

September 4, 2015

VIA EMAIL AND FEDEX

Ms. Dyan Whyte
Assistant Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

**Re: Submission of Final Semi-Annual Data, First Half 2015 – June 27, 2013 Amended
Water Code section 13267 Order, Order No. R2-2013-1005-A1
Directive 11, Pond Sampling**

Dear Ms. Whyte:

Enclosed, in accordance with the Regional Water Quality Control Board, San Francisco Bay Region's ("Regional Water Board"), June 27, 2013 amended Water Code section 13267 Order, Order No. R2-2013-1005-A1, ("Order"), Lehigh Southwest Cement Company ("Lehigh") provides and encloses the final semi-annual sampling for the first half of 2015 (January 1 – June 30) pursuant to Directive 11 of that Order.

Please note that enclosed with this submittal is revised report number 1428886, previously submitted to the Regional Water Board on January 30, 2015; the report was revised based on an error the laboratory discovered. The lab report contains one sample: Pond 13 outflow (Individual Permit RSW-002, Item 11 Sample Number 25) collected on 12/4/2014. The nickel result was revised from 15 ug/L to 14 ug/L and the selenium result was revised from 0.29 ug/L to 59 ug/L. No other revisions were made.

If you or your staff have any questions regarding the above report or enclosed documents, please do not hesitate to contact me.

Submission of Final Semi-Annual Data, First Half 2015 – June 27, 2013 Amended
Water Code section 13267 Order, Order No. R2-2013-1005-A1
Directive 11, Pond Sampling

September 4, 2015

Page | 2

Sincerely,

A handwritten signature in black ink, appearing to read "Sam Barket", written over a horizontal line.

Sam Barket
Environmental Manager

Enclosures

Cc (via email):

Jack H. Gregg, PhD, PG, Regional Water Board
Greg Knapp, Director Environmental Region West, Lehigh
Nicole Granquist, Downey Brand LLP

CP Data Summary
Order Item No. 11
Lehigh Southwest Cement Company Permanente Plant
First and Second Quarters 2015

Sample Description	Sample Number	Units Test Method	Turbidity NTU Field	pH s.u. Field	Temp C Field	DO mg/L Field	DO % Sat Field	Chloride mg/L EPA 300.0				TDS mg/L SM2540C				Hardness mg/L Calc				Sulfide mg/L SM-4500SD			
								Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q
Pond 22 outflow	5	6/24/2015	1.00	8.45	20.81	8.17		33	0.061	0.50		1100	50	50		770	0.10	0.50		ND<0.050	0.050	0.10	
Pond 22 inflow	8	6/24/2015	1.39	8.51	21.16	8.81		32	0.061	0.50		1100	50	50		820	0.10	0.50		ND<0.050	0.050	0.10	
Pond 21 outfall	9	6/24/2015	1.55	8.28	21.25	8.03		88	0.061	0.50		1100	50	50		700	0.10	0.50		ND<0.050	0.050	0.10	
Pond 13 outflow	25	2/9/2015	8.37	8.12	13.85	10.19	100	15	0.061	0.50		700	33	33		550	0.10	0.50		ND<0.050	0.050	0.10	
		4/7/2015	1.94	8.45	13.83	8.70	84	20	0.12	1.0	A07	1100	50	50		830	0.10	0.50		ND<0.050	0.050	0.10	
		6/24/2015	2.66	8.88	23.09	14.34		18	0.061	0.50		1000	50	50		810	0.10	0.50		ND<0.050	0.050	0.10	
Pond 13 inflow	28	2/9/2015	47.9	8.13	12.81	11.24	100	14	0.061	0.50		690	33	33		600	0.10	0.50		ND<0.050	0.050	0.10	
		4/7/2015	2.42	8.48	14.19	9.61	94	23	0.12	1.0	A07	1100	50	50		790	0.10	0.50		ND<0.050	0.050	0.10	
		6/24/2015	2.19	8.48	19.00	8.98		19	0.061	0.50		1100	50	50		820	0.10	0.50		ND<0.050	0.050	0.10	

Notes:

All samples are grab samples.

Pond 13 inflow (Sample Number 28) and Pond 13 outflow (Sample Number 25) samples are monitored under the Individual NPDES permit as receiving water locations RSW-001 (Sample Number 28) and RSW-002 (Sample Number 25).

MDL = method detection limit

RL = reporting limit

ND = Analyte not detected at or above the MDL.

A07 = Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

Metals Summary
Order Item No. 11
Lehigh Southwest Cement Company Permanente Plant
First and Second Quarters 2015

Sample Location	Sample Number	Sample Date	Antimony (ug/L)				Arsenic (ug/L)				Beryllium (ug/L)				Cadmium (ug/L)				Copper (ug/L)			
			1638				1638				1638				1638				1638			
			Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q
Pond 22 outflow	5	6/24/2015	0.345	0.0100	0.100		0.835	0.143	0.500		ND	0.0430	0.200	QM-05	ND	0.0200	0.100	QM-05	0.850	0.0310	0.100	
Pond 22 inflow	8	6/24/2015	0.345	0.0100	0.100		0.590	0.143	0.500		ND	0.0430	0.200	QM-05	ND	0.0200	0.100	QM-05	0.742	0.0310	0.100	
Pond 21 outflow	9	6/24/2015	0.116	0.0100	0.100		0.889	0.143	0.500		ND	0.0430	0.200	QM-05	ND	0.0200	0.100	QM-05	1.65	0.0310	0.100	
Pond 13 outflow	25	6/24/2015	0.920	0.0100	0.100		0.976	0.143	0.500		ND	0.0430	0.200	QM-05	0.0315	0.0200	0.100	QM-05, J	0.709	0.0310	0.100	
Pond 13 inflow	28	6/24/2015	1.60	0.0100	0.100		1.13	0.143	0.500		ND	0.0430	0.200	QM-05	0.156	0.0200	0.100	QM-05	1.01	0.0310	0.100	

Sample Location	Sample Number	Sample Date	Mercury (ng/L)				Nickel (ug/L)				Thallium (ug/L)				Selenium (ug/L)				Hexachrome (ug/L)			
			1631E				1638				1638				1638				E218.6			
			Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q
Pond 22 outflow	5	6/24/2015	1.49	0.20	0.50		4.21	0.0100	0.100		0.0527	0.0060	0.0500		6.88	0.0510	0.200		0.55	0.055	0.20	
Pond 22 inflow	8	6/24/2015	0.92	0.20	0.50		4.05	0.0100	0.100		0.0461	0.0060	0.0500	J	7.10	0.0510	0.200		0.57	0.055	0.20	
Pond 21 outflow	9	6/24/2015	2.82	0.20	0.50		2.51	0.0100	0.100		0.0628	0.0060	0.0500		1.69	0.0510	0.200		0.21	0.055	0.20	
Pond 13 outflow	25	2/9/2015	5.70	0.20	0.50		14	0.19	2.0	1	ND	0.10	1.0	1	10	0.19	2.0	1	0.69	0.055	0.20	
		4/7/2015	1.54	0.20	0.50		65	0.19	2.0	1	0.14	0.10	1.0	1	39	0.19	2.0	1	0.41	0.055	0.20	
Pond 13 inflow	28	6/24/2015	1.66	0.20	0.50		8.25	0.0100	0.100		0.0372	0.0060	0.0500	J	5.73	0.0510	0.200		ND	0.055	0.20	
		2/9/2015	29.2	0.20	0.50		27	0.19	2.0	1	ND	0.10	1.0	1	9.6	0.19	2.0	1	0.68	0.055	0.20	
		4/7/2015	1.74	0.20	0.50		62	0.19	2.0	1	0.16	0.10	1.0	J, 1	39	0.19	2.0	1	0.67	0.055	0.20	
		6/24/2015	1.67	0.20	0.50		13.2	0.0100	0.100		0.0734	0.0060	0.0500		9.27	0.0510	0.200		0.13	0.055	0.20	J

Sample Location	Sample Number	Sample Date	Chromium (ug/L)				Lead (ug/L)				Silver (ug/L)				Zinc (ug/L)			
			1638				1638				1638				1638			
			Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q
Pond 22 outflow	5	6/24/2015	0.806	0.0760	0.200		0.0235	0.0050	0.0500	J	ND	0.0200	0.100		2.55	0.0750	0.500	
Pond 22 inflow	8	6/24/2015	0.764	0.0760	0.200		0.0076	0.0050	0.0500	J	ND	0.0200	0.100		2.36	0.0750	0.500	
Pond 21 outflow	9	6/24/2015	0.687	0.0760	0.200		0.104	0.0050	0.0500	J	ND	0.0200	0.100		10.7	0.0750	0.500	
Pond 13 outflow	25	6/24/2015	0.414	0.0760	0.200		0.0264	0.0050	0.0500	J	ND	0.0200	0.100		3.79	0.0750	0.500	
Pond 13 inflow	28	6/24/2015	0.808	0.0760	0.200		0.0339	0.0050	0.0500	J	ND	0.0200	0.100		18.9	0.0750	0.500	

Notes:

All locations were grab samples

ng/L = nanograms per Liter

ug/L = micrograms per Liter

ND = Analyte not detected at or above the MDL.

Q = Qualifier, note

J = Detected below the reporting limit; considered an estimated concentration (DNQ).

1 = sample analyzed via method 200.8 per routine monitoring conducted under Individual NPDES permit

QM-5 = the spike recovery was outside of acceptable limits for MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

Selenium Speciation
Order Item No. 11
Lehigh Southwest Cement Company Permanente Plant
First and Second Quarters 2015

Sample Location	Sample Number	Sample Date	Total Se (ug/L)	Dissolved Se (ug/L)	Se (IV) (ug/L)	Se (VI) (ug/L)	Se CN (ug/L)	Additional Se Species (n) (ug/L)
			ICP-QQQ-MS	IC-ICP-CRC-MS	IC-ICP-CRC-MS	IC-ICP-CRC-MS	IC-ICP-CRC-MS	IC-ICP-CRC-MS
			Result	Result	Result	Result	Result	Result
Pond 13	26	4/15/2015	23.6	23.3	1.86	20.7	< 0.021 U	0.193 (2)
Pond 14	3	4/15/2015	21.9	24.2	1.61	19.4	< 0.021 U	0.301 (2)
Pond 22	7	4/15/2015	22.7	21.5	0.817	20.0	< 0.021 U	0.113 (2)
Pond 21	10	NS						

Notes:

All locations were grab samples

ICP-QQQ-MS = inductively coupled plasma triple quadrupole mass spectrometry

IC-ICP-CRC-MS = ion chromatography inductively coupled plasma collision reaction cell mass spectrometry

All results reflect the applied dilution and are reported in ug/L

U = Sample concentration is below the estimated method detection limit (eMDL)

J = Sample concentration is between the eMDL and the reporting limit (RL)

SeCN = Selenocyanate

Additional Se Species = Sum of all additional Se species observed by IC-ICP-MS

n = number of unknown Se species observed

NS = not sampled; no flow from Pond 20

Metals Summary (Revised)
Order Item No. 11
Lehigh Southwest Cement Company Permanente Plant
Third and Fourth Quarters 2014

Sample Location	Sample Number	Sample Date	Antimony (ug/L)				Arsenic (ug/L)				Beryllium (ug/L)				Cadmium (ug/L)				Copper (ug/L)			
			1638				1638				1638				1638				1638			
			Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q
Pond 22 outflow	5	12/27/2014	2.42	0.0100	0.100		1.08	0.102	0.500		<0.0430	0.0430	0.200		0.0844	0.0200	0.100	J	0.914	0.0310	0.100	
Pond 22 inflow	8	12/27/2014	2.52	0.0100	0.100		1.13	0.102	0.500		<0.0430	0.0430	0.200		0.0468	0.0200	0.100	J	1.13	0.0310	0.100	
Pond 21 outflow	9	12/27/2014	0.189	0.0100	0.100		1.14	0.102	0.500		<0.0430	0.0430	0.200		<0.0200	0.0200	0.100		1.50	0.0310	0.100	
Pond 13 outflow	25	12/28/2014	3.72	0.0100	0.100		1.10	0.102	0.500		<0.0430	0.0430	0.200		0.259	0.0200	0.100		0.628	0.0310	0.100	
Pond 13 inflow	28	12/28/2014	3.77	0.0100	0.100		1.14	0.102	0.500		<0.0430	0.0430	0.200		0.307	0.0200	0.100		0.576	0.0310	0.100	

Sample Location	Sample Number	Sample Date	Chromium (ug/L)				Hexachrome (ug/L)				Lead (ug/L)				Mercury (ng/L)				Nickel (ug/L)			
			1638				E218.6				1638				1631E				1638			
			Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q
Pond 22 outflow	5	12/27/2014	1.38	0.0760	0.200		1.1	0.055	0.20		0.0452	0.0050	0.0500	J	4.40	0.20	0.50	F	19.8	0.0100	0.100	
Pond 22 inflow	8	12/27/2014	1.94	0.0760	0.200		1.1	0.055	0.20		0.0619	0.0050	0.0500		8.87	0.20	0.50	F	21.2	0.0100	0.100	
Pond 21 outflow	9	12/27/2014	1.09	0.0760	0.200		0.72	0.055	0.20		0.0231	0.0050	0.0500	J	3.34	0.20	0.50	F	5.12	0.0100	0.100	
Pond 13 outflow	25	12/4/2014					1.2	0.055	0.20						29.2	0.20	0.50		14	0.19	2.0	1
		12/28/2014	0.561	0.0760	0.200						0.0095	0.0050	0.0500	J								
Pond 13 inflow	28	9/25/2014					1.1	0.054	0.20						11.2	0.20	0.50		25	0.19	2.0	1
		12/12/2014					0.70	0.055	0.20						6.50	0.20	0.50		14	0.19	2.0	1
		12/28/2014	0.438	0.0760	0.200						<0.0050	0.0050	0.0500									

Sample Location	Sample Number	Sample Date	Selenium (ug/L)				Silver (ug/L)				Thallium (ug/L)				Zinc (ug/L)						
			1638				1638				1638				1638						
			Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q	Result	MDL	RL	Q			
Pond 22 outflow	5	12/27/2014	31.8	0.0510	0.200		<0.0200	0.0200	0.100		0.0540	0.0060	0.0500		9.21	0.0750	0.500	M			
Pond 22 inflow	8	12/27/2014	33.4	0.0510	0.200		<0.0200	0.0200	0.100		0.0569	0.0060	0.0500		9.75	0.0750	0.500	M			
Pond 21 outflow	9	12/27/2014	5.02	0.0510	0.200		<0.0200	0.0200	0.100		0.200	0.0060	0.0500		11.5	0.0750	0.500	M			
Pond 13 outflow	25	12/4/2014	59	0.19	2.0	1					<0.10	0.10	1.0	1							
		12/28/2014					<0.0200	0.0200	0.100						29.0	0.0750	0.500	M			
Pond 13 inflow	28	9/25/2014	150	0.19	2.0	1					<0.10	0.10	1.0	1							
		12/12/2014	11	0.19	2.0	1					<0.10	0.10	1.0	1							
		12/28/2014					<0.0200	0.020	0.100						34.2	0.0750	0.500	M			

Notes:

All locations were grab samples

F = Detected above the reporting limit in field blank.

J = Detected below the reporting limit; considered an estimated concentration.

M = Method blank contained trace detection of this analyte.

MDL = Method detection limit; ND = Not detected above the indicated MDL; RL = reporting limit

ng/L = nanograms per Liter

ug/L = micrograms per Liter

U = Result is ≤ the MDL

1 = sample analyzed via method 200.8 per routine monitoring conducted under Individual NPDES permit

yellow shading = results were revised based on corrected values from laboratory (lab report 1428886)



Date of Report: 02/27/2015

George Wegmann

Golder Associates

425 Lakeside Drive
Sunnyvale, CA 94085

Client Project: 063-7109-916

BCL Project: Lehigh NPDES

BCL Work Order: 1503463

Invoice ID: B196941

Enclosed are the results of analyses for samples received by the laboratory on 2/10/2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Vanessa Sandoval
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.



Table of Contents

Sample Information

Chain of Custody and Cooler Receipt form.....	3
Laboratory / Client Sample Cross Reference.....	5

Sample Results

1503463-01 - RSW-002	
Water Analysis (General Chemistry).....	6
Metals Analysis.....	7
1503463-02 - RSW-001	
Water Analysis (General Chemistry).....	8
Metals Analysis.....	9
1503463-03 - RSW-003	
Water Analysis (General Chemistry).....	10
Metals Analysis.....	11

Quality Control Reports

Water Analysis (General Chemistry)

Method Blank Analysis.....	12
Laboratory Control Sample.....	13
Precision and Accuracy.....	14

Metals Analysis

Method Blank Analysis.....	15
Laboratory Control Sample.....	16
Precision and Accuracy.....	17

Subcontract Reports

WO_1503463_SUB_BSCLB.pdf.....	18
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Notes

Notes and Definitions.....	22
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Golder Associates CHAIN OF CUSTODY



Page 1 of 1 Quotation No. 15-03463

PROJECT NO.: 063-7109-916 **SITE NAME:** Quarterly Lehigh NPDES

SAMPLER(S): David Walter (printed) David C. Stalt (signature)

CONTRACT LABORATORY: BC Labs **Container Info:** TDS Chloride, Cr6, Hg, Ni, Se, Pb, Cd, Zn, Cu, Fe, Mn, As, Mo, V, Sb, Bi, Sn, Ni, Zn, Pb, Cd, Cu, Fe, Mn, As, Mo, V, Sb, Bi, Sn

TURN-AROUND TIME: Standard

Sample I.D.	Lab I.D.	Collection		Matrix	Depth	Container Info		Type/Vol.	Filter	Preserv.	Cont. Qty.	Remarks
		Date	Time			1L 100ml	200ml 500ml 500ml					
RSW-002	-1	2-9-15	1325	W		N	N	N	-	Buffer - HNO3/Zn/C	5	
RSW-001	-2		1350			N	N	N	-		5	
RSW-003	-3		1425			N	N	N	-		5	
FB-2-9-15	-4		1325			N	N	N	-		1	

ANALYSES: TDS Chloride, Cr6, Hg, Ni, Se, Pb, Cd, Zn, Cu, Fe, Mn, As, Mo, V, Sb, Bi, Sn

SHORT HOLDING TIME: Cr⁶⁺ NO₂ NO₃ OP SS DO Cl₂ BOD MBAS COT

CHK BY: DISTRIBUTION SUB-OUT

Relinquished by (signature): David C. Stalt **Date/Time:** 2-10-15 13:01

Relinquished by (signature): [Signature] **Date/Time:** 2-10-15 14:10

Relinquished by (signature): [Signature] **Date/Time:** 2-10-15 18:30

Received by (signature): [Signature] **Date/Time:** 2-10-15 18:30

SEND RESULTS TO: Attn: Grace Westman, Greg Knapp, Chow kip
Golder Associates Inc.
425 Lakeside Drive
Sunnyvale, CA 94085
Phone (408) 220-9223
Fax (408) 220-9224

REL. 2-10-15 WAS [Signature] 2-10-15 WAS

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.

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BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 18 09/04/14 Page 1 Of 1

Submission #: 15-03463

SHIPPING INFORMATION 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) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	FREE LIQUID 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: PE Thermometer ID: 209 Date/Time 2/10/15
 Temperature: (A) 1.1 °C / (C) 0.9 °C Analyst Init KLB 2/11

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL	A	A	A							
PE UNPRESERVED 2oz C ₁₀	B	B	B							
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS	C	C	C							
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE	D	D	D							
2oz. NITRATE /NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
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	E	E	E	A						
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: _____
 Sample Numbering Completed By: MWL Date/Time: 2/11/15 07:40 [S:\WPDoc\WordPerfect\LAB_DOCS\FORMS\SAMREC]
 A = Actual / C = Corrected



Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 02/27/2015 14:51
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1503463-01	COC Number:	---	Receive Date:	02/10/2015 21:45
	Project Number:	---	Sampling Date:	02/09/2015 13:25
	Sampling Location:	RSW-002	Sample Depth:	---
	Sampling Point:	RSW-002	Lab Matrix:	Water
	Sampled By:	David Walter	Sample Type:	Water
1503463-02	COC Number:	---	Receive Date:	02/10/2015 21:45
	Project Number:	---	Sampling Date:	02/09/2015 13:50
	Sampling Location:	RSW-001	Sample Depth:	---
	Sampling Point:	RSW-001	Lab Matrix:	Water
	Sampled By:	David Walter	Sample Type:	Water
1503463-03	COC Number:	---	Receive Date:	02/10/2015 21:45
	Project Number:	---	Sampling Date:	02/09/2015 14:25
	Sampling Location:	RSW-003	Sample Depth:	---
	Sampling Point:	RSW-003	Lab Matrix:	Water
	Sampled By:	David Walter	Sample Type:	Water
1503463-04	COC Number:	---	Receive Date:	02/10/2015 21:45
	Project Number:	---	Sampling Date:	02/09/2015 13:25
	Sampling Location:	FB-2-9-15	Sample Depth:	---
	Sampling Point:	FB-2-9-15	Lab Matrix:	Water
	Sampled By:	David Walter	Sample Type:	Blank Water

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 02/27/2015 14:51
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Water Analysis (General Chemistry)

BCL Sample ID: 1503463-01	Client Sample Name: RSW-002, RSW-002, 2/9/2015 1:25:00PM, David Walter
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Recoverable Calcium	150	mg/L	0.10	0.014	EPA-200.7	0.018		1
Total Recoverable Magnesium	46	mg/L	0.050	0.019	EPA-200.7	ND		1
Chloride	15	mg/L	0.50	0.061	EPA-300.0	ND		2
Hardness as CaCO3	550	mg/L	0.50	0.10	Calc	ND		3
Total Dissolved Solids @ 180 C	700	mg/L	33	33	SM-2540C	ND		4
Total Sulfide	ND	mg/L	0.10	0.050	SM-4500SD	ND		5

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/17/15	02/18/15 00:38	JRG	PE-OP2	1	BYB1365
2	EPA-300.0	02/22/15	02/22/15 19:23	OLH	IC8	1	BYB1919
3	Calc	02/11/15	02/26/15 13:59	TMS	Calc	1	BYB0996
4	SM-2540C	02/13/15	02/13/15 12:00	CAD	MANUAL	3.333	BYB1277
5	SM-4500SD	02/13/15	02/13/15 08:45	DIW	SPEC05	1	BYB1221

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 02/27/2015 14:51
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Metals Analysis

BCL Sample ID: 1503463-01	Client Sample Name: RSW-002, RSW-002, 2/9/2015 1:25:00PM, David Walter							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.69	ug/L	0.20	0.055	EPA-218.6	0.095		1
Total Recoverable Nickel	14	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Selenium	10	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Thallium	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	02/11/15	02/12/15 00:02	BMW	IC-4	1	BYB1058
2	EPA-200.8	02/18/15	02/19/15 15:10	EAR	PE-EL2	1	BYB1612

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Sunnyvale, CA 94085

Reported: 02/27/2015 14:51
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Water Analysis (General Chemistry)

BCL Sample ID: 1503463-02	Client Sample Name: RSW-001, RSW-001, 2/9/2015 1:50:00PM, David Walter
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Recoverable Calcium	160	mg/L	0.10	0.014	EPA-200.7	0.018		1
Total Recoverable Magnesium	50	mg/L	0.050	0.019	EPA-200.7	ND		1
Chloride	14	mg/L	0.50	0.061	EPA-300.0	ND		2
Hardness as CaCO3	600	mg/L	0.50	0.10	Calc	ND		3
Total Dissolved Solids @ 180 C	690	mg/L	33	33	SM-2540C	ND		4
Total Sulfide	ND	mg/L	0.10	0.050	SM-4500SD	ND		5

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/17/15	02/18/15 00:40	JRG	PE-OP2	1	BYB1365
2	EPA-300.0	02/22/15	02/22/15 19:37	OLH	IC8	1	BYB1919
3	Calc	02/11/15	02/26/15 13:59	TMS	Calc	1	BYB0996
4	SM-2540C	02/13/15	02/13/15 12:00	CAD	MANUAL	3.333	BYB1277
5	SM-4500SD	02/13/15	02/13/15 08:45	DIW	SPEC05	1	BYB1221

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 02/27/2015 14:51
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Metals Analysis

BCL Sample ID: 1503463-02	Client Sample Name: RSW-001, RSW-001, 2/9/2015 1:50:00PM, David Walter							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.68	ug/L	0.20	0.055	EPA-218.6	0.095		1
Total Recoverable Nickel	27	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Selenium	9.6	ug/L	2.0	0.19	EPA-200.8	ND		3
Total Recoverable Thallium	ND	ug/L	1.0	0.10	EPA-200.8	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	02/11/15	02/12/15 00:37	BMW	IC-4	1	BYB1058
2	EPA-200.8	02/18/15	02/23/15 20:54	EAR	PE-EL2	1	BYB1612
3	EPA-200.8	02/18/15	02/19/15 15:51	EAR	PE-EL2	1	BYB1612

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Golder Associates
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Sunnyvale, CA 94085

Reported: 02/27/2015 14:51
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Water Analysis (General Chemistry)

BCL Sample ID: 1503463-03	Client Sample Name: RSW-003, RSW-003, 2/9/2015 2:25:00PM, David Walter
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Recoverable Calcium	170	mg/L	0.10	0.014	EPA-200.7	0.018		1
Total Recoverable Magnesium	53	mg/L	0.050	0.019	EPA-200.7	ND		1
Chloride	22	mg/L	0.50	0.061	EPA-300.0	ND		2
Hardness as CaCO3	640	mg/L	0.50	0.10	Calc	ND		3
Total Dissolved Solids @ 180 C	800	mg/L	33	33	SM-2540C	ND		4
Total Sulfide	ND	mg/L	0.10	0.050	SM-4500SD	ND		5

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/17/15	02/18/15 00:43	JRG	PE-OP2	1	BYB1365
2	EPA-300.0	02/22/15	02/22/15 19:52	OLH	IC8	1	BYB1919
3	Calc	02/11/15	02/26/15 13:59	TMS	Calc	1	BYB0996
4	SM-2540C	02/13/15	02/13/15 12:00	CAD	MANUAL	3.333	BYB1277
5	SM-4500SD	02/13/15	02/13/15 08:45	DIW	SPEC05	1	BYB1221

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 02/27/2015 14:51
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Metals Analysis

BCL Sample ID: 1503463-03	Client Sample Name: RSW-003, RSW-003, 2/9/2015 2:25:00PM, David Walter
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	1.5	ug/L	0.20	0.055	EPA-218.6	0.095		1
Total Recoverable Nickel	11	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Selenium	14	ug/L	2.0	0.19	EPA-200.8	ND		3
Total Recoverable Thallium	ND	ug/L	1.0	0.10	EPA-200.8	ND		3

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-218.6	02/11/15	02/12/15 00:45	BMW	IC-4	1	BYB1058
2	EPA-200.8	02/18/15	02/23/15 20:57	EAR	PE-EL2	1	BYB1612
3	EPA-200.8	02/18/15	02/19/15 15:54	EAR	PE-EL2	1	BYB1612

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 02/27/2015 14:51
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYB0996						
Hardness as CaCO3	BYB0996-BLK1	ND	mg/L	0.50	0.10	
QC Batch ID: BYB1221						
Total Sulfide	BYB1221-BLK1	ND	mg/L	0.10	0.050	
QC Batch ID: BYB1277						
Total Dissolved Solids @ 180 C	BYB1277-BLK1	ND	mg/L	6.7	6.7	
QC Batch ID: BYB1365						
Total Recoverable Calcium	BYB1365-BLK1	0.018102	mg/L	0.10	0.014	J
Total Recoverable Magnesium	BYB1365-BLK1	ND	mg/L	0.050	0.019	
QC Batch ID: BYB1919						
Chloride	BYB1919-BLK1	ND	mg/L	0.50	0.061	

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Reported: 02/27/2015 14:51
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: BYB1221										
Total Sulfide	BYB1221-BS1	LCS	0.49945	0.50000	mg/L	99.9		90 - 110		
QC Batch ID: BYB1277										
Total Dissolved Solids @ 180 C	BYB1277-BS1	LCS	550.00	586.00	mg/L	93.9		90 - 110		
QC Batch ID: BYB1365										
Total Recoverable Calcium	BYB1365-BS1	LCS	10.275	10.000	mg/L	103		85 - 115		
Total Recoverable Magnesium	BYB1365-BS1	LCS	10.614	10.000	mg/L	106		85 - 115		
QC Batch ID: BYB1919										
Chloride	BYB1919-BS1	LCS	52.236	50.000	mg/L	104		90 - 110		

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 02/27/2015 14:51
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		
								Percent Recovery	RPD	Percent Recovery
QC Batch ID: BYB1221		Used client sample: Y - Description: RSW-002, 02/09/2015 13:25								
Total Sulfide	DUP	1503463-01	ND	ND		mg/L			10	
	MS	1503463-01	ND	0.47838	0.50000	mg/L		95.7		80 - 120
	MSD	1503463-01	ND	0.48189	0.50000	mg/L	0.7	96.4	10	80 - 120
QC Batch ID: BYB1277		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1503690-01	1185.0	1200.0		mg/L	1.3		10	
QC Batch ID: BYB1365		Used client sample: N								
Total Recoverable Calcium	DUP	1503819-01	300.53	298.81		mg/L	0.6		20	
	MS	1503819-01	300.53	302.98	10.000	mg/L		24.5		75 - 125 A03
	MSD	1503819-01	300.53	295.77	10.000	mg/L	2.4	-47.6	20	75 - 125 A03
Total Recoverable Magnesium	DUP	1503819-01	130.18	126.51		mg/L	2.9		20	
	MS	1503819-01	130.18	135.98	10.000	mg/L		57.9		75 - 125 A03
	MSD	1503819-01	130.18	132.67	10.000	mg/L	2.5	24.9	20	75 - 125 A03
QC Batch ID: BYB1919		Used client sample: Y - Description: FDFS, 02/05/2015 13:50								
Chloride	DUP	503172-13RE'	917.60	918.02		mg/L	0.0		10	
	MS	503172-13RE'	917.60	2010.4	1010.1	mg/L		108		80 - 120
	MSD	503172-13RE'	917.60	2009.9	1010.1	mg/L	0.0	108	10	80 - 120

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Reported: 02/27/2015 14:51
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Metals Analysis

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYB1058						
Hexavalent Chromium	BYB1058-BLK1	0.095000	ug/L	0.20	0.055	J
QC Batch ID: BYB1612						
Total Recoverable Nickel	BYB1612-BLK1	ND	ug/L	2.0	0.19	
Total Recoverable Selenium	BYB1612-BLK1	ND	ug/L	2.0	0.19	
Total Recoverable Thallium	BYB1612-BLK1	ND	ug/L	1.0	0.10	

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Reported: 02/27/2015 14:51
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Metals Analysis

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: BYB1058										
Hexavalent Chromium	BYB1058-BS1	LCS	20.015	20.000	ug/L	100		90 - 110		
QC Batch ID: BYB1612										
Total Recoverable Nickel	BYB1612-BS1	LCS	107.72	100.00	ug/L	108		85 - 115		
Total Recoverable Selenium	BYB1612-BS1	LCS	102.05	100.00	ug/L	102		85 - 115		
Total Recoverable Thallium	BYB1612-BS1	LCS	40.541	40.000	ug/L	101		85 - 115		

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Sunnyvale, CA 94085

Reported: 02/27/2015 14:51
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Metals Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
QC Batch ID: BYB1058		Used client sample: Y - Description: RSW-002, 02/09/2015 13:25									
Hexavalent Chromium	DUP	1503463-01	0.69000	0.69900		ug/L	1.3		10		
	MS	1503463-01	0.69000	22.110	20.202	ug/L		106		90 - 110	
	MSD	1503463-01	0.69000	21.477	20.202	ug/L	2.9	103	10	90 - 110	
QC Batch ID: BYB1612		Used client sample: Y - Description: RSW-002, 02/09/2015 13:25									
Total Recoverable Nickel	DUP	1503463-01	13.905	13.351		ug/L	4.1		20		
	MS	1503463-01	13.905	106.08	100.00	ug/L		92.2		70 - 130	
	MSD	1503463-01	13.905	109.28	100.00	ug/L	3.0	95.4	20	70 - 130	
Total Recoverable Selenium	DUP	1503463-01	10.065	10.013		ug/L	0.5		20		
	MS	1503463-01	10.065	115.20	100.00	ug/L		105		70 - 130	
	MSD	1503463-01	10.065	111.58	100.00	ug/L	3.2	102	20	70 - 130	
Total Recoverable Thallium	DUP	1503463-01	ND	ND		ug/L			20		
	MS	1503463-01	ND	44.492	40.000	ug/L		111		70 - 130	
	MSD	1503463-01	ND	42.465	40.000	ug/L	4.7	106	20	70 - 130	

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2218 Railroad Avenue voice 530.243.7234
Redding, California 96001 fax 530.243.7494

3860 Morrow Lane, Suite F voice 530.894.8966
Chico, California 95928 fax 530.894.5143

February 26, 2015

Lab ID: 15B0670

VANESSA SANDOVAL
B C LABORATORIES INCORPORATED
4100 ATLAS COURT
BAKERSFIELD, CA 93308
RE: HG 1631 TESTING 1503463

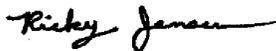
Dear VANESSA SANDOVAL ,

Enclosed are the analysis results for Work Order number 15B0670. All analysis were performed under strict adherence to our established Quality Assurance Plan. Any abnormalities are listed in the qualifier section of this report.

If you have any questions regarding these results, please feel free to contact us at any time. We appreciate the opportunity to service your environmental testing needs.

Sincerely,


For



Ricky D. Jensen
Laboratory Director

California ELAP Certification Number 1677



Laboratories, Inc.

Environmental Testing Laboratory Since 1949



basic laboratory

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2218 Railroad Avenue
Redding, California 96001

voice 530.243.7234
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3860 Morrow Lane, Suite F
Chico, California 95928

voice 530.894.8966
fax 530.894.5143

Report To: B C LABORATORIES INCORPORATED
4100 ATLAS COURT
BAKERSFIELD, CA 93308
Attention: VANESSA SANDOVAL
Project: HG 1631 TESTING 1503463

Lab No: 15B0670
Reported: 02/26/15
Phone: (661) 327-4911
P.O. #

Metals - Total

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed	Prepared	Batch
1503463-01 Water (15B0670-01) Sampled:02/09/15 13:25 Received:02/13/15 12:12 Temp (C): 10.1									
Mercury	ng/l	5.70		0.20	0.50	EPA 1631E	02/18/15	02/18/15	B5B1112
1503463-02 Water (15B0670-02) Sampled:02/09/15 13:50 Received:02/13/15 12:12 Temp (C): 9.4									
Mercury	ng/l	29.2		0.20	0.50	EPA 1631E	02/18/15	02/18/15	B5B1112
1503463-03 Water (15B0670-03) Sampled:02/09/15 14:25 Received:02/13/15 12:12 Temp (C): 6.8									
Mercury	ng/l	7.49		0.20	0.50	EPA 1631E	02/18/15	02/18/15	B5B1112
1503463-04 Blank (15B0670-04) Sampled:02/09/15 13:25 Received:02/13/15 12:12 Temp (C): 6.8									
Mercury Field Blank	ng/l	ND		0.20	0.50	EPA 1631E	02/18/15	02/18/15	B5B1112

Quality Control Data

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

Metals - Total

Batch B5B1112 - BrCl Digestion

Blank										
Mercury	ND	0.50	ng/l							
Blank										
Mercury	ND	0.50	ng/l							
Blank										
Mercury	ND	0.50	ng/l							QC-08
LCS										
Mercury	20.3	0.50	ng/l	20.0		102	84.1-120			
Matrix Spike Source: 15B0501-02										
Mercury	63.7	0.50	ng/l	20.0	42.3	107	74.3-125			
Matrix Spike Source: 15B0503-01										
Mercury	20.4	0.50	ng/l	20.0	1.20	96.2	74.3-125			
Matrix Spike Dup Source: 15B0501-02										
Mercury	62.2	0.50	ng/l	20.0	42.3	99.6	74.3-125	2.40	24	
Matrix Spike Dup Source: 15B0503-01										
Mercury	20.0	0.50	ng/l	20.0	1.20	93.9	74.3-125	2.33	24	

Approved By

Basic Laboratory, Inc.
California ELAP Cert #1677 and #2718

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basic
laboratory

www.basiclab.com

2218 Railroad Avenue voice 530.243.7234
Redding, California 96001 fax 530.243.7494

3860 Morrow Lane, Suite F voice 530.894.8966
Chico, California 95928 fax 530.894.5143

Report To: B C LABORATORIES INCORPORATED
4100 ATLAS COURT
BAKERSFIELD, CA 93308
Attention: VANESSA SANDOVAL
Project: HG 1631 TESTING 1503463

Lab No: 15B0670
Reported: 02/26/15
Phone: (661) 327-4911
P.O. #

Notes and Definitions

- QC-08 An increased concentration of BrCl was necessary to fully oxidize this sample. As required by EPA 1631E, a laboratory method blank containing the additional BrCl was analyzed with the sample.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the detection limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- < Less than reporting limit
- ≤ Less than or equal to reporting limit
- > Greater than reporting limit
- ≥ Greater than or equal to reporting limit
- MDL Method Detection Limit
- RL/ML Minimum Level of Quantitation
- MCL/AL Maximum Contaminant Level/Action Level
- mg/kg Results reported as wet weight
- TTLC Total Threshold Limit Concentration
- STLC Soluble Threshold Limit Concentration
- TCLP Toxicity Characteristic Leachate Procedure
- Note 1 Received Temperature - according to EPA guidelines, samples for most chemistry methods should be held at ≤6 degrees C after collection, including during transportation, unless the time from sampling to delivery is <2 hours. Regulating agencies may invalidate results if temperature requirements are not met.
- Note 2 According to 40 CFR Part 136 Table II, the following tests should be analyzed in the field within 15 minutes of sampling: pH, chlorine, dissolved oxygen, and sulfite.


Approved By

Basic Laboratory, Inc.
California ELAP Cert #1677 and #2718



SUBCONTRACT ORDER

BC Laboratories

1503463

15B0670

SENDING LABORATORY:

BC Laboratories
4100 Atlas Court
Bakersfield, CA 93308
Phone: 661-327-4911
FAX: 661-327-1918
Project Manager: Vanessa Sandoval

RECEIVING LABORATORY:

Basic Laboratory, Inc.
2218 Railroad Ave.
Redding, CA 96001
James E. Hawley
Phone: 530-243-7234
FAX: --

Due 2-20-15
15B0670
BSCLB
1

Table with 4 columns: Analysis, Due, Expires, Comments. Contains 4 sample entries (1503463-01 to 1503463-04) with details on EPA 1631 - Mercury testing, including sampling dates and times.

Released By [Signature] Date 2/2/15 Received By T. Williamson Date 2/13/15 12:12
Released By [Signature] Date 2/13/15 Received By [Signature] Date 14:19

BSCLB



Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 02/27/2015 14:51
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference
- A03 The sample concentration is more than 4 times the spike level.



Date of Report: 04/23/2015

George Wegmann

Golder Associates

425 Lakeside Drive
Sunnyvale, CA 94085

Client Project: 063-7109-918

BCL Project: Lehigh NPDES

BCL Work Order: 1508209

Invoice ID: B201550

Enclosed are the results of analyses for samples received by the laboratory on 4/7/2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Vanessa Sandoval
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Table of Contents

Sample Information

Chain of Custody and Cooler Receipt form.....	3
Laboratory / Client Sample Cross Reference.....	6

Sample Results

1508209-01 - EFF-005	
EPA Method 1664.....	7
Water Analysis (General Chemistry).....	8
Metals Analysis.....	9
1508209-03 - RSW-001	
Water Analysis (General Chemistry).....	10
Metals Analysis.....	11
1508209-04 - RSW-002	
Water Analysis (General Chemistry).....	12
Metals Analysis.....	13
1508209-05 - EFF-003	
EPA Method 1664.....	14
Water Analysis (General Chemistry).....	15
Metals Analysis.....	16
1508209-06 - RSW-003	
Water Analysis (General Chemistry).....	17
Metals Analysis.....	18
1508209-07 - RSW-004	
Water Analysis (General Chemistry).....	19
Metals Analysis.....	20

Quality Control Reports

EPA Method 1664	
Method Blank Analysis.....	21
Laboratory Control Sample.....	22
Precision and Accuracy.....	23
Water Analysis (General Chemistry)	
Method Blank Analysis.....	24
Laboratory Control Sample.....	25
Precision and Accuracy.....	26
Metals Analysis	
Method Blank Analysis.....	27
Laboratory Control Sample.....	28
Precision and Accuracy.....	29

Subcontract Reports

WO_1508209_SUB_BSCLB.pdf.....	30
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Notes

Notes and Definitions.....	34
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**Golder Associates
CHAIN OF CUSTODY**



Page 1 of 1

Quotation No. 15-08209

PROJECT NO.: <u>063-7109-918</u>		SITE NAME: <u>(Quarterly)</u>		ANALYSES		EDD required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																															
SAMPLER(S): <u>David Walker</u> <small>(printed)</small>		<u>Lehigh NPDES</u>		<table border="1"> <tr><td>Gr</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td></tr> <tr><td>o/c</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td></tr> <tr><td>TDS chloride</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td></tr> <tr><td>TSS</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td></tr> <tr><td>Tot Set Matter</td><td>N</td><td>N</td><td>N</td><td>N</td><td>N</td></tr> </table>		Gr	N	N	N	N	N	o/c	N	N	N	N	N	TDS chloride	N	N	N	N	N	TSS	N	N	N	N	N	Tot Set Matter	N	N	N	N	N	EDF required? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Gr	N	N	N	N	N																																
o/c	N	N	N	N	N																																
TDS chloride	N	N	N	N	N																																
TSS	N	N	N	N	N																																
Tot Set Matter	N	N	N	N	N																																
CONTRACT LABORATORY: <u>Be Labs</u>		Container Info		Type/Vol.		Cont. Qty.																															
TURN-AROUND TIME: <u>Standard</u>		Matrix		Filter		Remarks																															
Sample I.D.	Lab I.D.	Collection Date	Time	Depth	Preserv.																																
EFF-005	-1	4-7-15	0730	W			5																														
FB-04-07-15	-2		0730				1																														
RSW-001	-3		1210			X	5																														
RSW-002	-4		1235			X	5																														
EFF-003	-5		1305			X	5																														
RSW-003	-6		1320			X	5																														
RSW-004	-7		1355			X	5																														

SHORT HOLDING TIME

Cr+6	NO ₂	NO ₃	OP	SS
DO	Cl ₂	BOD	MBAS	COT

CHK BY DISTRIBUTION

CHK BY	DISTRIBUTION
<u>MW</u>	<u>MW/MT/SA</u>
	SUB-OUT <input checked="" type="checkbox"/>

Relinquished by (signature) <u>David C. Malt</u>	Received by (signature) <u>[Signature]</u>	Date/Time <u>4/7/15 14:35</u>	SEND RESULTS TO: Attn: <u>George Wegmann, Greg Knapp</u>
Relinquished by (signature) <u>[Signature]</u>	Received by (signature) <u>[Signature]</u>	Date/Time <u>4/7/15 19:40</u>	Golder Associates Inc. 425 Lakeside Drive Sunnyvale, CA 94085
Relinquished by (signature) <u>[Signature]</u>	Received by (signature) <u>[Signature]</u>	Date/Time <u>4-7-15 2335</u>	Phone (408) 220-9223 Fax (408) 220-9224

white: lab copy yellow: project file

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BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 18 09/04/14 Page 1 Of 2

Submission #: 15-08209

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

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 [] Intact? Yes [] No [] None [x] Comments: _____

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: PE Thermometer ID: 208 Date/Time 4/11/15 Analyst Init KIB 2341 Temperature: (A) 25 °C (C) 23 °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. with handwritten sample numbers (A, B, C, D, E) in the corresponding cells.

Comments: _____ Date/Time: 4/11/15 09:40 (S:\WPDoc\WordPerfect\LAB_DOCS\FORMS\SAMREC) Sample Numbering Completed By: [Signature] A = Actual / C = Corrected



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 18 09/04/14 Page 2 Of 2

Submission #: 15-08209

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: PE Thermometer ID: 208 Date/Time 4/11/15 0340
 Temperature: (A) 3.0 °C (C) 2.8 °C Analyst Init. KIB

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL						A	A			
PT PE UNPRESERVED 2oz Cr6						B	B			
QT INORGANIC CHEMICAL METALS						C	C			
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE						D	D			
2oz. NITRATE /NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
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						E	E			
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: _____ Date/Time: 4/11/15 @ 0340 [S:WPDocWordPerfect\LAB_DOCS\FORMS\SAMREC]

Sample Numbering Completed By: MW
 A = Actual / C = Corrected



Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1508209-01	COC Number:	---		04/07/2015 23:35	
	Project Number:	---		Sampling Date:	04/07/2015 07:30
	Sampling Location:	EFF-005		Sample Depth:	---
	Sampling Point:	EFF-005		Lab Matrix:	Water
	Sampled By:	Dave Walter		Sample Type:	Water
1508209-02	COC Number:	---		04/07/2015 23:35	
	Project Number:	---		Sampling Date:	04/07/2015 07:30
	Sampling Location:	FB-04-07-15		Sample Depth:	---
	Sampling Point:	FB-04-07-15		Lab Matrix:	Water
	Sampled By:	David Walter		Sample Type:	Blank Water
1508209-03	COC Number:	---		04/07/2015 23:35	
	Project Number:	---		Sampling Date:	04/07/2015 12:10
	Sampling Location:	RSW-001		Sample Depth:	---
	Sampling Point:	RSW-001		Lab Matrix:	Water
	Sampled By:	David Walter		Sample Type:	Water
1508209-04	COC Number:	---		04/07/2015 23:35	
	Project Number:	---		Sampling Date:	04/07/2015 12:35
	Sampling Location:	RSW-002		Sample Depth:	---
	Sampling Point:	RSW-002		Lab Matrix:	Water
	Sampled By:	David Walter		Sample Type:	Water
1508209-05	COC Number:	---		04/07/2015 23:35	
	Project Number:	---		Sampling Date:	04/07/2015 13:05
	Sampling Location:	EFF-003		Sample Depth:	---
	Sampling Point:	EFF-003		Lab Matrix:	Water
	Sampled By:	David Walter		Sample Type:	Water
1508209-06	COC Number:	---		04/07/2015 23:35	
	Project Number:	---		Sampling Date:	04/07/2015 13:20
	Sampling Location:	RSW-003		Sample Depth:	---
	Sampling Point:	RSW-003		Lab Matrix:	Water
	Sampled By:	David Walter		Sample Type:	Water
1508209-07	COC Number:	---		04/07/2015 23:35	
	Project Number:	---		Sampling Date:	04/07/2015 13:55
	Sampling Location:	RSW-004		Sample Depth:	---
	Sampling Point:	RSW-004		Lab Matrix:	Water
	Sampled By:	---		Sample Type:	Water

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

EPA Method 1664

BCL Sample ID: 1508209-01	Client Sample Name: EFF-005, EFF-005, 4/7/2015 7:30:00AM, Dave Walter
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Oil and Grease	ND	mg/L	5.0	1.7	EPA-1664A HEM	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-1664A HEM	04/08/15	04/08/15 10:30	MAM	MAN-SV	1	BYD0840

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

BCL Sample ID: 1508209-01	Client Sample Name: EFF-005, EFF-005, 4/7/2015 7:30:00AM, Dave Walter
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Suspended Solids (Glass Fiber)	2100	mg/L	10	10	SM-2540D	ND		1
Settleable Solids	15	ml/L-hr	0.10	0.10	SM-2540F			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2540D	04/13/15	04/13/15 14:30	OJP	MANUAL	20	BYD1095
2	SM-2540F	04/09/15	04/09/15 07:20	HPR	MANUAL	1	BYD0975

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

BCL Sample ID: 1508209-01	Client Sample Name: EFF-005, EFF-005, 4/7/2015 7:30:00AM, Dave Walter							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	150	ug/L	1.0	0.28	EPA-218.6	ND	A07	1
Total Recoverable Nickel	280	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Selenium	31	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Thallium	1.2	ug/L	1.0	0.10	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	04/08/15	04/08/15 23:02	BMW	IC-4	5	BYD0701
2	EPA-200.8	04/14/15	04/14/15 23:56	EAR	PE-EL2	1	BYD1151

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

BCL Sample ID: 1508209-03	Client Sample Name: RSW-001, RSW-001, 4/7/2015 12:10:00PM, David Walter
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Recoverable Calcium	220	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	56	mg/L	0.050	0.019	EPA-200.7	ND		1
Chloride	23	mg/L	1.0	0.12	EPA-300.0	ND	A07	2
Hardness as CaCO3	790	mg/L	0.50	0.10	Calc	ND		3
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		4
Total Sulfide	ND	mg/L	0.10	0.050	SM-4500SD	ND		5

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	04/13/15	04/13/15 16:39	JRG	PE-OP2	1	BYD1036
2	EPA-300.0	04/17/15	04/18/15 04:17	OLH	IC8	2	BYD1605
3	Calc	04/09/15	04/17/15 10:21	MSA	Calc	1	BYD0697
4	SM-2540C	04/09/15	04/09/15 13:00	CAD	MANUAL	5	BYD0732
5	SM-4500SD	04/10/15	04/10/15 14:00	DIW	SPEC05	1	BYD0956

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

BCL Sample ID: 1508209-03	Client Sample Name: RSW-001, RSW-001, 4/7/2015 12:10:00PM, David Walter							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.67	ug/L	0.20	0.055	EPA-218.6	ND		1
Total Recoverable Nickel	62	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Selenium	39	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Thallium	0.16	ug/L	1.0	0.10	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	04/08/15	04/08/15 11:55	BMW	IC-4	1	BYD0701
2	EPA-200.8	04/14/15	04/14/15 23:59	EAR	PE-EL2	1	BYD1151

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

BCL Sample ID: 1508209-04	Client Sample Name: RSW-002, RSW-002, 4/7/2015 12:35:00PM, David Walter
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Recoverable Calcium	240	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	59	mg/L	0.050	0.019	EPA-200.7	ND		1
Chloride	20	mg/L	1.0	0.12	EPA-300.0	ND	A07	2
Hardness as CaCO3	830	mg/L	0.50	0.10	Calc	ND		3
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		4
Total Sulfide	ND	mg/L	0.10	0.050	SM-4500SD	ND		5

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	
1	EPA-200.7	04/13/15	04/13/15	16:42	JRG	PE-OP2	1	BYD1036	
2	EPA-300.0	04/17/15	04/18/15	04:34	OLH	IC8	2	BYD1605	
3	Calc	04/09/15	04/17/15	10:21	MSA	Calc	1	BYD0697	
4	SM-2540C	04/09/15	04/09/15	13:00	CAD	MANUAL	5	BYD0732	
5	SM-4500SD	04/10/15	04/10/15	14:00	DIW	SPEC05	1	BYD0956	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

BCL Sample ID: 1508209-04	Client Sample Name: RSW-002, RSW-002, 4/7/2015 12:35:00PM, David Walter							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.41	ug/L	0.20	0.055	EPA-218.6	ND		1
Total Recoverable Nickel	65	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Selenium	39	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Thallium	0.14	ug/L	1.0	0.10	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	04/08/15	04/08/15 12:04	BMW	IC-4	1	BYD0701
2	EPA-200.8	04/14/15	04/15/15 00:02	EAR	PE-EL2	1	BYD1151

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

EPA Method 1664

BCL Sample ID: 1508209-05	Client Sample Name: EFF-003, EFF-003, 4/7/2015 1:05:00PM, David Walter
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Oil and Grease	ND	mg/L	5.0	1.7	EPA-1664A HEM	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-1664A HEM	04/08/15	04/08/15 10:30	MAM	MAN-SV	1	BYD0840

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

BCL Sample ID: 1508209-05	Client Sample Name: EFF-003, EFF-003, 4/7/2015 1:05:00PM, David Walter
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Suspended Solids (Glass Fiber)	23	mg/L	0.50	0.50	SM-2540D	ND		1
Settleable Solids	ND	ml/L-hr	0.10	0.10	SM-2540F			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	SM-2540D	04/13/15	04/13/15 14:30	OJP	MANUAL	1.010	BYD1095
2	SM-2540F	04/09/15	04/09/15 07:20	HPR	MANUAL	1	BYD0975

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

BCL Sample ID: 1508209-05	Client Sample Name: EFF-003, EFF-003, 4/7/2015 1:05:00PM, David Walter							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	2.5	ug/L	0.20	0.055	EPA-218.6	ND		1
Total Recoverable Nickel	7.9	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Selenium	20	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Thallium	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	04/08/15	04/08/15 12:13	BMW	IC-4	1	BYD0701
2	EPA-200.8	04/14/15	04/15/15 00:06	EAR	PE-EL2	1	BYD1151

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Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

BCL Sample ID: 1508209-06	Client Sample Name: RSW-003, RSW-003, 4/7/2015 1:20:00PM, David Walter
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Recoverable Calcium	220	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	60	mg/L	0.050	0.019	EPA-200.7	ND		1
Chloride	24	mg/L	1.0	0.12	EPA-300.0	ND	A07	2
Hardness as CaCO3	800	mg/L	0.50	0.10	Calc	ND		3
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		4
Total Sulfide	ND	mg/L	0.10	0.050	SM-4500SD	ND		5

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	04/13/15	04/13/15 16:44	JRG	PE-OP2	1	BYD1036
2	EPA-300.0	04/20/15	04/20/15 15:56	BMW	IC8	2	BYD1751
3	Calc	04/09/15	04/17/15 10:21	MSA	Calc	1	BYD0697
4	SM-2540C	04/09/15	04/09/15 13:00	CAD	MANUAL	5	BYD0732
5	SM-4500SD	04/10/15	04/10/15 14:00	DIW	SPEC05	1	BYD0956

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Golder Associates
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Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

BCL Sample ID: 1508209-06	Client Sample Name: RSW-003, RSW-003, 4/7/2015 1:20:00PM, David Walter							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	1.2	ug/L	0.20	0.055	EPA-218.6	ND		1
Total Recoverable Nickel	37	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Selenium	37	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Thallium	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	04/08/15	04/08/15 12:21	BMW	IC-4	1	BYD0701
2	EPA-200.8	04/14/15	04/15/15 00:09	EAR	PE-EL2	1	BYD1151

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Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

BCL Sample ID: 1508209-07	Client Sample Name: RSW-004, RSW-004, 4/7/2015 1:55:00PM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Recoverable Calcium	220	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	61	mg/L	0.050	0.019	EPA-200.7	ND		1
Chloride	29	mg/L	1.0	0.12	EPA-300.0	ND	A07	2
Hardness as CaCO3	800	mg/L	0.50	0.10	Calc	ND		3
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		4
Total Sulfide	ND	mg/L	0.10	0.050	SM-4500SD	ND		5

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	04/13/15	04/13/15 16:47	JRG	PE-OP2	1	BYD1036
2	EPA-300.0	04/17/15	04/18/15 05:09	OLH	IC8	2	BYD1605
3	Calc	04/09/15	04/17/15 10:21	MSA	Calc	1	BYD0697
4	SM-2540C	04/09/15	04/09/15 13:00	CAD	MANUAL	5	BYD0732
5	SM-4500SD	04/10/15	04/10/15 14:00	DIW	SPEC05	1	BYD0956

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

BCL Sample ID: 1508209-07	Client Sample Name: RSW-004, RSW-004, 4/7/2015 1:55:00PM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	2.1	ug/L	0.20	0.055	EPA-218.6	ND		1
Total Recoverable Nickel	30	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Selenium	32	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Thallium	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	04/08/15	04/08/15 12:47	BMW	IC-4	1	BYD0701
2	EPA-200.8	04/14/15	04/15/15 00:12	EAR	PE-EL2	1	BYD1151

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

EPA Method 1664

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYD0840						
Oil and Grease	BYD0840-BLK1	ND	mg/L	5.0	1.7	

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Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

EPA Method 1664

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab	Quals
								Percent Recovery	RPD		
QC Batch ID: BYD0840											
Oil and Grease	BYD0840-BS1	LCS	37.050	41.700	mg/L	88.8		78	114		

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Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

EPA Method 1664

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
QC Batch ID: BYD0840		Used client sample: N									
Oil and Grease	DUP	1502150-92	ND	ND		mg/L			18		
	MS	1502150-92	ND	37.150	41.700	mg/L		89.1		78 - 114	
	MSD	1502150-92	ND	36.000	41.700	mg/L	3.1	86.3	18	78 - 114	

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425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYD0697						
Hardness as CaCO3	BYD0697-BLK1	ND	mg/L	0.50	0.10	
QC Batch ID: BYD0732						
Total Dissolved Solids @ 180 C	BYD0732-BLK1	ND	mg/L	6.7	6.7	
QC Batch ID: BYD0956						
Total Sulfide	BYD0956-BLK1	ND	mg/L	0.10	0.050	
QC Batch ID: BYD1036						
Total Recoverable Calcium	BYD1036-BLK1	ND	mg/L	0.10	0.014	
Total Recoverable Magnesium	BYD1036-BLK1	ND	mg/L	0.050	0.019	
QC Batch ID: BYD1095						
Total Suspended Solids (Glass Fiber)	BYD1095-BLK1	ND	mg/L	0.50	0.50	
QC Batch ID: BYD1605						
Chloride	BYD1605-BLK1	ND	mg/L	0.50	0.061	
QC Batch ID: BYD1751						
Chloride	BYD1751-BLK1	ND	mg/L	0.50	0.061	

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Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BYD0732										
Total Dissolved Solids @ 180 C	BYD0732-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
QC Batch ID: BYD0956										
Total Sulfide	BYD0956-BS1	LCS	0.50714	0.50000	mg/L	101		90 - 110		
QC Batch ID: BYD1036										
Total Recoverable Calcium	BYD1036-BS1	LCS	10.645	10.000	mg/L	106		85 - 115		
Total Recoverable Magnesium	BYD1036-BS1	LCS	11.217	10.000	mg/L	112		85 - 115		
QC Batch ID: BYD1605										
Chloride	BYD1605-BS1	LCS	51.460	50.000	mg/L	103		90 - 110		
QC Batch ID: BYD1751										
Chloride	BYD1751-BS1	LCS	51.911	50.000	mg/L	104		90 - 110		

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Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
QC Batch ID: BYD0732		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1508163-02	780.00	760.00		mg/L	2.6		10	
QC Batch ID: BYD0956		Used client sample: Y - Description: RSW-001, 04/07/2015 12:10								
Total Sulfide	DUP	1508209-03	ND	ND		mg/L			10	
	MS	1508209-03	ND	0.49102	0.50000	mg/L		98.2		80 - 120
	MSD	1508209-03	ND	0.48385	0.50000	mg/L	1.5	96.8	10	80 - 120
QC Batch ID: BYD0975		Used client sample: N								
Settleable Solids	DUP	1508381-05	ND	ND		ml/L-hr			10	
QC Batch ID: BYD1036		Used client sample: N								
Total Recoverable Calcium	DUP	1508148-01	36.160	35.829		mg/L	0.9		20	
	MS	1508148-01	36.160	44.663	10.000	mg/L		85.0		75 - 125
	MSD	1508148-01	36.160	46.798	10.000	mg/L	4.7	106	20	75 - 125
Total Recoverable Magnesium	DUP	1508148-01	6.2071	6.1749		mg/L	0.5		20	
	MS	1508148-01	6.2071	16.641	10.000	mg/L		104		75 - 125
	MSD	1508148-01	6.2071	17.226	10.000	mg/L	3.5	110	20	75 - 125
QC Batch ID: BYD1095		Used client sample: N								
Total Suspended Solids (Glass Fiber)	DUP	1508203-02	98.400	106.40		mg/L	7.8		10	
QC Batch ID: BYD1605		Used client sample: N								
Chloride	DUP	1508346-01	30.235	30.305		mg/L	0.2		10	
	MS	1508346-01	30.235	84.480	50.505	mg/L		107		80 - 120
	MSD	1508346-01	30.235	84.598	50.505	mg/L	0.1	108	10	80 - 120
QC Batch ID: BYD1751		Used client sample: N								
Chloride	DUP	1508349-01	14638	14632		mg/L	0.0		10	
	MS	1508349-01	14638	19246	5050.5	mg/L		91.2		80 - 120
	MSD	1508349-01	14638	19258	5050.5	mg/L	0.1	91.5	10	80 - 120

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYD0701						
Hexavalent Chromium	BYD0701-BLK1	ND	ug/L	0.20	0.055	
QC Batch ID: BYD1151						
Total Recoverable Nickel	BYD1151-BLK1	ND	ug/L	2.0	0.19	
Total Recoverable Selenium	BYD1151-BLK1	ND	ug/L	2.0	0.19	
Total Recoverable Thallium	BYD1151-BLK1	ND	ug/L	1.0	0.10	

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Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: BYD0701										
Hexavalent Chromium	BYD0701-BS1	LCS	20.634		ug/L			90 - 110		
QC Batch ID: BYD1151										
Total Recoverable Nickel	BYD1151-BS1	LCS	108.58	100.00	ug/L	109		85 - 115		
Total Recoverable Selenium	BYD1151-BS1	LCS	104.34	100.00	ug/L	104		85 - 115		
Total Recoverable Thallium	BYD1151-BS1	LCS	42.201	40.000	ug/L	106		85 - 115		

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
QC Batch ID: BYD0701		Used client sample: Y - Description: EFF-005, 04/07/2015 07:30									
Hexavalent Chromium	DUP	508209-01RE	148.07	150.24		ug/L	1.5		10		
	MS	508209-01RE	148.07	257.11		ug/L				90 - 110	
	MSD	508209-01RE	148.07	257.57		ug/L	0.2		10	90 - 110	
QC Batch ID: BYD1151		Used client sample: N									
Total Recoverable Nickel	DUP	1508249-01	3.2630	3.5780		ug/L	9.2		20		
	MS	1508249-01	3.2630	108.95	100.00	ug/L		106		70 - 130	
	MSD	1508249-01	3.2630	109.46	100.00	ug/L	0.5	106	20	70 - 130	
Total Recoverable Selenium	DUP	1508249-01	ND	ND		ug/L			20		
	MS	1508249-01	ND	101.00	100.00	ug/L		101		70 - 130	
	MSD	1508249-01	ND	100.64	100.00	ug/L	0.4	101	20	70 - 130	
Total Recoverable Thallium	DUP	1508249-01	ND	ND		ug/L			20		
	MS	1508249-01	ND	42.102	40.000	ug/L		105		70 - 130	
	MSD	1508249-01	ND	42.062	40.000	ug/L	0.1	105	20	70 - 130	

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3860 Morrow Lane, Suite F
Chico, California 95928

voice 530.894.8966
fax 530.894.5143

April 23, 2015

Lab ID: 15D0435

VANESSA SANDOVAL
B C LABORATORIES INCORPORATED
4100 ATLAS COURT
BAKERSFIELD, CA 93308
RE: HG 1631 TESTING 1508209

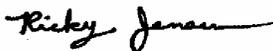
Dear VANESSA SANDOVAL ,

Enclosed are the analysis results for Work Order number 15D0435. All analysis were performed under strict adherence to our established Quality Assurance Plan. Any abnormalities are listed in the qualifier section of this report.

If you have any questions regarding these results, please feel free to contact us at any time. We appreciate the opportunity to service your environmental testing needs.

Sincerely,


For



Ricky D. Jensen
Laboratory Director

California ELAP Certification Number 1677



Laboratories, Inc.

Environmental Testing Laboratory Since 1949



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Redding, California 96001
voice 530.243.7234
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3860 Morrow Lane, Suite F
Chico, California 95928
voice 530.894.8966
fax 530.894.5143

Report To: B C LABORATORIES INCORPORATED
4100 ATLAS COURT
BAKERSFIELD, CA 93308
Attention: VANESSA SANDOVAL
Project: HG 1631 TESTING 1508209

Lab No: 15D0435
Reported: 04/23/15
Phone: (661) 327-4911
P.O. #

Metals - Total

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed	Prepared	Batch
1508209-01 Water (15D0435-01)		Sampled:04/07/15 07:30		Received:04/10/15 14:50	Temp (C): 9.6				
Mercury	ng/l	864	QC-08	2.00	5.00	EPA 1631E	04/16/15	04/16/15	B5D1019
1508209-02 Water (15D0435-02)		Sampled:04/07/15 07:30		Received:04/10/15 14:50	Temp (C): 12.4				
Mercury	ng/l	0.22	J	0.20	0.50	EPA 1631E	04/16/15	04/16/15	B5D1019
1508209-03 Water (15D0435-03)		Sampled:04/07/15 12:10		Received:04/10/15 14:50	Temp (C): 12.4				
Mercury	ng/l	1.74		0.20	0.50	EPA 1631E	04/16/15	04/16/15	B5D1019
1508209-04 Water (15D0435-04)		Sampled:04/07/15 12:35		Received:04/10/15 14:50	Temp (C): 10.6				
Mercury	ng/l	1.54		0.20	0.50	EPA 1631E	04/16/15	04/16/15	B5D1019
1508209-05 Water (15D0435-05)		Sampled:04/07/15 13:05		Received:04/10/15 14:50	Temp (C): 11.9				
Mercury	ng/l	15.9		0.20	0.50	EPA 1631E	04/16/15	04/16/15	B5D1019
1508209-06 Water (15D0435-06)		Sampled:04/07/15 13:20		Received:04/10/15 14:50	Temp (C): 11.1				
Mercury	ng/l	3.79		0.20	0.50	EPA 1631E	04/16/15	04/16/15	B5D1019
1508209-07 Water (15D0435-07)		Sampled:04/07/15 13:55		Received:04/10/15 14:50	Temp (C): 12.4				
Mercury	ng/l	6.60		0.20	0.50	EPA 1631E	04/16/15	04/16/15	B5D1019

Quality Control Data

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

Metals - Total

Batch B5D1019 - BrCl Digestion

Blank										
Mercury	0.230	0.50	ng/l							J
Blank										
Mercury	ND	0.50	ng/l							
Blank										
Mercury	ND	0.50	ng/l							QC-08
LCS										
Mercury	19.5	0.50	ng/l	20.0		97.4	84.1-120			
Matrix Spike	Source: 15D0435-03									
Mercury	21.9	0.50	ng/l	20.0	1.74	101	74.3-125			
Matrix Spike	Source: 15D0471-01									
Mercury	22.8	0.50	ng/l	20.0	1.79	105	74.3-125			
Matrix Spike Dup	Source: 15D0435-03									
Mercury	22.3	0.50	ng/l	20.0	1.74	103	74.3-125	2.19	24	
Matrix Spike Dup	Source: 15D0471-01									
Mercury	23.9	0.50	ng/l	20.0	1.79	110	74.3-125	4.40	24	

Approved By

Basic Laboratory, Inc.
California ELAP Cert #1677 and #2718

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basic
laboratory

www.basiclab.com

2218 Railroad Avenue voice 530.243.7234
Redding, California 96001 fax 530.243.7494

3860 Morrow Lane, Suite F voice 530.894.8966
Chico, California 95928 fax 530.894.5143

Report To: B C LABORATORIES INCORPORATED
4100 ATLAS COURT
BAKERSFIELD, CA 93308
Attention: VANESSA SANDOVAL
Project: HG 1631 TESTING 1508209

Lab No: 15D0435
Reported: 04/23/15
Phone: (661) 327-4911
P.O. #

Notes and Definitions

- QC-08 An increased concentration of BrCl was necessary to fully oxidize this sample. As required by EPA 1631E, a laboratory method blank containing the additional BrCl was analyzed with the sample.
- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). The J flag is equivalent to the DNQ Estimated Concentration flag.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the detection limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- < Less than reporting limit
- ≤ Less than or equal to reporting limit
- > Greater than reporting limit
- ≥ Greater than or equal to reporting limit
- MDL Method Detection Limit
- RL/ML Minimum Level of Quantitation
- MCL/AL Maximum Contaminant Level/Action Level
- mg/kg Results reported as wet weight
- TTLC Total Threshold Limit Concentration
- STLC Soluble Threshold Limit Concentration
- TCLP Toxicity Characteristic Leachate Procedure
- Note 1 Received Temperature - according to EPA guidelines, samples for most chemistry methods should be held at ≤6 degrees C after collection, including during transportation, unless the time from sampling to delivery is <2 hours. Regulating agencies may invalidate results if temperature requirements are not met.
- Note 2 According to 40 CFR Part 136 Table II, the following tests should be analyzed in the field within 15 minutes of sampling: pH, chlorine, dissolved oxygen, and sulfite.

Approved By

Basic Laboratory, Inc.
California ELAP Cert #1677 and #2718



SUBCONTRACT ORDER

BC Laboratories

1508209

1500435
Due 4-22-15

SENDING LABORATORY:

BC Laboratories
4100 Atlas Court
Bakersfield, CA 93308
Phone: 661-327-4911
FAX: 661-327-1918
Project Manager: Vanessa Sandoval

RECEIVING LABORATORY:

Basic Laboratory, Inc.
2218 Railroad Ave.
Redding, CA 96001
James E. Hawley
Phone: 530-243-7234
FAX: --

1500435
521

BSCLB

Analysis	Due	Expires	Comments
Sample ID: 1508209-01 EPA 1631 - Mercury Containers supplied:	Water	Sampled: 04/07/15 07:30 04/21/15 17:00 10/05/15 07:30	-1 9.6°C
Sample ID: 1508209-02 EPA 1631 - Mercury Containers supplied:	Water	Sampled: 04/07/15 07:30 04/21/15 17:00 10/05/15 07:30	-2 12.4°C
Sample ID: 1508209-03 EPA 1631 - Mercury Containers supplied:	Water	Sampled: 04/07/15 12:10 04/21/15 17:00 10/05/15 12:10	-3 12.4°C
Sample ID: 1508209-04 EPA 1631 - Mercury Containers supplied:	Water	Sampled: 04/07/15 12:35 04/21/15 17:00 10/05/15 12:35	-4 10.6°C
Sample ID: 1508209-05 EPA 1631 - Mercury Containers supplied:	Water	Sampled: 04/07/15 13:05 04/21/15 17:00 10/05/15 13:05	-5 11.9°C
Sample ID: 1508209-06 EPA 1631 - Mercury Containers supplied:	Water	Sampled: 04/07/15 13:20 04/21/15 17:00 10/05/15 13:20	-6 11.1°C
Sample ID: 1508209-07 EPA 1631 - Mercury Containers supplied:	Water	Sampled: 04/07/15 13:55 04/21/15 17:00 10/05/15 13:55	-7 12.4°C

MVB	4/9/15	P. Ollan	4-10-15	14:50
Released By	Date	Received By	Date	
		P. Ollan	4-10-15	15:28
Released By	Date	Received By	Date	

BSCLB



Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 04/23/2015 16:16
Project: Lehigh NPDES
Project Number: 063-7109-918
Project Manager: George Wegmann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 08/04/2015

George Wegmann

Golder Associates

425 Lakeside Drive
Sunnyvale, CA 94085

Client Project: 063-7109-918
BCL Project: Lehigh (item 11)
BCL Work Order: 1515612
Invoice ID: B208058

Enclosed are the results of analyses for samples received by the laboratory on 6/25/2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Vanessa Sandoval
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Table of Contents

Sample Information

Chain of Custody and Cooler Receipt form.....	3
Laboratory / Client Sample Cross Reference.....	5

Sample Results

1515612-01 - 28 - Pd13 inflow	
Water Analysis (General Chemistry).....	6
Metals Analysis.....	7
1515612-02 - 25 - Pd13 outflow	
Water Analysis (General Chemistry).....	8
Metals Analysis.....	9
1515612-03 - 8 - Pd22 inflow	
Water Analysis (General Chemistry).....	10
Metals Analysis.....	11
1515612-04 - 9 - Pd21 outfall	
Water Analysis (General Chemistry).....	12
Metals Analysis.....	13
1515612-05 - 5 - Pd22 outflow	
Water Analysis (General Chemistry).....	14
Metals Analysis.....	15

Quality Control Reports

Water Analysis (General Chemistry)	
Method Blank Analysis.....	16
Laboratory Control Sample.....	17
Precision and Accuracy.....	18
Metals Analysis	
Method Blank Analysis.....	19
Laboratory Control Sample.....	20
Precision and Accuracy.....	21

Subcontract Reports

WO_1515612_SUB_BSCLB.pdf.....	22
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Notes

Notes and Definitions.....	31
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Golder Associates
CHAIN OF CUSTODY



Page 1 of 1
Quotation No.

15-15612

PROJECT NO:		SITE NAME: (ITEM 11)		EDD required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
SAMPLER(S): David Walter (printed) David C. Walt (signature)		Lehigh APDES		EDF required? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
CONTRACT LABORATORY: BC Labs		Container Info							
TURN-AROUND TIME: Standard									
Sample I.D.	Lab I.D.	Collection		Matrix	Depth	Type/Vol.	Filter	Preserv.	Remarks
		Date	Time						
28	-1	6-24-15	1430	W		1L	500ml	500ml	5
25	-2		1500			1	N	N	5
9	-3		1600			1	N	N	5
5	-4		1620			1	N	N	5
	-5		1700			1	N	N	5
FB-6-24-15	-6		1700			1	N	N	1

ANALYSES
TDS chloride
Sulfides
Ca. Hardness
Cr 6+
Metals
Pb 1341600 series

CHK BY: DISTRIBUTION
 SUB-OUT

SHORT HOLDING TIME
NO₂ NO₃ OP SS
DO Cl₂ BOD MBAS COT

Relinquished by: (signature) David C. Walt
Relinquished by: (signature) David C. Walt
Relinquished by: (signature) David C. Walt

Received by: (signature) David C. Walt
Received by: (signature) David C. Walt
Received by: (signature) David C. Walt

REL: 6/25/15 2200
6/25/15 1330
6-25-15 1401
6/25/15 18:30

SEND RESULTS TO:
Attn: George Wegmann, Greg Knapp,
Golder Associates Inc.
425 Lakeside Drive
Sunnyvale, CA 94085
Phone (408) 220-9223
Fax (408) 220-9224

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 15751012

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service. SHIPPING CONTAINER: Ice Chest, None, Box, Other. 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: 0.95. Container: PE. Thermometer ID: 208. Date/Time: 6/25/15 2:57. Analyst Init: KIB. Temperature: (A) 1.4 C, (C) 1.5 C.

Table with columns: SAMPLE CONTAINERS, SAMPLE NUMBERS (1-10). Rows include: QT PE UNPRES, 4oz / 8oz / 16oz PE UNPRES, 2oz Cr6, QT INORGANIC CHEMICAL METALS, INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz, PT CYANIDE, PT NITROGEN FORMS, PT TOTAL SULFIDE, 2oz. NITRATE / NITRITE, PT TOTAL ORGANIC CARBON, PT CHEMICAL OXYGEN DEMAND, PtA PHENOLICS, 40ml VOA VIAL TRAVEL BLANK, 40ml VOA VIAL, QT EPA 1664, 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 8015M, 8oz / 16oz / 32oz AMBER, 8oz / 16oz / 32oz JAR, SOIL SLEEVE, PCB VIAL, PLASTIC BAG, Tedlar Bag, FERROUS IRON, ENCORE, SMART KIT, Summa Canister.

Comments: Sample Numbering Completed By: KIB Date/Time: 6/20/15 01:12 Rev. No. 19 05/06/2015 [S:\WPDoc\WordPerfect\LAB_DOCS\FORMS\ISAMRECrev 19]



Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1515612-01	COC Number:	---	Receive Date:	06/25/2015 22:40
	Project Number:	---	Sampling Date:	06/24/2015 14:30
	Sampling Location:	28	Sample Depth:	---
	Sampling Point:	28 - Pd13 inflow	Lab Matrix:	Water
	Sampled By:	David Walter	Sample Type:	Water
	<hr/>			
1515612-02	COC Number:	---	Receive Date:	06/25/2015 22:40
	Project Number:	---	Sampling Date:	06/24/2015 15:00
	Sampling Location:	25	Sample Depth:	---
	Sampling Point:	25 - Pd13 outflow	Lab Matrix:	Water
	Sampled By:	David Walter	Sample Type:	Water
	<hr/>			
1515612-03	COC Number:	---	Receive Date:	06/25/2015 22:40
	Project Number:	---	Sampling Date:	06/24/2015 16:00
	Sampling Location:	8	Sample Depth:	---
	Sampling Point:	8 - Pd22 inflow	Lab Matrix:	Water
	Sampled By:	David Walter	Sample Type:	Water
	<hr/>			
1515612-04	COC Number:	---	Receive Date:	06/25/2015 22:40
	Project Number:	---	Sampling Date:	06/24/2015 16:20
	Sampling Location:	9	Sample Depth:	---
	Sampling Point:	9 - Pd21 outfall	Lab Matrix:	Water
	Sampled By:	David Walter	Sample Type:	Water
	<hr/>			
1515612-05	COC Number:	---	Receive Date:	06/25/2015 22:40
	Project Number:	---	Sampling Date:	06/24/2015 17:00
	Sampling Location:	5	Sample Depth:	---
	Sampling Point:	5 - Pd22 outflow	Lab Matrix:	Water
	Sampled By:	David Walter	Sample Type:	Water
	<hr/>			
1515612-06	COC Number:	---	Receive Date:	06/25/2015 22:40
	Project Number:	---	Sampling Date:	06/24/2015 17:00
	Sampling Location:	FB-6-24-15	Sample Depth:	---
	Sampling Point:	FB-6-24-15	Lab Matrix:	Water
	Sampled By:	David Walter	Sample Type:	Water
	<hr/>			

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

BCL Sample ID: 1515612-01	Client Sample Name: 28, 28 - Pd13 inflow, 6/24/2015 2:30:00PM, David Walter
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Recoverable Calcium	220	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	63	mg/L	0.050	0.019	EPA-200.7	ND		1
Chloride	19	mg/L	0.50	0.061	EPA-300.0	ND		2
Hardness as CaCO3	820	mg/L	0.50	0.10	Calc	ND		3
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		4
Total Sulfide	ND	mg/L	0.10	0.050	SM-4500SD	ND		5

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-200.7	07/06/15	07/06/15	18:33	JRG	PE-OP2	1	BYG0368
2	EPA-300.0	07/06/15	07/06/15	12:38	OLH	IC2	1	BYG0359
3	Calc	06/26/15	07/09/15	15:47	MSA	Calc	1	BYF2441
4	SM-2540C	06/29/15	06/29/15	10:30	CAD	MANUAL	5	BYF2543
5	SM-4500SD	06/30/15	06/30/15	21:00	DIW	SPEC05	1	BYF2795

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

BCL Sample ID: 1515612-01	Client Sample Name: 28, 28 - Pd13 inflow, 6/24/2015 2:30:00PM, David Walter
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.13	ug/L	0.20	0.055	EPA-218.6	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	06/26/15	06/26/15 16:28	BMW	IC-4	1	BYF2723

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

BCL Sample ID: 1515612-02	Client Sample Name: 25, 25 - Pd13 outflow, 6/24/2015 3:00:00PM, David Walter
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Recoverable Calcium	210	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	68	mg/L	0.050	0.019	EPA-200.7	ND		1
Chloride	18	mg/L	0.50	0.061	EPA-300.0	ND		2
Hardness as CaCO3	810	mg/L	0.50	0.10	Calc	ND		3
Total Dissolved Solids @ 180 C	1000	mg/L	50	50	SM-2540C	ND		4
Total Sulfide	ND	mg/L	0.10	0.050	SM-4500SD	ND		5

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	07/06/15	07/06/15 18:50	JRG	PE-OP2	1	BYG0368
2	EPA-300.0	07/06/15	07/06/15 13:50	OLH	IC2	1	BYG0359
3	Calc	06/26/15	07/09/15 15:47	MSA	Calc	1	BYF2441
4	SM-2540C	06/29/15	06/29/15 10:30	CAD	MANUAL	5	BYF2543
5	SM-4500SD	06/30/15	06/30/15 21:00	DIW	SPEC05	1	BYF2795

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

BCL Sample ID: 1515612-02	Client Sample Name: 25, 25 - Pd13 outflow, 6/24/2015 3:00:00PM, David Walter
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	ug/L	0.20	0.055	EPA-218.6	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	06/26/15	06/26/15 17:14	BMW	IC-4	1	BYF2723

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

BCL Sample ID: 1515612-03	Client Sample Name: 8, 8 - Pd22 inflow, 6/24/2015 4:00:00PM, David Walter
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Recoverable Calcium	220	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	67	mg/L	0.050	0.019	EPA-200.7	ND		1
Chloride	32	mg/L	0.50	0.061	EPA-300.0	ND		2
Hardness as CaCO3	820	mg/L	0.50	0.10	Calc	ND		3
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		4
Total Sulfide	ND	mg/L	0.10	0.050	SM-4500SD	ND		5

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	07/06/15	07/06/15 19:05	JRG	PE-OP2	1	BYG0368
2	EPA-300.0	07/06/15	07/06/15 14:08	OLH	IC2	1	BYG0359
3	Calc	06/26/15	07/09/15 15:47	MSA	Calc	1	BYF2441
4	SM-2540C	06/29/15	06/29/15 10:30	CAD	MANUAL	5	BYF2543
5	SM-4500SD	06/30/15	06/30/15 21:00	DIW	SPEC05	1	BYF2795

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

BCL Sample ID: 1515612-03	Client Sample Name: 8, 8 - Pd22 inflow, 6/24/2015 4:00:00PM, David Walter
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.57	ug/L	0.20	0.055	EPA-218.6	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	06/26/15	06/26/15 17:26	BMW	IC-4	1	BYF2723

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

BCL Sample ID: 1515612-04	Client Sample Name: 9, 9 - Pd21 outfall, 6/24/2015 4:20:00PM, David Walter
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Recoverable Calcium	170	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	66	mg/L	0.050	0.019	EPA-200.7	ND		1
Chloride	88	mg/L	0.50	0.061	EPA-300.0	ND		2
Hardness as CaCO3	700	mg/L	0.50	0.10	Calc	ND		3
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		4
Total Sulfide	ND	mg/L	0.10	0.050	SM-4500SD	ND		5

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	07/06/15	07/06/15 19:08	JRG	PE-OP2	1	BYG0368
2	EPA-300.0	07/06/15	07/06/15 14:26	OLH	IC2	1	BYG0359
3	Calc	06/26/15	07/09/15 15:47	MSA	Calc	1	BYF2441
4	SM-2540C	06/29/15	06/29/15 10:30	CAD	MANUAL	5	BYF2543
5	SM-4500SD	06/30/15	06/30/15 21:00	DIW	SPEC05	1	BYF2795

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.

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

BCL Sample ID: 1515612-04	Client Sample Name: 9, 9 - Pd21 outfall, 6/24/2015 4:20:00PM, David Walter
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.21	ug/L	0.20	0.055	EPA-218.6	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	06/26/15	06/26/15 17:37	BMW	IC-4	1	BYF2723

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

BCL Sample ID: 1515612-05	Client Sample Name: 5, 5 - Pd22 outflow, 6/24/2015 5:00:00PM, David Walter
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Recoverable Calcium	200	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	64	mg/L	0.050	0.019	EPA-200.7	ND		1
Chloride	33	mg/L	0.50	0.061	EPA-300.0	ND		2
Hardness as CaCO3	770	mg/L	0.50	0.10	Calc	ND		3
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		4
Total Sulfide	ND	mg/L	0.10	0.050	SM-4500SD	ND		5

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	07/06/15	07/06/15 19:11	JRG	PE-OP2	1	BYG0368
2	EPA-300.0	07/06/15	07/06/15 15:39	BMW	IC2	1	BYG0359
3	Calc	06/26/15	07/09/15 15:47	MSA	Calc	1	BYF2441
4	SM-2540C	06/29/15	06/29/15 10:30	CAD	MANUAL	5	BYF2543
5	SM-4500SD	06/30/15	06/30/15 21:00	DIW	SPEC05	1	BYF2795

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

BCL Sample ID: 1515612-05	Client Sample Name: 5, 5 - Pd22 outflow, 6/24/2015 5:00:00PM, David Walter
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.55	ug/L	0.20	0.055	EPA-218.6	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	06/26/15	06/26/15 17:49	BMW	IC-4	1	BYF2723

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYF2441						
Hardness as CaCO3	BYF2441-BLK1	ND	mg/L	0.50	0.10	
QC Batch ID: BYF2543						
Total Dissolved Solids @ 180 C	BYF2543-BLK1	ND	mg/L	6.7	6.7	
QC Batch ID: BYF2795						
Total Sulfide	BYF2795-BLK1	ND	mg/L	0.10	0.050	
QC Batch ID: BYG0359						
Chloride	BYG0359-BLK1	ND	mg/L	0.50	0.061	
QC Batch ID: BYG0368						
Total Recoverable Calcium	BYG0368-BLK1	ND	mg/L	0.10	0.014	
Total Recoverable Magnesium	BYG0368-BLK1	ND	mg/L	0.050	0.019	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab	Quals
								Percent Recovery	RPD		
QC Batch ID: BYF2543											
Total Dissolved Solids @ 180 C	BYF2543-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110			
QC Batch ID: BYF2795											
Total Sulfide	BYF2795-BS1	LCS	0.51993	0.50000	mg/L	104		90 - 110			
QC Batch ID: BYG0359											
Chloride	BYG0359-BS1	LCS	52.930	50.000	mg/L	106		90 - 110			
QC Batch ID: BYG0368											
Total Recoverable Calcium	BYG0368-BS1	LCS	10.685	10.000	mg/L	107		85 - 115			
Total Recoverable Magnesium	BYG0368-BS1	LCS	11.156	10.000	mg/L	112		85 - 115			

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: BYF2543		Used client sample: Y - Description: 28 - Pd13 inflow, 06/24/2015 14:30								
Total Dissolved Solids @ 180 C	DUP	1515612-01	1110.0	1120.0		mg/L	0.9		10	
QC Batch ID: BYF2795		Used client sample: N								
Total Sulfide	DUP	1515552-01	ND	ND		mg/L			10	
	MS	1515552-01	ND	0.52188	0.50000	mg/L		104		80 - 120
	MSD	1515552-01	ND	0.51407	0.50000	mg/L	1.5	103	10	80 - 120
QC Batch ID: BYG0359		Used client sample: Y - Description: 28 - Pd13 inflow, 06/24/2015 14:30								
Chloride	DUP	1515612-01	18.506	18.391		mg/L	0.6		10	
	MS	1515612-01	18.506	73.401	50.505	mg/L		109		80 - 120
	MSD	1515612-01	18.506	73.891	50.505	mg/L	0.7	110	10	80 - 120
QC Batch ID: BYG0368		Used client sample: Y - Description: 28 - Pd13 inflow, 06/24/2015 14:30								
Total Recoverable Calcium	DUP	1515612-01	223.49	220.34		mg/L	1.4		20	
	MS	1515612-01	223.49	231.60	10.000	mg/L		81.1		75 - 125
	MSD	1515612-01	223.49	215.66	10.000	mg/L	7.1	-78.3	20	75 - 125 A03
Total Recoverable Magnesium	DUP	1515612-01	62.860	62.428		mg/L	0.7		20	
	MS	1515612-01	62.860	73.209	10.000	mg/L		103		75 - 125
	MSD	1515612-01	62.860	68.558	10.000	mg/L	6.6	57.0	20	75 - 125 A03

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYF2723						
Hexavalent Chromium	BYF2723-BLK1	ND	ug/L	0.20	0.055	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: BYF2723										
Hexavalent Chromium	BYF2723-BS1	LCS	20.216	20.000	ug/L	101		90 - 110		

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Metals Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BYF2723		Used client sample: Y - Description: 28 - Pd13 inflow, 06/24/2015 14:30								
Hexavalent Chromium	DUP	1515612-01	0.13000	0.13200		ug/L	1.5		10	J
	MS	1515612-01	0.13000	19.825	20.202	ug/L		97.5	90 - 110	
	MSD	1515612-01	0.13000	19.830	20.202	ug/L	0.0	97.5	10 90 - 110	

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basic
laboratory

www.basiclab.com

2218 Railroad Avenue voice 530.243.7234
Redding, California 96001 fax 530.243.7494

3860 Morrow Lane, Suite F voice 530.894.8966
Chico, California 95928 fax 530.894.5143

July 13, 2015

Lab ID: 15G0091

VANESSA SANDOVAL
B C LABORATORIES INCORPORATED
4100 ATLAS COURT
BAKERSFIELD, CA 93308
RE: GENERAL TESTING 1515612

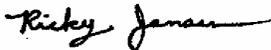
Dear VANESSA SANDOVAL ,

Enclosed are the analysis results for Work Order number 15G0091. All analysis were performed under strict adherence to our established Quality Assurance Plan. Any abnormalities are listed in the qualifier section of this report.

If you have any questions regarding these results, please feel free to contact us at any time. We appreciate the opportunity to service your environmental testing needs.

Sincerely,


For



Ricky D. Jensen
Laboratory Director

California ELAP Certification Number 1677



www.basiclab.com

basic laboratory

2218 Railroad Avenue Redding, California 96001 voice 530.243.7234 fax 530.243.7494

3860 Morrow Lane, Suite F Chico, California 95928 voice 530.894.8966 fax 530.894.5143

Report To: B C LABORATORIES INCORPORATED 4100 ATLAS COURT BAKERSFIELD, CA 93308 Attention: VANESSA SANDOVAL Project: GENERAL TESTING 1515612

Lab No: 15G0091 Reported: 07/13/15 Phone: (661) 327-4911 P.O. #

Metals - Total

Table with columns: Analyte, Units, Results, Qualifier, MDL, RL, Method, Analyzed, Prepared, Batch. Contains three sub-tables for samples 1515612-01, 1515612-02, and 1515612-03, each listing various metals and their concentrations.

Approved By [Signature]

Basic Laboratory, Inc. California ELAP Cert #1677 and #2718



www.basiclab.com

basic laboratory

2218 Railroad Avenue Redding, California 96001 voice 530.243.7234 fax 530.243.7494

3880 Morrow Lane, Suite F Chico, California 95928 voice 530.894.8966 fax 530.894.5143

Report To: B C LABORATORIES INCORPORATED 4100 ATLAS COURT BAKERSFIELD, CA 93308 Attention: VANESSA SANDOVAL Project: GENERAL TESTING 1515612

Lab No: 15G0091 Reported: 07/13/15 Phone: (661) 327-4911 P.O. #

Metals - Total

Table with columns: Analyte, Units, Results, Qualifier, MDL, RL, Method, Analyzed, Prepared, Batch. Contains data for three samples: 1515612-04, 1515612-05, and 1515612-06.

Handwritten signature

Approved By

Basic Laboratory, Inc. California ELAP Cert #1677 and #2718



basic laboratory

www.basiclab.com

2218 Railroad Avenue Redding, California 96001 voice 530.243.7234 fax 530.243.7494

3860 Morrow Lane, Suite F Chico, California 95928 voice 530.894.8966 fax 530.894.5143

Report To: B C LABORATORIES INCORPORATED 4100 ATLAS COURT BAKERSFIELD, CA 93308 Attention: VANESSA SANDOVAL Project: GENERAL TESTING 1515612

Lab No: 15G0091 Reported: 07/13/15 Phone: (661) 327-4911 P.O. #

Quality Control Data

Table with 11 columns: Analyte, Result, RL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Qualifier

Metals - Total

Batch BSF1479 - EPA 1638 - Closed Bottle Oven Digestion

Blank

Table listing blank test results for various metals including Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Lead, Nickel, Selenium, Silver, Thallium, and Zinc.

LCS

Table listing LCS (Laboratory Control Sample) test results for various metals with associated spike levels and recovery percentages.

Matrix Spike Source: 15G0091-01

Table listing Matrix Spike test results for various metals, including recovery percentages and RPD values.

Matrix Spike Dup Source: 15G0091-01

Table listing Matrix Spike Dup test results for various metals, including recovery percentages and RPD values.

Handwritten signature of Kirby

Approved By

Basic Laboratory, Inc. California ELAP Cert #1677 and #2718



basic laboratory

www.basiclab.com

2218 Railroad Avenue Redding, California 96001 voice 530.243.7234 fax 530.243.7494

3860 Morrow Lane, Suite F Chico, California 95928 voice 530.894.8966 fax 530.894.5143

Report To: B C LABORATORIES INCORPORATED 4100 ATLAS COURT BAKERSFIELD, CA 93308 Attention: VANESSA SANDOVAL Project: GENERAL TESTING 1515612

Lab No: 15G0091 Reported: 07/13/15 Phone: (661) 327-4911 P.O. #

Quality Control Data

Table with 11 columns: Analyte, Result, RL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Qualifier

Metals - Total

Batch B5F1479 - EPA 1638 - Closed Bottle Oven Digestion

Table with 11 columns showing results for Lead, Nickel, Selenium, Silver, Thallium, and Zinc.

Batch B5G0824 - BrCl Digestion

Table with 11 columns showing results for Blank, LCS, Matrix Spike, and Matrix Spike Dup for Mercury.

Approved By [Signature] Basic Laboratory, Inc. California ELAP Cert #1677 and #2718



basic laboratory

www.basiclab.com

2218 Railroad Avenue Redding, California 96001 voice 530.243.7234 fax 530.243.7494

3860 Morrow Lane, Suite F Chico, California 95928 voice 530.894.8966 fax 530.894.5143

Report To: B C LABORATORIES INCORPORATED 4100 ATLAS COURT BAKERSFIELD, CA 93308 Attention: VANESSA SANDOVAL Project: GENERAL TESTING 1515612

Lab No: 15G0091 Reported: 07/13/15 Phone: (661) 327-4911 P.O. #

Notes and Definitions

- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). The J flag is equivalent to the DNQ Estimated Concentration flag.
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the detection limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
< Less than reporting limit
≤ Less than or equal to reporting limit
> Greater than reporting limit
≥ Greater than or equal to reporting limit
MDL Method Detection Limit
RL/ML Minimum Level of Quantitation
MCL/AL Maximum Contaminant Level/Action Level
mg/kg Results reported as wet weight
TTLIC Total Threshold Limit Concentration
STLC Soluble Threshold Limit Concentration
TCLP Toxicity Characteristic Leachate Procedure
Note 1 Received Temperature - according to EPA guidelines, samples for most chemistry methods should be held at ≤6 degrees C after collection, including during transportation, unless the time from sampling to delivery is <2 hours. Regulating agencies may invalidate results if temperature requirements are not met.
Note 2 According to 40 CFR Part 136 Table II, the following tests should be analyzed in the field within 15 minutes of sampling: pH, chlorine, dissolved oxygen, and sulfite.

Approved By

Basic Laboratory, Inc. California ELAP Cert #1677 and #2718



SUBCONTRACT ORDER
BC Laboratories
1515612

15G0091
1
15G0091
Due 7-15-15

SENDING LABORATORY:

BC Laboratories
4100 Atlas Court
Bakersfield, CA 93308
Phone: 661-327-4911
FAX: 661-327-1918
Project Manager: Vanessa Sandoval

RECEIVING LABORATORY:

Basic Laboratory, Inc.
2218 Railroad Ave.
Redding, CA 96001
James E. Hawley
Phone: (530) 243-7234
FAX: ---

BSCLB

Analysis Due Expires Comments

Table with 4 columns: Analysis, Due, Expires, Comments. Row 1: Sample ID: 1515612-01, Water, Sampled: 06/24/15 14:30, 500ml Plastic. Rows 2-13: EPA 1631 - Mercury, EPA 1638 - Total Recoverable Antimony, EPA 1638 - Total Recoverable Arsenic, EPA 1638 - Total Recoverable Beryllium, EPA 1638 - Total Recoverable Cadmium, EPA 1638 - Total Recoverable Chromium, EPA 1638 - Total Recoverable Copper, EPA 1638 - Total Recoverable Lead, EPA 1638 - Total Recoverable Nickel, EPA 1638 - Total Recoverable Selenium, EPA 1638 - Total Recoverable Silver, EPA 1638 - Total Recoverable Thallium, EPA 1638 - Total Recoverable Zinc. Includes handwritten '14.0°C'.

Containers supplied:

Table with 4 columns: Analysis, Due, Expires, Comments. Row 1: Sample ID: 1515612-02, Water, Sampled: 06/24/15 15:00. Rows 2-13: EPA 1631 - Mercury, EPA 1638 - Total Recoverable Antimony, EPA 1638 - Total Recoverable Arsenic, EPA 1638 - Total Recoverable Beryllium, EPA 1638 - Total Recoverable Cadmium, EPA 1638 - Total Recoverable Chromium, EPA 1638 - Total Recoverable Copper, EPA 1638 - Total Recoverable Lead, EPA 1638 - Total Recoverable Nickel, EPA 1638 - Total Recoverable Selenium, EPA 1638 - Total Recoverable Silver, EPA 1638 - Total Recoverable Thallium, EPA 1638 - Total Recoverable Zinc. Includes handwritten '12.9°C'.

Containers supplied:

A, E, E, E, E, E

Released By [Signature] Date 6-30-15 Received By P. Oller Date 7-1-15 15:30

Released By [Signature] Date [Blank] Received By P. Oller Date 7-2-15 14:08

BSCLB * See attached email / 1 500ml Fluoropolymer bottle per sample. Split into correct bottles at lab. Page 1 of 3



SUBCONTRACT ORDER
BC Laboratories
1515612

1560091
Due 7-15-15

Table with columns: Analysis, Due, Expires, Comments. Includes sample ID 1515612-03, Water, and various EPA 1631-1638 tests with dates and times.

Containers supplied:

Table with columns: Analysis, Due, Expires, Comments. Includes sample ID 1515612-04, Water, and various EPA 1631-1638 tests with dates and times.

Containers supplied:

Released By [Signature] Date 7-30-15 Received By P. O'Call Date 7-1-15 15:30
Released By [Signature] Date 7-2-15 Received By P. O'Call Date 7-2-15 14:08

BSCLB



SUBCONTRACT ORDER
BC Laboratories
1515612

1560091

Table with columns: Analysis, Due, Expires, Comments. Includes sample ID 1515612-05, Water, and various EPA 1631-1638 analytes.

Containers supplied:

Table with columns: Analysis, Due, Expires, Comments. Includes sample ID 1515612-06, Water, and various EPA 1631-1638 analytes.

Containers supplied:

Released By: [Signature] Date: 6-30-15 Received By: P. Ollan Date: 7-1-15 15:30
Released By: [Signature] Date: [Blank] Received By: P. Ollan Date: 7-2-15 14:08

BSCLB

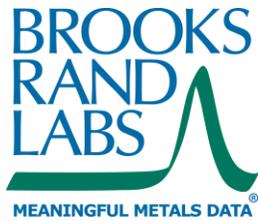


Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 12:03
Project: Lehigh (item 11)
Project Number: 063-7109-918
Project Manager: George Wegmann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A03 The sample concentration is more than 4 times the spike level.



May 6, 2015

Ben Giudice, Ph.D., P.E.
Robertson-Bryan, Inc.
9888 Kent Street
Elk Grove, CA 95624
(916) 405-8943

Re: Golder Associates Project

Dr. Giudice,

Attached is the report associated with the three (3) aqueous samples submitted for total (filtered and unfiltered) selenium and selenium speciation analyses on April 16, 2015. All samples were received on April 17, 2015 in a sealed cooler at 0.0°C. Selenium speciation analysis was performed by ion chromatography inductively coupled plasma collision reaction cell mass spectrometry (IC-ICP-CRC-MS). Total selenium analysis was performed via inductively coupled plasma triple quadrupole mass spectrometry (ICP-QQQ-MS). Any issues associated with the analyses are addressed in the following report.

If you have any questions, please feel free to contact me at your convenience.

Sincerely,

Ben Wozniak
Project Manager
Brooks Rand Labs, LLC

Brooks Rand Labs, LLC

Report Prepared for:

Ben Giudice, Ph.D., P.E.
Robertson-Bryan, Inc.
9888 Kent Street
Elk Grove, CA 95624

May 6, 2015

1. Sample Reception

Three (3) aqueous samples were submitted for total (filtered and unfiltered) selenium and selenium speciation analyses on April 16, 2015. All samples were received in acceptable condition on April 17, 2015 in a sealed cooler at 0.0°C.

The samples were received in a laminar flow clean hood, void of trace metals contamination and ultra-violet radiation, and designated discrete sample identifiers. Immediately upon reception each field-filtered aqueous sample for selenium speciation was stored in a secure, monitored cryofreezer (maintained at a temperature of <-70°C) until the analyses could be performed. Each field-filtered aqueous sample for dissolved selenium and each aqueous sample for total selenium were then preserved with 1% HNO₃ (v/v) to a pH < 2. All acidified aqueous samples were stored in a secure enclosed container, known to be free from trace metals contamination, until digestion and/or analysis could be performed.

It should be noted that the tape sealing the cooler was not intact upon receipt at Brooks Rand Labs. The client was contacted regarding this issue and requested that the analyses proceed.

2. Sample Preparation

All sample preparation is performed in laminar flow clean hoods known to be free from trace metals contamination. All applied water for dilutions and sample preservatives are monitored for contamination to account for any biases associated with the sample results.

Selenium Speciation Analysis by IC-ICP-CRC-MS (Aqueous) Each sample submitted for selenium speciation had been filtered prior to reception at Applied Speciation and Consulting / Brooks Rand Labs. No further sample preparation was performed as any chemical alteration of a sample may shift the equilibrium of the system, resulting in changes in speciation ratios.

Total (Unfiltered and Filtered) Selenium Quantitation by ICP-QQQ-MS (Aqueous) An aliquot of each acidified sample fraction for total selenium was further digested on a hotblock apparatus with aliquots of 50% HNO₃ (v/v) and 50% HCl (v/v), in accordance with the

digestion procedure specified in EPA Method 200.8. Each acidified sample fraction for dissolved selenium was directly analyzed without further digestion.

3. Sample Analysis

All sample analysis is preceded by a minimum of a five-point calibration curve spanning the entire concentration range of interest. All calibration curves, associated with each species of interest, are standardized by linear regression resulting in a response factor. All sample results are **instrument blank corrected** to account for any operational biases associated with the analytical platform.

Prior to sample analysis, all calibration curves are verified using second source standards which are identified as initial calibration verification standards (ICV).

Ongoing instrument performance is identified by the analysis of continuing calibration verification standards (CCV) and continuing calibration blanks (CCB) at a minimum interval of every ten analytical runs.

Selenium Speciation Analysis by IC-ICP-CRC-MS The samples submitted for selenium speciation were analyzed by ion chromatography inductively coupled plasma collision reaction cell mass spectrometry (IC-ICP-CRC-MS) on May 1-2, 2015. Aliquots of each sample are injected onto an anion exchange column and are mobilized by an alkaline (pH > 7) gradient. The eluting selenium species are then introduced into a radio frequency (RF) plasma where energy-transfer processes cause desolvation, atomization, and ionization. The ions are extracted from the plasma through a differentially-pumped vacuum interface and travel through a pressurized chamber (CRC) containing a specific reaction gas which preferentially reacts with interfering ions of the same target mass to charge ratios (m/z). A solid-state detector detects ions transmitted through the mass analyzer and the resulting current is processed by a data handling system.

Retention times for each eluting species are compared to known standards for species identification.

Total Selenium Quantitation by ICP-QQQ-MS All samples and sample digests for selenium quantitation were analyzed by inductively coupled plasma triple quadrupole mass spectrometry (ICP-QQQ-MS) on April 28, 2015. Aliquots of each sample or sample digest are introduced into a radio frequency (RF) plasma where energy-transfer processes cause desolvation, atomization, and ionization. The ions are extracted from the plasma through a differentially-pumped vacuum interface and travel through an initial quadrupole (Q1), which filters the target masses prior to their entrance into a second chamber. The second chamber contains specific reactive gasses or collision gasses that preferentially react either with interfering ions of the same target mass to charge ratios (m/z) or with the target analyte, producing an entirely different mass to charge ratio (m/z) which can then be differentiated from the initial interferences. The ions then exit the collision/reaction chamber into the mass analyzer (Q2). A solid-state detector detects ions transmitted through the mass analyzer, on

the basis of their mass-to-charge ratio (m/z), and the resulting current is processed by a data handling system.

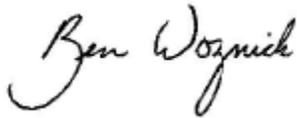
4. Analytical Issues

No significant issues were encountered with the requested analyses. All quality control parameters associated with these samples were within acceptance limits.

The estimated method detection limits (eMDLs) for selenite, selenate, and selenocyanate are generated from replicate analyses of the lowest standard in the calibration curve. Not all selenium species are present in preparation blanks; therefore, eMDL calculations based on preparation blanks may be artificially biased low for individual species. The eMDLs for total and dissolved selenium have been calculated using the standard deviation of the method blanks prepared and analyzed concurrently with the submitted samples.

If you have any questions or concerns regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Ben Wozniak". The signature is written in a cursive style with a large, looping initial "B".

Ben Wozniak
Project Manager
Brooks Rand Labs, LLC

Selenium Results for Robertson-Bryan Inc.
Project: Golder Associates
Contact: Ben Giudice

Date: May 6, 2015
Report Generated by: Ben Wozniak
Brooks Rand Labs, LLC

Sample Results

Sample ID	Date Collected	Units	Total Se	Diss. Se	Se(IV)	Se(VI)	SeCN	Additional Se Species (n)
Pond 13	4/15/2015	µg/L	23.6	23.3	1.86	20.7	< 0.021 U	0.193 (2)
Pond 14	4/15/2015	µg/L	21.9	24.2	1.61	19.4	< 0.021 U	0.301 (2)
Pond 22	4/15/2015	µg/L	22.7	21.5	0.817	20.0	< 0.021 U	0.113 (2)

All results reflect the applied dilution and are reported in µg/L

U = Sample concentration is below the estimated method detection limit (eMDL)

J = Sample concentration is between the eMDL and the reporting limit (RL)

SeCN = Selenocyanate

Additional Se Species = Sum of all additional Se species observed by IC-ICP-MS

n = number of unknown Se species observed

Selenium Results for Robertson-Bryan Inc.
Project: Golder Associates
Contact: Ben Giudice

Date: May 6, 2015
Report Generated by: Ben Wozniak
Brooks Rand Labs, LLC

Quality Control Summary - Preparation Blank Summary

Analyte	Units	PB1	PB2	PB3	PB4	Mean	StdDev	eMDL* 10x	RL 10x
Total Se	µg/L	0.13	0.15	-0.04	-0.03	0.05	0.10	0.30	0.40
Diss Se	µg/L	-0.057	-0.056	-0.081	-0.067	-0.065	0.012	0.035	0.40
Se(IV)	µg/L	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.50
Se(VI)	µg/L	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.50
SeCN	µg/L	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.46

eMDL = Estimated Method Detection Limit; RL = Reporting Limit

*Please see narrative regarding eMDL calculations

Selenium Results for Robertson-Bryan Inc.

Project: Golder Associates

Contact: Ben Giudice

Date: May 6, 2015

Report Generated by: Ben Wozniak

Brooks Rand Labs, LLC

Quality Control Summary - Certified Reference Materials

Analyte	Units	CRM	True Value	Result	Recovery
Total Se	µg/L	LCS	100.0	94.08	94.1
Total Se	µg/L	TMDA-70.2	27.8	24.87	89.5
Diss Se	µg/L	T-191	0.916	0.855	93.3
Se(IV)	µg/L	LCS	5.000	5.398	108.0
Se(VI)	µg/L	LCS	5.000	4.923	98.5
SeCN	µg/L	LCS	4.460	4.182	93.8

Selenium Results for Robertson-Bryan Inc.

Project: Golder Associates

Contact: Ben Giudice

Date: May 6, 2015

Report Generated by: Ben Wozniak

Brooks Rand Labs, LLC

Quality Control Summary - Matrix Duplicates

Analyte	Units	Sample ID	Rep 1	Rep 2	Mean	RPD
Total Se	µg/L	Pond 22	22.70	23.47	23.09	3.4
Diss Se	µg/L	Pond 14	24.19	24.13	24.16	0.3
Se(IV)	µg/L	Pond 14	1.613	1.632	1.623	1.2
Se(VI)	µg/L	Pond 14	19.44	19.49	19.47	0.3
SeCN	µg/L	Pond 14	< 0.021 U	< 0.021 U	NC	NC

NC = Not calculated due to one or more concentrations below the eMDL

Quality Control Summary - Matrix Spike/ Matrix Spike Duplicate

Analyte	Units	Sample ID	Spike Conc	MS Result	Recovery	Spike Conc	MSD Result	Recovery	RPD
Total Se	µg/L	Pond 22	100.0	121.5	98.4	100.0	115.6	92.5	5.0
Diss Se	µg/L	Pond 14	100.0	114.4	90.3	100.0	115.0	90.8	0.5
Se(IV)	µg/L	Pond 14	50.20	50.83	98.0	50.20	50.89	98.1	0.1
Se(VI)	µg/L	Pond 14	50.00	67.39	95.8	50.00	67.35	95.8	0.1
SeCN	µg/L	Pond 14	45.75	42.93	93.8	45.75	42.76	93.5	0.4



**APPLIED SPECIATION
CONSULTING, LLC**

AND

18804 Northcreek Parkway
Bothell, WA 98011

Phone (425) 483-3300
Fax (425) 483-9818

1074

Company Name: Robertson-Bryan, Inc.	ASC Project Manager: Ben Wozniak
Contact Person: Ben Giudice	By submitting of samples the client agrees to all terms and conditions set forth in the quotation provided by the ASC project manager. If you are not familiar with the term and conditions associated with your project, please contact your ASC representative as soon as possible (425) 483-3300.
Address: 9888 Kent St., Elk Grove, CA 95624	
Phone Number: 916-405-8943	Requested Turn Around Time: Normal
Fax Number:	Method of Sample Delivery: FedEx
Email Address: ben@robertson-bryan.com	Courier Tracking Number:
Project Name: Lehigh Selenium Impact Study	Confirmation of Sample Reception: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Project Number: LHI598	
PO Number: LHI598-5	

Sample ID	Bottle ID	Date and Time	Matrix*	Volume	Preservative	Initials	Requested Analytes and Methods	Comments
PER US		4/15/2015 11:10	FW	125	NONE	PB	Total Se	
PER US		4/15/2015 11:10	FW	15	NONE	PB	Dissolved Se	
PER US		4/15/2015 11:10	FW	15	NONE	PB	Se Speciation	
Pond 13		4/15/2015 9:50	FW	125	NONE	PB	Total Se	
Pond 13		4/15/2015 9:50	FW	15	NONE	PB	Dissolved Se	
Pond 13		4/15/2015 9:50	FW	15	NONE	PB	Se Speciation	
Pond 14		4/15/2015 8:03	FW	125	NONE	PB	Total Se	
Pond 14		4/15/2015 8:03	FW	15	NONE	PB	Dissolved Se	
Pond 14		4/15/2015 8:03	FW	15	NONE	PB	Se Speciation	
PER070		4/15/2015 12:10	FW	125	NONE	PB	Total Se	
PER070		4/15/2015 12:10	FW	15	NONE	PB	Dissolved Se	
PER070		4/15/2015 12:10	FW	15	NONE	PB	Se Speciation	
FD PER070		4/15/2015 12:10	FW	125	NONE	PB	Total Se	
FD PER070		4/15/2015 12:10	FW	15	NONE	PB	Dissolved Se	
FD PER070		4/15/2015 12:10	FW	15	NONE	PB	Se Speciation	
PER080		4/15/2015 12:27	FW	125	NONE	PB	Total Se	
PER080		4/15/2015 12:27	FW	15	NONE	PB	Dissolved Se	
PER080		4/15/2015 12:27	FW	15	NONE	PB	Se Speciation	

Relinquished by: (sign) <u>Paul Bedore</u> (print) <u>PAUL BEDORE</u> Date/Time: <u>4/16/15 11:00</u>	Comments:
Received by: (sign) <u>[Signature]</u> (print) <u>Aubrey Ernst</u> Date/Time: <u>4/17/15 8:45</u>	
Relinquished by: (sign) _____ (print) _____ Date/Time: _____	Comments:
Received by: (sign) _____ (print) _____ Date/Time: _____	
	Temp: <u>0.0°C</u>
	Temp: _____

Please account for each sample bottle as a separate line item for verification purposes.

*Matrix: Air, Freshwater (FW), seawater (SW), groundwater (GW), wastewater (WW), soil (SL), sediment (SD), tissue (TS), product (P), other (O)

tape security cooler was cut when rec'd for 4/17/15

**APPLIED SPECIATION
CONSULTING, LLC**

AND

3 of 4

18804 Northcreek Parkway
Bothell, WA 98011

Phone (425) 483-3300
Fax (425) 483-9818

Company Name: Robertson-Bryan, Inc.	ASC Project Manager: Ben Wozniak
Contact Person: Ben Giudice	By submitting of samples the client agrees to all terms and conditions set forth in the quotation provided by the ASC project manager. If you are not familiar with the term and conditions associated with your project, please contact your ASC representative as soon as possible (425) 483-3300.
Address: 9888 Kent St., Elk Grove, CA 95624	
Phone Number: 916-405-8943	
Fax Number:	
Email Address: ben@robertson-bryan.com	Requested Turn Around Time: Normal
Project Name: Golder Associates	Method of Sample Delivery: FedEx
Project Number: LHI598	Courier Tracking Number:
PO Number: LHI598-5	Confirmation of Sample Reception: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Sample ID	Bottle ID	Date and Time	Matrix*	Volume	Preservative	Initials	Requested Analytes and Methods	Comments
Pond 22		4/15/2015 8:20	FW	125	NONE	PB	Total Se	See note.
Pond 22		4/15/2015 8:20	FW	15	NONE	PB	Dissolved Se	
Pond 22		4/15/2015 8:20	FW	15	NONE	PB	Se Speciation	

For Golder Associates report: Report results for Pond 22, Pond 13, and Pond 14.

Relinquished by: (sign) <u>Paul Bedore</u> (print) <u>PAUL BEDORE</u>	Date/Time: <u>4/16/15 11:00</u>	Comments:
Received by: (sign) <u>Aubrey Ernst</u> (print) <u>Aubrey Ernst</u>	Date/Time: <u>4/17/15 8:45</u>	
Relinquished by: (sign) _____ (print) _____	Date/Time: _____	Comments:
Received by: (sign) _____ (print) _____	Date/Time: _____	
Please account for each sample bottle as a separate line item for verification purposes.		Temp: <u>0.002</u>



Date of Report: 08/04/2015

George Wegmann

Golder Associates

425 Lakeside Drive
Sunnyvale, CA 94085

Client Project: 063-7109-916

BCL Project: Lehigh NPDES

BCL Work Order: 1428886

Invoice ID: B191976

Enclosed are the results of analyses for samples received by the laboratory on 12/4/2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Vanessa Sandoval
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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Table of Contents

Sample Information

Case Narrative.....	3
Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	7

Sample Results

1428886-01 - RSW-002

Water Analysis (General Chemistry).....	8
Metals Analysis.....	9

Quality Control Reports

Water Analysis (General Chemistry)

Method Blank Analysis.....	10
Laboratory Control Sample.....	11
Precision and Accuracy.....	12

Metals Analysis

Method Blank Analysis.....	13
Laboratory Control Sample.....	14
Precision and Accuracy.....	15

Subcontract Reports

WO_1428886_SUB_BSCLB.pdf.....	16
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Notes

Notes and Definitions.....	20
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Case Narratives

Case Narrative for Work Order 1428886

Report Revision

The results of the Nickel, Selenium and Thallium by EPA Method 200.8 for sample 1428886-01 with sample ID of RSW-002 are revised in this report. The reason for the revision is that the incorrect sample was used for the original analysis and reported results. This error was discovered as a result of one of our clients questioning the results of their sample in an email. After investigating, we found the source of the error and are revising all results affected by that error.



Chain of Custody and Cooler Receipt Form for 1428886 Page 2 of 3

Methods 14-28886

Parameter	Method	RL	Units
Chromium (VI)	SM 3500	5	µg/L
Mercury	1631	0.002	ng/L
Nickel	249.2	1	µg/L
Selenium	200.8	1	µg/L
Thallium	279.2	1	µg/L
Sulfides			
Total Dissolved Solids	SM2540C	10	mg/L
Chloride	EPA 300.0	12	mg/L
Hardness	SM2520B	2	mg/L
TSS	SM2540D	1	mg/L
Oil and Grease	EPA 1664A	1.4	mg/L
TOC	EPA 9060A		mg/L
Settleable Matter	SM2540F	0.10	mL/L-hr

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BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 18 09/04/14 Page 1 Of 1

Submission #: 14-28886

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

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 []
Intact? Yes [] No [] Intact? Yes [] No []
None [x] Comments: _____

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: 0.98 Container: Amber Thermometer ID: 208

Date/Time 12/4/14 2003

Temperature: (A) 2.2 °C (C) 2.0 °C

Analyst Init KIB

Table with columns: SAMPLE CONTAINERS, SAMPLE NUMBERS (1-10). Rows include various sample types like QT GENERAL MINERAL, PT PE UNPRESERVED, etc. Includes handwritten entries 'A', 'B', 'C', 'D', 'E', 'A' in the sample number columns.

Comments:

Sample Numbering Completed By: KIB

Date/Time: 12/4/14 2003

IS:\WPDoc\WordPerfect\LAB_DOCS\FORMS\SAMREC

A = Actual / C = Corrected



Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 11:58
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1428886-01	COC Number:	---	Receive Date:	12/04/2014 22:03
	Project Number:	---	Sampling Date:	12/04/2014 09:30
	Sampling Location:	RSW-002	Sample Depth:	---
	Sampling Point:	RSW-002	Lab Matrix:	Water
	Sampled By:	David Walter	Sample Type:	Water
1428886-02	COC Number:	---	Receive Date:	12/04/2014 22:03
	Project Number:	---	Sampling Date:	12/04/2014 09:30
	Sampling Location:	FB-12-4-14	Sample Depth:	---
	Sampling Point:	FB-12-4-14	Lab Matrix:	Water
	Sampled By:	David Walter	Sample Type:	Water

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 11:58
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Water Analysis (General Chemistry)

BCL Sample ID: 1428886-01	Client Sample Name: RSW-002, RSW-002, 12/4/2014 9:30:00AM, David Walter
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Total Recoverable Calcium	130	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	36	mg/L	0.050	0.019	EPA-200.7	ND		1
Chloride	27	mg/L	0.50	0.061	EPA-300.0	ND		2
Hardness as CaCO3	470	mg/L	0.50	0.10	Calc	ND		3
Total Dissolved Solids @ 180 C	940	mg/L	33	33	SM-2540C	ND		4
Total Sulfide	ND	mg/L	0.10	0.050	SM-4500SD	ND		5

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-200.7	12/18/14	12/18/14	19:42	JRG	PE-OP2	1	BXL1808
2	EPA-300.0	12/15/14	12/15/14	16:31	BMW	IC1	1	BXL1410
3	Calc	12/09/14	12/24/14	15:49	TMS	Calc	1	BXL0808
4	SM-2540C	12/09/14	12/09/14	09:00	CAD	MANUAL	3.333	BXL0791
5	SM-4500SD	12/08/14	12/08/14	12:30	DIW	SPEC05	1	BXL0702

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 11:58
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Metals Analysis

BCL Sample ID: 1428886-01	Client Sample Name: RSW-002, RSW-002, 12/4/2014 9:30:00AM, David Walter							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	1.2	ug/L	0.20	0.055	EPA-218.6	ND		1
Total Recoverable Nickel	14	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Selenium	59	ug/L	2.0	0.19	EPA-200.8	ND		2
Total Recoverable Thallium	ND	ug/L	1.0	0.10	EPA-200.8	0.11		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	12/06/14	12/06/14 15:27	BMW	IC-4	1	BXL0643
2	EPA-200.8	12/16/14	01/30/15 20:48	SRM	PE-EL2	1	BXL1488

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 11:58
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BXL0702						
Total Sulfide	BXL0702-BLK1	ND	mg/L	0.10	0.050	
QC Batch ID: BXL0791						
Total Dissolved Solids @ 180 C	BXL0791-BLK1	ND	mg/L	6.7	6.7	
QC Batch ID: BXL0808						
Hardness as CaCO3	BXL0808-BLK1	ND	mg/L	0.50	0.10	
QC Batch ID: BXL1410						
Chloride	BXL1410-BLK1	ND	mg/L	0.50	0.061	
QC Batch ID: BXL1808						
Total Recoverable Calcium	BXL1808-BLK1	ND	mg/L	0.10	0.014	
Total Recoverable Magnesium	BXL1808-BLK1	ND	mg/L	0.050	0.019	

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 11:58
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab	Quals
								Percent Recovery	RPD		
QC Batch ID: BXL0702											
Total Sulfide	BXL0702-BS1	LCS	0.52361	0.50000	mg/L	105		90 - 110			
QC Batch ID: BXL0791											
Total Dissolved Solids @ 180 C	BXL0791-BS1	LCS	545.00	586.00	mg/L	93.0		90 - 110			
QC Batch ID: BXL1410											
Chloride	BXL1410-BS1	LCS	53.436	50.000	mg/L	107		90 - 110			
QC Batch ID: BXL1808											
Total Recoverable Calcium	BXL1808-BS1	LCS	10.291	10.000	mg/L	103		85 - 115			
Total Recoverable Magnesium	BXL1808-BS1	LCS	10.976	10.000	mg/L	110		85 - 115			

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.

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 11:58
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
QC Batch ID: BXL0702		Used client sample: N								
Total Sulfide	DUP	1428883-01	ND	ND		mg/L			10	
	MS	1428883-01	ND	0.41597	0.50000	mg/L		83.2		80 - 120
	MSD	1428883-01	ND	0.40551	0.50000	mg/L	2.5	81.1	10	80 - 120
QC Batch ID: BXL0791		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1428870-01	9500.0	9450.0		mg/L	0.5		10	
QC Batch ID: BXL1410		Used client sample: Y - Description: RSW-002, 12/04/2014 09:30								
Chloride	DUP	1428886-01	26.816	26.885		mg/L	0.3		10	
	MS	1428886-01	26.816	83.132	50.505	mg/L		112		80 - 120
	MSD	1428886-01	26.816	83.039	50.505	mg/L	0.1	111	10	80 - 120
QC Batch ID: BXL1808		Used client sample: N								
Total Recoverable Calcium	DUP	1428909-03	53.042	51.862		mg/L	2.2		20	
	MS	1428909-03	53.042	63.761	10.000	mg/L		107		75 - 125
	MSD	1428909-03	53.042	64.160	10.000	mg/L	0.6	111	20	75 - 125
Total Recoverable Magnesium	DUP	1428909-03	4.4535	4.3769		mg/L	1.7		20	
	MS	1428909-03	4.4535	15.464	10.000	mg/L		110		75 - 125
	MSD	1428909-03	4.4535	15.577	10.000	mg/L	0.7	111	20	75 - 125

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Golder Associates
425 Lakeside Drive
Sunnyvale, CA 94085

Reported: 08/04/2015 11:58
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Metals Analysis

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BXL0643						
Hexavalent Chromium	BXL0643-BLK1	ND	ug/L	0.20	0.055	
QC Batch ID: BXL1488						
Total Recoverable Nickel	BXL1488-BLK2	ND	ug/L	2.0	0.19	
Total Recoverable Selenium	BXL1488-BLK2	ND	ug/L	2.0	0.19	
Total Recoverable Thallium	BXL1488-BLK2	0.11400	ug/L	1.0	0.10	J

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Reported: 08/04/2015 11:58
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Metals Analysis

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: BXL0643										
Hexavalent Chromium	BXL0643-BS1	LCS	20.147	20.000	ug/L	101		90 - 110		
QC Batch ID: BXL1488										
Total Recoverable Nickel	BXL1488-BS2	LCS	112.30	100.00	ug/L	112		85 - 115		
Total Recoverable Selenium	BXL1488-BS2	LCS	109.49	100.00	ug/L	109		85 - 115		
Total Recoverable Thallium	BXL1488-BS2	LCS	42.329	40.000	ug/L	106		85 - 115		

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Sunnyvale, CA 94085

Reported: 08/04/2015 11:58
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Metals Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
QC Batch ID: BXL0643		Used client sample: N								
Hexavalent Chromium	DUP	1428883-01	11.201	10.958		ug/L	2.2		10	
	MS	1428883-01	11.201	31.618	20.202	ug/L		101	90 - 110	
	MSD	1428883-01	11.201	31.829	20.202	ug/L	0.7	102	10	90 - 110
QC Batch ID: BXL1488		Used client sample: N								
Total Recoverable Nickel	DUP	428935-01RE	0.26600	0.27000		ug/L	1.5		20	J
	MS	428935-01RE	0.26600	96.966	100.00	ug/L		96.7	70 - 130	
	MSD	428935-01RE	0.26600	98.381	100.00	ug/L	1.4	98.1	20	70 - 130
Total Recoverable Selenium	DUP	428935-01RE	ND	ND		ug/L			20	
	MS	428935-01RE	ND	103.12	100.00	ug/L		103	70 - 130	
	MSD	428935-01RE	ND	102.27	100.00	ug/L	0.8	102	20	70 - 130
Total Recoverable Thallium	DUP	428935-01RE	ND	ND		ug/L			20	
	MS	428935-01RE	ND	41.409	40.000	ug/L		104	70 - 130	
	MSD	428935-01RE	ND	41.409	40.000	ug/L	0	104	20	70 - 130

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basic
laboratory

www.basiclab.com

2218 Railroad Avenue voice 530.243.7234
Redding, California 96001 fax 530.243.74943860 Morrow Lane, Suite F voice 530.894.8966
Chico, California 95928 fax 530.894.5143

December 26, 2014

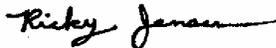
Lab ID: 14L0476VANESSA SANDOVAL
B C LABORATORIES INCORPORATED
4100 ATLAS COURT
BAKERSFIELD, CA 93308
RE: HG 1631 TESTING 1428886

Dear VANESSA SANDOVAL ,

Enclosed are the analysis results for Work Order number 14L0476. All analysis were performed under strict adherence to our established Quality Assurance Plan. Any abnormalities are listed in the qualifier section of this report.

If you have any questions regarding these results, please feel free to contact us at any time. We appreciate the opportunity to service your environmental testing needs.

Sincerely,


ForRicky D. Jensen
Laboratory Director

California ELAP Certification Number 1677



www.basiclab.com

basic Laboratory

2218 Railroad Avenue Redding, California 96001 voice 530.243.7234 fax 530.243.7494

3860 Morrow Lane, Suite F Chico, California 95928 voice 530.894.8966 fax 530.894.5143

Report To: B C LABORATORIES INCORPORATED 4100 ATLAS COURT BAKERSFIELD, CA 93308

Attention: VANESSA SANDOVAL

Project: HG 1631 TESTING 1428886

Lab No: 14L0476 Reported: 12/26/14 Phone: (661) 327-4911 P.O. #

Metals - Total

Table with columns: Analyte, Units, Results, Qualifier, MDL, RL, Method, Analyzed, Prepared, Batch. Includes rows for 1428886-01 Water and 1428886-02 FIELD BLANK.

Quality Control Data

Table with columns: Analyte, Result, RL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Qualifier.

Metals - Total

Batch B4L1072 - BrCl Digestion

Table with columns: Analyte, Result, RL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Qualifier. Includes rows for Blank, LCS, Matrix Spike, and Matrix Spike Dup.

Handwritten signature

Approved By Basic Laboratory, Inc. California ELAP Cert #1677 and #2718



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2218 Railroad Avenue voice 530.243.7234
Redding, California 96001 fax 530.243.7494

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Report To: B C LABORATORIES INCORPORATED
4100 ATLAS COURT
BAKERSFIELD, CA 93308
Attention: VANESSA SANDOVAL
Project: HG 1631 TESTING 1428886

Lab No: 14L0476
Reported: 12/26/14
Phone: (661) 327-4911
P.O. #

Notes and Definitions

- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag). The J flag is equivalent to the DNQ Estimated Concentration flag.
 - DET Analyte DETECTED
 - ND Analyte NOT DETECTED at or above the detection limit
 - NR Not Reported
 - dry Sample results reported on a dry weight basis
 - RPD Relative Percent Difference
 - < Less than reporting limit
 - ≤ Less than or equal to reporting limit
 - > Greater than reporting limit
 - ≥ Greater than or equal to reporting limit
 - MDL Method Detection Limit
 - RL/ML Minimum Level of Quantitation
 - MCL/AL Maximum Contaminant Level/Action Level
 - mg/kg Results reported as wet weight
 - TTLC Total Threshold Limit Concentration
 - STLC Soluble Threshold Limit Concentration
 - TCLP Toxicity Characteristic Leachate Procedure
- Note 1 Received Temperature - according to EPA guidelines, samples for most chemistry methods should be held at ≤6 degrees C after collection, including during transportation, unless the time from sampling to delivery is <2 hours. Regulating agencies may invalidate results if temperature requirements are not met.
- Note 2 According to 40 CFR Part 136 Table II, the following tests should be analyzed in the field within 15 minutes of sampling: pH, chlorine, dissolved oxygen, and sulfite.

Approved By

Basic Laboratory, Inc.
California ELAP Cert #1677 and #2718



Laboratories, Inc.

Environmental Testing Laboratory Since 1949



Subcontract Report for 1428886 PDF File Name: WO_1428886_SUB_BSCLB.pdf Page 4 of 4

SUBCONTRACT ORDER

BC Laboratories
1428886



14L0476
Due 12-19-14

SENDING LABORATORY:

BC Laboratories
4100 Atlas Ct
Bakersfield, CA 93308
Phone: 661-327-4911
Fax: 661-327-1918
Project Manager: Vanessa Sandoval

RECEIVING LABORATORY:

Basic Laboratory, Inc. \$BSCLB
2218 Railroad Ave.
Redding, CA 96001
Phone :530-243-7234
Fax: ---

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 1428886-01	Water	Sampled:12/04/14 09:30	[REDACTED]	7.4°C
om1631w Mercury BSCLB	12/18/14 17:00	06/03/15 09:30		
<i>Containers Supplied:</i>				
Sample ID: 1428886-02	Water	Sampled:12/04/14 09:30	[REDACTED]	Field Blank 9.1°C
om1631w Mercury BSCLB	12/18/14 17:00	06/03/15 09:30		
<i>Containers Supplied:</i>				

Released By: 12/18/14 Date: 12-18-14 Received By: P. Allen Date: 12-9-14 13:17

Released By: Date: 12/10/14 13:50 Received By: Date: 12-10-14 13:50

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Sunnyvale, CA 94085

Reported: 08/04/2015 11:58
Project: Lehigh NPDES
Project Number: 063-7109-916
Project Manager: George Wegmann

Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit