DOCKETED	
Docket Number:	00-AFC-01C
Project Title:	Contra Costa Power Plant Project Compliance
TN #:	231278
Document Title:	2018 CEC Annual Compliance Report 2 of 2
Description:	2018 ACR
Filer:	Angel B. Espiritu
Organization:	PG&E Gateway Generating Station
Submitter Role:	Applicant Representative
Submission Date:	12/18/2019 8:58:41 AM
Docketed Date:	12/18/2019



Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 305902 ANALYTICAL REPORT

Pacific Gas & Electric 4801 Oakport Street

4801 Oakport Street Oakland, CA 94601

Project : STANDARD

Location: Resample 7 (1218/18)

Level : II

 Sample ID
 Lab ID

 TIGER PIT-P
 305902-001

 TIGER PIT-UP
 305902-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Date: <u>12/19/2018</u>

Signature:

Will Rice Project Manager will.rice@enthalpy.com (510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001



CASE NARRATIVE

Laboratory number: 305902

Client: Pacific Gas & Electric Location: Resample 7 (1218/18)

Request Date: 12/18/18
Samples Received: 12/18/18

This data package contains sample and QC results for two water samples, requested for the above referenced project on 12/18/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recoveries were observed for cyanide in the MS/MSD of TIGER PIT-P (lab # 305902-001); the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

Formerly C	alpy Analytical		СН	Αl	N	OF	= (CU	IS	T	Ol	DY	•				I	Page	<u> </u>	o	f	<u> </u>		
2323 F	cal Laboratory Since 1878 ifth Street											()		C	hain A i					ues				
(510)48	ey, CA 94710 86-0900 Phone 86-0532 Fax		C&T	LOGI	ک ! N #	30	5	102	7		<u>۔</u> تر	r perse												
Project	No:		Samr	der.	ماء ۵	. 4		1	110	ر. ب	٠.	है हैं	ול											
		12/18/18)	Samp Repo	rt To	: H~	ام	$E_{\alpha \alpha}$	$: L: \mathcal{L}$			01		Ē											
Datia	vol: II	· · · · · · · · · · · · · · · · · · ·	Comp	oanv	: 00	& F	راجے راجی	14.1.7	7	11	-	2-4	5											
Turnare	ound Time: Standard Rus L		Telep Emai	IIIOIII	(4)	5	みね	- 170	38		rion.	1 () () () () () () () () () (
1 -1-		Sampli	***************************************		atrix			Cher] -	R. 4 1	5											
Lab No.	Sample ID.	Date	Time	Water	Other	# of Container		HSO4				50000000000000000000000000000000000000	- Ka											
	Tiger Pit-P Tiger Pit-UP	12/18/18	07:55 07:55			1			X	X	,	*												
									-						#			-			#	7	\Box	
									-				+			1		1			_	+		
																#					\downarrow	+		
					H								1							H	#			
													1		#						\pm	-		
Notes:	Sample scrit on ICE	SAMPLE RE		REL	INQU	ISHE	D B	Y:	<u> </u>				RE	CEI	VED	BY:		<u> </u>		<u></u> _	<u></u>			
Contr	iner 250m/ 250m/	□ Intact □ Cole □ On Ice □ Amb			2		121	18/18	}	09::	32 DAT	ΓΕ/ΤΙΜΕ		Par) 	Mo	m		1		/2/	DA	/ g TE/TI	09. ME
6011	250~1										DAT	TE/TIME										DA	TE/TI	ME
											DAT	E/TIME	<u> </u>									DA	TE/TII	мE

SAMPLE RECEIPT CHECKLIST			-	~
				7
Section 1: Login # Client: 76 FO Date Received: 12 18 18 Project:			ENT	HALPY
Section 2: Samples received in a cooler? Yes, how many? I No (skip Se				
If no cooler Sample Temp (°C): 1 3 using IR Gun # 12 A, or	□ B			
Samples received on ice directly from the field. Cooling process had begun	10			
If in cooler: Date Opened 12 18 By (print) 4 (sign) A				
Shipping info (if applicable)				•
Are custody seals present?	on samples, [I on pa	ckage	
☐ Date: How many ☐ Signature, ☐ Initials,	□ None			
Were custody seals intact upon arrival? ☐ Yes ☐ No ☐ N/A				
Section 3: Important : Notify PM if ter	nperature exce	eds 6°C	or arrivo	frozer
Packing In cooler: (if other, describe)			wille	, more
☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐	Styrofoam []	Paner t	owels	
☐ Samples received on ice directly from the field. Cooling process had begun	olyrolodiii, La	raper o	OWCIS	
Type of ice used:	s) included? ["	Vec f	T No	
Temperature measured using □ Thermometer ID:	a)iiiciddedf (_ A∏R	i res, [_1 140	
Cooler Temp (°C): #1:#2:,#3:,#4:,#5:		7.		
Section 4:	, #	YES	NO.	31/4
Were custody papers dry, filled out properly, and the project identifiable			NO	N/A
Were Method 5035 sampling containers present?				
If YES, what time were they transferred to freezer?				
Did all bottles arrive unbroken/unopened?				
Are there any missing / extra samples?		-		
Are samples in the appropriate containers for indicated tests?				
Are sample labels present, in good condition and complete?				
Does the container count match the COC?			· · · · · · · · · · · · · · · · · · ·	
Do the sample labels agree with custody papers?				
Was sufficient amount of sample sent for tests requested?				
Did you change the hold time in LIMS for unpreserved VOAs?				·
Did you change the hold time in LIMS for preserved terracores?				
Are bubbles > 6mm absent in VOA samples?				
Was the client contacted concerning this sample delivery?				
If YES, who was called? By Dat	A:			
Section 5:	e:	VEC	NO.	
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)		YES	NO	N/A
Did you check preservatives for all bottles for each sample?				
Did you document your preservative check?		4		
pH strip lot# HC131225 pH strip lot#, pH strip lot#	£			
Preservative added:				
□ H2SO4 lot# added to samples	'an lab			
☐ HCL lot# added to samples	on/at _			
□ HNO3 lot# added to samples	on/aton/at _			
□ NaOH lot# added to samples	on/aton/at			
Section 6:	Ollyac			
explanations/Comments:				
Date Logged in 2 (8 V By (print) A (sign)	1/1/			****
	M ()			
Date Labeled (2/1X/1X By (print) // (class)	// // - /			

Enthalpy Sample Preservation for 305902

<u>Sample</u>	: Hq	<2	>9	>12	Other
-001a		[]	[]		
-002a		[]	[]	[]	

Analyst:

Page 1 of 1



Detections Summary for 305902

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location: Resample 7 (1218/18)

Client Sample ID : TIGER PIT-P Laboratory Sample ID : 305902-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.028		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : TIGER PIT-UP Laboratory Sample ID : 305902-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.028		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Page 1 of 1 7.0



	Tota	al Cyanide	
Lab #:	305902	Location:	Resample 7 (1218/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Sampled:	12/18/18
Matrix:	Water	Received:	12/18/18
Units:	mg/L	Prepared:	12/18/18
Diln Fac:	1.000	Analyzed:	12/19/18
Batch#:	266298		

Field ID	Type Lab ID	Result	RL	
TIGER PIT-P	SAMPLE 305902-001	0.028	0.010	
TIGER PIT-UP	SAMPLE 305902-002	0.028	0.010	
	BLANK QC958894	ND	0.010	

ND= Not Detected RL= Reporting Limit

Page 1 of 1



Batch QC Report

	Tota	al Cyanide	
Lab #:	305902	Location:	Resample 7 (1218/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266298
Field ID:	TIGER PIT-P	Sampled:	12/18/18
MSS Lab ID:	305902-001	Received:	12/18/18
Matrix:	Water	Prepared:	12/18/18
Units:	mg/L	Analyzed:	12/19/18
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC958895		0.2000	0.1834	92	76-120		
MS	QC958896	0.02790	0.2000	0.1537	63 *	66-120		
MSD	QC958897		0.2000	0.1539	63 *	66-120	0	28

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference Page 1 of 1

Attachment 10 Analytical Report on Resampling #8





Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 306316 ANALYTICAL REPORT

Pacific Gas & Electric

4801 Oakport Street Oakland, CA 94601

Project : STANDARD

Location: Resample 8-DW-01102019

Level : II

Sample ID
TIGER PIT-UP-DW
SOURCE-UP-DW

<u>Lab ID</u> 306316-001 306316-002

Date: <u>01/11/2019</u>

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Signature:

Will Rice Project Manager will.rice@enthalpy.com (510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001



CASE NARRATIVE

Laboratory number: 306316

Client: Pacific Gas & Electric Location: Resample 8-DW-01102019

Request Date: 01/10/19
Samples Received: 01/10/19

This data package contains sample and QC results for two water samples, requested for the above referenced project on 01/10/19. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

No analytical problems were encountered.

CHAIN OF CUSTODY

Project I Project I EDD Form		Phone (51) Fax (51) Sam Plio 2019 Rep Con	0) 486-05 pler: <i>Do</i> ort To: <i>A t</i> npany: <i>P</i>	32 nger 6+E 923	WE - 60	22-	itu vay 78	1 Ge, 38				Cyanide (total) *			AN	ALYT				stod	ge/		
Lab No.	Sample ID.	SAMPLII Date			TRIX	of Container	PR	H2SO4	VATI	VE		4	CN- MACE									;	
	Tigen Pit -UP-DW Source -UP-DW	01/10/2019	Time Collected CU17	Sol		# !	НС	H2SO4	HODN	S None		WS >>									,		
Samp Samp Sadil Sent	les pretreated of	SAMPLE RECEIPT Intact Cold On Ice Ambient	Ch.			NQUI	_	D BY: DATE: DATE:	1/1d1 -10		:: \(\(\)	1		J			REC	EIVE	DA DA		•	12]	

3 of 7

* All

SAMPLE RECEIPT CHECKLIST				7
Section 1: Login # 20316 Client: 155	[-]			
Date Received: 1 10 10 Project:		•	ENT	HALPY
Section 2: Samples received in a cooler? (1) Yes, how many?	□ No (skip Section 3 belo	wl	•	
1		w.,		
☐ Samples received on ice directly from the field. Cooling	RGun # 🗆 A, or 🗔 B	•		
If in cooler: Date Opened 11 10 17 By (print)	(sign)			·
Shipping info (If applicable)				
Are custody seals present? 7 No, or 7 Yes. If yes, where		es, 🗆 on pa	ickage	
☐ Date: How many ☐ S				
Were custody seals intact upon arrival? ☐ Yes	□No BON/A			
Section 3: Imports	ant Notify PM if temperature e	exceeds 6°C	or arrive	e frozen
Packing in cooler: (if other, describe)			•	
☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☒ None, ☐ Cloth mate	rial, 🛘 Cardboard, 🗘 Styrofoam	, 🛘 Paper t	owels	
☐ Samples received on ice directly from the field. Cooling process had	begun	•		
Type of ice used: Wet, 🗆 Blue/Gel, 🗀 None	Temperature blank(s) included	P 🔲 Yes, 🕽	S/No	
Temperature measured using Thermometer ID:	, or IR Gun # 📮 🗖 📙 B		, •	
Cooler Temp (°C): #1: 3 · 5 #2: #3: #4:	, #5:, #6:	#7:		
Section 4:		YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiab	le			
Were Method 5035 sampling containers present?				
If YES, what time were they transferred to freezer?				
Did all bottles arrive unbroken/unopened?				
Are there any missing / extra samples?			_	
Are samples in the appropriate containers for indicated tests?				
Are sample labels present, in good condition and complete?				
Does the container count match the COC?				
Do the sample labels agree with custody papers?				
Was sufficient amount of sample sent for tests requested?				
Did you change the hold time in LIMS for unpreserved VOAs?				ĺ
Did you change the hold time in LIMS for preserved terracores?				
Are bubbles > 6mm absent in VOA samples?				
Was the client contacted concerning this sample delivery?				
If YES, who was called?ByByByByBy	Date:			
Section 5:		YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of se	ction 5)			
Did you check preservatives for all bottles for each sample?				
Did you document your preservative check?				
pH strip lot# pH strip lot#	, pH strip lot#	····		
Preservative added:				
H2SO4 lot# added to samples	on/	at		
☐ HCL lot#added to samples	on/	at		
☐ HNO3 lot# added to samples	on/	at		
□ NaOH lot# added to samples	on/	at		
Section 6:				
Explanations/Comments:				
				· · · · · · ·
		· ···		
Date Logged in 11010 By (print)	(sign)	<u> </u>		
Date Labeled	(sign)			



Detections Summary for 306316

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location: Resample 8-DW-01102019

Client Sample ID : TIGER PIT-UP-DW Laboratory Sample ID : 306316-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.055		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : SOURCE-UP-DW Laboratory Sample ID : 306316-002

No Detections

Page 1 of 1 7.0



	Total Cyanide									
Lab #:	306316	Location:	Resample 8-DW-01102019							
Client:	Pacific Gas & Electric	Prep:	METHOD							
Project#:	STANDARD	Analysis:	SM4500CN-C,E							
Analyte:	Cyanide	Sampled:	01/10/19							
Matrix:	Water	Received:	01/10/19							
Units:	mg/L	Prepared:	01/10/19							
Diln Fac:	1.000	Analyzed:	01/11/19							
Batch#:	266844									

Field ID	Type	Lab ID	Result	RL	
TIGER PIT-UP-DW	SAMPLE	306316-001	0.055	0.010	
SOURCE-UP-DW	SAMPLE	306316-002	ND	0.010	
	BLANK	QC960973	ND	0.010	

ND= Not Detected RL= Reporting Limit

Page 1 of 1

2.0



Batch QC Report

	Total Cyanide									
Lab #:	306316	Location:	Resample 8-DW-01102019							
Client:	Pacific Gas & Electric	Prep:	METHOD							
Project#:	STANDARD	Analysis:	SM4500CN-C,E							
Analyte:	Cyanide	Batch#:	266844							
Field ID:	ZZZZZZZZZ	Sampled:	01/07/19							
MSS Lab ID:	306233-001	Received:	01/07/19							
Matrix:	Water	Prepared:	01/10/19							
Units:	mg/L	Analyzed:	01/11/19							
Diln Fac:	1.000									

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC960974		0.2000	0.1686	84	75-120		
MS	QC960975	<0.01000	0.2000	0.1710	86	56-120		
MSD	QC960976		0.2000	0.1580	79	56-120	8	25





Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 306317 ANALYTICAL REPORT

Pacific Gas & Electric 4801 Oakport Street

Oakland, CA 94601

Project : STANDARD

Location: Resample 8-ENT-01102019

Level : II

Sample ID
TIGER PIT-UP

<u>Lab ID</u> 306317-001

Date: <u>01/11/2019</u>

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:

Will Rice Project Manager will.rice@enthalpy.com (510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001



CASE NARRATIVE

Laboratory number: 306317

Client: Pacific Gas & Electric Location: Resample 8-ENT-01102019

Request Date: 01/10/19
Samples Received: 01/10/19

This data package contains sample and QC results for one water sample, requested for the above referenced project on 01/10/19. The sample was received cold and intact.

Total Cyanide (SM4500CN-C,E):

No analytical problems were encountered.

CHAIN OF CUSTODY

FORM 2323 F Berkele Project Project Project EDD For	Name: <i>Resample 8 - ENT</i> . P. O. No: mat: Report Level□ II	Kins Labs Phone (51 Fax (51 Sar -0(10)20(9) Rep	0) 486-09 0) 486-05	32 Jaco gel 64E 9xs)	5 Esp Sa 5;	Hol Piri tew 12-	hn itu lay 78	# 2 1 Ger 38 0M	n. S			mide (A		AN	ALY		nain A L		usto	ody i		_ of	
Lab No.	Sample ID. Tiger Pit-up	Date Collected	Time Collected	MATI Mater Solid	RIX	# of Containers	PR	HESER\ HESER\ HNO3	HOON HOON	/E ,	2200	SM 450 CA									3		
Notes: * So Sou LC	emple pretreated or condium this sulforte. myle Sent on	SAMPLE RECEIPT Intact Cold On Ice Ambient	A	R	RELIN	IQUIS	C	DATE:	1	TIME:	:	2	 	 		REC	EIVE	D	Y: ATE: ATE:		TIM	IE:	<u> </u>

			<u> </u>	-
SAMPLE RECEIPT CHECKLIST				
Section 1: Login # 3505 Client: 17				
Date Received: 1, 10 Project:			ENT	MALTY
Section 2: Samples received in a cooler? ()Yes, how many?	☐ No (skip Section 3 below	λ	•	
1 - , , , , , /	Gun # 🛘 A. or 🗖 B	1		
☐ Samples received on ice directly from the field. Cooling p		•		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
if in cooler: Date Opened 1' 10 1' By (print) SM	(sign)		_	
Shipping info (if applicable)				
Are custody seals present? 2 No, or 2 Yes. If yes, where		, ∟ on pa	ckage	
Date: How many Si				
	INO BON/A	·		
·	ot Notify PM if temperature ex	ceeds 6°C	or arrive	e frozen.
Packing in cooler: (if other, describe)			•	
🗆 Bubble Wrap, 🗀 Foam blocks, 🗅 Bags, 🕏 None, 🗀 Cloth materi	•	🗆 Paper t	owels	
\square Samples received on ice directly from the field. Cooling process had b		•		
Type of ice used: Wet, 🗀 Blue/Gel, 🗆 None 1	emperature blank(s) included?	☐ Yes, \	Ş ⊘ No	
Temperature measured using Thermometer ID:	, or IR Gun# 🛱 🗖 🛭 B		, –	
Cooler Temp (°C): #1: 5 - 5 #2: #3: #4:	, #5:, #6: <u></u>	, #7:		
Section 4:		YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable				
Were Method 5035 sampling containers present?				
If YES, what time were they transferred to freezer?				
Did all bottles arrive unbroken/unopened?				
Are there any missing / extra samples?			-	
Are samples in the appropriate containers for indicated tests?				
Are sample labels present, in good condition and complete?				
Does the container count match the COC?				
Do the sample labels agree with custody papers?				
Was sufficient amount of sample sent for tests requested?				
Did you change the hold time in LIMS for unpreserved VOAs?				
Did you change the hold time in LIMS for preserved terracores?				
Are bubbles > 6mm absent in VOA samples?				
Was the client contacted concerning this sample delivery?				
If YES, who was called? By	Date:			
Section 5:		YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of sec	tion 5)			
Did you check preservatives for all bottles for each sample?				
Did you document your preservative check?				
pH strip lot#, pH strip lot#	, pH strip lot#			
Preservative added:				ļ
☐ H2SO4 lot# added to samples	on/at			
☐ HCL lot#added to samples	on/at			
☐ HNQ3 lot# added to samples	on/at			
□ NaOH lot# added to samples	on/at			
Section 6:				
Explanations/Comments:				
		· · · · · · · · · · · · · · · · · · ·		
		-, , , , , , , , , , , , , , , , , , , 		
1.10	<u> </u>			
Date Logged in 1 (1) By (print)	(sign)			
Date Labeled 11010 By (print)	(sign)			



Detections Summary for 306317

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location: Resample 8-ENT-01102019

Client Sample ID : TIGER PIT-UP Laboratory Sample ID : 306317-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.051		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Page 1 of 1 8.0



	Total Cyanide									
Lab #:	306317	Location:	Resample 8-ENT-01102019							
Client:	Pacific Gas & Electric	Prep:	METHOD							
Project#:	STANDARD	Analysis:	SM4500CN-C,E							
Analyte:	Cyanide	Batch#:	266844							
Field ID:	TIGER PIT-UP	Sampled:	01/10/19							
Matrix:	Water	Received:	01/10/19							
Units:	mg/L	Prepared:	01/10/19							
Diln Fac:	1.000	Analyzed:	01/11/19							

Type	Lab ID	Result	RL	
SAMPLE	306317-001	0.051	0.010	
BLANK	QC960973	ND	0.010	

ND= Not Detected RL= Reporting Limit

Page 1 of 1

2.1



Batch QC Report

	Total Cyanide									
Lab #:	306317	Location:	Resample 8-ENT-01102019							
Client:	Pacific Gas & Electric	Prep:	METHOD							
Project#:	STANDARD	Analysis:	SM4500CN-C,E							
Analyte:	Cyanide	Batch#:	266844							
Field ID:	ZZZZZZZZZ	Sampled:	01/07/19							
MSS Lab ID:	306233-001	Received:	01/07/19							
Matrix:	Water	Prepared:	01/10/19							
Units:	mg/L	Analyzed:	01/11/19							
Diln Fac:	1.000									

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC960974		0.2000	0.1686	84	75-120		
MS	QC960975	<0.01000	0.2000	0.1710	86	56-120		
MSD	QC960976		0.2000	0.1580	79	56-120	8	25

Attachment 11 Analytical Report on Resampling #9





Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 306446 ANALYTICAL REPORT

Pacific Gas & Electric Project : STANDARD

4801 Oakport Street Location: Resample 9 (1/16/19)

Oakland, CA 94601 Level : II

	<u>Sample ID</u>	<u>Lab ID</u>
UP	TIGER PIT	306446-001
UP	HRSG IP A	306446-002
UP	HRSG IP B	306446-003
UP	PHOSPHATE	306446-004
UP	CC COOLING WATER	306446-005
UP	AMINE	306446-006
UP	E-006	306446-007
UP	HAMMOND TANK	306446-008
UP	OWS	306446-009
UP	AMMONIA SUMP	306446-010
UP	SERVICE WATER	306446-011
UP	SOURCE WATER	306446-012

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

> Will Rice Project Manager will.rice@enthalpy.com (510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

1 of 8

Date: <u>01/17/2019</u>

Signature:



CASE NARRATIVE

Laboratory number: 306446

Client: Pacific Gas & Electric Location: Resample 9 (1/16/19)

Request Date: 01/16/19
Samples Received: 01/16/19

This data package contains sample and QC results for twelve water samples, requested for the above referenced project on 01/16/19. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recoveries were observed for cyanide in the MS/MSD of UP TIGER PIT (lab # 306446-001); the LCS was within limits. No other analytical problems were encountered.

		alpy Analytical		CHA	11	N	0	F	C	U	ST	0	D	7					Pa	age _	0	f	<u> </u>		
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	Notes		SAMPLE RE	CEIPT	RE	LING	UI	SHE	D BY	:					RE	CE	VEC	BY:			,	1	1. 4		
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3 of 8

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SAMPLE RECEIPT CHECKLIST	$\mathcal{D}_{\mathcal{C}}$		-	
Section 1: Login# 4 CHU	client: VG+E			701
Date Received: 1 16 19	Project:	-	ENT	CHALPY
Section 2: Samples received in a cooler?	Yes, how many?\		<u>-</u>	
If no cooler Sample Temp (°C):	using IR Gun # 🗆 A, or 🗀 B	, mary		
	y from the field. Cooling process had begun	•		
If in cooler: Date Opened 1/14/14 By (pri	y normanic head. Cooling process read pegun			
Chimping Info (15 and Inch to)	(sign)		_	
Shipping info (if applicable)		·		
Are custody seals present? LETN	o, or 🗆 Yes. If yes, where? 🗀 on cooler, 🗆 on sampl	es, 🗅 on pi	ackage	
Li Date:	low many Signature, initials, None			
Were custody seals intact	ipon arrival? □ Yes □ No □ N/A			
Section 3:	importunt : Notify PM if temperature	exceeds 6°C	or arriv	e frozen
Packing in cooler: (if other, describe)				
☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags	, □ None, □ Cloth material, □ Cardboard, □ Styrofoam	i, 🗆 Paper i	towels	
LI Samples received on ice directly from the i	eld. Cooling process had begun	•		
Type of ice used : 12 Wet, 13 Blue/Gel,		? 🛮 Yes,	☑ No	
Temperature measured using Thermomet	r ID: or IR Gun# 🛛 A 🛂 🕏			
Cooler Temp (°C): #1: . (// , #2:	, #B: #4: #5: #6:	, #7:		
Section 4:		YES	NO	NA
Were custody papers dry, filled out properly,	ind the project identifiable			
Were Method 5035 sampling containers pres	<u></u>			
If YES, what time were they transferred	o freezer?			
Did all bottles arrive unbroken/unopened? Are there any missing / extra samples?				
Are samples in the appropriate containers for				
Are sample labels present, in good condition a				
Does the container count match the COC?	ud combiece.		ļ	
Do the sample labels agree with custody pape				
Was sufficient amount of sample sent for test				
Did you change the hold time in LIMS for unpr				
Did you change the hold time in LIMS for pres				
Are bubbles > 6mm absent in VOA samples?				
Was the client contacted concerning this same	e delivery?			
If YES, who was called?				
Section 5:	By Date:	- Vine	410	
	f N/A, skip the rest of section 5)	YES	NO	N/A
Did you check preservatives for all bottles for	ach sample?			
Did you document your preservative check?				
pH strip lot#, pH strip	pH strip lot#	لـــــا		
Preservative added:	1 but on the same	 '		
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☐ HCL lot# added to sam			· · · · · · · · · · · · · · · · · · ·	
☐ HNO3 lot# added to sam				
☐ NaOH lot# added to sam	ples on/s			
iection 6:				
Explanations/Comments:				İ
			········	
Date Logged in	int)K (sign)K	7 (
Date Labeled	int) (sken) A	1 /		



Detections Summary for 306446

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location: Resample 9 (1/16/19)

Client Sample ID: UP TIGER PIT Laboratory Sample ID: 306446-001

No Detections

Client Sample ID: UP HRSG IP A Laboratory Sample ID: 306446-002

No Detections

Client Sample ID: UP HRSG IP B Laboratory Sample ID: 306446-003

No Detections

Client Sample ID: UP PHOSPHATE Laboratory Sample ID: 306446-004

No Detections

Client Sample ID: UP CC COOLING WATER Laboratory Sample ID: 306446-005

No Detections

Client Sample ID: UP AMINE Laboratory Sample ID: 306446-006

No Detections

Client Sample ID: UP E-006 Laboratory Sample ID: 306446-007

No Detections

Client Sample ID: UP HAMMOND TANK Laboratory Sample ID: 306446-008

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.026		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

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Client Sample ID: UP OWS Laboratory Sample ID: 306446-009

No Detections

Client Sample ID : UP AMMONIA SUMP Laboratory Sample ID : 306446-010

No Detections

Client Sample ID : UP SERVICE WATER Laboratory Sample ID : 306446-011

No Detections

Client Sample ID : UP SOURCE WATER Laboratory Sample ID : 306446-012

No Detections

Page 2 of 2 7.0



Total Cyanide								
Lab #:	306446	Location:	Resample 9 (1/16/19)					
Client:	Pacific Gas & Electric	Prep:	METHOD					
Project#:	STANDARD	Analysis:	SM4500CN-C,E					
Analyte:	Cyanide	Sampled:	01/16/19					
Matrix:	Water	Received:	01/16/19					
Units:	mg/L	Prepared:	01/16/19					
Diln Fac:	1.000	Analyzed:	01/17/19					
Batch#:	266990							

Field ID	Type	Lab ID	Resul	t RL
UP TIGER PIT	SAMPLE	306446-001	ND	0.010
UP HRSG IP A	SAMPLE	306446-002	ND	0.010
UP HRSG IP B	SAMPLE	306446-003	ND	0.010
UP PHOSPHATE	SAMPLE	306446-004	ND	0.010
UP CC COOLING W	ATER SAMPLE	306446-005	ND	0.010
UP AMINE	SAMPLE	306446-006	ND	0.010
UP E-006	SAMPLE	306446-007	ND	0.010
UP HAMMOND TANK	SAMPLE	306446-008	0	.026 0.010
UP OWS	SAMPLE	306446-009	ND	0.010
UP AMMONIA SUME	SAMPLE	306446-010	ND	0.010
UP SERVICE WATE	R SAMPLE	306446-011	ND	0.010
UP SOURCE WATER	SAMPLE	306446-012	ND	0.010
	BLANK	QC961536	ND	0.010

ND= Not Detected RL= Reporting Limit

Page 1 of 1

2.0



Batch QC Report

Total Cyanide							
Lab #:	306446	Location:	Resample 9 (1/16/19)				
Client:	Pacific Gas & Electric	Prep:	METHOD				
Project#:	STANDARD	Analysis:	SM4500CN-C,E				
Analyte:	Cyanide	Batch#:	266990				
Field ID:	UP TIGER PIT	Sampled:	01/16/19				
MSS Lab ID:	306446-001	Received:	01/16/19				
Matrix:	Water	Prepared:	01/16/19				
Units:	mg/L	Analyzed:	01/17/19				
Diln Fac:	1.000						

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC961537		0.2000	0.1742	87	75-120		
MS	QC961538	<0.01000	0.2000	<0.01000	0 *	56-120		
MSD	QC961539		0.2000	<0.01000	0 *	56-120	NC	25

^{*=} Value outside of QC limits; see narrative

NC= Not Calculated

RPD= Relative Percent Difference

Attachment 12 Analytical Report on Resampling #10





Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 307019 ANALYTICAL REPORT

Pacific Gas & Electric Project : STANDARD

4801 Oakport Street Location: Resample 10 (2/7/19)

Oakland, CA 94601 Level : II

 Sample ID
 Lab ID

 UP HAMMOND TANK
 307019-001

 UP TIGER PIT
 307019-002

 UP SOURCE WATER
 307019-003

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Date: 02/08/2019

Signature:

Haley Campbell Project Manager

haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001



CASE NARRATIVE

Laboratory number: 307019

Client: Pacific Gas & Electric Location: Resample 10 (2/7/19)

Request Date: 02/07/19
Samples Received: 02/07/19

This data package contains sample and QC results for three water samples, requested for the above referenced project on 02/07/19. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

No analytical problems were encountered.

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Analytic	cal Laboratory Since 1878												,	<u> </u>			Ct		of C										_
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Project	t No:	J	Samp	ler:	M	us.K	مما	Envi	XONY	a de	15	اص	ا بدا		J-f														
Project	t Name: Resample 10 (2	1/7/19)	Samp Repor	t To	o: (Ang	<u>د ا</u>	Es	تكنع	<u>nti</u>	<u> </u>		0	ر ا	5											-			-
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Lab No.	Sample ID.	Date	Time		Soil	T	# of	HO H	Ţ	T	ī		1.	באמעיים ב	NS 74														
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Notes:	\	SAMPLE R	ECEIPT	RI	ELI	NQL	JISH	IED	BY:			<u></u>	<u> </u>	ا		RE	CEI	YEC) B	Y:			,						
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Packing in cooler: (if other, describe)	SAMPLE RECEIPT CHECKLIST	•					7
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Section 2: Samples received in a cooley?			44			ENT	HALPY
If no cooler Sample Tennp ("Ct; 2" suling IR Gun # ETA, or B Samples received on Ice directly from the field. Cooling process had begun if in cooler: Deta Opened 2 7 1 1 sty (print).				Al 8 A - A - A			
Samples recalved on ice directly from the field. Cooling process had begun file cooler: Data Opened 2 7 / 1	1			-			
If in cooler: Data Opened 2 7 1 9 by (print)		US	ng IR Gun # 🖸 A, or [3 B			
Shipping info (if applicable) Are custody seals present? TNO, or Yes. If yes, where? on cooler, on samples, on package	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.	ing process had begun	<i>j</i> '			
Are custody seals present?	If in cooler: Date Opened 4/11 By (print)	<u> </u>	(sign)			_	
Deta:							
Were custody seals intact upon arrival? Qes DNO PNJA					I on pa	ckage	
Section 3: Important : Notify PM if temperature exceeds 6°C or arrive froze Bubble Wrzp,	Date: How	many	☐ Signature, ☐ Initials,	□ None			
Packing in cooler: (if other, describe) Blubble Wrap, Foam blocks, Bags, None, Cloth material, Cardboard, Styrofoam, Paper towels Samples received on ice directly from the field. Cooling process had begun Type of ice used: Wet, Blue/Gel, None Temperature blenics) included? Yes, No Temperature measured using Thermometer ID: o' IR Gun # A B Cooler Temp ("C): #1: #2: #3: #4: #5: #5: #7: Section 4: Were custody papers dry, filled out property, and the project identifiable Were Method 5035 sampling containers present? Were Method 5035 sampling containers present? Were Method 5035 sampling containers present? If YES, what time were they trensferred to freezer? Did all bottles arrive unbroken/unopened? Ane there any melsing / extrs samples? Ane there any melsing / extrs samples? Ane sample labels present, in good condition and complete? Does the container count match the COC? Does the container to the cont	Were custody seals intact upor	n arrival? 🗆 Ye	□ No EN/A				
Samples received on ice directly from the field. Cooling process had begun Temperature blank(s) included? Yes, No Yeps of ice used: Wet, Stue/Gel, None Temperature blank(s) included? Yes, No Temperature measured using Thermometer ID: or IR Gun # A B Cooler Temp (*Q; #1: #2: #3: #4: #5: #6: #7: Section 4: YES NO N/A Were custody papers dry, filled out properly, and the project identifiable YES, what time were they transferred to freezer? YES, who change the hold time in LIMS for unpreserved VGAs? YES, who were safeled? YES, who were sa	Section 3:	lmp	ortant : Notify PM if ten	nperature exce	eds 6°C	or arrive	frozer
□ Samples received on ice directly from the field. Cooling process had begun Type of ice used: □ Wet, □ Blue/Gel, □ None □ Temperature blank(s) included? □ Yes, □ No Temperature measured using □ Thermometer ID: □ or iR Gun # □ A □ B Cooler Temp (*C): #1: #8: #8: #5: #6: #7: Section 4: YES NO N/A Were custody papers dry, filled out properly, and the project identifiable Were Method 5035 sampling containers present? If YES, what time were they transferred to freezer? Did all bottles arrive unbroken/unopened? Are there arey missing / extra samples? Are samples labels present, in good condition and complete? Does the container count match the COC? Do the sample labels present, in good condition and complete? Does the container count match the COC? Do the sample labels agree with custody papers? Was sufficient amount of sample sent for tests requested? Did you change the hold time in LIMS for unpreserved VOAs? Did you change the hold time in LIMS for preserved terracores? Are bubbles > 6mm elsent in VOA samples? Was the client contacted concerning this sample delivery? If YES, who was called? By Date: Section 5: Are the samples appropriately preserved? (if N/A, skip the rest of section 5) Did you check preservatives for all bottles for each sample? Did you document your preservative check? ph strip lots ph strip lots dided to samples on/at □ HOL lots added to samples on/at □ HOL lots added to samples On/at □ HSOG lots added to samples On/at □ NaCH lots added to samples Explanations/Comments:	Packing in cooler: (if other, describe)		· · ·				
Type of ice used:	🗆 Bubble Wrap, 🗅 Foam blocks, 🗆 Bags, 🗀	None, 🗆 Cloth m	aterial, 🗆 Cardboard, 🗈	l Styrofoam, 🗆	Paper t	owels	
Temperature measured using Thermometer ID:	☐ Samples received on ice directly from the field.	Cooling process i	nad begun		•		
Temperature measured using Thermometer ID:	Type of ice used: 🗆 Wet, 🗆 Blue/Gel, 🗀 N	ione .	Temperature blank(s) included?	Yes, [□ No	
Section 4: Were custody papers dry, filled out properly, and the project identifiable Were Mathod 5035 sampling containers present? If YES, what time were they transferred to freezer? Did all bottles arrive unbroken/unopened? Are there any missing / extre samples? Are samples in the appropriate containers for indicated tests? Are sample labels present, in good condition and completa? Does the container count match the COC? Doe the sample labels agree with custody papers? Was sufficient amount of sample sent for tests requested? Did you change the hold time in LIMS for unpreserved VQAs? Did you change the hold time in LIMS for preserved terracores? Are bubbles - 6mm absent in VQA samples? Was the client contacted concerning this sample delivery? If YES, who was called? By Date: Section 5: Are the samples appropriately preserved? (if N/A, skip the rest of section 5) Did you check preservatives for all bottles for each sample? Did you document your preservative check? pH strip lots! pH strip lots! ph strip lots! ph strip lots! added to samples on/at HACO4 lots! added to samples on/at HACO5 lots! added to samples on/at Section 6: Explansitions/Comments:	Temperature measured using ☐ Thermometer ID):	or IR Gun# 🛘	A 🗆 B			
Section 4: Were custody papers dry, filled out properly, and the project identifiable Were Mathod 5035 sampling containers present? If YES, what time were they transferred to freezer? Did all bottles arrive unbroken/unopened? Are there any missing / extre samples? Are samples in the appropriate containers for indicated tests? Are sample labels present, in good condition and completa? Does the container count match the COC? Doe the sample labels agree with custody papers? Was sufficient amount of sample sent for tests requested? Did you change the hold time in LIMS for unpreserved VQAs? Did you change the hold time in LIMS for preserved terracores? Are bubbles - 6mm absent in VQA samples? Was the client contacted concerning this sample delivery? If YES, who was called? By Date: Section 5: Are the samples appropriately preserved? (if N/A, skip the rest of section 5) Did you check preservatives for all bottles for each sample? Did you document your preservative check? pH strip lots! pH strip lots! ph strip lots! ph strip lots! added to samples on/at HACO4 lots! added to samples on/at HACO5 lots! added to samples on/at Section 6: Explansitions/Comments:	Cooler Temp (°C): #1: #2: #3):#4:	#5:	#6:#	7:		
Were Method 5035 sampling containers present? If YES, what time were they transferred to freezer? Did all bottles arrive unbroken/unopened? Are there any missing / extra samples? Are samples in the appropriate containers for indicated tests? Are sample labels present, in good condition and complete? Does the container count match the COC? Doe the sample labels agree with custody papers? Was sufficient amount of sample sent for tests requested? Did you change the hold time in LIMS for unpreserved VQAs? Did you change the hold time in LIMS for unpreserved terracores? Are bubbles > 6mm absent in VQA samples? Was the client contacted concerning this sample delivery? If YES, who was called? By Date; Section 5: Are the samples appropriately preserved? (If N/A, skip the rest of section 5) Did you check preservatives for all bottles for each sample? Did you douent your preservative check? pH strip lots	Section 4:				YES	NO	N/A
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Date Logged in 2 7/19 By (print) A (sign)	1						
	Date Logged in 27/9 By (print	h A	(sign)	1			



Detections Summary for 307019

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location : Resample 10 (2/7/19)

Client Sample ID : UP HAMMOND TANK Laboratory Sample ID : 307019-001

No Detections

Client Sample ID : UP TIGER PIT Laboratory Sample ID : 307019-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.013		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID: UP SOURCE WATER Laboratory Sample ID: 307019-003

No Detections

Page 1 of 1 8.0



	Tota	ıl Cyanide	
Lab #:	307019	Location:	Resample 10 (2/7/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Sampled:	02/07/19
Matrix:	Water	Received:	02/07/19
Units:	mg/L	Prepared:	02/07/19
Diln Fac:	1.000	Analyzed:	02/08/19
Batch#:	267621		

Field ID	Type Lab ID	Result	RL	
UP HAMMOND TANK	SAMPLE 307019-001	ND	0.010	
UP TIGER PIT	SAMPLE 307019-002	0.013	0.010	
UP SOURCE WATER	SAMPLE 307019-003	ND	0.010	
	BLANK QC964159	ND	0.010	

ND= Not Detected RL= Reporting Limit

Page 1 of 1

2.0



Batch QC Report

	Tota	al Cyanide	
Lab #:	307019	Location:	Resample 10 (2/7/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	267621
Field ID:	UP SOURCE WATER	Sampled:	02/07/19
MSS Lab ID:	307019-003	Received:	02/07/19
Matrix:	Water	Prepared:	02/07/19
Units:	mg/L	Analyzed:	02/08/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC964160		0.2000	0.1579	79	75-120		
MS	QC964161	<0.01000	0.2000	0.1211	61	56-120		
MSD	QC964162		0.2000	0.1513	76	56-120	22	25

Attachment 13 Analytical Report on Resampling #11



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1902474

Report Created for: PG&E Gateway Generating Station

3225 Wilbur Avenue Antioch, CA 94509

Project Contact:

Angel Espiritu

Project P.O.:

Project: Resample II (2/11/19)

Project Received: 02/11/2019

Analytical Report reviewed & approved for release on 02/12/2019 by:

Christine Askari

Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



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Glossary of Terms & Qualifier Definitions

Client: PG&E Gateway Generating Station

Project: Resample II (2/11/19)

WorkOrder: 1902474

Glossary Abbreviation

%D Serial Dilution Percent Difference

95% Interval 95% Confident Interval

DF Dilution Factor

DI WET (DISTLC) Waste Extraction Test using DI water

DISS Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)

DLT Dilution Test (Serial Dilution)

DUP Duplicate

EDL Estimated Detection Limit

ERS External reference sample. Second source calibration verification.

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

N/A Not Applicable

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PDS Post Digestion Spike

PDSD Post Digestion Spike Duplicate

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value

SPLP Synthetic Precipitation Leachate Procedure

ST Sorbent Tube

TCLP Toxicity Characteristic Leachate Procedure

TEQ Toxicity Equivalents

TZA TimeZone Net Adjustment for sample collected outside of MAI's UTC.

WET (STLC) Waste Extraction Test (Soluble Threshold Limit Concentration)

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Analytical Report

Client: PG&E Gateway Generating Station

Date Received: 2/11/19 10:05

Date Prepared: 2/12/19

Project: Resample II (2/11/19)

WorkOrder: 1902474

Extraction Method: SM4500-CN⁻ E **Analytical Method:** SM4500-CN⁻ CE

Unit: $\mu g/L$

Cva	anide.	. To	tal
\sim	amuc	,	···

		0 3 44224 47				
Client ID	Lab ID	Matrix	Date Col	lected	Instrument	Batch ID
UP Tiger Pit	1902474-001A	Water	02/11/2019	9 08:30	WC_SKALAR 021219A1_29	172888
Analytes	Result		<u>RL</u>	<u>DF</u>	<u>Date</u>	Analyzed
Total Cyanide	29		1.0	1	02/12	2/2019 11:55

Analyst(s): NM

Client ID	Lab ID	Matrix	Date Col	lected	Instrument	Batch ID
UP RO	1902474-002A	Water	02/11/2019	9 09:25	WC_SKALAR 021219A1_32	172888
<u>Analytes</u>	Result		<u>RL</u>	<u>DF</u>	<u>Date</u>	Analyzed
Total Cyanide	1.7		1.0	1	02/12	2/2019 12:03

Analyst(s): NM

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Quality Control Report

PG&E Gateway Generating Station **Client:**

Date Prepared: 2/12/19

Date Analyzed: 2/12/19 **Instrument:**

 WC_SKALAR

Matrix: Water

Resample II (2/11/19) **Project:**

WorkOrder: 1902474

BatchID: 172888

Extraction Method: SM4500-CN E

Analytical Method: SM4500-CN CE

Unit: μ g/L

Sample ID: MB/LCS/LCSD-172888

QC Summary Report for SM4500-CN ⁻ CE											
Analyte	MB Result	MDL	RL								
Total Cyanide	ND	0.84	1.0	-	-	-					

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Cyanide	41	40	40	102	101	80-120	1.19	20

McCampbell Analytical, Inc.

□WaterTrax

Email:

Project:

PO:

cc/3rd Party:

WriteOn

abe4@pge.com

Resample II (2/11/19)

□ EDF

(925) 252-9262

Angel Espiritu

(925) 459-7212

3225 Wilbur Avenue

Antioch, CA 94509

Report to:

1534 Willow Pass Rd Pittsburg, CA 94565-1701

PG&E Gateway Generating Station

FAX:

CHAIN-OF-CUSTODY RECORD

Page	1	of	
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☐ J-flag

WorkOrder: 1902474 ClientCode: PGEA

Excel **EQuIS** ✓ Email □HardCopy

Detection Summary Dry-Weight

> Requested TAT: 1 day;

☐ ThirdParty

Angel Espiritu

Bill to:

PG&E Gateway Generating Station

Date Received: 02/11/2019 3225 Wilbur Avenue Antioch, CA 94509 Date Logged: 02/11/2019

Requested Tests (See legend below) Lab ID Client ID Matrix Collection Date Hold 2 3 5 6 7 10 11 12 1 1902474-001 **UP Tiger Pit** 2/11/2019 08:30 Water Α 1902474-002 UP RO Water 2/11/2019 09:25 Α

Test Legend:

1 CN_SM4500CE_W	2	3	4
5	6	7	8
9	10	11	12

Prepared by: Agustina Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



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"When Quality Counts"

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WORK ORDER SUMMARY

Client Name:	PG&E GATEWAY GENERATING STATION	Project:	Resample II (2/11/19)	Work Order: 1902474
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Client Contact: Angel Espiritu

Contact's Email: abe4@pge.com

Comments:

Date Logged: 2/11/2019

		☐ WaterTrax	WriteOn EDF	Excel	EQuIS Email	HardC	opy ThirdParty	/J-	flag	
Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold SubOut
1902474-001A	UP Tiger Pit	Water	SM4500-CN CE (Cyanide, Total)) 1	500mL aHDPE w/ NaOH + Na2S2O3		2/11/2019 8:30	1 day	None	
1902474-002A	UP RO	Water	SM4500-CN CE (Cyanide, Total)) 1	500mL HDPE w/ Na2S2O3		2/11/2019 9:25	1 day	Present	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



RUSH MAI Work Order # 1912474

МсСАМ	PBELL	ANAI	YT	ICAI	, INC.	CHAIN OF CUSTODY RECORD																		
1534	Willow Pass I	Rd. Pittsburg	, Ca. 9	4565-1701		Turn	Aroun	d Time	1 Day	Rush	-7	2 Day	Rush		3 Day	Rush	STD		Qu	ote#				
Telep	phone: (877) 2:	52-9262 / Fa	x: (925	5) 252-926)		J-Flag	/ MDL		ESL		Cleanup		ip Approved			Bot		Bott	tle Order#				
www.mccam	pbell.com	ma	in@m	ccampbel	l.com	Deliv	ery Fo	ormat:	PDF		Geo'	Гracke	r EDF		EDD		Wr	ite On	(DW)		F	QuIS		
Report To: Accel FSO	icidu	Bill To:	Pa	#F- Co	teness								Ar	alys	is Re	quest	ed				2	5		
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Project Name: Resample 11	(2/11/19)	Project #:				8021	Mot	Mot	64/6	ith S	carb	l Pes	; Ar	(V)	(SV	(PAI	/ 603	1	2	r dis	C K			
Project Location:	1.20	PO#				Gas (15) +	15) +	e (16	lydro 71) W	lydro	81 (C	CB's	8260	8270	8270 SIM / 8310 (PAHs / PNAs)	200.8	20)	ment	ole for	# 0	BCE		
Sampler Signature: Mucke	FAU	ironn	eta	150	moling	I as	1 (80 a Ge	1 (80	reas	1 mn / 907	um J	1 / 80	82 P	524 /	1579	W/	als (9 / 80	quire	samp	7 5	19.6		
SAMPLE ID	Sam	pling	ners	1	1.0.0	E	Diese	Diese	1.8°C	trole (1664	trole ica G	2/ 608	8 / 80	4.2 / (5.2 / (120 S	7 Mei	200.	ls Re	ilter	300	7		
Location / Field Point	Date	Time	#Containers	Matrix	Preservative	BTEX & TPH as Gas (8021/8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silca Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil Grease (1664 / 9071) <u>With</u> Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 82	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)	Baylands Requirements	Lab to filter sample for dissolved metals analysis	Cyanide(total	J		
UP Tiger Pit	2/11/19	08:30	4	water	-	-		I F S	T S	10	H 21	ы	н	H	ш	Щ	J	-	щ		X			
NP ON	2/11/19	09:55				1															X			
Urko	411/19	04.0		mute.		+		+	1														9	
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	41					_																		_
MAI clients MUST disclose any dangerous chem	icals known to be	present in their	submitte	ed samples in	concentrations th	at may	cause i	immedi	ate harn	n or seri	ous fut	ure hea	lth enda	ingerm	ent as a	result	of brief	, gloved	i, open	air, san	nple har	dling by	MAIs	aff.
Non-disclosure incurs an immediate \$250 surcha		hand the first											work sa	afely.							. /1		52	_
* If metals are requested for water samples a																		4	C	omme	nts / In	structio	ns	
Please provide an adequate volume of samp		is not sufficie	_			ll be p		_					ort.	1 5		T 7	ime	4						
Relinquished By / Comp	pany Name				Time	4	Rece	eived E	By / Co	mpany	Name			2/1	ate,	1 10	ime							
4/1			2/11/	19 10	:05	-	4u	4	-)		_			2/1	ilia	16	1.05							
V					-(-	-	1	1				_	-	/		-		1						
Matrix Code: DW=Drinking Water	CW-C	d Water W	737-33	Insta Wet	or CW-Co-	vota	C-C	oil C	I -CI-	daa	Λ = Λ :	r 11/1	D=137;	ne C)=O+l-	er								
Preservative Code: 1=4°C 2=HC									L-311	idge,	A-A)	1, W	- vv 1	pc, c	,-Oil		Temp	11	11	°C	Ini	tials		_
1 reservative code. 1-4 C 2-HC	3-112504	111103	5-140	.011 0-		9	110											-/-	1	- ~				
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Sample Receipt Checklist

Client Name: Project:	PG&E Gateway Generating Station Resample II (2/11/19)			Date and Time Received Date Logged: Received by:	2/11/2019 10:05 2/11/2019 Julia Danielsson
WorkOrder №: Carrier:	1902474 Matrix: Water Client Drop-In			Logged by:	Agustina Venegas
	Chain of C	Custody	(COC) Infor	<u>mation</u>	
Chain of custody	present?	Yes	✓	No 🗆	
Chain of custody	signed when relinquished and received?	Yes	✓	No 🗆	
Chain of custody	agrees with sample labels?	Yes	✓	No 🗆	
Sample IDs noted	d by Client on COC?	Yes	✓	No 🗆	
Date and Time of	f collection noted by Client on COC?	Yes	✓	No 🗆	
Sampler's name	noted on COC?	Yes	•	No 🗆	
COC agrees with	Quote?	Yes		No 🗆	NA 🗹
	Samp	le Rece	eipt Informati	on	
Custody seals int	act on shipping container/cooler?	Yes			NA 🗸
Shipping containe	er/cooler in good condition?	Yes	✓	No 🗌	
Samples in prope	er containers/bottles?	Yes	✓	No 🗌	
Sample container	rs intact?	Yes	✓	No 🗌	
Sufficient sample	volume for indicated test?	Yes	•	No 🗆	
	Sample Preservati	on and	Hold Time (I	HT) Information	
All samples recei	ved within holding time?	Yes	✓	No 🗆	NA 🗌
Samples Receive	-	Yes	✓	No 🗆	
	(Ice Typ	e: WE	TICE)		
Sample/Temp Bla	ank temperature		Temp: 4.4	ŀ°C	NA 🗌
Water - VOA vial	s have zero headspace / no bubbles?	Yes		No 🗌	NA 🗹
Sample labels ch	ecked for correct preservation?	Yes	✓	No 🗌	
pH acceptable up <2; 522: <4; 218.	oon receipt (Metal: <2; Nitrate 353.2/4500NO3: 7: >8)?	Yes		No 🗆	NA 🗹
	acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 3; 544: <6.5 & 7.5)?	Yes		No 🗆	NA 🗹
Free Chlorine to	ested and acceptable upon receipt (<0.1mg/L)?	Yes		No 🗆	NA 🗹
Comments:	========			=======	=======





Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 9471O, Phone (510) 486-0900

Laboratory Job Number 307128 ANALYTICAL REPORT

Pacific Gas & Electric

4801 Oakport Street Oakland, CA 94601

Project : STANDARD

Location : Resample 11 (2/11/19)

Level : II

Sample ID
UP TIGER PIT
UP RO

<u>Lab ID</u> 307128-001 307128-002

Date: 02/12/2019

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:

Haley Campbell Project Manager

haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001



CASE NARRATIVE

Laboratory number: 307128

Client: Pacific Gas & Electric Location: Resample 11 (2/11/19)

Request Date: 02/11/19
Samples Received: 02/11/19

This data package contains sample and QC results for two water samples, requested for the above referenced project on 02/11/19. The samples were received on ice and intact, directly from the field.

Total Cyanide (SM4500CN-C,E):

No analytical problems were encountered.

	alpy Analytical		CH	A	11	1	Ol	F	Cl	J:	S	Γ		ľ	Y						Pa	ge _		_of	1_	-		
Analytic 2323 Fi	al Laboratory Since 1878 fth Street														0		CI	hain A	of C	Suste l yti e	ody i	# : Red	que	st				
(510)48	y, CA 94710 6-0900 Phone 6-0532 Fax		C&T L	.00	SIN	# 🗓	<u> 30</u> -	717	<u>28</u>				7	fore pers	-													
Project	No:	J	Samp	ler:	. AA	. [/.	E.			. 1		١ :	۱	3	ن													
Project		/11 /1a \	Repo								<u> </u>	Mary !	3		9					1								
Rpt Le	vel: II		Comp								fme-	alie	adia.	XX	2													
Turnard	ound Time: Ameliand Rush		Telep	hor	ne:	(92	5)	5 2	<u>ء</u> -	18	38	0	<u> </u>															
			Email	: o	<u>b</u> e	40	pge.	0~	`		,		1	63	0													
Lab		Sampli	ing	ı	Vlat	rix			Ch Pres		ical ativ		1	2	002h WS													
No.	Sample ID.	Date	Time	Water	Soil	Other	# of Container	모	H _S SO ₄	NOS H	NaOH	None	-	eyanide (10)	2													
	UP Tiger Pit	2/11/19	08:30	X	\Box	十	1	\top			T	X		7	V		\dashv	十	十	\top	十	+	\top	+	\dagger	T	\Box	$\overline{}$
	UPRO	2/11/19	09:25									X		\geq	N										I			
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			<u> </u>	Н	\dashv	╁	+	+	+	_	 					\vdash		\dashv	+	\dashv	\dashv	\dashv	+	+	╁	╁		H
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						I																				I		
Notes:	1. 50 1 . 70 .	SAMPLE RE	CEIPT	RE	ELI	NQL	JISH	ED E] 3Y:	<u> </u>	<u> </u>				L	RE	CEI	VED	В	 /:				 1		<u> </u>		\sqcup
C٤	ple sent on ICE ontainers:	☐ Intact ☐ Co						2/11	/i or		K	}	/0 , DAT	ς Z Ε/ΤΙ	IME	/	g) at	<u>'</u>	1	a	<u>. </u>			/11	//9	<i>10</i> TE/TI	
	500 ml poly			Ø-		<i>-</i>			17-T		_		DAT	E/T	IME											DA	TE/TI	IME
	Not prese	10 Sa	pres										DAT	Е/Т	IME												TE/TI	

SAMPLE RECEIPT CHECKLIST	•					-	
Section 1: Login # 30	1178	Mont. MUS	skan Er	nvironme	ental.		
Date Received: 2	11119	Orologic DC	Sample	(1	•	ENT	LALPY
							
Section 2: Samples received i					w)		
lf no cooler Sample Temp (°C):			g IR Gun # 🔼 🗛				
☐ Samples receive	ed on ice directly from	the field. Coolin	g process had beg	nu :			
If in cooler: Date Opened	By (print)		(sign)			_	•
Shipping info (if ap	plicable)					_	
Are custody seals	present? 🗵 No, or 🗆	l Yes. If yes, wh	iere? 🛚 on coole	er, 🛘 on sample	≅, □ on pa	ckage	
☐ Date:	How ma	any [🛚 Signature, 🗖 ini	tials, 🗆 None			
Were custo	dy seals intact upon a	rrival?	□No ☑N	<u>/A</u>		· · · · · · · · · · · · · · · · · · ·	
Section 3:		lmpo	rtant : Notify PM	if temperature o	exceeds 6°C	or arrive	froze
Packing in cooler: (if other, de							
☐ Bubble Wrap, ☐ Foam	blocks, 🛭 Bags, 🗀 No	one, 🛘 Cloth ma	terial, 🛘 Cardboa	rd, 🗆 Styrofoam	, 🗆 Paper t	owels	
Samples received on ice din			ad begun		•		
Type of ice used : 🗵 Wet,				lank(s) included	? 🔲 Yes, [□ No	
Temperature measured using	☐ Thermometer ID:		or IR Gun	# (A			
Cooler Temp (°C): #1: 35	, #2:, #3:	, #4:	, #5:	' #6:	#7:		
Section 4:					YES	NO	NA
Were custody papers dry, fille	d out properly, and the	e project identifi	lable				
Were Method 5035 sampling o		·				<i>.</i>	
If YES, what time were th		zer?					
Did all bottles arrive unbroken				·			
Are there any missing / extra s					<u> </u>		
Are samples in the appropriate	containers for indicat	ted tests?					
Are sample labels present, in g		npiete?					
Does the container count mate						[<u>-</u>	
Do the sample labels agree wit Was sufficient amount of sam		acto d2			+		
was sumicent amount of samp Did you change the hold time							
Did you change the hold time				 			
Are bubbles > 6mm absent in \		rei i acol es i					
Was the client contacted conc		Cycles		, 			
.,	BITHING UND SELEPTE GEN			Date:			
If YES, who was called?		Ву		Date:	YES	NO	N/A
Section 5: Are the samples appropriately	precented? /FN/A	, skip the rest of	section 5)			140	147
Are the samples appropriating Did you check preservatives fo			Section 5/				1
Did you document your presen							
•	, pH strip lot#		, oH strip i	ct#	<u> </u>		
Preservative added:		- 1777 - 1 700 - 1700					
☐ H2SO4 lot#	added to samples			on	/at		
☐ HCL lot#	added to samples				/at		
☐ HNO3 lot#	added to samples				/at		
□ NaOH lot#	added to samples			on	/at		
Section 6: Explanations/Comments:							
					.		
Date Logged in 2/11	19 By (print)			(sign)	Q /	·	
Date Logged at 2/11	_	78	7	(clan)	210		•



Detections Summary for 307128

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location: Resample 11 (2/11/19)

Client Sample ID: UP TIGER PIT Laboratory Sample ID: 307128-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.014		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : UP RO Laboratory Sample ID : 307128-002

No Detections

Page 1 of 1 8.0



	Total Cyanide										
Lab #:	307128	Location:	Resample 11 (2/11/19)								
Client:	Pacific Gas & Electric	Prep:	METHOD								
Project#:	STANDARD	Analysis:	SM4500CN-C,E								
Analyte:	Cyanide	Sampled:	02/11/19								
Matrix:	Water	Received:	02/11/19								
Units:	mg/L	Prepared:	02/11/19								
Diln Fac:	1.000	Analyzed:	02/12/19								
Batch#:	267700										

Field ID	Type	Lab ID	Result	RL
UP TIGER PIT	SAMPLE	307128-001	0.014	0.010
UP RO	SAMPLE	307128-002	ND	0.010
	BLANK	QC964476	ND	0.010

ND= Not Detected RL= Reporting Limit

Page 1 of 1

2.0



Batch QC Report

	Total Cyanide											
Lab #:	307128	Location:	Resample 11 (2/11/19)									
Client:	Pacific Gas & Electric	Prep:	METHOD									
Project#:	STANDARD	Analysis:	SM4500CN-C,E									
Analyte:	Cyanide	Batch#:	267700									
Field ID:	UP TIGER PIT	Sampled:	02/11/19									
MSS Lab ID:	307128-001	Received:	02/11/19									
Matrix:	Water	Prepared:	02/11/19									
Units:	${ t mg/L}$	Analyzed:	02/12/19									
Diln Fac:	1.000											

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC964477		0.2000	0.1665	83	75-120		
MS	QC964478	0.01390	0.2000	0.1986	92	56-120		
MSD	QC964479		0.2000	0.1985	92	56-120	0	25

Attachment 14 Analytical Report on Resampling #12





Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 307577 ANALYTICAL REPORT

Pacific Gas & Electric 4801 Oakport Street Oakland, CA 94601

Project : STANDARD

Level : II

	<u>Sample ID</u>	<u>Lab ID</u>
UP	HAMMOND TAND	307577-001
UP	RO REJECT	307577-002
UP	TIGER PIT	307577-003
UP	SOURCE WATER	307577-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Date: 02/26/2019

Signature:

Haley Campbell Project Manager

haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001



CASE NARRATIVE

Laboratory number: 307577

Client: Pacific Gas & Electric

Request Date: 02/25/19
Samples Received: 02/25/19

This data package contains sample and QC results for four water samples, requested for the above referenced project on 02/25/19. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

No analytical problems were encountered.

CHAIN OF CUSTODY **Enthalpy Analytical** Page _____of ____ Formerly Curtis & Tompkins Analytical Laboratory Since 1878 Chain of Custody #: **Analytical Request** 2323 Fifth Street Berkelev, CA 94710 C&T LOGIN# 307577 (510)486-0900 Phone (510)486-0532 Fax **Project No:** Resample 12 (2/25/19) Report To: Angel Espicit **Project Name:** Company: Par E Laterray Concrating Shirt Rpt Level: II Turnaround Time: Standard Rush Zyht Telephone: (425) 522-1838 Email: abe48 Pgc.com Chemical Sampling Matrix Preservative Lab # of Container HCI H₂SQ₄ Sample ID. NaOH None No. Date Time UP Hammon 08:55 RN Reject 2/25/19 08:10 08:451 Notes: Notes: Soudes Set on ICE: Containers: soomlpoly Do Not perserve Somple RELINQUISHED BY: RECEIVED BY: SAMPLE RECEIPT 10:00 DATE/TIME ☐ Intact ☐ Cold 10:00 2/25/19 DATE/TIME ☐ On Ice ☐ Ambient DATE/TIME DATE/TIME

DATE/TIME

DATE/TIME

SAMPLE R	ECEIPT CHECKLIST				
Section 1:	Login # 307577 Client: PG+E		٠		
	Date Received: 2-25.19 Project:			ENT	HALPY
Section 2:	Samples received in a cooler? Yes, how many? No (skip Section 3 be	lone)		•	
If no coole	Sample Temp (°C): 3.0 C using IR Gun # 12 A, or 🗆 B				
	☐ Samples received on ice directly from the field, Cooling process had begun	•			
.e					
IT IN COO IE T	pers obersed				
	Shipping Info (if applicable)				
	Are custody seals present? \(\Quad \text{No, or }\Quad \text{Yes. If yes, where? }\Quad \text{on cooler, }\Quad \text{on sam}	oles, 🎞 or	1 packa	ße	
	□ Date: How many □ Signature, □ Initials, □ None				
	Were custody seals intact upon arrival? ☐ Yes ☐ No ☐ N/A				
Section 3:	Important : Notify PM If temperature	exceeds	6°C or	arrive	frozen.
Packing in o	poler: (if other, describe)				
☐ But	ble Wrap, 🖸 Foam blocks, 🖸 Bags, 🚨 None, 🗀 Cloth material, 🗀 Cardboard, 🗀 Styrofoa	m, 🗆 Pap	er tow	els	
	received on ice directly from the field. Cooling process had begun	•	•		
	used: D Wet, D Blue/Gel, D None Temperature blank(s) include	d? □Ye	s. 🗆]	Уo	
	e measured using Thermometer ID: or IR Gun # A B		-		
	p (°C): #1:, #2:, #3:, #4;, #5:, #6:	, #7:_		_	
Section 4:		Y	S I	NO.	N/A
	ty papers dry, filled out properly, and the project identifiable				
Were Meth	od 5035 sampling containers present?			-	
	what time were they transferred to freezer?				
Did all bott	es arrive unbroken/unopened?	-			
Are there a	ny missing / extra samples?		-		
	in the appropriate containers for indicated tests?	-			
	labels present, in good condition and complete?	سرساء			
Does the co	ntainer count match the COC?				
Do the sam	ple labels agree with custody papers?				
Was sufficie	nt amount of sample sent for tests requested?				
Did you cha	nge the hold time in LIMS for unpreserved VQAs?				
Did you cha	nge the hold time in LIMS for preserved terracores?				
Are bubble:	> 6mm absent in VOA samples?				/
Was the clk	int contacted concerning this sample delivery?				
IF YES,	who was called? By Date:				
Section 5:		YE	S	10	N/A
Are the san	ples appropriately preserved? (If N/A, skip the rest of section 5)				
	ck preservatives for all bottles for each sample?				
Did you doo	ument your preservative check?				
pH stri	o lot#, pH strip lot#, pH strip lot#				
Preservativ			,		
☐ H2SO4 k		n/at			
☐ HCL lotal		n/at			
HNO3 ld		n/at			
□ NaOH lo		n/at			
Section 6:		<u> </u>			
	s/Comments:				
				·	
,		-			
Date I ce	ped in 2 25 19 By (print) (sign) (5			
• 7	The state of the s	$\prec f$			
Date Li	beled 2 - 2 - 3 - 1 By (print) (sign) (2-1/-			



Detections Summary for 307577

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location :

Client Sample ID: UP HAMMOND TAND Laboratory Sample ID: 307577-001

No Detections

Client Sample ID: UP RO REJECT Laboratory Sample ID: 307577-002

No Detections

Client Sample ID: UP TIGER PIT Laboratory Sample ID: 307577-003

No Detections

Client Sample ID: UP SOURCE WATER Laboratory Sample ID: 307577-004

No Detections



Total Cyanide						
Lab #:	307577	Prep:	METHOD			
Client:	Pacific Gas & Electric	Analysis:	SM4500CN-C,E			
Project#:	STANDARD					
Analyte:	Cyanide	Sampled:	02/25/19			
Matrix:	Water	Received:	02/25/19			
Units:	mg/L	Prepared:	02/25/19			
Diln Fac:	1.000	Analyzed:	02/26/19			
Batch#:	268093					

Field ID	Type	Lab ID	Result	RL
UP HAMMOND TAND	SAMPLE 3	07577-001	ND	0.010
UP RO REJECT	SAMPLE 3	07577-002	ND	0.010
UP TIGER PIT	SAMPLE 3	07577-003	ND	0.010
UP SOURCE WATER	SAMPLE 3	07577-004	ND	0.010
	BLANK Q	C966128	ND	0.010

ND= Not Detected RL= Reporting Limit

Page 1 of 1



Batch QC Report

Total Cyanide						
Lab #:	307577	Prep:	METHOD			
Client:	Pacific Gas & Electric	Analysis:	SM4500CN-C,E			
Project#:	STANDARD					
Analyte:	Cyanide	Batch#:	268093			
Field ID:	ZZZZZZZZZ	Sampled:	02/14/19			
MSS Lab ID:	307279-002	Received:	02/15/19			
Matrix:	Water	Prepared:	02/25/19			
Units:	${ t mg/L}$	Analyzed:	02/26/19			
Diln Fac:	1.000					

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC966129		0.2000	0.1828	91	75-120		
MS	QC966130	<0.01000	0.2000	0.1470	74	56-120		
MSD	QC966131		0.2000	0.1472	74	56-120	0	25

Attachment 15 Analytical Report on Resampling #13





Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 307679 ANALYTICAL REPORT

Pacific Gas & Electric

4801 Oakport Street Oakland, CA 94601

Project : STANDARD

Location : Resample Compliance-2/27/19

Level : II

Sample ID UP-I-001

<u>Lab ID</u> 307679-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:

Haley Campbell Project Manager

haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001

Date: 03/01/2019



CASE NARRATIVE

Laboratory number: 307679

Client: Pacific Gas & Electric

Location: Resample Compliance-2/27/19

Request Date: 02/27/19
Samples Received: 02/27/19

This data package contains sample and QC results for one water sample, requested for the above referenced project on 02/27/19. The sample was received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recoveries were observed for cyanide in the MS/MSD for batch 268177; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

CHAIN OF CUSTODY

Project N Project Project Proj	Iame: Resample ComplianU O. No: Report Level	Okins Lab Phone (8 Fax (8 - 2/27/19 R - 1	S 510) 486-05 510) 486-05 ampler: Deport To: A company: Poelephone: 92	ngel	W Est	de Iri Tow	h tu	1 #	n W	isde	om 5		3	3 SM 4500	IAL	YTIC			Custo	ody			1
Lab No.	Sample ID.	SAMF Date Collected	Time	MAT		ontainer		CHEN	IICA VATI	VE L		7	unde Co	12 2203/ Ca									
	up I-001	477/19	2944 2944	S W		* '	HC	H2	S N	No.			5	\$									
																						+	
																						<u> </u>	
Notes:		SAMPLE			RELIN	NQUI:	SHE	D BY:								REC	CEIV	FD B	IV-				
Samp Do No	des set on ICE OT preserve Sample	RECEIPT Intact Cold On Ice Ambient	Day					DATE:	20	7	:[05	\									TIM TIM	7. I	51

SAMPLE RI	CENT CHECKLIST			"	7
	Login # 3067, Client: V960	_	•		[4]
	Date Received: 2 27 9 Project:			ENT	MALTY
	Samples received in a cooler? 🗆 Yes, how many? 🗀 No (skip Section 3 be	iow)			
	Sample Temp (°C): using IR Gun # 🗆 A, or 🗀 B	-			
	Samples received on ice directly from the field. Cooling process had begun				
	Date Opened 2 27/19 By (print) AC (sign)			-	
	Shipping info (if applicable)				
	Are custody seals present? 🖾 No, or 🗆 Yes. If yes, where? 🗀 on cooler, 🗀 on sam	oles, C	I on pa	ckage	
	□ Date: How many □ Signature, □ Initials, □ None				
	Were custody seals intact upon arrival?				
Section 3:	importunt : Notify PM if temperatur	n exce	eds 6°C	or arrive	frozer
Packing in c	poler: (if other, describe)				
□ Bub	ole Wrap, 🛘 Foam blocks, 🗀 Bags, 🖾 None, 🗀 Cloth material, 🗀 Cardboard, 🗀 Styrofoa	m, 🗆	Paper t	oweis	
	received on ice directly from the field. Cooling process had begun		•	,	
**	used: 12 Wet, 🗆 Blue/Gel, 🗅 None Temperature blank(s) include		Yes, [Z No	
	e measured using 🏻 Thermometer ID: or IR Gun # 🖾 A 🖾 🖪				
	o (°C): #1: <u>5.7</u> , #2:, #3:, #4:, #5:, #6:	#			
Section 4:			YES	NO	N/A
	by papers dry, filled out properly, and the project identifiable		·		
Were Meth	od 5035 sampling containers present?				
	what time were they transferred to freezer?				
	es arrive unbroken/unopened? yy missing / extra samples?				
	in the appropriate containers for indicated tests?				
	labels present, in good condition and complete?				
	ntainer count match the COC?				
	ple labels agree with custody papers?				
	nt amount of sample sent for tests requested?				
	nge the hold time in LIMS for unpreserved VOAs?				
Did you cha	nge the hold time in LIMS for preserved terracores?				
Are bubbles	> 6mm absent in VOA samples?				
Was the cile	nt contacted concerning this sample delivery?				
If YES,	who was called? By Date:				
Section 5:			YES	NO ·	N/A
	ples appropriately preserved? (If N/A, skip the rest of section 5)				
	ck preservatives for all bottles for each sample?				
•	ument your preservative check?	L	لـــــــــــــــــــــــــــــــــــــ		
	o lot#, pH strip lot#, pH strip lot#,				
Preservative			•		
□ H2SO4 k		n/at _			
I					
☐ HCL lota		n/at _			
☐ HNO3 Id	til added to samples	n/at [
☐ HNOS Id ☐ NaOH Id	til added to samples				
☐ HNOS lo ☐ NaOH lo Section 6:	til added to samples	n/at [
☐ HNOS lo ☐ NaOH lo Section 6:	til added to samples c	n/at [
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Detections Summary for 307679

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location : Resample Compliance-2/27/19

Client Sample ID : UP-I-001 Laboratory Sample ID : 307679-001

No Detections

Page 1 of 1 8.0



	Tota	ıl Cyanide	
Lab #:	307679	Location:	Resample Compliance-2/27/19
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	268177
Field ID:	UP-I-001	Sampled:	02/27/19
Matrix:	Water	Received:	02/27/19
Units:	mg/L	Prepared:	02/27/19
Diln Fac:	1.000	Analyzed:	02/28/19

Type	Lab ID	Result	RL
SAMPLE	307679-001	ND	0.010
BLANK	QC966472	ND	0.010

ND= Not Detected RL= Reporting Limit

Page 1 of 1



Batch QC Report

	Tota	al Cyanide	
Lab #:	307679	Location:	Resample Compliance-2/27/19
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	268177
Field ID:	ZZZZZZZZZ	Sampled:	02/27/19
MSS Lab ID:	307710-001	Received:	02/27/19
Matrix:	Water	Prepared:	02/27/19
Units:	mg/L	Analyzed:	02/28/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC966473		0.2000	0.1816	91	75-120		
MS	QC966474	<0.01000	0.2000	0.1003	50 *	56-120		
MSD	QC966475		0.2000	0.1001	50 *	56-120	0	25

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference Page 1 of 1

Attachment 16 Analytical Report on Resampling #14





Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 9471O, Phone (510) 486-0900

Laboratory Job Number 307726 ANALYTICAL REPORT

Pacific Gas & Electric

4801 Oakport Street Oakland, CA 94601

Project : STANDARD

Location : Resample Compliance (2/28/19)

Level : II

Sample ID UP I-001

<u>Lab ID</u> 307726-001

Date: 03/01/2019

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:

Haley Campbell Project Manager

haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001



CASE NARRATIVE

Laboratory number: 307726

Client: Pacific Gas & Electric

Location: Resample Compliance (2/28/19)

Request Date: 02/28/19
Samples Received: 02/28/19

This data package contains sample and QC results for one water sample, requested for the above referenced project on 02/28/19. The sample was received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recoveries were observed for cyanide in the MS/MSD for batch 268177; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

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Portlon Se	Samples received in a cooler? Yes, how many? Dino (skip Section 3 is			<u> </u>	
Siptema Zi Kananalar	Sample Temp (*C):				
u uo cacisi	Sample Temp (°C): 4.0 using IR Gun # 2A, or 1 B 2 Samples received on ice directly from the field. Cooling process had begun	•			
If in cooler:	Date Opened 2/28/19 By (print) At (sign)			-	•
•	Shipping Info (if applicable)			-	
	Are custody seals present? 🗵 No, or 🗆 Yes. If yes, where? 🗆 on cooler, 🗖 on san		J on pa	ckage	
	☐ Date: How many ☐ Signature, ☐ initials, ☐ None	•			
	Were custody seeks intact upon arrival? ☐ Yes ☐ No ☐ N/A				
Section 3:	Important : Notify PM if temperatu	re exce	eds 6°C	or arrivo	frozer
Packing in a	poler: (If other, describe)				
	ble Wrap, 🗆 Foam blocks, 🗆 Bags, 🗆 None, 🗆 Cloth material, 🗅 Cardboard, 🗅 Styroft	am, 🗆	Paper t	owels:	
	received on ice directly from the field. Cooling process had begun		•		
	wad: □ Wet, □ Blue/Gal, □ None Temperature blank(s) inclus	led? 🗀	Yes, [] No	
	e measured using 🛘 Thermometer ID: or {R Gun # 🗖 A 🚨 f				
-	o (°C): #1:#2:#3:#4:#5:#6:	#	7:		
Section 4:			YES	NO	N/A
	ly papers dry, filled out properly, and the project identifiable				
	nd 5035 sampling containers present?				
	what time were they transferred to freezer?				
Did all bott	es arrive unbroken/unopened?				
	ry missing / extra samples?			(
	in the appropriate containers for indicated tests?				
Are sample	labels present, in good condition and complete?				
Does the co	ntainer count metch the COC?				
	ple labels agree with custody papers?				
	nt amount of sample sent for tests requested?				
	nge the hold time in LIMS for unpreserved VQAs?				
	nge the hold time in LIMS for preserved terracores?				
	> 6mm absent in VOA samples?				
	int contacted concerning this sample delivery?				
If YES,	who was called? By Date:				
Section 5:			YES	NO	NA
	ples appropriately preserved? (If N/A, skip the rest of section 5)				٠/
	ck preservatives for all bottles for each sample?				
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Preservativ					
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Detections Summary for 307726

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location : Resample Compliance (2/28/19)

Client Sample ID : UP I-001 Laboratory Sample ID : 307726-001

No Detections

Page 1 of 1 8.0



	Total Cyanide											
Lab #:	307726	Location: Resample Compliance (2/28/19)										
Client:	Pacific Gas & Electric	Prep: METHOD										
Project#:	STANDARD	Analysis: SM4500CN-C,E										
Analyte:	Cyanide	Batch#: 268177										
Field ID:	UP I-001	Sampled: 02/28/19										
Matrix:	Water	Received: 02/28/19										
Units:	mg/L	Analyzed: 02/28/19										
Diln Fac:	1.000											

Type	Lab ID	Result	RL	Prepared
SAMPLE	307726-001	ND	0.010	02/28/19
BLANK	QC966472	ND	0.010	02/27/19

ND= Not Detected RL= Reporting Limit Page 1 of 1

2.0



Batch QC Report

	Total Cyanide											
Lab #:	307726	Location: Resample Compliance (2/28/19)										
Client:	Pacific Gas & Electric	Prep: METHOD										
Project#:	STANDARD	Analysis: SM4500CN-C,E										
Analyte:	Cyanide	Batch#: 268177										
Field ID:	ZZZZZZZZZ	Sampled: 02/27/19										
MSS Lab ID:	307710-001	Received: 02/27/19										
Matrix:	Water	Prepared: 02/27/19										
Units:	mg/L	Analyzed: 02/28/19										
Diln Fac:	1.000											

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC966473		0.2000	0.1816	91	75-120		
MS	QC966474	<0.01000	0.2000	0.1003	50 *	56-120		
MSD	QC966475		0.2000	0.1001	50 *	56-120	0	25

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference Page 1 of 1



March 13, 2019



Mailing Address:
Pacific Gas & Electric Company
Gateway Generating Station
3225 Wilbur Ave.
Antioch, CA 94509
(925) 522-7801

Michael Auer Delta Diablo (DD) 2500 Pittsburg-Antioch Hwy. Antioch, CA 94509-1373

Reference:

Pacific Gas and Electric Company - Gateway Generating Station (GGS)

DDSD Industrial Wastewater Discharge Permit

Permit Number: 0208841-C

Subject:

Request: Exemption from 126 Priority Pollutants Applicability

Dear Mr. Auer,

With reference to 40 CFR 403.12(e)(2), 40 CFR 423.17(d)(2) and Section D.3 of the Industrial Wastewater Discharge Permit (0208841-C), the PG&E Gateway Generating Station (GGS) respectfully requests to forego the monitoring requirement on the Categorical Waste Stream based on the following premises:

- 1. We understand that the monitoring for the categorical 126 criteria pollutants resulted from GGS operation of the Wet Surface Air Condenser (WSAC).
- The attached certification from Nalco, indicates that the use of indicated products at the WSAC and elsewhere in the plant will not contribute detectable concentrations of Priority Pollutants listed in 40 CFR 423 to the effluent by the criteria specified in 40 CFR 136, and will not contribute listed priority pollutants to the discharge stream at concentrations greater than 10 parts per billion (ppb).
- 3. The attached Closure Report on the cyanide event of September 27, 2018 clearly indicate the "false positive" impact of sodium hydroxide preservation of samples on the result of cyanide analysis.
- The attached Closure Report demonstrates the completion of two consecutive clean results (<10 ppb) on cyanide resampling

If you have any questions about this request, please feel free to contact Angel Espiritu at 925-522-7838, 510-861-1597, or at abe4@pge.com. Thank you.

Sincerely,

Tim Wisdom

Senior Plant Manager

Tim Wisdom

Attachment: a/s



March 07, 2019

Angel B. Espiritu Pacific Gas & Electric – Gateway Generating Station Sr. Environmental Consultant-Environmental Compliance Manager

To Whom It May Concern

With respect to your request for information regarding the following list of products and whether these products contain chemicals present on the Priority Pollutants List Appendix A (Total Toxic Organics), and Appendix B (40 CFR part 423-126 Priority Pollutants).

- NALCO® BT-3400
- 3D TRASAR™ 3DT447
- NALCO® TRAC107

- STABREX™ ST70
- NALCO® 5711

These products do not contain materially identified components as contained in 40 CFR 423 (Appendix A to Part 423-126 Priority Pollutants) either as a formulation component or as a known contaminant. Use of these products will not contribute detectable concentrations of Priority Pollutants listed in 40 CFR 423 to the effluent by the criteria specified in 40 CFR 136, and will not contribute listed priority pollutants to the discharge at concentrations greater than 10 ppb

This information is provided in good faith and is believed accurate as of the date of this letter based on a review of current composition data and information supplied by the vendors. No warranty is expressed or implied. Liability is expressly disclaimed.



Please contact your local Sales Representative if you have additional questions regarding Nalco Water products.

Sincerely,

Nicolás Martin de Eugenio

Product Stewardship North America

PRODUCT, SOLUTIONS & INNOVATION MARKETING





Mailing Address:
Pacific Gas & Electric Company
Gateway Generating Station
3225 Wilbur Ave.
Antioch, CA 94509
(925) 522-7801

Mar 8, 2019

Michael Auer Delta Diablo District 2500 Pittsburg-Antioch Hwy. Antioch, CA 94509-1373

Reference: Pacific Gas and Electric Company - Gateway Generating Station (GGS)

Delta Diablo Industrial Wastewater Discharge Permit Number: 0208841-C

Subject: Closure Report on Cyanide Event of September 2018

Dear Mr. Auer,

This report submits the timeline of activities that GGS implemented as a result of the cyanide exceedance event during the 9/19/2018 semi-annual monitoring of the categorical waste stream. The activities include investigation of the plant's operation processes to identify potential sources of cyanide contamination, clean up of process/storage waste water tanks to remove accumulated debris and sediment, and resampling/analysis of waste streams. This report also submits the results of two consecutive resamplings with non-detectable (<10 parts per billion, ppb) cyanide concentrations.

9/19/2018: The semi-annual monitoring of the categorical waste stream was conducted.

9/27/2018: The analytical result on semi-annual monitoring was received. The cyanide limit (of 0.01 mg/L, or 10 ppb) was exceeded (with 0.047 mg/L, or 47 ppb)

<u>9/27/2018</u>: Notification of exceedance was submitted to the District. GGS suspected a "false positive" on the result. (See Attachment 1 – Notification to Delta Diablo on Cyanide Exceedance)

<u>10/30/2018</u>: The <u>first resampling</u> for cyanide was conducted. Following the recommendations from the District, the samples were collected not from the compliance (sampling) point but from the underground tank (Tiger Pit), which is prior to the compliance point in the plant's process flow. Split samples were collected and sent for analysis to three separate ELAP certified laboratories. All samples were pre-treated with sodium thiosulfate. Each laboratory received two split samples. One sample was preserved with sodium hydroxide the other was not. This approach aims to address the concern on "false positive" results. The samples were analyzed as immediately as feasible to prevent the possible degradation of the analyte over time on the un-preserved samples.

Of the three laboratories, two reported detection levels on cyanide (> 10 ppb) in the preserved samples, but only one in the un-preserved samples. Also, the concentration of cyanide in this un-preserved sample was lower (slightly above the detection level) than in the preserved sample (14 ppb to 21 ppb). The results on this first resampling clearly indicate the "false positive" impact of sodium hydroxide preservation on the cyanide analysis result. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 3 - Analytical Report on Resampling #1.)

<u>11/07/2018</u>: The <u>second resampling</u> on cyanide was collected and analyzed. This is to validate the findings of the first resampling. All results from three laboratories were non-detectable (ND <10 ppb) for both preserved and un-preserved samples. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 4 – Analytical Report on Resampling #2.)

11/24/2018: The third resampling on cyanide was collected and analyzed. The results indicated non-detectable (<10 ppb) concentration in un-preserved sample, and 12 ppb in the preserved sample. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 5 – Analytical Report on Resampling #3.)

<u>12/04/2018</u>: The <u>fourth resampling</u> on cyanide was collected and analyzed. The results in both unpreserved and preserved samples were above detection levels, 32 ppb and 30 ppb, respectively. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 6 – Analytical Report on Resampling #4.)

<u>12/11/2018</u>: The <u>fifth resampling</u> on cyanide was collected and analyzed. The results in both unpreserved and preserved samples were above detection levels, 18 ppb and 13 ppb, respectively. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 7 – Analytical Report on Resampling #5.)

<u>12/14/2018</u>: The <u>sixth resampling</u> on cyanide was collected and analyzed. The results indicated 20 ppb concentration in un-preserved sample, and ND in the preserved sample. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 8 – Analytical Report on Resampling #6.)

<u>12/18/2018</u>: The <u>seventh resampling</u> on cyanide was collected and analyzed. The results in both unpreserved and preserved samples were above detection levels, 28 ppb. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 9 – Analytical Report on Resampling #7.)

1/10/2019: The eighth resampling on cyanide was collected and analyzed. Following the guidance by the District, two sets of samples were collected: one collected by the laboratory sampler, the other by GGS laboratory technician. Both samplers follow the standard sampling procedure. The samples were not preserved. The results in both samples were above detection levels, 51 ppb and 55 ppb, respectively. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 10 – Analytical Report on Resampling #8.)

<u>1/16/2019</u>: The <u>ninth resampling</u> on cyanide was collected and analyzed. On this resampling, GGS investigated the plant's operational processes. This approach aims to identify the potential source/s of cyanide contamination in the wastewater streams prior to and including the Tiger Pit. The source water supply form the City was also sampled. Of the twelve samples, all had non-detectable (ND<10 ppb) concentrations excepting the sample from the Hammond Tank with 26 ppb. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 11 – Analytical Report on Resampling #9.)

1/29/2019: The Hammond Tank was emptied and cleaned-up. GGS suspected that the algal growth inside the tank might have contributed to the above detection level concentration in ninth resampling.

<u>2/7/2019</u>: The <u>tenth resampling</u> on cyanide was collected and analyzed. Three samples were collected: from the Tiger Pit, Hammond Tank, and Source Water. Of these three samples only that which was

collected from the Tiger Pit had detectable concentration. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 12 – Analytical Report on Resampling #10.)

<u>2/11/2019</u>: The <u>eleventh resampling</u> on cyanide was collected and analyzed. Two sets of split samples were collected from the Tiger Pit and RO Reject, and sent to two separate ELAP certified laboratories. The results were closely consistent between the two laboratories. Only the samples that were collected from the Tiger Pit had detectable concentrations. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 13 – Analytical Report on Resampling #11.)

2/20/2019: The Tiger Pit was emptied and cleaned-up.

2/21/2019: The Waste Water Tank was emptied and cleaned-up.

<u>2/25/2019</u>: The <u>twelfth resampling</u> on cyanide was collected and analyzed. Four samples were collected: from the Tiger Pit, Hammond Tank, RO Reject, and Source Water. The results indicated non-detectable concentration (ND<10 ppb) in all samples. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 14 – Analytical Report on Resampling #12.)

2/27/2019: The thirteenth resampling on cyanide was collected and analyzed. The analytical report on the sample collected from the compliance point indicated non-detectable concentration (ND<10 ppb). (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 15 – Analytical Report on Resampling #13.)

2/28/2019: The fourteenth resampling on cyanide was collected and analyzed. The analytical report on the sample collected from the compliance point indicated non-detectable concentration (ND<10 ppb). (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 16 – Analytical Report on Resampling #14.)

Based on the result of the thirteenth and fourteenth resamplings, GGS believes that the cyanide concentrations of the waste water streams in the system are now below the permit limit.

If you have any questions about this report, please feel free to contact Angel Espiritu at 925-522-7838, 510-861-1597, or at abe4@pge.com. Thank you.

Sincerely,

Tim Wisdom Senior Plant Manager

Attachment: a/s

Attachment 1 Notification to Delta Diablo on Cyanide Exceedance (09/27/2018)

Espiritu, Angel

From: Espiritu, Angel

Sent: Thursday, September 27, 2018 5:40 PM

To: 'Auer, Michael'

Cc: Wisdom, Tim; Price, Charles; Hammond, David

Subject: Permit Number:0208841-C PG&E Gateway Generating Station

Attachments: 1809780.pdf

Importance: High

Hi Mike,

This is to comply Section F.8 of the Industrial Discharge Permit. Attached is a copy of analytical results on the semi-annual monitoring of the categorical flow. The results on total cyanide is 47 ppb. The limit is 10 ppb. Please let me know if you have questions. I will be off of work tomorrow. Thank you.

Angel B. Espiritu

Pacific Gas & Electric – Gateway Generating Station Sr. Environmental Consultant-Environmental Compliance Manager 3225 Wilbur Avenue, Antioch, CA 94509 925-522-7838, 510-861-1597 (Cell) ABE4@pge.com

From: Yen Cao <yen.cao@mccampbell.com> On Behalf Of main@mccampbell.com

Sent: Thursday, September 27, 2018 4:20 PM

To: Espiritu, Angel <ABE4@pge.com>

Cc: Hankins, Adam <A1HE@pge.com>; Laurin, Jeremy <J5Ld@pge.com>; Wisdom, Tim <T1WY@pge.com> **Subject:** PARTIAL Analytical Report for Project: Semi-Annually Sampling (September 2018) [MAI WO#: 1809780]

*****CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.****

Angel,

Attached is your PARTIAL analytical report. The final report and invoice will follow upon completion of the Dioxins and subcontracted results.

Best regards,

Uen Cao

McCampbell Analytical, Inc.

Ph: 925-252-9262 Fx: 925-252-9269 www.mccampbell.com

This message and or data is intended for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If you are not the intended recipient, you are hereby notified that any use, dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone, and delete this message from your email. Thank You.

Glossary of Terms & Qualifier Definitions

Client: PG&E Gateway Generating Station

Project: Semi-Annually Sampling (September 2018)

WorkOrder: 1809780

Glossary Abbreviation

%D Serial Dilution Percent Difference

95% Interval 95% Confident Interval

DF Dilution Factor

DI WET (DISTLC) Waste Extraction Test using DI water

DISS Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)

DLT Dilution Test (Serial Dilution)

DUP Duplicate

EDL Estimated Detection Limit

ERS External reference sample. Second source calibration verification.

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

N/A Not Applicable

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PDS Post Digestion Spike

PDSD Post Digestion Spike Duplicate

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value

SPLP Synthetic Precipitation Leachate Procedure

ST Sorbent Tube

TCLP Toxicity Characteristic Leachate Procedure

TEQ Toxicity Equivalents

WET (STLC) Waste Extraction Test (Soluble Threshold Limit Concentration)



Analytical Report

Client: PG&E Gateway Generating Station

Date Received: 9/19/18 13:45

Date Prepared: 9/19/18

Semi-Annually Sampling (September 2018) **Project:**

WorkOrder: 1809780

Extraction Method: E608/SW3620B

 μ g/L

Analytical Method: E608 **Unit:**

Organochlorine Pesticides + PCBs w/ Florisil Clean-up

Client ID	Lab ID	Matrix		Date Co	ollected	Instrument	Batch ID
I-001	1809780-001E	Water		09/19/20	18 11:10	GC22 09211811.D	165139
<u>Analytes</u>	<u>Result</u>	<u>M</u>	<u>IDL</u>	<u>RL</u>	<u>DF</u>		Date Analyzed
Aldrin	ND	0.	.00028	0.0010	1		09/21/2018 15:03
a-BHC	ND	0.	.00031	0.0010	1		09/21/2018 15:03
b-BHC	ND	0.	.00069	0.0010	1		09/21/2018 15:03
d-BHC	ND	0.	.00014	0.0010	1		09/21/2018 15:03
g-BHC	ND	0.	.00045	0.0010	1		09/21/2018 15:03
Chlordane (Technical)	ND	0.	.0023	0.020	1		09/21/2018 15:03
a-Chlordane	ND	0.	.00085	0.0010	1		09/21/2018 15:03
g-Chlordane	ND	0.	.00015	0.0010	1		09/21/2018 15:03
p,p-DDD	ND	0.	.00011	0.0010	1		09/21/2018 15:03
p,p-DDE	ND	0.	.00018	0.0010	1		09/21/2018 15:03
p,p-DDT	ND	0.	.00017	0.0010	1		09/21/2018 15:03
Dieldrin	ND	0.	.00014	0.0010	1		09/21/2018 15:03
Endosulfan I	ND	0.	.00011	0.0010	1		09/21/2018 15:03
Endosulfan II	ND	0.	.00046	0.0010	1		09/21/2018 15:03
Endosulfan sulfate	ND	0.	.00033	0.0020	1		09/21/2018 15:03
Endrin	ND	0.	.00018	0.0010	1		09/21/2018 15:03
Endrin aldehyde	ND	0.	.00053	0.0010	1		09/21/2018 15:03
Endrin ketone	ND	0.	.00026	0.0010	1		09/21/2018 15:03
Heptachlor	ND	0.	.00041	0.0010	1		09/21/2018 15:03
Heptachlor epoxide	ND	0.	.00025	0.0010	1		09/21/2018 15:03
Methoxychlor	ND	0.	.00012	0.0010	1		09/21/2018 15:03
Toxaphene	ND	0.	.0020	0.020	1		09/21/2018 15:03
Aroclor1016	ND	0.	.0019	0.020	1		09/21/2018 15:03
Aroclor1221	ND	0.	.0024	0.020	1		09/21/2018 15:03
Aroclor1232	ND	0.	.0038	0.020	1		09/21/2018 15:03
Aroclor1242	ND	0.	.0028	0.020	1		09/21/2018 15:03
Aroclor1248	ND	0.	.0018	0.020	1		09/21/2018 15:03
Aroclor1254	ND	0.	.0015	0.020	1		09/21/2018 15:03
Aroclor1260	ND	0.	.0028	0.020	1		09/21/2018 15:03
PCBs, total	ND	0.	.020	0.020	1		09/21/2018 15:03
Surrogates	<u>REC (%)</u>			<u>Limits</u>			
Decachlorobiphenyl	97			14-168			09/21/2018 15:03
Analyst(s): CK							

Analytical Report

Client:PG&E Gateway Generating StationWorkOrder:1809780Date Received:9/19/18 13:45Extraction Method:E624Date Prepared:9/20/18Analytical Method:E624

Project: Semi-Annually Sampling (September 2018) Unit: μg/L

Acrolein, Acrylonitrile, & 2-Chloroethyl Vinyl Ether

		•	•	•	
Client ID	Lab ID	Matrix	Date C	Collected Instrument	Batch ID
I-001	1809780-001C	Water	09/19/20	018 11:10 GC28 0920181	5.D 165341
<u>Analytes</u>	Result		<u>RL</u>	<u>DF</u>	Date Analyzed
Acrolein (Propenal)	ND		5.0	1	09/20/2018 19:05
Acrylonitrile	ND		2.0	1	09/20/2018 19:05
2-Chloroethyl Vinyl Ether	ND		1.0	1	09/20/2018 19:05
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	115		78-141		09/20/2018 19:05
Analyst(s): JEM					



Analytical Report

Client: PG&E Gateway Generating Station

Date Received: 9/19/18 13:45

Date Prepared: 9/24/18

Project: Semi-Annually Sampling (September 2018)

WorkOrder: 1809780

Extraction Method: E624

Analytical Method: E624 **Unit:** μ g/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Co	ollected	Instrument	Batch ID
I-001	1809780-001B	Water	09/19/20	18 11:10	GC10 09241810.D	165451
<u>Analytes</u>	Result		<u>RL</u>	<u>DF</u>		Date Analyzed
Benzene	ND		0.50	1		09/24/2018 13:31
Bromodichloromethane	1.5		0.50	1		09/24/2018 13:31
Bromoform	ND		0.50	1		09/24/2018 13:31
Bromomethane	ND		0.50	1		09/24/2018 13:31
Carbon tetrachloride	ND		0.50	1		09/24/2018 13:31
Chlorobenzene	ND		0.50	1		09/24/2018 13:31
Chloroethane	ND		0.50	1		09/24/2018 13:31
Chloroform	1.2		0.50	1		09/24/2018 13:31
Chloromethane	ND		0.50	1		09/24/2018 13:31
Dibromochloromethane	ND		0.50	1		09/24/2018 13:31
1,2-Dibromoethane (EDB)	ND		0.50	1		09/24/2018 13:31
1,2-Dichlorobenzene	ND		0.50	1		09/24/2018 13:31
1,3-Dichlorobenzene	ND		0.50	1		09/24/2018 13:31
1,4-Dichlorobenzene	ND		0.50	1		09/24/2018 13:31
1,1-Dichloroethane	ND		0.50	1		09/24/2018 13:31
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1		09/24/2018 13:31
1,1-Dichloroethene	ND		0.50	1		09/24/2018 13:31
trans-1,2-Dichloroethene	ND		0.50	1		09/24/2018 13:31
1,2-Dichloropropane	ND		0.50	1		09/24/2018 13:31
cis-1,3-Dichloropropene	ND		0.50	1		09/24/2018 13:31
trans-1,3-Dichloropropene	ND		0.50	1		09/24/2018 13:31
Ethylbenzene	ND		0.50	1		09/24/2018 13:31
Methyl-t-butyl ether (MTBE)	ND		0.50	1		09/24/2018 13:31
Methylene chloride	ND		2.0	1		09/24/2018 13:31
1,1,2,2-Tetrachloroethane	ND		0.50	1		09/24/2018 13:31
Tetrachloroethene	ND		0.50	1		09/24/2018 13:31
Toluene	ND		0.50	1		09/24/2018 13:31
1,2,4-Trichlorobenzene	ND		0.50	1		09/24/2018 13:31
1,1,1-Trichloroethane	ND		0.50	1		09/24/2018 13:31
1,1,2-Trichloroethane	ND		0.50	1		09/24/2018 13:31
Trichloroethene	ND		0.50	1		09/24/2018 13:31
Trichlorofluoromethane	ND		0.50	1		09/24/2018 13:31
Vinyl chloride	ND		0.50	1		09/24/2018 13:31
m,p-Xylene	ND		0.50	1		09/24/2018 13:31
o-Xylene	ND		0.25	1		09/24/2018 13:31
Xylenes, Total	ND		0.25	1		09/24/2018 13:31

Analytical Report

Client:PG&E Gateway Generating StationWorkOrder:1809780Date Received:9/19/18 13:45Extraction Method:E624Date Prepared:9/24/18Analytical Method:E624

Project: Semi-Annually Sampling (September 2018) Unit: μg/L

Volatile Organics						
Client ID	Lab ID M	Iatrix	Date Collected Instrument	Batch ID		
I-001	1809780-001B V	Vater	09/19/2018 11:10 GC10 09241810.D	165451		
Analytes	<u>Result</u>		<u>RL</u> <u>DF</u>	Date Analyzed		
Surrogates	REC (%)		<u>Limits</u>			
Dibromofluoromethane	104		78-141	09/24/2018 13:31		
Toluene-d8	93		78-129	09/24/2018 13:31		
4-BFB	86		61-140	09/24/2018 13:31		
Analyst(s): TK						



Analytical Report

Client: PG&E Gateway Generating Station

Date Received: 9/19/18 13:45

Date Prepared: 9/19/18

Project: Semi-Annually Sampling (September 2018)

WorkOrder: 1809780

Extraction Method: E625

Analytical Method: E625

Unit: $\mu g/L$

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Co	ollected Instrument	Batch ID
I-001	1809780-001D	Water	09/19/20	18 11:10 GC17 09261824.D	165166
Analytes	<u>Result</u>		<u>RL</u>	<u>DF</u>	Date Analyzed
Acenaphthene	ND		0.19	20	09/26/2018 20:45
Acenaphthylene	ND		0.19	20	09/26/2018 20:45
Anthracene	ND		0.19	20	09/26/2018 20:45
Benzidine	ND		96	20	09/26/2018 20:45
Benzo (a) anthracene	ND		0.38	20	09/26/2018 20:45
Benzo (a) pyrene	ND		0.19	20	09/26/2018 20:45
Benzo (b) fluoranthene	ND		0.096	20	09/26/2018 20:45
Benzo (g,h,i) perylene	ND		0.38	20	09/26/2018 20:45
Benzo (k) fluoranthene	ND		0.19	20	09/26/2018 20:45
Benzyl Alcohol	ND		96	20	09/26/2018 20:45
Bis (2-chloroethoxy) Methane	ND		19	20	09/26/2018 20:45
Bis (2-chloroethyl) Ether	ND		0.096	20	09/26/2018 20:45
Bis (2-chloroisopropyl) Ether	ND		0.19	20	09/26/2018 20:45
Bis (2-ethylhexyl) Adipate	ND		57	20	09/26/2018 20:45
Bis (2-ethylhexyl) Phthalate	6.9		0.76	20	09/26/2018 20:45
4-Bromophenyl Phenyl Ether	ND		19	20	09/26/2018 20:45
Butylbenzyl Phthalate	ND		38	20	09/26/2018 20:45
4-Chloroaniline	ND		0.38	20	09/26/2018 20:45
4-Chloro-3-methylphenol	ND		19	20	09/26/2018 20:45
2-Chloronaphthalene	ND		19	20	09/26/2018 20:45
2-Chlorophenol	ND		0.38	20	09/26/2018 20:45
4-Chlorophenyl Phenyl Ether	ND		19	20	09/26/2018 20:45
Chrysene	ND		0.19	20	09/26/2018 20:45
Dibenzo (a,h) anthracene	ND		0.19	20	09/26/2018 20:45
Dibenzofuran	ND		19	20	09/26/2018 20:45
Di-n-butyl Phthalate	ND		0.38	20	09/26/2018 20:45
1,2-Dichlorobenzene	ND		38	20	09/26/2018 20:45
1,3-Dichlorobenzene	ND		38	20	09/26/2018 20:45
1,4-Dichlorobenzene	ND		38	20	09/26/2018 20:45
3,3-Dichlorobenzidine	ND		0.38	20	09/26/2018 20:45
2,4-Dichlorophenol	ND		0.19	20	09/26/2018 20:45
Diethyl Phthalate	ND		0.38	20	09/26/2018 20:45
2,4-Dimethylphenol	ND		19	20	09/26/2018 20:45
Dimethyl Phthalate	ND		0.38	20	09/26/2018 20:45
4,6-Dinitro-2-methylphenol	ND		96	20	09/26/2018 20:45
2,4-Dinitrophenol	ND		9.6	20	09/26/2018 20:45
2,4-Dinitrotoluene	ND		0.48	20	09/26/2018 20:45

(Cont.)

Analytical Report

Client: PG&E Gateway Generating Station

Date Received: 9/19/18 13:45

Date Prepared: 9/19/18

Project: Semi-Annually Sampling (September 2018)

WorkOrder: 1809780

Extraction Method: E625 **Analytical Method:** E625

Unit: $\mu g/L$

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date C	ollected Instrument	Batch ID
I-001	1809780-001D	Water	09/19/20	018 11:10 GC17 09261824.D	165166
Analytes	Result		<u>RL</u>	DF	Date Analyzed
2,6-Dinitrotoluene	ND		0.19	20	09/26/2018 20:45
Di-n-octyl Phthalate	ND		2.4	20	09/26/2018 20:45
1,2-Diphenylhydrazine	ND		19	20	09/26/2018 20:45
Fluoranthene	ND		0.19	20	09/26/2018 20:45
Fluorene	ND		0.19	20	09/26/2018 20:45
Hexachlorobenzene	ND		0.096	20	09/26/2018 20:45
Hexachlorobutadiene	ND		0.19	20	09/26/2018 20:45
Hexachlorocyclopentadiene	ND		96	20	09/26/2018 20:45
Hexachloroethane	ND		0.19	20	09/26/2018 20:45
Indeno (1,2,3-cd) pyrene	ND		0.38	20	09/26/2018 20:45
Isophorone	ND		19	20	09/26/2018 20:45
2-Methylnaphthalene	ND		0.19	20	09/26/2018 20:45
2-Methylphenol (o-Cresol)	ND		19	20	09/26/2018 20:45
3 & 4-Methylphenol (m,p-Cresol)	ND		19	20	09/26/2018 20:45
Naphthalene	ND		0.19	20	09/26/2018 20:45
2-Nitroaniline	ND		96	20	09/26/2018 20:45
3-Nitroaniline	ND		96	20	09/26/2018 20:45
4-Nitroaniline	ND		96	20	09/26/2018 20:45
Nitrobenzene	ND		19	20	09/26/2018 20:45
2-Nitrophenol	ND		96	20	09/26/2018 20:45
4-Nitrophenol	ND		96	20	09/26/2018 20:45
N-Nitrosodiphenylamine	ND		19	20	09/26/2018 20:45
N-Nitrosodi-n-propylamine	ND		19	20	09/26/2018 20:45
Pentachlorophenol	ND		4.8	20	09/26/2018 20:45
Phenanthrene	ND		0.38	20	09/26/2018 20:45
Phenol	0.44		0.38	20	09/26/2018 20:45
Pyrene	ND		0.38	20	09/26/2018 20:45
Pyridine	ND		19	20	09/26/2018 20:45
1,2,4-Trichlorobenzene	ND		19	20	09/26/2018 20:45
2,4,5-Trichlorophenol	ND		0.96	20	09/26/2018 20:45
2,4,6-Trichlorophenol	ND		0.96	20	09/26/2018 20:45
N-Nitrosodimethylamine	ND		96	20	09/26/2018 20:45

Analytical Report

Client:PG&E Gateway Generating StationWorkOrder:1809780Date Received:9/19/18 13:45Extraction Method:E625Date Prepared:9/19/18Analytical Method:E625

Project: Semi-Annually Sampling (September 2018) Unit: μg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date C	ollected Instrument	Batch ID
I-001	1809780-001D	Water	09/19/20	018 11:10 GC17 09261824.D	165166
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	Date Analyzed
Surrogates	REC (%)		<u>Limits</u>		
2-Fluorophenol	38		23-101		09/26/2018 20:45
Phenol-d5	40		27-116		09/26/2018 20:45
Nitrobenzene-d5	44		29-116		09/26/2018 20:45
2-Fluorobiphenyl	61		29-112		09/26/2018 20:45
2,4,6-Tribromophenol	70		34-125		09/26/2018 20:45
Terphenyl-d14	88		23-136		09/26/2018 20:45

Analytical Report

Client: PG&E Gateway Generating Station WorkOrder: 1809780

Date Received:9/19/18 13:45Extraction Method:SM4500-CN EDate Prepared:9/24/18Analytical Method:SM4500-CN CE

Project: Semi-Annually Sampling (September 2018) Unit: μg/L

Cyanide, Total							
Client ID	Lab ID	Matrix	Date Co	ollected	Instrument		Batch ID
I-001	1809780-001A	Water	09/19/20	18 11:10	WC_SKALAR	092418A1_25	165431
Analytes	Result		<u>RL</u>	<u>DF</u>		<u>Date</u>	Analyzed
Total Cyanide	47		1.0	1		09/24	4/2018 12:48

Analyst(s): BM

Analytical Report

Client: PG&E Gateway Generating Station

Date Received: 9/19/18 13:45

Date Prepared: 9/19/18

Project: Semi-Annually Sampling (September 2018)

WorkOrder: 1809780

Extraction Method: E245.2

Analytical Method: E245.2

Unit: $\mu g/L$

Mercury by Cold Vapor Atomic Absorption

		1			
Client ID	Lab ID	Matrix	Date Collecto	ed Instrument	Batch ID
I-001	1809780-001F	Water	09/19/2018 11:	10 AA1 _16	165200
<u>Analytes</u>	Result		<u>RL</u> <u>DF</u>		Date Analyzed
Mercury	ND		0.20 1		09/20/2018 11:20

Analyst(s): JC

Analytical Report

Client: PG&E Gateway Generating Station

Date Received: 9/19/18 13:45

Date Prepared: 9/19/18

Project: Semi-Annually Sampling (September 2018)

WorkOrder: 1809780

Extraction Method: E200.8 **Analytical Method:** E200.8

Unit: $\mu g/L$

Priority Pollutant Metals

Client ID	Lab ID	Matrix	Date Co	ollected	Instrument	Batch ID
I-001	1809780-001F	Water	09/19/20	18 11:10	ICP-MS1 124SMPL.D	165141
<u>Analytes</u>	Result		<u>RL</u>	<u>DF</u>		Date Analyzed
Antimony	ND		0.50	1		09/21/2018 02:46
Arsenic	0.91		0.50	1		09/21/2018 02:46
Beryllium	ND		0.50	1		09/21/2018 02:46
Cadmium	ND		0.25	1		09/21/2018 02:46
Chromium	ND		0.50	1		09/21/2018 02:46
Copper	4.3		2.0	1		09/21/2018 02:46
Lead	ND		0.50	1		09/21/2018 02:46
Mercury	ND		0.050	1		09/21/2018 02:46
Nickel	1.5		0.50	1		09/21/2018 02:46
Selenium	ND		0.50	1		09/21/2018 02:46
Silver	ND		0.19	1		09/21/2018 02:46
Thallium	ND		0.50	1		09/21/2018 02:46
Zinc	61		15	1		09/21/2018 02:46
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>			
Terbium	101		70-130			09/21/2018 02:46
Analyst(s): ND						

Quality Control Report

Client: PG&E Gateway Generating Station

Date Prepared: 9/18/18

Date Analyzed: 9/18/18 - 9/19/18

Instrument: GC22 **Matrix:** Water

Project: Semi-Annually Sampling (September 2018)

WorkOrder: 1809780

BatchID: 165139

Extraction Method: E608/SW3620B

Analytical Method: E608

Unit: $\mu g/L$

Sample ID: MB/LCS/LCSD-165139

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Aldrin	ND	0.00028	0.0010	-	-	-
a-BHC	ND	0.00031	0.0010	-	-	-
b-BHC	ND	0.00069	0.0010	-	-	-
d-BHC	ND	0.00014	0.0010	-	-	-
g-BHC	ND	0.00045	0.0010	-	-	-
Chlordane (Technical)	ND	0.0023	0.020	-	-	-
a-Chlordane	ND	0.00085	0.0010	-	-	-
g-Chlordane	ND	0.00015	0.0010	-	-	-
p,p-DDD	ND	0.00011	0.0010	-	-	-
p,p-DDE	ND	0.00018	0.0010	-	-	-
p,p-DDT	ND	0.00017	0.0010	-	-	-
Dieldrin	ND	0.00014	0.0010	-	-	-
Endosulfan I	ND	0.00011	0.0010	-	-	-
Endosulfan II	ND	0.00046	0.0010	-	-	-
Endosulfan sulfate	ND	0.00033	0.0020	-	-	-
Endrin	ND	0.00018	0.0010	-	-	-
Endrin aldehyde	ND	0.00053	0.0010	-	-	-
Endrin ketone	ND	0.00026	0.0010	-	-	-
Heptachlor	ND	0.00041	0.0010	-	-	-
Heptachlor epoxide	ND	0.00025	0.0010	-	-	-
Methoxychlor	ND	0.00012	0.0010	-	-	-
Toxaphene	ND	0.0020	0.020	-	-	-
Aroclor1016	ND	0.0019	0.020	-	-	-
Aroclor1221	ND	0.0024	0.020	-	-	-
Aroclor1232	ND	0.0038	0.020	-	-	-
Aroclor1242	ND	0.0028	0.020	-	-	-
Aroclor1248	ND	0.0018	0.020	-	-	-
Aroclor1254	ND	0.0015	0.020	-	-	-
Aroclor1260	ND	0.0028	0.020	-	-	-
PCBs, total	ND	0.020	0.020	-	-	-
Surrogate Recovery						

Quality Control Report

Client: PG&E Gateway Generating Station

Date Prepared: 9/18/18

Date Analyzed: 9/18/18 - 9/19/18

Instrument: GC22 **Matrix:** Water

Project: Semi-Annually Sampling (September 2018)

WorkOrder: 1809780

BatchID: 165139

Extraction Method: E608/SW3620B

Analytical Method: E608

Unit: $\mu g/L$

Sample ID: MB/LCS/LCSD-165139

QC Summary Report for E608 w/ Florisil Clean-up

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aldrin	0.0349	0.0338	0.050	70	68	50-103	3.16	20
a-BHC	0.0375	0.0364	0.050	75	73	63-131	2.97	20
b-BHC	0.0327	0.0314	0.050	65	63	56-112	4.24	20
d-BHC	0.0406	0.0400	0.050	81	80	63-132	1.36	20
g-BHC	0.0363	0.0353	0.050	73	71	61-135	2.66	20
a-Chlordane	0.0343	0.0333	0.050	69	67	54-113	2.91	20
g-Chlordane	0.0359	0.0347	0.050	72	69	55-117	3.31	20
p,p-DDD	0.0340	0.0336	0.050	68	67	56-135	1.22	20
p,p-DDE	0.0365	0.0360	0.050	73	72	56-131	1.43	20
p,p-DDT	0.0344	0.0341	0.050	69	68	47-153	0.865	20
Dieldrin	0.0405	0.0396	0.050	81	79	67-152	2.31	20
Endosulfan I	0.0355	0.0344	0.050	71	69	56-137	3.29	20
Endosulfan II	0.0346	0.0338	0.050	69	68	50-113	2.61	20
Endosulfan sulfate	0.0344	0.0336	0.050	69	67	57-121	2.18	20
Endrin	0.0386	0.0377	0.050	77	75	60-150	2.47	20
Endrin aldehyde	0.0308	0.0304	0.050	62	61	47-121	1.07	20
Endrin ketone	0.0334	0.0326	0.050	67	65	48-130	2.44	20
Heptachlor	0.0350	0.0337	0.050	70	67	46-133	3.60	20
Heptachlor epoxide	0.0336	0.0324	0.050	67	65	54-105	3.61	20
Methoxychlor	0.0398	0.0389	0.050	80	78	54-135	2.20	20
Aroclor1016	0.132	0.129	0.15	88	86	54-103	2.44	20
Aroclor1260	0.124	0.125	0.15	83	83	42-121	0	20
Surrogate Recovery								
Decachlorobiphenyl	0.0354	0.0346	0.050	71	69	35-113	2.23	20

Quality Control Report

Client:PG&E Gateway Generating StationWorkOrder:1809780Date Prepared:9/20/18BatchID:165341Date Analyzed:9/20/18Extraction Method:E624Instrument:GC28Analytical Method:E624

Matrix: Water Unit: µg/L

Project: Semi-Annually Sampling (September 2018) Sample ID: MB/LCS/LCSD-165341

	QC Su	mmary l	Report fo	or E624					
Analyte	MB Result			RL	SPK Val		B SS REC		MB SS Limits
Acrolein (Propenal)	ND			5.0	-	-		-	
Acrylonitrile	ND			2.0	-	-		-	
2-Chloroethyl Vinyl Ether	ND			1.0	-	-		-	
Surrogate Recovery									
Dibromofluoromethane	31.1				25	12	24	8	33-139
Analyte	LCS Result	LCSD Result	SPK Val		LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acrolein (Propenal)	17.0	18.0	20		85	90	70-130	5.69	20
Acrylonitrile	15.9	16.0	20		80	80	70-130	0	20
2-Chloroethyl Vinyl Ether	22.5	22.2	20		112	111	70-130	1.36	20
Surrogate Recovery									
Dibromofluoromethane	30.0	29.8	25		120	119	83-139	0.666	20

Quality Control Report

 Client:
 PG&E Gateway Generating Station
 WorkOrder:
 1809780

 Date Prepared:
 9/24/18
 BatchID:
 165451

 Date Analyzed:
 9/24/18
 Extraction Method:
 E624

 Instrument:
 GC10
 Analytical Method:
 E624

 Matrix:
 Water
 Unit:
 μg/L

Project: Semi-Annually Sampling (September 2018) Sample ID: MB/LCS/LCSD-165451

QC Summary Report for E624

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
	Result		Val	70REC	Lillits
Benzene	ND	0.20	-	-	-
Bromodichloromethane	ND	0.50	-	-	-
Bromoform	ND	0.50	-	-	-
Bromomethane	ND	0.50	-	-	-
Carbon tetrachloride	ND	0.50	-	-	-
Chlorobenzene	ND	0.50	-	-	-
Chloroethane	ND	0.50	-	-	-
Chloroform	ND	0.50	-	-	-
Chloromethane	ND	0.50	-	-	-
Dibromochloromethane	ND	0.50	-	-	-
1,2-Dibromoethane (EDB)	ND	0.50	-	-	-
1,2-Dichlorobenzene	ND	0.50	-	-	-
1,3-Dichlorobenzene	ND	0.50	-	-	-
1,4-Dichlorobenzene	ND	0.50	-	-	-
1,1-Dichloroethane	ND	0.50	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.50	-	-	-
1,1-Dichloroethene	ND	0.50	-	-	-
trans-1,2-Dichloroethene	ND	0.50	-	-	-
1,2-Dichloropropane	ND	0.50	-	-	-
cis-1,3-Dichloropropene	ND	0.50	-	-	-
trans-1,3-Dichloropropene	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.50	-	-	-
Methylene chloride	6.05	2.0	-	-	-
Styrene	ND	0.50	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.50	-	-	-
Tetrachloroethene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
1,2,4-Trichlorobenzene	ND	0.50	-	-	-
1,1,1-Trichloroethane	ND	0.50	-	-	-
1,1,2-Trichloroethane	ND	0.50	-	-	-
Trichloroethene	ND	0.50	-	-	-
Trichlorofluoromethane	ND	0.50	-	-	-
Vinyl chloride	ND	0.50	-	-	-
m,p-Xylene	ND	0.25	-	-	-
o-Xylene	ND	0.25	-	-	-
Xylenes, Total	ND	0.25	-	-	_

Water

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Quality Control Report

Unit:

Client:PG&E Gateway Generating StationWorkOrder:1809780Date Prepared:9/24/18BatchID:165451Date Analyzed:9/24/18Extraction Method:E624Instrument:GC10Analytical Method:E624

Project: Semi-Annually Sampling (September 2018) Sample ID: MB/LCS/LCSD-165451

	QC Summary Report for E624							
Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits			
Surrogate Recovery								
Dibromofluoromethane	25.0		25	100	83-139			
Toluene-d8	23.7		25	95	87-125			
4-BFB	2.11		2.5	84	74-133			

Matrix:

Quality Control Report

Client:PG&E Gateway Generating StationWorkOrder:1809780Date Prepared:9/24/18BatchID:165451Date Analyzed:9/24/18Extraction Method:E624Instrument:GC10Analytical Method:E624

Matrix: Water Unit: µg/I

Project: Semi-Annually Sampling (September 2018) Sample ID: MB/LCS/LCSD-165451

QC Summary Report for E624

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Benzene	9.16	9.35	10	92	93	37-151	2.00	20
Bromodichloromethane	8.12	8.43	10	81	84	35-155	3.65	20
Bromoform	7.56	8.05	10	76	80	45-169	6.33	20
Bromomethane	14.8	14.1	10	148	141	1-242	4.80	20
Carbon tetrachloride	8.54	8.86	10	85	89	70-140	3.70	20
Chlorobenzene	8.85	9.16	10	88	92	37-160	3.40	20
Chloroethane	10.0	9.82	10	100	98	14-230	1.76	20
Chloroform	8.83	9.04	10	88	90	51-138	2.33	20
Chloromethane	5.61	5.68	10	56	57	1-273	1.20	20
Dibromochloromethane	8.09	8.54	10	81	85	53-149	5.37	20
1,2-Dibromoethane (EDB)	8.08	8.55	10	81	86	62-127	5.73	20
1,2-Dichlorobenzene	8.99	9.40	10	90	94	18-190	4.50	20
1,3-Dichlorobenzene	8.55	8.88	10	85	89	59-156	3.84	20
1,4-Dichlorobenzene	8.55	8.88	10	85	89	18-190	3.84	20
1,1-Dichloroethane	8.99	9.29	10	90	93	70-130	3.26	20
1,2-Dichloroethane (1,2-DCA)	7.76	8.03	10	78	80	49-155	3.44	20
1,1-Dichloroethene	9.84	10.0	10	98	100	1-234	2.00	20
trans-1,2-Dichloroethene	9.62	9.82	10	96	98	54-156	2.09	20
1,2-Dichloropropane	8.77	9.03	10	88	90	1-210	2.94	20
cis-1,3-Dichloropropene	8.01	8.42	10	80	84	1-227	4.93	20
trans-1,3-Dichloropropene	8.19	8.70	10	82	87	17-183	6.01	20
Ethylbenzene	9.09	9.45	10	91	94	37-162	3.85	20
Methyl-t-butyl ether (MTBE)	7.58	7.90	10	76	79	70-130	4.21	20
Methylene chloride	8.74	9.12	10	87	91	1-221	4.27	20
Styrene	8.46	8.71	10	85	87	54-135	2.98	20
1,1,2,2-Tetrachloroethane	7.83	8.44	10	78	84	46-157	7.43	20
Tetrachloroethene	9.18	9.52	10	92	95	64-148	3.63	20
Toluene	8.32	8.73	10	83	87	47-150	4.76	20
1,2,4-Trichlorobenzene	9.16	9.49	10	92	95	57-139	3.48	20
1,1,1-Trichloroethane	8.56	8.86	10	86	89	52-162	3.34	20
1,1,2-Trichloroethane	8.14	8.68	10	81	87	52-150	6.41	20
Trichloroethene	9.44	9.55	10	94	96	71-157	1.13	20
Trichlorofluoromethane	8.62	8.85	10	86	89	17-181	2.73	20
Vinyl chloride	9.79	9.68	10	98	97	1-251	1.16	20
m,p-Xylene	17.7	18.2	20	89	91	56-131	2.72	20
o-Xylene	8.76	9.04	10	88	90	62-126	3.10	20
Xylenes, Total	26.5	27.2	30	88	91	59-128	2.84	20

Quality Control Report

Client:PG&E Gateway Generating StationWorkOrder:1809780Date Prepared:9/24/18BatchID:165451Date Analyzed:9/24/18Extraction Method:E624Instrument:GC10Analytical Method:E624

Matrix: Water Unit: μg/L

Project: Semi-Annually Sampling (September 2018) Sample ID: MB/LCS/LCSD-165451

	QC Su	QC Summary Report for E624						
Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
Dibromofluoromethane	25.0	25.0	25	100	100	83-139	0	20
Toluene-d8	25.1	25.4	25	100	102	87-125	1.23	20
4-BFB	2.26	2.37	2.5	90	95	74-133	4.75	20

Quality Control Report

Client:PG&E Gateway Generating StationWorkOrder:1809780Date Prepared:9/19/18BatchID:165166Date Analyzed:9/19/18Extraction Method:E625Instrument:GC17Analytical Method:E625

Matrix: Water Analytical Method: E62:

Project: Semi-Annually Sampling (September 2018) Sample ID: MB/LCS/LCSD-165166

QC Summary Report for E625

	QC Summary Report for E022								
Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits				
Acenaphthene	ND	0.010	-	-	-				
Acenaphthylene	ND	0.010	-	-	-				
Anthracene	ND	0.010	-	-	-				
Benzidine	ND	5.0	-	-	-				
Benzo (a) anthracene	ND	0.020	-	-	-				
Benzo (a) pyrene	ND	0.010	-	-	-				
Benzo (b) fluoranthene	ND	0.0050	-	-	-				
Benzo (g,h,i) perylene	ND	0.020	-	-	-				
Benzo (k) fluoranthene	ND	0.010	-	-	-				
Benzyl Alcohol	ND	5.0	-	-	-				
Bis (2-chloroethoxy) Methane	ND	1.0	-	-	-				
Bis (2-chloroethyl) Ether	ND	0.0050	-	-	-				
Bis (2-chloroisopropyl) Ether	ND	0.010	-	-	-				
Bis (2-ethylhexyl) Adipate	ND	3.0	-	-	-				
Bis (2-ethylhexyl) Phthalate	ND	0.040	-	-	-				
4-Bromophenyl Phenyl Ether	ND	1.0	-	-	-				
Butylbenzyl Phthalate	ND	2.0	-	-	-				
4-Chloroaniline	ND	0.020	-	-	-				
4-Chloro-3-methylphenol	ND	1.0	-	-	-				
2-Chloronaphthalene	ND	1.0	-	-	-				
2-Chlorophenol	ND	0.020	-	-	-				
4-Chlorophenyl Phenyl Ether	ND	1.0	-	-	-				
Chrysene	ND	0.010	-	-	-				
Dibenzo (a,h) anthracene	ND	0.010	-	-	-				
Dibenzofuran	ND	1.0	-	-	-				
Di-n-butyl Phthalate	ND	0.020	-	-	-				
1,2-Dichlorobenzene	ND	2.0	-	-	-				
1,3-Dichlorobenzene	ND	2.0	-	-	-				
1,4-Dichlorobenzene	ND	2.0	-	-	-				
3,3-Dichlorobenzidine	ND	0.020	-	-	-				
2,4-Dichlorophenol	ND	0.010	-	-	-				
Diethyl Phthalate	ND	0.020	-	-	-				
2,4-Dimethylphenol	ND	1.0	-	-	-				
Dimethyl Phthalate	ND	0.020	-	-	-				
4,6-Dinitro-2-methylphenol	ND	5.0	-	-	-				
2,4-Dinitrophenol	ND	0.50	-	-	-				
2,4-Dinitrotoluene	ND	0.025	-	-	-				
2,6-Dinitrotoluene	ND	0.010	-	-	-				

Water

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Quality Control Report

Client:PG&E Gateway Generating StationWorkOrder:1809780Date Prepared:9/19/18BatchID:165166Date Analyzed:9/19/18Extraction Method:E625Instrument:GC17Analytical Method:E625

Project: Semi-Annually Sampling (September 2018) Sample ID: MB/LCS/LCSD-165166

OC Summary Report for E625

Unit:

	QC Summary F	Report for E025			
Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Di-n-octyl Phthalate	ND	0.12	-	-	-
1,2-Diphenylhydrazine	ND	1.0	-	-	-
Fluoranthene	ND	0.010	-	-	-
Fluorene	ND	0.010	-	-	-
Hexachlorobenzene	ND	0.0050	-	-	-
Hexachlorobutadiene	ND	0.010	-	-	-
Hexachlorocyclopentadiene	ND	5.0	-	-	-
Hexachloroethane	ND	0.010	-	-	-
Indeno (1,2,3-cd) pyrene	ND	0.020	-	-	-
Isophorone	ND	1.0	-	-	-
2-Methylnaphthalene	ND	0.010	-	-	-
2-Methylphenol (o-Cresol)	ND	1.0	-	-	-
3 & 4-Methylphenol (m,p-Cresol)	ND	1.0	-	-	-
Naphthalene	ND	0.010	-	-	-
2-Nitroaniline	ND	5.0	-	-	-
3-Nitroaniline	ND	5.0	-	-	-
4-Nitroaniline	ND	5.0	-	-	-
Nitrobenzene	ND	1.0	-	-	-
2-Nitrophenol	ND	5.0	-	-	-
4-Nitrophenol	ND	5.0	-	-	-
N-Nitrosodiphenylamine	ND	1.0	-	-	-
N-Nitrosodi-n-propylamine	ND	1.0	-	-	-
Pentachlorophenol	ND	0.25	-	-	-
Phenanthrene	ND	0.020	-	-	-
Phenol	ND	0.020	-	-	-
Pyrene	ND	0.020	-	-	-
Pyridine	ND	1.0	-	-	-
1,2,4-Trichlorobenzene	ND	1.0	-	-	-
2,4,5-Trichlorophenol	ND	0.050	-	-	-
2,4,6-Trichlorophenol	ND	0.050	-	-	-
N-Nitrosodimethylamine	ND	5.0	-	-	-

Matrix:

Water

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Quality Control Report

Unit:

Client:PG&E Gateway Generating StationWorkOrder:1809780Date Prepared:9/19/18BatchID:165166Date Analyzed:9/19/18Extraction Method:E625Instrument:GC17Analytical Method:E625

Project: Semi-Annually Sampling (September 2018) Sample ID: MB/LCS/LCSD-165166

	QC Summary Report for E625							
Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits			
Surrogate Recovery								
2-Fluorophenol	5.08		5	102	8-130			
Phenol-d5	5.37		5	107	5-130			
Nitrobenzene-d5	4.67		5	93	20-140			
2-Fluorobiphenyl	4.58		5	92	40-140			
2,4,6-Tribromophenol	5.51		5	110	16-180			
Terphenyl-d14	4.34		5	87	40-170			

Matrix:

Quality Control Report

Client:PG&E Gateway Generating StationWorkOrder:1809780Date Prepared:9/19/18BatchID:165166Date Analyzed:9/19/18Extraction Method:E625Instrument:GC17Analytical Method:E625

Matrix: Water Unit: µg/I

Project: Semi-Annually Sampling (September 2018) Sample ID: MB/LCS/LCSD-165166

QC Summary Report for E625

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acenaphthene	0.217	0.220	0.25	87	88	47-145	1.14	25
Acenaphthylene	0.207	0.212	0.25	83	85	33-145	2.35	25
Anthracene	0.210	0.216	0.25	84	86	27-133	2.92	25
Benzidine	17.0	18.3	25	68	73	43-106	7.53	25
Benzo (a) anthracene	0.197	0.200	0.25	79	80	33-143	1.28	25
Benzo (a) pyrene	0.226	0.222	0.25	90	89	17-163	1.97	25
Benzo (b) fluoranthene	0.231	0.211	0.25	92	84	24-159	9.15	25
Benzo (g,h,i) perylene	0.215	0.213	0.25	86	85	1-219	1.01	25
Benzo (k) fluoranthene	0.207	0.200	0.25	83	80	11-162	3.10	25
Benzyl Alcohol	26.3	23.7	25	105	95	53-117	10.3	25
Bis (2-chloroethoxy) Methane	4.70	4.86	5	94	97	33-184	3.21	25
Bis (2-chloroethyl) Ether	0.254	0.297	0.25	102	119	12-158	15.5	25
Bis (2-chloroisopropyl) Ether	0.270	0.256	0.25	108	102	36-166	5.47	25
Bis (2-ethylhexyl) Adipate	4.08	4.29	5	82	86	55-122	4.99	25
Bis (2-ethylhexyl) Phthalate	0.236	0.241	0.25	95	96	8-158	2.01	25
4-Bromophenyl Phenyl Ether	4.11	4.27	5	82	85	53-127	3.75	25
Butylbenzyl Phthalate	4.99	4.73	5	100	95	1-152	5.38	25
4-Chloroaniline	0.233	0.234	0.25	93	94	63-120	0.618	25
4-Chloro-3-methylphenol	4.55	4.62	5	91	92	22-147	1.54	25
2-Chloronaphthalene	4.62	4.66	5	92	93	60-118	0.892	25
2-Chlorophenol	0.237	0.216	0.25	95	87	23-134	9.26	25
4-Chlorophenyl Phenyl Ether	4.26	4.14	5	85	83	25-158	2.94	25
Chrysene	0.203	0.201	0.25	81	81	17-168	0	25
Dibenzo (a,h) anthracene	0.211	0.210	0.25	84	84	1-227	0	25
Dibenzofuran	4.35	4.38	5	87	88	64-122	0.679	25
Di-n-butyl Phthalate	0.228	0.236	0.25	91	95	1-118	3.69	25
1,2-Dichlorobenzene	4.27	4.02	5	85	80	32-129	6.14	25
1,3-Dichlorobenzene	4.31	4.22	5	86	84	1-172	2.27	25
1,4-Dichlorobenzene	4.48	4.22	5	90	84	20-124	5.99	25
3,3-Dichlorobenzidine	0.217	0.226	0.25	87	90	1-262	3.89	25
2,4-Dichlorophenol	0.243	0.241	0.25	97	96	39-135	1.01	25
Diethyl Phthalate	0.227	0.228	0.25	91	91	1-114	0	25
2,4-Dimethylphenol	4.72	4.85	5	94	97	32-119	2.58	25
Dimethyl Phthalate	0.220	0.223	0.25	88	89	1-112	1.55	25
4,6-Dinitro-2-methylphenol	17.5	18.1	25	70	72	59-123	3.29	25
2,4-Dinitrophenol	0.904	0.891	1.25	72	71	1-191	1.43	25
2,4-Dinitrotoluene	0.197	0.208	0.25	79	83	39-139	5.49	25
2,6-Dinitrotoluene	0.193	0.198	0.25	77	79	50-158	2.65	25

Quality Control Report

Client:PG&E Gateway Generating StationWorkOrder:1809780Date Prepared:9/19/18BatchID:165166Date Analyzed:9/19/18Extraction Method:E625Instrument:GC17Analytical Method:E625

Instrument:GC17Analytical Method:E625Matrix:WaterUnit:μg/L

Project: Semi-Annually Sampling (September 2018) Sample ID: MB/LCS/LCSD-165166

QC Summary Report for E625

	Q C Su		Q Summary Report for 2020									
Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit				
Di-n-octyl Phthalate	0.256	0.249	0.25	103	99	4-146	3.11	25				
1,2-Diphenylhydrazine	4.44	4.56	5	89	91	66-128	2.57	25				
Fluoranthene	0.213	0.219	0.25	85	88	26-137	2.78	25				
Fluorene	0.219	0.217	0.25	88	87	59-121	0.827	25				
Hexachlorobenzene	0.199	0.207	0.25	79	83	1-152	4.37	25				
Hexachlorobutadiene	0.224	0.222	0.25	89	89	24-116	0	25				
Hexachlorocyclopentadiene	18.6	18.2	25	74	73	36-109	1.84	25				
Hexachloroethane	0.213	0.199	0.25	85	80	40-113	6.69	25				
Indeno (1,2,3-cd) pyrene	0.219	0.215	0.25	88	86	1-171	1.95	25				
Isophorone	4.56	4.75	5	91	95	21-196	4.01	25				
2-Methylnaphthalene	0.249	0.237	0.25	100	95	58-122	5.01	25				
2-Methylphenol (o-Cresol)	5.55	5.07	5	111	101	55-121	9.14	25				
3 & 4-Methylphenol (m,p-Cresol)	4.91	4.70	5	98	94	58-121	4.41	25				
Naphthalene	0.215	0.214	0.25	86	86	21-133	0	25				
2-Nitroaniline	23.1	23.7	25	92	95	65-124	2.60	25				
3-Nitroaniline	22.1	22.2	25	88	89	67-125	0.295	25				
4-Nitroaniline	23.0	22.7	25	92	91	65-124	1.01	25				
Nitrobenzene	4.66	4.75	5	93	95	35-180	1.74	25				
2-Nitrophenol	22.3	23.3	25	89	93	29-182	4.22	25				
4-Nitrophenol	22.5	22.8	25	90	91	1-132	1.23	25				
N-Nitrosodiphenylamine	4.15	4.30	5	83	86	67-132	3.56	25				
N-Nitrosodi-n-propylamine	4.91	4.70	5	98	94	1-230	4.40	25				
Pentachlorophenol	1.12	1.13	1.25	90	91	14-176	1.15	25				
Phenanthrene	0.203	0.208	0.25	81	83	54-120	2.76	25				
Phenol	0.234	0.221	0.25	93	89	5-112	5.34	25				
Pyrene	0.202	0.202	0.25	81	81	52-115	0	25				
Pyridine	3.56	3.06	5	71	61	60-140	15.2	25				
1,2,4-Trichlorobenzene	4.46	4.53	5	89	91	44-142	1.65	25				
2,4,5-Trichlorophenol	0.218	0.226	0.25	87	90	62-124	3.17	25				
2,4,6-Trichlorophenol	0.234	0.232	0.25	93	93	37-144	0	25				
N-Nitrosodimethylamine	22.6	21.4	25	91	86	45-111	5.63	25				

Quality Control Report

Client:PG&E Gateway Generating StationWorkOrder:1809780Date Prepared:9/19/18BatchID:165166Date Analyzed:9/19/18Extraction Method:E625Instrument:GC17Analytical Method:E625

Matrix: Water Unit: µg/

Project: Semi-Annually Sampling (September 2018) Sample ID: MB/LCS/LCSD-165166

	QC Su	mmary l	Report for E625					
Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
2-Fluorophenol	5.14	4.81	5	103	96	29-140	6.60	25
Phenol-d5	5.67	5.34	5	113	107	38-148	5.94	25
Nitrobenzene-d5	5.20	5.24	5	104	105	31-152	0.775	25
2-Fluorobiphenyl	5.01	5.03	5	100	101	40-140	0.514	25
2,4,6-Tribromophenol	5.49	5.74	5	110	115	39-150	4.33	25
Terphenyl-d14	4.79	4.76	5	96	95	38-147	0.689	25

Quality Control Report

Client: PG&E Gateway Generating Station

Date Prepared: 9/24/18

Date Analyzed: 9/24/18 **Instrument:** WC_SKALAR

Matrix:

Project:

Analyte

Semi-Annually Sampling (September 2018)

Water

BatchID:

WorkOrder:

165431

1809780

Extraction Method: SM4500-CN E **Analytical Method:** SM4500-CN CE

Unit: μ g/L

Sample ID: MB/LCS/LCSD-165431

QC Summary Report	for SM4500-CN ⁻ CE	
MB Result	RL	

Total Cyanide ND 1.0

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Cyanide	40.5	41.4	40	101	103	80-120	1.99	20

Quality Control Report

Client: PG&E Gateway Generating Station WorkOrder: 1809780 **Date Prepared:** 9/19/18 **BatchID:** 165200 Date Analyzed: 9/20/18 **Extraction Method:** E245.2 **Instrument:** AA1 **Analytical Method:** E245.2 **Matrix:** Water **Unit:** $\mu g/L$

Project: Semi-Annually Sampling (September 2018) **Sample ID:** MB/LCS/LCSD-165200

QC Summary Report for Mercury					
Analyte	MB Result	RL			
Mercury	ND	0.20	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Mercury	1.76	1.76	2	88	88	85-115	0	20

Quality Control Report

Client:PG&E Gateway Generating StationWorkOrder:1809780Date Prepared:9/18/18BatchID:165141Date Analyzed:9/19/18Extraction Method:E200.8Instrument:ICP-MS2Analytical Method:E200.8

Matrix:WaterUnit:μg/LProject:Semi-Annually Sampling (September 2018)Sample ID:MB/LCS/LCSD-165141

QC Summary Report for Metals

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Antimony	ND	0.50	-	-	-
Arsenic	ND	0.50	-	-	-
Beryllium	ND	0.50	-	-	-
Cadmium	ND	0.25	-	-	-
Chromium	ND	0.50	-	-	-
Copper	ND	2.0	-	-	-
Lead	ND	0.50	-	-	-
Mercury	ND	0.050	-	-	-
Nickel	ND	0.50	-	-	-
Selenium	ND	0.50	-	-	-
Silver	ND	0.19	-	-	-
Thallium	ND	0.50	-	-	-
Zinc	ND	15	-	-	-

Surrogate Recovery

Terbium 758 750 101 70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Antimony	52.6	52.5	50	105	105	85-115	0	20
Arsenic	50.4	49.5	50	101	99	85-115	1.92	20
Beryllium	53.0	52.9	50	106	106	85-115	0	20
Cadmium	51.7	51.5	50	103	103	85-115	0	20
Chromium	51.6	51.3	50	103	103	85-115	0	20
Copper	52.0	51.9	50	104	104	85-115	0	20
Lead	50.1	49.8	50	100	100	85-115	0	20
Mercury	1.20	1.18	1.25	96	94	85-115	2.02	20
Nickel	52.5	51.5	50	105	103	85-115	1.96	20
Selenium	51.7	50.0	50	103	100	85-115	3.36	20
Silver	51.8	51.1	50	104	102	85-115	1.36	20
Thallium	48.0	47.9	50	96	96	85-115	0	20
Zinc	517	515	500	103	103	85-115	0	20
Surrogate Recovery								
Terbium	759	758	750	101	101	70-130	0	20

McCampbell Analytical, Inc.

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1809780

Bill to:

ClientCode: PGEA

Excel

EQuIS

✓ Email

HardCopy

☐ThirdParty

___J-flag

☐ WaterTrax ☐ WriteOn

EDF

Detection Summary

Dry-Weight

15 days; 5 days;

Report to:

Angel Espiritu
PG&E Gateway Generating Station

3225 Wilbur Avenue
Antioch, CA 94509
(925) 459-7212 FAX:

Email: abe4@pge.com

cc/3rd Party: A1HE@pge.com; J5Ld@pge.com;

PO:
Project: Semi-Annually Sampling (September 2018)

Angel Espiritu

PG&E Gateway Generating Station 3225 Wilbur Avenue

Antioch, CA 94509

Date Received:

Requested TATs:

09/19/2018

Date Logged: 09/19/2018

							Re	quested	l Tests (See leg	end belo	ow)			
Lab ID	Client ID	Matrix	Collection Date Hold	1	2	3	4	5	6	7	8	9	10	11	12
											•				
1809780-001	I-001	Water	9/19/2018 11:10	Н	Е	В	С	D	G	Α	F	F			

Test Legend:

1	1613_TCDD_W
5	625_SCSM_W
9	PP13MS_TTLC_W

2	608_W [J]
6	ASBESTOS_E100_1M_WW
10	

3	624_W
7	CN_SM4500CE_W
11	

4	624ACR+2CEVE_W
8	HG_W
12	

Prepared by: Kena Ponce

Comments:



McCampbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

chemit value. I does date wat deliverating station it blocks some ambung (soptember 2010) with diversition in the contract of	ork Order: 1809780	Semi-Annually Sampling (September 2018)	oject:	PG&E GATEWAY GENERATING STATION	Client Name:
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Client Contact: Angel Espiritu

QC Level: LEVEL 2

Contact's Email: abe4@pge.com

Comments:

Date Logged: 9/19/2018

		WaterTrax	WriteOn EDF	Excel	Fax Email	HardC	opyThirdPar	ty 🔲 J	-flag	
Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold SubOut
1809780-001A	I-001	Water	SM4500-CN CE (Cyanide, Total)	1	250mL aHDPE w/ NaOH + Na2S2O3		9/19/2018 11:10	5 days	Present	
1809780-001B	I-001	Water	E624 (VOCs)	2	VOA w/ HCl		9/19/2018 11:10	5 days	Present	
				2	VOA w/ HCl				Present	
1809780-001C	I-001	Water	E624 (ACRO, ACRY, & 2-CEVE)	2	VOA, Unpres		9/19/2018 11:10	5 days	Present	
				2	VOA, Unpres				Present	
1809780-001D	I-001	Water	E625 (SVOCs, Low-Level)	1	1LA Narrow Mouth, Unpres		9/19/2018 11:10	5 days	Present	
				2	1LA Narrow Mouth, Unpres				Present	
1809780-001E	I-001	Water	E608 (OC Pesticides+PCBs w/ Florisil Clean-up)	1	1LA Narrow Mouth, Unpres		9/19/2018 11:10	5 days	Present	
1809780-001F	I-001	Water	E200.8 (PP13 Metals)	2	250mL HDPE w/ HNO3		9/19/2018 11:10	5 days	Present	
			E245.2 (Mercury)					5 days	Present	
1809780-001G	I-001	Water	Asbestos - E100.1, modified EPA Protocol (MFL)	3	1LA Narrow Mouth, Unpres		9/19/2018 11:10	5 days	Present	SubOut
1809780-001H	I-001	Water	E1613 (2,3,7,8-TCDD only)	3	1LA Narrow Mouth, Unpres		9/19/2018 11:10	15 days	Present	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

McCAMPBELL ANALYTICAL, INC.

CHAIN OF CUSTODY RECORD

1534 WILLOW PASS ROAD PITTSBURG, CA 94565-1701 Website: www.mccampbell.com Telephone: (877) 252-9262 Report To: Angel Espiritu Bill To: PG&E Gateway														GeoTracker EDF PDF Excel Write On Check if sample is effluent and "J" flat										2 HR 5 DAY (DW) □					
Report '	To: Angel I	Espir	itu		В	ill To: P	G&I	E Ga	tew	ay									Analys	sis Requ	est						Rem	arks	
Compai	ny: PG&E	Gate	way Gene	rating St	ation	r												(8)	paj										
Tel: (92	abe4@pge. 25) 522-783 Name: Se	8, 925	5-861-159	7 (Cell)	F	ax: ()		(@)	ge.c	com				ith sodium SM 4500 CN-	(spunou	ic Compounds)	ticides and PCI	Pollutants (see Appendix B analyze only listed										
	Location: C					ptember	201	0)	-			-	_		with	l d	rgan	Pest	x B										
	r Signature		Micka	_		ma	Lat	5		10	: .	_	1		treated ving) b	anic	le O	orine	endi		1 1		11						
матрис	Jaganture	Composite	SAMP		11.00		Ma	tri			(RESI	ERV	ED	(Pretreate preserving)	624-Volatile Organic Comnounds)	Semi Volatile Organic	Organochl	ts (see App										
AMPLE ID	LOCATION / Field Point Name	Sample Type Con	Date	Time	# Containers	Type Containers	Waste Water	Sewer Water	None	ICE	NaOH	HCI	HNO.	Other	Cyanide (TOTAL) thiosulfate before ABCE	SEPA		TTO (USEPA 608 - Organochlorine Pesticides and PCBs)	126 Priority Pollutan compounds)										
1-001		G			1	250 ml	Х		1	X	X	+			Х							\top	11	_	\Box				
			9/19/18	11:10		poly Amb																							
I-001		G	9/19/18		2	43-ml	X			X		X				X													
I-001		G			2	VOA 43-ml	X			X		+	\vdash			X													
1-001		G	9/19/18		1	VOA 1L Amb	Х	-	X	Y	-	+	-				X		-	++-		-	+	+	H				
I-001		G	9/19/18	11:10	1	1L Amb	X		X		-	-	-				1	х	-			-	1	-	\vdash	-			
-001		G	9/19/18	11.10	1	1	X		1	1	+	+	-	-				Λ.	X	+		-	11	-	\vdash				
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elinquis	hed By:		Date:	Time:	Rece	ived By:	,								PRESE		,		0&0	G META pH<2		отні	ER						

Sampling Containers for APPENDIX B

Date:	Time:	# Containers	Container Type	Preservative:	Composite/Grab
9/19/18	11:10	8 2 2 2 2 2 2	Amber Glass 1L VOA 40 mL VOA 40 mL POLY 250 ml	NP NP HCI HNO₃	Grab Grab Grab Composite
9/19/19	8 11.	10 1	Amber Poly 250 m (pretreated with so		Grab

9/19/18 13:45 9/19/18 13:45

APPENDIX A

District Local Discharge Linuts include a parameter called Total Toxic Organics (TTO). The required analytical methods for TTO analysis are listed in 40 CFR Part 136 and include the following EPA methods: 624,625,608, and 1613, respectively. Unless specifically required, EPA method 1613 for dioxins is not mandatory for routine TTO analysis. The constituents with concentrations greater than the minimum limit/reporting limit must be added together to determine compliance with the District's Local Discharge Limit for TTO of 2.0 mg L. The following is a list of the constituents of TTO:

EPA Method 624 Compounds

Acrolem Acrylonitrile Benzene Bromodichloromethane (Dichlorobromomethane) Bromform Bronmomethane (Methyl Bronnde) Carbon tetrachloride (Tetrachloromethane) Chlorobenzene Chloroethane (Ethyl Chloride) 2-Chloroethyl vinyl ether Chloroform (trichloromethane) Chloromethane (Methyl Chloride) Dibromochloromethane (Chlorodibromomethane) 2-Dichlorobenzene
 3-Dichlorobenzene 1. 4-Dichlorobenzene 1. 1-Dichloroethane
 2-Dichloroethane 1. 1-Dichloroethene (1, 1-dichloroethylene) trans-1, 2-Dichloroethene 1. 2-Dichloropropane cis-1. 3-Dichloropropene trans-1. 3-Dichloropropene Ethylbenzene Methylene Chloride (Dichloromethane) 2.-Tetrachloroethane Tetrachloroethene (PCE) Toluene 1. 1. 1-Trichloreothane 1. 1. 2-Trichloroethane Trichloroethene (TCE) Trichlorofluoromethane Vinvl chloride (Chloroethylene)

EPA Method 625 Compounds

Acenaphthene
Acenaphthylene
Anthracene
Benzidine
Benzo (a) anthracene
Benzo (a) pyrene
Benzo (b) fluoranthene
Benzo (c) fluoranthene
Benzo (k) fluoranthene
Benzo (k) fluoranthene
Benzyl butyl phthalate
bis (2-Chloroethoxy) methane
bis (2-Chloroethyl) ether
bis (2-Chloroethyl) ether
bis (2-Chloroisopropyl) ether
bis (2-Ethylhexyl) phthalate
4-Bromophenyl phenyl ether
4-Chloro-3-methylphenol
2-Chloronaphthalene
2-Chlorophenyl
4-Chlorophenyl
4-Chlorophenyl
5-Chlorophenyl
6-Chlorophenyl
7-Chlorophenyl
7-Chlorophenyl
8-Chlorophenyl
8-Chlorophenyl
9-Chlorophenyl
9-Chlorophenyl
9-Chlorophenyl
1-Chlorobenzene
1. 3-Dichlorobenzene
1. 4-Dichlorobenzene
3. 3-Dichlorobenzene
3. 3-Dichlorobenzene

4-Dichlorophenol Diethyl phthalate 2.4-Dimethylphenol Dimethylphthalate Di-n-butylphthalate 2, 4-Dimitirophenol 4-Dinitrotoluene 2. 6-Dinitrotoluene Di-n-octylphthalate 1 2-Diphenylhydrazine Azo Fluoranthene Fluorene Hexachlorobenzene Hexchlorobutadiene Hexachlorocyclopentadiene Hexachloroethane Indeno (1, 2, 3-cd) pyrene Isophorone 2-Methyl-4, 6-dinitrophenol Naphthalene Nitrobenzene 2-Nitrophenol 4-Nitrophenol N-Nitrosodimethylamine N-Nitroso-di-n-propylamine N-Nitrosodiphenylamine Pentachlorophenol Phenanthrene Phenol Pyrene 4-Trichlorobenzene 2, 4, 6-Trichlorophenol

EPA Method 608 Compounds

Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) Chlordane 4, 4"-DDD 4, 4 -DDE 4.4 DDT Dieldrin Endosulfan I Endosulfan II Endosulfan sulfate Endrin Endrin aldehyde Heptachlor Heptachlor epoxide PCB 1016 PCB 1221 PCB 1232 PCB 1242 PCB 1248 PCB 1254 PCB 1260 Toxaphene

July 9/19/18/3:45

APPENDIX B

(for 40 CFR part 423 - 126 Priority Pollutants)

		065	Di-N-Butyl Phthalate
001	Acenaphthene	066	Di-n-octyl Phthalate
002	Acrolein	067	Diethyl Phthalate
003	Acrylonitrile	068	Dimethyl phthalate
004	Benzene	069	1, 2-benzanthracene
005	Benzidine	070	(benzo(a)anthracene)
006	Carbon tetrachloride	070	Benzo(a)pyrene (3, 4-benzo-pyrene)
	(tetrachloromethane)	071	3,4-Benzofluoranthene
007	Chlorobenzene	072	(benzo(b) fluoranthene)
008	1, 2, 4-trichlorobenzene	072	11,12-benzofluoranthene (benzo(b) fluoranthene
009	Hexachlorobenzene	073	Chrysene
010	1, 2-dichloroethane	074	Acenaphthylene
011	1, 1, 1-trichloreothane	075	Anthracene
012	Hexachloroethane	076	1, 12-benzoperylene (benzo(ghi) perylene
013	1, 1-dichloroethane	077	Fluorene
014	1, 1, 2-trichloroethane 1, 1, 2, 2-tetrachloroethane	078	Phenanthrene
016	Chloroethane	079	1, 2, 5, 6-dibenzanthracene
017	Bis (2-chloroethyl) ether		(dibenzo(a,h)anthracene)
018	2-chloroethyl vinyl ether (mixed)	080	Indeno (1, 2, 3-cd) pyrene
019	2-chloronaphthalene		(2, 3-o-pheynylene pyrene)
020	2, 4, 6-trichlorophenol	081	Pyrene
021	Parachlorometa cresol	082	Tetrachloroethylene
022	Chloroform (trichloromethane)	083	Toluene
023	2-chlorophenol	084	Trichloroethylene
024	1.2-dichlorobenzene (benzo(b)fluoranthene)	085	Vinyl chloride (chloroethylene)
025	1,3-dichlorobenzene (benzo(b)fluoranthene)	086	Aldrin
026	1, 4-dichlorobenzene	087 088	Dieldrin Chlordana (tachnical mixtura and matchelitas)
027	3, 3-dichlorobenzidine	089	Chlordane (technical mixture and metabolites) 4, 4-DDT
028	1. 1-dichloroethylene	090	4, 4-DDE (p, p-DDX)
029	1, 2-trans-dichloroethylene	091	4, 4-DDD (p, p-TDE)
030	2, 4-dichlorophenol	092	Alpha-endosulfan
031	1, 2-dichloropropane	093	Beta-endosulfan
032	1, 2-dichloropropylene	094	Endosulfan sulfate
022	(1, 3-dichloropropene)	095	Endrin
033	2, 4-dimethylphenol 2, 4-dimitrotoluene	096	Endrin aldehyde
034 035	2, 4-dinitrotolitene	097	Heptachlor
036	2, 6-dinitrotoluene 1, 2-diphenylhydrazine	098	Heptachlor epoxide
037	Ethylbenzene		(BHC-hexachlorocyclohexane)
038	Fluoranthene	099	Alpha-BHC
039	4-chlorophenyl phenyl ether	100	Beta-BHC
040	4-bromophenyl phenyl ether	101	Gamma-BHC (lindane)
041	Bis(2-chloroisopropyl) ether	102	Delta-BHC
042	Bis(2-chloroethoxy) methane	102	(PCB-polychlorinated bi-phenyls)
043	Methylene chloride (dichloromethane)	103	PCB-1242 (Arochlor 1242)
044	Methyl chloride (dichloromethane)	104 105	PCB-1254 (Arochlor 1254)
045	Methyl bromide (bromomethane)	105	PCB-1221 (Arochlor 1221)
046	Bromoform (tribromomethane)	107	PCB-1232 (Arochlor 1232) PCB-1248 (Arochlor 1248)
047	Dichlorobromomethane	108	PCB-1260 (Arochlor 1260)
048	Chlorodibromomethane	109	PCB-1016 (Arochlor 1016)
049	Hexachlorobutadiene	110	Toxaphene
050	Hexachloromyclopentadiene		Antimony
051	Isophorone		Arsenie
052	Naphthalene	113	Asbestos
053	Nitrobenzene		Beryllium
054 055	2-Nitrophenol	115	Cadmium
056	4-nitrophenol	116	Chromium
057	2, 4-dinitrophenol 4, 6-dinitro-o-cresol	117	Copper
058	N-nitrosodimethylamine		Cyanide, (Total)
059	N-nitrosodiphenylamine	119	Lead
060	N-nitrosodi-n-propylamine		Mercury
061	Pentachlorophenol	121	Nickel
062	Phenol		Selenium
063	Bis(2-ethylhexyl) phthalate	123	Silver
064	Butyl benzyl phthalate	124	Thallium / WWW
	The state of the s	120	7 Time 2.3.7 & retrachlary dihanza n dianin (TCINI) 13:
		120	2.3,7,8-tetrachloro-dibenzo-p-dibxin (TCDD)
			0 6019

PG&E Gateway Generating Station

Client Name:

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Date and Time Received 9/19/2018 13:45

Sample Receipt Checklist

Project:	Semi-Annually Samp	oling (September 2018)		Date Logged: Received by:	9/19/2018 Tina Perez	
WorkOrder №: Carrier:	1809780 Client Drop-In	Matrix: Water			Logged by:	Kena Ponce
		Chain of	Custody	(COC) Infor	mation	
Chain of custody	present?		Yes	✓	No 🗆	
Chain of custody	signed when relinquis	hed and received?	Yes	✓	No 🗆	
Chain of custody	agrees with sample la	bels?	Yes	•	No 🗌	
Sample IDs noted	d by Client on COC?		Yes	✓	No 🗆	
Date and Time of	f collection noted by C	lient on COC?	Yes	✓	No 🗆	
Sampler's name	noted on COC?		Yes	✓	No 🗆	
COC agrees with	Quote?		Yes		No 🗆	NA 🗸
		<u>Sam</u>	ole Rece	eipt Informati	<u>ion</u>	
Custody seals int	act on shipping contai	ner/cooler?	Yes		No 🗆	NA 🗹
Shipping containe	er/cooler in good cond	ition?	Yes	✓	No 🗆	
Samples in prope	er containers/bottles?		Yes	✓	No 🗆	
Sample containe	rs intact?		Yes	✓	No 🗆	
Sufficient sample	volume for indicated	test?	Yes	✓	No 🗌	
		Sample Preservat	ion and	Hold Time (HT) Information	
All samples recei	ved within holding time	e?	Yes	✓	No 🗆	NA 🗆
Samples Receive	ed on Ice?		Yes	✓	No 🗆	
		(Ice Ty	pe: WE	TICE)		_
Sample/Temp Bla	ank temperature			Temp: 5.6	6°C	NA 🗌
Water - VOA vial	s have zero headspac	e / no bubbles?	Yes		No 🗌	NA 🗹
Sample labels ch	ecked for correct pres	ervation?	Yes	✓	No 🗌	
pH acceptable up	oon receipt (Metal: <2;	522: <4; 218.7: >8)?	Yes		No 🗌	NA 🗹
		pt (200.8: ≤2; 525.3: ≤4;	Yes		No 🗆	NA 🗹
Free Chlorine to	ested and acceptable	upon receipt (<0.1mg/L)?	Yes		No 🗌	NA 🗹
Comments:		======			======	=======

Attachment 2 Summary of Cyanide Resampling Results

GGS - Summary of Cyanide Resampling Results

	Resample #1: 1 Tige		· ·	11/07/2018 @ r Pit	Resample #3 @ Tig	: 11/24/2018 ger Pit		: 12/04/2018 ger Pit	Resample #5: @ Tige		Resample #6: @ Tige		Resamı 12/18, @ Tig	/2018
Analytical Laboratory	No Preservative	w/ NaOH Preservative	No Preservative	w/ NaOH Preservative	No Preservative	w/ NaOH Preservative	No Preservative	w/ NaOH Preservative	No Preservative	w/ NaOH Preservative	No Preservative	w/ NaOH Preservative	No Preservative	w/ NaOH Preservative
	Units: ppb												•	
Laboratory 1	14.0	21.0	ND (<1.0)	ND (<1.0)										
Laboratory 2	9.7	20.0	ND (J1.1*)	ND (J2.5*)										
Laboratory 3	ND (<10.0)	ND (<10.0)	ND (<10.0)	ND (<10.0)	ND (<10.0)	12.0	32.0	30.0	18.0	13.0	20.0	ND (<10)	28.0	28.0

Note:

	Resample #	8 1/10/2019	Resample #9 (1/16/2019)	Resample #10 (2/7/2019)	Resample #1:	1 (2/11/2019)	Resample #12 (2/25/2019)	Resample #13 (2/27/2019)	Resample #14 (2/28/2019)
	No	No	No	No	No Pres	servative	No	No	No
	Preservative	Preservative	Preservative	Preservative	1101163	er vative	Preservative	Preservative	Preservative
Sampler	Enthalpy	Doug Welch	Muskan	Muskan	Mu	skan	Muskan	Doug Welch	Muskan
Laboratory	Enthalpy	Enthalpy	Enthalpy	Enthalpy	Enthalpy	MAI	Enthalpy	Enthalpy	Enthalpy
Sampling Location	units: ppb								
Tiger Pit	51.0	55.0	ND (<10)	13.0	14.0	29.0	ND (<10)		
HRSG IP A			ND (<10)						
HRSG IP B			ND (<10)						
Phospate Skid			ND (<10)						
CC Coolong Water			ND (<10)						
Amine Skid			ND (<10)						
E-006 (Storm Outfall)			ND (<10)						
Hammond Tank			26.0	ND (<10)			ND (<10)		
OWS			ND (<10)						
Ammonia Sump			ND (<10)						
Service Water Tank Drain			ND (<10)						
Source Water		ND (<10.0)	ND (<10)	ND (<10)			ND (<10)		
RO Reject					ND (<10)	1.7	ND (<10)		
Compliance Point								ND (<10)	ND (<10)

^{* -} Non-detect with J Flag: Estimated values below the reporting limit, but above the method detection limit.

Attachment 3 Analytical Report on Resampling #1



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1810E56

Report Created for: PG&E Gateway Generating Station

3225 Wilbur Avenue Antioch, CA 94509

Project Contact: Angel Espiritu

Project P.O.:

Project: Resample 1 (10/30/18)

Project Received: 10/30/2018

Analytical Report reviewed & approved for release on 10/31/2018 by:

Yen Cao

Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com

CA ELAP 1644 ♦ NELAP 4033 ORELAP

Glossary of Terms & Qualifier Definitions

Client: PG&E Gateway Generating Station

Project: Resample 1 (10/30/18)

WorkOrder: 1810E56

Glossary Abbreviation

%D Serial Dilution Percent Difference

95% Interval 95% Confident Interval

DF Dilution Factor

DI WET (DISTLC) Waste Extraction Test using DI water

DISS Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)

DLT Dilution Test (Serial Dilution)

DUP Duplicate

EDL Estimated Detection Limit

ERS External reference sample. Second source calibration verification.

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

N/A Not Applicable

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PDS Post Digestion Spike

PDSD Post Digestion Spike Duplicate

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value

SPLP Synthetic Precipitation Leachate Procedure

ST Sorbent Tube

TCLP Toxicity Characteristic Leachate Procedure

TEQ Toxicity Equivalents

WET (STLC) Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Report

Client: PG&E Gateway Generating Station

Date Received: 10/30/18 10:00 **Date Prepared:** 10/30/18

Project: Resample 1 (10/30/18)

WorkOrder: 1810E56

Extraction Method: SM4500-CN⁻ E **Analytical Method:** SM4500-CN⁻ CE

Unit: $\mu g/L$

Cva	nide.	, Total
Cya	muc,	, i viai

		Cyamue,	1 Otal				
Client ID	Lab ID	Matrix	Date Co	llected	Instrument		Batch ID
Tiger Pit-Amber	1810E56-001A	Water	10/30/20	18 07:55	WC_SKALAR	103018A1_	35 167499
Analytes	Result		<u>RL</u>	<u>DF</u>		<u></u>	Date Analyzed
Total Cyanide	21		1.0	1		1	10/30/2018 11:17

Analyst(s): NM

Client ID	Lab ID	Matrix	Date Collect	ted Instrument	Batch ID
Tiger Pit-Clear	1810E56-002A	Water	10/30/2018 07	:55 WC_SKALAR 103018A1_3	6 167499
<u>Analytes</u>	Result		<u>RL</u> <u>DF</u>	<u>Da</u>	ate Analyzed
Total Cyanide	14		1.0 1	10)/30/2018 11:20

Analyst(s): NM

Quality Control Report

Client: PG&E Gateway Generating Station

Date Prepared: 10/30/18

Date Analyzed: 10/30/18 **Instrument:** WC_SKALAR

Matrix: Water

Project: Resample 1 (10/30/18)

WorkOrder: 1810E56

BatchID: 167499

Extraction Method: SM4500-CN⁻ E **Analytical Method:** SM4500-CN⁻ CE

Unit: μg/L

Sample ID: MB/LCS/LCSD-167499

QC Summary Report for SM4500-CN ⁻ CE								
Analyte	MB Result	RL						
Total Cyanide	ND	1.0		-				

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Cyanide	40	40	40	100	99	90-110	0.933	20

McCampbell Analytical, Inc.

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

1 of 1

WorkOrder: 1810E56

ClientCode: PGEA

□WaterTrax ☐ WriteOn □ EDF Excel

abe4@pge.com

EQuIS Detection Summary

✓ Email

☐ HardCopy ☐ ThirdParty

Requested TAT:

□ J-flag

Bill to:

Dry-Weight

Angel Espiritu

1 day;

PG&E Gateway Generating Station

PO:

Email:

cc/3rd Party: A1HE@pge.com; J5Ld@pge.com; tlWY@p PG&E Gateway Generating Station

Date Received:

10/30/2018

3225 Wilbur Avenue Antioch, CA 94509 (925) 459-7212 FAX:

Angel Espiritu

Report to:

Project:

3225 Wilbur Avenue Resample 1 (10/30/18)

Antioch, CA 94509

Date Logged: 10/30/2018

								Req	uested	Tests (See leg	end bel	ow)			
Lab ID	Client ID	Matrix	Collection Date H	lold	1	2	3	4	5	6	7	8	9	10	11	12
1810E56-001	Tiger Pit-Amber	Water	10/30/2018 07:55		Α											ı
1810E56-002	Tiger Pit-Clear	Water	10/30/2018 07:55		Α											

Test Legend:

1 CN_SM4500CE_W	2	3	4
5	6	7	8
9	10	11	12

Prepared by: Agustina Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



1810E56-002A Tiger Pit-Clear

McCampbell Analytical, Inc.

"When Quality Counts"

Water

SM4500-CN CE (Cyanide, Total)

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

10/30/2018 7:55

1 day

None

WORK ORDER SUMMARY

Client Name	: PG&E GA	TEWAY GENERAT	TING STATIO	N Pr	roject: Res	ample 1 (10/3	30/18)			Worl	k Order:	1810E56
Client Conta	et: Angel Espi	ritu								Q	C Level:	LEVEL 2
Contact's En	nail: abe4@pge.	com		Co	omments:					Date	Logged:	10/30/2018
		☐ WaterTrax	WriteOn	EDF	Excel	Fax	✓ Email	⊟HardCop	y ThirdParty	, □J-	-flag	
Lab ID	Client ID	Matrix	Test Name		Contain /Compo		& Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold SubOut
1810E56-001A	Tiger Pit-Amber	Water	SM4500-CN	CE (Cyanide, Total)) 1	250mL al	HDPE w/ NaOH +		10/30/2018 7:55	1 day	None	

Na2S2O3 250mL HDPE w/ Na2S2O3

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1061



McCAMPBELL ANALYTICAL, INC. 1534 WILLOW PASS ROAD PITTSBURG, CA 94565-1701

	CHAII	V OF
	RN AROUND TI	ME

CUSTODY RECORD

72 HR 5 DAY RUSH 24 HR 48 HR

Website: www.mccampbell.com Telephone: (877) 252-9262 Email: main@mccampbell.com Fax: (925) 252-9269											GeoTracker EDF □ PDF □ Excel □ Write On (DW) □ □ Check if sample is effluent and "J" flag is required																			
Report To: Ange	l Espir	itu		E	Bill To: F	G&I	E Ga	tewa	у									Anal	ysis	Requ	iest							Remar	ks	
Company: PG&	E Gate	eway Gen	erating S	tatio	1								\dashv	÷		ds)	(CBs)	Appendix B analyze only listed												
E-Mail: abe4@pg	e.com,	A1HE@pg	e.com, J5	Ld@p	ge.com, t	IWY(apge	.com,	DJI	H2@	pge.	con	1	E 0		boun	nd F	only												
Tel: (925) 522-7					ax: ()								odiun 4500	spun	Com	des :	ılyze				11								
Project Name:	Res	ample	1 (10	130	(18)									ith s	odu	mic	estici	3 ans				1								
Project Location					70.7	1	-	-		1		0		by by	ic C	Orga	ne P	rdix				11								
Sampler Signatu	-	uska	ntn	viv	onn	real	A.	>	Own	pli	14	X	_	eate	rgan	atile	hlori	pper				1 1								
mposit	Z Composite	SAMI	PLING		8	Ma	itri	мет	ног) PR	ESE	RVE	D	.) (Pretreate preserving)	/olatile O	Semi Volatile Organic Compounds)	Organoc	Pollutants (see A												
SAMPLE LOCATIO ID / Field Poi Name		Date	Time	# Containers	Type Containers	Waste Water	Sewer Water	None	H,SO,	NaOH	HCL	HNO	Other	Cyanide (TOTAL) thiosulfate before p ABCE	TTO (USEPA 624-Volatile Organic Compounds)	TTO (USEPA 625-	TTO (USEPA 608 - Organochlorine Pesticides and PCBs)	126 Priority Polluta												
Tiger Pit	G	10/30/18	07:55	1	250 ml poly Amb	Х		7		X				Х																
Tiger Pit	G	10/30/18	07:55	1	250 ml poly	X		>						X																
Source Water	G	10/30/18		1	250 ml poly	X)		X				-X-																
Source Water	G	10/30/18		1	250 ml poly	Х)																						
													-																	
								\perp					_								_		_		_	_				
															-				1											
Relinquished By: Date: Time: Received By: O 3 18 D O Relinquished By: Date: Time: Received By:						ICE/15 S WE S S S S S S S S S S S S S S S S S					COMMENTS: TTO (EPA 608), TTO (EPA 624), TTO (EPA 625) see ATTACHED Appendix A and analyze only listed																			
							APPROPRIATE CONTAINERS							compounds																

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	PG&E Gateway Go	enerating Station			Date and Time Received	10/30/2018 10:00
Project:	Resample 1 (10/30	0/18)			Date Logged:	10/30/2018
WorkOrder №:	1810E56	Matrix: <u>Water</u>			Received by: Logged by:	Jena Alfaro Agustina Venegas
Carrier:	Client Drop-In	iviatrix. <u>vvater</u>			Logged by.	Agustina Venegas
		Chain of C	Custody	/ (COC) Infor	<u>mation</u>	
Chain of custody	present?		Yes	•	No 🗆	
Chain of custody	signed when relinqu	ished and received?	Yes	✓	No 🗆	
Chain of custody	agrees with sample	labels?	Yes	✓	No 🗌	
Sample IDs note	ed by Client on COC?		Yes	✓	No 🗆	
Date and Time o	of collection noted by	Client on COC?	Yes	✓	No 🗆	
Sampler's name	noted on COC?		Yes	✓	No 🗆	
COC agrees with	n Quote?		Yes		No 🗆	NA 🗹
		<u>Samp</u>	le Rece	eipt Informati	<u>on</u>	
Custody seals in	tact on shipping cont	ainer/cooler?	Yes		No 🗆	NA 🗹
Shipping contain	er/cooler in good cor	ndition?	Yes	✓	No 🗆	
Samples in propo	er containers/bottles	?	Yes	✓	No 🗆	
Sample containe	ers intact?		Yes	✓	No 🗆	
Sufficient sample	e volume for indicate	d test?	Yes	✓	No 🗌	
		Sample Preservati	on and	Hold Time (I	HT) Information	
All samples rece	ived within holding ti	me?	Yes	✓	No 🗆	NA 🗆
Samples Receive	ed on Ice?		Yes	✓	No 🗌	
		(Ісе Тур	e: WE	TICE)		
Sample/Temp Bl	lank temperature			Temp: 5.5	5°C	NA 🗌
Water - VOA via	ls have zero headspa	ace / no bubbles?	Yes	✓	No 🗌	NA 🗌
Sample labels ch	necked for correct pre	eservation?	Yes	✓	No 🗌	
pH acceptable up	pon receipt (Metal: <	2; 522: <4; 218.7: >8)?	Yes		No 🗌	NA 🗹
		eipt (200.8: ≤2; 525.3: ≤4;	Yes		No 🗆	NA ✓
Free Chlorine t	tested and acceptabl	e upon receipt (<0.1mg/L)?	Yes		No 🗌	NA 🗹
Comments:						



Thursday, November 01, 2018

Angel Espiritu PG&E Gateway Generating Station 3225 Wilbur Ave Antioch. CA 94509

Re Lab Order: T101182

Project ID: RESAMPLE 1 (10/30/18)

Collected By: MUSKAN ENVIRONMENTAL

PO/Contract #:

Dear Angel Espiritu:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, October 30, 2018. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

CC: Daryl Sattelberg, PG&E Gateway Generating Station

David Hammond, PG&E Gateway Generating Station

Tim Wisdom, PG&E Gateway Generating Station

Enclosures

Project Manager: Eli N. Greenwald



11/1/2018 09:09



SAMPLE SUMMARY

Lab Order: T101182

Project ID: RESAMPLE 1 (10/30/18)

Lab ID	Sample ID	Matrix	Date Collected	Date Received
T101182001	TIGER PIT (NAOH PRESERVED)	Water	10/30/2018 07:55	10/30/2018 09:53
T101182002	TIGER PIT (UNPRESERVED)	Water	10/30/2018 07:55	10/30/2018 09:53

11/1/2018 09:09

without the written consent of CALTEST ANALYTICAL LABORATORY 1885 North Kelly Road • Napa, California 94558 (707) 258-4000 • Fax (707) 226-1001 • e-mail: info@caltestlabs.com





NARRATIVE

Lab Order: T101182

Project ID: RESAMPLE 1 (10/30/18)

General Qualifiers and Notes

Caltest authorizes this report to be reproduced only in its entirety. Results are specific to the sample(s) as submitted and only to the parameter(s) reported.

Caltest certifies that all test results for wastewater and hazardous waste analyses meet all applicable NELAC requirements; all microbiology and drinking water testing meet applicable ELAP requirements, unless stated otherwise.

All analyses performed by EPA Methods or Standard Methods.

Dilution Factors (DF) reported greater than '1' have been used to adjust the result, Reporting Limit (RL), and Method Detection Limit (MDL).

All Solid, sludge, and/or biosolids data is reported in Wet Weight, unless otherwise specified.

Filtrations performed at Caltest for dissolved metals (excluding mercury) and/or pH analysis are not performed within the 15 minute holding time as specified by 40CFR 136.3 table II.

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

- ND Non Detect indicates analytical result has not been detected.
- RL Reporting Limit is the quantitation limit at which the laboratory is able to detect an analyte. An analyte not detected at or above the RL is reported as ND unless otherwise noted or qualified. For analyses pertaining to the State Implementation Plan of the California Toxics Rule, the Caltest Reporting Limit (RL) is equivalent to the Minimum Level (ML). A standard is always run at or below the ML. Where Reporting Limits are elevated due to dilution, the ML calibration criteria has been met.
- J reflects estimated analytical result value detected below the Reporting Limit (RL) and above the Method Detection Limit (MDL). The 'J' flag is equivalent to the DNQ Estimated Concentration flag.
- E indicates an estimated analytical result value.
- B indicates the analyte has been detected in the blank associated with the sample.
- NC means not able to be calculated for RPD or Spike Recoveries.
- SS compound is a Surrogate Spike used per laboratory quality assurance manual.

NOTE: This document represents a complete Analytical Report for the samples referenced herein and should be retained as a permanent record thereof.



11/1/2018 09:09



REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Lab Order: T101182

Project ID: RESAMPLE 1 (10/30/18)

Lab ID T101182001 Sample ID TIGER PIT (NAOH PRESERVED)	Date Collected Date Received	10/30/2018 07:55 10/30/2018 09:53	Matrix	Water			
Parameters	Result Units	R. L.	DF Prepared	Batch	Analyzed	Batch	Qual
Cyanide, Total Analysis Cyanide	Analytical Method: 20 ug/L	SM 4500-CN C/E-9 3	9/11		Analyzed by: 10/30/18 16:12	BCP WCO 14042	
Lab ID T101182002 Sample ID TIGER PIT (UNPRESERVED)	Date Collected Date Received	10/30/2018 07:55 10/30/2018 09:53	Matrix	Water			
Parameters	Result Units	R. L.	DF Prepared	Batch	Analyzed	Batch	Qual
Cyanide, Total Analysis Cyanide	Analytical Method: 9.7 ug/L	SM 4500-CN C/E-9	9/11		Analyzed by: 10/30/18 16:12	BCP WCO 14042	

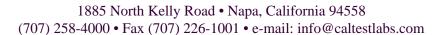
11/1/2018 09:09

REPORT OF LABORATORY ANALYSIS This report shall not be reproduced, except in full,

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Page 4 of 7









QUALITY CONTROL DATA

Lab Order: T101182

Project ID: RESAMPLE 1 (10/30/18)

Analysis Description: Cyanide, Total Analysis QC Batch: WCO/14042

Analysis Method: SM 4500-CN C/E-99/11 **QC Batch Method:** SM 4500-CN C/E-99/11

METHOD BLANK: 850434

Blank Reporting

Parameter Result Limit Units Qualifiers

Cyanide ND 3 ug/L

LABORATORY CONTROL SAMPLE: 850435

Spike LCS LCS % REC Units Conc. **Limits Qualifier** Parameter Result % Rec Cyanide ug/L 20 19.9 100 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 850436 850437

		T101182001	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Result	Result	% Rec	% Rec	Limit	RPD	RPD Qualifier	s
Cyanide	<u></u> <u>ua/l</u>		40	52 7		82	97	80-120	11	20	



11/1/2018 09:09



Page 5 of 7



QUALITY CONTROL DATA QUALIFIERS

Lab Order: T101182

Project ID: RESAMPLE 1 (10/30/18)

QUALITY CONTROL PARAMETER QUALIFIERS

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

NS - means not spiked and will not have recoveries reported for Analyte Spike Amounts

QC Codes Keys: These descriptors are used to help identify the specific QC samples and clarify the report.

MB - Method Blank

Method Blanks are reported to the same Method Detection Limits (MDLs) or Reporting Limits (RLs) as the analytical samples in the corresponding QC batch.

LCS/LCSD - Laboratory Control Spike / Laboratory Control Spike Duplicate

DUP - Duplicate of Original Sample Matrix

MS/MSD - Matrix Spike / Matrix Spike Duplicate

RPD - Relative Percent Difference

%Recovery - Spike Recovery stated as a percentage



11/1/2018 09:09



Page 6 of 7



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab Order: T101182

RESAMPLE 1 (10/30/18) Project ID:

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
T101182001	TIGER PIT (NAOH	SM 4500-CN C/E-99/11	WCO/14042		
T101182002	TIGER PIT (UNPRESERVED)	SM 4500-CN C/E-99/11	WCO/14042		

11/1/2018 09:09

REPORT OF LABORATORY ANALYSIS

Page 7 of 7

1	ANAI	alt	ABORATO	PRO	Resa	mple 1 (1	0/30/19	IN OF		ODY		246 PSC. com LAB ORDER # 1 OF 1
CLIENT:	RESS:	ousto.	y Go	neration	Ang	e Espici-	tu ZIP		-	2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ANALYSES REQUESTED	
PHONE NUMI	25 No Same 1522-7) FAX P	HONE NUMBER	e.	SAMPLER (PRINT & S	Ange Environment	1 Espir al Sam	itu ple	233	SOO CN- ABC		TURN-AROUND TIME STANDARD RUSH DUE DATE:
CALTEST LAB#	DATE SAMPLED	TIME SAMPLED	SAMPLE MATRIX*	CONTAINER TYPE/ AMOUNT**	PRESERVATIVE	SAMPLE IDENTIFIC	ATION / SITE	CLIENT LAB#	COMP. or GRAB	Cyanide With thise by Sty u		Surples sent on ICE
-	10/30/18	07:55	noste,	200m	HOOM	Tiger Pit			Burp	X		
-5	10/30/18	07:55	DOJES DOJES	500m1	None perserved	Tiger Pit			drap	X		RUSH
1	JELINQU	ISHED BY		DATE		RECEIVED BY		RELING	QUISHED BY		DATE/TIME	A RECEIVED BY
L	2			10/38/18	09:03	le-Imri	e si	ال	mi	e	10/3dis/095	53
Samples: BD: CC: SIL: W/HNO ₃	WC BIO AA HP	MICRO WC SV PT H ₂ SO ₄	AA VOA QT	VOA NAOH	SV VOA	pH? Y/N TEMP: O,	SEALED:	O _{IN}	INTACT:	<i>G</i> IN		*MATRIX: AQ = Aqueous Nondrinking Water, Digested Metals; FE = Low R.L.s, Aqueous Nondrinking Water, Digested Metals; DW = Drinking Water, SL = Soil Sludge, Solid; FP = Free Product **CONTAINER TYPES: AL = Amber Liter, AHL = 50 ml Amber, PT = Pint (Plastic); QT = Quart (Plastic); H = Half Gallon (Plastic); SJ = Soil Jar; B4 = 4oz. BACT BT = Brass Tube; VOA = 40mL VOA; OTC - Other Type Container
PIL:	HNO ₃	H ₂	SO ₄	N	JaOH	HCL						R PR M F





Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 304625 ANALYTICAL REPORT

Pacific Gas & Electric

4801 Oakport Street Oakland, CA 94601

Project : STANDARD

Location: Resample 1 (10/30/18)

Level : II

 Sample ID
 Lab ID

 TIGER PIT
 304625-001

 TIGER PIT
 304625-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Date: <u>10/31/2018</u>

Signature:

Will Rice Project Manager will.rice@enthalpy.com (510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001



CASE NARRATIVE

Laboratory number: 304625

Client: Pacific Gas & Electric Location: Resample 1 (10/30/18)

Request Date: 10/30/18 Samples Received: 10/30/18

This data package contains sample and QC results for two water samples, requested for the above referenced project on 10/30/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recovery was observed for cyanide in the MS for batch 265009; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

CHAIN OF CUSTODY

Form 2323 F Berkele Project	Name: Reco ale 1 (10	Phone Fax	0S (510) 486-09 (510) 486-05 Sampler: M.	32 NSKA	n E	טייים מייים	-:3	الم	Z al	D ^L	+	رنام ونام	Cested with	BYE .		AN	IAL		hain		Custo	ody i		_ of _		
Project EDD For	P. O. No:		Company: P(CE.	ردمک	N.Y	Gen	ero	lik	y S	ha	<u>F</u> w	(لولد)	N. P												
	und Time: Report Lever⊡ II	Standard !	elephone: (G	46) 52 pge		183)	8				-1 -1	3	8												
Lab	Sample ID.		PLING		TRIX	Containers		CHE					Apich Apich	2 4 5												:
No.		Date Collected	Time Collected	Water Solid		# of Cor	HC.	H2SO4	HNO3	NGOH	Aone		2000	S Ya												
	Tiger Pit Tiger Pit	10/30/18	07:55	۸		1				χ			Ž	1		1		\top	+	T			+	+	Н	ļ
	Tiger PI+	10/30/18	07:55	식_	-			_	_	_\X	4		_>			lacksquare							工	1		
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Notes:	Sample sent	CAMPIE			DEIII	AQUI	SHED) PV					\dashv					<u> </u>							Щ	
	on ICE	SAMPLE RECEIPT	1	Q-	AL LII	1001				30//E	<u> </u>		-		$\overline{}$	B		KEC	EIVE			1-20	-18		\dashv	
conta	àners:	☐ Intact	1-0-6	100	- -		D	ATE:	-2-	TIM	ÍΕ:	<u>09:</u>	3 0	\Rightarrow	\frac{1}{2}	#8	2							:9:	30	400
244.	~1 poly	Cold	- A	X	<u>, </u>		D	10 ATE:	10	TIM	1E:/	10:0	28			<u>_</u>				₂ D.	ATE!	0-30	TIME	110	38	
500.	ml poly	☐ On Ice ☐ Ambient		1		_	D	ATE	0-	WIIM	1E.)	127	*~~	··	4			-6		D	∂ ATE:	1301		. 11:	37	_
		- Anbient	7								1	100												- 1.1-	27	

SAMPLE RECEIPT CHECKLIST			77
Section 1: Login # 2016025 Client: PG+ E			
Date Received: Project:		ENT	HALIY
Section 2: Samples received in a cooler? Yes, how many? No (skip Section 3 below	<u> </u>		
If no cooler Sample Temp (°C): 70 using IR Gun # A, or BB	•		
Samples received on ice directly from the field. Cooling process had begun			
$i\Delta \Delta a = i\Delta a$		-	
If in cooler: Date Opened 1(1) S) 18 By (print) (sign) (sign)		- .	
Shipping info (if applicable)	<u> </u>	 -l	
Are custody seals present? No, or Yes. If yes, where? on cooler, on samples	. ப on pa	ckage	
☐ Date: How many ☐ Signature, ☐ Initials ☐ None			
Were custody seals intact upon arrival? ☐ Yes ☐ No ☐ N/A			
Section 3: Important : Notify PM if temperature ex	ceeds 6°C	or arrive	frozen.
Packing in cooler: (if other, describe)			•
☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam,	⊔ Paper t	owels	
☐ Samples received on ice directly from the field. Cooling process had begun	— * <i>*</i>		
Type of ice used:	∐ Yes, [∐ No	
	# 7 .		
Cooler Temp (°C): #1:, #2:, #3:, #4:, #5:, #6: Section 4:	,#7:	NO	\$1/A
Were custody papers dry, filled out properly, and the project identifiable	YES	NO	N/A
Were Method 5035 sampling containers present?	+		
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?			
Are there any missing / extra samples?			
Are samples in the appropriate containers for indicated tests?			
Are sample labels present, in good condition and complete?	T ===		
Does the container count match the COC?		-	
Do the sample labels agree with custody papers?	+	· · · · · · · · · · · · · · · · · · ·	
Was sufficient amount of sample sent for tests requested?	+=		
Did you change the hold time in LIMS for unpreserved VOAs?	1		للسه والتبيعات
Did you change the hold time in LIMS for preserved terracores?			
Are bubbles > 6mm absent in VOA samples?			
Was the client contacted concerning this sample delivery?			1 - 2
If YES, who was called?ByDate:			, And a state of the state of t
Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (if N/A, skip the rest of section 5)			. 7.
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?			
pH strip lot# <u>H(13) 225</u> pH strip lot#, pH strip lot#			
Preservative added:			
☐ H2SO4 lot# added to samples on/at			
☐ HCL lot# added to samples on/at			
☐ HNO3 lot# added to samples on/at			
□ NaOH lot# 164374 added to samples 18 on/at	10/30/	8 12	:57
Section 6:			
Explanations/Comments:	·		
Date Logged in (sign) By (print)	1		
Date Labeled 10 30 (sign) By (print)	<u> </u>		· .

Enthalpy Sample Preservation for 304625

Sample	: Hq	<2	2	> 9	9	>1	2	Other
-001a	_	[]	[]	[]	
b		Γ	1	Γ	1	[~] *	

Analyst:
Date:
Page 1 of 1



Detections Summary for 304625

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location: Resample 1 (10/30/18)

Client Sample ID : TIGER PIT Laboratory Sample ID : 304625-001

No Detections

Client Sample ID : TIGER PIT Laboratory Sample ID : 304625-002

No Detections

Page 1 of 1 7.0



	Total Cyanide								
Lab #:	304625	Location:	Resample 1 (10/30/18)						
Client:	Pacific Gas & Electric	Prep:	METHOD						
Project#:	STANDARD	Analysis:	SM4500CN-C,E						
Analyte:	Cyanide	Batch#:	265009						
Field ID:	TIGER PIT	Sampled:	10/30/18						
Matrix:	Water	Received:	10/30/18						
Units:	mg/L	Prepared:	10/30/18						
Diln Fac:	1.000	Analyzed:	10/31/18						

Type	Lab ID	Result	RL	MDL	
SAMPLE	304625-001	ND	0.010	0.0031	
SAMPLE	304625-002	ND	0.010	0.0031	
BLANK	QC953688	ND	0.010	0.0031	

ND= Not Detected at or above MDL

RL= Reporting Limit

MDL= Method Detection Limit

Page 1 of 1



Batch QC Report

	Total Cyanide								
Lab #:	304625	Location:	Resample 1 (10/30/18)						
Client:	Pacific Gas & Electric	Prep:	METHOD						
Project#:	STANDARD	Analysis:	SM4500CN-C,E						
Analyte:	Cyanide	Batch#:	265009						
Field ID:	ZZZZZZZZZ	Sampled:	10/24/18						
MSS Lab ID:	304494-011	Received:	10/24/18						
Matrix:	Water	Prepared:	10/30/18						
Units:	mg/L	Analyzed:	10/31/18						
Diln Fac:	1.000								

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC953689		0.1000	0.08530	85	76-120		
MS	QC953690	<0.01000	0.1000	0.05860	59 *	66-120		
MSD	QC953691		0.1000	0.06700	67	66-120	13	28

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference Page 1 of 1

Attachment 4 Analytical Report on Resampling #2



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1811249

Report Created for: PG&E Gateway Generating Station

3225 Wilbur Avenue Antioch, CA 94509

Project Contact: Angel Espiritu

Project P.O.:

Project: Resample 2(11/7/18)

Project Received: 11/07/2018

Analytical Report reviewed & approved for release on 11/08/2018 by:

Yen Cao

Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: PG&E Gateway Generating Station

Project: Resample 2 (11/7/18)

WorkOrder: 1811249

Glossary Abbreviation

%D Serial Dilution Percent Difference

95% Interval 95% Confident Interval

DF Dilution Factor

DI WET (DISTLC) Waste Extraction Test using DI water

DISS Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)

DLT Dilution Test (Serial Dilution)

DUP Duplicate

EDL Estimated Detection Limit

ERS External reference sample. Second source calibration verification.

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

N/A Not Applicable

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PDS Post Digestion Spike

PDSD Post Digestion Spike Duplicate

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value

SPLP Synthetic Precipitation Leachate Procedure

ST Sorbent Tube

TCLP Toxicity Characteristic Leachate Procedure

TEQ Toxicity Equivalents

WET (STLC) Waste Extraction Test (Soluble Threshold Limit Concentration)

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client: PG&E Gateway Generating Station

Date Received: 11/7/18 9:45 **Date Prepared:** 11/7/18

Project: Resample 2 (11/7/18)

WorkOrder: 1811249

Extraction Method: SM4500-CN⁻ E **Analytical Method:** SM4500-CN⁻ CE

Unit: $\mu g/L$

Cyanide,	Total
----------	-------

		Cyamuc, 10ta	1					
Client ID	Lab ID	Matrix	Date Coll	ected	Instrument			Batch ID
Tiger Pit-Amber	1811249-001A	Water	11/07/2018	08:06	WC_SKALAR	110718A1	_21	167990
Analytes	Result		<u>RL</u>	<u>DF</u>			Date A	<u>Analyzed</u>
Total Cyanide	ND		1.0	1			11/07/	2018 11:36

Analyst(s): NM

Client ID	Lab ID	Matrix	Date Collected	l Instrument	Batch ID
Tiger Pit-Clear	1811249-002A	Water	11/07/2018 08:0	6 WC_SKALAR 110718A1_24	167990
<u>Analytes</u>	Result		<u>RL</u> <u>DF</u>	Date	Analyzed
Total Cyanide	ND		1.0 1	11/0	7/2018 11:47

Analyst(s): NM

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Quality Control Report

Client: PG&E Gateway Generating Station

Date Prepared: 11/7/18

Date Analyzed: 11/7/18 **Instrument:** WC_SKALAR

Matrix: Water

Project: Resample 2 (11/7/18)

WorkOrder: 1811249

BatchID: 167990

Extraction Method: SM4500-CN⁻ E **Analytical Method:** SM4500-CN⁻ CE

Unit: $\mu g/L$

Sample ID: MB/LCS/LCSD-167990

1811249-001AMS/MSD

QC Summary Rep	ort for SM4500-CN ⁻ CE
----------------	-----------------------------------

Analyte	MB Result	RL			
Total Cyanide	ND	1.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Cyanide	39	40	40	98	99	90-110	1.36	20

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Total Cyanide	1	41	42	40	ND	102	106	80-120	4.27	20

McCampbell Analytical, Inc.

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1811249	ClientCode:	PGEA
--------------------	-------------	-------------

Excel EQuIS

Detection Summary

Bill to:

✓ Email
□ Dry-Weight

☐ HardCopy ☐ ThirdParty

___J-flag

1 day;

1 of 1

Report to:

Angel Espiritu

PG&E Gateway Generating Station 3225 Wilbur Avenue Antioch, CA 94509 (925) 459-7212 FAX: Email: abe4@pge.com

cc/3rd Party: A1HE@pge.com; J5Ld@pge.com; tlWY@p

□ EDF

PO: Project:

□WaterTrax

Resample 2 (11/7/18)

☐ WriteOn

Angel Espiritu

PG&E Gateway Generating Station

3225 Wilbur Avenue Antioch, CA 94509 Date Received:

Requested TAT:

11/07/2018

Date Logged: 11/07/2018

								Red	quested	Tests (S	See lege	end belo	ow)			
Lab ID	Client ID	Matrix	Collection Date H	lold	1	2	3	4	5	6	7	8	9	10	11	12
															1	
1811249-001	Tiger Pit-Amber	Water	11/7/2018 08:06		Α											
1811249-002	Tiger Pit-Clear	Water	11/7/2018 08:06		Α											

Test Legend:

1 CN_SM4500CE_W	2	3	4
5	6	7	8
9	10	11	12

Prepared by: Agustina Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).

Hazardous samples will be returned to client or disposed of at client expense.



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"When Quality Counts"

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WORK ORDER SUMMARY

Client Name	e: PG&E GA	TEWAY GENERAT	TING STATION	N Pro	oject: R	Resample	2 (11/7/18	5)			Wor	k Order:	1811249	
Client Conta	act: Angel Esp	iritu									(C Level:	LEVEL 2	
Contact's En	mail: abe4@pge	.com		Co	mments:						Date	Logged:	11/7/2018	
		☐ WaterTrax	WriteOn	EDF	Excel	F	=ax	y Email	HardCo	ppy ⊡ThirdPart	у,	J-flag		
Lab ID	Client ID	Matrix	Test Name			tainers nposites	Bottle & P	reservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold SubOu	t
1811249-001A	Tiger Pit-Amber	Water	SM4500-CN ⁻ 0	CE (Cyanide, Total)		1 2		E w/ NaOH + S2O3		11/7/2018 8:06	1 day			
1811249-002A	Tiger Pit-Clear	Water	SM4500-CN	CE (Cyanide, Total)		1 2	250mL HDPI	E w/ Na2S2O3		11/7/2018 8:06	1 day	None		

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

																			_		1	8	11	7)	4	9	_		0. 1	- 0 1
W N	ebsite:	15 Pl www.mccs ne: (877)	ELL A 34 WILLO TTTSBURG, ampbell.co 252-9262	W PA: CA 94 m En	SS ROAD 565-1701 nail: main Fa	@mc x: (92	cam _] 25) 2	pbell.0 252 -9	269					TUR GeoT		RO	UN ED	D TI		E PDI Chec	R F C	USF 1	ı Exc	24 I cel	HR	V	48 H Vri	te O	72 H n (D ' flag	W) [is req	uired
Report To: Ang Company: PG&			omating C		ill To: P	G&I	Ga	tewa	<u>y</u>		_		\dashv					Anal		Requ	lest	_	T	_			\dashv		Re	emark	S
E-Mail: abe4@pt Tel: (925) 522-7 Project Name: Project Location Sampler Signati	e.com, 838, (5 Rec:	A1HE@p 10) 861-1 50mp Pit, Sou	ge.com, J5 597 (Cell) C 2 (Ld@p	ge.com, to Tax: (7/18))	utri	.com,	up	الم	} /	4	<u></u>	Cyanide (TOTAL) (Pretreated with sodium thiosulfate before preserving) by SM 4500 CN-ABCE	TTO (USEPA 624-Volatile Organic Compounds)	TTO (USEPA 625- Semi Volatile Organic Compounds)	- Organochlorine Pesticides and PCBs)	126 Priority Pollutants (see Appendix B analyze only listed compounds)													
SAMPLE LOCATION Field Po	Sample Type Col	Date	Time	# Containers	Type Containers	Waste Water	Sewer Water	None	H.SO.	NaOH	HCL	HNO,	Other	Cyanide (TOTAL) thiosulfate before p ABCE	TTO (USEPA 624-V	TTO (USEPA 625-	TTO (USEPA 608 -	126 Priority Polluta compounds)													
Tiger Pit	G	11/7/18	08:06	1	250 ml poly Amb	X		3		X				X																	
Tiger Pit	G	11/7/18	98:09	1	250 ml poly	Х		X						X																	
Source Water	G	11/7/18		1	250 ml poly	X		X		X		_	\dashv	X																	
Source	G	11/7/18		1	250 ml poly	X		Х						x									,								
Water																															
	+												\dashv									1									
																	4	1/1			F										
Relinquished By:		Date:	Time:	(eived By:		-							ICE/t°_ GOOD HEAD S DECHL APPRO	COND SPACI ORIN	ATE	N_ SENT D IN	LAB_	ts_					A	TTO TTO Appe	(EP.	A 608 A 62 K A a	8), TT (5) see	ATTA	A 624), ACHEI only list)

PG&E Gateway Generating Station

Client Name:

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Date and Time Received 11/7/2018 09:45

Sample Receipt Checklist

Project:	Resample 2 (11/7/1	8)			Date Logged:	11/7/2018
Work Order No:	1911240	Matrix: Water			Received by:	Jena Alfaro
WorkOrder №: Carrier:	1811249 Client Drop-In	Matrix: <u>Water</u>			Logged by:	Agustina Venegas
		Chain of (Custody	/ (COC) Infor	<u>mation</u>	
Chain of custody	present?		Yes	✓	No 🗌	
Chain of custody	signed when relinquis	shed and received?	Yes	✓	No 🗆	
Chain of custody	agrees with sample la	abels?	Yes	✓	No 🗌	
Sample IDs noted	by Client on COC?		Yes	✓	No 🗆	
Date and Time of	collection noted by C	lient on COC?	Yes	✓	No 🗆	
Sampler's name r	noted on COC?		Yes	✓	No 🗆	
COC agrees with	Quote?		Yes		No 🗆	NA 🗸
		Samp	le Rece	eipt Informati	<u>on</u>	
Custody seals into	act on shipping conta	iner/cooler?	Yes		No 🗆	NA 🗹
Shipping containe	er/cooler in good cond	lition?	Yes	•	No 🗆	
Samples in prope	r containers/bottles?		Yes	✓	No 🗌	
Sample container	s intact?		Yes	•	No 🗆	
Sufficient sample	volume for indicated	test?	Yes	✓	No 🗌	
		Sample Preservati	ion and	Hold Time (I	HT) Information	
All samples receiv	ved within holding tim	e?	Yes	✓	No 🗆	NA 🗌
Samples Receive	d on Ice?		Yes	✓	No 🗌	
		(Ice Typ	e: WE	TICE)		
Sample/Temp Bla	ank temperature			Temp: 5.6	S°C	NA 🗌
Water - VOA vials	s have zero headspac	e / no bubbles?	Yes		No 🗌	NA 🗹
Sample labels che	ecked for correct pres	servation?	Yes	✓	No 🗌	
pH acceptable up	on receipt (Metal: <2;	522: <4; 218.7: >8)?	Yes		No 🗌	NA 🗹
UCMR Samples:				_	_	_
	acceptable upon recei 3; 544: <6.5 & 7.5)?	pt (200.8: ≤2; 525.3: ≤4;	Yes		No 🗌	NA 🗹
Free Chlorine to	ested and acceptable	upon receipt (<0.1mg/L)?	Yes		No 🗆	NA 🗹
Comments:						



Friday, November 09, 2018

Angel Espiritu PG&E Gateway Generating Station 3225 Wilbur Ave Antioch. CA 94509

Re Lab Order: T110273

Project ID: RESAMPLE 2 (11/7/18)

Collected By: MUSKAN ENV.

PO/Contract #:

Dear Angel Espiritu:

Enclosed are the analytical results for sample(s) received by the laboratory on Wednesday, November 07, 2018. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

CC: Daryl Sattelberg, PG&E Gateway Generating Station

David Hammond, PG&E Gateway Generating Station

Tim Wisdom, PG&E Gateway Generating Station

Enclosures

Project Manager: Eli N. Greenwald



11/9/2018 15:44

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Lab Order: T110273

Project ID: RESAMPLE 2 (11/7/18)

Lab ID	Sample ID	<u>Matrix</u>	Date Collected	Date Received
T110273001	TIGER PIT (NAOH PRESERVED)	Water	11/07/2018 08:06	11/07/2018 09:58
T110273002	TIGER PIT (UNPRESERVED)	Water	11/07/2018 08:06	11/07/2018 09:58

TNI

11/9/2018 15:44



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NARRATIVE

Lab Order: T110273

Project ID: RESAMPLE 2 (11/7/18)

General Qualifiers and Notes

Caltest authorizes this report to be reproduced only in its entirety. Results are specific to the sample(s) as submitted and only to the parameter(s) reported.

Caltest certifies that all test results for wastewater and hazardous waste analyses meet all applicable NELAC requirements; all microbiology and drinking water testing meet applicable ELAP requirements, unless stated otherwise.

All analyses performed by EPA Methods or Standard Methods.

Dilution Factors (DF) reported greater than '1' have been used to adjust the result, Reporting Limit (RL), and Method Detection Limit (MDL).

All Solid, sludge, and/or biosolids data is reported in Wet Weight, unless otherwise specified.

Filtrations performed at Caltest for dissolved metals (excluding mercury) and/or pH analysis are not performed within the 15 minute holding time as specified by 40CFR 136.3 table II.

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

- ND Non Detect indicates analytical result has not been detected.
- RL Reporting Limit is the quantitation limit at which the laboratory is able to detect an analyte. An analyte not detected at or above the RL is reported as ND unless otherwise noted or qualified. For analyses pertaining to the State Implementation Plan of the California Toxics Rule, the Caltest Reporting Limit (RL) is equivalent to the Minimum Level (ML). A standard is always run at or below the ML. Where Reporting Limits are elevated due to dilution, the ML calibration criteria has been met.
- J reflects estimated analytical result value detected below the Reporting Limit (RL) and above the Method Detection Limit (MDL). The 'J' flag is equivalent to the DNQ Estimated Concentration flag.
- E indicates an estimated analytical result value.
- B indicates the analyte has been detected in the blank associated with the sample.
- NC means not able to be calculated for RPD or Spike Recoveries.
- SS compound is a Surrogate Spike used per laboratory quality assurance manual.

NOTE: This document represents a complete Analytical Report for the samples referenced herein and should be retained as a permanent record thereof.

Qualifiers and Compound Notes

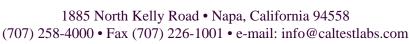
- 1 Nitrate and/or Nitrite was detected in the sample. Sample was treated with Sulfamic Acid prior to analysis.
- 2 The sample was received unpreserved. At the time of the analysis, the measured pH of the sample was 10.



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ANALYTICAL RESULTS

Lab Order: T110273

Project ID: RESAMPLE 2 (11/7/18)

Lab ID T110273001 Sample ID TIGER PIT (NAOH PRESERVED)	Date Collected Date Received		2018 08:06 2018 09:58		Matrix	Water			
Parameters	Result Units	R. L.	MDL	DF Prepare	ed	Batch	Analyzed	Batch	Qual
Cyanide, Total Analysis	Analytical Method:	SM 4	500-CN C/E-9	99/11			Analyzed by:	ВСР	
Cyanide	J2.5 ug/L	3	0.90	1			11/07/18 16:47	WCO 14067	1
Lab ID T110273002	Date Collected	11/7/	2018 08:06		Matrix	Water			
Sample ID TIGER PIT (UNPRESERVED)	Date Received	11/7/	2018 09:58						
Parameters	Result Units	R. L.	MDL	DF Prepare	ed	Batch	Analyzed	Batch	Qual
Cyanide, Total Analysis	Analytical Method:	SM 4	500-CN C/E-9	99/11			Analyzed by:	ВСР	
Cyanide	J1.1 ug/L	3	0.90	1			11/07/18 16:47	WCO 14067	1,2

11/9/2018 15:44

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Lab Order: T110273

Project ID: RESAMPLE 2 (11/7/18)

Analysis Description: Cyanide, Total Analysis QC Batch: WCO/14067

Analysis Method: SM 4500-CN C/E-99/11 **QC Batch Method:** SM 4500-CN C/E-99/11

METHOD BLANK: 851944

 Parameter
 Result
 Limit
 MDL
 Units
 Qualifiers

 Cyanide
 ND
 3
 0.9
 ug/L

LABORATORY CONTROL SAMPLE: 851945

Spike LCS LCS % REC Result Units Conc. % Rec **Limits Qualifier** Parameter Cyanide ug/L 20 20.2 101 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 851946 851947

		T110110002	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Result	Result	% Rec	% Rec	Limit	RPD	RPD Qualifiers	
Cyanide	ua/l	16	40	40.9	42 9	98	103	80-120	4.8	20 1	



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QUALITY CONTROL DATA QUALIFIERS

Lab Order: T110273

Project ID: RESAMPLE 2 (11/7/18)

QUALITY CONTROL PARAMETER QUALIFIERS

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

NS - means not spiked and will not have recoveries reported for Analyte Spike Amounts

QC Codes Keys: These descriptors are used to help identify the specific QC samples and clarify the report.

MB - Method Blank

Method Blanks are reported to the same Method Detection Limits (MDLs) or Reporting Limits (RLs) as the analytical samples in the corresponding QC batch.

LCS/LCSD - Laboratory Control Spike / Laboratory Control Spike Duplicate

DUP - Duplicate of Original Sample Matrix

MS/MSD - Matrix Spike / Matrix Spike Duplicate

RPD - Relative Percent Difference

%Recovery - Spike Recovery stated as a percentage

1 Nitrate and/or Nitrite was detected in the sample. Sample was treated with Sulfamic Acid prior to analysis.



11/9/2018 15:44



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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab Order: T110273

Project ID: RESAMPLE 2 (11/7/18)

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
T110273001	TIGER PIT (NAOH	SM 4500-CN C/E-99/11	WCO/14067		
T110273002	TIGER PIT (UNPRESERVED)	SM 4500-CN C/E-99/11	WCO/14067		

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REPORT OF LABORATORY ANALYSIS

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1		Cal		it PRO	JECT NAME / PROJECT I	D NAPA, CA 94558 SAMPLE CH	IAIN OF				UMBER		LAB ORDER#	PAGE 1 OF 1
CLIENT:		LYTICAL L			esample REPORT ATTN	2 (11/7/19	s)		G.		ANALYSES REQUESTED		-	11027
PGRE MAILING ADDR	Cotono	y Gener	noito	Statio	In Ange	L'Espicial /e	abe 4 6	gge.c	0m	5 N 3	AIREIGES REGISTED	11		
3225	5 Ny	ver 14	ie.			ATTN:	G	450	9	Sallore				TURN-AROUND TIME
(925))522- [~]	1838 FAX P	HONE NUMBER		Muskan E	nviranmetal	Supling	3	4	1500 1500			DUE DATE:	RUSH
	DATE SAMPLED	TIME SAMPLED	SAMPLE MATRIX*	CONTAINER TYPE/ AMOUNT**	PRESERVATIVE	SAMPLE IDENTIFICATION	ON / SITE	CLIENT LAB#	COMP. or GRAB	Cychide Cychide Seely Seely Sm			samples	sent on ICE
	11/7/18	08:06	weste weste	500 ml	Na OH	Ticar Pit			Grab	X				
-7	11/7/18	08:06	AG Washer	500 ml (0) V 500 ml (2) Y	None	Tiger Pit	+		Crap	X				
						_								
													PI	Ileu
							-					++		
Lee	€B NOU	ISHED BY		DATE		RECEIVED BY		BELING	QUISHED BY		DATE/TIME			RECEIVED BY
1	L			11/7/18/0	200	l Donnie	151		Im	vi	The state of the s	958	1	NECEIVED DT
	0			/										As
Semples:	WC BIO	MICRO WC	AA AA	AA	SV VOA	pH? Y/N TEMP: 2, 4	SEALED:	()	INTACT:	/y)N			Metals; FE = Low I	queous Nondrinking Water, Digested R.L.s, Aqueous Nondrinking Water, W = Drinking Water, SL = Soil Sludge roduct
CC.	AA HP	SV PT	VOA	VOA				100					Amber; PT = Pint (Gallon (Plastic); SJ	PES: AL = Amber Liter; AHL = 500 m Plastic); QT = Quart (Plastic); HG = H I = Soll Jar; B4 = 4oz. BACT; BT = Bro
W/HNO ₃		H ₂ SO ₄		NaOH			O EE	181					Tupe; VOA = 40ml	. VOA; OTC - Other Type Container
NL:	HNO ₅	Hy	SO ₄	N	laOH	HCL							R PR	M F 10/29





Oakland, CA 94601

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 304800 ANALYTICAL REPORT

Pacific Gas & Electric Project : STANDARD

4801 Oakport Street Location : Resample 2 (11/7/18)

Level : II

 Sample ID
 Lab ID

 TIGER PIT
 304800-001

 TIGER PIT
 304800-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Date: <u>11/08/2018</u>

Signature:

Will Rice Project Manager will.rice@enthalpy.com (510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001



CASE NARRATIVE

Laboratory number: 304800

Client: Pacific Gas & Electric Location: Resample 2 (11/7/18)

Request Date: 11/07/18
Samples Received: 11/07/18

This data package contains sample and QC results for two water samples, requested for the above referenced project on 11/07/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recovery was observed for cyanide in the MS for batch 265268; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

CHAIN OF CUSTODY **Enthalpy Analytical** Page ____of __ Formerly Curtis & Tompkins Analytical Laboratory Since 1878 Chain of Custody #: 2323 Fifth Street **Analytical Request** Berkeley, CA 94710 C&T LOGIN # 30480 (510)486-0900 Phone (510)486-0532 Fax **Project No:** Project Name: Resample 2 (11/7/18) Company: PREE Coteway Generating Rpt Level: II Turnaround Time: Standard Rush Telephone: (925) 522-7838 Email: abe 4 @pge.com Chemical Sampling Matrix **Preservative** Lab Sample ID. # of Container NaOH No. None H₂SO₄ NO. 모 Date Time 117/12 08:06 X 11/7/18 08:06 X Notes: Sample Sent **RELINQUISHED BY:** SAMPLE RECEIPT RECEIVED BY: On ice ☐ Intact ☐ Cold containers: ☐ On Ice ☐ Ambient PATE/TIME 500 m1 poly 9:47 DATE/TIME 500 ml pol X DATE/TIME

DATE/TIME

SAMPLE RECEIPT CHECKUST			7
Section 1: Login # 304800 Client: 1/GEO			
Date Received: 11 7 118 Project:		EŅŢ	HALPY
Section 2: Samples received in a cooler? Yes, how many? No (skip Section 3 below)			
If no cooler Sample Temp (°C): 14.4 using IR Gun # 🛮 A, or 🗆 B			
Samples received on ice directly from the field. Cooling process had begun			
If in cooler: Date Opened 11 7/18 By (print) AC (sign)			
Shipping info (if applicable)		-	
Are custody seals present? \(\begin{align*} \leftarrow\text{No}, \text{ or } \begin{align*} \text{Yes. If yes, where?} \(\begin{align*} \text{on cooler,} \(\begin{align*} \text{on samples,} \\ \end{align*} \)	—	 	
Date: How many D Signature, D Initials, D None	□ on pa	ckage	
Were custody seals intact upon arrival? ☐ Yes ☐ No ☐ N/A			
Section 3: Important: Notify PM if temperature exc	eeds 6°C	or arrive	frozen.
Packing in cooler: (if other, describe)			
☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐] Paper to	nweis	
☐ Samples received on ice directly from the field. Cooling process had begun	a ruper c	JIICIS	
Type of ice used : ☐ Wet, ☐ Blue/Gel, ☐ None ☐ Temperature blank(s) included?	∃Ves [⊒-No	
Temperature measured using Thermometer ID:	1 cs, _E	<u> </u>	
C 1 ** 150 Hd	#7:		
Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable			
Were Method 5035 sampling containers present?			
If YES, what time were they transferred to freezer?	E-17/47 == E		
Did all bottles arrive unbroken/unopened?			
Are there any missing / extra samples?			
Are samples in the appropriate containers for indicated tests?			
Are sample labels present, in good condition and complete?			
Does the container count match the COC?			Cortes allers a 15th page 1
Do the sample labels agree with custody papers?			
Was sufficient amount of sample sent for tests requested?			
Did you change the hold time in LIMS for unpreserved VOAs?			
Did you change the hold time in LIMS for preserved terracores?			
Are bubbles > 6mm absent in VOA samples?			
Was the client contacted concerning this sample delivery?			3230
If YES, who was called?ByDate:			
Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (if N/A, skip the rest of section 5)			
Did you check preservatives for all bottles for each sample?			· "一"
Did you document your preservative check?			
pH strip lot# #(131725, pH strip lot#, pH strip lot#			
Preservative added:			l
☐ H2SO4 lot# added to sampleson/at			
☐ HCL lot#added to sampleson/at			
☐ HNO3 lot# added to samples on/at			
□ NaOH lot# added to samples on/at			
Section 6:			
Explanations/Comments:			
Date Logged in 11 7 18 By (print) A (sign)			
Date Labeled 11 7 118 By (print) (sign)			

Enthalpy Sample Preservation for 304800

<u>Sample</u>	pH:	<2	2	> 2	9	>12	Other
-001a	_	[]	[]	المسد]	
-002a		ſ	1	Г	1	r 1	

Analyst: 47 7 1

5 of 8



Detections Summary for 304800

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location : Resample 2 (11/7/18)

Client Sample ID : TIGER PIT Laboratory Sample ID : 304800-001

No Detections

Client Sample ID : TIGER PIT Laboratory Sample ID : 304800-002

No Detections

Page 1 of 1 7.0



Total Cyanide							
Lab #:	304800	Location:	Resample 2 (11/7/18)				
Client:	Pacific Gas & Electric	Prep:	METHOD				
Project#:	STANDARD	Analysis:	SM4500CN-C,E				
Analyte:	Cyanide	Batch#:	265268				
Field ID:	TIGER PIT	Sampled:	11/07/18				
Matrix:	Water	Received:	11/07/18				
Units:	mg/L	Prepared:	11/07/18				
Diln Fac:	1.000	Analyzed:	11/08/18				

Type	Lab ID	Result	RL
SAMPLE	304800-001	ND	0.010
SAMPLE	304800-002	ND	0.010
BLANK	QC954755	ND	0.010

ND= Not Detected RL= Reporting Limit

Page 1 of 1

2.0



Batch QC Report

	Total Cyanide							
Lab #:	304800	Location:	Resample 2 (11/7/18)					
Client:	Pacific Gas & Electric	Prep:	METHOD					
Project#:	STANDARD	Analysis:	SM4500CN-C,E					
Analyte:	Cyanide	Batch#:	265268					
Field ID:	ZZZZZZZZZ	Sampled:	10/29/18					
MSS Lab ID:	304646-001	Received:	10/30/18					
Matrix:	Water	Prepared:	11/07/18					
Units:	mg/L	Analyzed:	11/08/18					
Diln Fac:	1.000							

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC954756		0.2000	0.1613	81	76-120		
MS	QC954757	<0.01000	0.2000	0.1277	64 *	66-120		
MSD	QC954758		0.2000	0.1492	75	66-120	16	28

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference Page 1 of 1

Attachment 5 Analytical Report on Resampling #3



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1811249

Report Created for: PG&E Gateway Generating Station

3225 Wilbur Avenue Antioch, CA 94509

Project Contact: Angel Espiritu

Project P.O.:

Project: Resample 2(11/7/18)

Project Received: 11/07/2018

Analytical Report reviewed & approved for release on 11/08/2018 by:

Yen Cao

Project Manager

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1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: PG&E Gateway Generating Station

Project: Resample 2 (11/7/18)

WorkOrder: 1811249

Glossary Abbreviation

%D Serial Dilution Percent Difference

95% Interval 95% Confident Interval

DF Dilution Factor

DI WET (DISTLC) Waste Extraction Test using DI water

DISS Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)

DLT Dilution Test (Serial Dilution)

DUP Duplicate

EDL Estimated Detection Limit

ERS External reference sample. Second source calibration verification.

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

N/A Not Applicable

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PDS Post Digestion Spike

PDSD Post Digestion Spike Duplicate

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value

SPLP Synthetic Precipitation Leachate Procedure

ST Sorbent Tube

TCLP Toxicity Characteristic Leachate Procedure

TEQ Toxicity Equivalents

WET (STLC) Waste Extraction Test (Soluble Threshold Limit Concentration)

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client: PG&E Gateway Generating Station

Date Received: 11/7/18 9:45 **Date Prepared:** 11/7/18

Project: Resample 2 (11/7/18)

WorkOrder: 1811249

Extraction Method: SM4500-CN⁻ E **Analytical Method:** SM4500-CN⁻ CE

Unit: $\mu g/L$

Cyanide,	Total
----------	-------

		Cyamuc, 10ta	1					
Client ID	Lab ID	Matrix	Date Coll	ected	Instrument			Batch ID
Tiger Pit-Amber	1811249-001A	Water	11/07/2018	08:06	WC_SKALAR	110718A1	_21	167990
Analytes	Result		<u>RL</u>	<u>DF</u>			Date A	<u>Analyzed</u>
Total Cyanide	ND		1.0	1			11/07/	2018 11:36

Analyst(s): NM

Client ID	Lab ID	Matrix	Date Collected	l Instrument	Batch ID
Tiger Pit-Clear	1811249-002A	Water	11/07/2018 08:0	6 WC_SKALAR 110718A1_24	167990
<u>Analytes</u>	Result		<u>RL</u> <u>DF</u>	Date	Analyzed
Total Cyanide	ND		1.0 1	11/0	7/2018 11:47

Analyst(s): NM

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Quality Control Report

Client: PG&E Gateway Generating Station

Date Prepared: 11/7/18

Date Analyzed: 11/7/18 **Instrument:** WC_SKALAR

Matrix: Water

Project: Resample 2 (11/7/18)

WorkOrder: 1811249

BatchID: 167990

Extraction Method: SM4500-CN⁻ E **Analytical Method:** SM4500-CN⁻ CE

Unit: $\mu g/L$

Sample ID: MB/LCS/LCSD-167990

1811249-001AMS/MSD

QC Summary Rep	ort for SM4500-CN ⁻ CE
----------------	-----------------------------------

Analyte	MB Result	RL			
Total Cyanide	ND	1.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Cyanide	39	40	40	98	99	90-110	1.36	20

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Total Cyanide	1	41	42	40	ND	102	106	80-120	4.27	20

McCampbell Analytical, Inc.

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1811249	ClientCode:	PGEA
--------------------	-------------	-------------

Excel EQuIS

Detection Summary

Bill to:

✓ Email
□ Dry-Weight

☐ HardCopy ☐ ThirdParty

___J-flag

1 day;

1 of 1

Report to:

Angel Espiritu

PG&E Gateway Generating Station 3225 Wilbur Avenue Antioch, CA 94509 (925) 459-7212 FAX: Email: abe4@pge.com

cc/3rd Party: A1HE@pge.com; J5Ld@pge.com; tlWY@p

□ EDF

PO: Project:

□WaterTrax

Resample 2 (11/7/18)

☐ WriteOn

Angel Espiritu

PG&E Gateway Generating Station

3225 Wilbur Avenue Antioch, CA 94509 Date Received:

Requested TAT:

11/07/2018

Date Logged: 11/07/2018

								Red	quested	Tests (S	See lege	end belo	ow)			
Lab ID	Client ID	Matrix	Collection Date H	lold	1	2	3	4	5	6	7	8	9	10	11	12
															1	
1811249-001	Tiger Pit-Amber	Water	11/7/2018 08:06		Α											
1811249-002	Tiger Pit-Clear	Water	11/7/2018 08:06		Α											

Test Legend:

1 CN_SM4500CE_W	2	3	4
5	6	7	8
9	10	11	12

Prepared by: Agustina Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).

Hazardous samples will be returned to client or disposed of at client expense.



McCampbell Analytical, Inc.

"When Quality Counts"

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WORK ORDER SUMMARY

Client Name	e: PG&E GA	TEWAY GENERAT	TING STATION	N Pro	oject: R	Resample	2 (11/7/18	5)			Wor	k Order:	1811249	
Client Conta	act: Angel Esp	iritu									(C Level:	LEVEL 2	
Contact's En	mail: abe4@pge	.com		Co	mments:						Date	Logged:	11/7/2018	
		☐ WaterTrax	WriteOn	EDF	Excel	F	=ax	y Email	HardCo	ppy ⊡ThirdPart	у,	J-flag		
Lab ID	Client ID	Matrix	Test Name			tainers nposites	Bottle & P	reservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold SubOu	t
1811249-001A	Tiger Pit-Amber	Water	SM4500-CN ⁻ 0	CE (Cyanide, Total)		1 2		E w/ NaOH + S2O3		11/7/2018 8:06	1 day			
1811249-002A	Tiger Pit-Clear	Water	SM4500-CN	CE (Cyanide, Total)		1 2	250mL HDPI	E w/ Na2S2O3		11/7/2018 8:06	1 day	None		

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

																			_		1	8	11	7)	4	9	_		0. 1	- 0 1
W N	ebsite:	15 Pl www.mccs ne: (877)	ELL A 34 WILLO TTTSBURG, ampbell.co 252-9262	W PA: CA 94 m En	SS ROAD 565-1701 nail: main Fa	@mc x: (92	cam _] 25) 2	pbell.0 252 -9	269					TUR GeoT		RO	UN ED	D TI		E PDI Chec	R F C	USF 1	ı Exc	24 I cel	HR	V	48 H Vri	te O	72 H n (D ' flag	W) [is req	uired
Report To: Ang Company: PG&			omating C		ill To: P	G&I	Ga	tewa	<u>y</u>		_		\dashv					Anal		Requ	lest	_	T	_			\dashv		Re	emark	S
E-Mail: abe4@pt Tel: (925) 522-7 Project Name: Project Location Sampler Signati	e.com, 838, (5 Rec:	A1HE@p 10) 861-1 50mp Pit, Sou	ge.com, J5 597 (Cell) C 2 (Ld@p	ge.com, to Tax: (7/18))	utri	.com,	up	الم	} /	4	<u></u>	Cyanide (TOTAL) (Pretreated with sodium thiosulfate before preserving) by SM 4500 CN-ABCE	TTO (USEPA 624-Volatile Organic Compounds)	TTO (USEPA 625- Semi Volatile Organic Compounds)	-Organochlorine Pesticides and PCBs)	126 Priority Pollutants (see Appendix B analyze only listed compounds)													
SAMPLE LOCATION Field Po	Sample Type Col	Date	Time	# Containers	Type Containers	Waste Water	Sewer Water	None	H.SO.	NaOH	HCL	HNO,	Other	Cyanide (TOTAL) thiosulfate before p ABCE	TTO (USEPA 624-V	TTO (USEPA 625-	TTO (USEPA 608 -	126 Priority Polluta compounds)													
Tiger Pit	G	11/7/18	08:06	1	250 ml poly Amb	X		3		X				X																	
Tiger Pit	G	11/7/18	98:09	1	250 ml poly	Х		X						X																	
Source Water	G	11/7/18		1	250 ml poly	X		X		X		_	\dashv	X																	
Source	G	11/7/18		1	250 ml poly	X		Х						x									,								
Water																															
	+												\dashv									1									
																	4	1/1			F										
Relinquished By:		Date:	Time:	(eived By:		-							ICE/t°_ GOOD HEAD S DECHL APPRO	COND SPACI ORIN	ATE	N_ SENT D IN	LAB_	ts_					A	TTO TTO Appe	(EP.	A 608 A 62 K A a	8), TT (5) see	ATTA	A 624), ACHEI only list)

PG&E Gateway Generating Station

Client Name:

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Date and Time Received 11/7/2018 09:45

Sample Receipt Checklist

Project:	Resample 2 (11/7/1	8)			Date Logged:	11/7/2018
Work Order No:	1911240	Matrix: Water			Received by:	Jena Alfaro
WorkOrder №: Carrier:	1811249 Client Drop-In	Matrix: <u>Water</u>			Logged by:	Agustina Venegas
		Chain of (Custody	/ (COC) Infor	<u>mation</u>	
Chain of custody	present?		Yes	✓	No 🗌	
Chain of custody	signed when relinquis	shed and received?	Yes	✓	No 🗆	
Chain of custody	agrees with sample la	abels?	Yes	✓	No 🗌	
Sample IDs noted	by Client on COC?		Yes	•	No 🗆	
Date and Time of	collection noted by C	lient on COC?	Yes	✓	No 🗆	
Sampler's name r	noted on COC?		Yes	✓	No 🗆	
COC agrees with	Quote?		Yes		No 🗆	NA 🗸
		Samp	le Rece	eipt Informati	<u>on</u>	
Custody seals into	act on shipping conta	iner/cooler?	Yes		No 🗆	NA 🗹
Shipping containe	er/cooler in good cond	lition?	Yes	•	No 🗆	
Samples in prope	r containers/bottles?		Yes	✓	No 🗌	
Sample container	s intact?		Yes	•	No 🗆	
Sufficient sample	volume for indicated	test?	Yes	✓	No 🗌	
		Sample Preservati	ion and	Hold Time (I	HT) Information	
All samples receiv	ved within holding tim	e?	Yes	✓	No 🗆	NA 🗌
Samples Receive	d on Ice?		Yes	✓	No 🗌	
		(Ice Typ	e: WE	TICE)		
Sample/Temp Bla	ank temperature			Temp: 5.6	S°C	NA 🗌
Water - VOA vials	s have zero headspac	e / no bubbles?	Yes		No 🗌	NA 🗹
Sample labels che	ecked for correct pres	servation?	Yes	✓	No 🗌	
pH acceptable up	on receipt (Metal: <2;	522: <4; 218.7: >8)?	Yes		No 🗌	NA 🗹
UCMR Samples:				_	_	_
	acceptable upon recei 3; 544: <6.5 & 7.5)?	pt (200.8: ≤2; 525.3: ≤4;	Yes		No 🗌	NA 🗹
Free Chlorine to	ested and acceptable	upon receipt (<0.1mg/L)?	Yes		No 🗆	NA 🗹
Comments:						



Friday, November 09, 2018

Angel Espiritu PG&E Gateway Generating Station 3225 Wilbur Ave Antioch. CA 94509

Re Lab Order: T110273

Project ID: RESAMPLE 2 (11/7/18)

Collected By: MUSKAN ENV.

PO/Contract #:

Dear Angel Espiritu:

Enclosed are the analytical results for sample(s) received by the laboratory on Wednesday, November 07, 2018. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

CC: Daryl Sattelberg, PG&E Gateway Generating Station

David Hammond, PG&E Gateway Generating Station

Tim Wisdom, PG&E Gateway Generating Station

Enclosures

Project Manager: Eli N. Greenwald



11/9/2018 15:44

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Lab Order: T110273

Project ID: RESAMPLE 2 (11/7/18)

Lab ID	Sample ID	Matrix	Date Collected	Date Received
T110273001	TIGER PIT (NAOH PRESERVED)	Water	11/07/2018 08:06	11/07/2018 09:58
T110273002	TIGER PIT (UNPRESERVED)	Water	11/07/2018 08:06	11/07/2018 09:58

TNI

11/9/2018 15:44



Page 2 of 7



NARRATIVE

Lab Order: T110273

Project ID: RESAMPLE 2 (11/7/18)

General Qualifiers and Notes

Caltest authorizes this report to be reproduced only in its entirety. Results are specific to the sample(s) as submitted and only to the parameter(s) reported.

Caltest certifies that all test results for wastewater and hazardous waste analyses meet all applicable NELAC requirements; all microbiology and drinking water testing meet applicable ELAP requirements, unless stated otherwise.

All analyses performed by EPA Methods or Standard Methods.

Dilution Factors (DF) reported greater than '1' have been used to adjust the result, Reporting Limit (RL), and Method Detection Limit (MDL).

All Solid, sludge, and/or biosolids data is reported in Wet Weight, unless otherwise specified.

Filtrations performed at Caltest for dissolved metals (excluding mercury) and/or pH analysis are not performed within the 15 minute holding time as specified by 40CFR 136.3 table II.

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

- ND Non Detect indicates analytical result has not been detected.
- RL Reporting Limit is the quantitation limit at which the laboratory is able to detect an analyte. An analyte not detected at or above the RL is reported as ND unless otherwise noted or qualified. For analyses pertaining to the State Implementation Plan of the California Toxics Rule, the Caltest Reporting Limit (RL) is equivalent to the Minimum Level (ML). A standard is always run at or below the ML. Where Reporting Limits are elevated due to dilution, the ML calibration criteria has been met.
- J reflects estimated analytical result value detected below the Reporting Limit (RL) and above the Method Detection Limit (MDL). The 'J' flag is equivalent to the DNQ Estimated Concentration flag.
- E indicates an estimated analytical result value.
- B indicates the analyte has been detected in the blank associated with the sample.
- NC means not able to be calculated for RPD or Spike Recoveries.
- SS compound is a Surrogate Spike used per laboratory quality assurance manual.

NOTE: This document represents a complete Analytical Report for the samples referenced herein and should be retained as a permanent record thereof.

Qualifiers and Compound Notes

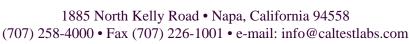
- 1 Nitrate and/or Nitrite was detected in the sample. Sample was treated with Sulfamic Acid prior to analysis.
- 2 The sample was received unpreserved. At the time of the analysis, the measured pH of the sample was 10.



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Page 3 of 7







ANALYTICAL RESULTS

Lab Order: T110273

Project ID: RESAMPLE 2 (11/7/18)

Lab ID T110273001 Sample ID TIGER PIT (NAOH PRESERVED)	Date Collected Date Received		2018 08:06 2018 09:58		Matrix Wate	г		
Parameters	Result Units	R. L.	MDL	DF Prepare	d Batch	Analyzed	Batch	Qual
Cyanide, Total Analysis	Analytical Method:	SM 4	500-CN C/E-9	9/11		Analyzed by:	BCP	
Cyanide	J2.5 ug/L	3	0.90	1		11/07/18 16:47	WCO 14067	1
Lab ID T110273002	Date Collected	11/7/	2018 08:06		Matrix Wate	r		
Sample ID TIGER PIT (UNPRESERVED)	Date Received	11/7/	2018 09:58					
Parameters	Result Units	R. L.	MDL	DF Prepare	d Batch	Analyzed	Batch	Qual
Cyanide, Total Analysis	Analytical Method:	SM 4	500-CN C/E-9	9/11		Analyzed by:	BCP	
Cyanide	J1.1 ug/L	3	0.90	1		11/07/18 16:47	WCO 14067	1,2

11/9/2018 15:44

REPORT OF LABORATORY ANALYSIS

Page 4 of 7







QUALITY CONTROL DATA

Lab Order: T110273

Project ID: RESAMPLE 2 (11/7/18)

Analysis Description: Cyanide, Total Analysis QC Batch: WCO/14067

Analysis Method: SM 4500-CN C/E-99/11 **QC Batch Method:** SM 4500-CN C/E-99/11

METHOD BLANK: 851944

 Parameter
 Result
 Limit
 MDL
 Units
 Qualifiers

 Cyanide
 ND
 3
 0.9
 ug/L

LABORATORY CONTROL SAMPLE: 851945

Spike LCS LCS % REC Result Units Conc. % Rec **Limits Qualifier** Parameter Cyanide ug/L 20 20.2 101 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 851946 851947

		T110110002	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Result	Result	% Rec	% Rec	Limit	RPD	RPD Qualifiers	
Cyanide	ua/l		40	40.9	42.9	98	103	80-120	4.8	20 1	



11/9/2018 15:44





QUALITY CONTROL DATA QUALIFIERS

Lab Order: T110273

Project ID: RESAMPLE 2 (11/7/18)

QUALITY CONTROL PARAMETER QUALIFIERS

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

NS - means not spiked and will not have recoveries reported for Analyte Spike Amounts

QC Codes Keys: These descriptors are used to help identify the specific QC samples and clarify the report.

MB - Method Blank

Method Blanks are reported to the same Method Detection Limits (MDLs) or Reporting Limits (RLs) as the analytical samples in the corresponding QC batch.

LCS/LCSD - Laboratory Control Spike / Laboratory Control Spike Duplicate

DUP - Duplicate of Original Sample Matrix

MS/MSD - Matrix Spike / Matrix Spike Duplicate

RPD - Relative Percent Difference

%Recovery - Spike Recovery stated as a percentage

1 Nitrate and/or Nitrite was detected in the sample. Sample was treated with Sulfamic Acid prior to analysis.



11/9/2018 15:44



Page 6 of 7

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab Order: T110273

Project ID: RESAMPLE 2 (11/7/18)

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
T110273001	TIGER PIT (NAOH	SM 4500-CN C/E-99/11	WCO/14067		
T110273002	TIGER PIT (UNPRESERVED)	SM 4500-CN C/E-99/11	WCO/14067		

without the written consent of CALTEST ANALYTICAL LABORATORY 1885 North Kelly Road • Napa, California 94558 (707) 258-4000 • Fax (707) 226-1001 • e-mail: info@caltestlabs.com

REPORT OF LABORATORY ANALYSIS

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-		Cal		ST PROJ	ECT NAME / PROJECT N	NUMBER:	CHAIN OF (NUMBER		PAGE	1 OF 1
CLIENT:		y Gener			Sample REPORT ATTN	2 (11/7) LESPICIAL STATE:	letanilia letanilia	اوود. د	0m	2 u 3	ANALYSES REQUE	STED		110 27
322	5 Wil RESS: (Sam SER: (Sam	oer 141	16.		ISAMDI ED (DDINT & SIG	ATTN:		450	9	Preference 1000 Colored			Rush	IDARD
	B DATE SAMPLED			CONTAINER TYPE/ AMOUNT**	PRESERVATIVE	SAMPLE IDENTIFIC		CLIENT LAB#	COMP. or GRAB	Cycalide (18)			samples som	ks N ICE
-7	11/7/18	08:06	AQ worke nocke worke	500 ml POLY 500 ml POLY	Na 0 H None Perserves	Tiger P Tiger	f; f		Crab	X				
													RU	SH
	RELINQ	UISHED BY		DATE/		RECEIVED BY		RELIN	QUISHED BY		11/7/18	ATE/TIME /0958	RECEIVE	D BY
Samples:	wc	MICRO	BIO	11/7/18/6	SV VOA	ph? Y/N TEMP:Z,		(Y)N	INTACT:	/vh	11/110	/ 0138	*MATRIX: AQ = Aqueous No	ndrinking Water, Digested
BD: CC: SIL:	BIO AA HP	WC SV PT	AA VOA QT	VOA			OMMENTS:		2000		4		Metals; FE'= Low R.L.s, Aque Digested Metals; DW = Drinkir Solid; FP = Free Product **CONTAINER TYPES: AL = Amber; PT = Pint (Plastic); QT Gallon (Plastic); SJ = Soil Jar; Tube; VOA = 40mL VOA; OTC	ng Water; SL = Soil Sludge, Amber Liter; AHL = 500 m = Quart (Plastic); HG = Ha B4 = 40z. BACT; BT = Bra
W/HNO	HNO ₃	H₂SO₄ F	t ₂ SO ₄	NaOH	NaOH	HCL							R PR M	FF





Oakland, CA 94601

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 304800 ANALYTICAL REPORT

Pacific Gas & Electric Project : STANDARD

4801 Oakport Street Location : Resample 2 (11/7/18)

Level : II

 Sample ID
 Lab ID

 TIGER PIT
 304800-001

 TIGER PIT
 304800-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Date: <u>11/08/2018</u>

Signature:

Will Rice Project Manager will.rice@enthalpy.com (510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001



CASE NARRATIVE

Laboratory number: 304800

Client: Pacific Gas & Electric Location: Resample 2 (11/7/18)

Request Date: 11/07/18
Samples Received: 11/07/18

This data package contains sample and QC results for two water samples, requested for the above referenced project on 11/07/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recovery was observed for cyanide in the MS for batch 265268; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

CHAIN OF CUSTODY **Enthalpy Analytical** Page ____of __ Formerly Curtis & Tompkins Analytical Laboratory Since 1878 Chain of Custody #: 2323 Fifth Street **Analytical Request** Berkeley, CA 94710 C&T LOGIN # 30480 (510)486-0900 Phone (510)486-0532 Fax **Project No:** Project Name: Resample 2 (11/7/18) Company: PREE Coteway Generating Rpt Level: II Turnaround Time: Standard Rush Telephone: (925) 522-7838 Email: abe 4 @pge.com Chemical Sampling Matrix **Preservative** Lab Sample ID. # of Container NaOH No. None H₂SO₄ NO. 모 Date Time 117/12 08:06 X 11/7/18 08:06 X Notes: Sample Sent **RELINQUISHED BY:** SAMPLE RECEIPT RECEIVED BY: On ice ☐ Intact ☐ Cold containers: ☐ On Ice ☐ Ambient PATE/TIME 500 m1 poly 9:47 DATE/TIME 500 ml pol X DATE/TIME

DATE/TIME

SAMPLE RECEIPT CHECKUST			7
Section 1: Login # 304800 Client: 1/GEO			
Date Received: 11 7 118 Project:		EŅŢ	HALPY
Section 2: Samples received in a cooler? Yes, how many? No (skip Section 3 below)			
If no cooler Sample Temp (°C): 14.4 using IR Gun # 🛮 A, or 🗆 B			
Samples received on ice directly from the field. Cooling process had begun			
If in cooler: Date Opened 11 7/18 By (print) AC (sign)			
Shipping info (if applicable)		-	
Are custody seals present? \(\begin{align*} \leftarrow\text{No}, \text{ or } \begin{align*} \text{Yes. If yes, where?} \(\begin{align*} \text{on cooler,} \(\begin{align*} \text{on samples,} \\ \end{align*} \)	—	 	
Date: How many D Signature, D Initials, D None	□ on pa	ckage	
Were custody seals intact upon arrival? ☐ Yes ☐ No ☐ N/A			
Section 3: Important: Notify PM if temperature exc	eeds 6°C	or arrive	frozen.
Packing in cooler: (if other, describe)			
☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐] Paper to	nweis	
☐ Samples received on ice directly from the field. Cooling process had begun	a ruper c	JIICIS	
Type of ice used : ☐ Wet, ☐ Blue/Gel, ☐ None ☐ Temperature blank(s) included?	∃Ves [⊒-No	
Temperature measured using Thermometer ID:	1 cs, _E	<u> </u>	
C 1 ** 150 Hd	#7:		
Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable			
Were Method 5035 sampling containers present?			
If YES, what time were they transferred to freezer?	E-1783-19		
Did all bottles arrive unbroken/unopened?			
Are there any missing / extra samples?			
Are samples in the appropriate containers for indicated tests?			
Are sample labels present, in good condition and complete?			
Does the container count match the COC?			Cortes allers a 15th page 1
Do the sample labels agree with custody papers?			
Was sufficient amount of sample sent for tests requested?			
Did you change the hold time in LIMS for unpreserved VOAs?			
Did you change the hold time in LIMS for preserved terracores?			
Are bubbles > 6mm absent in VOA samples?			
Was the client contacted concerning this sample delivery?			3230
If YES, who was called?ByDate:			
Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (if N/A, skip the rest of section 5)			
Did you check preservatives for all bottles for each sample?			· "一"
Did you document your preservative check?			
pH strip lot# #(131725, pH strip lot#, pH strip lot#			
Preservative added:			l
☐ H2SO4 lot# added to sampleson/at			
☐ HCL lot#added to sampleson/at			
☐ HNO3 lot# added to samples on/at			
□ NaOH lot# added to samples on/at			
Section 6:			
Explanations/Comments:			
Date Logged in 11 7 18 By (print) A (sign)			
Date Labeled 11 7 118 By (print) (sign)			

Enthalpy Sample Preservation for 304800

<u>Sample</u>	pH:	<2	2	> 2	9	>12	Other
-001a	_	[]	[]	المسد]	
-002a		ſ	1	Г	1	r 1	

Analyst: 47 7 1

5 of 8



Detections Summary for 304800

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location : Resample 2 (11/7/18)

Client Sample ID : TIGER PIT Laboratory Sample ID : 304800-001

No Detections

Client Sample ID : TIGER PIT Laboratory Sample ID : 304800-002

No Detections

Page 1 of 1 7.0



Total Cyanide										
Lab #:	304800	Location:	Resample 2 (11/7/18)							
Client:	Pacific Gas & Electric	Prep:	METHOD							
Project#:	STANDARD	Analysis:	SM4500CN-C,E							
Analyte:	Cyanide	Batch#:	265268							
Field ID:	TIGER PIT	Sampled:	11/07/18							
Matrix:	Water	Received:	11/07/18							
Units:	mg/L	Prepared:	11/07/18							
Diln Fac:	1.000	Analyzed:	11/08/18							

Type	Lab ID	Result	RL
SAMPLE	304800-001	ND	0.010
SAMPLE	304800-002	ND	0.010
BLANK	QC954755	ND	0.010

ND= Not Detected RL= Reporting Limit

Page 1 of 1



Batch QC Report

Total Cyanide											
Lab #:	304800	Location:	Resample 2 (11/7/18)								
Client:	Pacific Gas & Electric	Prep:	METHOD								
Project#:	STANDARD	Analysis:	SM4500CN-C,E								
Analyte:	Cyanide	Batch#:	265268								
Field ID:	ZZZZZZZZZ	Sampled:	10/29/18								
MSS Lab ID:	304646-001	Received:	10/30/18								
Matrix:	Water	Prepared:	11/07/18								
Units:	mg/L	Analyzed:	11/08/18								
Diln Fac:	1.000										

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC954756		0.2000	0.1613	81	76-120		
MS	QC954757	<0.01000	0.2000	0.1277	64 *	66-120		
MSD	QC954758		0.2000	0.1492	75	66-120	16	28

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference Page 1 of 1

Attachment 6 Analytical Report on Resampling #4





Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 305544 ANALYTICAL REPORT

Pacific Gas & Electric 4801 Oakport Street Oakland, CA 94601

Project : STANDARD Location : Tiger Pit

Level : II

 Sample ID
 Lab ID

 TIGERT PIT
 305544-001

 TIGERT PIT
 305544-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Date: <u>12/06/2018</u>

Signature:

Will Rice Project Manager will.rice@enthalpy.com (510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001



CASE NARRATIVE

Laboratory number: 305544

Client: Pacific Gas & Electric

Location: Tiger Pit
Request Date: 12/04/18
Samples Received: 12/04/18

This data package contains sample and QC results for two water samples, requested for the above referenced project on 12/04/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

No analytical problems were encountered.

Enthalpy Analytical Formerly Curtis & Tompkins

Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIR OF GUSTOUT	CHAIN	OF	CUS	TOI	YC
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Page ___of ___

Chain of Custody #:
Analytical Request

(510)486-0532 Fax						··				-			,														
Project No: Project Name: Resample 4 (12/4/18 Rpt Level: II Turnaround Time: Standard RUSH)			Telephone: (925) 522-7838																								
Lab		Samp		Γ	Vlati		7	Γ	Ch		ical ativ			A DOCAL	4500												
No.	Sample ID.	Date	Time	Water	Soil	2	# of Container	_		HNO	T	None	, ,,	Sodium thingul	by SM 1												
	Tiger Pit	12/4/18	08:35				1		\vdash		X			7	<	\dashv	+	+	+	+	+	+	\vdash	+	\vdash	\dashv	
	TigerPit	12/4/18	08:35	X		\bot	ı					X		≯	$\overline{\leq}$				十	\top	\top	1	T	H		\dashv	+
				\vdash	+	\bot	ļ		<u> </u>	<u> </u>																	
				H	+	╀	-	-	-	_		Щ	ļ		_	_		\bot	\perp								
				\vdash	+	+-	 	-		-	-		ŀ	\dashv	\dashv		-	- -	+	+	+	╀	ــــ	\sqcup		_	
					十	十				-		-	ŀ	\dashv	\dashv	\dashv	+	+	+	+	+-	+-	╀	\vdash	\dashv	\dashv	
													l	\dashv		\dashv	十	十	十	十	+	+	┢	\vdash	_	\dashv	
					\perp	$oxed{\Box}$										\top	\top	\top	十	十	+	+-	<u> </u>	H	_	+	+
				4	4	$oldsymbol{\downarrow}$																	T	\Box	一	十	_
				+	+-	╄							-	_	\dashv		_		\perp								
				\dashv	+	+-							}	-	\dashv	_	4	+	- -	4		┦	_	\sqcup	\dashv	_	
Notes:	Sample Sent on ICE	SAMPLE RE		RE	LIN	Qu	SHE				7			RECEIVED BY:												2-7	
		☐ On Ice ☐ Ami	pient		Market Services		<u>)</u>		2/1	4/1	2/1	Ý, (1	ITAG	E/TIN	E/TIME CUT BUSS 12-4-18 9-50 DATE/TIME											= 50 :/Time	
60/A	250m1 250m1										70		DATI		T												/TIME
												[DATE	E/TIN	ΛE								······································				/TIME

SAMPLE RECEIPT CHECKLIST		-	77
Section 1: Login# 305544 Client: VG + E Gate vay Galvara	ALUCA		
Section 1: Login# 305444 Client: 164 E Garage Grand Project:	```	ENT	HALPY
Section 2: Samples received in a cooler? Yes, how many? No (skip Section 3 below)		
If no cooler Sample Temp (°C): using IR Gun # □ A, or □ B			
Samples received on ice directly from the field. Cooling process had begun			
If in cooler: Date Opened 1/14/18 By (print) (sign)		_	
Shipping info (if applicable)			•
Are custody seals present? \(\bar{\text{No}} \), or \(\bar{\text{Yes.}} \) if yes, where? \(\bar{\text{O}} \) on cooler, \(\bar{\text{O}} \) on samples	. 🗆 on pa	ckage	
☐ Date: How many ☐ Signature, ☐ Initials, ☐ None			
Were custody seals intact upon arrival? ☐ Yes ☐ No ☐ N/A			
Section 3: important : Notify PM if temperature ex	ceeds 6°C	or arrive	frozen.
Packing in cooler: (if other, describe)		J. W. 114	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam,	□ Paner to	owels	
☐ Samples received on ice directly from the field. Cooling process had begun	m raper o	DWCIS	
Type of ice used:	□ Vec [⊐ No	
Temperature measured using Thermometer ID: Thermometer	[_] I C3, [_] 140	
Cooler Temp (°C): #1: #2: #3: #4: #5: #6:	#7.		
Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	TES	NO	N/A
Were Method 5035 sampling containers present?			
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?			
Are there any missing / extra samples?	-		
Are samples in the appropriate containers for indicated tests?			
Are sample labels present, in good condition and complete?			
Does the container count match the COC?			
Do the sample labels agree with custody papers?			
Was sufficient amount of sample sent for tests requested?	+		
Did you change the hold time in LIMS for unpreserved VOAs?	+		
Did you change the hold time in LIMS for preserved terracores?			
Are bubbles > 6mm absent in VOA samples?		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Was the client contacted concerning this sample delivery?	 	***************************************	
			्रोत्। स्टब्स्ट्रिक्
If YES, who was called? By Date: Section 5:			
	YES	NO	N/A
Are the samples appropriately preserved? (if N/A, skip the rest of section 5)			
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?			en en en en en en en en en en en en en e
pH strip lot# <u>H(131225</u> , pH strip lot#, pH strip lot#	· · · · · · · · · · · · · · · · · · ·		
Preservative added:			
☐ H2SO4 lot# added to sampleson/at		,	
☐ HCL lot# added to samples on/at			
☐ HNO3 lot# added to samples on/at ☐ NaOH lot# added to samples on/at			
Olyac			
Section 6: Explanations/Comments:			
		'	
Date Logged in 1918 By (print) (sign)	<u>- </u>	<u></u>	
Date Labeled 12/4/18 By (print) 4 (sign)	/		



Detections Summary for 305544

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD Location : Tiger Pit

Client Sample ID : TIGERT PIT Laboratory Sample ID : 305544-001

Analyte Result Flags RL Units Basis IDF Method Prep Method Cyanide 0.030 0.010 mg/L TOTAL 1.000 SM4500CN-C,E METHOD

Client Sample ID: TIGERT PIT Laboratory Sample ID: 305544-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.032		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Page 1 of 1 7.0



	Tota	ıl Cyanide		
Lab #:	305544	Location:	Tiger Pit	
Client:	Pacific Gas & Electric	Prep:	METHOD	
Project#:	STANDARD	Analysis:	SM4500CN-C,E	
Analyte:	Cyanide	Batch#:	265928	
Field ID:	TIGERT PIT	Sampled:	12/04/18	
Matrix:	Water	Received:	12/04/18	
Units:	mg/L	Analyzed:	12/05/18	
Diln Fac:	1.000			

Type	Lab ID	Result	RL	
SAMPLE	305544-001	0.030	0.010	
SAMPLE	305544-002	0.032	0.010	
BLANK	QC957389	ND	0.010	

ND= Not Detected RL= Reporting Limit

Page 1 of 1

2.0



Batch QC Report

	Tota	al Cyanide		
Lab #:	305544	Location:	Tiger Pit	
Client:	Pacific Gas & Electric	Prep:	METHOD	
Project#:	STANDARD	Analysis:	SM4500CN-C,E	
Analyte:	Cyanide	Diln Fac:	1.000	
Field ID:	TIGERT PIT	Batch#:	265928	
MSS Lab ID:	305544-001	Sampled:	12/04/18	
Matrix:	Water	Received:	12/04/18	
Units:	mg/L	Analyzed:	12/05/18	

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC957390		0.2000	0.1831	92	76-120		
MS	QC957391	0.02970	0.2000	0.2115	91	66-120		
MSD	QC957392		0.2000	0.2052	88	66-120	3	28

Attachment 7 Analytical Report on Resampling #5





Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 305713 ANALYTICAL REPORT

Pacific Gas & Electric 4801 Oakport Street

4801 Oakport Street Oakland, CA 94601 Project : STANDARD

Location : Resample 5 (12/11/18)

Level : II

<u>Sample ID</u> <u>Lab ID</u> TIGER PIT 305713-001 TIGER PIT 305713-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Date: <u>12/12/2018</u>

Signature:

Will Rice Project Manager will.rice@enthalpy.com (510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001



CASE NARRATIVE

Laboratory number: 305713

Client: Pacific Gas & Electric Location: Resample 5 (12/11/18)

Request Date: 12/11/18
Samples Received: 12/11/18

This data package contains sample and QC results for two water samples, requested for the above referenced project on 12/11/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

No analytical problems were encountered.

CHAIN OF CUSTODY **Enthalpy Analytical** Page of Formerly Curtis & Tompkins Analytical Laboratory Since 1878 Chain of Custody #: 2323 Fifth Street **Analytical Request** Berkelev, CA 94710 C&T LOGIN # 385713 (510)486-0900 Phone (510)486-0532 Fax **Project No:** Report To: Ancel Espisity Project Name: Resample 5 (12/11/18) Rpt Level: II Company: PREI Later by Commention Station Turnaround Time: RUSH Telephone: (925) 522 -7839 Email: Well Proc.com Chemical Sampling Matrix **Preservative** Lab # of Container Sample ID. NaOH HCI HSQ4 ŐNI No. Time Date Tiger Pit 12/11/18 108:36 X n 8:36 X 12/11/18 Notes: Sample sont RELINQUISHED BY: RECEIVED BY: SAMPLE RECEIPT □ Intact □ Cold □ On Ice □ Ambient / A O SATE/TIME DATE/TIME 14052 1/0d DATE/TIME DATE/TIME 1 m 025 4109 DATE/TIME

DATE/TIME

SAMPLE RECEIPT CHECKLIST		* @	
Section 1: Login # 305 713 Client: PG & E		F 17	
Date Received: 12-11-18 Project: PEGIMPIE 5 (12/11/18)		EIN	MALPY
Section 2: Samples received in a cooler? Yes, how many? No (skip Section 3 below)			
If no cooler Sample Temp (°C): $A \cdot I$ using IR Gun # \Box A, or \Box B			
☐ Samples received on ice directly from the field. Cooling process had begun			
If in cooler: Date Opened 12-11-16 By (print) SH (sign)			
Shipping info (if applicable)			
Are custody seals present? No, or 🗆 Yes. If yes, where? 🗀 on cooler, 🗀 on samples,	□ on na	 ckage	
☐ Date: How many ☐ Signature, ☐ Initials, ☐ None	<u> — оп ра</u>	chape	
Were custody seals intact upon arrival? ☐ Yes ☐ No ☑N/A			
Section 3: Important: Notify PM if temperature exc	eeds 6°C	or arrive	frozen
Packing in cooler: (if other, describe)	ecus o c	OI alliet	: 11 OZC11.
☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐	□ Danor t	owols	
☐ Samples received on ice directly from the field. Cooling process had begun	⊒ rapei ι	OWEIS	
•	⊐ Vog f	¬ No	
Type of ice used: ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? Temperature measured using ☐ Thermometer ID:, or IR Gun # ☐ A ☐ B	1 es, [_ 140	
Cooler Tempe (°C): #1:, #2:, #3:, #4:, #5:, #6:	#7.		
	YES	NO	NI/A
Section 4:	+ TES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable			a de
Were Method 5035 sampling containers present? If YES, what time were they transferred to freezer?			e con
Did all bottles arrive unbroken/unopened?		55 S (1924)	a de la composition della comp
Are there any missing / extra samples?			Total Control
Are sarriples in the appropriate containers for indicated tests?	+		
Are sample labels present, in good condition and complete?			e e e
Does the container count match the COC?			
Do the sample labels agree with custody papers?			
Was sufficient amount of sample sent for tests requested?			The Carlo
Did you change the hold time in LIMS for unpreserved VOAs?	 		
Did you change the hold time in LIMS for preserved terracores?			
Are bubbles > 6mm absent in VOA samples?	-		
Was the client contacted concerning this sample delivery?			
		1,500,000,00	and the second
If YES, who was called? By Date: Section 5:			
Are the samples appropriately preserved? (if N/A, skip the rest of section 5)	YES	NO	N/A
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?	 		
pH strip lot# HC54440, pH strip lot#, pH strip lot#			
Preservative added:			
☐ H2SO4 lot# added to samples on/at			
☐ HCL lot# added to samples on/at	•		
☐ HNO3 lot# added to samples on/at			
□ NaOH lot# added to samples on/at			· · · · · · · · · · · · · · · · · · ·
Section 6:			
Explanations/Comments:			
Explanations/ confinence.			
Pero Logged in M. II. IB. Butanias CII (c)	$\overline{}$	······································	
Date Logged in 2 - 1 - 18 By (print) (sign)	\prec		
Date Labeled (2- (1- (5) By (print)	X		

Enthalpy Sample Preservation for 305713

<u>Sample</u>	: Hg	<2	2	> 2	€	>1	2	Other
-001a		[]	[]	[/]	
-002a		Γ	1	Γ	1	ſ	1	

Analyst: 2-10-18



Detections Summary for 305713

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location : Resample 5 (12/11/18)

Client Sample ID : TIGER PIT Laboratory Sample ID : 305713-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.013		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : TIGER PIT Laboratory Sample ID : 305713-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.018		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Page 1 of 1 7.0



	Tota	al Cyanide	
Lab #:	305713	Location:	Resample 5 (12/11/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266103
Field ID:	TIGER PIT	Sampled:	12/11/18
Matrix:	Water	Received:	12/11/18
Units:	mg/L	Analyzed:	12/12/18
Diln Fac:	1.000		

Type	Lab ID	Result	RL	
SAMPLE	305713-001	0.013	0.010	
SAMPLE	305713-002	0.018	0.010	
BLANK	QC958095	ND	0.010	

ND= Not Detected RL= Reporting Limit

Page 1 of 1

2.0



Batch QC Report

	Total Cyanide										
Lab #:	305713	Location:	Resample 5 (12/11/18)								
Client:	Pacific Gas & Electric	Prep:	METHOD								
Project#:	STANDARD	Analysis:	SM4500CN-C,E								
Analyte:	Cyanide	Diln Fac:	1.000								
Field ID:	TIGER PIT	Batch#:	266103								
MSS Lab ID:	305713-001	Sampled:	12/11/18								
Matrix:	Water	Received:	12/11/18								
Units:	mg/L	Analyzed:	12/12/18								

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC958096		0.2000	0.1850	93	76-120		
MS	QC958097	0.01250	0.2000	0.1922	90	66-120		
MSD	QC958098		0.2000	0.1538	71	66-120	22	28

Attachment 8 Analytical Report on Resampling #6





Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 305805 ANALYTICAL REPORT

Pacific Gas & Electric

4801 Oakport Street Oakland, CA 94601

Project : STANDARD

Location : Resample 6 (12/14/18)

Level : II

 Sample ID
 Lab ID

 TIGER PIT-P
 305805-001

 TIGER PIT-UP
 305805-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Date: <u>12/17/2018</u>

Signature:

Will Rice Project Manager will.rice@enthalpy.com (510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001



CASE NARRATIVE

Laboratory number: 305805

Client: Pacific Gas & Electric Location: Resample 6 (12/14/18)

Request Date: 12/14/18
Samples Received: 12/14/18

This data package contains sample and QC results for two water samples, requested for the above referenced project on 12/14/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

No analytical problems were encountered.

CHAIN OF CUSTODY Enthalpy Analytical Page of Formerly Curtis & Tompkins Analytical Laboratory Since 1878 Chain of Custody #: 2323 Fifth Street **Analytical Request** Berkeley, CA 94710 (510)486-0900 Phone C&T LOGIN# 365805 (510)486-0532 Fax **Project No:** Project Name: Resample 6 (12/14/18) Report To: Area / Espirit Rpt Level: II Company: pari= lateray Generation State Turnaround Time: AUSH Telephone: (925) 523 -7838 Email: Nec 4 Proc. com Chemical Sampling Matrix **Preservative** Lab Sample ID. # of Container No. HNO₂ HSQ. Date Time 12/14/12 08:35 X 12/14/18 0 985 X Notes: Sample sent RELINQUISHED BY: SAMPLE RECEIPT RECEIVED BY: ☐ Intact ☐ Cold OG:48 DATE/TIME ☐ On Ice ☐ Ambient DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

POLY 250ml

SAMPLE RECEIPT CHECKLIST			~ #	
Section 1: Login # 305 805 Client: PGKE Cute we	<u>v</u>			273
Section 1: Login # 305 805 Client: PG LE Cate us Date Received: 12 1418 Project: Leseuple 6	(IZ/H/IS)		EN.	THALPY
Section 2: Samples received in a cooler? Yes, how many? No (s	kin Section 3 helou	νl		
If no cooler Sample Temp (°C): 4-2 using IR Gun # 🗵		•/		
☐ Samples received on ice directly from the field. Cooling process had be	2, VI LLI IJ Polin			
If in cooler: Date Opened By (print) (sign)_				
Shipping info (if applicable)(sign)_				
Are custody seals present? 🔲 No, or 🖂 Yes. If yes, where? 🗀 on coo	lor Clon complex	. 🗆	 	
Date: How many D Signature, D I	ner, Li un samples	s, won pa	ickage	
l 144 . 4 . 4	N/A			
C				
Packing in cooler: (if other, describe)	n π temperature ex	ceeds 6°C	or arriv	e frozen.
☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardbo	and [] (2			
☐ Samples received on ice directly from the field. Cooling process had begun	ard, LI Styrotoam,	⊔ Paper 1	owels	
Thurston 1	hia - 14-1 to -1			
Temperature measured using [] Thermometer ID: or IR Gur	Diank(s) included?	☐ Yes,	□ No	
Cooler Temp (°C): #1:#2:#3:#4:#5:	#C.	M-7.		
Section 4:	, #0 .	,#/:	I NO	1 21/2
Were custody papers dry, filled out properly, and the project identifiable		YES	NO	N/A
Were Method 5035 sampling containers present?		+-^	-	
If YES, what time were they transferred to freezer?			X	ļ.
Did all bottles arrive unbroken/unopened?		×		
Are there any missing / extra samples?		+	X	
Are samples in the appropriate containers for indicated tests?		$+ \searrow$		
Are sample labels present, in good condition and complete?		12		
Does the container count match the COC?		1		
Do the sample labels agree with custody papers?				100
Was sufficient amount of sample sent for tests requested?		1 文		
Did you change the hold time in LIMS for unpreserved VOAs?				× ·
Did you change the hold time in LIMS for preserved terracores?				>
Are bubbles > 6mm absent in VOA samples?				
Was the client contacted concerning this sample delivery?	·		×	
If YES, who was called?ByByBy	Date:			
Section 5:		YES	NO	N/A
Are the samples appropriately preserved? (if N/A, skip the rest of section 5)		X		
Did you check preservatives for all bottles for each sample?		X		
Old you document your preservative check?		X		
pH strip lot# # 6,5 4710 , pH strip lot#, pH strip l	ot#			
Preservative added:				
H2SO4 lot# added to samples	on/at			Ī
HCL lot# added to samples	on/at			
☐ HNO3 lot# added to samples ☐ NaOH lot# added to samples	on/at			
LI NaOH lot# added to samples	on/at			
xplanations/Comments:				
		 		
Date Logged in 12/1/18 By (print) VO	sign) VS)		
Date Inheted	sign)	,	· · · · · ·	



Detections Summary for 305805

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location : Resample 6 (12/14/18)

Client Sample ID : TIGER PIT-P Laboratory Sample ID : 305805-001

No Detections

Client Sample ID : TIGER PIT-UP Laboratory Sample ID : 305805-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.020		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Page 1 of 1 7.0



	Total Cyanide										
Lab #:	305805	Location:	Resample 6 (12/14/18)								
Client:	Pacific Gas & Electric	Prep:	METHOD								
Project#:	STANDARD	Analysis:	SM4500CN-C,E								
Analyte:	Cyanide	Sampled:	12/14/18								
Matrix:	Water	Received:	12/14/18								
Units:	mg/L	Prepared:	12/14/18								
Diln Fac:	1.000	Analyzed:	12/17/18								
Batch#:	266229										

Field ID	Type	Lab ID	Result	RL
TIGER PIT-P	SAMPLE	305805-001	ND	0.010
TIGER PIT-UP	SAMPLE	305805-002	0.020	0.010
	BLANK	QC958630	ND	0.010

ND= Not Detected RL= Reporting Limit

Page 1 of 1

2.0



Batch QC Report

	Total Cyanide											
Lab #:	305805	Location:	Resample 6 (12/14/18)									
Client:	Pacific Gas & Electric	Prep:	METHOD									
Project#:	STANDARD	Analysis:	SM4500CN-C,E									
Analyte:	Cyanide	Batch#:	266229									
Field ID:	TIGER PIT-P	Sampled:	12/14/18									
MSS Lab ID:	305805-001	Received:	12/14/18									
Matrix:	Water	Prepared:	12/14/18									
Units:	mg/L	Analyzed:	12/17/18									
Diln Fac:	1.000											

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC958631		0.2000	0.1687	84	76-120		
MS	QC958632	<0.01000	0.2000	0.1396	70	66-120		
MSD	QC958633		0.2000	0.1404	70	66-120	1	28

Attachment 9 Analytical Report on Resampling #7





Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 305902 ANALYTICAL REPORT

Pacific Gas & Electric 4801 Oakport Street

4801 Oakport Street Oakland, CA 94601

Project : STANDARD

Location: Resample 7 (1218/18)

Level : II

 Sample ID
 Lab ID

 TIGER PIT-P
 305902-001

 TIGER PIT-UP
 305902-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Date: <u>12/19/2018</u>

Signature:

Will Rice Project Manager will.rice@enthalpy.com (510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001



CASE NARRATIVE

Laboratory number: 305902

Client: Pacific Gas & Electric Location: Resample 7 (1218/18)

Request Date: 12/18/18
Samples Received: 12/18/18

This data package contains sample and QC results for two water samples, requested for the above referenced project on 12/18/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recoveries were observed for cyanide in the MS/MSD of TIGER PIT-P (lab # 305902-001); the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

Formerly C	alpy Analytical		СН	Αl	N	OF	= (CU	IS	T	Ol	DY	•				I	Page	<u> </u>	o	f	<u> </u>		
2323 F	cal Laboratory Since 1878 ifth Street											()		C	hain A i					ues				
(510)48	ey, CA 94710 86-0900 Phone 86-0532 Fax		LOGI	ک ! N #	30	5	102	7		<u>۔</u> تر	r perse													
Project	No:		Samr	der.	ماء ۵	. 4		1	110	ο <i>λ</i> ,	٠.	है हैं	ול											
		12/18/18)	Samp Repo	rt To	: H~	ام	$E_{\alpha \alpha}$	$: L: \mathcal{L}$			01		Ē											
Datia	vol: II	· · · · · · · · · · · · · · · · · · ·	Comp	oanv	: 00	& F	راجے راجی	14.1.7	7	11	-	2-4	5											
Turnare	ound Time: Standard Rus L		Telep Emai	IIIOIII	(4)	5	みね	- 170	38		rion.	1 () () () () () () () () () (
1 -1-		Sampli	***************************************		atrix			Cher] -	R. 4 1	5											
Lab No.	Sample ID.	Date	Time	Water	Other	# of Container		HSO4				50000000000000000000000000000000000000	10 Kg											
	Tiger Pit-P Tiger Pit-UP	12/18/18	07:55 07:55			1			X	X	,	*												
									-						#			-			#	7	\Box	
									-				+			1		1			_	+		
																#					\downarrow	+		
					H								1							H	#			
													1		#						\pm	-		
Notes:	Sample scrit on ICE	SAMPLE RE		REL	INQU	ISHE	D B	Y:	<u> </u>				RE	CEI	VED	BY:		<u> </u>		<u></u> _	<u></u>			
Contr	iner 250m/ 250m/	□ Intact □ Cole □ On Ice □ Amb			2		121	18/18	}	09::	32 DAT	ΓΕ/ΤΙΜΕ		Par) 	Ma	m		1		/2/	DA	/ g TE/TI	09. ME
6011	250~1										DAT	TE/TIME										DA	TE/TI	ME
											DAT	E/TIME	<u> </u>									DA	TE/TII	мE

SAMPLE RECEIPT CHECKLIST			-	~
				7
Section 1: Login # Client: 76 FO Date Received: 12 18 18 Project:			ENT	HALPY
Section 2: Samples received in a cooler? Yes, how many? I No (skip Se				
If no cooler Sample Temp (°C): 1 3 using IR Gun # 12 A, or	□ B			
Samples received on ice directly from the field. Cooling process had begun	10			
If in cooler: Date Opened 12 18 By (print) 4 (sign) A				
Shipping info (if applicable)				•
Are custody seals present?	on samples, [I on pa	ckage	
☐ Date: How many ☐ Signature, ☐ Initials,	□ None			
Were custody seals intact upon arrival? ☐ Yes ☐ No ☐ N/A				
Section 3: Important : Notify PM if ter	nperature exce	eds 6°C	or arrivo	frozer
Packing In cooler: (if other, describe)			wille	, mosen
☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐	Styrofoam []	Paner t	owels	
☐ Samples received on ice directly from the field. Cooling process had begun	olyrolodiii, La	raper o	OWCIS	
Type of ice used:	s) included? ["	Vec f	T No	
Temperature measured using □ Thermometer ID:	a)iiiciddedf (_ A∏R	i res, [_110	
Cooler Temp (°C): #1:#2:,#3:,#4:,#5:		7.		
Section 4:	#6, #	YES	NO.	31/4
Were custody papers dry, filled out properly, and the project identifiable			NO	N/A
Were Method 5035 sampling containers present?				
If YES, what time were they transferred to freezer?				
Did all bottles arrive unbroken/unopened?				
Are there any missing / extra samples?		-		
Are samples in the appropriate containers for indicated tests?				
Are sample labels present, in good condition and complete?				
Does the container count match the COC?			· · · · · · · · · · · · · · · · · · ·	
Do the sample labels agree with custody papers?				
Was sufficient amount of sample sent for tests requested?				
Did you change the hold time in LIMS for unpreserved VOAs?				·
Did you change the hold time in LIMS for preserved terracores?				
Are bubbles > 6mm absent in VOA samples?				
Was the client contacted concerning this sample delivery?				
If YES, who was called? By Dat	A:			
Section 5:	e:	VEC	NO.	
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)		YES	NO	N/A
Did you check preservatives for all bottles for each sample?				
Did you document your preservative check?		4		
pH strip lot# HC131225 pH strip lot#, pH strip lot#	£			
Preservative added:				
□ H2SO4 lot# added to samples	'an lab			
☐ HCL lot# added to samples	on/at _			
□ HNO3 lot# added to samples	on/aton/at _			
□ NaOH lot# added to samples	on/aton/at			
Section 6:	Ollyac			
explanations/Comments:				
Date Logged in 2 (8 V By (print) A (sign)	1/1/			****
	M ()			
Date Labeled (2/1X/1X By (print) // (class)	// // - /			

Enthalpy Sample Preservation for 305902

<u>Sample</u>	:Hq	<2	>9	>12 Other
-001a		[]	[]	>12 Other
-002a		[]	[]	[]

Analyst

Page 1 of 1

5 of 8



Detections Summary for 305902

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location: Resample 7 (1218/18)

Client Sample ID : TIGER PIT-P Laboratory Sample ID : 305902-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.028		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : TIGER PIT-UP Laboratory Sample ID : 305902-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.028		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Page 1 of 1 7.0



Total Cyanide					
Lab #:	305902	Location:	Resample 7 (1218/18)		
Client:	Pacific Gas & Electric	Prep:	METHOD		
Project#:	STANDARD	Analysis:	SM4500CN-C,E		
Analyte:	Cyanide	Sampled:	12/18/18		
Matrix:	Water	Received:	12/18/18		
Units:	mg/L	Prepared:	12/18/18		
Diln Fac:	1.000	Analyzed:	12/19/18		
Batch#:	266298				

Field ID	Type Lab ID	Result	RL	
TIGER PIT-P	SAMPLE 305902-001	0.028	0.010	
TIGER PIT-UP	SAMPLE 305902-002	0.028	0.010	
	BLANK QC958894	ND	0.010	

ND= Not Detected RL= Reporting Limit

Page 1 of 1



Batch QC Report

Total Cyanide					
Lab #:	305902	Location:	Resample 7 (1218/18)		
Client:	Pacific Gas & Electric	Prep:	METHOD		
Project#:	STANDARD	Analysis:	SM4500CN-C,E		
Analyte:	Cyanide	Batch#:	266298		
Field ID:	TIGER PIT-P	Sampled:	12/18/18		
MSS Lab ID:	305902-001	Received:	12/18/18		
Matrix:	Water	Prepared:	12/18/18		
Units:	mg/L	Analyzed:	12/19/18		
Diln Fac:	1.000				

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC958895		0.2000	0.1834	92	76-120		
MS	QC958896	0.02790	0.2000	0.1537	63 *	66-120		
MSD	QC958897		0.2000	0.1539	63 *	66-120	0	28

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference Page 1 of 1

Attachment 10 Analytical Report on Resampling #8





Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 306316 ANALYTICAL REPORT

Pacific Gas & Electric

4801 Oakport Street Oakland, CA 94601

Project : STANDARD

Location: Resample 8-DW-01102019

Level : II

Sample ID
TIGER PIT-UP-DW
SOURCE-UP-DW

<u>Lab ID</u> 306316-001 306316-002

Date: <u>01/11/2019</u>

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:

Will Rice Project Manager will.rice@enthalpy.com (510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001



CASE NARRATIVE

Laboratory number: 306316

Client: Pacific Gas & Electric Location: Resample 8-DW-01102019

Request Date: 01/10/19
Samples Received: 01/10/19

This data package contains sample and QC results for two water samples, requested for the above referenced project on 01/10/19. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

No analytical problems were encountered.

CHAIN OF CUSTODY

Project I Project I EDD Form		Phone (51) Fax (51) Sam Plio 2019 Rep Con	0) 486-05 pler: <i>Do</i> ort To: <i>A t</i> npany: <i>P</i>	32 nger 6+E 923	WE - 60	22-	itu vay 78	1 Ge, 38				Cyanide (total) *			AN	ALYT				stod	ge/		
Lab No.	Sample ID.	SAMPLII Date			TRIX	of Container	PR	H2SO4	VATI	VE		4	CN- MACE									;	
	Tigen Pit -UP-DW Source -UP-DW	01/10/2019	Time Collected CU17	Sol		# !	НС	H2SO4	HODN	S None		WS >>									,		
Samp Samp Sadil Sent	les pretreated of	SAMPLE RECEIPT Intact Cold On Ice Ambient	Ch.			NQUI	_	D BY: DATE: DATE:	1/1d1 -10		:: \(\(\)	1		J			REC	EIVE	DA DA		•	12]	

3 of 7

* All

SAMPLE RECEIPT CHECKLIST				7
Section 1: Login # 20316 Client: 155	[-]			
Date Received: 1 10 10 Project:		•	ENT	HALPY
Section 2: Samples received in a cooler? (1) Yes, how many?	□ No (skip Section 3 belo	wl	•	
1		w.,		
☐ Samples received on ice directly from the field. Cooling	RGun # 🗆 A, or 🗔 B	•		
If in cooler: Date Opened 11 10 17 By (print)	(sign)			·
Shipping info (If applicable)				
Are custody seals present? 7 No, or 7 Yes. If yes, where		es, 🗆 on pa	ickage	
☐ Date: How many ☐ S				
Were custody seals intact upon arrival? ☐ Yes	□No BON/A			
Section 3: Imports	ant Notify PM if temperature e	exceeds 6°C	or arrive	e frozen
Packing in cooler: (if other, describe)			•	
☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☒ None, ☐ Cloth mate	rial, 🛘 Cardboard, 🗘 Styrofoam	, 🛘 Paper t	owels	
☐ Samples received on ice directly from the field. Cooling process had	begun	•		
Type of ice used: Wet, 🗆 Blue/Gel, 🗀 None	Temperature blank(s) included	P 🔲 Yes, 🕽	S/No	
Temperature measured using Thermometer ID:	, or IR Gun # 📮 🗖 📙 B		, •	
Cooler Temp (°C): #1: 3 · 5 #2: #3: #4:	, #5:, #6:	#7:		
Section 4:		YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiab	le			
Were Method 5035 sampling containers present?				
If YES, what time were they transferred to freezer?				
Did all bottles arrive unbroken/unopened?				
Are there any missing / extra samples?			_	
Are samples in the appropriate containers for indicated tests?				
Are sample labels present, in good condition and complete?				
Does the container count match the COC?				
Do the sample labels agree with custody papers?				
Was sufficient amount of sample sent for tests requested?				
Did you change the hold time in LIMS for unpreserved VOAs?				ĺ
Did you change the hold time in LIMS for preserved terracores?				
Are bubbles > 6mm absent in VOA samples?				
Was the client contacted concerning this sample delivery?				
If YES, who was called?ByByByByBy	Date:			
Section 5:		YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of se	ction 5)			
Did you check preservatives for all bottles for each sample?				
Did you document your preservative check?				
pH strip lot# pH strip lot#	, pH strip lot#	····		
Preservative added:				
H2SO4 lot# added to samples	on/	at		
☐ HCL lot#added to samples	on/	at		
☐ HNO3 lot# added to samples	on/	at		
□ NaOH lot# added to samples	on/	at		
Section 6:				
Explanations/Comments:				
				· · · · · ·
		· ···		
Date Logged in 11010 By (print)	(sign)	<u> </u>		
Date Labeled	(sign)			



Detections Summary for 306316

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location: Resample 8-DW-01102019

Client Sample ID : TIGER PIT-UP-DW Laboratory Sample ID : 306316-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.055		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : SOURCE-UP-DW Laboratory Sample ID : 306316-002

No Detections

Page 1 of 1 7.0



	Tota	ıl Cyanide	
Lab #:	306316	Location:	Resample 8-DW-01102019
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Sampled:	01/10/19
Matrix:	Water	Received:	01/10/19
Units:	mg/L	Prepared:	01/10/19
Diln Fac:	1.000	Analyzed:	01/11/19
Batch#:	266844		

Field ID	Type	Lab ID	Result	RL	
TIGER PIT-UP-DW	SAMPLE	306316-001	0.055	0.010	
SOURCE-UP-DW	SAMPLE	306316-002	ND	0.010	
	BLANK	QC960973	ND	0.010	

ND= Not Detected RL= Reporting Limit

Page 1 of 1

2.0



Batch QC Report

	Total Cyanide											
Lab #:	306316	Location:	Resample 8-DW-01102019									
Client:	Pacific Gas & Electric	Prep:	METHOD									
Project#:	STANDARD	Analysis:	SM4500CN-C,E									
Analyte:	Cyanide	Batch#:	266844									
Field ID:	ZZZZZZZZZ	Sampled:	01/07/19									
MSS Lab ID:	306233-001	Received:	01/07/19									
Matrix:	Water	Prepared:	01/10/19									
Units:	mg/L	Analyzed:	01/11/19									
Diln Fac:	1.000											

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC960974		0.2000	0.1686	84	75-120		
MS	QC960975	<0.01000	0.2000	0.1710	86	56-120		
MSD	QC960976		0.2000	0.1580	79	56-120	8	25





Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 306317 ANALYTICAL REPORT

Pacific Gas & Electric 4801 Oakport Street

Oakland, CA 94601

Project : STANDARD

Location: Resample 8-ENT-01102019

Level : II

Sample ID
TIGER PIT-UP

<u>Lab ID</u> 306317-001

Date: <u>01/11/2019</u>

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:

Will Rice Project Manager will.rice@enthalpy.com (510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001



CASE NARRATIVE

Laboratory number: 306317

Client: Pacific Gas & Electric Location: Resample 8-ENT-01102019

Request Date: 01/10/19
Samples Received: 01/10/19

This data package contains sample and QC results for one water sample, requested for the above referenced project on 01/10/19. The sample was received cold and intact.

Total Cyanide (SM4500CN-C,E):

No analytical problems were encountered.

CHAIN OF CUSTODY

FORM 2323 F Berkele Project Project Project EDD For	Name: <i>Resample 8 - ENT</i> . P. O. No: mat: Report Level□ II	Kins Labs Phone (51 Fax (51 Sar -0(10)20(9) Rep	0) 486-09 0) 486-05	32 Jaco gel 64E 9xs)	5 Esp Sa 5;	Hol Piri tew 12-	hn itu lay 78	# 2 1 Ger 38 0M	n. S			mide (A		AN	ALY		nain A L		usto	ody i		_ of	
Lab No.	Sample ID. Tiger Pit-up	Date Collected	Time Collected	MATI Mater Solid	RIX	# of Containers	PR	HESER\ HESER\ HNO3	HOON HOON	/E	2200	SM 450 CA									3		
Notes: * So Sou LC	emple pretreated or condium this sulforte. myle Sent on	SAMPLE RECEIPT Intact Cold On Ice Ambient	A	R	RELIN	IQUIS	C	DATE:	1	TIME:	:	2	 	 		REC	EIVE	D	Y: ATE: ATE:		TIM	IE:	<u> </u>

			<u> </u>	-
SAMPLE RECEIPT CHECKLIST				
Section 1: Login # 3505 Client: 17				
Date Received: 1, 10 Project:			ENT	MALTY
Section 2: Samples received in a cooler? ()Yes, how many?	☐ No (skip Section 3 below	λ	•	
1 - , , , , , /	Gun # 🛘 A. or 🗖 B	1		
☐ Samples received on ice directly from the field. Cooling p		•		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
if in cooler: Date Opened 1' 10 1' By (print) SM	(sign)		_	•
Shipping info (if applicable)				
Are custody seals present? 2 No, or 2 Yes. If yes, where		, ∟ on pa	ckage	
Date: How many Si				
	INO BON/A	·		
·	ot Notify PM if temperature ex	ceeds 6°C	or arrive	e frozen.
Packing in cooler: (if other, describe)			•	
🗆 Bubble Wrap, 🗀 Foam blocks, 🗅 Bags, 🕏 None, 🗀 Cloth materi	•	🗆 Paper t	owels	
\square Samples received on ice directly from the field. Cooling process had b		•		
Type of ice used: Wet, 🗀 Blue/Gel, 🗆 None 1	emperature blank(s) included?	☐ Yes, \	Ş ⊘ No	
Temperature measured using Thermometer ID:	, or IR Gun# 🛱 🗖 🛭 B		, –	
Cooler Temp (°C): #1: 5 - 5 #2: #3: #4:	, #5:, #6: <u></u>	, #7:		
Section 4:		YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable				
Were Method 5035 sampling containers present?				
If YES, what time were they transferred to freezer?				
Did all bottles arrive unbroken/unopened?				
Are there any missing / extra samples?			-	
Are samples in the appropriate containers for indicated tests?				
Are sample labels present, in good condition and complete?				
Does the container count match the COC?				
Do the sample labels agree with custody papers?				
Was sufficient amount of sample sent for tests requested?				
Did you change the hold time in LIMS for unpreserved VOAs?				
Did you change the hold time in LIMS for preserved terracores?				
Are bubbles > 6mm absent in VOA samples?				
Was the client contacted concerning this sample delivery?				
If YES, who was called? By	Date:			
Section 5:		YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of sec	ion 5)			
Did you check preservatives for all bottles for each sample?				
Did you document your preservative check?				
pH strip lot#, pH strip lot#	, pH strip lot#			
Preservative added:				ļ
☐ H2SO4 lot# added to samples	on/at			
☐ HCL lot#added to samples	on/at			
☐ HNQ3 lot# added to samples	on/at			
□ NaOH lot# added to samples	on/at			
Section 6:				
Explanations/Comments:				
		· · · · · · · · · · · · · · · · · · ·		
		-, , , , , , , , , , , , , , , , , , , 		
1.10				
Date Logged in 1 (1) By (print)	(sign)			
Date Labeled 11010 By (print)	(sign)			



Detections Summary for 306317

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location: Resample 8-ENT-01102019

Client Sample ID : TIGER PIT-UP Laboratory Sample ID : 306317-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.051		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Page 1 of 1 8.0



	Total Cyanide										
Lab #:	306317	Location:	Resample 8-ENT-01102019								
Client:	Pacific Gas & Electric	Prep:	METHOD								
Project#:	STANDARD	Analysis:	SM4500CN-C,E								
Analyte:	Cyanide	Batch#:	266844								
Field ID:	TIGER PIT-UP	Sampled:	01/10/19								
Matrix:	Water	Received:	01/10/19								
Units:	mg/L	Prepared:	01/10/19								
Diln Fac:	1.000	Analyzed:	01/11/19								

Type	Lab ID	Result	RL	
SAMPLE	306317-001	0.051	0.010	
BLANK	QC960973	ND	0.010	

ND= Not Detected RL= Reporting Limit

Page 1 of 1

2.1



Batch QC Report

	Tota	al Cyanide	
Lab #:	306317	Location:	Resample 8-ENT-01102019
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266844
Field ID:	ZZZZZZZZZ	Sampled:	01/07/19
MSS Lab ID:	306233-001	Received:	01/07/19
Matrix:	Water	Prepared:	01/10/19
Units:	mg/L	Analyzed:	01/11/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC960974		0.2000	0.1686	84	75-120		
MS	QC960975	<0.01000	0.2000	0.1710	86	56-120		
MSD	QC960976		0.2000	0.1580	79	56-120	8	25

Attachment 11 Analytical Report on Resampling #9





Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 306446 ANALYTICAL REPORT

Pacific Gas & Electric Project : STANDARD

4801 Oakport Street Location: Resample 9 (1/16/19)

Oakland, CA 94601 Level : II

	<u>Sample ID</u>	<u>Lab ID</u>
UP	TIGER PIT	306446-001
UP	HRSG IP A	306446-002
UP	HRSG IP B	306446-003
UP	PHOSPHATE	306446-004
UP	CC COOLING WATER	306446-005
UP	AMINE	306446-006
UP	E-006	306446-007
UP	HAMMOND TANK	306446-008
UP	OWS	306446-009
UP	AMMONIA SUMP	306446-010
UP	SERVICE WATER	306446-011
UP	SOURCE WATER	306446-012

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

> Will Rice Project Manager will.rice@enthalpy.com (510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

1 of 8

Date: <u>01/17/2019</u>

Signature:



CASE NARRATIVE

Laboratory number: 306446

Client: Pacific Gas & Electric Location: Resample 9 (1/16/19)

Request Date: 01/16/19
Samples Received: 01/16/19

This data package contains sample and QC results for twelve water samples, requested for the above referenced project on 01/16/19. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recoveries were observed for cyanide in the MS/MSD of UP TIGER PIT (lab # 306446-001); the LCS was within limits. No other analytical problems were encountered.

		alpy Analytical		CHA	1	N	0	F	C	U	ST	0)D	7					Pa	ige _	0	f	<u> </u>		
	Analytic	urtis & Tompkins cal Laboratory Since 1878											Γ	35		Ch	ain c	f Cus	tody ical	# :_ Rec	ques	t			
	Berkele (510)48	fth Street by, CA 94710 6-0900 Phone 6-0532 Fax		C&T LC									received .	12000000000000000000000000000000000000											
	Project Project		14/19)	Sample Report	er: (Yush Ba	an el	Ē	vi con	7. m	<u> </u>	-des	N. C.	100											
	Rpt Le		24	Compa Teleph Email:	one	: (0	25	\perp	522	~2 ~7	serdi) 1838	<u>S</u>	1	12 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1											
			Samplin	ng	М	atrix			Pre	sei	mical rvativ	е	1	Send S	1 1										
	Lab No.	Sample ID.	Date	Time	Water	Other	# of	Container	ISA A		NaOH	None		יין דאי									4		
~	-	UP Tree Pit			X	##	1	1		7		X	F	*			\dashv	+	+	\vdash	-	-	+	+	+
		TPHRSC TPH	1/16/19	00:11	父	++	+	+	\vdash	+		分	t	1	上			工							\Box
		UP Phosphate	1/1/2/19	09:23				1		$oxed{T}$		X		X			_	\bot	-		_	┼			+
upo	Cooli		1/16/19	69:30	X	$\downarrow\downarrow$	\perp	1	-	4		X	- }	45	+-		-+		╁╾	++	\dashv	+	\vdash	\dashv	+
~		LPAMINE	1116/19	09:35		++	+	-	-	+			-	4	╁	-	\dashv	\dashv	+	++	7	+	十	\dashv	$\dashv \dashv$
_		UR E-006	1/16/19	09:41	X	++	+	!-	-	+	-	Ö		*	╁	Н	\dashv	十	+-	╂─╂	_	1	1-1	\top	$\dashv \dashv$
-		UP Hammond Tank	110113	09:50	X	++	+	7	\vdash	+	\dashv	쉿	ľ	米	+			十	十	1-1					
-		UP ONS	1/16/19	10:02	分	++	+	7-	f-f	\dagger		Z		T.	十										
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-		OF Source Maren	Y 10119	12.																			Ш		
	Notes		SAMPLE RE	CEIPT	RE	LINC	UI	SHE	D BY	:					RE	CE	VEC	BY:	/_		, ,	1	1. 4		
	Sa.	inple sent on <u>ICF</u> surfairers sooml poly	☐ Intact ☐ Col				~	<i></i>		1/	16/10	'n	//: '	3 / E/TIN	IE /	10) F s	\mathcal{Y}_{σ}	<i>,</i>	$\frac{1}{2}$	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	16		•	:3/ E/TIME
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SAMPLE RECEIPT CHEC	···/	ľ	$\mathfrak{D}_{\mathcal{C}}$ .				-	
Section 1: Login# 4	10446	Client:	VG+					701
Date Receive	d: 16/19	Project:					ENT	HALPY
Section 2: Samples rece	ived in a cooler? -E Ye	s. how many?	\ [7]	No /ekin Sec	Hom 9 belowd	<del></del>		<del></del>
If no cooler Sample Tems	(°C):		using IR Gun #		_			
	scalved on ice directly fr	rom the field (	# nuo xi gnizu   concern police	LIA, OT L	1 R	•		
If in scales Date Ones	1/14/19	i i	vous process i	usa nagun	14.7-	ن د		
if in cooler: Date Opened	TITY T By (print)	<b></b>	<u> </u>	s <b>ig</b> n)	A		_	
	(If applicable)				<del></del>			
Are custody s	eals present? 🖪 No, o	Yes. If ye	s, where? 🛚 o	n cooler, 🗆	on samples,	🖸 on pa	ıckage	
Li Dat	e: How	many	D Signatun	e, 🗆 Initials, I	2 None			
Were	custody seals intact upo	n arrival?	Yes 🗆 No	□ N/A		····		
Section 3:			<i>importunt</i> : Not	ify PM if tem	perature exc	eeds 6°C	or arriv	e frozen
Packing in cooler: (if other								
☐ Bubble Wrap, ☐ f	oam blocks, 🗆 Bags, 🛭	None, 🗆 Clo	th material, 🛘 🔾	ardboard, 🛘	Styrofoam, D	] Paper t	powels	
LI Samples received on ic	e directly from the field	. Cooling proce	ess had begun			•		
Type of ice used: [2] W			Temper	ature blank(s	) included? [	] Yes,	☑ No	
Temperature measured u	sing 🛘 Thermometer i	D:	or {	RGun# 🗆 /	A ØB		- <b></b>	
Cooler Temp (°C): #1:		3:#	4:#5	#	6:	#7:		
Section 4:						YES	NO	N/A
Were custody papers dry,	filled out properly, and	the project id	entifiable					
Were Method 5035 samp	ling containers present:	?						
	re they transferred to f	reezer?						
Did all bottles arrive unbo					•			
Are there any missing / ex	<del></del>						ĺ.	
Are samples in the approp								
Are sample labels present Does the container count		complete?	·	·		,		
Do the sample labels agre								
Was sufficient amount of								
Did you change the hold t				· · · · · · · · · · · · · · · · · · ·				
Did you change the hold t								
Are bubbles > 6mm absen		ari resi ecolesi	· · · · · · · · · · · · · · · · · · ·	·				
Was the client contacted o		delken	<del></del>					
If YES, who was called		nen At	<b>A</b> .					
Section 5:	18		Ву	Date				
Are the samples appropris	tak presented? //Fit	1/A chi- +	-h -fh) m)			YES	NO	N/A
Did you check preservative		y sample?	st of section 5)	·				
Did you document your pr		. semilier						
	, pH strip lot#	<b>!</b>	, pH	edulm ledds	ŧ			
Preservative added:	, p		, pn	anih inna "		<del></del> ·		l
☐ H2SO4 lot#	added to sample	es.			on/at	•		ł
☐ HCL lot#	added to sample		<del></del>		on/at		·	
☐ HNOS lot#	added to sample		· · · · · · · · · · · · · · · · · · ·	<del></del>	on/at			
☐ NaOH lot#	added to sample			<del></del>	on/at			
ection 6:			***************************************		- Jyet		-	
explanations/Comments:								Ť
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Date Logged in   (	By (print	<b>)</b>	<b>A</b> (	(sign)	M	T_		
Date Labeled     ( /	19 By (print)	. ————		(slen)	1			
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#### Detections Summary for 306446

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location: Resample 9 (1/16/19)

Client Sample ID: UP TIGER PIT Laboratory Sample ID: 306446-001

No Detections

Client Sample ID: UP HRSG IP A Laboratory Sample ID: 306446-002

No Detections

Client Sample ID: UP HRSG IP B Laboratory Sample ID: 306446-003

No Detections

Client Sample ID: UP PHOSPHATE Laboratory Sample ID: 306446-004

No Detections

Client Sample ID: UP CC COOLING WATER Laboratory Sample ID: 306446-005

No Detections

Client Sample ID: UP AMINE Laboratory Sample ID: 306446-006

No Detections

Client Sample ID: UP E-006 Laboratory Sample ID: 306446-007

No Detections

Client Sample ID: UP HAMMOND TANK Laboratory Sample ID: 306446-008

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.026		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

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Client Sample ID: UP OWS Laboratory Sample ID: 306446-009

No Detections

Client Sample ID : UP AMMONIA SUMP Laboratory Sample ID : 306446-010

No Detections

Client Sample ID : UP SERVICE WATER Laboratory Sample ID : 306446-011

No Detections

Client Sample ID : UP SOURCE WATER Laboratory Sample ID : 306446-012

No Detections

Page 2 of 2 7.0



	Tota	al Cyanide	
Lab #:	306446	Location:	Resample 9 (1/16/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Sampled:	01/16/19
Matrix:	Water	Received:	01/16/19
Units:	mg/L	Prepared:	01/16/19
Diln Fac:	1.000	Analyzed:	01/17/19
Batch#:	266990		

Field ID	Type	Lab ID	Resul	t RL
UP TIGER PIT	SAMPLE	306446-001	ND	0.010
UP HRSG IP A	SAMPLE	306446-002	ND	0.010
UP HRSG IP B	SAMPLE	306446-003	ND	0.010
UP PHOSPHATE	SAMPLE	306446-004	ND	0.010
UP CC COOLING W	ATER SAMPLE	306446-005	ND	0.010
UP AMINE	SAMPLE	306446-006	ND	0.010
UP E-006	SAMPLE	306446-007	ND	0.010
UP HAMMOND TANK	SAMPLE	306446-008	0	.026 0.010
UP OWS	SAMPLE	306446-009	ND	0.010
UP AMMONIA SUMP	SAMPLE	306446-010	ND	0.010
UP SERVICE WATE	R SAMPLE	306446-011	ND	0.010
UP SOURCE WATER	SAMPLE	306446-012	ND	0.010
	BLANK	QC961536	ND	0.010

ND= Not Detected RL= Reporting Limit

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2.0



#### Batch QC Report

	Tota	al Cyanide	
Lab #:	306446	Location:	Resample 9 (1/16/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266990
Field ID:	UP TIGER PIT	Sampled:	01/16/19
MSS Lab ID:	306446-001	Received:	01/16/19
Matrix:	Water	Prepared:	01/16/19
Units:	mg/L	Analyzed:	01/17/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC961537		0.2000	0.1742	87	75-120		
MS	QC961538	<0.01000	0.2000	<0.01000	0 *	56-120		
MSD	QC961539		0.2000	<0.01000	0 *	56-120	NC	25

^{*=} Value outside of QC limits; see narrative

NC= Not Calculated

RPD= Relative Percent Difference

# Attachment 12 Analytical Report on Resampling #10





## **Enthalpy Analytical**

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

## Laboratory Job Number 307019 ANALYTICAL REPORT

Pacific Gas & Electric Project : STANDARD

4801 Oakport Street Location: Resample 10 (2/7/19)

Oakland, CA 94601 Level : II

 Sample ID
 Lab ID

 UP HAMMOND TANK
 307019-001

 UP TIGER PIT
 307019-002

 UP SOURCE WATER
 307019-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Date: 02/08/2019

Signature:

Haley Campbell Project Manager

haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001



#### CASE NARRATIVE

Laboratory number: 307019

Client: Pacific Gas & Electric Location: Resample 10 (2/7/19)

Request Date: 02/07/19
Samples Received: 02/07/19

This data package contains sample and QC results for three water samples, requested for the above referenced project on 02/07/19. The samples were received cold and intact.

#### Total Cyanide (SM4500CN-C,E):

No analytical problems were encountered.

	alpy Analytical		CH	A	IN	1 (	Ol	F	CI	U:	<b>S</b> 7			چُ آڏ							Pa	ge _	1	_of	1				
Analytic	cal Laboratory Since 1878												,	<u> </u>			Ct		of C										_
Berkele (510)48	ifth Street ey, CA 94710 36-0900 Phone 36-0532 Fax		C&T L	OG	iN i	ク # <u></u>	<u>C</u>	70	<u> </u>	1			1.1	e belove A	18CE				па	yu	Cai	Re	que	ESI					1
Project	t No:	J	Samp	ler:	M	us.K	مما	Envi	XONY	a de	15	اص	ا بدا		J-f														
Project	t Name: Resample 10 (2	1/7/19)	Samp Repor	t To	o: (	Ang	<u>د ا</u>	Es	تكنع	<u>nti</u>	<u> </u>		0	ر ا	5											-			-
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Lab No.	Sample ID.	Date	Time		Soil	T	# of	E CH	Ţ	T	ī		1.	באמעיים ב	NS 74														
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Notes:	\	SAMPLE R	ECEIPT	RI	ELI	NQL	JISH	IED	BY:			<u></u>	<u> </u>	ا		RE	CEI	YEC	) B	Y:			,						
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5.	ntainers ou m1 poly			0									DA	TE/I	IME	V	1									[	DATE	E/TIN	ΝE
													DA	TE/I	IME											1	DATE	E/T!!	ME

Packing in cooler: (if other, describe)	SAMPLE RECEIPT CHECKLIST	•					7
Data Racelved: 2 7 4 Project: BITMAP   Section 2: Samples received in a cooley? I ves, how many?   Sing IR Gun # II A, or   B   Samples received on loc directly from the field. Cooling process had begun   Shipping info (if applicable)   Are custody seals present?   I'NO, or   Yes. If yes, where?   on cooler,   on samples,   on package   Date:   How many   Signature,   Initials,   None   Were custody seals intact upon arrival?   I'NO   New many   Signature,   Initials,   One   Were custody seals intact upon arrival?   I'NO   New many   Signature,   Initials,   One   Were custody seals intact upon arrival?   I'NO   New many   Signature,   Initials,   One   Were custody seals intact upon arrival?   I'NO   Many   Signature,   Initials,   I'NO   New many   Signature,   Initials,   I'NO   New many   Signature,   Initials,   I'NO   New many   Signature,   Initials,   I'NO   New many   Signature,   Initials,   I'NO   New many   Signature,   Initials,   I'NO   New many   Signature,   I'NO   Signature,   I'NO	Section 1: Login # 300/9	Client: TX	o EO		•		
Section 2: Samples received in a cooley?			44			ENT	HALPY
If no cooler Sample Tennp ("Ct; 2" suling IR Gun # ETA, or B Samples received on Ice directly from the field. Cooling process had begun if in cooler: Deta Opened 2 7 1 1 sty (print).				Al 8 A - A - A			
Samples recalved on ice directly from the field. Cooling process had begun   file cooler: Data Opened 2   7   / 1	1			-			
If in cooler: Data Opened 2 7 1 9 by (print)		US	ng IR Gun # 🖸 A, or [	3 B			
Shipping info (if applicable) Are custody seals present?   TNO, or   Yes. If yes, where?   on cooler,   on samples,   on package	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.	ing process had begun	<i>j</i> '			
Are custody seals present?	If in cooler: Date Opened 4/11 By (print)	<u> </u>	(sign)			_	
Deta:							
Were custody seals intact upon arrival?   Qes   DNO   PNJA					⊒on pa	ckage	
Section 3:   Important : Notify PM if temperature exceeds 6°C or arrive froze   Bubble Wrzp,	Date: How	many	☐ Signature, ☐ Initials,	□ None			
Packing in cooler: (if other, describe)    Blubble Wrap,   Foam blocks,   Bags,   None,   Cloth material,   Cardboard,   Styrofoam,   Paper towels     Samples received on ice directly from the field. Cooling process had begun   Type of ice used:   Wet,   Blue/Gel,   None   Temperature blenk(s) included?   Yes,   No     Temperature measured using   Thermometer ID:   o' IR Gun #   A   B     Cooler Temp ("C): #1:   #2:   #3:   #4:   #5:   #5:   #7:     Section 4:   Were custody papers dry, filled out property, and the project identifiable   Were Method 5035 sampling containers present?   Were Method 5035 sampling containers present?   Were Method 5035 sampling containers present?   If YES, what time were they trensferred to freezer?     Did all bottles arrive unbroken/unopened?   And there are making / extrs samples?   And the cool of the sample labels present, in good condition and complete?   Does the container count match the COC?   Does the container	Were custody seals intact upor	n arrival? 🗆 Ye	□ No EN/A				
Samples received on ice directly from the field. Cooling process had begun   Temperature blank(s) included?   Yes,   No   Yeps of ice used:   Wet,   Stue/Gel,   None   Temperature blank(s) included?   Yes,   No   Temperature measured using   Thermometer ID:   or IR Gun #   A   B   Cooler Temp (*Q; #1:   #2:   #3:   #4:   #5:   #6:   #7:   Section 4:   YES   NO   N/A   Were custody papers dry, filled out properly, and the project identifiable   YES, what time were they transferred to freezer?   YES, who change the hold time in LIMS for unpreserved VGAs?   YES, who were safeled?   YES, who were sa	Section 3:	lmp	ortant : Notify PM if ten	nperature exce	eds 6°C	or arrive	frozer
□ Samples received on ice directly from the field. Cooling process had begun Type of ice used: □ Wet, □ Blue/Gel, □ None □ Temperature blank(s) included? □ Yes, □ No Temperature measured using □ Thermometer ID: □ or iR Gun # □ A □ B Cooler Temp (*C): #1: #8: #8: #5: #6: #7: Section 4: YES NO N/A Were custody papers dry, filled out properly, and the project identifiable Were Method 5035 sampling containers present? If YES, what time were they transferred to freezer? Did all bottles arrive unbroken/unopened? Are there arey missing / extra samples? Are samples labels present, in good condition and complete? Does the container count match the COC? Do the sample labels present, in good condition and complete? Does the container count match the COC? Do the sample labels agree with custody papers? Was sufficient amount of sample sent for tests requested? Did you change the hold time in LIMS for unpreserved VOAs? Did you change the hold time in LIMS for preserved terracores? Are bubbles > 6mm elsent in VOA samples?  Was the client contacted concerning this sample delivery? If YES, who was called?  By Date:  Section 5: Are the samples appropriately preserved? (if N/A, skip the rest of section 5) Did you check preservatives for all bottles for each sample? Did you document your preservative check? ph strip lots ph strip lots dided to samples on/at □ HOL lots added to samples on/at □ HOL lots added to samples  On/at □ HSOG lots added to samples  On/at □ HSOG lots added to samples  On/at □ HSOG lots added to samples  On/at □ HSOG lots added to samples  On/at □ NaCH lots added to samples  Explanations/Comments:	Packing in cooler: (if other, describe)		· · ·				
Type of ice used:	🗆 Bubble Wrap, 🗅 Foam blocks, 🗆 Bags, 🗀	None, 🗆 Cloth m	aterial, 🗆 Cardboard, 🗈	l Styrofoam, 🗆	Paper t	owels	
Temperature measured using   Thermometer ID:	☐ Samples received on ice directly from the field.	Cooling process i	nad begun		•		
Temperature measured using   Thermometer ID:	Type of ice used: 🗆 Wet, 🗆 Blue/Gel, 🗀 N	ione .	Temperature blank(	s) included?	Yes, [	□ No	
Section 4:  Were custody papers dry, filled out properly, and the project identifiable  Were Mathod 5035 sampling containers present?  If YES, what time were they transferred to freezer?  Did all bottles arrive unbroken/unopened?  Are there any missing / extre samples?  Are samples in the appropriate containers for indicated tests?  Are sample labels present, in good condition and completa?  Does the container count match the COC?  Doe the sample labels agree with custody papers?  Was sufficient amount of sample sent for tests requested?  Did you change the hold time in LIMS for unpreserved VQAs?  Did you change the hold time in LIMS for preserved terracores?  Are bubbles - 6mm absent in VQA samples?  Was the client contacted concerning this sample delivery?  If YES, who was called?  By Date:  Section 5:  Are the samples appropriately preserved? (if N/A, skip the rest of section 5)  Did you check preservatives for all bottles for each sample?  Did you document your preservative check?  pH strip lots!  pH strip lots!  ph strip lots!  ph strip lots!  added to samples  on/at  HACO4 lots!  added to samples  on/at  HACO5 lots!  added to samples  on/at  Section 6:  Explansitions/Comments:	Temperature measured using   ☐ Thermometer ID	);	or IR Gun# 🛘	A 🗆 B	, <u>-</u>		
Section 4:  Were custody papers dry, filled out properly, and the project identifiable  Were Mathod 5035 sampling containers present?  If YES, what time were they transferred to freezer?  Did all bottles arrive unbroken/unopened?  Are there any missing / extre samples?  Are samples in the appropriate containers for indicated tests?  Are sample labels present, in good condition and completa?  Does the container count match the COC?  Doe the sample labels agree with custody papers?  Was sufficient amount of sample sent for tests requested?  Did you change the hold time in LIMS for unpreserved VQAs?  Did you change the hold time in LIMS for preserved terracores?  Are bubbles - 6mm absent in VQA samples?  Was the client contacted concerning this sample delivery?  If YES, who was called?  By Date:  Section 5:  Are the samples appropriately preserved? (if N/A, skip the rest of section 5)  Did you check preservatives for all bottles for each sample?  Did you document your preservative check?  pH strip lots!  pH strip lots!  ph strip lots!  ph strip lots!  added to samples  on/at  HACO4 lots!  added to samples  on/at  HACO5 lots!  added to samples  on/at  Section 6:  Explansitions/Comments:	Cooler Temp (°C): #1: #2: #3	):#4:	#5:	#6:#	7:		
Were Method 5035 sampling containers present?  If YES, what time were they transferred to freezer?  Did all bottles arrive unbroken/unopened?  Are there any missing / extra samples?  Are samples in the appropriate containers for indicated tests?  Are sample labels present, in good condition and complete?  Does the container count match the COC?  Doe the sample labels agree with custody papers?  Was sufficient amount of sample sent for tests requested?  Did you change the hold time in LIMS for unpreserved VQAs?  Did you change the hold time in LIMS for unpreserved terracores?  Are bubbles > 6mm absent in VQA samples?  Was the client contacted concerning this sample delivery?  If YES, who was called?  By Date;  Section 5:  Are the samples appropriately preserved? (If N/A, skip the rest of section 5)  Did you check preservatives for all bottles for each sample?  Did you douent your preservative check?  pH strip lots	Section 4:				YES	NO	N/A
If YES, what time were they transferred to freezer?  Did all bottles arrive unbroken/unopened?  Are there any missing / extra samples?  Are samples in the appropriate containers for indicated tests?  Are sample labels present, in good condition and complete?  Does the container count match the COC?  Does the container count match the COC?  Does the container count match the COC?  Do the sample labels agree with custody papers?  Was sufficient amount of sample sent for tests requested?  Did you change the hold time in LIMS for unpreserved VOAs?  Did you change the hold time in LIMS for unpreserved terracores?  Are bubbles > 6mm absent in VOA samples?  Was the client contacted concerning this sample delivery?  If YES, who was called?  By Date:  Section 5:  Are the samples appropriately preserved? (if N/A, skip the rest of section 5)  Did you check preservatives for all bottles for each sample?  Did you document your preservative check?  pH strip lots			fiable				
Did all bottles arrive unbroken/unopened?  Are there any missing / extra samples?  Are samples in the appropriate containers for indicated tests?  Are sample labels present, in good condition and complete?  Does the container count match the CDC?  Do the sample labels agree with custody papers?  Was sufficient amount of sample sent for tests requested?  Did you change the hold time in LIMS for unpreserved VOAs?  Did you change the hold time in LIMS for preserved terracores?  Are bubbles > 6mm absent in VOA samples?  Was the client contacted concerning this sample delivery?  If YES, who was called?  By Date:  Section 5:  YES NO N/A  Are the samples appropriately preserved? (if N/A, skip the rest of section 5)  Did you document your preservatives for all bottles for each sample?  Did you document your preservative check?  pH strip lot#	Were Method 5035 sampling containers present?					<u> </u>	
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Did you document your preservative check?  pH strip lot# pH strip lot#			n secuon 3)				
pH strip lot#		· sample:	······································				
Preservative added:  □ H2SO4 lot# added to samples on/at □ HCL lot# added to samples on/at □ HNO3 lot# added to samples on/at □ NaOH lot# added to samples on/at □ NaOH lot# added to samples on/at Explanations/Comments:	• •	1	nH strin int#	L			<u>:</u>
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C NaOH lot# added to samples on/at Section 6: Explanations/Comments:							
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Date Logged in 2 7/19 By (print) A (sign)	1						
	Date Logged in 2719 By (print	h A	(sign)	1			



#### Detections Summary for 307019

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location : Resample 10 (2/7/19)

Client Sample ID : UP HAMMOND TANK Laboratory Sample ID : 307019-001

No Detections

Client Sample ID : UP TIGER PIT Laboratory Sample ID : 307019-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.013		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID: UP SOURCE WATER Laboratory Sample ID: 307019-003

No Detections

Page 1 of 1 8.0



Total Cyanide						
Lab #:	307019	Location:	Resample 10 (2/7/19)			
Client:	Pacific Gas & Electric	Prep:	METHOD			
Project#:	STANDARD	Analysis:	SM4500CN-C,E			
Analyte:	Cyanide	Sampled:	02/07/19			
Matrix:	Water	Received:	02/07/19			
Units:	mg/L	Prepared:	02/07/19			
Diln Fac:	1.000	Analyzed:	02/08/19			
Batch#:	267621					

Field ID	Type Lab ID	Result	RL	
UP HAMMOND TANK	SAMPLE 307019-001	ND	0.010	
UP TIGER PIT	SAMPLE 307019-002	0.013	0.010	
UP SOURCE WATER	SAMPLE 307019-003	ND	0.010	
	BLANK QC964159	ND	0.010	

ND= Not Detected RL= Reporting Limit

Page 1 of 1

2.0



#### Batch QC Report

Total Cyanide						
Lab #:	307019	Location:	Resample 10 (2/7/19)			
Client:	Pacific Gas & Electric	Prep:	METHOD			
Project#:	STANDARD	Analysis:	SM4500CN-C,E			
Analyte:	Cyanide	Batch#:	267621			
Field ID:	UP SOURCE WATER	Sampled:	02/07/19			
MSS Lab ID:	307019-003	Received:	02/07/19			
Matrix:	Water	Prepared:	02/07/19			
Units:	mg/L	Analyzed:	02/08/19			
Diln Fac:	1.000					

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC964160		0.2000	0.1579	79	75-120		
MS	QC964161	<0.01000	0.2000	0.1211	61	56-120		
MSD	QC964162		0.2000	0.1513	76	56-120	22	25

# Attachment 13 Analytical Report on Resampling #11



# McCampbell Analytical, Inc.

"When Quality Counts"

## **Analytical Report**

**WorkOrder:** 1902474

**Report Created for:** PG&E Gateway Generating Station

3225 Wilbur Avenue Antioch, CA 94509

**Project Contact:** 

Angel Espiritu

**Project P.O.:** 

**Project:** Resample II (2/11/19)

**Project Received:** 02/11/2019

Analytical Report reviewed & approved for release on 02/12/2019 by:

Christine Askari

Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



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#### **Glossary of Terms & Qualifier Definitions**

**Client:** PG&E Gateway Generating Station

**Project:** Resample II (2/11/19)

WorkOrder: 1902474

#### **Glossary Abbreviation**

%D Serial Dilution Percent Difference

95% Interval 95% Confident Interval

DF Dilution Factor

DI WET (DISTLC) Waste Extraction Test using DI water

DISS Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)

DLT Dilution Test (Serial Dilution)

DUP Duplicate

EDL Estimated Detection Limit

ERS External reference sample. Second source calibration verification.

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

N/A Not Applicable

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PDS Post Digestion Spike

PDSD Post Digestion Spike Duplicate

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value

SPLP Synthetic Precipitation Leachate Procedure

ST Sorbent Tube

TCLP Toxicity Characteristic Leachate Procedure

TEQ Toxicity Equivalents

TZA TimeZone Net Adjustment for sample collected outside of MAI's UTC.

WET (STLC) Waste Extraction Test (Soluble Threshold Limit Concentration)

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## **Analytical Report**

**Client:** PG&E Gateway Generating Station

**Date Received:** 2/11/19 10:05

**Date Prepared:** 2/12/19

**Project:** Resample II (2/11/19)

**WorkOrder:** 1902474

**Extraction Method:** SM4500-CN⁻ E **Analytical Method:** SM4500-CN⁻ CE

Unit:  $\mu g/L$ 

Cva	anide.	. To	tal
$\sim$	amuc	,	···

		0 3 44224 47				
Client ID	Lab ID	Matrix	Date Col	lected	Instrument	Batch ID
UP Tiger Pit	1902474-001A	Water	02/11/2019	9 08:30	WC_SKALAR 021219A1_29	172888
Analytes	Result		<u>RL</u>	<u>DF</u>	<u>Date</u>	Analyzed
Total Cyanide	29		1.0	1	02/12	2/2019 11:55

Analyst(s): NM

Client ID	Lab ID	Matrix	Date Col	lected	Instrument	Batch ID
UP RO	1902474-002A	Water	02/11/2019	9 09:25	WC_SKALAR 021219A1_32	172888
<u>Analytes</u>	Result		<u>RL</u>	<u>DF</u>	<u>Date</u>	Analyzed
Total Cyanide	1.7		1.0	1	02/12	2/2019 12:03

Analyst(s): NM

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## **Quality Control Report**

**Client:** PG&E Gateway Generating Station

**Date Prepared:** 2/12/19

**Date Analyzed:** 2/12/19 **Instrument:** WC_SKALAR

Matrix: We_SKALA.

**Project:** Resample II (2/11/19)

**WorkOrder:** 1902474

**BatchID:** 172888

**Extraction Method:** SM4500-CN⁻ E **Analytical Method:** SM4500-CN⁻ CE

**Unit:** μg/L

Sample ID: MB/LCS/LCSD-172888

	QC Summary Rep	oort for SM45	500-CN ⁻ (	CE		
Analyte	MB Result	MDL	RL			
Total Cyanide	ND	0.84	1.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Cyanide	41	40	40	102	101	80-120	1.19	20

### McCampbell Analytical, Inc.

□WaterTrax

Email:

Project:

PO:

cc/3rd Party:

WriteOn

abe4@pge.com

Resample II (2/11/19)

□ EDF

(925) 252-9262

Angel Espiritu

(925) 459-7212

3225 Wilbur Avenue

Antioch, CA 94509

Report to:

1534 Willow Pass Rd Pittsburg, CA 94565-1701

PG&E Gateway Generating Station

FAX:

CHAIN-OF-CUSTODY RECORD

Page	1	of	
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☐ J-flag

WorkOrder: 1902474 ClientCode: PGEA

Excel **EQuIS** ✓ Email □HardCopy

Detection Summary Dry-Weight

> Requested TAT: 1 day;

☐ ThirdParty

Angel Espiritu

Bill to:

PG&E Gateway Generating Station

Date Received: 02/11/2019 3225 Wilbur Avenue Antioch, CA 94509 Date Logged: 02/11/2019

Requested Tests (See legend below) Lab ID Client ID Matrix Collection Date Hold 2 3 5 6 7 10 11 12 1 1902474-001 **UP Tiger Pit** 2/11/2019 08:30 Water Α 1902474-002 UP RO Water 2/11/2019 09:25 Α

#### Test Legend:

1 CN_SM4500CE_W	2	3	4
5	6	7	8
9	10	11	12

Prepared by: Agustina Venegas

#### **Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



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### **WORK ORDER SUMMARY**

Client Name:	PG&E GATEWAY GENERATING STATION	Project:	Resample II (2/11/19)	<b>Work Order:</b> 1902474
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Client Contact: Angel Espiritu

Contact's Email: abe4@pge.com

Comments:

Date Logged: 2/11/2019

		☐ WaterTrax	WriteOn EDF	Excel	EQuIS <b></b> Email	HardC	opy ThirdParty	/J-	flag	
Lab ID	Client ID	Matrix	Test Name	Containers /Composites	<b>Bottle &amp; Preservative</b>	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold SubOut
1902474-001A	UP Tiger Pit	Water	SM4500-CN CE (Cyanide, Total)	) 1	500mL aHDPE w/ NaOH + Na2S2O3		2/11/2019 8:30	1 day	None	
1902474-002A	UP RO	Water	SM4500-CN CE (Cyanide, Total)	) 1	500mL HDPE w/ Na2S2O3		2/11/2019 9:25	1 day	Present	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.



RUSH MAI Work Order # 1912474

МсСАМ	PBELL	ANAI	YT	ICAI	, INC.						C	HAI	N O	F CU	JSTO	DDY	REC	COR	D					
1534	Willow Pass I	Rd. Pittsburg	, Ca. 9	4565-1701		Turn	Aroun	d Time	1 Day	Rush	-7	2 Day	Rush		3 Day	Rush		STD		Qu	ote#			
Telep	phone: (877) 2:	52-9262 / Fa	x: (925	5) 252-926	)		J-Flag	/ MDL		ESL			Cleanu	ір Арр	roved				Bott	le Or	der#			
www.mccam	pbell.com	ma	in@m	ccampbel	l.com	Deliv	ery Fo	ormat:	PDF		Geo'	Гracke	r EDF		EDD		Wr	ite On	(DW)		F	QuIS		
Report To: Accel FSO	icidu	Bill To:	Pa	#F- Co	teness								Ar	alys	is Re	quest	ed				2	5		
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Project Name: Resample 11	(2/11/19)	Project #:				8021	Mot	Mot	64/6	ith S	carb	l Pes	; Ar	(V)	(SV	(PAI	/ 603	1	2	r dis	C K			
Project Location:	1.20	PO#				Gas (	15) +	15) +	e (16	lydro 71) W	lydro	81 (C	CB's	8260	8270	8270 SIM / 8310 (PAHs / PNAs)	200.8	20)	ment	ole for	# 0	BCE		
Sampler Signature: Mucke	FAU	ironn	eta	150	moling	I as	1 (80 a Ge	1 (80	reas	1 mn / 907	um J	1 / 80	82 P	524 /	1579	W/	als (	9 / 80	quire	samp	7 5	19.6		
SAMPLE ID	Sam	pling	ners	1	1.0.0	E	Diese	Diese	1.8°C	trole (1664	trole ica G	2/ 608	8 / 80	4.2 / (	5.2 / (	120 S	7 Mei	200.	ls Re	ilter	300	7		
Location / Field Point	Date	Time	#Containers	Matrix	Preservative	BTEX & TPH as Gas (8021/8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silca Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil Grease (1664 / 9071) <u>With</u> Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 82	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)	Baylands Requirements	Lab to filter sample for dissolved metals analysis	Cyanide(total	J		
UP Tiger Pit	2/11/19	08:30	4	water	-	-		I F S	T S	10	H 21	ы	н	H	ш	Щ	J	-	щ		X			
NP ON	2/11/19	09:55				1															X			
Urko	411/19	04.0		mute.		+		+	1														9	
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MAI clients MUST disclose any dangerous chem	icals known to be	present in their	submitte	ed samples in	concentrations th	at may	cause i	immedi	ate harn	n or seri	ous fut	ure hea	lth enda	ingerm	ent as a	result	of brief	, gloved	i, open	air, san	nple har	dling by	MAIs	aff.
Non-disclosure incurs an immediate \$250 surcha		hand the first											work sa	afely.							. /1		52	_
* If metals are requested for water samples a																		4	C	omme	nts / In	structio	ns	
Please provide an adequate volume of samp		is not sufficie				ll be p		_					ort.	1 5		T 7	ime	4						
Relinquished By / Comp	pany Name				Time	4	Rece	eived E	By / Co	mpany	Name			2/1	ate,	1 10	ime	1						
4/1			2/11/	19 10	:05	-	4u	4	-)		_			2/1	ilia	16	1.05							
V					-( -	-	1	1				_	-	/		-		1						
Matrix Code: DW=Drinking Water	CW-C	d Water W	737-33	Insta Wet	or CW-Co-	vota	C-C	oil C	I -CI-	daa	Λ = Λ :	r 11/1	D=137;	ne C	)=O+l-	er								
Preservative Code: 1=4°C 2=HC									L-311	idge,	A-A)	1, W	- vv 1	pc, c	,-Oil		Temp	11	11	°C	Ini	tials		_
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## **Sample Receipt Checklist**

Client Name: Project:	PG&E Gateway Generating Station Resample II (2/11/19)			Date and Time Received Date Logged: Received by:	2/11/2019 10:05 2/11/2019 Julia Danielsson
WorkOrder №: Carrier:	1902474 Matrix: Water Client Drop-In			Logged by:	Agustina Venegas
	Chain of C	Custody	(COC) Infor	<u>mation</u>	
Chain of custody	present?	Yes	<b>✓</b>	No 🗆	
Chain of custody	signed when relinquished and received?	Yes	<b>✓</b>	No 🗆	
Chain of custody	agrees with sample labels?	Yes	<b>✓</b>	No 🗆	
Sample IDs noted	d by Client on COC?	Yes	<b>✓</b>	No 🗆	
Date and Time of	f collection noted by Client on COC?	Yes	<b>✓</b>	No 🗆	
Sampler's name	noted on COC?	Yes	<b>✓</b>	No 🗆	
COC agrees with	Quote?	Yes		No 🗆	NA 🗹
	Samp	le Rece	eipt Informati	on	
Custody seals int	act on shipping container/cooler?	Yes			NA 🗸
Shipping containe	er/cooler in good condition?	Yes	<b>✓</b>	No 🗌	
Samples in prope	er containers/bottles?	Yes	<b>✓</b>	No 🗌	
Sample container	rs intact?	Yes	<b>✓</b>	No 🗌	
Sufficient sample	volume for indicated test?	Yes	•	No 🗆	
	Sample Preservati	on and	Hold Time (I	HT) Information	
All samples recei	ved within holding time?	Yes	<b>✓</b>	No 🗆	NA 🗌
Samples Receive	-	Yes	<b>✓</b>	No 🗆	
	(Ice Typ	e: WE	TICE )		
Sample/Temp Bla	ank temperature		Temp: 4.4	ŀ°C	NA 🗌
Water - VOA vial	s have zero headspace / no bubbles?	Yes		No 🗌	NA 🗹
Sample labels ch	ecked for correct preservation?	Yes	✓	No 🗌	
pH acceptable up <2; 522: <4; 218.	oon receipt (Metal: <2; Nitrate 353.2/4500NO3: 7: >8)?	Yes		No 🗆	NA 🗸
	acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 3; 544: <6.5 & 7.5)?	Yes		No 🗆	NA 🗹
Free Chlorine to	ested and acceptable upon receipt (<0.1mg/L)?	Yes		No 🗆	NA 🗹
Comments:	========			=======	=======





## **Enthalpy Analytical**

2323 Fifth Street, Berkeley, CA 9471O, Phone (510) 486-0900

## Laboratory Job Number 307128 ANALYTICAL REPORT

Pacific Gas & Electric

4801 Oakport Street Oakland, CA 94601

Project : STANDARD

Location : Resample 11 (2/11/19)

Level : II

Sample ID
UP TIGER PIT
UP RO

<u>Lab ID</u> 307128-001 307128-002

Date: 02/12/2019

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:

Haley Campbell Project Manager

haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001



#### CASE NARRATIVE

Laboratory number: 307128

Client: Pacific Gas & Electric Location: Resample 11 (2/11/19)

Request Date: 02/11/19
Samples Received: 02/11/19

This data package contains sample and QC results for two water samples, requested for the above referenced project on 02/11/19. The samples were received on ice and intact, directly from the field.

#### Total Cyanide (SM4500CN-C,E):

No analytical problems were encountered.

	alpy Analytical		CH	A	11	1	Ol	F	Cl	J:	S	Γ		ľ	Y						Pa	ge _		_of	1_	-		
Analytic 2323 Fi	al Laboratory Since 1878 fth Street														0		CI	hain <b>A</b>	of C	Suste l <b>yti</b> e	ody i	# : Red	que	st				
(510)48	y, CA 94710 6-0900 Phone 6-0532 Fax		C&T L	.00	SIN	# 🗓	<u> 30</u> -	717	<u>28</u>				7	fore pers	-													
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Lab		Sampli	ing	ı	Vlat	rix			Ch Pres		ical ativ		1	2	002h WS													
No.	Sample ID.	Date	Time	Water	Soil	Other	# of Container	모	H _S SO ₄	NOS H	NaOH	None	-	eyanide (10)	2													
	UP Tiger Pit	2/11/19	08:30	X	$\Box$	十	1	$\top$			T	X		7	V		$\dashv$	十	十	$\top$	十	+	$\top$	+	$\dagger$	T	$\Box$	$\overline{}$
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Notes:	1. 50 1 . 70 .	SAMPLE RE	CEIPT	RE	ELI	NQL	JISH	ED E	] 3Y:	<u> </u>	<u> </u>				L	RE	CEI	VED	В	 /:				 1		<u> </u>		$\vdash$
C٤	ple sent on ICE ontainers:	☐ Intact ☐ Co						2/11	/i or		K	}	/0 , DAT	ς Z Ε/ΤΙ	IME	/	g	) at	<u>'</u>	1	a	<u>.                                    </u>			/11	//9	<i>10</i> TE/TI	
	500 ml poly			Ø-		<i>-</i>			17-T		_		DAT	E/T	IME											DA	TE/TI	IME
	Not prese	10 Sa	pres										DAT	Е/Т	IME												TE/TI	

SAMPLE RECEIPT CHECKLIST	<b>,</b>					-	
Section 1: Login # 30	1178	Mont. MUS	skan Er	nvironme	ental.		
Date Received: 2	11119	Orologic DC	Sample	(1	•	ENT	LALPY
						<del></del>	
Section 2: Samples received i					w)		
If no cooler Sample Temp (°C):			g IR Gun # 🔼 🗛				
☐ Samples receive	ed on ice directly from	the field. Coolin	g process had beg	nu :			
If in cooler: Date Opened	By (print)		(sign)			_	•
Shipping info (if ap	plicable)		· · · · · · · · · · · · · · · · · · ·			_	
Are custody seals	present? 🗵 No, or 🗆	l Yes. If yes, wh	iere? 🛚 on coole	er, 🛘 on sample	≅, □ on pa	ckage	
☐ Date:	How ma	any [	🛚 Signature, 🗖 ini	tials, 🗆 None			
Were custo	dy seals intact upon a	rrival?	□No ☑N	<u>/A</u>		· · · · · · · · · · · · · · · · · · ·	
Section 3:		lmpo	rtant : Notify PM	if temperature o	exceeds 6°C	or arrive	froze
Packing in cooler: (if other, de							
☐ Bubble Wrap, ☐ Foam	blocks, 🛭 Bags, 🗀 No	one, 🛘 Cloth ma	terial, 🛘 Cardboa	rd, 🗆 Styrofoam	, 🗆 Paper t	owels	
Samples received on ice din			ad begun		•		
Type of ice used : 🗵 Wet,				lank(s) included	? 🔲 Yes, [	□ No	
Temperature measured using	☐ Thermometer ID:		or IR Gun	# <b>(</b> A			
Cooler Temp (°C): #1: 35	<b>, #2:, #3:</b>	, #4:	, #5:	<b>'</b> #6:	#7:		
Section 4:					YES	NO	NA
Were custody papers dry, fille	d out properly, and the	e project identifi	lable				
Were Method 5035 sampling o		·				<i>.</i>	
If YES, what time were th		zer?					
Did all bottles arrive unbroken				·			
Are there any missing / extra s					<u> </u>		
Are samples in the appropriate	containers for indicat	ted tests?					
Are sample labels present, in g		npiete?					
Does the container count mate						[ <u>-</u>	
Do the sample labels agree wit Was sufficient amount of sam		acto d2			+		
was sumicent amount of samp Did you change the hold time							
Did you change the hold time				<del> </del>			
Are bubbles > 6mm absent in \		rei i acol es i			<del></del>		
Was the client contacted conc		Cycles		, <del></del>		<del></del>	
.,	BITHING UND SELEPTE GEN			Date:			
If YES, who was called?		Ву		Date:	YES	NO	N/A
Section 5: Are the samples appropriately	precented? /FN/A	, skip the rest of	section 5)			140	147
Are the samples appropriating Did you check preservatives fo			Section 5/				1
Did you document your presen							
•	, pH strip lot#		, oH strip i	ct#	<u> </u>		
Preservative added:		<del>- 1777</del>					
☐ H2SO4 lot#	added to samples			on	/at		
☐ HCL lot#	added to samples	<del></del>			/at		
☐ HNO3 lot#	added to samples				/at		
□ NaOH lot#	added to samples			on	/at		
Section 6: Explanations/Comments:							
					<del>.</del>		
Date Logged in 2/11	19 By (print)			(sign)	Q /	·	
Date Logged at 2/11	<del>_</del>	78	7	(clan)	210		•



### Detections Summary for 307128

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location: Resample 11 (2/11/19)

Client Sample ID: UP TIGER PIT Laboratory Sample ID: 307128-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.014		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : UP RO Laboratory Sample ID : 307128-002

No Detections

Page 1 of 1 8.0



	Total Cyanide									
Lab #:	307128	Location:	Resample 11 (2/11/19)							
Client:	Pacific Gas & Electric	Prep:	METHOD							
Project#:	STANDARD	Analysis:	SM4500CN-C,E							
Analyte:	Cyanide	Sampled:	02/11/19							
Matrix:	Water	Received:	02/11/19							
Units:	mg/L	Prepared:	02/11/19							
Diln Fac:	1.000	Analyzed:	02/12/19							
Batch#:	267700									

Field ID	Type	Lab ID	Result	RL
UP TIGER PIT	SAMPLE	307128-001	0.014	0.010
UP RO	SAMPLE	307128-002	ND	0.010
	BLANK	QC964476	ND	0.010

ND= Not Detected RL= Reporting Limit

Page 1 of 1

2.0



#### Batch QC Report

	Total Cyanide									
Lab #:	307128	Location:	Resample 11 (2/11/19)							
Client:	Pacific Gas & Electric	Prep:	METHOD							
Project#:	STANDARD	Analysis:	SM4500CN-C,E							
Analyte:	Cyanide	Batch#:	267700							
Field ID:	UP TIGER PIT	Sampled:	02/11/19							
MSS Lab ID:	307128-001	Received:	02/11/19							
Matrix:	Water	Prepared:	02/11/19							
Units:	mg/L	Analyzed:	02/12/19							
Diln Fac:	1.000									

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC964477		0.2000	0.1665	83	75-120		
MS	QC964478	0.01390	0.2000	0.1986	92	56-120		
MSD	QC964479		0.2000	0.1985	92	56-120	0	25

# Attachment 14 Analytical Report on Resampling #12





## **Enthalpy Analytical**

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

# Laboratory Job Number 307577 ANALYTICAL REPORT

Pacific Gas & Electric 4801 Oakport Street Oakland, CA 94601

Project : STANDARD

Level : II

	<u>Sample ID</u>	<u>Lab ID</u>
UP	HAMMOND TAND	307577-001
UP	RO REJECT	307577-002
UP	TIGER PIT	307577-003
UP	SOURCE WATER	307577-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Date: 02/26/2019

Signature:

Haley Campbell Project Manager

haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001



#### CASE NARRATIVE

Laboratory number: 307577

Client: Pacific Gas & Electric

Request Date: 02/25/19
Samples Received: 02/25/19

This data package contains sample and QC results for four water samples, requested for the above referenced project on 02/25/19. The samples were received cold and intact.

#### Total Cyanide (SM4500CN-C,E):

No analytical problems were encountered.

#### CHAIN OF CUSTODY **Enthalpy Analytical** Page _____of ____ Formerly Curtis & Tompkins Analytical Laboratory Since 1878 Chain of Custody #: **Analytical Request** 2323 Fifth Street Berkelev, CA 94710 C&T LOGIN# 307577 (510)486-0900 Phone (510)486-0532 Fax **Project No:** Resample 12 (2/25/19) Report To: Angel Espicit **Project Name:** Company: Par E Laterray Concrating Shirt Rpt Level: II Turnaround Time: Standard Rush Zyht Telephone: (425) 522-1838 Email: abe48 Pgc.com Chemical Sampling Matrix Preservative Lab # of Container HCI H₂SQ₄ Sample ID. NaOH None No. Date Time UP Hammon 08:55 RN Reject 2/25/19 08:10 08:451 Notes: Notes: Soudes Set on ICE: Containers: soomlpoly Do Not perserve Somple RELINQUISHED BY: RECEIVED BY: SAMPLE RECEIPT 10:00 DATE/TIME ☐ Intact ☐ Cold 10:00 2/25/19 DATE/TIME ☐ On Ice ☐ Ambient DATE/TIME DATE/TIME

DATE/TIME

DATE/TIME

SAMPLE R	ECEIPT CHECKLIST				
Section 1:	Login # 307577 Client: PG+E		٠		
	Date Received: 2-25.19 Project:			ENT	HALFY
Section 2:	Samples received in a cooler?  Yes, how many?  No (skip Section 3 be	lone)		•	
If no coole	Sample Temp (°C): 3.0 C using IR Gun # 12 A, or 🗆 B				
	☐ Samples received on ice directly from the field, Cooling process had begun	•			
.e					
IT IN COO <b>IE</b> T	pers obersed				
	Shipping Info (if applicable)				
	Are custody seals present? \(\Quad \text{No, or }\Quad \text{Yes. If yes, where? }\Quad \text{on cooler, }\Quad \text{on sam}	oles, 🗀 or	1 packa	ße	
	□ Date: How many □ Signature, □ Initials, □ None				
	Were custody seals intact upon arrival? ☐ Yes ☐ No ☐ N/A				
Section 3:	Important : Notify PM If temperature	exceeds	6°C or	arrive	frozen.
Packing in o	poler: (if other, describe)				
☐ But	ble Wrap, 🖸 Foam blocks, 🖸 Bags, 🚨 None, 🗀 Cloth material, 🗀 Cardboard, 🗀 Styrofoa	m, 🗆 Pap	er tow	els	
	received on ice directly from the field. Cooling process had begun	•			
	used: D Wet, D Blue/Gel, D None Temperature blank(s) include	d? □Ye	s. 🗆 ]	Уo	
	e measured using   Thermometer ID: or IR Gun #   A   B		-		
	p (°C): #1:, #2:, #3:, #4;, #5:, #6:	, #7:_		_	
Section 4:		Y	S I	NO.	N/A
	ty papers dry, filled out properly, and the project identifiable				
Were Meth	od 5035 sampling containers present?			-	
	what time were they transferred to freezer?				
Did all bott	es arrive unbroken/unopened?				
Are there a	ny missing / extra samples?		-		
	in the appropriate containers for indicated tests?	مرسو			
	labels present, in good condition and complete?	سرماه			
Does the co	ntainer count match the COC?				
Do the sam	ple labels agree with custody papers?				
Was sufficie	nt amount of sample sent for tests requested?				
Did you cha	nge the hold time in LIMS for unpreserved VQAs?				
Did you cha	nge the hold time in LIMS for preserved terracores?				
Are bubble:	> 6mm absent in VOA samples?				/
Was the clic	int contacted concerning this sample delivery?				
IF YES,	who was called? By Date:				
Section 5:		YE	S	10	N/A
Are the san	ples appropriately preserved? (If N/A, skip the rest of section 5)				
	ck preservatives for all bottles for each sample?				
Did you doo	ument your preservative check?				
pH stri	o lot#, pH strip lot#, pH strip lot#				
Preservativ			,		
☐ H2SO4 k		n/at			
☐ HCL lotal		n/at			
HNO3 ld		n/at			
□ NaOH lo		n/at			
Section 6:					
	s/Comments:				
				·	
,		<del> </del>			
Date I ce	ped in 2 25 19 By (print) ( sign) (	5			
• 7	The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	$\prec f_{i}$			
Date Li	beled 2 - 2 - 3 - 1 By (print) (sign) (	2-1/-			



#### Detections Summary for 307577

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location :

Client Sample ID: UP HAMMOND TAND Laboratory Sample ID: 307577-001

No Detections

Client Sample ID: UP RO REJECT Laboratory Sample ID: 307577-002

No Detections

Client Sample ID: UP TIGER PIT Laboratory Sample ID: 307577-003

No Detections

Client Sample ID: UP SOURCE WATER Laboratory Sample ID: 307577-004

No Detections



	Total Cyanide									
Lab #:	307577	Prep:	METHOD							
Client:	Pacific Gas & Electric	Analysis:	SM4500CN-C,E							
Project#:	STANDARD									
Analyte:	Cyanide	Sampled:	02/25/19							
Matrix:	Water	Received:	02/25/19							
Units:	mg/L	Prepared:	02/25/19							
Diln Fac:	1.000	Analyzed:	02/26/19							
Batch#:	268093									

Field ID	Type	Lab ID	Result	RL
UP HAMMOND TAND	SAMPLE 3	07577-001	ND	0.010
UP RO REJECT	SAMPLE 3	07577-002	ND	0.010
UP TIGER PIT	SAMPLE 3	07577-003	ND	0.010
UP SOURCE WATER	SAMPLE 3	07577-004	ND	0.010
	BLANK Q	C966128	ND	0.010

ND= Not Detected RL= Reporting Limit

Page 1 of 1



#### Batch QC Report

	Total Cyanide									
Lab #:	307577	Prep:	METHOD							
Client:	Pacific Gas & Electric	Analysis:	SM4500CN-C,E							
Project#:	STANDARD									
Analyte:	Cyanide	Batch#:	268093							
Field ID:	ZZZZZZZZZ	Sampled:	02/14/19							
MSS Lab ID:	307279-002	Received:	02/15/19							
Matrix:	Water	Prepared:	02/25/19							
Units:	mg/L	Analyzed:	02/26/19							
Diln Fac:	1.000									

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC966129		0.2000	0.1828	91	75-120		
MS	QC966130	<0.01000	0.2000	0.1470	74	56-120		
MSD	QC966131		0.2000	0.1472	74	56-120	0	25

# Attachment 15 Analytical Report on Resampling #13





## **Enthalpy Analytical**

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

## Laboratory Job Number 307679 ANALYTICAL REPORT

Pacific Gas & Electric

4801 Oakport Street Oakland, CA 94601

Project : STANDARD

Location : Resample Compliance-2/27/19

Level : II

Sample ID UP-I-001

<u>Lab ID</u> 307679-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:

Haley Campbell Project Manager

haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001

Date: 03/01/2019



#### CASE NARRATIVE

Laboratory number: 307679

Client: Pacific Gas & Electric

Location: Resample Compliance-2/27/19

Request Date: 02/27/19
Samples Received: 02/27/19

This data package contains sample and QC results for one water sample, requested for the above referenced project on 02/27/19. The sample was received cold and intact.

#### Total Cyanide (SM4500CN-C,E):

Low recoveries were observed for cyanide in the MS/MSD for batch 268177; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

# CHAIN OF CUSTODY

Project Name Project P. O.  EDD Format:	e: Resample Compliana No:  Report Level	kins Lab  Phone (i  Fax (i  - 2/27/i9 R  - 2/27/i9 R	S 510) 486-05 510) 486-05 ampler: Deport To: A company: Poelephone: 92	ngel StE	W Est	de Iri Tow	h tu	1#	1 W ma	isde	- pun 5		3	4 7/5	A 7004	NAL		CAL			stod	ge y # _			
Lab No.	Sample ID.	SAMF  Date  Collected	Time	MAT		ontainer		CHEM	IICA VATI	L VE	<u>- 4</u> 92	7	ande Co	925203) ag											
Up	I-001	4/27/19	0944 0944	S W		* '	유	HA HA	N	N N			51	\$											
											-														
											-														
Notes:		SAMPLE		F	RELIN	NQUI:	SHE	D BY:									RF	CEIV	VED	BY-					
Samples Do NUT	preserve Sample	RECEIPT  Intact Cold On Ice Ambient	Drug				1	DATE:	7-2	7	105	. T			<u></u>						E:2		ME: ME: ME:	95 10°	

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Section 2: Samples received in a cooler? □ 'Yes', how many? □ No (side) Section 3 below)  for occolar Samples received on loc directly from the field. Cooling process had beguin  if in cooler: Date Opened ② 27 □ (P by (print)				•		
Section 2: Samples received in a cooler? □ Yes, how many? □ No (atip Section 3 below)  If no cooler: Samples received in a cooler? □ Yes, in the cooler samples received on lose directly from the field. Cooling process had begun  If in cooler: Date Opened ② 27 1/9 By (print)  Shipping info (if applicable)  Are custody seals present? □ No, or □ Yes, if yes, where? □ on cooler, □ on samples, □ on package  □ Date: □ How many □ Signature, □ Initials, □ None  Ware custody seals intact upon arrival? □ Yes □ No □ 1-N/A  Section 3: **  **Recibing in cooler: (if other, describe) □ Republic Ware, □ From blocks, □ Bags, □ None, □ Ooth material, □ Cardboard, □ Styrofoam, □ Paper towels  □ Samples received on be directly from the field. Cooling process had begun  □ Paper towels □ Situation on the directly from the field. Cooling process had begun  □ Paper towels □ Yes, □ None  Temperature measured using □ Thermometer ID: □ or IR Gun # □ A □ TB  Cooler Temp! □ CP; #1: ▼ 7, #2: #3: #4: #5: #5: #5:  Section 6: Yes  Were Method 5055 sampling containers present?  If YES, what time were they transferred to freezer?  Old all bottles arrive unbroken/unopensed?  Are samples in the appropriate containers for indicated setto?  Were samples in the appropriate containers for indicated setto?  Were samples the hotel time in LIMS for unpreserved VOAs?  Did you change the hotel time in LIMS for unpreserved?  We sample is besit agree with custody papers?  We sample is besit agree with custody papers?  We studyled the hotel time in LIMS for preserved terrorers?  We studyled by papers suppropriately preserved? (ff N/A, skip the rest of section 5)  Did you change the hotel time in LIMS for preserved terrorers?  We studyled preservative or all bottles for each sample?  Did you docturent your preservative check?  pH strip lots		Date Secretural: 2-27/19 Projects			ENT	YELLAN
If no coolers Samples reached on los directly from the field. Cooling process had begin  If in cooler. Date Opened 2 27 1 4 84 (print)						
Samples received on tice directly from the field. Cooling process had begun			HOW)			
If in cooler: Dete Opened 2 271/4 by (print)	if no coole:	Sample Temp ("C): using IR Gun # 🗆 A, or 🗀 B	-			
Shipping Info (if applicable) Are custody seals present? Endo, or I Yes, if yes, where? I on cooler, I on samples, I on package						
Are custody seals present?	If in cooler:	l			-	
Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Section 3:   Sec		Shipping info (if applicable)				
Were custody seals intact upon arrival?   Yes   No     M/A		Are custody seals present? $\{2\}$ No, or $\square$ Yes. If yes, where? $\square$ on cooler, $\square$ on sam	ples, 🗆	on pac	:kage	
Packing Bit cooler: (if other, describe)						
Packing in cooler: (if other, describe)    Bubble Wrap,   Foam blocks,   Bags,   FNons,   Gloth material,   Cardboard,   Styrofnam,   Paper towels   Samples received on lose directly from the field. Cooling process had begun   Type of ice used:   2 Wet,   Blue/Gel,   None   Temperature blanks) included?   Yes,   No   Temperature measured using   Thermometer ID:   or it Gun #   A I F     Cooler Temp (*C): \$1:   7, \$2:   \$3:   \$4:   \$5:   \$6:   \$7:     Section 4:   YES   NO   N/A   Were custody papers dry, filled out property, and the project identifiable   Were sustody papers dry, filled out property, and the project identifiable   Were sustody papers dry, filled out property, and the project identifiable   Were sustody papers dry, filled out property   N/A     Were Method 505S sampling containers present?   N/A     Were Method 505S sampling ontainers present?   N/A     Were Method 505S sampling ontainers present?   N/A     Were samples in the appropriate containers for indicated tests?   N/A     Were samples in the appropriate containers for indicated tests?   N/A     Were samples below present, in good condition and complete?   N/A     Were samples in the appropriate containers for indicated tests?   N/A     Were samples in the appropriate with custody papers?   N/A     Were samples in the appropriate with custody papers?   N/A     Were samples in the appropriate with custody papers?   N/A     Were samples in the appropriate with custody papers?   N/A     Were sample in the in LIMS for unpreserved VOAs?   N/A     Were sample in the fold time in LIMS for unpreserved VOAs?   N/A     Were sample in the fold time in LIMS for unpreserved VOAs?   N/A     Were samples appropriately preserved?   N/A     Were sample						·
Paper towels   Paper towels   Pages   Pixone,   Cloth material,   Cardboard,   Styrofoam,   Paper towels	Section 3:	· · · · · · · · · · · · · · · · · · ·	e excee	ds 6°C	or arrive	frozen.
Samples received on ice directly from the field. Cooling process had begun   Type of ice used:					_	
Type of ica lead :     Wet,		<b>1</b>	am, 🗆 f	aber p	weis	
Temperature measured using   Thermometer ID:					<b>/</b>	
Cooler Temp (*C): #1:			ed? 🔲	Yes, [	No	
Section 4:  Were castody papers dry, filled out properly, and the project identifiable  Were Method 5035 sampling containers present?  If YES, what time were they transferred to freeze??  Did all bottles errive unkroken/unopened?  Are there any missing / extra samples?  Are sample labels present, in good condition and completa?  Does the container count match the COC?  Doe the sample labels present, in good condition and completa?  Doe the sample labels agree with custody papers?  Was sufficient amount of sample sent for tests requested?  Did you change the hold time in LIMS for unpreserved VOAs?  Did you change the hold time in LIMS for preserved terracores?  Are bubbles - 6mm eheart in VOA samples?  Was the client contacted concerning this sample delivery?  If YES, who was called?  By Date:  Section 5:  Are the samples appropriately preserved? (If N/A, skip the rest of section 5)  Did you check preservethes for all bottles for each sample?  Did you document your preservative check?  pH strip lot#		- · · · · · · · · · · · · · · · · · · ·			٠	
Were Newtond S035 sampling containers present?  If YPS, what time were they transferred to freezer?  Did all bottles arrive unbroken/unopered?  Are there any enissing / extra samples?  Are sample is the appropriate containers for indicated tests?  Are sample labels present, in good condition and complete?  Does the container count match the COC?  Do the sample labels agree with custody papers?  Was sufficient amount of sample sent for tests requested?  Did you change the hold time in LIMS for unpreserved VOAs?  Did you change the hold time in LIMS for unpreserved VOAs?  Did you change the hold time in LIMS for preserved terrecores?  Are bubbles > 6mm absent in VOA samples?  If YES, who was called?  By Date:  Section 5:  VES NO N/A  Are the samples appropriately preserved? (If N/A, skip the rest of section 5)  Did you document your preservative check?  ph strip lot# preservatives for all bottles for each sample?  Did you document your preservative check?  ph strip lot# ph strip lot# ph strip lot# preservative added:    H2SO4 lot# added to samples on/at     HKO5 lot# added to samples on/at     HNOB lot# added to samples on/at     HNOB lot# added to samples on/at     HNOB lot# added to samples on/at     HNOB lot# added to samples on/at     Section 6:   Explanations/Comments:		p (°C): #1: #5: #6:				21/4
Were Method 5035 sampling containers present?  If YES, what time were they transferred to freezer?  Did all bottles arrive unbroken/unopened?  Are semples in the appropriate containers for indicated tests?  Are semple labels present, in good condition and complete?  Does the container count match the COC?  Do the sample labels agree with custody papers?  Was sufficient amount of sample sent for tests requested?  Did you charge the hold time in LIMS for unpreserved VOAs?  Did you charge the hold time in LIMS for preserved terracores?  Are bubbles > 6mm absent in VOA samples?  Was the client contacted concerning this sample delivery?  If YES, who was called?  By Date:  Section 5:  Did you charge appropriately preserved? (If N/A, skip the rest of section 5)  Did you charge the hold time in LIMS for preserved?  PYES NO N/A  Are the samples appropriately preserved? (If N/A, skip the rest of section 5)  Did you chard preservatives for all bottles for each sample?  Did you document your preservative check?  pH strip lot#				YES	NO	N/A
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Are sample labels present, in good condition and complete?  Does the container count match the COC?  Do the sample labels agree with custody papers?  Was sufficient amount of sample sent for tests requested?  Did you change the hold time in LIMS for unpreserved VOAs?  Did you change the hold time in LIMS for preserved terracores?  Are bubbles > 6mm absent in VOA samples?  Was the client contacted concerning this sample delivery?  If YES, who was called?  By Date:  Section 5:  YES NO N/A  Are the samples approprietely preserved? (If N/A, skip the rest of section 5)  Did you check preservatives for all bottles for each sample?  Did you document your preservative check?  pH strip lot#	Are sample	in the environment containers for indicated tests?				
Does the container count metch the COC?  Do the sample labels agree with custody papers?  Was sufficient amount of sample sent for tests requested?  Did you change the hold time in LIMS for unpreserved VOAs?  Did you change the hold time in LIMS for preserved terracores?  Are bubbles > 6mm absent in VOA samples?  Was the client contacted concerning this sample delivery?  If YES, who was called?  By Date:  Section 5:  Are the samples appropriately preserved? (If N/A, skip the rest of section 5)  Did you check preservatives for all bottles for each sample?  Did you document your preservative check?  pH strip lots!  added to samples  on/at  HNOS lots!  added to samples  on/at  NaOH lots!  added to samples  on/at  Section 6:  Explanations/Comments:						
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Are bubbles > 6mm absent in VOA samples?  Was the client contacted concerning this sample delivery?  If YES, who was called?  By Date:  Section 5:  Are the samples appropriately preserved? (If N/A, skip the rest of section 5)  Did you check preservatives for all bottles for each sample?  Did you document your preservative check?  pH strip lot#						
Was the client contacted concerning this sample delivery?  If YES, who was called?  Section 5:  Are the samples appropriately preserved? (If N/A, skip the rest of section 5)  Did you check preservatives for all bottles for each sample?  Did you document your preservative check?  pH strip lot#						
If YES, who was called?  Section 5:  No N/A  Are the samples appropriately preserved? (If N/A, skip the rest of section 5)  Did you check preservatives for all bottles for each sample?  Did you document your preservative check?  pH strip lot#						
Section 5:  Are the samples appropriately preserved? (If N/A, skip the rest of section 5)  Did you check preservatives for all bottles for each sample?  Did you document your preservative check?  pH strip lot#						
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)  Did you check preservatives for all bottles for each sample?  Did you document your preservative check?  pH strip lot#		who was called? By Date:				
Did you document your preservative check?  pH strip lot#, pH strip lot#, pH strip lot#  Preservative added:    H2SO4 lot#	Section 5:			YES	NO ·	N/A
Did you document your preservative check?  pH strip lot#						
pH strip lot#						
Preservative added:    H2SO4 lot#   added to samples   on/at     HCL lot#   added to samples   on/at     HNO8 lot#   added to samples   on/at     NaOH lot#   added to samples   on/at     Section 6:   Explanations/Comments:   Explanations/Comments:   (sign)   A			L,			
□ H2SO4 lotal added to samples on/at □ HCL lotal added to samples on/at □ HNO3 lotal added to samples on/at □ NaOH lotal added to samples on/at □ NaOH lotal added to samples  Section 6: Explanations/Comments:  Data Logged in 227   G   By (print)   (sign)				· ·		
□ HCL lotal added to samples on/at □ HNOS lotal added to samples on/at □ NaOH lotal added to samples on/at Section 6: Explanations/Comments:  Date Logged in 227   C   By (print)   (sign)			~~/~÷	•		
□ HNOS lotal added to samples on/at □ NaOH lotal added to samples on/at  Section 6: Explanations/Comments:  Date Logged in 227 □ By (print) (sign)						
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## Detections Summary for 307679

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location : Resample Compliance-2/27/19

Client Sample ID : UP-I-001 Laboratory Sample ID : 307679-001

No Detections

Page 1 of 1 8.0



Total Cyanide									
Lab #:	307679	Location:	Resample Compliance-2/27/19						
Client:	Pacific Gas & Electric	Prep:	METHOD						
Project#:	STANDARD	Analysis:	SM4500CN-C,E						
Analyte:	Cyanide	Batch#:	268177						
Field ID:	UP-I-001	Sampled:	02/27/19						
Matrix:	Water	Received:	02/27/19						
Units:	mg/L	Prepared:	02/27/19						
Diln Fac:	1.000	Analyzed:	02/28/19						

Type	Lab ID	Result	RL
SAMPLE	307679-001	ND	0.010
BLANK	QC966472	ND	0.010

ND= Not Detected RL= Reporting Limit

Page 1 of 1



#### Batch QC Report

Total Cyanide									
Lab #:	307679	Location:	Resample Compliance-2/27/19						
Client:	Pacific Gas & Electric	Prep:	METHOD						
Project#:	STANDARD	Analysis:	SM4500CN-C,E						
Analyte:	Cyanide	Batch#:	268177						
Field ID:	ZZZZZZZZZ	Sampled:	02/27/19						
MSS Lab ID:	307710-001	Received:	02/27/19						
Matrix:	Water	Prepared:	02/27/19						
Units:	mg/L	Analyzed:	02/28/19						
Diln Fac:	1.000								

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC966473		0.2000	0.1816	91	75-120		
MS	QC966474	<0.01000	0.2000	0.1003	50 *	56-120		
MSD	QC966475		0.2000	0.1001	50 *	56-120	0	25

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference Page 1 of 1

# Attachment 16 Analytical Report on Resampling #14





## **Enthalpy Analytical**

2323 Fifth Street, Berkeley, CA 9471O, Phone (510) 486-0900

## Laboratory Job Number 307726 ANALYTICAL REPORT

Pacific Gas & Electric

4801 Oakport Street Oakland, CA 94601

Project : STANDARD

Location : Resample Compliance (2/28/19)

Level : II

Sample ID UP I-001

<u>Lab ID</u> 307726-001

Date: 03/01/2019

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:

Haley Campbell Project Manager

haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001



#### CASE NARRATIVE

Laboratory number: 307726

Client: Pacific Gas & Electric

Location: Resample Compliance (2/28/19)

Request Date: 02/28/19
Samples Received: 02/28/19

This data package contains sample and QC results for one water sample, requested for the above referenced project on 02/28/19. The sample was received cold and intact.

#### Total Cyanide (SM4500CN-C,E):

Low recoveries were observed for cyanide in the MS/MSD for batch 268177; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

	alpy Analytical Curtis & Tompkins		CH	A		N	0	F		Cl	J:	SI	rc		Ĵλ			. (a.)	y. '-		Pag	je	<u> </u>	of _	1	-		
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Projec	t Name: Rosamole Com	stance	Repo										##	4	1 4				- 1	1	1							
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Notes:		SAMPLE RE	CEIPT	RE	L	NQ	UISI	HE	DВ	Y:						RE	CEN	/EC	BY	:				,			-	
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con	tainers: SoomI poly	N On Ice □ Ami	pient			>		-9	12	9/	/O	U	۱ .	DAT	E/TIM		at.	Δl	n	لہ	Λ		-,,	,			レン TE/TI	ME
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Do	NOT PERSERVE	= Sample	5						*					DAT	E/TIM	<u> </u>										DA"	TE/TI	ME
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				<b>**</b>	
Sample R	CERPT CHECKLIST				何
Section 1:	Login# 307726 Client: PAEO			ENTE	
•	Date Received: 2 28 11 Project:			#E-4 #1	in the of
Portlon Se	Samples received in a cooler?   Yes, how many?  Dino (skip Section 3 in			<u> </u>	
Siptema Zi Kananalar	Sample Temp (*C):				
u uo cacisi	Sample Temp (°C): 4.0 using IR Gun # 2A, or 1 B 2 Samples received on ice directly from the field. Cooling process had begun	•			
If in cooler:	Date Opened 2/28/19 By (print) At (sign)			-	•
•	Shipping Info (if applicable)		<del></del>	<del>-</del>	
	Are custody seals present? 🗵 No, or 🗆 Yes. If yes, where? 🗆 on cooler, 🗖 on san		J on pa	ckage	
	☐ Date: How many ☐ Signature, ☐ initials, ☐ None	•			
	Were custody seeks intact upon arrival? ☐ Yes ☐ No ☐ N/A				
Section 3:	Important : Notify PM if temperatu	re exce	eds 6°C	or arrivo	frozer
Packing in a	poler: (If other, describe)				
	ble Wrap, 🗆 Foam blocks, 🗆 Bags, 🗆 None, 🗆 Cloth material, 🗅 Cardboard, 🗅 Styroft	am, 🗆	Paper t	owels:	
	received on ice directly from the field. Cooling process had begun		•		
	wad: □ Wet, □ Blue/Gal, □ None Temperature blank(s) inclus	led? 🗀	Yes, [	] No	
	e measured using 🛘 Thermometer ID: or {R Gun # 🗖 A 🚨 f				
-	o (°C): #1:#2:#3:#4:#5:#6:	#	7:		
Section 4:			YES	NO	N/A
	ly papers dry, filled out properly, and the project identifiable				
	nd 5035 sampling containers present?				
	what time were they transferred to freezer?				
Did all bott	es arrive unbroken/unopened?				
	ry missing / extra samples?			(	
	in the appropriate containers for indicated tests?				
Are sample	labels present, in good condition and complete?				
Does the co	ntainer count metch the COC?				
	ple labels agree with custody papers?				
	nt amount of sample sent for tests requested?				
	nge the hold time in LIMS for unpreserved VQAs?				
	nge the hold time in LIMS for preserved terracores?				
	> 6mm absent in VOA samples?				
	int contacted concerning this sample delivery?				
If YES,	who was called? By Date:				
Section 5:			YES	NO	NA
	ples appropriately preserved? (If N/A, skip the rest of section 5)				٠/
	ck preservatives for all bottles for each sample?				
•	ument your preservative check?	L			
•	o lot#, pH strip lot#, pH strip lot#,		······································	•	
<b>Preservativ</b>					
☐ H2SO4 I		on/at			
☐ HCL lottl		on/at			
☐ HN(OS k		on/at			
☐ NaOH k	tif added to samples	on/at			
Section 6: Explanation	s/Comments:				Marie 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
<b>*</b>	and in 2/28/17 By (print) (sign)				
Date Log		$\frac{1}{\sqrt{\lambda}}$			
Dete L	beled 2 28   9   By (print) (sign)	1			



#### Detections Summary for 307726

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric

Project : STANDARD

Location : Resample Compliance (2/28/19)

Client Sample ID : UP I-001 Laboratory Sample ID : 307726-001

No Detections

Page 1 of 1 8.0



	Total	Cyanide	
Lab #:	307726	Location: Resample Compliance (2/28/19)	
Client:	Pacific Gas & Electric	Prep: METHOD	
Project#:	STANDARD	Analysis: SM4500CN-C,E	
Analyte:	Cyanide	Batch#: 268177	
Field ID:	UP I-001	Sampled: 02/28/19	
Matrix:	Water	Received: 02/28/19	
Units:	mg/L	Analyzed: 02/28/19	
Diln Fac:	1.000		

Type	Lab ID	Result	RL	Prepared
SAMPLE	307726-001	ND	0.010	02/28/19
BLANK	QC966472	ND	0.010	02/27/19

ND= Not Detected RL= Reporting Limit Page 1 of 1

2.0



#### Batch QC Report

	Tota	l Cyanide
Lab #:	307726	Location: Resample Compliance (2/28/19)
Client:	Pacific Gas & Electric	Prep: METHOD
Project#:	STANDARD	Analysis: SM4500CN-C,E
Analyte:	Cyanide	Batch#: 268177
Field ID:	ZZZZZZZZZ	Sampled: 02/27/19
MSS Lab ID:	307710-001	Received: 02/27/19
Matrix:	Water	Prepared: 02/27/19
Units:	mg/L	Analyzed: 02/28/19
Diln Fac:	1.000	

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC966473		0.2000	0.1816	91	75-120		
MS	QC966474	<0.01000	0.2000	0.1003	50 *	56-120		
MSD	QC966475		0.2000	0.1001	50 *	56-120	0	25

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference Page 1 of 1

## Gateway Generating Station (00-AFC-1C)

Annual Compliance Report No. 10

## Exhibit 4b Notice of Violation/Corrective Action (Condition of Certification SOIL&WATER-4)

There was no NOV issued to PG&E GGS during RY 2018.

## Gateway Generating Station (00-AFC-1C)

Annual Compliance Report No. 10

# Exhibit 5 HAZ-1 Appendix C: Table 8.12-4 (Condition of Certification HAZ-1), and Hazardous Materials Inventory as submitted to CUPA through CERS

### HAZ-1 Appendix C Table 8.12-4 Hazardous Materials to be Added at Gateway Generating Station During the Operational Phase

#### Material CAS Number Purpose Location Container Hazardous Maximum Unit Regulatory Thresholds (lbs.) Characteristics Quantity On-Site Cal-ARP Federal Federal Federal RQ TPQ TQ Aqueous Ammonia (29%) 7664-41-7 SCR Ammonia Storage Facility Storage Tank (20,000 gal) Corrosive 285,000 lbs. 500 100 500 20,000 Trisodium Phosphate 7601-54-9 pH/Corrosion Control Northeast Corner of Admin Bulk Returnable Container Corrosive/Toxic 1,000 lbs. (or Pre-blended 1310-73-2 Building (Tote) with Hose Connections Phosphate/Caustic) Carbohydrazide 487-18-7 Oxygen Scavenger Between ST and ACC Bulk Returnable Container Toxic 500 gals. (Oxygen removal/metal (Tote) with Hose Connections passiavtion) Agueous Ammonia (19.4%) 7664-41-7 Boiler Feed pH Between ST and ACC Bulk Returnable Container Corrosive 330 gals. 500 (or ammonia 141-43-5 adjustment/corrosion (Northwest corner of ACC) (Tote) with Hose Connections control monoethanolamine blend) 3 Sodium Bisulfite 7631-90-5 Water treatment Fire Water Pump Enclosure Bulk Returnable Container Toxic 500 gals. feedwater (Tote) with Hose Connections dechlorinization Stabilized Bromine/Sodium 1310-73-2 Bacteria control for Fire Water Pump Enclosure Bulk Returnable Container Corrosive/Toxic 400 gals. feedwater tank/WSAC (Tote) with Hose Connections Hydroxide cooling water biocide Sulfuric Acid ' 7664-93-9 WSAC water pH Between ACC and WSAC Bulk Returnable Container Corrosive 50 gals. 1,000 adjustment and Warehouse (Storage) (Tote) with Hose Connections Corrosion/Scale 1310-73-2 Fire Water Pump Enclosure Drum Toxic 55 Scale and corrosion gals. Inhibitor/Sodium Hvdroxide inhibitor for closed loop cooling Between ACC and WSAC Bulk Returnable Container Scale Inhibitor/Sulfuric Acid 7664-93-9 Scale and corrosion Toxic 500 gals. inhibitor evaporative (Tote) with Hose Connections cooling system (WSAC) Sodium Hypochlorite 7681-52-9 Evaporative Cooling Between ACC and WSAC Bulk Returnable Container Corrosive/Toxic 500 gals. (WSAC) biocide (Tote) with Hose Connections 1333-74-0 Heat transfer medium for Storage (South of ACC), In Bulk Returnable Container 10,000 Hydrogen Gas Flammable 1,029 lbs. Process (CT1, CT2, ST) generators (Tube Trailer) & In Process Propylene Glycol 00057-55-6 Heat transfer fluid (Anti-Power Block Bulk Returnable Container Flammable 3,326 gals. (HMIS Flam-1) freeze) (Tube Trailer) & In Process 141-43-5 Monoethanolamine (30%-Corrosion Inhibitor Between ST and ACC Bulk Returnable Container (SS Corrosive/Toxic/ 400 gals. (Northwest corner of ACC) Metal Tote) with Hose Combustable Connections 1336-21-6 Between ST and ACC Bulk Returnable Container (SS Ammonium Hydroxide (15%) Corrosion Inhibitor Corrosive, Toxic 400 gals. & Monoethanolamine (8%) 141-43-5 (Northwest corner of ACC) Metal Tote) with Hose Connections Aluminum chloride hydroxide 39290-78-3 Flocculant Storm Water Treatment Bulk Returnable Container Corrosive 550 gals. sulfate (10-30%) System and Warehouse (Tote) with Hose Connections (Storage) Sodium Hydroxide (10-50%) 1310-73-2 Precipitate Transition (for Storm Water Treatment Bulk Returnable Container with Corrosive 80 gals. Hose Connections Iron) System

^{*} The aqueous ammonia (or ammonia monoethanolamine blend) and sulfuric acid are stored in catchments sized to meet all applicable codes.

			Hazardoı	us Materials /	And Waste	s Inventory	/ Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	tion			CERS ID 10	018894	
Facility Name	PG&E GA	TEWAY GENERATING STATION			Air Cooled	d Condenser	r Gear Bo	oxes	Facility ID 07	-000-77372	3
	3225 Wilbur	Ave, Antioch 94509							Status Sub	mitted on 2/2	8/2019 10:54 PM
					Quantities		Annual Waste	Federal Hazard		dous Componen r mixture only)	ts
DOT Code/Fire Haz. (	Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
Combustible Liquid	I, Class III-B	CAS No Map: Figure 2 Grid: C3	Liquid (	432 Storage Container Other Days on Site: 365	<b>12</b>	432 Pressue Ambient Temperature > Ambient	Waste Cod	le	1-DECENE, HOMOPOLYME HYDROGENATED	₹, 95 %	68037-01-4

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			Hazardo	us Materials /	And Waste	s Inventory	/ Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	tion			CERS ID	10018894	
Facility Name	PG&E GAT	TEWAY GENERATING STATION			Alternate	Feed Transf	former		Facility II	D 07-000-77372	3
	3225 Wilbur	Ave, Antioch 94509							Status	Submitted on 2/2	8/2019 10:54 PM
					Quantities		Annual Waste	Federal Hazard		Hazardous Component (For mixture only)	ts
DOT Code/Fire Haz. (	Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
Combustible Liquid	I, Class III-B	Mineral Oil  CAS No  Map: Figure 2 Grid: D6	Liquid Type	656 Storage Container Other Days on Site: 365	656	656 Pressue Ambient Temperature > Ambient	Waste Cod	le	Dielectric Oil (Highly I Oil)	Refined Petro 100 %	

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		Hazardo	us Materials	And Waste	s Inventor	y Matrix	Report			
ERS Business/Org.	PG&E PG&E GATEWAY GENERATING STATION 3225 Wilbur Ave, Antioch 94509			Chemical Loca	and Scave	nger Feed	Skid	CERS ID Facility Status	10018894  ID 07-000-773723  Submitted on 2/2	
OT Code/Fire Haz. (	Class Common Name	Unit	Max. Daily	Quantities Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Component Name	Hazardous Component (For mixture only) % Wt	EHS CAS No.
Corrosive	NALCO 5711  CAS No  Map: Figure 2 Grid: C4	Liquid Type	<b>400</b> Storage Container Plastic/Non-metal Days on Site: 365	<b>400</b> lic Drum	400 Pressue Ambient Temperature Ambient	Waste Cod	- Physical Corrosive To Metal - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation	AMMONIA MEA	15 % 8 %	

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ERS Business/Org.	PG&E	EWAY GENERATING STATION			Chemical Loca	ation Ammonia S	torage Ta	nk	CERS ID	10018894  D 07-000-773723	2
acility ivallie		Ave, Antioch 94509			Aqueous	Allillollia 3	torage ra	IIK	Status	Submitted on 2/2	8/2019 10:54 PM
OT Code/Fire Haz. (	lass	Common Name	Unit	Max. Daily	Quantities Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Component Name	Hazardous Component (For mixture only) % Wt	EHS CAS No.
OT: 8 - Corrosives olids) orrosive	(Liquids and	Aqua Ammonia (29%)  CAS No  1336-21-6  Map: Figure 2 Grid: A6	Liquid Type	18020 Storage Container Aboveground Tank Days on Site: 365	18020	18020 Pressue Ambient Temperature Ambient	•••••	- Health Acute Toxicity - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity - Health Hazard Not Otherwise Classified	Ammonia	30 %	<b>√</b> 7664-41-7

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		Hazardous Materia	ls And Waste	s Inventory	y Matrix Ro	eport			
Facility Name	PG&E PG&E GATEWAY GENERATING STATION 3225 Wilbur Ave, Antioch 94509		Chemical Loc Behind (E		t Service Bu	ilding and S	hop Annex Facility ID	10018894 07-000-773723 Submitted on 2/28	/2019 10:54 PM
DOT Code/Fire Haz. Cla DOT: 2.1 - Flammable Flammable Gas		Unit Max. Daily  Cu. Feet 1740  State Storage Container Gas Cylinder  Type Pure Days on Site: 3		Avg. Daily 1740 Pressue > Ambient Temperature Ambient	Amount C  Waste Code F  L  Amount C	Federal Hazard Categories  Physical Flammable Physical Gas Jnder Pressure Health Simple Asphyxiant Health Hazard Not Otherwise Classified		azardous Components (For mixture only) % Wt 100 %	EHS CAS No. 74-86-2
DOT: 2.1 - Flammable	e Gases Propane, Compressed  CAS No	Gallons 111  State Storage Containe Liquid Cylinder  Type Pure Days on Site: 3		74 Pressue > Ambient Temperature Ambient	Waste Code F	Physical Flammable Physical Gas Under Pressure Health Simple Asphyxiant Health Hazard Not Otherwise Classified	Propane	100 %	74-98-6
Combustible Liquid, (	Class III-B  CAS No  Map: Figure 2 Grid: C4	Gallons 110 State Storage Containe Liquid Steel Drum Type Mixture Days on Site: 3		110 Pressue Ambient Temperature Ambient	Waste Code		Highly Refined Petroleu Proprietary Additives	im Oil 99 % 1 %	

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			Hazardo	us Materials /	And Waste	s Inventory	y Matrix	Report			
Facility Name P		EWAY GENERATING STATION Ave, Antioch 94509			Carbon D	ation ioxide Bulk	Storage		CERS ID Facility I Status	10018894  07-000-773723  Submitted on 2/28	
DOT Code/Fire Haz. Clas:	SS	Common Name	Unit	Max. Daily	Quantities Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Component Name	Hazardous Component: (For mixture only) % Wt	s EHS CAS No.
DOT: 2.2 - Nonflamma	able Gases	Carbon Dioxide, Liquid  CAS No 124-38-9  Map: Figure 2 Grid: D2	Gallons State Liquid Type		2326	2326 Pressue > Ambient Temperature Ambient	Waste Cod	- Physical Gas	Carbon Dioxide	100 %	124-38-9

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			Hazardo	ous Materials A	And Waste	s Inventory	/ Matrix	Report			
Facility Name		EWAY GENERATING STATION Ave, Antioch 94509							CERS ID Facility II Status	10018894  07-000-773723  Submitted on 2/28	
DOT Code/Fire Haz. Cla	ass	Common Name	Unit	Max. Daily	Quantities Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Component Name	Hazardous Components (For mixture only) % Wt	EHS CAS No.
DOT: 2.2 - Nonflamm		Carbon Dioxide, Liquid  CAS No  124-38-9  Map: Figure 2 Grid: B5	Liquid Type		2326	2326 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas	Carbon Dioxide	100 %	124-38-9

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			Hazardo	ous Materials <i>i</i>	And Waste	s Inventor	y Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	ntion			CERS ID 1001	.8894	
Facility Name	PG&E GA	TEWAY GENERATING STATION			Combusti	on Turbine-	A Lube C	Oil Reservoir	Facility ID 07-0	00-77372	3
	3225 Wilbur	Ave, Antioch 94509							Status Subm	itted on 2/2	28/2019 10:54 PM
					Quantities		Annual Waste	Federal Hazard		us Componen nixture only)	ts
DOT Code/Fire Haz. (	Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
		Shell Turbo Oil T 32	Gallons	6000	6000	6000			Highly Refined Petroleum Oil	99 %	
Combustible Liquid	I, Class III-B	CAS No	State Liquid	Storage Container Other	<b></b>	Pressue Ambient	Waste Cod	le	Proprietary Additives	5 %	
	Map: Figure 2 Grid: C6		Type Mixture	Days on Site: 365	Temperature > Ambient						1

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			Hazardo	us Materials <i>I</i>	And Waste	s Inventory	/ Matrix	Report			
Facility Name PC		EWAY GENERATING STATION ve, Antioch 94509			Combusti	ation on Turbine-	В		CERS ID Facility II Status	10018894 07-000-773723 Submitted on 2/28	
DOT Code/Fire Haz. Class	s	Common Name	Unit	Max. Daily	Quantities Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Component Name	Hazardous Component (For mixture only) % Wt	EHS CAS No.
DOT: 2.2 - Nonflammal	able Gases	Carbon Dioxide, Liquid  CAS No 124-38-9  Map: Figure 2 Grid: B5	Liquid Type		2326	2326 Pressue > Ambient Temperature Ambient	Waste Cod	- Physical Gas	Carbon Dioxide	100 %	124-38-9

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			Hazardo	ous Materials A	And Waste	s Inventory	y Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	ition			CERS ID 100	18894	
Facility Name	PG&E GA	TEWAY GENERATING STATION			Combusti	on Turbine-	B Lube C	il Reservoir	Facility ID 07-	000-77372	3
	3225 Wilbur	Ave, Antioch 94509							Status Subi	nitted on 2/2	28/2019 10:54 PM
			Quanti				Annual Waste		Hazardous Components (For mixture only)		
DOT Code/Fire Haz. (	Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
		Shell Turbo Oil T 32	Gallons	6000	6000	6000			Highly Refined Petroleum O		
Combustible Liquid	I, Class III-B	CAS No	State Liquid	Storage Container Other		Pressue Ambient	Waste Cod	le	Proprietary Additives	5 %	
		Map: Figure 2 Grid: C5	Type Mixture	Days on Site: 365		Temperature > Ambient					

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			Hazardo	us Materials /	And Waste	s Inventory	/ Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	ntion			CERS ID	10018894	
Facility Name	PG&E GA	TEWAY GENERATING STATION			Construct	ion Power T	ransforn	ner	Facility ID 07-000-773723		
	3225 Wilbur	Ave, Antioch 94509							Status S	Submitted on 2/2	8/2019 10:54 PM
	·				Quantities		Annual Waste	Federal Hazard		zardous Component (For mixture only)	S
DOT Code/Fire Haz. (	Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
Combustible Liquic	I, Class III-B	Mineral Oil  CAS No  Map: Figure 2 Grid: B6	Liquid	<b>390</b> Storage Container Other	390	390 Pressue Ambient Temperature	Waste Cod	le	Dielectric Oil (highly refi petroleum oil)	ined 100 %	
		iviap. Figure 2 Griu. Bo	Type Mixture	Days on Site: 365		> Ambient					

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			Hazardo	us Materials /	And Waste	s Inventory	/ Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	ition			CERS ID	10018894	
Facility Name	PG&E GAT	TEWAY GENERATING STATION			Construct	ion Trailer T	ransforn	ner	Facility ID <b>07-000-773723</b>		
	3225 Wilbur	Ave, Antioch 94509							Status	Submitted on 2/2	8/2019 10:54 PM
	·				Quantities		Annual Waste	Federal Hazard		azardous Component (For mixture only)	s
DOT Code/Fire Haz. (	Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
		Mineral Oil  CAS No		402 Storage Container Other	402	402 Pressue Ambient	Waste Cod	le	Dielectric Oil (highly ref petroleum oil)	fined 100 %	
Combustible Liquic	I, Class III-B	Map: Figure 2 Grid: C8	Type Mixture	Days on Site: 365		Temperature > Ambient					

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		Hazardo	ous Materials <i>i</i>	And Waste	s Inventor	y Matrix	Report			
,	TEWAY GENERATING STATION  Ave, Antioch 94509			CT A - PEE	ition C and CT B	- PEEC		Facility ID 07-000-773723 Status Submitted on 2/28/2019 10:54 F		
OOT Code/Fire Haz. Class	Common Name	Unit	Max. Daily	Quantities Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazar	dous Component r mixture only) % Wt	•
DOT: 8 - Corrosives (Liquids and Solids) Corrosive, Water Reactive, Class 2	Flooded Tubular Lead Acid	Gallons State Liquid Type Mixture	Storage Container Other  Days on Site: 365	3	357 Pressue Ambient Temperature Ambient	Waste Code	- Physical Explosive - Physical Corrosive To Metal - Health Carcinogenicity - Health Acute Toxicity - Health Skin Corrosion Irritation - Health Sensitization - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity	Lead, Lead Compounds Sulfuric Acid	62 % 7 %	7439-92-1 7664-93-9

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			Hazardoı	us Materials /	And Waste	s Inventory	/ Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	tion			CERS ID	10018894	
Facility Name	PG&E GAT	TEWAY GENERATING STATION			CT-A Auxi	liary Transfo	ormer		Facility ID 07-000-773723		
	3225 Wilbur	Ave, Antioch 94509							Status	Submitted on 2/2	8/2019 10:54 PM
	·				Quantities		Annual Waste	Federal Hazard		zardous Component (For mixture only)	ts
DOT Code/Fire Haz. (	Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
Combustible Liquid	I, Class III-B	Mineral Oil  CAS No  Map: Figure 2 Grid: C6	Liquid (	6155 Storage Container Other Days on Site: 365	6155	6155 Pressue Ambient Temperature > Ambient	Waste Cod	le	Dielectric Oil (highly refi petroleum oil)	ined 100 %	

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	Hazardou	ıs Materials <i>i</i>	And Waste	s Inventory	/ Matrix	Report			
			Chemical Loca	ition			CERS ID 1	10018894	
ATEWAY GENERATING STATION			CT-A Excit	ation Trans	former		Facility ID 07-000-773723		
ur Ave, Antioch 94509							Status S	Submitted on 2/2	8/2019 10:54 PM
	Annual Quantities Waste Federa					Federal Hazard			S
Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
Mineral Oil  CAS No  Map: Figure 2 Grid: C6	Liquid C		414	414 Pressue Ambient Temperature > Ambient	Waste Cod	e	Dielectric Oil (highly refir petroleum oil)	ned 100 %	
	Mineral Oil  CAS No	Common Name  Mineral Oil  CAS No  CAS No  CAS No  CATEWAY GENERATING STATION  Unit  Gallons  State Liquid CAS No	ATEWAY GENERATING STATION  The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the	Chemical Loca ATEWAY GENERATING STATION  ur Ave, Antioch 94509  Common Name  Unit  Max. Daily  Largest Cont.  Mineral Oil  CAS No  State Liquid Other	Chemical Location CT-A Excitation Trans  ar Ave, Antioch 94509  Common Name Unit Max. Daily Largest Cont. Avg. Daily  Mineral Oil CAS No State Storage Container Liquid Other Chemical Location CT-A Excitation Trans  Quantities  Quantities  Avg. Daily  Arg. Da	Chemical Location  ATEWAY GENERATING STATION  ur Ave, Antioch 94509  Common Name  Unit  Max. Daily  Largest Cont.  Avg. Daily  Mineral Oil  CAS No  State Liquid  State Liquid  Chemical Location  CT-A Excitation Transformer  Annual  Waste  Annual  Waste  Anount  Pressue  Ambient  Waste Cod	ATEWAY GENERATING STATION ur Ave, Antioch 94509  Common Name Unit Max. Daily Largest Cont. Annual Waste Federal Hazard Annual Waste Federal Hazard Annual Waste Federal Hazard Annual Waste Federal Hazard Annual Waste Federal Hazard Annual Waste Federal Hazard Annual Waste Federal Hazard Annual Waste Federal Hazard Annual Waste Federal Hazard Annual Waste Categories  Mineral Oil CAS No State Liquid Other Liquid Other Waste Code	CERS ID  ATEWAY GENERATING STATION  or Ave, Antioch 94509  Common Name  Unit  Max. Daily  Largest Cont. Avg. Daily  Mineral Oil  CAS No  State  Storage Container  Liquid  Other  Chemical Location  CT-A Excitation Transformer  Facility ID  Quantities  Annual  Waste Federal Hazard  Waste Federal Hazard  Annual  Waste Federal Hazard  Annual  Waste Federal Hazard  Component Name  Dielectric Oil (highly refipetroleum oil)	CERS ID 10018894 ATEWAY GENERATING STATION  Or Ave, Antioch 94509  The status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the status of the s

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			Hazardou	ıs Materials /	And Waste	s Inventory	y Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	ition			CERS ID 1	0018894	
Facility Name	PG&E GA	TEWAY GENERATING STATION			CT-A Isola	tion Transfo	ormer		Facility ID 0	7-000-77372	3
	3225 Wilbur	Ave, Antioch 94509							Status St	ubmitted on 2/2	8/2019 10:54 PM
	·			Annual Quantities Waste Federal Hazaı					Hazardous Components (For mixture only)		
DOT Code/Fire Haz. C	Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
Combustible Liquid	l, Class III-B	Mineral Oil  CAS No  Map: Figure 2 Grid: C6	Liquid C	1413 Storage Container Other Days on Site: 365	1413	1413 Pressue Ambient Temperature > Ambient	Waste Cod	le	Dielectric Oil (highly refin petroleum oil)	ed 100 %	

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			Hazardo	us Materials <i>l</i>	And Waste	s Inventory	Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	ition			CERS ID	10018894	
Facility Name	PG&E GAT	TEWAY GENERATING STATION			CT-A Mair	n Step-Up Tr	ansform	er	Facility ID <b>07-000-773723</b>		
	3225 Wilbur	Ave, Antioch 94509							Status	Submitted on 2/2	8/2019 10:54 PM
	·				Quantities		Annual Waste	Federal Hazard		zardous Component (For mixture only)	ts
DOT Code/Fire Haz. (	Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
Combustible Liquic	I, Class III-B	Mineral Oil  CAS No  Map: Figure 2 Grid: C6		12800 Storage Container Other	12800	12800 Pressue Ambient Temperature	Waste Cod	le	Dielectric Oil (highly refi petroleum oil)	ined 100 %	
	Map. Figure 2 Grid. Co		Days on Site: 365		> Ambient	•					

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			Hazardo	us Materials <i>l</i>	And Waste	s Inventory	/ Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	ation			CERS ID	10018894	
Facility Name	PG&E GAT	TEWAY GENERATING STATION			CT-B Auxi	liary Transfo	ormer		Facility ID 07-000-773723		
	3225 Wilbur	Ave, Antioch 94509							Status	Submitted on 2/2	8/2019 10:54 PM
				Annual Quantities Waste Federal Hazar					Hazardous Components d (For mixture only)		
DOT Code/Fire Haz. (	Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
Combustible Liquid	I, Class III-B	Mineral Oil  CAS No  Map: Figure 2 Grid: C5	Liquid Type	6155 Storage Container Other Days on Site: 365	6155	6155 Pressue Ambient Temperature > Ambient	Waste Cod	le	Dielectric Oil (highly rei petroleum oil)	fined 100 %	

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			Hazardo	us Materials <i>l</i>	And Waste	s Inventory	Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	tion			CERS ID	10018894	
Facility Name	PG&E GAT	TEWAY GENERATING STATION			CT-B Excit	ation Transf	former		Facility ID 07-000-773723		
	3225 Wilbur	Ave, Antioch 94509							Status	Submitted on 2/2	8/2019 10:54 PM
					Quantities		Annual Waste	Federal Hazard	н	lazardous Component (For mixture only)	ts
DOT Code/Fire Haz. O	Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
Combustible Liquic	I, Class III-B	Mineral Oil  CAS No  Map: Figure 2 Grid: C5		<b>414</b> Storage Container Other	414	414 Pressue Ambient Temperature	Waste Cod	le	Dielectric Oil (highly re petroleum oil)	efined 100 %	
				Days on Site: 365		> Ambient	•				

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			Hazardo	us Materials /	And Waste	s Inventory	/ Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	ition			CERS ID	10018894	
Facility Name	PG&E GAT	TEWAY GENERATING STATION			CT-B Isola	tion Transfo	ormer		Facility ID 07-000-773723		
	3225 Wilbur	Ave, Antioch 94509							Status	Submitted on 2/2	8/2019 10:54 PM
					Quantities		Annual Waste	Federal Hazard	н	lazardous Componen (For mixture only)	ts
DOT Code/Fire Haz. O	lass	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
Combustible Liquic	, Class III-B	Mineral Oil  CAS No  Map: Figure 2 Grid: C5		1413 Storage Container Other	1413	1413 Pressue Ambient Temperature	Waste Coo	le	Dielectric Oil (highly re petroleum oil)	efined 100 %	
				Days on Site: 365		> Ambient					

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			Hazardoı	us Materials /	And Waste	s Inventory	/ Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	tion			CERS ID 1	.0018894	
Facility Name	PG&E GAT	TEWAY GENERATING STATION			CT-B Mair	Step-Up Tr	ansform	er	Facility ID 07-000-773723		
	3225 Wilbur	Ave, Antioch 94509							Status S	ubmitted on 2/2	8/2019 10:54 PM
					Quantities		Annual Waste	Federal Hazard		ardous Component For mixture only)	S
DOT Code/Fire Haz. (	Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
Combustible Liquic	I, Class III-B	Mineral Oil  CAS No  Map: Figure 2 Grid: C5	Liquid (	12800 Storage Container Other Days on Site: 365	12800	12800 Pressue Ambient Temperature > Ambient	Waste Cod	le	Dielectric Oil (highly refin petroleum oil)	ned 100 %	

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			Hazardo	us Materials	And Waste	s Inventory	/ Matrix	Report			
Facility Name PC		EWAY GENERATING STATION Ave, Antioch 94509			Chemical Loca Gas Cond	ation litioning Stat	tion		CERS ID Facility II Status	10018894  D 07-000-773723  Submitted on 2/28	
DOT Code/Fire Haz. Class	6S	Common Name	Unit	Max. Daily	Quantities Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Component Name	Hazardous Component: (For mixture only) % Wt	EHS CAS No.
DOT: 2.2 - Nonflamma	able Gases	Helium, Compressed  CAS No 7440-59-7  Map: Figure 2 Grid: D4	Cu. Fee State Gas Type		292	1168 Pressue > Ambient Temperature Ambient	Waste Cod	- Physical Gas	Helium	100 %	7440-59-7

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CERS Business/Org. Facility Name	PG&E PG&E GATEWAY GENERATING STATIO	N		Chemical Loca	Area	CERS ID 10018894 Facility ID 07-000-773723			
	3225 Wilbur Ave, Antioch 94509					Status Submitted on 2/28/2019 10:54 PM			
				Quantities		Annual Waste	Federal Hazard		Hazardous Components (For mixture only)
DOT Code/Fire Haz. C	Class Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt EHS CAS No.
	Non-RCRA Mixed Oil	Gallons	55	55	37	110		Oil	
	CAS No	State	Storage Container		Pressue	Waste Code			
		Liquid	Steel Drum		Ambient	221			
	Map: Figure 2 Grid: B8, C3	Type			Temperature				
		Waste	Days on Site: 90		Ambient				
	Non-RCRA Solids (Oily Deb	ris) Pounds	3035	500	1742	3035			
	CAS No		Storage Container		Pressue	Waste Code			
		Solid	Steel Drum		Ambient	223			
	Map: Figure 2 Grid: B8, C3	Type			Temperature				
		Waste	Days on Site: 90		Ambient				
	RCRA Liquid Lab Bench Wa	ste Gallons	60	30	30	80	- Health Skin	Sulfuric Acid	
	CAS No	State Liquid	Storage Container Plastic/Non-meta	ic Drum	Pressue Ambient	Waste Code 791	Corrosion		
	Map: Figure 2 Grid: B8, C3	Type Waste	Days on Site: 90		Temperature Ambient		<ul> <li>Health Serious</li> <li>Eye Damage Eye</li> <li>Irritation</li> </ul>		

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	,	Hazardo	us Materials A	And Waste	s Inventory	/ Matrix I	Report			
	TEWAY GENERATING STATION Ave, Antioch 94509			Chemical Loca HRSGs (He		y Steam G	Generators) - A	CERS ID  and B Facility  Status	10018894  10 07-000-773723  Submitted on 2/28	/2019 10:54 PM
DT Code/Fire Haz. Class	Common Name	Unit	Max. Daily	Quantities Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Component Name	Hazardous Components (For mixture only) % Wt	EHS CAS No.
OT: 2.2 - Nonflammable Gases	Argon, Compressed Gas  CAS No  Map: Figure 2 Grid: B5	Cu. Fee		336	1344 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas	Argon	100 %	EHS CAS NO.
OT: 2.2 - Nonflammable Gases	EPA Protocol Gas (Carbon Monoxide/Nitrogen Mixture)  CAS No  Map: Figure 2 Grid: B5	Gas Type	t 1440 Storage Container Cylinder Days on Site: 365	144	1440 Pressue > Ambient Temperature Ambient	Waste Code	Classified - Physical Gas Under Pressure - Health Simple Asphyxiant	Nitrogen Carbon Monoxide	88 % 13 %	7727-37-9 630-08-0
OT: 2.2 - Nonflammable Gases	EPA Protocol Gas Carbon Monoxide 11/Nitric/Nitrogen Mixture CAS No	Cu. Fee		144	864 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant	Nitrogen Nitric Oxide Carbon Monoxide	99 % 1 % 10 %	7727-37-9 10102-43-9 630-08-0
OT: 2.2 - Nonflammable Gases	Map: Figure 2 Grid: B5  EPA Protocol Gas Carbon  Monoxide 660/Nitric/Nitrogen  Mixture  CAS No  Map: Figure 2 Grid: B5	Gas Type	t 864 Storage Container Cylinder Days on Site: 365	144	864 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant	Nitrogen Nitric Oxide Carbon Monoxide	99 % 1 % 20 %	7727-37-9 10102-43- 630-08-0
OT: 2.2 - Nonflammable Gases	EPA Protocol Gas Nitric/Nitrogen Mixture  CAS No  Map: Figure 2 Grid: B5	State Gas Type	t 576 Storage Container Cylinder  Days on Site: 365	144	576 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant	Nitrogen Nitric Oxide	99 % 2 %	7727-37-9 10102-43-
OT: 2.2 - Nonflammable Gases	EPA Protocol Gas Nitrogen/Oxygen Mixture  CAS No  Map: Figure 2 Grid: B5	Gas Type	t 1152 Storage Container Cylinder Days on Site: 365	144	1152 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant	Nitrogen Oxygen	99 % 20 %	7727-37-9 7782-44-7
OOT: 2.2 - Nonflammable Gases	Helium, Compressed  CAS No 7440-59-7  Map: Figure 2 Grid: B5	Cu. Fee State Gas Type Pure	t 1344 Storage Container Cylinder Days on Site: 365	336	1344 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Helium	100 %	7440-59-7

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			Hazardo	us Materials <i>i</i>	And Waste	s Inventory	y Matrix	Report				
Facility Name PC		EWAY GENERATING STATION Ave, Antioch 94509			Chemical Loca HRSGs (H		y Steam	Generators) - A	and B	CERS ID Facility II Status	10018894 07-000-773723 Submitted on 2/28	
DOT Code/Fire Haz. Class	s	Common Name	Unit	Max. Daily	Quantities Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Component Na		Hazardous Components (For mixture only) % Wt	EHS CAS No.
DOT: 2.2 - Nonflamma Oxidizing Gas, Gaseou	able Gases	Oxygen, Compressed  CAS No 7782-44-7	Cu. Fee		281	1124		- Physical Gas le Under Pressure - Physical Oxidize	Oxygen		100 %	7782-44-7
		Map: Figure 2 Grid: B3, B5	Type Pure	Days on Site: 365		Temperature Ambient		<ul> <li>Health Hazard</li> <li>Not Otherwise</li> <li>Classified</li> </ul>				

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			Hazardo	us Materials A	And Waste	s Inventor	y Matrix	Report				
CERS Business/Org. Facility Name		EWAY GENERATING STATION Ave, Antioch 94509			•		-	Generators) - A	A and B,	CERS ID Facility IE Status	10018894 07-000-773723 Submitted on 2/28	
DOT Code/Fire Haz. C	ilass	Common Name	Unit	Max. Daily	Quantities Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Component Na		Hazardous Components (For mixture only) % Wt	EHS CAS No.
DOT: 2.2 - Nonflam	mable Gases	CAS No 7727-37-9 Map: Figure 2 Grid: B5,C4,C5,C6	Gas Type	t 3263 Storage Container Cylinder Days on Site: 365	<b>251</b>	3263 Pressue > Ambient Temperature Ambient	Waste Cod	- Physical Gas Londer Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Nitrogen		100 %	7727-37-9

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			Hazardo	us Materials /	And Waste	s Inventory	y Matrix	Report			
Facility Name		TEWAY GENERATING STATION  Ave, Antioch 94509			Chemical Loca Hydrogen	ation 1 Bulk Storag	де		CERS ID Facility Status		
DOT Code/Fire Haz. Cl. DOT: 2.1 - Flammab Flammable Gas		Common Name  Hydrogen Six Pack, Compressed  CAS No  Map: Figure 2 Grid: D2	Gas Type	Max. Daily  t 4704  Storage Container  Cylinder  Days on Site: 365	Quantities Largest Cont. 196	Avg. Daily 4704 Pressue > Ambient Temperature Ambient	Annual Waste Amount	Federal Hazard Categories  - Physical Flammable  - Physical Gas Under Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Component Name Hydrogen	Hazardous Component: (For mixture only) % Wt 100 %	EHS CAS No. 1333-74-0
DOT: 2.1 - Flammab Flammable Gas	ole Gases	Hydrogen, Compressed  CAS No 1333-74-0  Map: Figure 2 Grid: D1	Gas Type	t 134000 Storage Container Other Days on Site: 365	134000	134000 Pressue > Ambient Temperature Ambient	Waste Code	- Physical	Hydrogen	100 %	1333-74-0

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		Hazardou	ıs Materials	And Waste	s Inventor	y Matrix	Report			
*	GATEWAY GENERATING STATION lbur Ave, Antioch 94509	Chemical Location  Nitrogen Bulk Storage						CERS ID 10018894  Facility ID 07-000-773723  Status Submitted on 2/28/2019 1		
DOT Code/Fire Haz. Class	Common Name	Unit	Max. Daily	Quantities Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Component Name	Hazardous Component (For mixture only) % Wt	EHS CAS No.
DOT: 2.2 - Nonflammable Ga		Cu. Feet State Single Gas Control Type	10944 torage Container Cylinder Days on Site: 365	304	10944 Pressue > Ambient Temperature Ambient	Waste Cod	- Physical Gas	Nitrogen	100 %	7727-37-9

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		Hazardo	ous Materials /	And Waste	s Inventory	Matrix	Report			
CERS Business/Org.	PG&E			Chemical Loca	ntion			CERS ID	10018894	
Facility Name	PG&E GATEWAY GENERATING STATION			Phosphat	e Feed Skid			Facility II	07-000-77372	3
	3225 Wilbur Ave, Antioch 94509							Status	Submitted on 2/2	8/2019 10:54 PM
				Quantities		Annual Waste	Federal Hazard		Hazardous Component (For mixture only)	S
DOT Code/Fire Haz.	Class Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
	NALCO BT-3400  CAS No  Map: Figure 2 Grid: B4	Liquid Type	Storage Container Tote Bin  Days on Site: 365	400	Ambient Temperature Ambient	Waste Cod	- Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation	Sodium Hydroxide Proprietary	5 % 99 %	1310-73-2

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		Hazardo	ous Materials	And Waste	s Inventory	y Matrix	Report			
CERS Business/Org. PG&E	<u> </u>			Chemical Loca	tion			CERS ID	10018894	
	E GATEWAY GENERATING STATION			Plant Serv	ices Buildin	ıσ		Facility I	D 07-000-773723	
,	Wilbur Ave, Antioch 94509				ices Daniani	ъ		Status	Submitted on 2/28	
3223 1	Wilbut 7We, Mittoett 3 1303					Ammont		Status	Hazardous Components	•
				Quantities		Annual Waste	Federal Hazard		(For mixture only)	,
DOT Code/Fire Haz. Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
DOT: 8 - Corrosives (Liquid	Is and GNB Flooded HCT 37 Lead Acid	Gallon	s 834	14	834		- Physical	Lead	52 %	7439-92-1
Solids)	Battery	State	Storage Container		Pressue		Explosive			
Corrosive, Water Reactive,	Class	Liquid	Other		Ambient	Waste Code		Sulfuric Acid	44 %	√ 7664-93-9
2	, Class CAS No	Туре			Temperature		Corrosive To	Lead Dioxide	21 %	1309-60-0
	Map: Figure 2 Grid: B4		Days on Site: 365		Ambient	•••	Metal			
	Map. Figure 2 Grid. 54		·				- Health			
							Carcinogenicity - Health Acute			
							Toxicity			
							- Health			
							Reproductive			
							Toxicity			
							- Health Skin			
							Corrosion			
							Irritation			
							- Health			
							Respiratory Skin			
							Sensitization			
							- Health Serious			
							Eye Damage Eye			
							Irritation			
							- Health Specific			
							Target Organ			
							Toxicity			

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		Hazardo	ous Materials A	nd Waste	s Inventory	y Matrix I	Report			
CERS Business/Org. Facility Name	PG&E PG&E GATEWAY GENERATING STATION 3225 Wilbur Ave, Antioch 94509			Chemical Loca	Treatment			CERS ID Facility I Status	10018894  07-000-773723  Submitted on 2/2	
DOT Code/Fire Haz.	Class  Common Name  Sodium Bisulfite  CAS No  Map: Figure 2 Grid: C2	Unit  Gallons State Liquid Type Mixture		Quantities Largest Cont. 50	Avg. Daily 50 Pressue Ambient Temperature Ambient	Annual Waste Amount  Waste Code	Federal Hazard Categories  - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity	Component Name Sodium Bisulfite	Hazardous Component (For mixture only) % Wt 20 %	EHS CAS No. 763-90-5
Corrosive	Sodium Hydroxide  CAS No  Map: Figure 2 Grid: C2	Gallons State Liquid Type Pure	Storage Container Aboveground Tank Days on Site: 365	75	75 Pressue Ambient Temperature Ambient	Waste Code	- Physical Corrosive To Metal - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation	SODIUM HYDROXIDE	100 %	1310-73-2

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		Hazardou	ıs Materials	And Waste	s Inventory	y Matrix	Report			
,	E GATEWAY GENERATING STATION Wilbur Ave, Antioch 94509			Sodium H		(Elect Ed	լսipment) Breal	CERS ID  Kers Facility I  Status	10018894  07-000-773723  Submitted on 2/2	
DOT Code/Fire Haz. Class	Common Name	Unit	Max. Daily	Quantities Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Component Name	Hazardous Component (For mixture only) % Wt	EHS CAS No.
DOT: 2.2 - Nonflammable	Gases SF6  CAS No 2551-62-4  Map: Figure 2 Grid: C5,C6,D4,D5,D6	Gas C	2043 torage Container Other Days on Site: 365	<b>639</b>	2043 Pressue > Ambient Temperature Ambient		- Physical Gas Under Pressure - Health Simple Asphyxiant - Health Hazard Not Otherwise Classified	Sulfur Hexafluoride	100 %	2551-62-4

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			Hazardo	us Materials /	And Waste	s Inventory	y Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	tion			CERS ID 1001	8894	
Facility Name	PG&E GA	TEWAY GENERATING STATION			ST Electro	-Hydraulic (	Control S	ystem	Facility ID 07-0	0-77372	3
	3225 Wilbur	Ave, Antioch 94509							Status Subm	tted on 2/	28/2019 10:54 PM
					Quantities		Annual Waste	Federal Hazard		s Componer xture only)	its
DOT Code/Fire Haz. (	Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
Combustible Liquic	I, Class III-B	CAS No Map: Figure 2 Grid: C4	Liquid Type	130 Storage Container Other Days on Site: 365	130	130 Pressue Ambient Temperature > Ambient	Waste Cod	le	Highly refined mineral oil (C1 C50)	5 - 99 %	

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			Hazardo	us Materials /	And Waste	s Inventory	/ Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	ition			CERS ID 1	0018894	
Facility Name	PG&E GA	TEWAY GENERATING STATION			ST Excitat	ion Transfo	rmer		Facility ID 0	7-000-77372	3
	3225 Wilbur	Ave, Antioch 94509							Status S	ubmitted on 2/2	8/2019 10:54 PM
					Quantities		Annual Waste	Federal Hazard		ardous Componen For mixture only)	ts
DOT Code/Fire Haz. (	lass	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
Combustible Liquic	, Class III-B	Mineral Oil  CAS No  Map: Figure 2 Grid: C4	Liquid Type	414 Storage Container Other  Days on Site: 365	414	414 Pressue Ambient Temperature > Ambient	Waste Cod	le	Dielectric Oil (highly refin petroleum oil)	ned 100 %	

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			Hazardo	us Materials <i>l</i>	And Waste	s Inventory	/ Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	ition			CERS ID	10018894	
Facility Name	PG&E GAT	TEWAY GENERATING STATION			ST Main S	tep-Up Trar	nsformer		Facility ID	07-000-77372	3
	3225 Wilbur	Ave, Antioch 94509							Status	Submitted on 2/2	8/2019 10:54 PM
					Quantities		Annual Waste	Federal Hazard	Н	lazardous Componen (For mixture only)	ts
DOT Code/Fire Haz. (	Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
Combustible Liquic	I, Class III-B	Mineral Oil  CAS No  Map: Figure 2 Grid: C4		14143 Storage Container Other	14143	14143 Pressue Ambient Temperature	Waste Coo	le	Dielectric Oil (highly re petroleum oil)	efined 100 %	
				Days on Site: 365		> Ambient					

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			Hazardo	ous Materials A	And Waste	s Inventor	y Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	ition			CERS ID 100	L8894	
Facility Name	PG&E GAT	TEWAY GENERATING STATION			Steam Tu	rbine Lube	Oil Reser	voir	Facility ID 07-0	00-77372	3
	3225 Wilbur	Ave, Antioch 94509							Status Subn	itted on 2/2	28/2019 10:54 PM
					Quantities		Annual Waste	Federal Hazard		us Componen nixture only)	ts
DOT Code/Fire Haz. (	Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
		Refined Petroleum Oil	Gallons	4800	4800	4800			Highly Refined Petroleum Oi		1
Combustible Liquic	d, Class III-B	CAS No		Storage Container Other	<del></del> .	Pressue Ambient	Waste Cod	le	Proprietary Additives	5 %	
		Map: Figure 2 Grid: C4	Type Mixture	Days on Site: 365		Temperature > Ambient					,

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		Hazardo	us Materials /	And Waste	s Inventory	y Matrix	Report			
CERS Business/Org.	PG&E			Chemical Loca	ntion			CERS ID 100	.8894	
Facility Name	PG&E GATEWAY GENERATING STATION			Stormwat	er Treatme	nt Systen	n	Facility ID 07-0	00-77372	3
	3225 Wilbur Ave, Antioch 94509							Status Subm	itted on 2/2	28/2019 10:54 PM
				Quantities		Annual Waste	Federal Hazard		us Componen nixture only)	ts
DOT Code/Fire Haz.	Class Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
Corrosive	HaloKlear BHR-50  CAS No  Map: Figure 2 Grid: C9	Liquid Type	275 Storage Container Tote Bin Days on Site: 365	275	275 Pressue Ambient Temperature Ambient	Waste Cod	- Physical Corrosive To  Metal - Health Serious Eye Damage Eye Irritation	Aluminum chloride hydroxide sulfate	9 30 %	39290-78-3

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CERS Business/Org. PG&E Chemical Location CERS ID 10018894 Facility Name PG&E GATEWAY GENERATING STATION Switchyard Facility ID 07-000-773 3225 Wilbur Ave, Antioch 94509 Status Submitted on  DOT Code/Fire Haz. Class Common Name Unit Max. Daily Largest Cont. Avg. Daily Amount Categories Component Name %  DOT: 8 - Corrosives (Liquids and KCR-7 Lead Calcium Batteries Gallons 90 1.5 90 - Physical Lead Calcium 52	2/28/2019 10:54 PM ents y)
Facility Name PG&E GATEWAY GENERATING STATION Switchyard Facility ID 07-000-773 3225 Wilbur Ave, Antioch 94509 Status Submitted on  ODT Code/Fire Haz. Class Common Name Unit Max. Daily Largest Cont. Avg. Daily Amount Categories Component Name %	2/28/2019 10:54 PM ents y)
3225 Wilbur Ave, Antioch 94509  Status Submitted on  Annual  Quantities Waste Federal Hazard (For mixture or  DOT Code/Fire Haz. Class Common Name Unit Max. Daily Largest Cont. Avg. Daily Amount Categories Component Name %	2/28/2019 10:54 PM ents y)
Annual Hazardous Compo Quantities Waste Federal Hazard (For mixture or DOT Code/Fire Haz. Class Common Name Unit Max. Daily Largest Cont. Avg. Daily Amount Categories Component Name %	ents ()
Quantities Waste Federal Hazard (For mixture of DOT Code/Fire Haz. Class Common Name Unit Max. Daily Largest Cont. Avg. Daily Amount Categories Component Name %	y)
	't FHS CAS No
DOT: 8 - Corrosives (Liquids and KCR-7 Lead Calcium Batteries Gallons 90 1.5 90 - Physical Lead Calcium S2	. 2.15 CAS 110.
	% 7439-92-1
Solids)  CAS No  State Storage Container Pressue Explosive  Washe Code - Physical - Colforio Asid - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - And - An	
Corrective Water Peactive Class Liquid Other Ambient Waste Code - Physical Sulfuric Acid 44	•
Man Figure 2 Grid: D4 Type Temperature Corrosive 10 Lead Dioxide 21	% 1309-60-0
Mixture Days on Site: 365  Metal  Metal	
- Health Carcinogenicity	
- Health Acute	
Toxicity	
- Health	
Reproductive	
Toxicity	
- Health Skin	
Corrosion	
Irritation	
- Health	
Respiratory Skin	
Sensitization	
- Health Serious	
Eye Damage Eye Irritation	
- Health Specific	
Target Organ	
Toxicity	

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		Hazardo	ous Materials <i>i</i>	And Waste	s Inventor	y Matrix I	Report			
acility Name	PG&E PG&E GATEWAY GENERATING STATION 3225 Wilbur Ave, Antioch 94509			Chemical Local				CERS ID 1001889 Facility ID 07-000- Status Submitted	773723	<b>3</b> 8/2019 10:54 PM
				Quantities		Annual Waste	Federal Hazard	Hazardous Co (For mixtu	e only)	
OOT Code/Fire Haz. Cl	ass Common Name  Gas Turbine Compressor Clear	Unit	Max. Daily	Largest Cont.	Avg. Daily 264	Amount	Categories	Component Name Cleaning Fluid	% Wt	EHS CAS No.
	Fluid  CAS No  Map: Figure 2 Grid: B8-9	State Liquid Type	Storage Container Tote Bin  Days on Site: 365		Pressue Ambient Temperature Ambient	Waste Code				
orrosive	HaloKlear BHR-50  CAS No  Map: Figure 2 Grid: B8-9	Gallons State Liquid Type Mixture	Storage Container Tote Bin  Days on Site: 365	275	275 Pressue Ambient Temperature Ambient	Waste Code	- Health Serious Eye Damage Eye	Aluminum chloride hydroxide sulfate	30 %	39290-78-3
	NALCO BT-3400 CAS No Map: Figure 2 Grid: B8-9	Gallons State Liquid Type Mixture	s 55 Storage Container Plastic/Non-metali	<b>55</b>  ic Drum	55 Pressue Ambient Temperature Ambient	Waste Code	Irritation - Health Serious Eye Damage Eye	Sodium Hydroxide Proprietary	5 % 99 %	1310-73-2
ombustible Liquid,	Petroleum Distillate  CAS No  Class III-B Map: Figure 2 Grid: B8-9	Gallons State Liquid Type Mixture	Storage Container Steel Drum Days on Site: 365	55	55 Pressue Ambient Temperature Ambient	Waste Code	Irritation 	Severely Hydrotreated Naphtheni Petroleum Oil BHT	c 100 % 0 %	64742-53-6 128-37-0
ombustible Liquid,	Class III-B  Shell Tellus Oil 32  CAS No  Map: Figure 2 Grid: B8-9	Gallons State Liquid Type Mixture	Storage Container Steel Drum  Days on Site: 365	<b>55</b>	55 Pressue Ambient Temperature Ambient	Waste Code		Highly refined mineral oils and additives		, , , ,
Combustible Liquid,	Class III-B  CAS No  Map: Figure 2 Grid: B8-9	Gallons State Liquid Type Mixture	Storage Container Steel Drum  Days on Site: 365	55	55 Pressue Ambient Temperature Ambient	Waste Code		Highly Refined Petroleum Oil Proprietary Additives	99 % 1 %	

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				And Waste						
S Business/Org.	PG&E			Chemical Loca				_	0018894	_
ility Name	PG&E GATEWAY GENERATING STATION			Warehou	se - Hazardo	ous Mat/W	Vaste Storage		7-000-773723	
	3225 Wilbur Ave, Antioch 94509								•	8/2019 10:54 PM
				0		Annual			ardous Component For mixture only)	S
T Code/Fire Haz. C	lass Common Name	Unit	Max. Daily	Quantities Largest Cont.	Avg. Daily	_ Waste Amount	Federal Hazard Categories	Component Name	% Wt	EHS CAS No.
-	NALCO Trac107	Gallons		55	55		- Health Skin	Sodium Hydroxide	1 %	1310-73-2
	CAS No		Storage Container		Pressue	Waste Code	Corrosion	Inorganic Salt	5 %	
	CAS NO	Liquid	Plastic/Non-metal	ic Drum	Ambient		Irritation	Proprietary	99 %	
	Map: Figure 2 Grid: B8	Туре			Temperature		<ul> <li>Health Serious</li> <li>Eye Damage Eye</li> </ul>			
		Mixture	Days on Site: 365		Ambient		Irritation			
	RCRA Waste Paint, Liquids	Gallons	5 55	55	37	7		Waste Paint, Liquids		
	CAS No	State	Storage Container		Pressue	Waste Code				
		Liquid	Steel Drum		Ambient	352				
	Map: Figure 2 Grid: B8, C3	Type			Temperature					
		Waste	Days on Site: 90		Ambient					
	Universal Waste - eWaste	Pounds		500	500	1230				
	CAS No	State Solid	Storage Container Steel Drum		Pressue Ambient	Waste Code 181				
	Map: Figure 2 Grid: B8, C3	Туре	Steel Druin		Temperature	101				
	Map. Figure 2 Grid. Bo, CS	Waste	Days on Site: 90		Ambient					
	WASTE AMMONIA AND WATER	Gallons	55	55	37	44		AMMONIUM HYDROXIDE	1 %	1336-21-6
	LESS THAN 1%	State	Storage Container		Pressue	Waste Code				
	CAS No	Liquid	Steel Drum		Ambient	135				
		Туре			Temperature					
	Map: Figure 2 Grid: B8, C3	Waste	Days on Site: 365		Ambient					
	WASTE RCRA Ethanolamine	Gallons	275	275	151	245		MONOETHANOLAMINE		141-43-5
	Soution	State	Storage Container		Pressue	Waste Code		PROPRIETARY INGREDIEN	ITS	
	CAS No	1.	Tote Bin		Ambient	331				
		Type Waste	Days on Site: 365		Temperature Ambient					
	Map: Figure 2 Grid: B8, C3		•			4600				
	WASTE SAND BLAST SAND NON-	Pounds		500	1056	1600				
	RCRA	State Solid	Storage Container Steel Drum		Pressue Ambient	Waste Code 181				
	CAS No	Туре	Sectionalii		Temperature	101				

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		Hazardo	ous Materials A	And Waste	s Inventor	y Matrix I	Report			
,	E E GATEWAY GENERATING STATION Wilbur Ave, Antioch 94509						lant Service B	_	0-77372	<b>3</b> 8/2019 10:54 PM
OOT Code/Fire Haz. Class	Common Name	Unit	Max. Daily	Quantities Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories		Component (ture only) % Wt	EHS CAS No.
DOT Code/Fire Haz. Class	Shell S3 BA 150	Gallons	100	5	67			HIGHLY REFINED BASE OILS	99 %	64742-54-7
Combustible Liquid, Class		State Liquid	Storage Container Plastic Bottle or Ju	g	Ambient	Waste Code				
	Map: Figure 2 Grid: C4, B8-9		Days on Site: 365		Temperature Ambient			LUCIUM DEFINED DAGE OUG	00.0/	C4742 F4 7
Combustible Liquid, Class	Shell T68  III-B CAS No	Gallons State Liquid	Storage Container Plastic Bottle or Ju	<b>5</b>  g	33 Pressue Ambient	Waste Code	<b></b>	HIGHLY REFINED BASE OILS	99 %	64742-54-7
	Map: Figure 2 Grid: C4, B8-9	Type Mixture	Days on Site: 365		Temperature Ambient					'
	Shell Tellus Oil 32  CAS No	Gallons State Liquid	Storage Container Plastic Bottle or Ju	<b>5</b>  g	33 Pressue Ambient	Waste Code		Highly refined mineral oils and additives		
Combustible Liquid, Class	III-B Map: Figure 2 Grid: C4, B8-9	Type Mixture	Days on Site: 365		Temperature Ambient					
Combustible Liquid, Class	Shell Turbo Oil T 46	Gallons State Liquid	Storage Container Plastic Bottle or Ju	5	33 Pressue Ambient	Waste Code		HIGHLY REFINED BASE OIL	90 %	64741-97-5
	Map: Figure 2 Grid: C4, B8-9	Туре	Days on Site: 365	ъ	Temperature Ambient					,

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		Hazardo	ous Materials	And Waste	s Inventor	y Matrix	Report			
CERS Business/Org.	PG&E			Chemical Loca	ation			CERS ID 1001	8894	
Facility Name	PG&E GATEWAY GENERATING STATION			Warehou	se, Behind F	Plant Ser	vices Building	Facility ID 07-0	0-77372	3
	3225 Wilbur Ave, Antioch 94509							Status Subm	tted on 2/2	8/2019 10:54 PM
				Quantities		Annual Waste	Federal Hazard		s Component ixture only)	ts
DOT Code/Fire Haz. (	Class Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
	Gear Lubricant (Shell Omala S4 GX 320)		Storage Container Plastic/Non-meta	5 lic Drum	170 Pressue	Waste Coo	de	Highly Refined Petroleum Oil Proprietary Additives	99 % 1 %	
	CAS No	Liquid Type Mixture	Days on Site: 365		Ambient Temperature Ambient					1

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			Hazardo	us Materials <i>l</i>	And Waste	s Inventor	y Matrix	Report			
ERS Business/Org.	PG&E				Chemical Loca				CERS ID	10018894	
acility Name		EWAY GENERATING STATION Ave, Antioch 94509			Warehou	se, Stormwa	ater Treat	ment System	Facility II Status	O7-000-773723 Submitted on 2/28	
					Quantities		Annual Waste	Federal Hazard		Hazardous Component: (For mixture only)	S
OT Code/Fire Haz. C	lass	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
		Sodium Hydroxide (10-50%)	Gallons	30	15	15		- Physical	SODIUM HYDROXIDE	50 %	1310-73-2
orrosive		CAS No		Storage Container Plastic Bottle or Jug		Pressue Ambient	Waste Code	Metal			
		Map: Figure 2 Grid: C9, B8-9	Type Mixture	Days on Site: 365		Temperature Ambient		- Health Skin Corrosion Irritation			
								<ul> <li>Health Serious</li> <li>Eye Damage Eye</li> <li>Irritation</li> </ul>			

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	1	Hazardo	ous Materials A	nd Waste	Inventory	Matrix	Report				
Facility Name	EWAY GENERATING STATION Ave, Antioch 94509			Chemical Loca Water Tre		lding / Fir	e Water Pump	House	CERS ID Facility Status	10018894  10 07-000-773723  Submitted on 2/28	
OOT Code/Fire Haz. Cl	Common Name  Diesel Fuel  CAS No 68476-34-6  Map: Figure 2 Grid: C1	Туре	Max. Daily	Quantities Largest Cont. 500	Avg. Daily 500 Pressue Ambient Temperature Ambient	•	Federal Hazard Categories  - Physical Flammable  - Health Carcinogenicity - Health Acute Toxicity - Health Skin Corrosion Irritation - Health Specific Target Organ Toxicity - Health Aspiration Hazard	Component N Diesel Fuel	lame	Hazardous Components (For mixture only) % Wt 100 %	EHS CAS No.
DOT: 8 - Corrosives Solids) Corrosive, Water Re 2	Interstate Workaholic Lead Acid Battery  CAS No  Map: Figure 2 Grid: C1	Type	Storage Container Other  Days on Site: 365	4.5	9 Pressue Ambient Temperature Ambient	Waste Code	- Physical Explosive - Physical Corrosive To Metal - Health Carcinogenicity - Health Acute Toxicity - Health Reproductive Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity	Sulfuric Acid	d	35 %	7439-92-1

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			Hazardo	us Materials	And Waste	s Inventory	Matrix	Report			
ERS Business/Org.	PG&E PG&E GA	ATEWAY GENERATING STATION			Chemical Loca Water Tre	tion eatment Che	emical Sto	rage	CERS ID Facility	10018894 D 07-000-773723	3
	3225 Wilbu	ur Ave, Antioch 94509			Quantities		Annual Waste	Federal Hazard	Status	Submitted on 2/28 Hazardous Component: (For mixture only)	•
OOT Code/Fire Haz.	Class	Common Name NALCO 7408	Unit Gallons	Max. Daily	Largest Cont.	Avg. Daily 65	Amount	- Health Skin	Component Name Sodium Bisulfite	% Wt 60 %	EHS CAS No. 7631-90-5
		CAS No  Map: Figure 2 Grid: C2	State Liquid Type	Storage Container Plastic/Non-metal Days on Site: 365		Pressue Ambient Temperature Ambient	Waste Code	Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation	Proprietary	70 %	
Corrosive		NALCO Stabrex ST20  CAS No  Map: Figure 2 Grid: C2	Liquid Type	Storage Container Plastic/Non-metal Days on Site: 365	65 ic Drum	65 Pressue Ambient Temperature Ambient	Waste Code	- Physical Corrosive To Metal - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation	Sodium Hydroxide Proprietary	5 % 99 %	1310-73-2

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			Hazardo	ous Materials	And Waste	s Inventory	y Matrix	Report			
CERS Business/Org.	PG&E				Chemical Loca	ition			CERS ID	10018894	
Facility Name	PG&E GAT	EWAY GENERATING STATION			WSAC Che	em Feed Ski	d		Facility I	D 07-000-77372	3
	3225 Wilbur	Ave, Antioch 94509							Status	Submitted on 2/2	8/2019 10:54 PM
					Quantities		Annual Waste	Federal Hazard		Hazardous Component (For mixture only)	s
DOT Code/Fire Haz.	Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
DOT: 8 - Corrosive Solids)	s (Liquids and	NALCO 3D TRASAR 3DT447  CAS No	Gallons State	s 110 Storage Container	110	110 Pressue		- Health Skin Corrosion	Phosphoric Acid	5 %	7664-38-2
Corrosive		Map: Figure 2 Grid: C3	Liquid Type Mixture	Plastic/Non-meta  Days on Site: 365		Ambient Temperature Ambient	•••••	deIrritation	Sulfuric Acid Tolyltriazole	5 % 5 %	✓ 7664-93-9 29385-43-1

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CERS Business/Org.	PG&E			Chemical Loca		CL: J		CERS ID		_
acility Name	PG&E GATEWAY GENERATING STATION 3225 Wilbur Ave, Antioch 94509	WSAC Chemical Feed Skid						Facility ID <b>07-000-773723</b> Status <b>Submitted</b> on 2/28/2019 10:54 PM		
				Quantities		Annual Waste	Federal Hazard		(For mixture only)	
OT Code/Fire Haz. C	NALCO Stabrex ST70  CAS No  Map: Figure 2 Grid: C3	Liquid F Type	Max. Daily 110 Storage Container Plastic/Non-metal Days on Site: 365	110	Avg. Daily  110  Pressue  Ambient  Temperature  Ambient	Waste Code	categories - Physical Corrosive To Metal - Health Acute Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye	Component Name Sodium Hydroxide Proprietary	% Wt 5 % 99 %	EHS CAS No. 1310-73-2

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# Gateway Generating Station (00-AFC-1C)

Annual Compliance Report No. 10

# Exhibit 6 Copy of Notice of Intent (NOI) and Revised SWPPP (October 2018) to comply with the requirements of Industrial General Permit (SOIL & WATER-3)



#### State Water Resources Control Board

#### NOTICE OF INTENT



#### GENERAL PERMIT TO DISCHARGE STORM WATER ASSOCIATED WITH INDUSTRIAL ACTIVITY (WQ ORDER No. 2014-0057-DWQ)

(Excluding Construction Activities)

WDID: 5S07I	1021950	Sta	atus: Active
Operator Info	ormation	T	ype: Private Business
Name: _	Pacific Gas Electric Company	Contact Name: _	Tim Wisdom
Address: _	PO Box 770000	Title:	Plant Manager
Address 2: _		Phone Number: _	925-522-7812
City/State/Zip: _	San Francisco CA 94177	Email Address: _	T1WY@pge.com
ederal Tax ID:			
Facility Inform	mation	Le	evel:
Contact Name: _	Diana Furman	Title: _	Environmental Compliance Manager
Site Name:	Gateway Generating Station		
Address: 3	3225 Wilbur Ave		
City/State/Zip: _	Antioch CA 94509	Site Phone #: _	925-522-7838
	Contra Costa		dmwr@PGE.com
Latitude: _	38.01228 Longitude: -121.75859	Site Size: _	32.5 Acres
	Industrial Area Expo	osed to Storm Water: _	22 Acres
	Percent of Site Impervious	(Including Rooftops): _	28 %
SIC Code Inf	formation		
1 4911		Electric Services	
Additional In			
		· D.	<b>F</b> I <b>L</b> F. (I
Receiving \			Flow: Indirectly
	ystem:		
Compliance C	Group:		
RWQCB Juriso	liction: Region 5S - Sacramento		
Phone: _	916-464-3291	Email: _	r5s_stormwater@waterboards.ca.gov
Certification			
	Al de Theore		2-t-h40, 0040
_	Alvin Thoma	Date: <u>C</u>	October 12, 2016
l itle: <u>S</u>	Senior Plant Manager		

## **Stormwater Pollution Prevention Plan**

### **Gateway Generating Station**

WDID#: 5S07I021950

Facility Address: 3225 Wilbur Avenue, Antioch, CA 94509

Facility Contact:
Angel B. Espiritu, Environmental Compliance Manager
Pacific Gas & Electric Company
(925) 522-7838

#### Prepared for



Storm Water Quality Group 3401 Crow Canyon Road, San Ramon, CA Jeremy Laurin, Storm Water Work Supervisor (925) 719-4466

Initial Preparation Date: December 2014

Revision Date: October 2018

#### **EXECUTIVE SUMMARY**

This storm water pollution prevention plan (SWPPP) was prepared in accordance with the requirements of the California State Water Resources Control Board (SWRCB) Industrial Storm Water Permit for Discharges Associated with Industrial Activity (Order No. 2014-0057-DWQ) which was adopted on April 1, 2014. This permit replaces Order No. 97-03-DWQ which had been in effect from August 1, 1997 through June 30, 2015.

This SWPPP identifies and evaluates all sources of pollutants that may affect the quality of industrial storm water discharges and authorized non-storm water discharges, identifies and describes the minimum best management practices (BMPs) and any advanced BMPs implemented to reduce or prevent pollutants in industrial storm water discharges and authorized non-storm water discharges.

Pacific Gas and Electric Company shall fully implement this SWPPP by July 1, 2015. The SWPPP will be revised whenever necessary and will be certified and submitted electronically to the SWRCB via the Storm Water Multi-Application and Report Tracking System (SMARTS).

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#### ACRONYMS AND ABBREVIATIONS

AST Aboveground Storage Tank
BMP Best Management Practice
CFR Code of Federal Regulations

COC Chain of Custody
CWA Clean Water Act

DDT Dichlorodiphenyltrichloroethane

ECM Environmental Compliance Manager

ELAP Environmental Laboratory Accreditation Program

ELG Effluent Limitation Guideline ERA Exceedance Response Action

General Permit Industrial Storm Water Permit for Discharges Associated with Industrial Activity

HMBP Hazardous Materials Business Plan

LRP Legally Responsible Person

mg/L Milligrams per liter
NAL Numeric Action Level

NEC No Exposure Certification

NOI Notice of Intent

NOT Notice of Termination

NPDES National Pollutant Discharge Elimination System

NSWD Non-Storm Water Discharge

OSHA Occupational Health and Safety Administration

PG&E Pacific Gas and Electric Company

PPT Pollution Prevention Team

PRDs Permit Registration Documents

QISP Qualified Industrial Storm Water Practitioner

QSE Qualifying Storm Event

RWQCB Regional Water Quality Control Board

SIC Standard Industrial Classification

SMARTS Storm Water Multi-Application and Report Tracking System

SPCC Spill Prevention Control and Countermeasure

SWPPP Storm Water Pollution Prevention Plan SWRCB State Water Resources Control Board

WDID Waste Discharge Identification

#### STORM WATER POLLUTION PREVENTION PLAN SIGNATURE AND CERTIFICATION

I am duly authorized to sign reports required by the California State Water Resources Control Board Industrial Storm Water Permit for Discharges Associated with Industrial Activity. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Tim Wisdom, Sr. Plant Manager

Feb. 10, 2017

#### 1. INTRODUCTION

This industrial storm water pollution prevention plan (SWPPP) for Pacific Gas and Electric Company's (PG&E) Gateway Generating Station (facility) was prepared in accordance with the requirements of the California State Water Resources Control Board Industrial Storm Water Permit for Discharges Associated with Industrial Activity ("General Permit," Order NPDES No. CAS000001). A copy of the General Permit (Order No. 2014-0057-DWQ) dated April 1, 2014, is attached as Appendix A.

This SWPPP will be modified whenever there is a change in operation, maintenance or construction which may affect the discharge of pollutants to surface water. It will also be amended if it is found ineffective in achieving the stated objectives listed in the General Permit.

#### 1.1 Background and Requirements

The Federal Clean Water Act (CWA) prohibits discharges from point sources to waters of the United States, unless the discharges are in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. In 1987, the CWA was amended to establish a framework for regulating municipal storm water discharges and discharges associated with industrial activity under the NDPES program. Industrial storm water discharges are regulated pursuant to CWA section 402(p)(3)(A). This provision requires NPDES permits for industrial storm water discharges to comply with technology-based effluent limitations and water quality-based limitations, as well as implement best management practices (BMPs).

On April 17, 1997, the California State Water Resources Control Board (SWRCB) issued NPDES General Permit for Industrial Storm Water Discharges, Excluding Construction Activities, Water Quality Order 97-03-DWQ (previous permit). The current General Permit, Order 2014-0057-DWQ, rescinds the previous permit and serves as the statewide general permit for industrial storm water discharges. The General Permit requires dischargers to:

- Eliminate unauthorized non-storm water discharges (NSWDs);
- Develop and implement SWPPPs that include BMPs;
- Implement minimum BMPs, and advanced BMPs as necessary, to achieve compliance with the effluent and receiving water limitations of this General Permit;
- Conduct monitoring, including visual observations and analytical storm water monitoring for indicator parameters;
- Compare monitoring results for monitored parameters to applicable numeric action levels (NALs) derived from the U.S. EPA 2008 Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity (2008 MSGP) and other industrial storm water discharge monitoring data collected in California;
- Perform the appropriate Exceedance Response Actions (ERAs) when there are exceedances of the NALs; and
- Certify and submit all permit-related compliance documents via the Storm Water Multiple Application and Report Tracking System (SMARTS). Dischargers shall certify and submit these documents which include, but are not limited to, Permit Registration Documents (PRDs) including Notices of Intent (NOIs), No Exposure Certifications (NECs), and SWPPPs, as well as Annual Reports, Notices of Termination (NOTs), Level 1 ERA Reports, and Level 2 ERA Technical Reports.

Copies of all PRDs are included in Appendix B.

#### 1.2 SWPPP Performance Standards

This SWPPP identifies and evaluates all sources of pollutants from the facility that may affect the quality of industrial storm water discharges and authorized NSWDs. Additionally, this SWPPP identifies and describes the minimum BMPs and any advanced BMPs implemented to reduce or prevent pollutants in industrial storm water discharges and authorized NSWDs. BMPs will be selected to achieve compliance with this General Permit and will identify and describe conditions or circumstances which may require future revisions to be made to the SWPPP. A copy of the SWPPP shall be maintained at the facility.

#### 1.3 SWPPP Implementation and Revisions

PG&E shall fully implement this SWPPP by July 1, 2015. The SWPPP shall be revised whenever necessary and will be certified and submitted electronically to the SWRCB via SMARTS within 30 days whenever the SWPPP contains significant revisions. Minor revisions are not required to be entered into SMARTS more than once every three months within a given reporting year. A log of all SWPPP revisions is included in Appendix C.

#### 1.4 General Facility Information

Facility Name: Gateway Generating Station

Facility Address: <u>3225 Wilbur Avenue</u>, Antioch CA 94509

Telephone Number: (925) 522-7838

Standard Industrial Classification (SIC) Code: 4911 (Electric Power Generating Facility)

Waste Discharge Identification (WDID) Number: 5S07I021950

Scheduled Facility Operating Hours: 24 hours/7 days (2 shifts)

Size of Facility: Approximately 32.5 acres

The facility is located in unincorporated Contra Costa County (within the City of Antioch's Sphere of Influence), on Wilbur Avenue, 1 mile northeast of Antioch, on the southern shore of the San Joaquin River (Figure 1). The operating portion of the site area is approximately 22 acres. The facility is a natural gas-fired, combined cycle, combustion turbine power plant with a nominal generation capacity of 530 megawatts. The facility includes the following building structures and areas:

- Two Combustion Turbine Electrical Generators;
- Steam Powered Electrical Generator:
- Wet Surface Air Cooler (Wet SAC);
- Fin Fan (Close-loop Cooling System);
- Air Cooled Condenser;
- Plant Services Building;
- Laydown Area for Equipment/Parts Staging;
- Warehouse;

- Hazardous Materials Storage Shed;
- Hazardous Waste Accumulation Storage Shed; AND
- Water Treatment Building.

Percent Impervious: ~28%

Facility Contact: Name: Angel Espiritu

Title: Environmental Compliance Manager Company: Pacific Gas and Electric Company

Phone: (925)522-7838 Email: ABE4@pge.com

Street Address: 3225 Wilbur Ave

City: Antioch State: California Zip Code: 94509

#### 1.5 Pollution Prevention Team

PG&E has identified a Pollution Prevention Team responsible for assisting with the implementation of this SWPPP and for conducting all monitoring required under the General Permit. The specific individuals (and job title) that are responsible for developing, implementing, and revising this SWPPP and conducting monitoring are identified in the Table 1.

**Table I Pollution Prevention Team** 

Name of Person	Title/Position	Responsibilities, Duties, and Activities		
Jeremy Laurin	Water Quality Subject Matter Expert	Supervise SWPPP development and implementation; provide support and training to the ECM and Plant Manager; review of any documents uploaded to SMARTS; interface with the Regional and/or State Water Quality Control Boards when necessary.  Facility lead for storm water permit compliance monitoring, and reporting; conduct employee training; supervise and/or conduct inspections and sampling, record and report maintenance; record and report spills and leaks; file document in SMARTS; BMP Implementation, emergency response coordinator, spill cleanup coordination		
Angel Espiritu	Environmental Compliance Manager (ECM)			
Name of Person	Title/Position	Responsibilities, Duties, and Activities		
Steve Royall	Director, Fossil Generation	Legally Responsible Party (LRP); responsible f certification of Notice of Intent (NOI) within SMARTS.		
Tim Wisdom	Sr. Plant Manager	Duly Authorized Representative (DAR); responsible for certification of documents within SMARTS.		
Aman Singh	Maintenance Supervisor	BMP Implementation and maintenance.		
David J. Hammond	Operations Supervisor	BMP Implementation and maintenance.		

David Thurston	Plant Engineer	Engineering guidance, supervision and review of BMPs.
Doug Welch or available on-shift Power Plant Technician	Plant Chemist or available on shift power plant technician	Storm water inspections and sampling.

In the event that the Environmental Compliance Manager or other positions responsible for SWPPP implementation are temporarily unavailable to conduct storm water activities due to vacation, illness, out of town business or other absences, backup personnel will implement the SWPPP and conduct required monitoring. PG&E will train all backup personnel so they are familiar with storm water requirements.

The Environmental Compliance Manager, through the Operations or Maintenance Supervisor, will notify the backup PPT member of any expected absences. If the backup PPT member is unavailable, a tertiary individual will be selected and trained to perform the tasks necessary during the primary and secondary PPT member's absence. The backup PPT member has been trained to complete Environment Compliance Manager's tasks when the ECM is unexpectedly absent.

PG&E will ensure that this SWPPP is implemented and revised as necessary to be consistent with applicable municipal, state, and federal requirements that pertain to the requirements in the General Permit.

#### 2. SITE LAYOUT AND EXISTING FACILITY PLANS (PERMIT SECTION X.E)

PG&E has prepared three figures illustrating the information required by the General Permit. These include Figure 1 Site Location Map, Figure 2 Facility Details Map, and the Figure 3 Storm Water Flow and BMP Map. The maps present the following information where applicable:

- Site location;
- North arrow;
- Facility boundary;
- Drainage areas;
- Portions of any drainage area impacted by discharges from surrounding areas;
- Direction of flow within each drainage area;
- On-facility surface water bodies;
- Areas of soil erosion;
- Nearby water bodies (e.g., rivers, lakes, wetlands);
- Municipal storm drain inlets;
- Location of storm water collection and conveyance systems;
- Points of discharge;
- Sampling locations;
- Structural control measures;
- Impervious areas;
- Locations of directly exposed materials;
- Locations of significant spills and leaks;
- Areas of industrial activity;
- Industrial storage areas/storage tanks;
- Shipping and receiving areas;
- Fueling areas;
- Vehicle and equipment storage/maintenance areas;
- Material handling/processing areas;
- Waste treatment and disposal areas;
- Dust or particulate generating areas;
- Cleaning and material reuse areas; and
- Other areas of industrial activity.

Storm water in Drainage Area A is generally conveyed from the south to the north. Surface run-off travels to drain inlets and/or rock-lined ditches which connect to a covered drainage conveyance into a concrete structure with flow valves. The valves on the outlet structure are typically left open to allow the discharge of stormwater in the wet season. The valves are typically left closed in the dry season to

provide an additional measure to capture potential pollutants if a spill occurred. Stormwater in Drainage Area B is contained in a depression centrally located in the drainage area and does not discharge. Additionally, there is no industrial activity in Drainage Area B. The facility details are shown on Figure 2.

#### 3. LIST OF INDUSTRIAL MATERIALS (PERMIT SECTION X.F)

#### 3.1 List of Industrial Materials Handled at the Facility

The following table lists the industrial materials stored or handled at the facility (as detailed in the Hazardous Materials Business Plan):

**Table II Industrial Materials Handled at the Facility** 

Material	How Stored	Receiving/Shipping and Handling Frequency	Storage Location	Typical Quantities
Aqueous Ammonia (29%)	Aboveground Storage Tank (AST)	Weekly	Aqueous Ammonia Storage Area	18,000 gallons
Pre-blended Phosphate/Caustic (Soap)	Tote	Daily	Plant Services Building	460 gallons
Sodium Bisulfite	Tote	Monthly	Water Treatment Building	50 gallons
Stabilized Bromine/Sodium Hydroxide	Tote	Monthly	Water Treatment Building and Wet SAC	110 gallons
Sulfuric Acid	Tote	Semi-annual	Wet SAC	35 gallons
Corrosion/Scale Inhibitor/Sodium Hydroxide	Tote	Semi-annual	Wet SAC	110 gallons
Chlorine Scavenger	Tote	Monthly	Water Treatment Building	65 gallons
Mineral Oil	Transformers	As needed	Transformers (throughout the site) and the inlet chiller	58,000 gallons
Diesel Fuel No. 2	AST	Weekly	Water Treatment Building	500 gallons
Turbine Oil	Within Turbines / Drums	As needed	Combustion Turbines, Steam Turbine, Hazardous Materials / Waste Storage Shed	17,000 gallon

Material	How Stored	Receiving/Shipping and Handling Frequency	Storage Location	Typical Quantities
Mixed Oil	Drum	As needed	Hazardous Materials / Waste Storage Shed	55 gallon
Hydraulic Oil	Steam Turbine	As needed	Steam Turbine	130 gallons
Liquid Carbon Dioxide	Cylinder	As needed	Combustion Generators and CO2 Bulk Storage	36,000 gallons
Argon	Cylinder	As needed	Combustion Turbines	1,344 cubic feet
EPA Protocol Gases (Carbon Monoxide / Nitrogen / Oxygen / Nitric Oxide)	Cylinder	As needed	Combustion Turbines	4,896 cubic feet
Helium	Cylinder	As needed	Combustion Turbines and Gas Conditioning Station	2,200 cubic feet
Oxygen	Cylinder	As needed	Combustion Turbines	1,124 cubic feet
Hydrogen	Cylinder	As needed	Tube Trailer and Gas Conditioning Station	134,200 cubic feet
Nitrogen	Cylinder	As needed	Combustion Turbines, Steam Turbine, Inlet Chiller	8,735 cubic feet
Propane	Cylinder	As needed	Combustion Turbines and Plant Services Building	60 pounds
Acetylene	Cylinder	As needed	Plant Services Building	1,700 cubic feet
Petroleum Distillates	Within Transformer	As needed	Spare GSU Transformer	14,000 gallon
Refined Petroleum Oil	Drum	As needed	Spare GSU Transformer	55 gallons

Material	How Stored	Receiving/Shipping and Handling Frequency	Storage Location	Typical Quantities
Dielectric Fluid	Transformer housing	As needed	Plant Services Building Transformers, Water Treatment Building, Combustion Turbines, Main Electrical Control Enclosure and Inlet Chiller	4,800 gallons
Gear Lubricant	Gear Boxes (36) and Drums	As needed	Air Cooled Condenser Gear Boxes (36), Warehouse and Hazardous Materials / Waste Storage Shed	540 gallons
Lead Acid Batteries	Within Electrical Equipment	As needed	Combustion Turbines	48,000 pounds
Lead Calcium Batteries	Within Electrical Equipment	As needed	Switchyard	90 gallons
Sulfur Hexafluoride	Internally within breakers	As needed	Sulfur Hexafluoride Breakers	774 pounds
Carbon Dioxide, Gas	Cylinders	As needed	Stormwater Treatment System	6,620 cubic feet
HaloKlear BHR-50	Plastic Tote	As needed	Stormwater Treatment System	275 gallons
Yardney 3660 Media Filter (glass media beads)	Within Equipment	As needed	Stormwater Treatment System	6,300 pounds
Sodium Hydroxide	Plastic Container	As needed	Stormwater Treatment System	30 gallons
Non-hazardous trash	In enclosed dumpster	Daily	Laydown in roofed area	3 yards
Metal scraps for recycling	Roll-off bin with tarp cover	Weekly	Laydown area	20 yards

Material	How Stored	Receiving/Shipping and Handling Frequency	Storage Location	Typical Quantities
Wood Pallets	Outside	Daily	Laydown	50 to 100 total
Plastics	In enclosed dumpster	Daily	Laydown in roofed area	3 yards
Recyclables	In enclosed dumpster	Daily	Laydown in roofed area	3 yards
Cardboard	In enclosed cardboard compactor	Daily	Laydown in roofed area	3 yards
RCRA Waste (i.e., waste absorbent)	In secondary- contained drums within covered waste storage area	As needed	Hazardous Materials / Waste Storage Sheds	55 gallons
Non-RCRA Waste (i.e. oily debris)	In secondary- contained drums within covered waste storage area	As needed	Hazardous Materials / Waste Storage Sheds	55 gallons
Universal Waste (i.e., batteries and fluorescent light bulbs)	Bins	As needed	Hazardous Materials / Waste Storage Sheds	5 pounds
Monoethanolamine (30%-60%)	Tote	As needed	Northeast corner of Air Cooled Condenser (ACC)	400 gallons
Cooling Water Inhibitor (3DTRASAR)	Tote	As needed	Water Treatment Building	110 gallons
Antiscalant (Avista Vitec)	Drum	As needed	Water Treatment Building	60 gallons
Antifungal/bacteria/slime (Stabrex)	Tote	As needed	Water Treatment Building	110 gallons
Simple Green	2.5 gallon Containers	As needed	East of the Plant Services Building	10 gallons
Reclaimed water	Tanks	Daily	East of the Water Treatment Building	140,000 gallons
Wastewater	Tank	Daily	East of the Water Treatment Building	40,000 gallons

Material	How Stored	Receiving/Shipping and Handling Frequency	Storage Location	Typical Quantities
Turbine Cleaning Fluid	Tote	As needed	Parts and Miscellaneous Storage Building	250 gallons
Various solvents, degreasers, paints, adhesives, etc.	Fire Cabinet	As needed	East of the Plant Service Building	Typically less than 1 gallon each

# 4. DESCRIPTION OF POTENTIAL POLLUTANT SOURCES (PERMIT SECTION X.F AND G)

#### 4.1 Industrial Processes

Gateway Generating Station facility manufactures electricity through the use of two natural gas fired combustion turbines and a steam powered generator. The industrial materials utilized throughout the facility are detailed in Table II. All industrial processes associated with manufacturing occur at locations denoted on Figure 2.

Industrial materials imported to the site are imported directly into the warehouse, directly to aqueous ammonia storage tank, the water treatment plant and the wet surface air cooler. Handling, shipping and receiving of hazardous materials including waste occurs at the frequencies denoted in Table II above. Storage areas identified in Table II are also denoted in Figure 2. These areas are further described as follows.

The aqueous ammonia is stored in an area that houses two 20,000 gallon capacity tanks. These tanks sit above grade within a secondary containment unit and a sump. This area has sufficient storage capacity to meet the facility's Risk Management Plan requirements. Storm water that collects in this sump is discharged to the sanitary sewer per a separate permit. This storage area has its own loading ramp that drains to the secondary containment sump below the tanks.

The hazardous materials storage shed, hazardous waste storage shed and hazardous materials accumulation shed are all covered sheds with secondary containment that meets the facilities hazardous materials business plan (HMBP) and SPCC plan requirements. The various oils the facility uses are stored within these sheds in 55 gallon drums. In addition to those drums universal waste and used absorbent is also stored within these sheds. Materials and wastes are moved using services vehicles.

All hazardous materials associated with the water treatment plant including the diesel fuel used for the emergency fire water system are housed in a roofed water treatment building. Secondary containment for these materials is provided. All of the ASTs within this area are filled by bulk delivery.

There are various transformers throughout the facility. These transformers are filled with dielectric oil and are housed in secondary containment that meets the facility's SPCC plan requirements.

Various hazardous materials are stored adjacent to the wet surface air cooler. These materials are all stored in sealed tanks within secondary containment. These tanks are filled by bulk delivery.

Trash, recyclable materials, and cardboard are accumulated in three separate dumpsters. The dumpsters have lids which are closed when the dumpsters are not actively used. To further isolate the dumpsters from exposure to storm water, they are housed under a roof.

Metals for recycling are accumulated in a roll off bin or bins and are covered when not actively in-use.

Various pressurized gases are stored throughout the facility for various uses. These pressurized gases are stored according to all applicable HMBP requirements.

Various batteries are stored throughout the facility for various uses. These batteries are stored in roofed buildings and according to all applicable HMBP requirements.

## 4.2 Material Receiving, Shipping, and Handling

## Receiving

The facility receives regular deliveries of the materials listed in Table II. The materials stored in larger tanks are delivered by service trucks and are directly loaded into the respective vessels. Receiving and loading of materials (e.g., fuels, fuel additives, oils, and ammonia) is performed at the respective material storage areas. Other sources include smaller quantities of oils used in transformers, sulfuric acid used in batteries, and oils used in miscellaneous equipment and machines which are delivered to their various storage locations throughout the facility, including but not limited to the warehouse, plant services building, parts and miscellaneous storage building, and the water treatment building.

## **Material Handling**

The primary function of the power plant facility is to generate electricity through a combined-cycle process utilizing natural gas as fuel. The potential pollutants at the facility are used in ancillary functions such as lubricants, aqueous ammonia for emissions control, and other various maintenance fluids. Most materials and wastes are transported via on-site pipe networks. For example, potable water is piped to the facility from a municipal water purveyor to the water treatment area and then transferred from the treatment plant to the boilers and other heat exchange equipment. Used water is conveyed to the sanitary sewer. Small quantities of other materials and wastes, typically for maintenance activities, are moved using services vehicles. There is a seldom used parts cleaning machine that is located outdoors, immediately east of the plant services building.

## Waste

General trash is accumulated in dumpsters located north of the inlet chiller. The waste dumpster area is equipped with a storm resistant shelter. Trash is transferred to a collection facility by a service vendor.

Metals for recycling are accumulated in two dumpsters that are equipped with lids. One metal disposal dumpster is located near the trash dumpsters and the other is located east of the parts and miscellaneous storage building. Occasionally, roll-off dumpsters are placed near the warehouse during maintenance and repair operations.

Hazardous waste is temporarily stored onsite in storage sheds located east of the plant service building and the south-east corner of the warehouse. The majority of hazardous waste produced at the facility is waste oil sludge and used lubricating oil. Hazardous waste is picked up by a waste disposal vendor as necessary, though typically picked up more frequently; the hazardous waste vendor is on 90-day maximum schedule. An industrial service vendor visits the site weekly to perform a required weekly inspection and schedule waste pick-up.

The water-side effluent from the oil/water separator is conveyed to the sanitary sewer along with other waste water generated from plant operation. The oily sludge effluent is transported offsite for proper disposal.

Portable toilets are commonly placed onsite in various locations for construction and maintenance projects and are serviced regularly by a service vendor.

## **Shipping**

The industrial product produced at the facility is electricity and therefore shipping of industrial products does not occur at this facility. The electricity generated at the facility is transmitted through the substation located west of the facility.

## 4.3 Dust and Particle Generating Activities

PG&E does not conduct any activities that generate dust and/or particles. The vents located on the combustion turbines are designed only for heat dissipation. The active areas of the site are paved or covered in gravel to prevent dusting.

## 4.4 Significant Spills and Leaks

Significant spills and leaks include any toxic chemicals identified in 40 Code of Federal Regulations (CFR) Section 302 that are discharged into the facilities' storm water conveyance system as reported on U.S. EPA Form R, as well as spills or leaks of oil and hazardous substances in excess of reportable quantities (40 CFR §§ 110, 117, and 302). PG&E contracts with a service vendor to respond to any significant spills of fuels, oil or other materials. During the routine monthly inspections, PG&E will evaluate the facility in areas where spills and leaks could potentially occur during material delivery, unloading, loading, transport, storage/containment, or use. There have not been any significant spills or leaks of industrial materials at this facility in the last five years that had potential to be discharged from the facility.

In accordance with the facility SPCC Plan and the General Permit, in the event that significant spills or leaks occur in the future, for each potential discharge PG&E will record and document the following information: the location, characteristics, and approximate quantity of the materials spilled or leaked; approximate quantity of the materials discharged from the facility's storm water conveyance system; the cleanup or remedial actions that have occurred or are planned; the approximate remaining quantity of materials that have the potential to be discharged; and the preventive measures taken to ensure spills or leaks of the material do not reoccur.

## 4.5 Non-Storm Water Discharges

A NSWD is any water discharged at the Facility which is not the direct result of a rain event. Examples include process water, cooling water, wash water, and sanitary wastewater. Certain limited categories of NSWDs are considered to be authorized by the General Permit (as long as they are not in violation of any Basin Plan, municipal agency ordinance, or other statewide water quality control plans or policy requirements), including: fire hydrant flushing; potable water sources; drinking fountain water; refrigeration, air conditioning, and compressor condensate; irrigation drainage and landscape watering; uncontaminated natural springs, groundwater, and foundation/footing drainage; seawater infiltration; and incidental windblown mist from cooling towers.

Authorized NSWDs at the Gateway Generating Station facility are expected to be prevented or minimized and would occur at an unknown frequency if they arise with the exception of the fire system flushing. The fire system is flushed annually and the quantity of water would be equal to the amount in the system or necessary to flush the system. Expected authorized NSWDs include:

- Fire system flushing water;
- Irrigation water;
- Eve wash system flushing and testing water; and
- Air conditioning or compressor condensate.

The NSWDs listed above are authorized by the General Permit if all of the following conditions are met:

- The NSWDs are in compliance with Regional Water Quality Control Board (RWQCB) requirements;
- The NSWDs are in compliance with local agency ordinances and/or requirements;
- BMPs are specifically included in the SWPPP to (1) prevent or reduce the contact of NSWDs with significant materials or equipment and (2) minimize, to the extent practicable, the flow or volume of NSWDs;
- The NSWDs do not contain significant quantities of pollutants;
- The monitoring program includes quarterly visual observations of each NSWD and its sources to ensure that BMPs are being implemented and are effective; and
- The NSWDs are reported and described annually as part of the Annual Report.

As part of the routine monthly site inspections, PG&E will conduct an evaluation of the facility to identify any NSWDs, sources, and drainage areas. The inspection will include an evaluation of all storm drain inlets to identify connections to the storm water conveyance system; and a description of any NSWDs and how any which have occurred and have been eliminated. In the event that NSWDs are discovered, they will be described on the inspection form located in Appendix E of the SWPPP. This description will include the source, quantity, frequency, and characteristics of the NSWDs, associated drainage area, and whether it is an authorized or unauthorized NSWD.

Potential unauthorized NSWDs at the Gateway Generating Station Facility include:

- Secondary containment failure;
- Pipeline leak, rupture, or failure;
- Contaminated water in sumps;
- Leaks or spills from portable restrooms; and
- Leaks or spills from service vehicles or portable equipment.

Unauthorized NSWDs have been eliminated or prevented through the use of sumps, secondary containment structures, an oil/water separator, drains that convey waste to the oil/water separator, controlled site access, and the placement and maintenance of numerous spill clean-up kits throughout the facility.

#### 4.6 Erodible Surfaces

There are three vegetated areas (Figure 3) that may be considered erodible surfaces at the facility. The only unpaved areas within the active facility exposed to storm water are flat gravel-capped surfaces between structures and adjacent to roadways, and three vegetated surfaces on the northeastern edge of the property.

The southern portion of the facility is inactive and self-contained, with a berm which surrounds the entire perimeter. This area has also been graded into a depression and decompacted to help increase infiltration of any storm water that lands within the area.

## 5. ASSESSMENT OF POTENTIAL POLLUTANT SOURCES (PERMIT SECTION X.G.2)

## 5.1 Narrative Assessment of Likely Pollutants Present in Storm Water Discharges

PG&E conducts frequent preventive maintenance to ensure that plant machinery, equipment and storage vessels are in good working order. The most likely potential pollutants in storm water discharges are the materials listed in Table II. Approximately 28 storm water catch basins drain the site and are located throughout the facility and in proximity to material storage areas. PG&E has implemented BMPs to control the offsite migration of potential pollutants by following good housekeeping, requiring immediate cleanup of spills, and by installing filter screens (Dandy Pops®) in storm water catch basins on the site, as appropriate. The filter screens are cleaned and/or replaced as needed.

#### 5.2 Identification of Additional BMPs

In the event that conditions change or monitoring results indicate a need, PG&E will consider identifying additional BMPs to address the changed conditions or constituents of concern.

## 5.3 Identification of Drainage Areas with No Exposure

There is one drainage area at the facility with no exposure, as indicated on Figure 2. The southern area meets the requirements for no exposure, as there are no industrial activities occurring within it.

#### 5.4 Identification of Additional Parameters

In addition to the standard parameters required for all industrial facilities (pH, oil & grease, and total suspended solids), PG&E will continue to analyze for total iron, as per the SIC code 4911 requirements of Table 1 and Attachment A of the General Permit.

The facility drains to the Delta Waterways (western portion) which is in the HUC 10 watershed of the site. The 303(d) listed impairments for the Delta include: Chlordane; Chlorpyrifos; Dichlorodiphenyltirchloroethane (DDT); Diazinon; Dieldrin; Dioxin; Dioxin compounds (including 2,3,7,8-TCDD); Disulfoton; Electrical Conductivity; Escherichia coli (E. coli); Furan Compounds; Group A Pesticides; Invasive Species; Mercury; Organic Enrichment/Low Dissolved Oxygen; Oxygen, Dissolved; Low Dissolved Oxygen; Pathogens; PCBs (Polychlorinated biphenyls) (dioxin-like); PCBs (Polychlorinated biphenyls); Selenium; and Unknown Toxicity. The sources of the impairments listed are primarily caused by agricultural sources or mineral resource extraction and the Gateway Generating Station does not have the potential to discharge most of the pollutants; however, electrical conductivity may be an exception.

Electrical Conductivity is a measure of the ability of water to pass an electrical current. Conductivity in water is affected by the presence of inorganic dissolved solids such as chloride, nitrate, sulfate, and phosphate anions (ions that carry a negative charge) or sodium, magnesium, calcium, iron, an aluminum cations (ions that that carry a positive charge). Though the General Permit does not have a Numeric Action Level for electrical conductivity, the facility has the potential to discharge inorganic dissolved solids and analytical results may be beneficial as an indicator of other pollutant concerns; therefore, the facility will also collect and analyze samples for electrical conductance.

## 6. STORM WATER BEST MANAGEMENT PRACTICES (PERMIT SECTION X.H)

This section describes the BMPs implemented and maintained as a result of the activities assessment in Section 4. The current BMPs, when properly maintained, are effective for the operations at the facility. BMPs are divided into minimum and advanced measures.

## 6.1 Minimum BMPs (PERMIT SECTION X.H.1)

#### 6.1.1 Good Housekeeping

- Monthly Visual Inspections. Once per calendar month, PG&E inspects all outdoor areas associated with industrial activity, including storm water discharge locations, drainage areas, conveyance systems, waste handling/disposal areas, and perimeter areas impacted by off-facility materials or storm water run-on to determine housekeeping needs. Any identified debris, waste, spills, tracked materials, or leaked materials identified during the inspections are cleaned and disposed of properly.
- **Tracking Control.** Although there is low potential for tracking of sediment at the facility, paved surfaces are swept on a monthly basis. Additionally sweeping will occur as needed.
- **Dust Control.** PG&E's power generation process does not generate dust, and the surface of the site is either paved, has a gravel cap, or is vegetated. Therefore, there is no need to implement dust control at this facility.
- Cleaning Areas Impacted by Rinse/Wash Waters. No washing or rinsing of equipment is performed at the facility. Parts are washed within an enclosed parts washer, within the roofed Plant Services building.
- Industrial Materials Storage Control. The facility stores all materials and performs all activities that involve hazardous materials under roofed areas (buildings or storage containers), within secondary containment, or during dry weather, if possible.
- Control of Non-Solid Industrial Materials/Wastes. The facility contains all stored non-solid industrial materials or wastes (e.g., fuel, waste oil) that can be transported or dispersed by wind or contact with storm water. Spill kits are maintained appropriately and allow for immediate response to spills. In addition, all materials are stored within secondary containment to prevent any spilled or leaked material from being transported by storm water. Numerous secondary containment structures have been designed and constructed throughout the facility to contain spills, leaks, or ruptures from various tanks and oil filled equipment. The secondary containment structures have been designed per SPCC requirements to contain the capacity of either 100 percent of the largest tank or 10 percent of all tanks or containers stored within the containment. Additional material and waste control information is included in the facility's Spill Prevention Control and Countermeasure (SPCC) Plan.
- Control of Rinse/Wash Water Disposal. No washing or rinsing is performed at the facility. The facility prevents the disposal of any industrial materials into the storm water conveyance system by maintaining spill kits appropriately and immediately responding to spills.
- Minimize Storm Water Discharges from Non-Industrial Areas. A non-industrial area exists within the facility, as denoted on Figure 2. This area is self-contained, with a berm surrounding the entire perimeter of this portion. This area has also been graded into a

- depression and decompacted to help increase infiltration of any storm water that lands within the area, as described in Section 4.5.
- Minimize Authorized NSWDs from Non-Industrial Areas. A non-industrial area exists within the facility and no authorized NSWDs occur from it.

## 6.1.2 Spill and Leak Spill and Leak Prevention

The facility implements the following preventative maintenance measures:

- PG&E has identified the following outdoor equipment at the Facility which may spill or leak pollutants, as follows:
  - Containment areas, tanks and containers storing hazardous materials or wastes
  - Oil-filled electrical equipment and oil-filled operating equipment in the Radiator Area, and Transformer Yard
  - Service vehicles (when transporting materials such as drums of waste oil)
- Monthly observations of containment areas, tanks, equipment and systems are conducted to detect leaks, or identify conditions that may result in the development of leaks.
- The facility maintains a schedule for conducting routine maintenance of identified equipment and systems. There is a daily inspection of all equipment at the facility, monthly preventative maintenance and periodic servicing. Daily inspections are informal visual inspections by operators, and are not documented. Service vehicles are not washed on site.
- The facility has defined procedures for prompt maintenance and repair of equipment, and maintenance of systems when conditions exist that may result in the development of spills or leaks.
- The facility utilizes forklifts and golf carts that are loaned to the facility from PG&E Fleet. Fleet vehicles are repaired and maintained by the Fleet group.
- The manufacturer of the power generation equipment requires maintenance of equipment after a specified number of operating hours and therefore the facility conducts two shutdowns per year to maintain the facility's power generation equipment.

#### 6.1.3 Spill and Leak Response

PG&E has established the following protocols to respond to spills and leaks:

- The facility has developed procedures to minimize spills and leaks. The facility has a SPCC Plan that addresses storage of materials and wastes.
- The facility has established spill and leak response procedures to prevent industrial materials from discharging through the storm water conveyance system. Spilled or leaked industrial materials are cleaned up promptly and disposed of properly.
- The facility has identified and described all necessary and appropriate spill and leak response equipment, locations of spill and leak response equipment, and spill/leak response equipment maintenance procedures, in the facility's HMBP and SPCC plans. Spill kits are maintained throughout the facility and denoted in maps located in the facility's HMBP.

- The facility has designated and trained appropriate spill and leak response personnel, identified as the PPT in Table 1 above. Spill and leak response personnel are trained annually, at a minimum. Plant operations personnel are responsible for spill cleanup; an outside vendor is used to respond to significant spills. Spill response personnel receive OSHA hazard communication training and spill training consistent with the hazardous materials business plan and SPCC plan.
- Powered industrial truck maintenance shall be performed on tarps or other impervious materials to capture spills.

## **6.1.4** Material Handling and Waste Management

PG&E has a robust program for addressing material handling and waste management, as follows:

- The facility minimizes the handling of industrial materials or wastes that can be readily mobilized by contact with storm water during storm events through the use of awnings at loading docks.
- The facility appropriately contains stored non-solid industrial materials or wastes (e.g., lubricant oil) that can be transported or dispersed by the wind or contact with storm water by storing these materials in secondary containment with water tight lids.
- Industrial waste disposal containers (dumpsters and metal waste recycling bins) and industrial material storage containers that contain industrial materials are covered with lids or plastic tarps when not in use.
- Site run-on and storm water generated from within the facility is diverted away from material storage areas.
- Spills of industrial materials or wastes that occur during handling are cleaned up in accordance with the spill response procedures.
- Outdoor material or waste handling equipment or containers that can be contaminated by contact with industrial materials or wastes are inspected and cleaned, as appropriate.

## **6.1.5** Erosion and Sediment Controls

Erosion is not a significant issue at the site because approximately 28 percent is paved and the remainder is covered with a gravel cap or is vegetated (Figure 3). Therefore, erosion is not a problem at the site, and the facility does not implement erosion and sediment controls.

## **6.1.6** Employee Training Program

PG&E employees responsible for implementing the storm water program at the Facility will receive annual storm water training. The facility has identified which personnel require training (per Section 1.5), their responsibilities, and the type of training they will receive, and will prepare or acquire appropriate training materials and establish a schedule for providing the training. All participants will sign a Training Log that will be kept in Appendix D. This documentation will be maintained with the SWPPP. Annual training is required once every calendar year. At a minimum, training will cover the following topics:

- BMP implementation;
- BMP effectiveness evaluations:
- Visual observations; and

Monitoring activities.

In the event the Facility enters Level 1 status (see Section 9), appropriate team members will be trained by a Qualified Industrial SWPPP Practitioner (QISP). A QISP must complete a SWRCB-approved training course and assist in the preparation of ERAs for Level 1 and 2 status designations which are described in further detail in Section 9 of this SWPPP.

## 6.1.7 Quality Assurance and Record-Keeping

PG&E has done [and will continue to perform] the following to retain proper quality assurance and record-keeping:

- The facility has developed and implemented management procedures to ensure that appropriate staff implements all elements of the SWPPP, including the Monitoring Implementation Plan;
- The facility has developed a method of tracking and recording the implementation of BMPs identified in the SWPPP, through the monthly inspection process; and
- The facility will maintain the BMP implementation records, training records and records related to any spills and clean-up related response activities for a minimum of five years.

## 6.2 Advanced BMPs (Permit Section X.H.2)

In addition to the minimum BMPs described above in Section 6.1 and in Section X.H.1 of the General Permit, the facility will, to the extent feasible, implement and maintain any advanced BMPs necessary to reduce or prevent discharges of pollutants in its storm water discharge in a manner that reflects best industry practice considering technological availability and economic practicability and achievability.

## **6.2.1** Exposure Minimization BMPs

The facility has installed permanent storm resistant shelters to prevent contact of storm water with certain kinds of materials. These areas include the hazardous materials/waste storage sheds, and the Laydown area (e.g., for waste and recycling dumpsters).

#### 6.2.2 Storm Water Containment and Discharge Reduction BMPs

These BMPs include structures that divert, infiltrate, reuse, contain, retain, or reduce the volume of storm water runoff. As described in Section 4.5, the facility includes gravel caps to areas that haven't been paved or are not roofed which may increase infiltration at the site and prevent erosion. Additional BMPs will be explored and implemented as needed.

#### **6.2.3** Treatment Control BMPs

• Oil/Water Separator. The site is equipped with an oil/water separator; however, since the effluent from the oil/water separator is conveyed to the municipal sanitary sewer (which is permitted through the publicly owned treatment works), this water is not considered storm water discharge. The oil (if any) is separated and sent offsite for proper disposal. The coalescer packs are inspected regularly and cleaned if indicated by inspection.

- **Parts Cleaner.** The site is equipped with a parts cleaner that is located outdoors on the east side of the maintenance shop. The manufacturer inspects the washer and replaces the solvent as necessary.
- **Drain Inlet Filters.** Filter screens (Dandy Pops®) are installed in storm water catch basins on the site, as appropriate, to capture sediment. The filter screens are cleaned and/or replaced as needed.
- Stormwater Chemical Treatment/Filtration System. The site is equipped with a standard chemical treatment and filtration system for the stormwater prior to discharge. The treatment system is located immediately adjacent to the existing outfall, E-006, to allow treatment of all of Gateway Generating Station's stormwater prior to discharge into the river. The system is expected to reduce the total iron content of the storm water effluent to less than or equal to 1 ppm.

Design of the system was precluded by volume-based calculations to meet the provisions of the IGP (see memo dated October 12, 2016 found in Appendix H). The volume of runoff produced from an 85th percentile 24-hour storm event and 85th Percentile Hourly Rainfall Intensity per the IGP, as determined from local, historical rainfall records produces a maximum of 229,562 gallons. The design volume processing rate of the treatment system is 468,895 gallons, both meeting and exceeding the volume-based calculations of the IGP.

Treatment steps for the treatment system are as follows:

- 1. The storm water is pH adjusted to allow the iron to precipitate out of the stormwater,
- 2. A chemical flocculating agent is added to clump the iron particles together,
- 3. The stormwater is settled and pumped over a series of small weirs to capture the solids,
- 4. Stormwater is then passed through the media filters for finer particulate removal,
- 5. The water is monitored real-time to assure it meets discharge criteria, if it does not meet pH or turbidity criteria, it is recirculated, and,
- 6. The treated stormwater is discharged into the San Joaquin River.

## 6.2.4 Other Advanced BMPs

At this time, the Facility does not implement other advanced BMPs. In the event that conditions change or monitoring results indicate a need, PG&E will consider additional advanced BMPs to address the changed conditions or constituents of concern.

## 7. TEMPORARY SUSPENSION OF ACTIVITIES (PERMIT SECTION X.H.3)

PG&E's Gateway Generating Station operates two shifts, seven days a week. The facility does not have any plans to suspend industrial activities for ten or more consecutive calendar days in any given year. Therefore, this section of the General Permit is not applicable.

## 8. BMP SUMMARY (PERMIT SECTIONS X.H.4 AND 5)

The following table summarizes each identified area of industrial activity, the associated industrial pollutant sources, the industrial pollutants, and the BMPs implemented. The approximate boundaries of Drainage Areas A and B are shown on Figure 2. The PPT identified in Section 1.5 is responsible for implementing all BMPs at the site. Some of the BMPs described below require the use of mechanical equipment, such as forklifts, in order to perform maintenance activities on the BMPs. PPT members are authorized to use the required equipment or to obtain the help of other facility staff to maintain the BMPs onsite. The facility mechanics are responsible for maintaining the mechanical equipment throughout the facility.

To retain effectiveness during and after significant weather conditions, certain BMPs need to be inspected more frequently than monthly. These BMPs will be informally inspected by PPT members during large rain events or following rain events.

**Table III BMP Summary** 

Drainage Area	BMPs Implemented	Associated Industrial	Potential Industrial	Frequency of BMP
	Implementeu	Pollutant Sources	Pollutants	Implementation
	Spill kit	Oil Filled Equipment (Transformers)	Petroleum hydrocarbons, heavy metals	As needed
Combustion turbines	Secondary containment	Aqueous Ammonia for exhaust system	Aqueous Ammonia	As needed
	Check dams	All facility pollutants	Suspended Sediment	As needed
0.1 111 . 1	Spill kits	Truck access	Petroleum hydrocarbons, heavy metals	As needed
Oil and Universal Waste Storage Used Oil /	Parts Cleaner	Part Cleaning	Solvents, lubricants, metals	As needed
Hazardous Waste Storage	Spill kits and secondary containment	Spills during shipping and receiving	Petroleum hydrocarbons, heavy metals	As needed
	Covered forklift parking	Forklift	Vehicle related pollutants	Daily
Water Treatment	Spill kit	Truck access	Petroleum hydrocarbons, heavy metals	As needed
Plant	Spill kits and secondary containment	Spills during shipping and receiving	Diesel, various chemicals	As needed
	Fueling Sump	Fuel	Petroleum	Permanent
Trash and Scrap	Dumpsters have lids, roll offs are tarped	Spills during shipping and receiving	Metals and non- petroleum waste	Cover daily when not in use
Metal Dumpsters	Storm resistant shelter	Waste	Metals, oils, suspended solids	Permanent

Warehouse	Run-on diversions	Run-on from neighboring facilities	Iron	Permanent
Discharge Location	Valves and Concrete Containment	All facility pollutants	All potential pollutants	Permanent
Location	Treatment and filtration	ponutants	ponutants	As needed
	Drain inlet filters	All pollutant sources	All potential pollutants	Permanent
	Rock-lined ditches	All pollutant sources	Suspended solids	Permanent
	Site has access control and security 24 hours a day, 7 days a week	All pollutant sources	All potential pollutants	As needed
All Drainage	Oil/Water Separator	All pollutants	Oils and Grease	Daily
Areas	Oil absorbent socks around various drain inlets	All pollutant sources	Oils and Grease	Daily
	Powder coated drain inlet grates	Rusting grates	Iron	Permanent
	"No Dumping, Drains to Delta Signs"	Illicit dumping	All potential pollutants	Permanent

## 9. MONITORING IMPLEMENTATION PLAN (PERMIT SECTION X.I)

As described above in Section 1.5, PG&E has assembled a PPT that includes members assigned to conduct storm water monitoring. The facility has one industrial discharge location which is also the sampling location. The discharge location (Sample Location E-006) is located at the northern perimeter of the facility. Analytical monitoring and visual observations will be conducted at the sampling location shown on Figure 2.

#### Procedures for Monthly Visual Observations

PG&E will conduct visual observations within the drainage area at the facility at least once per calendar month, which will include an evaluation of:

- Presence or indications of prior, current, or potential unauthorized NSWDs and their sources;
- Authorized NSWDs, sources, and associated BMPs; and
- Outdoor industrial equipment and storage areas, outdoor industrial activities areas, BMPs, and all other potential source of industrial pollutants.

Monthly visual observations will be conducted during daylight hours of scheduled facility operating hours and on days without precipitation. Visual observations will be recorded on the form provided in Appendix E. Information to be recorded will include the date, approximate time, locations observed, presence and probable source of any observed pollutants, name of person(s) that conducted the observations, and any response actions and/or additional SWPPP revisions necessary in response to the visual observations. To ensure adequate documentation of response action completion, a PPT member will initial and date the documented response action when the action is complete. If a monthly visual observation is not conducted, PG&E will provide an explanation in the Annual Report.

#### Procedures for Sampling Event Visual Observations

PG&E will conduct visual observations at the same time sampling occurs at a discharge location. At each discharge location where a sample is obtained, PG&E will observe the discharge of storm water associated with industrial activity and record these observations on the form provided in Appendix E. The same types of information will be recorded as for the monthly inspections. The following items will be observed and recorded:

- The appearance of storm water discharged from containment sources (e.g., secondary containment or sumps) at the time that the discharge is sampled;
- The presence or absence of floating and suspended materials, oil and grease, discolorations, turbidity, odors, trash/debris, and source(s) of any discharged pollutants.

In the event that a discharge location is not visually observed during a sampling event, PG&E will record which discharge locations were not observed during sampling or that there was no discharge from the discharge location and will provide an explanation in the Annual Report for uncompleted sampling event visual observations. PG&E will revise BMPs as necessary if the visual observations indicate pollutant sources have not been adequately addressed in the SWPPP. If any response actions are noted during Sampling Event Visual Observations, a PPT member will initial and date the documented response action when the action is complete.

## Sampling and Analysis

Samples will be collected during Qualifying Storm Events (QSE). A QSE is defined as a precipitation event that produces a discharge for at least one drainage area and is preceded by 48 hours with no discharge from any Facility drainage area. PG&E will collect and analyze storm water samples from two QSEs within the first half of each reporting year (July 1 to December 31), and two QSEs within the second half of each reporting year (January 1 to June 30). Samples will be collected within four hours of the start of discharge at the E006 discharge/sampling location shown on Figure 2. The sampling point at E006 is upstream from the actual discharge into the San Joaquin River (Outfall), due to the comingling of our discharge with the neighboring industrial facility just after E006 and prior to Outfall.

Sampling will be performed in accordance with requirements of the General Permit. Use caution when collecting samples at night and do not collect samples without sufficient lighting. Samples will be collected and analyzed for pH, oil and grease, total suspended solids, and total iron (based on the facility's SIC code listed in Table 1 of the General Permit for additional analytical parameters). Sampling results will be compared to two types of NAL values based on the specific parameter to determine whether either type of NAL has been exceeded for each applicable parameter. Annual NAL exceedances are based on analytical results for the entire facility for the reporting year, while Instantaneous NAL exceedances are based on analytical results from each distinct sample. The table below describes test methods, reporting units, and NAL values:

**Table IV NAL Values** 

Parameter	Test Method	Reporting Units	Annual NAL	Instantaneous Maximum NAL
pН	Portable instrument*	pH units	N/A	<6.0 or >9.0
Oil and Grease	EPA 1664A	mg/L	15	25
Total Suspended Solids	SM 2540-D	mg/L	100	400
Total Iron	EPA 200.7	mg/L	1.0	
Electrical Conductivity			N/A	N/A

^{*}The pH screen will be performed as soon as practicable, but no later than 15 minutes after the sample is collected and will be analyzed using a calibrated portable instrument for pH.

All instruments used for pH measurement will be properly calibrated in accordance with the manufacturer's instructions and recommended frequency, and copies of the calibration records will be maintained onsite. Samples for total iron, total suspended solids, oil and grease, and electrical conductivity will be analyzed by an analytical laboratory that is Environmental Laboratory Accreditation Program (ELAP)-certified. All samples will be collected in accordance with Attachment H of the General Permit ("Sample Collection and Handling Instructions") and handled under proper Chain-of-Custody (COC) protocols. General Permit Attachment H and an example COC are included in Appendix F.

Though there are Effluent Limitation Guidelines (ELGs) for Electric Power Generation facilities, which require copper and chlorine analysis, the regulation only applies to runoff from coal storage piles and therefore the ELGs for Electric Power Generation do not apply to this facility because coal is not stored or used at the facility.

#### **Exceedance Response Actions**

ERAs are required when an NAL exceedance occurs for any parameter. At the beginning of NOI coverage, PG&E will enter as a Baseline status for all parameters designated in Table IV above. If sampling results indicate an NAL exceedance [either annual or instantaneous] for any parameter listed in Table IV, the status will move up to Level 1 for that parameter on July 1st following the reporting year during which the exceedance occurred (i.e., if there was an instantaneous exceedance on September 30, 2015, Level 1 would begin on July 1, 2016). Moving to Level 1 status triggers two actions: a Level 1 ERA Report, both prepared with assistance of a QISP.

- A Level 1 ERA Evaluation, due by October 1 following commencement of Level 1 status, consists of completing an evaluation of the industrial pollutant sources at the facility that may be related to the NAL exceedance and evaluate all BMPs to determine if revisions are necessary to prevent future NAL exceedances.
- A Level 1 ERA Report, due by January 1 following commencement of Level 1 status, is prepared after the Level 1 ERA Evaluation and consists of revising the SWPPP as necessary to implement any additional BMPs identified in the Evaluation and submitting via SMARTS the Level 1 ERA Report with details regarding SWPPP revisions and the results of the Evaluation.

A Level 1 status for any exceeded parameter will return to Baseline status once the Level 1 ERA Report has been completed, additional BMPs have been implemented, and results from four consecutive QSEs indicate no additional NAL exceedances for that parameter.

The status for any exceeded parameter will change to Level 2 if sampling results indicate an NAL exceedance for that same parameter while in Level 1 (i.e., if Level 1 was implemented on July 1, 2015 and an exceedance occurred on December 1, 2015, Level 2 would be triggered on July 1, 2016). Moving to Level 2 status triggers two actions: a Level 2 ERA Action Plan and a Level 2 ERA Technical Report, both prepared with assistance of a QISP.

- A Level 2 ERA Action Plan, due by January 1 following the reporting year during which the NAL exceedance occurred, consists of a schedule and description of implementing a particular demonstration, as described in the Level 2 Technical Report, in response to the NAL exceedance.
- A Level 2 ERA Technical Report, due by January 1 of the reporting year following the submittal of the Level 2 ERA Action Plan, describes one or more of the demonstrations in response to the NAL exceedance: Industrial Activity BMPs Demonstration, Non-Industrial Pollutant Source Demonstration, and/or Natural Background Pollutant Source Demonstration (as described in the General Permit Section XII.D.2).
- A Level 2 ERA Technical Report may be prepared and submitted at any time, whether or not the Facility is required to submit such a report.

A new Level 2 NAL exceedance is any Level 2 NAL exceedance for 1) a new parameter in any drainage area, or 2) the same parameter that is being addressed in an existing Level 2 ERA Action Plan in a different drainage area.

NAL exceedances, in and of themselves, are not violations of the General Permit. Failure to comply with the Level 1 status and/or Level 2 status ERA requirements is in violation of the General Permit.

PG&E Gateway Generation Station ERA Status

Reporting	ERA Level	Parameter	Level 1 ERA	Level 1 ERA	Level 2 ERA	Level 2 ERA
Year	Status		Evaluation	Report	Action Plan	Technical
			Completion	Submittal	Submittal	Report
			Date	Date	Date	Submittal
						Date

2015-	Baseline	N/A	N/A	N/A	N/A	N/A
2016						
2016-	Level 1	Iron, Total	09/27/2016	12/30/2016	N/A	N/A
2017						

See Appendix H for the ERA Evaluation(s) and Report(s)

## Reporting

PG&E will submit all sampling and analytical results via SMARTS within 30 days of obtaining all results for each sampling event. In the event a sample's analytical result is reported by the laboratory as non-detect or less than the method detection limit, the method detection limit will be provided. A value of zero will not be reported.

PG&E will provide the sample analytical results reported by the laboratory as below the minimum level (often referred to as the reporting limit) but above the method detection limit. Reported analytical results from multiple discharge points will be averaged automatically by SMARTS. For any calculations required by this General Permit, SMARTS will assign a value of zero for all results less than the minimum level as reported by the laboratory.

## 10. ANNUAL REPORTING (PERMIT SECTIONS XV AND XVI)

PG&E will conduct an Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation) each reporting year (July 1 to June 30). If the Annual Evaluation is conducted fewer than eight months, or more than sixteen months, after the previous Annual Evaluation, the facility will document the justification for doing so. Within 90 days of the Annual Evaluation, PG&E will revise the SWPPP, as appropriate, and implement the revisions. At a minimum, the Annual Evaluation will cover the following:

- Review of all sampling, visual observation, and inspection records conducted during the previous reporting year;
- Inspection of all areas of industrial activity and associated potential pollutant sources for evidence of, or the potential for, pollutants entering the storm water conveyance system;
- Inspection of all drainage areas previously identified as having no exposure to industrial activities and materials in accordance with the definitions in Section XVII;
- Inspection of equipment needed to implement the BMPs;
- Inspection of all site BMPs;
- Review and effectiveness assessment of all BMPs for each area of industrial activity and associated potential pollutant sources to determine if the BMPs are properly designed, implemented, and are effective in reducing and preventing pollutants in industrial storm water discharges and authorized NSWDs; and
- Assessment of any other factors needed to comply with the requirements in Section XVI.B.

Information gathered during the Annual Evaluation will be recorded on the form provided in Appendix E.

### Annual Report

PG&E will certify and submit via SMARTS an Annual Report no later than July 15th following each year. The Annual Report will be created by the Environmental Compliance Manager, reviewed by the Subject Matter Expert, and certified by the Legally Responsible Party. The Annual Report will include the following:

- A Compliance Checklist that indicates compliance with all applicable requirements of the General Permit;
- An explanation for any non-compliance of requirements within the reporting year;
- Identification of all revisions made to the SWPPP within the reporting year; and
- The date of the Annual Evaluation.

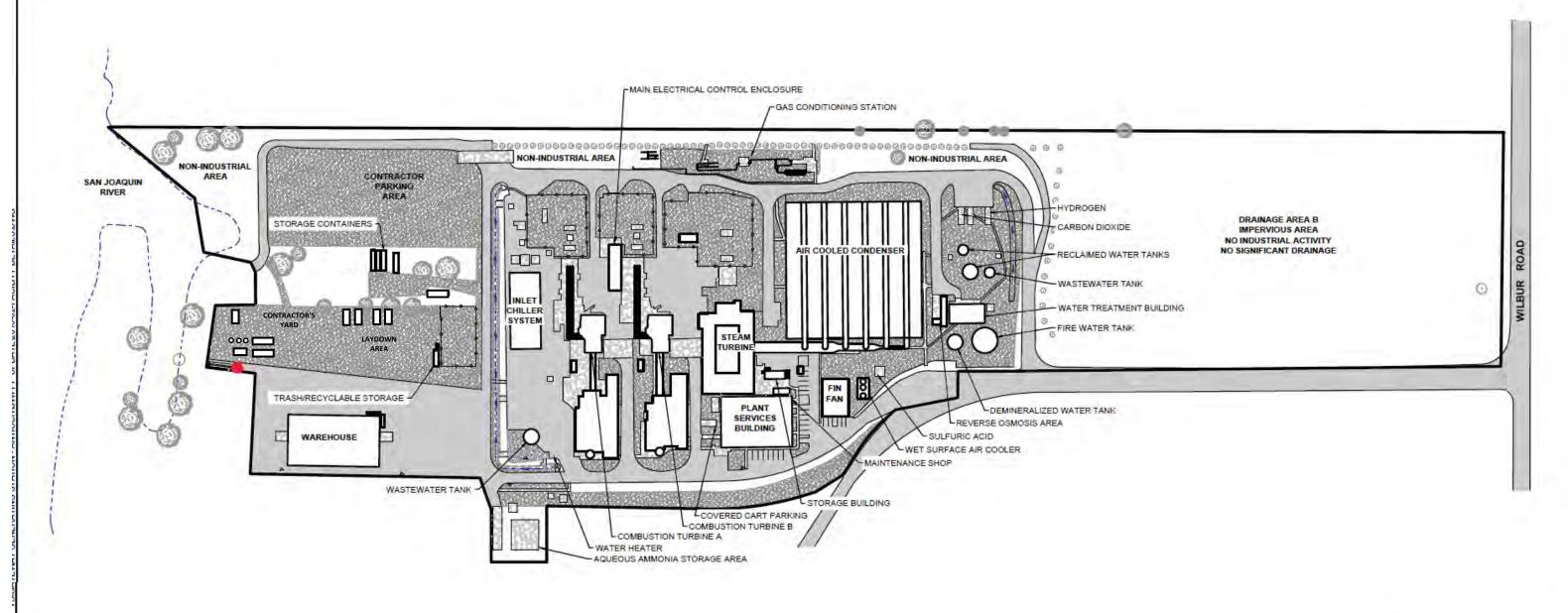
Copies of the Annual Report are included in Appendix G.

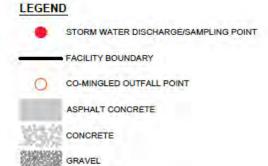
## **REFERENCES**

- 1. California State Water Resources Control Board. Industrial Storm Water Permit for Discharges Associated with Industrial Activity (Order No. 2014-0057-DWQ). 2014.
- 2. Excerpts from Gateway Generating Facility Hazardous Materials Business Plan.
- 3. Spill Prevention, Control, and Countermeasures Plan for Gateway Generating Station, initially prepared by CH2MHill January 12, 2009 and revised August 2, 2013.









@ TREENEGETATION

## NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

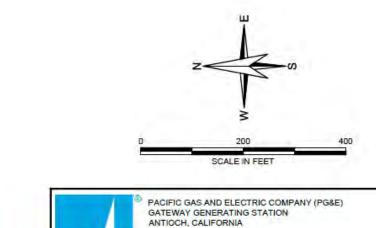
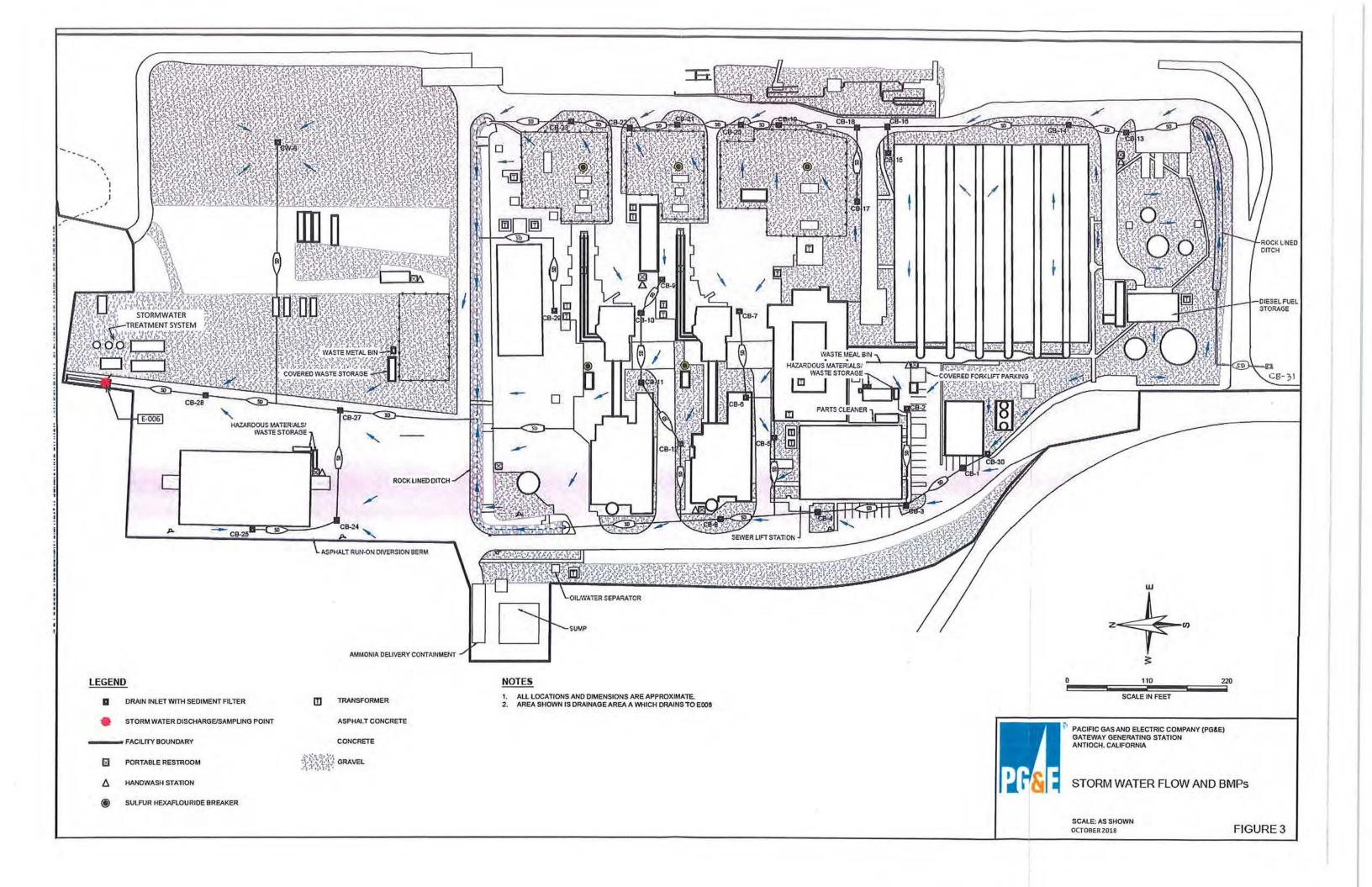




FIGURE 2



## APPENDIX A

General Permit for Storm Water Discharges Associated with Industrial Activities (State Water Resources Control Board Order 2014-0057-DWQ)

## APPENDIX B

**Permit Registration Documents** 



## State Water Resources Control Board

## NOTICE OF INTENT





JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

WDID: 5S07	1021950			Status:	Active	
Operator Info	ormation			Type:	Private Busines	S
Name:	Pacific (	Gas Electric Company	Contact Name	:	Tim Wis	sdom
		PO Box 770000			Plant Ma	
		Francisco CA 94177				
Federal Tax ID:						
Facility Infor	mation			Level:		
Contact Name:		Angel Espiritu	Title	: <u>En</u>	vironmental Com	pliance Manager
Site Name:	Gateway Gene	erating Station				_
Address:	3225 Wilbur Av	/e				
City/State/Zip:	А	ntioch CA 94509	Site Phone #	:	925-522	-7838
County:		Contra Costa	Email Address	:	abe4@PG	SE.com
Latitude:	38.01228	Longitude: -121.75859	Site Size	:	32.5 A	cres
		Industrial Area Expo	sed to Storm Water	<u> </u>	22 Ac	res
	Pe	rcent of Site Impervious	(Including Rooftops)	:	28 %	/6
SIC Code In	formation					
1. 4911			Electric Services			_
2						
Additional In	formation					
Receiving	Water:	San Joaqu	ıin River		Flow:	Indirectly
		·				
•	·					
DWOCD Jurio	diation: Dogi	on EC. Cooromonto				
		on 5S - Sacramento	C.s. a il	. "Fo	ata manuata m@uus	240 mb 20 md 20 mo 11
Phone: _		916-464-3291	Email	138_	_Stormwater@wa	aterboards.ca.gov
Certification						
Name:	stephen royall		Date	: June 1	4, 2017	
-	Senior Plant M	anager				



## State Water Resources Control Board

## NOTICE OF INTENT

# GENERAL PERMIT TO DISCHARGE STORM WATER ASSOCIATED WITH INDUSTRIAL ACTIVITIES (WQ ORDER No. 2014-0057-DWQ) (Excluding Construction Activities)



WDID: 5S07I021950 Status: Active

Operator Information Type: Private Business

Name: Pacific Gas Electric Company Contact Name: Benjamin Stanley

Address: PO Box 770000 Title: Senior Plant Manager

Address 2: Phone #: 925-522-7812

City/State/Zip: San Francisco CA 94177 Email: BESN@pge.com

Federal Tax ID: 94-0742640

Facility Information Level:

Site Name: Gateway Generating Station Contact Name: Angel Espiritu

Address: 3225 Wilbur Ave Title: Environmental Compliance Manag

City/State/Zip: Antioch CA 94509 Site Phone #: 925-522-7838

County: Contra Costa Email: ABE4@PGE.com

Latitude: 38.01228 Longitude: -121.75859 Emergency:

Total Site Size: 32.5 Acres Percent of Site Impervious (including rooftops): 28 %

Industrial Area exposed to Storm Water: 22 Acres

SIC Code(s)

Primary SIC: 4911 Electric Services

Secondary SIC:

**Tertiary SIC:** 

Additional Information

Receiving Water: San Joaquin River Water Flow: Indirectly

Storm drain system: Compliance Group:

RWQCB Jurisdiction: Region 5S - Sacramento

Phone: 916-464-3291 Email: r5s_stormwater@waterboards.ca.gov

Certification

Name Benjamin Stanley Date: June 03, 2015

Title: Senior Plant Manager

## **Attachments Meta Data Information:**

Attachment ID	File Name	File Description	File Hash	File Size	Date Attached	Attachment Type
1393445			e4101d3683ba9ccd e463ee75ce71789 3ca19ad7dfa27b69 cde4b24692d959		2015-05-04 07:10:34.0	Other

## APPENDIX C

**SWPPP Amendment Form** 

## SUMMARY OF SWPPP AMENDMENTS OR REVISIONS

Summary of Revision	Date	Name/Title
Preparation of the SWPPP under the 2014 IGP	Dec-14	Nancy E. Gardiner, CPESC, QSD/QSP Haley & Aldrich, Inc.
Subsequent to performing a stormwater compliance assessment for the vacility, revisions, additions, and updates were made to the SWPPP and site maps.	3/14/2016	Alicia Brenner, CPESC, CESSWI, QSD/P, QISP BTConsulting, Inc.
Update contact information: Facility Contact, Plant Manager & Operations Supervisor	6/23/2016	Diana Furman, ECM
Removed anhydrous ammonia, this is no longer used or stored at the facility	6/23/2016	Diana Furman, ECM
Reviewed and evaluated the site for the updated 303(d) listed impairments. SWPPP updated and now includes all 303(d) impairments listed on SMARTS.	7/1/2016	Diana Furman, ECM
Include clarification for annual training	11/14/16	DIANA FURMAN, ECI
Revised from Visual observation form template	12/8/2016	DIANA FURMAN ECM
3 Updated contact info for plant manager	- 12/30/2016	DIANA FURMAN ECM
Facility Contact info & tollution Accounting Jeon were updated	5/31/2017	Angel ESPIRITY/
- hipdated Revision date - updated Table 1 - updated map	10/3/2016	Angel Espirita ECM
	Preparation of the SWPPP under the 2014 IGP  Subsequent to performing a stormwater compliance assessment for the vacility, revisions, additions, and updates were made to the SWPPP and site maps.  Update contact information: Facility Contact, Plant Manager & Operations Supervisor  Removed anhydrous ammonia, this is no longer used or stored at the facility  Reviewed and evaluated the site for the updated 303(d) listed impairments. SWPPP updated and now includes all 303(d) impairments listed on SMARTS.  Include clanfication for annual training  Revised Physical observation  Form template  Updated confact info for plant manager  Facility Contact info & Pollution  Reviewed in Teom were updated  Updated Revision date	Preparation of the SWPPP under the 2014 IGP  Subsequent to performing a stormwater compliance assessment for the vacility, revisions, additions, and updates were made to the SWPPP and site maps.  Update contact information: Facility Contact, Plant Manager & 6/23/2016  Removed anhydrous ammonia, this is no longer used or stored at the facility  Reviewed and evaluated the site for the updated 303(d) listed impairments. SWPPP updated and now includes all 303(d) impairments listed on SMARTS.  Include clanfication for annual training  IIIIIII  Revised PMWE VISUAL abservation  Form template  3/14/2016  7/1/2016  7/1/2016  12/8/2016  Facility Contact info for plant manager  12/30/2016  Facility Contact info solutions  According Contact Team was updated  5/31/2017  - Updated Revision date

## APPENDIX D

Training Log, including training material

# **SWPPP Training Log**

Name of Trainer:		
Location of Training:	Date of Training:	
Signature of Trainer:		
Topics covered:		
☐ SWPPP Compliance Responsibilities		
☐ BMP Implementation and Maintenance		
☐ BMP Effectiveness Evaluations		
☐ Visual Observations		
☐ Monitoring Activities		
☐ SMARTS Reporting		

Name	Title	Company	Signature
- 100000			

## APPENDIX E

Industrial Storm Water Facility Inspection and Visual Observation Form Annual Evaluation Form Sampling Log

### **Industrial Storm Water Facility Inspection and Visual Observation Form**

General Information														
Facility 1	Name	Gateway	Generating Stati	ion										
WDID N	lo.	5S07I021	950											
Date of 1	Inspection			Start/End Time										
Inspecto	r's Name(s)													
Inspecto	r's Title(s)													
Inspecto	r's Contact Information													
Inspecto	r's Qualifications													
Inspecto	s Signature													
Type of	Inspection ^{1,2}	☐ Mon	nthly Visual Obs	servation	mpling Event Visual	Observation								
Weather Information														
Weather at time of this inspection?  □ Clear □ Cloudy □ Rain □ Sleet □ Fog □ Snow □ High Winds □ Other: Temperature:														
If this is a sampling event visual observation, fill in storm event information:  Date and Time Storm Began:  Rain Gauge Level:  Rain Gauge ID:														
Date and	Time Discharge Began:		Previous Dis	scharge Ended Greater	Than 48 Hours: □Y	es □No								
			Visual Obs	ervations										
Are ther If yes, do	e any spills/leaks observe escribe:	ed at the tim	e of inspection	? □Yes □No										
Have an	y previously unidentified escribe:	discharges	of pollutants oc	ccurred since the last	inspection? □Yes	□No								
If yes, no	e any discharges occurring to the presence of any of any of materials Sheen all checked above:	the followir	ng:		h/Debris 🗖 Other:									
			Outfall Obs	servations										
Outfall No.	Observations	Is NSWD Present?	Potential Source(s) of NSWD	Corrective Action	Person Contacted	Date Corrective Action Completed								
E-006		□Yes □No												
		□Yes □No												
		□Yes □No												

¹ Monthly visual observations will be conducted during daylight hours of normally scheduled facility operation and on days without precipitation. Sampling event visual observations will be recorded at the same time sampling occurs at a discharge location.
² For monthly visual observations, pages 1-5 need to be completed. For sampling event visual observations, pages 1-2 need to be completed.

#### **BMP Control Measures**

- Number the structural storm water control measures identified in your SWPPP below (add as many control measures as are implemented on-site).
- Describe corrective actions initiated, date completed, and note the person that completed the work.

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)	Date Corrective Action Completed	Initials of Person Responsible for the Correction Action
1	Drain Inlets	□Yes □No	<ul><li>☐ Maintenance</li><li>☐ Repair</li><li>☐ Replacement</li></ul>			
2	Secondary Containment: Transformers	□Yes □No	☐ Maintenance☐ Repair☐ Replacement			
3	Secondary Containment: Turbines/Oil-filled Equipment	□Yes □No	<ul><li>☐ Maintenance</li><li>☐ Repair</li><li>☐ Replacement</li></ul>			
4	Secondary Containment: Firewater Pump Bldg	□Yes □No	<ul><li>☐ Maintenance</li><li>☐ Repair</li><li>☐ Replacement</li></ul>			
5	Secondary Containment: Hazardous Material/Waste Sheds	□Yes □No	<ul><li>☐ Maintenance</li><li>☐ Repair</li><li>☐ Replacement</li></ul>			
6	Trash/Scrap Dumpsters	□Yes □No	☐ Maintenance☐ Repair☐ Replacement			
7	Oil/Used Oil Storage	□Yes □No	☐ Maintenance ☐ Repair ☐ Replacement			
8	Ditches/Outfall	□Yes □No	☐ Maintenance☐ Repair☐ Replacement			
9	Iron Treatment System	□Yes □No	☐ Maintenance☐ Repair☐ Replacement			
10		□Yes □No	☐ Maintenance ☐ Repair ☐ Replacement			

#### Areas of Industrial Materials or Activities exposed to storm water

Below is a list of areas that should be assessed during routine inspections. Customize this list as needed for the specific types of industrial materials or activities at your facility.

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes	Date Corrective Action Completed	Initials of Person Responsible for the Correction Action
1	Material loading/unloading and storage areas	□Yes □No □ N/A	□Yes □No			
2	Equipment operations and maintenance areas	□Yes □No □ N/A	□Yes □No			
3	Fueling areas	□Yes □No □ N/A	□Yes □No			
4	Outdoor vehicle and equipment washing areas	□Yes □No □ N/A	□Yes □No			
5	Waste handling and disposal areas	□Yes □No □ N/A	□Yes □No			
6	Erodible areas/construction	□Yes □No □ N/A	□Yes □No			
7	Non-storm water/ illicit connections*	□Yes □No □ N/A	□Yes □No			
8	Dust generation and vehicle tracking	□Yes □No □ N/A	□Yes □No			
9	General Housekeeping	□Yes □No □ N/A	□Yes □No			
10		□Yes □No □ N/A	□Yes □No	and characteristics of the non-sto		

^{*}Include a description of the source, quantity, frequency, and characteristics of the non-storm water discharges, associated drainage area, and whether it is an authorized or unauthorized non-storm water discharge.

BMP Implementation Tracking and Recording

Describe all BMP implementation and/or maintenance that occurred since the last inspection here.

Non-Compliance
Describe any incidents of non-compliance observed and not described above:
Additional Control Measures**  Describe any additional control measures needed to comply with the permit requirements:
Describe any additional control measures needed to comply with the permit requirements.
**Additional Control Measures include the following categories as described in the General Permit:
TO THE COUNTY OF THE COUNTY OF THE COUNTY OF THE PROPERTY OF T
<b>Minimum BMPs:</b> Good Housekeeping; Preventative Maintenance; Spill and Leak Protection; Material Handling and Waste Management; Erosion and Sediment Controls; Employee Training; and Quality Assurance and Record
Keeping
Advanced BMPs: Exposure Minimization; Storm Water Containment and Discharge Reduction; and Treatment
Control
Notes
Notes  Use this space for any additional notes or observations from the inspection:
ose and space for any additional notes of observations from the hispection.



# **Annual Compliance Evaluation Form**

	General Information	tion									
Facility Name:											
Facility Location:		WDID#:									
Is the SWPPP Onsite?	Yes No NA NA	Is the NOI Onsite?	Yes No NA								
Have all sampling r	Yes No No	NA 🗆									
L	ocument any trends, concerns, or notable informa	ation about sampling re	cords here.								
Have all visual observiewed?	ervation and inspection records from the previous	reporting year been	Yes No No N	NA 🗖							
	ocument any trends, concerns, or notable informa	·	T								
	activity areas and associated potential pollutant so ne potential for, pollutants entering the storm wate		Yes No No N	NA 🗖							
Docume	ent any trends, concerns, or notable information al	bout industrial areas an	d pollutants here.								
Have all drainage a and materials been	reas previously identified as having no exposure t inspected?	to industrial activities	Yes No No	NA 🗆							
Do	ocument any trends, concerns, or notable informa	tion about no exposure	areas here.								
1	needed to implement BMPs been inspected?			NA 🗆							
Docume	nt any trends, concerns, or notable information ab	out BMP implementatio	n equipment here.								



# **Annual Compliance Evaluation Form**

Have all BMPs been inspected?		Yes No NA NA				
Document any trends, concerns, or notable	information about BMPs h	iere.				
Has a review and effectiveness assessment of all BMPs been condindustrial activity and associated pollutant potential sources to determine the properly designed, implemented, and are effective in reducing and industrial storm water discharges and authorized non-stormwater of	ermine if the BMPs are preventing pollutants in discharges?		NA 🗆			
Document any trends, concerns, or notable inform	nation about BMP effective	ness here.				
Has the SWPPP been reviewed to ensure the information within is operations and personnel?	accurate for current	Yes No NA NA				
Document any trends, concerns, or notable inform	mation about SWPPP revis	ions here.				
Have any other factors needed to comply with the requirements of assessed?	the General Permit been	Yes No No	NA 🗆			
Document any other trends, concerns, of	or notable information here					
Inspector Inform	mation					
Evaluator Name:	Evaluator Title:					
Signature:		Report Date:				



# Sampling Field Log

	Genera	l Information	
Facility Name:	_ <del></del>		
Date:		Event Start Time:	
Sampler:		Rainfall Amount:	☐ Today ☐ Storm
Sampling Event Type:	☐ Storm Water	☐ Non-storm water	Storm Water & NSWD
	pH Sampl	ing Information	
	Litmus Paper Test Kit Portable Instrument	Portable Instrument Calibration Date/Time:	
	Field pH and Tu	rbidity Measurements	
Were field dupliates taken?	⊡s	□ No	
Discharge Location	% Total Daily Flow	рН	Time
Sum % Flow (Must = 100)	0		
рН	Calculated Average:	#NUM!	
	Other Paramete	ers (check those collected)	
Oil and Grease	Oth	ner:	
Total Suspended Solids (TSS)	Oth	ner:	
Other:	Oth	ner:	
Other:	Oth	ner:	
Was a chain of custody complete	ed? □s	N	
Addition	nal Sampling No	tes/Exception Docume	entation
Estimated Event End:	<del></del>		

#### APPENDIX F

General Permit Attachment H "Sample Collection and Handling Instructions" and Example Chain of Custody Form

#### ATTACHMENT H

#### SAMPLE COLLECTION AND HANDLING INSTRUCTIONS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR STORM WATER DISCHARGES
ASSOCIATED WITH INDUSTRIAL ACTIVITIES
(GENERAL PERMIT)

For more detailed guidance, Dischargers should refer to the U.S. EPA's "Industrial Stormwater Monitoring and Sampling Guide," dated March 2009, available at: <a href="http://www.epa.gov/npdes/pubs/msgp_monitoring_guide.pdf">http://www.epa.gov/npdes/pubs/msgp_monitoring_guide.pdf</a> and the "NPDES Storm Water Sampling Guidance Document," dated July 1992, available at: <a href="http://www.epa.gov/npdes/pubs/owm0093.pdf">http://www.epa.gov/npdes/pubs/owm0093.pdf</a>.

- 1. Identify the sampling parameters required to be tested and the number of storm water discharge points that will be sampled. Request the analytical testing laboratory to provide the appropriate number and type of sample containers, sample container labels, blank chain of custody forms, and sample preservation instructions.
- 2. Determine how samples will be transported to the laboratory. The testing laboratory should receive samples within 48 hours of the physical sampling (unless otherwise required by the laboratory). The Discharger may either deliver the samples to the laboratory, arrange for the laboratory to pick up the samples, or overnight ship the samples to the laboratory. All sample analysis shall be done in accordance with 40 Code of Federal Regulations part 136. Samples for pH have a holding time of 15 minutes.¹
- 3. Qualified Combined Samples shall be combined by the laboratory and not by the Discharger. Sample bottles must be appropriately labeled to instruct the laboratory on which samples to combine.
- 4. Unless the Discharger can provide flow weighted information, all combined samples shall be volume weighted.
- 5. For grab samples, use only the sample containers provided by the laboratory to collect and store samples. Use of any other type of containers may contaminate samples.
- 6. For automatic samplers that are not compatible with bottles provided by the laboratory, the Discharger is required to send the sample container included with the automatic sampler to the laboratory for analysis.

-

¹ 40 C.F.R. section 136.3, Table II - Required Containers, Preservation Techniques, and Holding Times.

#### SAMPLE COLLECTION AND HANDLING INSTRUCTIONS

- 7. The Discharger can only use automatic sampling device to sample parameters that the device is designed to. For pH, Dischargers can only use automatic sampling devices with the ability to read pH within 15 minutes of sample collection.
- The Discharger is prohibited from using an automatic sampling device for Oil and Grease, unless the automatic sampling device is specifically designed to sample for Oil and Grease.
- 9. To prevent contamination, do not touch inside of sample container or cap or put anything into the sample containers before collecting storm water samples.
- 10. Do not overfill sample containers. Overfilling can change the analytical results.
- 11. Tightly screw on the cap of each sample container without stripping the threads of the cap.
- 12. Complete and attach a label for each sample container. The label shall identify the date and time of sample collection, the person taking the sample, and the sample collection location or discharge point. The label should also identify any sample containers that have been preserved.
- 13. Carefully pack sample containers into an ice chest or refrigerator to prevent breakage and maintain temperature during shipment. Remember to place frozen ice packs into shipping containers. Samples should be kept as close to 4 degrees Celsius (39 degrees Fahrenheit) as possible until arriving to the laboratory. Do not freeze samples.
- 14. Complete a Chain of Custody form for each set of samples. The Chain of Custody form shall include the Discharger's name, address, and phone number, identification of each sample container and sample collection point, person collecting the samples, the date and time each sample container was filled, and the analysis that is required for each sample container.
- 15. Upon shipping/delivering the sample containers, obtain both the signatures of the persons relinquishing and receiving the sample containers.
- 16. Dischargers shall designate and train personnel to collect, maintain, and ship samples in accordance with the sample protocols and laboratory practices.
- 17. Refer to Table 1 in the General Permit for test methods, detection limits, and reporting units.
- 18. All sampling and sample preservation shall be in accordance with 40 Code of Federal Regulations part 136 and the current edition of "Standard Methods for

#### SAMPLE COLLECTION AND HANDLING INSTRUCTIONS

the Examination of Water and Wastewater" (American Public Health Association). All monitoring instruments and equipment (including Discharger field instruments for measuring pH or specific conductance if identified as an additional sampling parameter) shall be calibrated and maintained in accordance with manufacturers' specifications to ensure accurate measurements. All laboratory analyses shall be conducted according to approved test procedures under 40 Code of Federal Regulations part 136, unless other test procedures have been specified by the Regional Water Quality Control Board. All metals shall be reported as total metals. Dischargers may conduct their own field analysis of pH (or specific conductance if identified as an additional sampling parameter) if the Discharger has sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform the field analysis. With the exception of field analysis conducted by Dischargers for pH (or specific conductance if identified as an additional sampling parameter), all analyses shall be sent to and conducted at a laboratory certified for such analyses by the California Department of Public Health. Dischargers are required to report to the Water Board any sampling data collected more frequently than required in this General Permit (Section XXI.J.2)

#### **GGS Stormwater Treatment System Operations Recordkeeping Log**

Discharge Date/Time		Discharge Volume - Flow Meter Readings (100 gal)			Discharge Iron or mg	/L)	Discharg	ge pH Probe (		Turbio	lity Probe (N		Operator	Comments
Start	End	Initial	Final	Total	Date/Time	Bench Kit Reading	Date/Time	Handheld Reading	Probe Reading	Date/Time	Handheld Reading	Probe Reading	Initials	comments

Flow Meter Readings to be taken prior to beginning of discharge and after discharge ends.

Discharge if iron level is less than 1 ppm.

Perform accuracy checks on pH and turbidity probes at least twice per discharge event. Do not perform accuracy checks during backwash; meters are inaccurate during this time.

Accuracy for pH ±0.5 s.u.

Accuracy for turbidity ±15-20 NTU

Allowable pH discharge range: 6.0-9.0 s.u.

Normal pH range at pretreatment probe (i.e. weir tank): 8.8-9.3 s.u.

## **CHAIN OF CUSTODY FORM**

Client Name:				Project:					ANALYSIS REQUIRED														
Laboratory: Laboratory																			Field readings: (Include units) Time of readings  pH pH unit	Time of readings			
Sampler:  Sample Sample Container # of					Г	Total Suspended Solids	& Grease	Total Iron												Field readings QC:  Checked by:  Date			
Description	Matrix	Туре	# of Cont.	Sample I.D.	Sampling Date/Time	Preservative	Bottle #	To	O % E	Tol												Comments	
Outfall 001	W																						
Outfall 002	W																						
Outfall 003	W																						
Duplicate	W																						
																					ļ		
Relinquished By Date/Time:				Received E	Зу				Da	ate/Tir	me:	2	Turn-around time: (Check)  24 Hour: 72 Hour: 10 Day:  48 Hour: 5 Day: Normal:										
Relinquished				Date/Time:			Received E						ate/Tir		,	Sample	e Inte	grity: (	(Chec	ck)			
Relinquished By Date/Time:						Received E	Ву	y Date/Time:  Intact: On Ice:															

APPENDIX G

**Annual Reports** 

#### APPENDIX H

**ERA Evaluations and Reports** 

#### APPENDIX I

Advanced Treatment System (Chemical & Filtration) Operating Manual, including the Gateway Generation Station Quick Operations Guide and Operating Log

# Gateway Generating Station (00-AFC-1C) Annual Compliance Report No. 10

Exhibit 7
Biological Record Summaries
(BIO-2)

# Gateway Generating Station, California Energy Commission Annual Compliance Report, Biology Section, 2018

PREPARED FOR: Angel Espiritu/PG&E Gateway Generating Station Compliance Manager

PREPARED BY: Gateway Generating Station Designated Biologist

Richard Crowe/Jacobs

COPIES: Jerry Salamy/Jacobs Project Manager

Laura Burkholder Co-Designated Biologist/PG&E

DATE: March 6, 2019

#### Introduction

This Gateway Generating Station (GGS) Annual 2018 Biological Resources Compliance Report fulfills the California Energy Commission (CEC) requirement of Condition of Certification (COC) BIO-2. Condition BIO-2 Verification states; "During project operation, the Designated Biologist shall submit record summaries in the Annual Compliance Report."

On December 19, 2006, Pacific Gas and Electric Company (PG&E) filed a petition (TN 38720) with the CEC requesting to amend the Energy Commission Decision to eliminate the use of San Joaquin River water as the cooling source for the GGS Project (formerly known as the Contra Costa Power Plant Unit 8 Project). The petition also proposed ten associated project design changes at the project site. The 530-megawatt project was originally certified by the Energy Commission on May 30, 2001. Construction of the facility started late in 2001 and was suspended in February of 2002 due to financial difficulties, with approximately 7 percent of construction completed. On July 19, 2006, the Energy Commission approved¹ the addition of PG&E as co-owner of the project with Mirant Delta, LLC. On December 4, 2006, PG&E filed a petition² to remove Mirant as a co-owner and change the name of the facility to the Gateway Generating Station. Construction was restarted in January 2007 with PG&E as the project proponent.

After PG&E became the project owner/operator, the project was re-designed to avoid biological resource impacts to the extent feasible through development of mitigation and protection measures for the new design. These mitigation and protection measures reduced biological resource impacts so that no agency permits were required. These changes resulted in Conditions BIO-7, 10 and 11 being eliminated; also, additional minor changes were made to Conditions 5, 6 and 9.3

GGS construction, including restoration activities, was completed in June 2009.

¹ http://docketpublic.energy.ca.gov/PublicDocuments/Compliance/00-AFC-1C/2006/Jul/TN%2037478%2007-19-06%20Filing%20of%20Notice%20of%20Decision%20in%20compliance%20with%20Public%20Resources%20Code%20Section%2021080.5%20and%20Title%2020%20Ca%20.pdf

² <a href="http://docketpublic.energy.ca.gov/PublicDocuments/Compliance/00-AFC-1C/2006/Dec/TN%2038529%2012-04-06%20PG-E's%20Petition%20for%20Minor%20Amendment%20to%20Clarify%20it%20is%20the%20Sole%20Owner.pdf">http://docketpublic.energy.ca.gov/PublicDocuments/Compliance/00-AFC-1C/2006/Dec/TN%2038529%2012-04-06%20PG-E's%20Petition%20for%20Minor%20Amendment%20to%20Clarify%20it%20is%20the%20Sole%20Owner.pdf</a>

³ http://docketpublic.energy.ca.gov/PublicDocuments/Compliance/00-AFC-1C/2007/Aug/TN%2041809%2008-01-07%20Order%20Amending%20the%20CEC%20Decision%20to%20Eliminate%20the%20use%20of%20San%20Joaquin%20River%20Water%20for%20Cooling.pdf

#### 2018 Monitored Activities and Wildlife Interaction

PG&E has complied with the biological resource COCs, including having the Designated Biologists (DB) or an alternative Biologist perform pre-disturbance surveys, and when necessary, evaluate/demarcate nesting bird activity within the facility. All new employees and contract workers employed at the site received the CEC-approved Worker Environmental Awareness Program training (WEAP) via video or lecture and daily tailgate training with the DB or the PG&E GGS Compliance Manager Angel Espiritu (CM). The DB remained on-call throughout 2018.

The on-call monitoring and compliance efforts for 2018 are documented in chronological order below and within Appendix A, Site Photos;

**January 17th,** the DB received an e-mail from the CM stating an April 2017 revised WEAP pamphlet was approved by the CEC Compliance Manager, Anwar Ali. The revised WEAP pamphlet was given to all new contractors and PG&E employees prior to working on the GGS site.

**February 6th**, the DB received an e-mail from the CM concerning a dead pigeon (*Columba livia domestica*) observed on the ground just south of the fin-fan chiller (Photo 1). The CM stated that it appeared that the pigeon had been dead for several days. The DB documented the report of the pigeon and instructed the CM to dispose of the carcass in the trash.

March 21st, the DB received an e-mail from the CM concerning a hummingbird nest observed on a valve associated with the Combustion turbine (CT) A generator (Photo 2). The DB instructed the CM to erect an exclusion zone around the nest and alert staff of the nest's location, so it can be avoided (Photo 3). According to the CM, no work was scheduled in the nest area but if work was scheduled the CM would notify the DB.

**April 9th,** the DB received an e-mail from the CM concerning the need to work within the hummingbird next exclusion zone. The GGS Co-Designated Biologist, PG&E Biologist Laura Burkholder (Co-DB) responded that she would check on the nesting hummingbirds on the 10th to determine if the young had fledged.

April 10th, the Co-DB surveyed the hummingbird nest and determined the young had fledged the nest (Photo 4) based on the nest appearing flattened and fecal pellets observed in and around the nest. These are indications of a nest that has recently fledged young (i.e., young fly from nest). Nests typically become flattened as the chicks grow to juvenile size. The observations support the conclusion that the two chicks observed a few weeks ago likely successfully fledged from the nest. The barrier tape was removed, and the work scheduled in the valve area was completed.

**April 30**th, the DB received an e-mail from the CM concerning the request to remove some volunteer sprouts from several old oak tree stumps (Photos 5 and 6). The volunteer sprouts were located along the inside of the eastern site perimeter fencing. Based on the photographs provided to the DB, the DB recommended that the contractor removing the volunteer sprouts receive WEAP training and follow the nesting bird guidelines in BRMIMP.

May 14th, the DB received an e-mail from the CM and the PG&E Co-DB concerning the planned mowing of the ruderal vegetation around the GGS site. The Co-DB informed the DB that she was available to conduct a pre-disturbance survey of the areas scheduled for mowing.

**May 16th**, the Co-DB conducted a pre-disturbance survey of the areas scheduled to be mowed. Photo 7 shows in detail the areas of vegetation scheduled for mowing. The Co-DB walked meandering transects of the areas to be disturbed focusing on nesting birds, burrowing owls or their sign (Photos 8 and 9). The areas are vegetated with ruderal grasses and some bare ground. The Co-DB did not observe any nesting birds or sign of burrowing owls during the survey.

May 30th, the CM contacted the DB concerning a dead California ground squirrel (*Otospermophilus beecheyi*) observed in the waste water holding tank (Photo 10). The DB documented the report and advised the CM to dispose of the ground squirrel.

**September 27th**, the DB received a phone call from the GGS Maintenance Manager Doug Welch (GGS MM) concerning the removal of diseased eucalyptus trees in the northern portion of the GGS. The diseased trees had been dropping limbs near several electrical transformers, potentially causing hazardous conditions. The DB responded that the trees are invasive nuisance tree and were not covered in the Contra Costa Tree Ordinance. The DB determined that since it was well past the nesting bird season, no pre-disturbance/nesting bird survey was necessary. The DB requested from the GGS MM before and after photos of the tree removal.

**October 16**th, the DB received several pictures of the diseased eucalyptus trees prior to removal (Photos 11 and 12).

**November 7th and 8th**, the diseased eucalyptus trees were removed, and photographic documentation was provided by the GGS MM (Photos 13 and 14).

#### Conclusion

The Gateway Generating Station was in compliance with all biological mitigation and protection measures covered in the BRMIMP that are applicable to this operating facility during the year 2018.

Appendix A<br/>Site Photos



Photo 1, of dead pigeon as observed on south side of fin-fan chiller, 2-6-18.



Photo 2, of hummingbird nest as reported by CM, 3-21-18.



Photo 3, of nesting hummingbird exclusion area with flagging in place, 3-21-18.



Photo 4, of empty flattened hummingbird nest as observed, 4-10-18.



Photo 5, of dead scrub oak stump volunteer sprouts prior to removal, 4-30-18.



Photo 6, of live scrub oak volunteer stump sprouts prior to removal, 4-30-18.



Pre-mowing survey area, Gateway Generating Station, 5-16-18

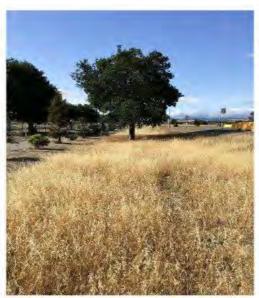
Photo 7, of areas surveyed prior to site mowing, 5-16-18.





South field

Photo 8, of southern most areas prior to mowing, 5-16-18.





Roadside and road bern

Photo 9, of roadside and road berm areas prior to mowing, 5-16-18.



Photo 10, of dead California ground squirrel as observed within underground waste water tank, 5-30-18.



Photo 11, of diseased or dead eucalyptus trees to be removed, 10-16-18.



Photo 12, of additional diseased eucalyptus to be removed, 10-16-18.



Photo 13, of diseased eucalyptus tree area after tree removal, 11-7-18.



Photo 14, of single diseased eucalyptus area after tree removal, 11-7-18.