

Calscience

Supplemental Report 1

Additional requested analyses are reported as a stand-alone report.



WORK ORDER NUMBER: 18-02-1302

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: California Water Service Company

Client Project Name: PV Yard Stockpile
Attention: Robert Medina

2000 South Tubeway Avenue Commerce, CA 90040-1624

Am Binler

Approved for release on 03/05/2018 by: Don Burley

Project Manager

ResultLink ▶

Email your PM >

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



Contents

Client Project Name:	PV Yard Stockpile
Work Order Number:	18-02-1302

1	Work Order Narrative	3
2	Sample Summary	4
3	Client Sample Data	5 5
4	Sample Analysis Summary	6
5	Glossary of Terms and Qualifiers	7
6	Chain-of-Custody/Sample Receipt Form	8



Work Order Narrative

Work Order: 18-02-1302 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 02/20/18. They were assigned to Work Order 18-02-1302.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

DoD Projects:

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.





Sample Summary

Client: California Water Service Company

2000 South Tubeway Avenue Commerce, CA 90040-1624 Work Order:
Project Name:
PO Number:

Date/Time Received:

Number of Containers:

18-02-1302

PV Yard Stockpile 0000105469

02/20/18 10:10

3

Attn: Robert Medina

Sample IdentificationLab NumberCollection Date and TimeNumber of ContainersMatrixPV-37-SP-SOIL18-02-1302-102/20/18 08:383Solid



Analytical Report

California Water Service Company
Date Received:

2000 South Tubeway Avenue
Work Order:

Commerce, CA 90040-1624
Preparation:

N/A

Method: CA Fish and Game

Project: PV Yard Stockpile Page 1 of 1

Test Species: Fathead Minnow (Pimephales Promelas) Mean Length: 44 mm Mean Weight: 0.48 g

Sample Collected: 02/20/18 08:38:00 Sample Received: 02/20/18 10:10:00

Test Start: 02/27/18 15:00:00 Test End: 03/03/18 15:00:00

Initial Water Quality Parameters

Residual Chlorine: < 0.01 mg/L Temperature: 20 °C

pH: 7.3 units Conductivity: 875 umhos/cm
Dissolved Oxygen (D.O.): 8.52 mg/L Alkanlinity: 190 mg/L
Hardness: 44 mg/L Ammonia: N/A

Sample Preparation

The sample was not adjusted to test temperature.

Sample Adjustment During Analysis

No Supplemental aeration needed.

If needed, supplemental aeration to maintain required Dissolved Oxygen level is supplied via a low pressure oil-free pump connected to individual lines for each tank/chamber from a common manifold. Individual valves at each tank/chamber control the flow rate as required.

Client Sample Number	Lab Sample Nun	nber Date Collected	Matrix	Date Prepared	Date/Time Analyzed	QC Batch ID
PV-37-SP-SOIL	18-02-1302-1	02/20/18	Solid	02/27/18	03/03/18 15:00:00	
<u>Parameter</u>	<u>Result</u>	<u>Units</u>				
Bioassay 750 mg/L (% Mortality)	10	%				
Bioassay 250 mg/L (% Mortality)	0	%				

Laboratory Notes

Sample was received within recommended holding time.

All testing was within method protocol.

LC 50 Results

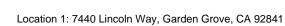
SRT sample (mg/L): 23.00 Upper 95% confidence limit: 23.40 Lower 95% confidence limit: 22.60





Sample Analysis Summary Report

Work Order: 18-02-1302				Page 1 of 1
Method	Extraction	Chemist ID	<u>Instrument</u>	Analytical Location
CA Fish and Game	N/A	1009	TANK	1





Glossary of Terms and Qualifiers

Work Order: 18-02-1302 Page 1 of 1

Qualifiers	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.

Χ

The sample extract was subjected to Silica Gel treatment prior to analysis.

% Recovery and/or RPD out-of-range.

SG

Ζ Analyte presence was not confirmed by second column or GC/MS analysis.

> Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

> Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

100		
	1	Return to Contents

2	виненти	NEW VACANCIA (NEW VACANCIA)									olana sirinda				sojs	eds∀	×							Pa	ge 8	of 9	
000	<i>i</i> 8	-					- Anna Anna Anna Anna Anna Anna Anna Ann							(pə.	(if regu	STLC	×				-	1					
Z		P.					and the second s	σ				· · · · · · · · · · · · · · · · · · ·		red)	upəı ji)	RIOT	×				-				۱ ۵	G	Mathematica de la constitución d
0	2	Politicological			E NO:		ACC ANTHONORMAN AND ANTHONORMAN	edin					ejse/	W zeH tot yes	ic Bioas	supA	×				-	\neg			Time: 09.35	Time:	Time:
S S S	7	-			R QUOT		RINT)	Σ̈́	and the second s			<i></i>	9.81	Z 🗆 6617 🗀 8	617 🗖 (I	Cr(V											
CHAIN-OF-CUSTODY RECORD	DATE:	PAGE:			LAB CONTACT OR QUOTE NO		SAMPLER(S): (PRINT)	Fernando Medinia				ΧŁ	<i>⊅∐</i> 0Z09 [Z XT&T\0108\	J sisteM	SST	×					7					
Ž	à	ã	P.O. NO		LAB CO		SAMPLE	2	S. L	peded				MIS 0728 🗆 (728 🗆 a	НАЧ					+				Date: 2-20-18	2-18	***************************************
5				<u></u>					REDUESTED ANALYSES	Please check box or fill in blank as needed.	******				(S808) a	BCB									Date:	Date: 2-20-19	Date:
					ndvarwykieres kilosofierio		WASTER PROPERTY OF THE PARTY OF		ANA	l in bla				(180	sepio	pest										8	
					appropriate the second		Andread and a second			ox or fil				((Cs (827	ovs				Ì						3	
					400000000000000000000000000000000000000		ODE:		FE	heck b		e	Terra Core	. □ enoO n∃ [(3503)	Prep	-										20000000000000000000000000000000000000
							LOG CODE		REC	ease c				8560)	enates	Oxyg	TO THE PERSON NAMED IN COLUMN										- CONTROL OF THE PROPERTY OF T
		\sim			and the same of th					ā				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(0928) s	ΛOC	×									NATION CONTRACTOR CONT	B0099000000000000000000000000000000000
		18-02-1302				9								_ 🗆 8260 🗀 <u>.</u>	I8TM \>	эта											The contract of the contract o
		¥	E / NO.:	o id		deze	-									HdT											
	USE ON	ġ	ECT NAN	stock	VTACT:	Ferna	Annia de la constanta de la co							96 □ C6-C44	o-9o □	HdT										7	1
	WO NO. / LAB USE ONLY	I	T PROJE	PV Yard Stockpile	PROJECT CONTACT:	Cardinal Fernadezees	AL ID:							ово	□ (p)H	1T 🗆									liation)	liation)	llation)
	MOM	¥	CLIEN	Š	PROJ	<u>2</u>	GLOBAL ID:	ani	L,					ово	□ (6)H	T 0							*********		(Signature/Affiliation)	Received by: (Signature/Affiliation)	Received by: (Signature/Affiliation)
							NAME OF TAXABLE PARTY O	com	and the second second						Filtered	Field									ewe C	. (Signa	/: (Signal
								vater.							elved	Pres									Received by:	eived by	eived by
				ntobrodyfeldenen				@calv	DARC						peviese	JduN	×				_		 		<u>%(')</u>	Rec	Rec
		all us.		онфиционализм втоличностье	90275	ZIP:	enconstant de groupe de la company	rmedina	☐ STANDARD		•	nits for			NO.	CONT.	3		A Paris Carlo Carl							de la conformación de la conform	
		us.com or ce		The state of the s			N)/AN/OFFICE TERMINATE CONTROL OF THE CONTROL OF TH	com, cc	M 5 DAYS			atory iii				MAIRIX	SOIL									A THE PROPERTY OF THE PROPERTY	
		eurofinsi		NO AMBRECO MANAGEMENTS		ij	Wildenstein Control of Control	vater.			,	regu E												<u> </u>			
	9	895-5494 326 sales@			ÇA	STA	olocus commonweal common commo	es@cal	□ 72 HR			exceed			LING	TIME	Beso							Lift distribution and control of the lift			
		1427 • (714 on, contact us					E-MAIL:	cfernandezees@calwater.com, cc rmedina@calwater.com	□ 48 HR C		į	results			SAMPLING	DATE	81-72									######################################	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	()	.92841-		Management of the Control of the Con			E-IV	cfe	□ 4			Ĭ				<u> </u>	1.3				_					***************************************	*
)	7440 Lincoln Way, Garden Grove, CA 92841-1427 。 (714) 895-5494 For courier service / sample drop off information, contact us26 sales@eurofinsus.com or call us.		California Water Service	*0		THE PERSON NAMED OF THE PERSON NAMED IN COLUMN	310-420-8217 Cfernandezees@calv TURRAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"	□ 24 HR	D OTHER		Run STLC and/or TCLP if TTLC resuits exceed regulatory limits for waste determination.				<u> </u>	PV-37-SP-SOIL	A CONTRACTOR OF THE CONTRACTOR					Werestern Company of the Company of	**************************************	nature)/ M / A		ture)
C) }	Vay, Gardi vice / sam	LIENT:	Water	5837 . Crest Road	94	627	717 TIME (Rush	4Y E		UCTIONS	Run STLC and/or TCI waste determination.				SAMPLE ID	V-37-S							annumental March Control of the Cont	yy: (Signal	oy: (Stippe	Relinquished by: (Sighature)
		incoln V	LABORATORY CLIENT	ornia	Ç	1000	TAIOS VOIGO	20-8; ROUND	☐ SAME DAY	XELT 6	AL INSTR	STLC e det													Relinquished to	Relinguished	uished
	© ©	7440 L For coi	LABOR	Calif	5837	CITY:	E E	310-4	S 🗆		SPECI	Run wast			8	SEC Sec									Relinc	 人	Relinc

Calscience

WORK ORDER NUMBER: 18-02-91302

SAMPLE RECEIPT CHECKLIST

COOL FR	Í	ΩF	
		∵ ≀	
			W-1000000000000000000000000000000000000

CLIENT: California Water Service DATE	≣: <u>02 /∝</u>	20/2018
TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue) Thermometer ID: SC6 (CF: +0.2°C); Temperature (w/o CF):/6 - 5 °C (w/ CF):/6 - 7 °C; □ Sample(s) outside temperature criteria (PM/APM contacted by:) □ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling □ Sample(s) received at ambient temperature; placed on ice for transport by courier Ambient Temperature: □ Air □ Filter		□ Sample
CUSTODY SEAL: Cooler ☐ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A		by: <u>\$76</u> by: <u>\$76</u>
SAMPLE CONDITION: Chain-of-Custody (COC) document(s) received with samples COC document(s) received complete Sampling date Sampling time Matrix Number of containers	9	No N/A
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time Sampler's name indicated on COC		a a
Sample container label(s) consistent with COC		
Sample container(s) intact and in good condition	_	
Proper containers for analyses requested	_	
Sufficient volume/mass for analyses requested		
Samples received within holding time	لط	
□ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved Oxygen		o e
Proper preservation chemical(s) noted on COC and/or sample container		0 9
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals Acid/base preserved samples - pH within acceptable range	п	
Container(s) for certain analysis free of headspace		
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500) ☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)		
Tedlar™ bag(s) free of condensation		o 9
CONTAINER TYPE: (Trip Blank Lot Number	ər:)
Aqueous: DVOA DVOAh DVOAna2 D100PJ D100PJna2 D125AGB D125AGBh D125AGBp D125PD D250AGB D250CGB D250CGBs (pH_2) D250PB D250PBn (pH_2) D500AGB D500AGJ D500AGD D1AGB D1AGBna2 D1AGBs (pH_2) D1AGBs (O&G) D1PB D1PBna (pH_12) D	GJs (pH2)	□ 500PB □ □ □ by:6