

CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

29 January 2016

CLS Work Order #: CZA1221

COC #: 160290

Greg Stanton
El Dorado County Environmental

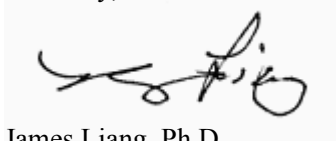
2850 Fairlane Court, Building C
Placerville, CA 95667

Project Name: Former Lime Plant

Enclosed are the results of analyses for samples received by the laboratory on 01/27/16 15:01. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness. Any comments and exceptions are addressed below as well as under the Notes and Definitions section.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

A handwritten signature in black ink, appearing to read 'James Liang', is written over a light gray rectangular background.

James Liang, Ph.D.
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES

01/29/16 14:33

El Dorado County Environmental
2850 Fairlane Court, Building C
Placerville CA, 95667

Project: Former Lime Plant
Project Number: CO#29077
Project Manager: Greg Stanton

CLS Work Order #: CZA1221
COC #: 160290

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Manhole -1 (CZA1221-01) Water Sampled: 01/25/16 18:15 Received: 01/27/16 15:01										
Bicarbonate as CaCO3	31	0.50	5.0	mg/L	1	CZ00688	01/28/16	01/28/16	SM2320B	
Calcium	32	0.031	1.0	"	1	CZ00669	01/28/16	01/28/16	200.7/2340B	
Carbonate as CaCO3	12	0.50	5.0	"	1	CZ00688	01/28/16	01/28/16	SM2320B	
Chloride	7.2	0.026	0.50	"	1	CZ00622	01/27/16	01/27/16	EPA 300.0	
Fluoride	ND	0.0079	0.10	"	1	"	"	"	"	
Hardness as CaCO3	170	1.0	1.0	"	1	CZ00669	01/28/16	01/28/16	200.7/2340B	
Hydroxide as CaCO3	ND	0.50	5.0	"	1	CZ00688	01/28/16	01/28/16	SM2320B	
Magnesium	22	0.028	1.0	"	1	CZ00669	01/28/16	01/28/16	200.7/2340B	
MBAS as LAS, mol wt 340	0.10	0.067	0.10	"	1	CZ00652	01/27/16	01/27/16	SM5540 C	
Nitrate as N	5.4	0.053	0.40	"	1	CZ00622	01/27/16	01/27/16	EPA 300.0	A-COM
pH	8.91	0.01	0.01	pH Units	1	CZ00625	01/27/16	01/27/16	SM4500-H B	HT-F
Potassium	5.3	0.87	1.0	mg/L	1	CZ00669	01/28/16	01/28/16	200.7/2340B	
Sodium	21	0.021	1.0	"	1	"	"	"	"	
Specific Conductance (EC)	430	0.090	1.0	µmhos/cm	1	CZ00656	01/28/16	01/28/16	EPA 120.1	
Sulfate as SO4	120	0.19	2.5	mg/L	5	CZ00622	01/27/16	01/28/16	EPA 300.0	
Total Alkalinity	43	1.0	5.0	"	1	CZ00688	01/28/16	01/28/16	SM2320B	
Total Dissolved Solids	290	10	10	"	1	CZ00661	01/28/16	01/29/16	SM2540C	
Drainage - 1 (CZA1221-02) Water Sampled: 01/26/16 12:18 Received: 01/27/16 15:01										
Bicarbonate as CaCO3	ND	0.50	5.0	mg/L	1	CZ00688	01/28/16	01/28/16	SM2320B	
Calcium	510	0.031	1.0	"	1	CZ00669	01/28/16	01/28/16	200.7/2340B	
Carbonate as CaCO3	52	0.50	5.0	"	1	CZ00688	01/28/16	01/28/16	SM2320B	
Chloride	2.7	0.026	0.50	"	1	CZ00622	01/27/16	01/27/16	EPA 300.0	
Fluoride	0.39	0.0079	0.10	"	1	"	"	"	"	
Hardness as CaCO3	1300	1.0	1.0	"	1	CZ00669	01/28/16	01/28/16	200.7/2340B	
Hydroxide as CaCO3	1400	0.50	5.0	"	1	CZ00688	01/28/16	01/28/16	SM2320B	
Magnesium	0.15	0.028	1.0	"	1	CZ00669	01/28/16	01/28/16	200.7/2340B	J
MBAS as LAS, mol wt 340	ND	0.067	0.10	"	1	CZ00652	01/27/16	01/27/16	SM5540 C	
Nitrate as N	0.70	0.053	0.40	"	1	CZ00622	01/27/16	01/27/16	EPA 300.0	
pH	12.16	0.01	0.01	pH Units	1	CZ00625	01/27/16	01/27/16	SM4500-H B	HT-F
Potassium	2.7	0.87	1.0	mg/L	1	CZ00669	01/28/16	01/28/16	200.7/2340B	
Sodium	11	0.021	1.0	"	1	"	"	"	"	
Specific Conductance (EC)	5700	0.090	1.0	µmhos/cm	1	CZ00656	01/28/16	01/28/16	EPA 120.1	
Sulfate as SO4	25	0.038	0.50	mg/L	1	CZ00622	01/27/16	01/27/16	EPA 300.0	
Total Alkalinity	1500	1.0	5.0	"	1	CZ00688	01/28/16	01/28/16	SM2320B	
Total Dissolved Solids	1300	10	10	"	1	CZ00661	01/28/16	01/29/16	SM2540C	

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El Dorado County Environmental 2850 Fairlane Court, Building C Placerville CA, 95667	Project: Former Lime Plant Project Number: CO#29077 Project Manager: Greg Stanton	CLS Work Order #: CZA1221 COC #: 160290
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Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

CLS Labs

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch CZ00622 - General Prep

Blank (CZ00622-BLK1)

Prepared & Analyzed: 01/27/16

Chloride	ND	0.026	0.50	mg/L							
Fluoride	ND	0.0079	0.10	"							
Nitrate as N	ND	0.053	0.40	"							
Sulfate as SO4	ND	0.038	0.50	"							

LCS (CZ00622-BS1)

Prepared & Analyzed: 01/27/16

Chloride	4.59	0.026	0.50	mg/L	5.00		92	80-120			
Fluoride	1.84	0.0079	0.10	"	2.00		92	80-120			
Nitrate as N	0.440	0.053	0.40	"	0.451		98	80-120			
Sulfate as SO4	4.79	0.038	0.50	"	5.00		96	80-120			

LCS Dup (CZ00622-BSD1)

Prepared & Analyzed: 01/27/16

Chloride	4.64	0.026	0.50	mg/L	5.00		93	80-120	1	20	
Fluoride	1.92	0.0079	0.10	"	2.00		96	80-120	5	20	
Nitrate as N	0.472	0.053	0.40	"	0.451		105	80-120	7	20	
Sulfate as SO4	5.09	0.038	0.50	"	5.00		102	80-120	6	20	

Matrix Spike (CZ00622-MS1)

Source: CZA1165-02

Prepared & Analyzed: 01/27/16

Chloride	50.0	0.026	0.50	mg/L	5.00	46.7	66	80-120			QM-4X
Fluoride	1.97	0.0079	0.10	"	2.00	0.269	85	80-120			
Nitrate as N	1.94	0.053	0.40	"	0.451	1.56	85	80-120			
Sulfate as SO4	22.8	0.038	0.50	"	5.00	18.6	85	80-120			

Matrix Spike Dup (CZ00622-MSD1)

Source: CZA1165-02

Prepared & Analyzed: 01/27/16

Chloride	50.3	0.026	0.50	mg/L	5.00	46.7	72	80-120	0.6	20	QM-4X
Fluoride	2.01	0.0079	0.10	"	2.00	0.269	87	80-120	2	20	
Nitrate as N	1.94	0.053	0.40	"	0.451	1.56	85	80-120	0.01	20	
Sulfate as SO4	23.0	0.038	0.50	"	5.00	18.6	88	80-120	0.7	20	

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Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control CLS Labs

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch CZ00652 - General Preparation

Blank (CZ00652-BLK1)					Prepared & Analyzed: 01/27/16						
MBAS as LAS, mol wt 340	ND	0.067	0.10	mg/L							
LCS (CZ00652-BS1)					Prepared & Analyzed: 01/27/16						
MBAS as LAS, mol wt 340	0.460	0.067	0.10	mg/L	0.500		92	80-120			
LCS Dup (CZ00652-BSD1)					Prepared & Analyzed: 01/27/16						
MBAS as LAS, mol wt 340	0.463	0.067	0.10	mg/L	0.500		93	80-120	0.6	20	
Matrix Spike (CZ00652-MS1)					Source: CZA1221-01		Prepared & Analyzed: 01/27/16				
MBAS as LAS, mol wt 340	0.563	0.067	0.10	mg/L	0.500	0.102	92	75-125			
Matrix Spike Dup (CZ00652-MSD1)					Source: CZA1221-01		Prepared & Analyzed: 01/27/16				
MBAS as LAS, mol wt 340	0.552	0.067	0.10	mg/L	0.500	0.102	90	75-125	2	25	

Batch CZ00656 - General Preparation

Blank (CZ00656-BLK1)					Prepared & Analyzed: 01/28/16						
Specific Conductance (EC)	ND	0.090		1.0 µmhos/cm							

Batch CZ00661 - General Preparation

Blank (CZ00661-BLK1)					Prepared: 01/28/16 Analyzed: 01/29/16						
Total Dissolved Solids	ND	10	10	mg/L							
Duplicate (CZ00661-DUP1)					Source: CZA1208-03		Prepared: 01/28/16 Analyzed: 01/29/16				
Total Dissolved Solids	452	10	10	mg/L		433			4	20	

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Placerville CA, 95667

Project: Former Lime Plant
Project Number: CO#29077
Project Manager: Greg Stanton

CLS Work Order #: CZA1221
COC #: 160290

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

CLS Labs

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch CZ00669 - 6010A/No Digestion

Blank (CZ00669-BLK1)

Prepared & Analyzed: 01/28/16

Calcium	ND	0.031	1.0	mg/L							
Hardness as CaCO3	ND	1.0	1.0	"							
Magnesium	ND	0.028	1.0	"							
Potassium	ND	0.87	1.0	"							
Sodium	0.0451	0.021	1.0	"							J

LCS (CZ00669-BS1)

Prepared & Analyzed: 01/28/16

Calcium	5.31	0.031	1.0	mg/L	5.00		106	85-115			
Magnesium	5.39	0.028	1.0	"	5.00		108	85-115			
Potassium	5.58	0.87	1.0	"	5.00		112	85-115			
Sodium	5.41	0.021	1.0	"	5.00		108	85-115			

Matrix Spike (CZ00669-MS1)

Source: CZA1165-04

Prepared & Analyzed: 01/28/16

Calcium	18.6	0.031	1.0	mg/L	5.00	12.9	115	70-130			
Magnesium	12.2	0.028	1.0	"	5.00	6.53	114	70-130			
Potassium	11.2	0.87	1.0	"	5.00	5.08	123	70-130			
Sodium	15.8	0.021	1.0	"	5.00	10.0	115	70-130			

Matrix Spike (CZ00669-MS2)

Source: CZA1222-03

Prepared & Analyzed: 01/28/16

Calcium	19.0	0.031	1.0	mg/L	5.00	12.7	126	70-130			
Magnesium	9.85	0.028	1.0	"	5.00	2.70	143	70-130			QM-7
Potassium	8.38	0.87	1.0	"	5.00	ND	168	70-130			QM-7
Sodium	10.3	0.021	1.0	"	5.00	3.29	140	70-130			QM-7

Batch CZ00688 - General Preparation

Blank (CZ00688-BLK1)

Prepared & Analyzed: 01/28/16

Bicarbonate as CaCO3	ND	0.50	5.0	mg/L							
Carbonate as CaCO3	ND	0.50	5.0	"							
Hydroxide as CaCO3	ND	0.50	5.0	"							
Total Alkalinity	ND	1.0	5.0	"							

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01/29/16 14:33

El Dorado County Environmental
2850 Fairlane Court, Building C
Placerville CA, 95667

Project: Former Lime Plant
Project Number: CO#29077
Project Manager: Greg Stanton

CLS Work Order #: CZA1221
COC #: 160290

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

CLS Labs

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch CZ00688 - General Preparation

Duplicate (CZ00688-DUP1)	Source: CZA1149-03	Prepared & Analyzed: 01/28/16					
Bicarbonate as CaCO ₃	97.4	0.50	5.0	mg/L	96.2	1	20
Carbonate as CaCO ₃	ND	0.50	5.0	"	ND		20
Hydroxide as CaCO ₃	ND	0.50	5.0	"	ND		20
Total Alkalinity	97.4	1.0	5.0	"	96.2	1	20

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El Dorado County Environmental
2850 Fairlane Court, Building C
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Project: Former Lime Plant
Project Number: CO#29077
Project Manager: Greg Stanton

CLS Work Order #: CZA1221
COC #: 160290

Notes and Definitions

QM-7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration.
HT-F	This is a field test method and it is performed in the lab outside holding time.
A-COM	Sample received with three-hours left on the hold time. Although quickly prepared, sample was analyzed 45-minutes outside of hold time.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

This is a “MDL Report”, thus if the report denotes an “ND” for a particular analyte, it should be noted that the analyte was not detected at or above the MDL.

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01/29/16 14:33

El Dorado County Environmental
2850 Fairlane Court, Building C
Placerville CA, 95667

Project: Former Lime Plant
Project Number: CO#29077
Project Manager: Greg Stanton

CLS Work Order #: CZA1221
COC #: 160290

CLS - Labs

CHAIN OF CUSTODY

CLS ID No.: CZA1221

LOG NO. 160290

REPORT TO: NAME AND ADDRESS: <u>Robert Lauritzen</u> <u>El Dorado County Environmental Management</u> <u>Robert Lauritzen Redegov. vs</u> PROJECT MANAGER: <u>Greg Stanton</u> PHONE # <u>1530621-6658</u> PROJECT NAME: <u>Former Lime Plant</u> SAMPLED BY: <u>Amy Phillips</u> JOB DESCRIPTION:		CLIENT JOB NUMBER: <u>CO#29077</u> DESTINATION LABORATORY: <input checked="" type="checkbox"/> CLS (916) 638-7301 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95742 <input type="checkbox"/> OTHER		ANALYSIS REQUESTED PRESERVATIVES: <u>General Minerals</u> <u>Bicarb/Carb/Hydrox</u> <u>Ca, Mg, K, Na, SO₄, Cl</u> <u>Alkalinity</u>		GEOTRACKER: EDF REPORT <input type="checkbox"/> YES <input type="checkbox"/> NO GLOBAL ID: _____ COMPOSITE: FIELD CONDITIONS:																	
SITE LOCATION: <u>2850 Fairlane Ct, Building C, Placerville</u> <u>Thowita Way</u>		TURN AROUND TIME 1 DAY <input type="checkbox"/> 2 DAY <input type="checkbox"/> 3 DAY <input type="checkbox"/> 5 DAY <input type="checkbox"/>		SPECIAL INSTRUCTIONS OR ALT. ID:																			
DATE	TIME	SAMPLE IDENTIFICATION	MATRIX	CONTAINER NO.	TYPE	1	2	3	4	5	6	7	8	9	10	11	12						
1/25/2016	1815	Mahhole -1	Water	3	Poly	3	X	X	X	X													
1/26/2016	1218	Drainage -1	Water	3	Poly	3	X	X	X	X													
SUSPECTED CONSTITUENTS:												PRESERVATIVES: (1) HCL (2) HNO ₃ (3) = COLD (4) = NaOH (5) = H ₂ SO ₄ (6) = Na ₂ S ₂ O ₅ (7) =											
RELINQUISHED BY (SIGN): <u>Amy Phillips</u>				PRINT NAME / COMPANY: <u>Amy Phillips/EDC</u>				DATE / TIME: <u>1-27-16 1501</u>				RECEIVED BY (SIGN):				PRINT NAME / COMPANY:							
RECD AT LAB BY: <u>[Signature]</u>												DATE / TIME: <u>1-27-16 1501</u>						CONDITIONS / COMMENTS: <u>Contract #037-C-0607-BDS/CO#29077</u>					
SHIPPED BY: <input type="checkbox"/> FED X <input type="checkbox"/> UPS <input type="checkbox"/> OTHER												AIR BILL #											

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