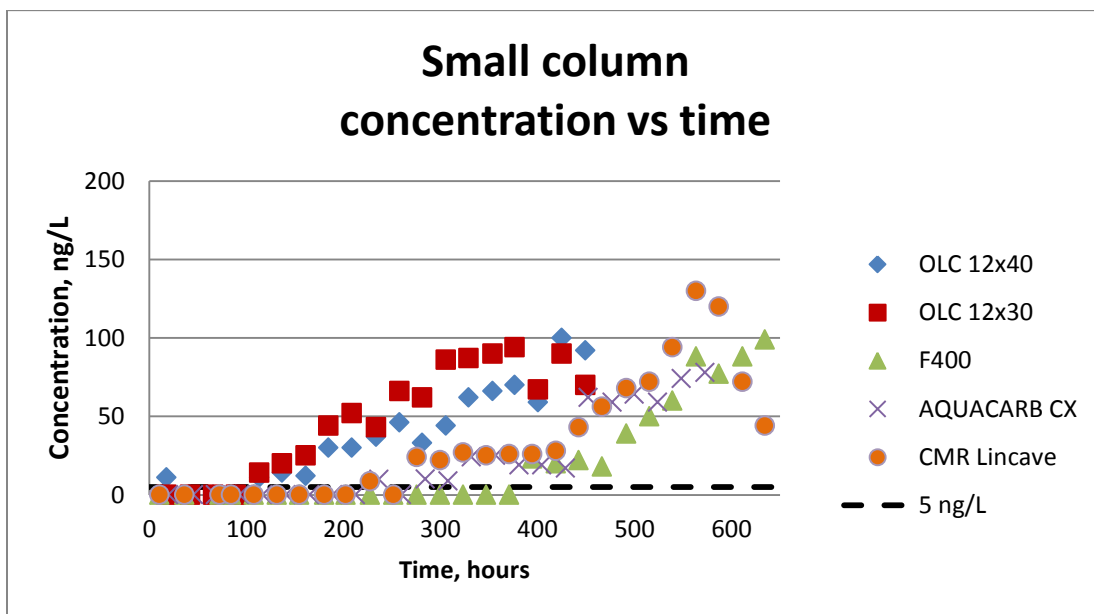


**Figure 12.** Small column concentration versus bed volumes. 5 ng/L breakthrough is denoted by the dashed line. The data is for one small-scale column operating indepently under experimental conditions.

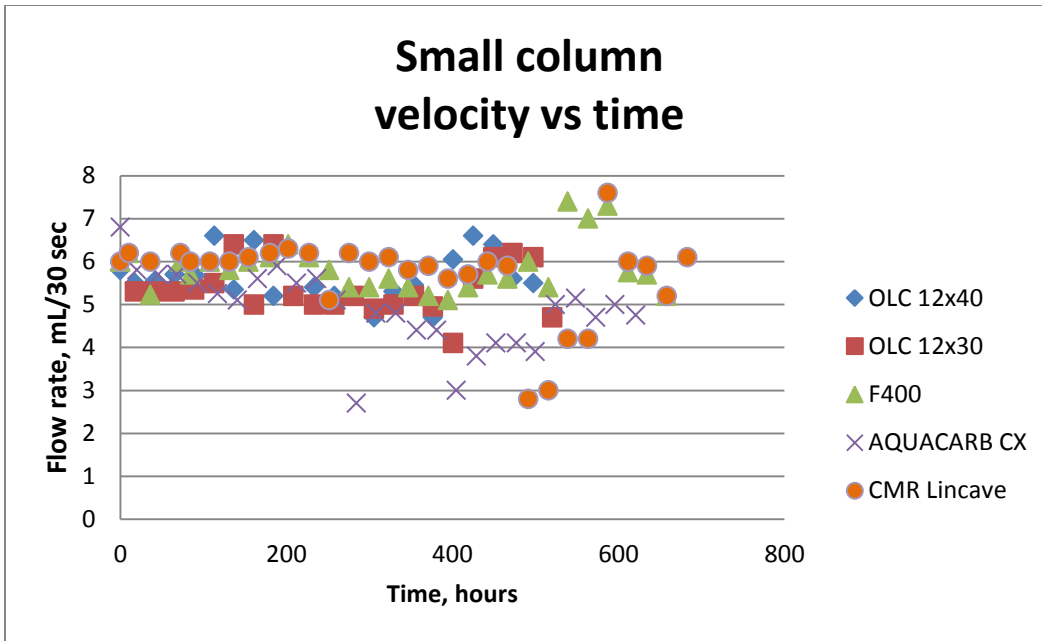
## Second experiment, Livingston water



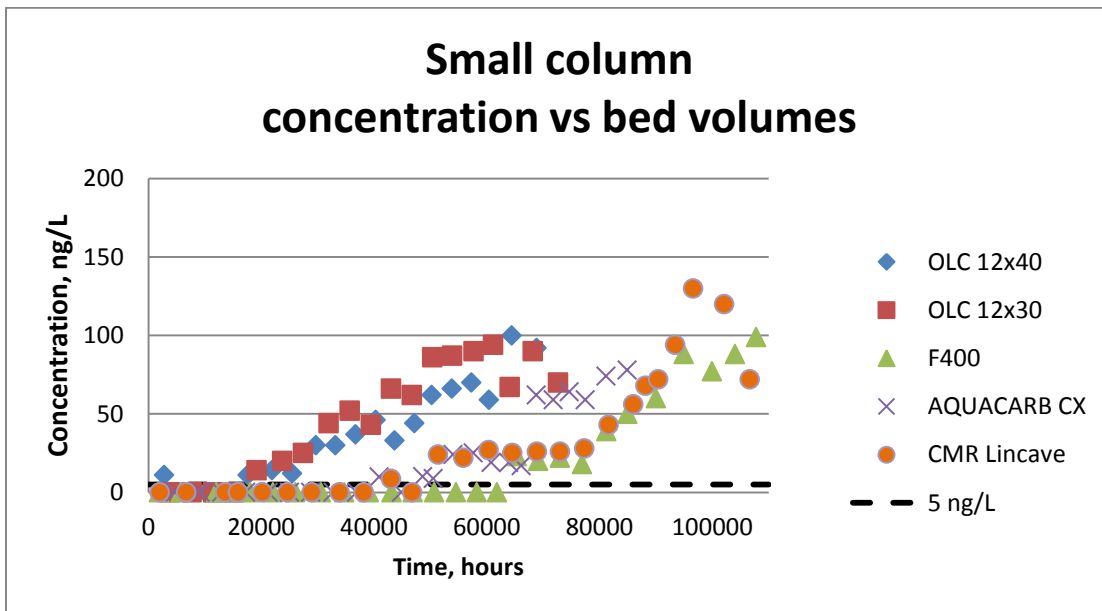
**Figure 13.** The decrease in the projected large column flowrate over time due to fouling. The small column flowrate was extrapolated to full-scale operation parameters. This provides an estimate of the decrease in flowrate due to fouling over an operation time beyond the 5 ng/L breakthrough. The projected flowrates are for one reactor series operating at 600 gpm for 90% of the time.



**Figure 14.** Small column concentration versus operation time. The data is for one small-scale column operating independently under experimental conditions.



**Figure 15.** Small column velocity versus operation time. Decreased flow rates after a long operation time indicates fouling. The data is for one small-scale column operating independently under experimental conditions.



**Figure 16.** Small column concentration versus bed volumes. 5 ng/L breakthrough is denoted by the dashed line. The data is for one small-scale column operating independently under experimental conditions.

## **Appendix C: Granular Activated Carbon Product Sheets**

# OLC 12x40

Coconut Granular Activated Carbon

### Description

OLC 12x40 is a coconut activated carbon for the removal of dissolved organic contaminants from water, wastewater and process liquids. These contaminants include taste and odor compounds, organic color, total organic carbon (TOC) and industrial chemicals such as chlorinated solvents (TCE, PCE). It is produced under controlled conditions by high temperature steam activation. The pore structure enables it to be used for adsorption of both high and low molecule weight impurities from waters and liquids. The carbon is especially effective for adsorbing trace organic compounds such as vinyl chloride, methylene chloride, MTBE and THM's/disinfection by-products. OLC 12 x 40 is certified to NSF/ANSI 61 standard and complies with the requirements for activated carbon as defined by the Food Chemicals Codex (FCC) (8th Edition) published by the U.S. Pharmacopeia.

### Features

- Coconut carbon
- Low ash
- High mechanical strength

### Benefits

- A strongly adsorbing pore structure optimal for the treatment of chlorine and other organics
- High hardness relative to other raw materials
- Hardness and abrasion resistance required for thermal reactivation and minimizing generation of fines in operations requiring backwashing
- Pore structure provides a wide range of contaminant removal capabilities

### Applications

OLC 12x40 coconut activated carbon can be used in a variety of water, wastewater and process liquid applications for the removal of dissolved organic compounds. OLC 12x40 has been used in applications such as process water purification, wastewater treatment and industrial chemical purification.

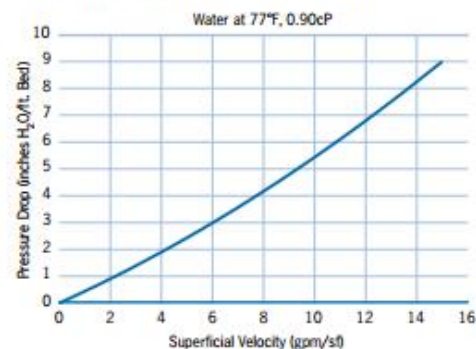
### Specifications

	OLC 12x40
Iodine Number, mg/g	1050 (min)
Ash, wt%	4.0 (max)
Moisture (As Packaged), wt%	5 (max)
Density (Apparent), g/cc	0.48 (min)
Hardness Number	95 (min)
12 US Mesh [1.70 mm], wt%	5 (max)
< 40 US Mesh [0.425 mm] (PAN), wt%	4 (max)

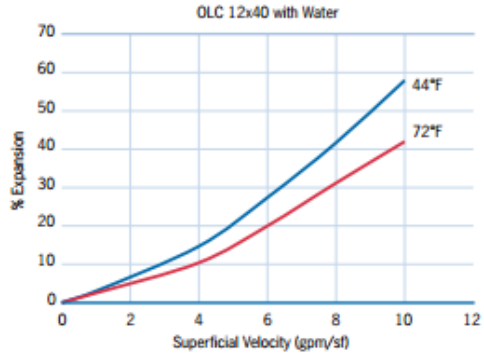
### Design Considerations

OLC 12x40 coconut activated carbon is typically applied in down-flow packed bed operations using both pressure and gravity systems. Design considerations for a carbon system is based on the user's operating conditions, the treatment objectives desired, and the chemical nature of the compounds being adsorbed. In general, downflow superficial velocity can be from 1 gpm/ft<sup>2</sup> to 10 gpm/ft<sup>2</sup>, depending on the application and contact times can vary from 7.5 minutes to hours. Design may vary based on the type water/liquid, contaminants to remove, and desired treatment objectives. To determine what is best for your application and assistance with the design, please contact Calgon Carbon Corporation by calling 1-800-4-CARBON.

### Typical Pressure Drop (OLC 12x40)



### Typical Bed Expansion During Backwash



### Packaging

Please contact Calgon Carbon for options and availability.

### Safety Message

Wet activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers are to enter a vessel containing carbon, appropriate sampling and work procedures for potentially low oxygen spaces should be followed, including all applicable federal and state requirements. Please refer to the MSDS for all up to date product safety information.

[www.calgoncarbon.com](http://www.calgoncarbon.com)



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\_\_\_\_\_  
Your local representative

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0214

# OLC 12x30

Coconut Granular Activated Carbon

## Description

OLC 12x30 is a coconut activated carbon for the removal of dissolved organic contaminants from water, wastewater and process liquids. These contaminants include taste and odor compounds, organic color, total organic carbon (TOC) and industrial chemicals such as chlorinated solvents (TCE, PCE). It is produced under controlled conditions by high temperature steam activation. The pore structure enables it to be used for adsorption of both high and low molecule weight impurities from waters and liquids. The carbon is especially effective for adsorbing trace organic compounds such as vinyl chloride, methylene chloride, MTBE and THM's/disinfection by-products. OLC 12 x 30 is certified to NSF/ANSI 61 standard.

## Features

- Coconut carbon
- Low ash
- High mechanical strength

## Benefits

- High hardness relative to other raw materials.
- Hardness and abrasion resistance required for thermal reactivation and minimizing generation of fines in operations requiring backwashing.
- Pore structure provides a wide range of contaminant removal capabilities.

## Applications

OLC 12x30 coconut activated carbon can be used in a variety of water, wastewater and process liquid applications for the removal of dissolved organic compounds. OLC 12x30 has been used in applications such as process water purification, wastewater treatment and industrial chemical purification.

## Specifications

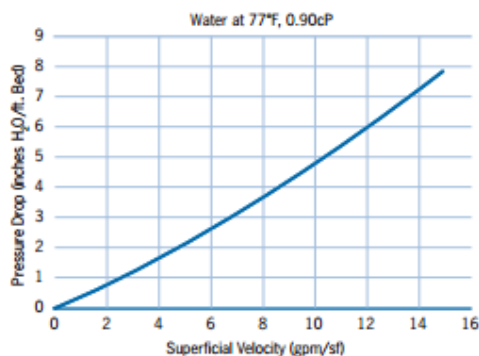
	OLC 12x30
Iodine Number, mg/g	900 (min)
Ash, wt%	5 (max)
Moisture (As Packaged), wt%	5 (max)
12 US Mesh [1.70 mm], wt%	5 (max)
< 30 US Mesh [0.600 mm] (PAN), wt%	5 (max)

## Design Considerations

OLC 12x30 coconut activated carbon is typically applied in down-flow packed bed operations using both pressure and gravity systems. Design considerations for a carbon system is based on the user's operating conditions, the treatment objectives desired, and the chemical nature of the compounds being adsorbed. In general, downflowrate superficial velocity can be from 1 gpm/ft<sup>2</sup> to 10 gpm/ft<sup>2</sup>, depending on the application and contact times can vary from 7.5 minutes to hours. Design may vary based on the type water/liquid, contaminants to remove, and desired treatment objectives. To determine what is best for your application and assistance with the design, please contact Calgon Carbon Corporation by calling 1-800-4-CARBON.

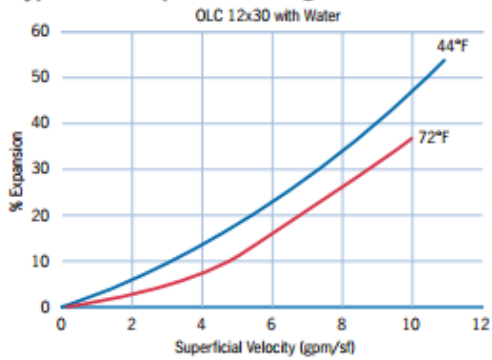
## Typical Pressure Drop (OLC 12x30)

Based on a backwashed and segregated bed





### Typical Bed Expansion During Backwash



### Packaging

Please contact CalgonCarbon for options and availability.

### Safety Message

Wet activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers are to enter a vessel containing carbon, appropriate sampling and work procedures for potentially low oxygen spaces should be followed, including all applicable federal and state requirements. Please refer to the MSDS for all up to date product safety information.

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Your local representative

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0214

## FILTRASORB® 400

Granular Activated Carbon

### Description

FILTRASORB 400 is a granular activated carbon developed by Calgon Carbon Corporation for the removal of dissolved organic compounds from water and wastewater as well as industrial and food processing streams. These contaminants include taste and odor compounds, organic color, total organic carbon (TOC), and industrial organic compounds such as TCE and PCE. This activated carbon is made from select grades of bituminous coal through a process known as reagglomeration to produce a high activity, durable, granular product capable of withstanding the abrasion associated with repeated backwashing, hydraulic transport, and reactivation for reuse. Activation is carefully controlled to produce a significant volume of both low and high energy pores for effective adsorption of a broad range of high and low molecular weight organic contaminants. FILTRASORB 400 is also formulated to comply with all the applicable provisions of the AWWA Standard for Granular Activated Carbon (B604), the stringent extractable metals requirements of ANSI/NSF Standard 61, and the Food Chemicals Codex.

### Features

- Calgon Carbon's reagglomerated coal-based granular activated carbons have several properties which provide superior performance in a wide range of applications.
- Produced from a pulverized blend of high quality bituminous coals resulting in a consistent, high quality product.
- The activated carbon granules are uniformly activated through the whole granule, not just the outside. This results in excellent adsorption properties and constant adsorption kinetics in a wide range of applications.
- The reagglomerated structure ensures proper wetting while also eliminating floating material.
- High mechanical strength relative to other raw materials, thereby reducing the generation of fines during backwashing and hydraulic transport.
- Carbon bed segregation is retained after repeated backwashing, ensuring the adsorption profile remains unchanged and therefore maximizing the bed life.
- Reagglomerated with a high abrasion resistance, which provides excellent reactivation performance.
- High density carbon resulting in a greater adsorption capacity per unit volume.

### Specifications

	FILTRASORB 400
Iodine Number	1000 mg/g (min)
Moisture by Weight	2% (max)
Effective Size	0.55 - 0.75 mm
Uniformity Coefficient	1.9 (max)
Abrasion Number	75 (min)
Screen Size by Weight, US Sieve Series	
On 12 mesh	5% (max)
Through 40 mesh	4% (max)

### Typical Properties\*

	FILTRASORB 400
Apparent Density	0.54 g/cc
Water Extractables	<1%
Non-Wettable	<1%

\*For general information only, not to be used as purchase specifications.

### Recycling by Thermal Reactivation

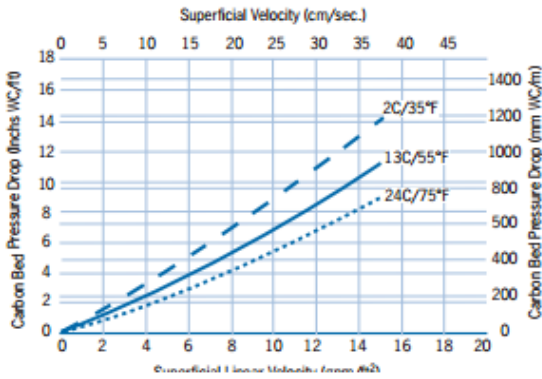
After a granular activated carbon's adsorptive capacity has been exhausted, it can be returned to Calgon Carbon for thermal reactivation. The thermal reactivation process involves a high temperature reaction with steam, which destroys the adsorbed organic compounds and restores the adsorptive capacity of the activated carbon.

Through reactivation, the spent activated carbon can be recycled for reuse, eliminating the costs and long-term liability associated with disposal of spent GAC. The benefits of a reactivated product over a virgin carbon are several, including economic, as reactivated GAC cost less than virgin GAC and environmental, as reactivated GAC conserves natural resources and reduces CO<sub>2</sub> emissions compared to the manufacture of virgin GAC. A further benefit of reactivating and reusing spent granular activated carbon is the ability for customers to ensure for themselves a reliable supply of media when needed, as the spent/reactivated carbon represents a renewable resource.

FILTRASORB 400 is designed with high mechanical strength and a dense, fully-developed pore structure to ensure low losses throughout the reactivation process and excellent adsorption performance upon reuse.

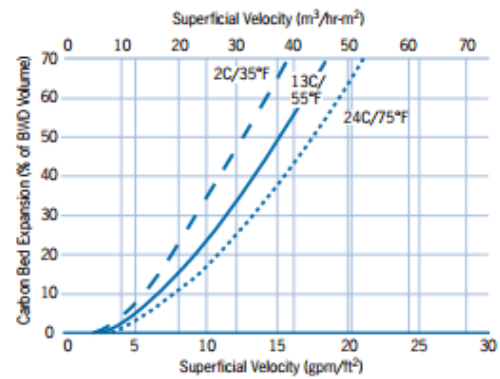
## Pressure Drop

Based on Backwashed and Segregated Bed



## Bed Expansion

Based on Backwashed and Segregated Bed



## Applications

FILTRASORB 400 activated carbon can be used in a variety of liquid phase applications for the removal of dissolved organic compounds. FILTRASORB 400 has been successfully applied for over 40 years in applications such as drinking and process water purification, wastewater treatment, and food, pharmaceutical, and industrial purification.

## Design Considerations

FILTRASORB 400 activated carbon is typically applied in down-flow packed-bed operations using either pressure or gravity systems. Design considerations for a treatment system is based on the user's operating conditions, the treatment objectives desired, and the chemical nature of the compound(s) being adsorbed.

## Packaging

55 lb. (25 kg) poly bag  
1,000 lb. (454 kg) super sack  
Bulk truck

## Safety Message

Wet activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers are to enter a vessel containing carbon, appropriate sampling and work procedures for potentially low oxygen spaces should be followed, including all applicable federal and state requirements. Please refer to the MSDS for all up to date product safety information.

Filtrisorb is 100% freshly manufactured virgin granular activated carbon. Recycled granular activated carbon is not used in the production of Filtrisorb.

Making Water and Air Safer and Cleaner

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## Westates® Enhanced Coconut Shell Carbons: AquaCarb® CX Series

AquaCarb® 830CX, AquaCarb® 1230CX, AquaCarb® 1240CX

### Background

Historically, coconut shell based activated carbons have been typically limited to applications involving trace VOC removal from groundwater or where the background water was relatively high in purity. For applications such as surface water, where the water stream being treated would be relatively high in natural organic matter (NOM) or total organic carbon (TOC), bituminous coal based carbons have been predominantly used for decades. With their microporous pore structure, coconut shell carbons simply did not perform as well as coal based carbons in these applications... until now.

Siemens Water Technologies AquaCarb® 1230CX enhanced coconut shell carbons combine the benefits of both carbon types; an activated carbon with the high micropore structure of coconut shell, and the faster kinetics of bituminous coal. The resulting product provides excellent trace VOC removal capacity and adsorptive performance to remove taste, odor and other organic contaminants.

### Applications

Applications where AquaCarb® CX Series enhanced coconut shell carbons are a suitable, high performance alternative to coal based carbons include:

- Surface water treatment – taste and odor removal
- Surface water treatment – disinfection by product (DBP) or DBP precursor removal
- Bulk organic/TOC removal from water

### Reactivation Options

In addition to our AquaCarb® CX virgin carbon, Siemens also offers options for carbon reactivation service and AquaCarb® CXS enhanced reactivated coconut carbon. Carbon reactivation is an environmentally-friendly process that minimizes waste by recycling and reusing spent carbon. Reactivation restores the surface area and pore volume of the spent carbon to a point close to that of a virgin carbon. In fact, the process of carbon reactivation is very similar to the process of creating virgin activated carbon. Reactivated carbons provide a cost-effective alternative to virgin carbon and continue to provide excellent performance in many treatment applications.

Siemens has over 20 years experience in carbon reactivation. To learn if AquaCarb® CX virgin-grade or CXS reactivated enhanced coconut shell carbon is right for your application, contact your local Water Technologies sales representative or call 866.613.5620.



### Features and Benefits

- ANSINSF Standard 61 classified for use in potable water applications
- Fully conforms to physical, performance and leachability requirements established by the current ANSIAWWA B604 (which includes the Food Chemical Codex requirements)
- Retains inherent micropore structure from base coconut carbon, providing excellent VOC adsorption capacity
- Contains superior mesopore structure, providing improved adsorption kinetics and adsorption capacity for larger molecular weight compounds
- Modified pore structure leads to longer bed life between carbon exchanges, and lower life cycle costs
- A detailed quality assurance program guarantees consistent quality from lot to lot and shipment to shipment

### Product Sheet

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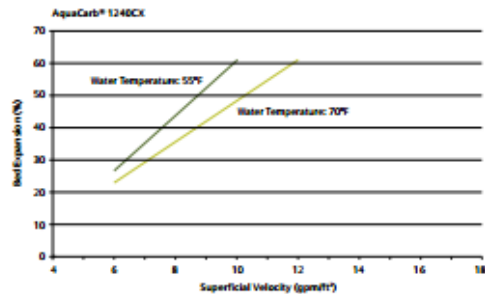
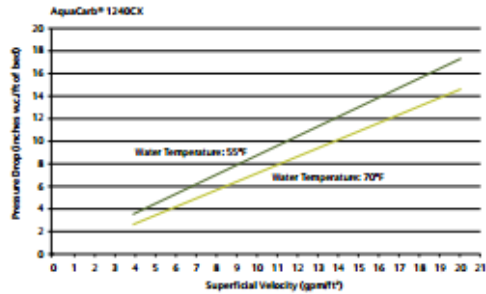
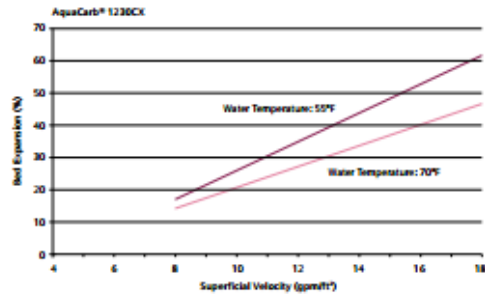
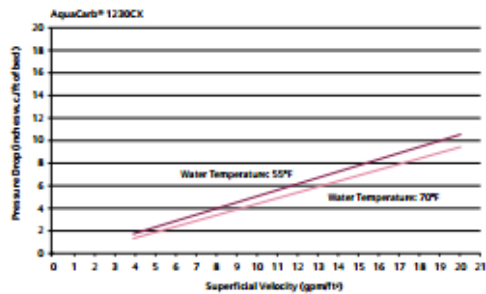
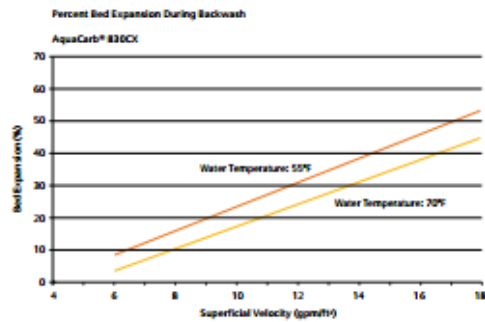
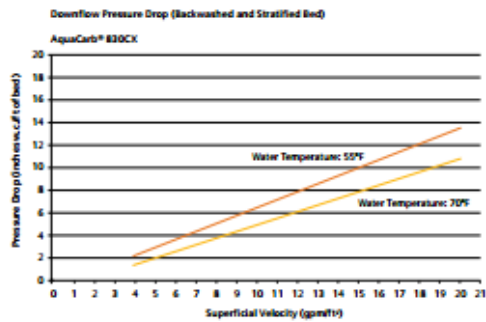
### Typical Properties

Parameter	AquaCarb® 830CX	AquaCarb® 1230CX	AquaCarb® 1240CX
Mesh Size	8 x 30	12 x 30	12 x 40
Effective Size, mm	0.8 – 1.1	0.6 – 0.85	0.55 – 0.75
Uniformity Coefficient	2.1	2.0	1.9
Iodine, mg/g	1100	1100	1100
Hardness	95	95	95
Abrasion	85	85	85
AD, glcc	0.43 – 0.49	0.43 – 0.49	0.43 – 0.49
Water Soluble Ash, wt%	2	2	2
Contact pH	9 – 10	9 – 10	9 – 10

**Safety Note:** Under certain conditions, some compounds may oxidize, decompose or polymerize in the presence of activated carbon causing a carbon bed temperature rise that is sufficient to cause ignition. Particular care must be exercised when compounds that have a peroxide-forming tendency are being adsorbed. In addition the adsorption of VOCs will lead to the generation of heat within a carbon bed. These heats of reaction and adsorption need to be properly dissipated in order to fully assure the safe operation of the bed.

Wet activated carbon readily adsorbs atmospheric oxygen. Dangerously low oxygen levels may exist in closed vessels or poorly ventilated storage areas. Workers should follow all applicable state and federal safety guidelines for entering oxygen depleted areas.

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## **Appendix D: Scale-up Calculations and Theory**

Scale up calculations were based on the proportional diffusivity scaling model. This has been used successfully in past RSSCT experiments at the University of California-Davis. Furthermore, recent research by Corwin and Summers suggested that the alternative constant diffusivity approach may downplay bed fouling (2010). The constant diffusivity model also tends to lead to higher headloss due to faster flow velocities for the small-scale design, which would greatly increase operational difficulties for a month-long RSSCT (Crittenden et al, 1991). Several alternative small-column operation designs with different bed lengths and EBCTs were considered, but none offered guaranteed improved performance compared to the standard design. The selected proportional diffusivity model and derivation of the scale-up calculations used are described below in the attached segment of Dr. Kanematsu Masakazu's Ph.D. thesis, "Arsenate removal by a goethite-based adsorbent: Application of the extended triple layer modeling and extensive column tests."

## ***Supporting information***

### **The Rapid Small Scale Column Tests (RSSCTs) design**

The RSSCTs are designed to simulate the performance of a large column (pilot or full scale column). To design the RSSCTs, operating parameters for a large column have to be assumed (Table S1).

(1) The scaling factor (SF) has to be determined for the RSSCTs design. The SF is defined as the ration of particle diameter of large column ( $d_{LC}$ ) to that of small column ( $d_{SC}$ ) as the following equation. Here, the mean particle size of large column is 1.16 mm [1], and that of small column is 0.127 mm. Using the equation S5-1, the following SF is yielded.

$$SF = \frac{d_{LC}}{d_{SC}} = \frac{1.16}{0.127} = 9.134 \quad (S5-1)$$

(2) Using the proportional diffusivity (PD) scaling approach with an assumption that surface diffusion coefficient ( $D_s$ ) of arsenate is linear function of particle diameter ( $X=1$ ), the following equation is used to calculate the empty bed contact time of the small column ( $EBCT_{SC}$ ):

$$\frac{EBCT_{SC}}{EBCT_{LC}} = \left[ \frac{d_{p,SC}}{d_{p,LC}} \right]^{2-X} = \left[ \frac{d_{p,SC}}{d_{p,LC}} \right] = \frac{1}{SF} \quad (S5-2)$$



For example, when  $ECBC_{LC}$  is assumed to be 3 (min), the  $EBCT_{LC}$  is the following:

$$EBCT_{SC} = \frac{EBCT_{LC}}{SF} = \frac{3.0(\text{min})}{9.134} = 0.328(\text{min}) \quad (\text{S5-3})$$

(3) The hydraulic loading rate in the small column ( $V_{SC}$ ), it is also directly related to the hydraulic loading rate in the large column ( $V_{LC}$ ) by the scaling factor as the following:

$$\frac{V_{SC}^*}{V_{LC}} = \left[ \frac{d_{p,LC}}{d_{p,SC}} \right] \times \frac{Re_{SC} \times Sc}{Re_{LC} \times Sc} = SF \quad (\text{S5-4})$$

$$Re = \frac{V \times \rho_L \times d_p}{\varepsilon \times \mu} \quad (\text{S5-5})$$

$$Sc = \frac{\mu}{D_L \times \rho_L} \quad (\text{S5-6})$$

$$Re \times Sc = \frac{V \times d_p}{\varepsilon \times D_L} \quad (\text{S5-7})$$

where  $V$  is the hydraulic loading rate;  $Re$  is the Reynold number;  $Sc$  is the Schmidt number at 20°C (= 1109);  $\mu$  is the dynamic viscosity of water at 20°C ( $= 1.002 \times 10^{-3}$  (kg  $\cdot$  m $^{-1}$   $\cdot$  s $^{-1}$ ));  $D_L$  is the liquid diffusivity of arsenate ( $= 9.05 \times 10^{-10}$  (m $^2$   $\cdot$  s $^{-1}$ )); and  $\rho_L$  is the density of water at 20°C (= 998.2 (kg  $\cdot$  m $^{-3}$ )). The design of the small column using the equation S2 and S4 will yield the small column with the same length as the large column as shown below, which can cause significant head loss and is problematic:

$$l_{SC} = V_{SC}^* \times EBCT_{SC} = (V_{LC} \times SF) \times \left( \frac{EBCT_{LC}}{SF} \right) = V_{LC} \times EBCT_{LC} = l_{LC} \quad (S5-8)$$

To solve this problem, the dominance of internal mass transfer over external mass transfer is used. The Reynolds number in the small column ( $Re_{SC}$ ) do not impact on the breakthrough curve as long as internal mass transfer dominates external mass transfer [2]. The hydraulic loading rate of the small column can be reduced to a value below that of the similitude hydraulic loading rate as long as it is above the minimum rate at which the small column can be operated [2]. This minimum velocity is defined using the minimum Reynolds number ( $Re_{sc,min}$ ). Here, a value of  $Re_{SC,min} \times Sc$  was assumed to be 2,000, which is found to be suitable for scaling small column using iron oxide adsorbent for arsenate adsorption [3]. Here, since  $V_{LC}$  and the bed porosity of the large column is assumed to be 17 (m/h) and 0.365, respectively,  $V_{SC}$  is calculated as the following:

$$\frac{V_{SC}}{V_{LC}} = \left[ \frac{d_{p,SC}}{d_{p,LC}} \right] \times \frac{Re_{SC,min} \times Sc}{Re_{LC} \times Sc} \quad (S5-9)$$

$$= SF \times (Re_{SC,min} \times Sc) \times \frac{\varepsilon_{LC} \times D_L}{V_{LC} \times d_{p,LC}} \times V_{LC} \quad (S5-10)$$

$$= (Re_{SC,min} \times Sc) \times \frac{\varepsilon_{LC} \times D_L}{d_{p,SC}}$$

$$= 2000 \times \frac{0.365 \times (9.05 \times 10^{-10})}{0.121 \times 10^{-3}}$$

$$= 0.0052 \text{ (m/s)} = 31.22 \text{ (cm/min)}$$

(4) The bed length of the small column ( $l_{SC}$ ) is calculated as below:

$$l_{SC} = V_{SC} \times EBCT_{SC} = 31.22 \times 0.328 = 10.25 \text{ (cm)}$$

(5) The flow rate of the small column ( $Q_{SC}$ ) is calculated as below:

$$Q_{SC} = V_{SC} \times \left\{ \pi \times \left( \frac{D_{SC}}{2} \right)^2 \right\} = 31.22 \times \left\{ 3.14 \times \left( \frac{0.7}{2} \right)^2 \right\} = 12.01 \text{ (mL/min)}$$

These calculations result in the following column dimensions.

**Table 9.** Kanematsu proportional diffusivity RSSCT scale-up

	Small-Scale Test		Full Scale Design	
		Units		Units
Mean particle diameter	0.127	mm	1.16	mm
EBCT	0.33	min	3	min
Bed depth	103	mm	85	cm
Inner diameter	7	mm	7.6	cm
Flow rate	12	mL/min	1109	mL/min
Velocity	28.33	cm/min	17	m/hr
Bed porosity	-	-	0.365	-

To predict volume treated and breakthrough time in the Livingston system, a series of scaling multiplications were performed. First, the flowrate was calculated for a reactor of the same diameter of the Livingston system. Then, the full-scale reactor operation time obtained by multiplying the small column operation time by the 9.134 scaling factor (scaling factor explained in Kanematsu 2011) was multiplied by the ratio of the Livingston system calculated bed height to the Kanematsu bed height of 0.85 m. This multiplier varied slightly with particle density and ranged from 6.0-7.0. Next, the difference in velocity was accounted for by multiplying the operation time by the ratio of the Livingston reactor velocity (18.7 m/hr for 600 gpm per reactor) to the Kanematsu velocity of 17 m/hr. This operation time was then normalized to 90% operation time and a constant flow of 600 gpm by dividing the cumulative volume treated by 600gpm\*0.9. The resulting full-scale column design matches the Livingston system design parameters and assumes a constant flow rate of 600 gpm.

## **Appendix E: Chemical Analysis**

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
<b>g524.2SIM/123TCP_w in Water (DHS-1,2,3-TCP)</b>								
<b>Preservation:</b> Store cool at 4°C in Dark								
<b>Container:</b> O96: VOA, Glass Vial 40ml,			<b>Amount Required:</b> N			<b>Hold Time:</b> 14 days		
200uL HCl								
1,2,3-Trichloropropane	0.0039	0.0050 ug/L			70 - 130	30	80 - 120	20
1,2,3-Trichloropropane-d5 (IS)								

## References

Kanematsu, M. Arsenate removal by a goethite-based adsorbent: Application of the extended triple layer modeling and extensive column tests. 2011. Doctoral thesis. University of California, Davis. 146 pages.

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Crittenden, J. C.; Reddy, P. S.; Arora, H.; Trynoski, J.; Hand, D. W.; Perram, D. L.; Summers, R. S. Predicting GAC performance with rapid small-scale column tests *J. Am. Water Works Assoc.* 1991, 83 ( 1) 77– 87