bc: Aram Benyamin
Eric J. Tharp
Hamid Nejad
Charli Dong
Ian Guthrie
SMR Ann.10

Lorraine A. Paskett
Mark J. Sedlacek
Katherine Rubin
FileNET-WW11- 113

March 14, 2011

Mr. Samuel Unger, Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, California 90013

Attention: Information Technology Unit

Dear Mr. Unger:

Subject: National Pollutant Discharge Elimination System (NPDES)
2010 Annual Monitoring Report Haynes Generating Station

Enclosed is the Annual Monitoring Report for the Los Angeles Department of Water and Power's Haynes coastal generating station as required by its respective NPDES permit:

Facility	NPDES Permit No.	Order No.	Compliance File No.
Haynes Generating Station	CA0000353	00-081	2769

The reports include:

1. Tabular Summaries of Chemical and Thermal Data.
2. Graphical Summary of the Average Monthly Plant Effluent Flow.
3. Summary of Annual Sampling Data
4. Summary of Discussions of Compliance.
5. Quality Assurance/Quality Control (QA/QC) Plan.

6. ELAP Certification.

7. Annual Receiving Water Monitoring Report

If you have any questions or require additional information, please contact Mr. Michael Hanson of the Wastewater Quality and Compliance Group at (213) 367-0634.

Sincerely,

Katherine Rubin, Manager
Wastewater Quality and Compliance Group

MH:db
Enclosures
c/enc: Michael Hanson

Department of Water and Power the City of Los Angeles

ANTONIO R. VILLARAIGOSA
Mayor

Commission
THOMAS S. SAYLES, *President*
ERIC HOLOMAN, *Vice-President*
CHRISTINA E. NOONAN
JONATHAN PARFREY
BARBARA E. MOSCHOS, *Secretary*

RONALD O. NICHOLS
General Manager

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Wastewater Quality and Compliance Group

MH:db
Enclosures
c/enc: Michael Hanson

Los Angeles Department of Water and Power
Haynes Generating Station Waste Disposal
NPDES Monitoring Report
Compliance File No.: 2769
Permit No. CA0000353
Annual Report Certification

I certify under penalty of law that this document and all other attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly 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 that information, the information 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 a fine and imprisonment for knowing violations.

This report is required and prepared specifically for the California Regional Water Quality Control Board – Los Angeles (Board). It presents truly, accurately, and completely the observed results of measurements and analyses required by the Board to be performed and submitted, but only such observed results. It is not intended as an assertion of the accuracy of any instrument, reading, or analytical result, nor is it an endorsement of the suitability of any analytical or measurement procedure.

The concentrations of specific pollutants were obtained by employing methods of analysis listed in 40 C.F.R. Part 136 or otherwise specified in the permit. These analytical tests are subject to the accuracy limitations associated with those methods in the subject sample matrices at the concentrations shown. Results lying between the appropriate detection level and the appropriate quantitation level are reported along with the appropriate numeric value of the detection level (e.g., <3). All values reported below the detection level, by definition, do not provide adequate confidence as to whether the constituent being measured is present. All values above the detection level but below the quantitation level, by definition, do not provide adequate confidence as to the actual concentration of the constituent being measured.

Executed on the 15th day of March, 2011 at Los Angeles, California.

Signature _____

Name: Charli Dong

Title: Plant Manager

Los Angeles Department of Water and Power

Haynes Generating Station

2010 Annual Summary

Discussions of Compliance

NPDES Permit No. CA0000353

Compliance File No. 2769

I. Monthly Monitoring

A. Effluent

No permit exceedances were noted for the year 2010 in the regular monthly monitoring program.

B. Sanitary Waste

Sanitary wastes continue to be hauled off-site for disposal from the Haynes Generating Station. Due to treatment system variances, the continual storage and subsequent shipment for disposal was determined to be the best course of action to maintain compliance. The facility is currently in negotiations to connect the sanitary sewer lines for the facility into the Orange County Sanitation District sanitary sewer system. The facility will continue to haul off all sanitary sewer waste until such time as the negotiations are final and a connection to the sanitary sewer system has been completed.

II. Quarterly Monitoring

A. Fecal Coliform

All samples were collected for the year and results are reported in the tabulated data section.

B. Chronic Toxicity

OUTFALL 001

All quarterly samples for Outfall 001 were within acceptable limits for Chronic Toxicity

OUTFALL 002

All quarterly samples for Outfall 002 were within acceptable limits for Chronic Toxicity

OUTFALL 003

All quarterly samples for Outfall 003 were within acceptable limits for Chronic Toxicity

III. Semi-Annual Metals

May Sample

Samples were collected and all constituents sampled for Serial Discharge Nos. 001B, 002A & B, and 003A & B were in compliance. Serial Discharge 001A was not in operation during this time period and therefore a sample was not able to be taken.

November Sample

Samples were collected and all constituents sampled for Serial Discharge Nos. 001A & B, 002A & B, and 003B were in compliance. Serial Discharge 003A was not in operation during this time period and therefore a sample was not able to be taken.

IV. Annual Priority Pollutants

Priority pollutant samples were obtained from the cooling water influent, Settling Basin G and Serial Discharges 001A & B, 002A & B and 003A & B. The samples did not have any detectable amounts of the priority pollutants with the exception of low levels of various metals and isolated hits as indicated below. The activities at the Haynes Generating Station does not include or contribute these constituents to the process water. These values are attributable to background levels or introduced through the laboratory testing process.

Influent
- Bis-(2-ethylhexyl) phthalate 56 ug/L

Effluent – Serial Discharge 002A
- Bis-(2-ethylhexyl) phthalate 28 ug/L

Effluent – Serial Discharge 002B
- Bis-(2-ethylhexyl) phthalate 15 ug/L

Effluent – Serial Discharge 003A
- Bis-(2-ethylhexyl) phthalate 32 ug/L

Effluent – Serial Discharge 003B
- Bis-(2-ethylhexyl) phthalate 10 ug/L

Settling Basin G
- Chloroform 0.877 ug/L
- Dichlorobromomethane 0.342 ug.L

Los Angeles Department of Water and Power

HAYNES GENERATING STATION

2010 Annual Summary of Monthly Discharge Monitoring Reports

NPDES Permit No. 0000353 Compliance File No. 2769

DISCHARGE OUTFALL No. 001

Chemical and Physical Constituents	Units	Limit	Monthly Summaries for 2010											
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Total Residual Oxidant														
Daily Maximum	mg/L	0.413	0.14	0.16	0.17	0.19	0.10	0.24	0.25	0.22	0.17	0.08	0.14	0.19
Daily Minimum	mg/L	*No Limit*	0.03	0.02	0.03	0.03	0.02	0.03	0.03	0.03	0.01	0.02	0.02	0.02
Monthly Average	mg/L	*No Limit*	0.08	0.06	0.09	0.07	0.06	0.13	0.15	0.15	0.07	0.05	0.07	0.06
Free Available Oxidant														
Daily Average#	mg/L	0.2	0.03	0.01	0.03	0.02	0.02	0.06	0.07	0.07	0.03	0.02	0.03	0.02
Daily Maximum	mg/L	0.5	0.12	0.11	0.12	0.07	0.06	0.15	0.16	0.18	0.12	0.05	0.11	0.13
Daily Minimum	mg/L	*No Limit*	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Monthly Average (of max)	mg/L	*No Limit*	0.04	0.02	0.05	0.03	0.02	0.08	0.09	0.09	0.04	0.02	0.04	0.03
pH														
Weekly Maximum	pH units	9.0	7.84	7.94	7.98	7.92	8.02	8.04	8.01	8.00	7.97	8.03	8.03	7.88
Weekly Minimum	pH units	6.0	7.69	7.77	7.77	7.74	7.88	7.88	7.90	7.90	7.84	7.75	7.76	7.63
Total Waste Flow														
Average Daily Flow	MGD	*No Limit*	229	143	135	134	135	135	185	264	271	271	242	272
Temperature														
Daily Maximum	°F	100**	72	82	86	86	84	96	92	89	93	94	87	76
Daily Minimum	°F	*No Limit*	62	65	68	68	70	76	70	67	67	70	64	62
Coliform Group (Maximum)*														
Total	#/100ml	*No Limit*	240			27				13		30		
Fecal	#/100ml	*No Limit*	13			12				4		30		
Chronic Toxicity*														
Red Abalone - Maximum	Tu_c	5.5§		1.0			1.0			1.0			1.0	

Notes:

If there is an exceedance(s), the first number is the highest daily average value; the second is the number of exceedances

* Analyzed Quarterly NC - No Chlorination

**115°F during Heat Treatment; except during adjustment of the recirculating gate during Heat Treatment (120°F)

§ The most sensative specied used for testing is Red Abalone.

Los Angeles Department of Water and Power

HAYNES GENERATING STATION

2010 Annual Summary of Monthly Discharge Monitoring Reports

NPDES Permit No. 0000353 Compliance File No. 2769

DISCHARGE OUTFALL No. 002

Chemical and Physical Constituents	Units	Limit	Monthly Summaries for 2010											
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Total Residual Oxidant														
Daily Maximum	mg/L	0.413	0.13	0.10	0.10	0.16	0.09	0.11	0.14	0.15	0.14	0.17	0.10	0.08
Daily Minimum	mg/L	*No Limit*	0.02	0.02	0.03	0.01	0.01	0.03	0.03	0.02	0.02	0.02	0.03	0.02
Monthly Average	mg/L	*No Limit*	0.06	0.06	0.07	0.07	0.06	0.07	0.07	0.08	0.05	0.07	0.06	0.06
Free Available Oxidant														
Daily Average#	mg/L	0.2	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.03	0.02	0.02
Daily Maximum	mg/L	0.5	0.05	0.04	0.07	0.06	0.07	0.07	0.11	0.06	0.12	0.12	0.06	0.05
Daily Minimum	mg/L	*No Limit*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
Monthly Average (of max)	mg/L	*No Limit*	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.03
pH														
Weekly Maximum	pH units	9.0	7.85	7.98	7.98	7.95	8.03	8.07	8.01	8.07	8.01	8.12	8.00	7.86
Weekly Minimum	pH units	6.0	7.60	7.66	7.85	7.82	7.84	7.90	7.84	7.92	7.85	7.85	7.53	7.63
Total Waste Flow														
Average Daily Flow	MGD	*No Limit*	230	230	229	230	230	230	230	230	229	230	220	230
Temperature														
Daily Maximum	°F	100**	87	88	94	83	86	89	89	86	95	99	98	80
Daily Minimum	°F	*No Limit*	74	70	70	70	70	73	75	70	66	84	63	73
Coliform Group (Maximum)*														
Total	#/100ml	*No Limit*	170			50				7		30		
Fecal	#/100ml	*No Limit*	17			7				2		23		
Chronic Toxicity*														
Red Abalone - Maximum	Tu_c	5.5§		1.0			1.0			1.0			1.0	

Notes:

If there is an exceedance(s), the first number is the highest daily average value; the second is the number of exceedances

* Analyzed Quarterly NC - No Chlorination

**115°F during Heat Treatment; except during adjustment of the recirculating gate during Heat Treatment (120°F)

§ The most sensative specied used for testing is Red Abalone.

Los Angeles Department of Water and Power

HAYNES GENERATING STATION

2010 Annual Summary of Monthly Discharge Monitoring Reports

NPDES Permit No. 0000353 Compliance File No. 2769

DISCHARGE OUTFALL No. 003

Chemical and Physical Constituents	Units	Limit	Monthly Summaries for 2010											
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Total Residual Oxidant														
Daily Maximum	mg/L	0.413	0.05	0.11	0.15	0.26	0.20	0.15	0.17	0.19	0.09	0.19	0.14	0.08
Daily Minimum	mg/L	*No Limit*	0.03	0.01	0.05	0.02	0.02	0.02	0.03	0.04	0.02	0.02	0.02	0.02
Monthly Average	mg/L	*No Limit*	0.04	0.05	0.11	0.09	0.06	0.06	0.07	0.10	0.05	0.05	0.05	0.04
Free Available Oxidant														
Daily Average#	mg/L	0.2	0.01	0.01	0.04	0.03	0.02	0.03	0.02	0.05	0.01	0.02	0.02	0.01
Daily Maximum	mg/L	0.5	0.01	0.05	0.09	0.12	0.10	0.12	0.09	0.13	0.06	0.13	0.06	0.04
Daily Minimum	mg/L	*No Limit*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Monthly Average (of max)	mg/L	*No Limit*	0.01	0.01	0.05	0.04	0.03	0.03	0.04	0.06	0.02	0.03	0.02	0.02
pH														
Weekly Maximum	pH units	9.0	7.79	7.78	8.04	7.85	8.03	8.02	8.06	8.08	7.95	7.99	7.88	7.86
Weekly Minimum	pH units	6.0	7.53	7.68	7.76	7.72	7.86	7.82	7.91	7.94	7.82	7.65	7.48	7.60
Total Waste Flow														
Average Daily Flow	MGD	*No Limit*	111	160	109	126	204	306	427	256	154	113	115	115
Temperature														
Daily Maximum	°F	100**	73	88	76	84	83	80	90	78	85	78	86	73
Daily Minimum	°F	*No Limit*	63	68	66	69	70	71	68	68	71	72	65	55
Coliform Group (Maximum)*														
Total	#/100ml	*No Limit*	110	11		27				2		4		
Fecal	#/100ml	*No Limit*	23	8		4				2		4		
Chronic Toxicity*														
Red Abalone - Maximum	Tu_c	5.5§		1.0			1.0			1.0			1.0	

Notes:

If there is an exceedance(s), the first number is the highest daily average value; the second is the number of exceedances

* Analyzed Quarterly NC - No Chlorination NS - Not Sampled - units down

**115°F during Heat Treatment; except during adjustment of the recirculating gate during Heat Treatment (120°F)

§ The most sensative specied used for testing is Red Abalone.

Department of Water and Power

HAYNES GENERATING STATION

2010 Annual Summary of Monthly Discharge Monitoring Reports
NPDES Permit No. CA0000353 Compliance File No. 2769

IN-PLANT WASTESTREAMS

Chemical and Physical Constituents	Units	Limits* (TDA/Daily Max.)	Monthly Summaries for 2010											
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Sanitary Wastes			***All Sanitary Wastes are hauled offsite for disposal***											
BOD_5	mg/L	*30 / 45*	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge
Suspended Solids	mg/L	*30 / 45*												
Settleable Solids	ml/L	*0.1 / 0.3*												
Oil & Grease	mg/L	*10 / 15*												
Fecal Coliform**	MPN/100ml	*200 (log mean)*												
Fecal Coliform**	MPN/100ml	*400 (one sample)*												
Average Waste Flow	gal/day	-												
Days Discharged	day(s)	-												
Chemical Metal-cleaning Wastes														
Suspended Solids	mg/L	*30 / 100*	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge	No Discharge
Oil & Grease	mg/L	*15 / 20*												
Copper, total	mg/L	*1.0 / 1.0*												
Iron, total	mg/L	*1.0 / 1.0*												
Average Waste Flow	gal/day	-												
Days Discharged	day(s)	-												
Non-chemical Metal-cleaning Wastes														
Suspended Solids	mg/L	*No Limits*	No Discharge	26.0	No Discharge	12.0	No Discharge	34.6	No Discharge	No Discharge	32.5	No Discharge	No Discharge	No Discharge
Oil & Grease	mg/L	*No Limits*		0.5		<0.5		0.8			1.0			
Copper, dissolved	mg/L	*No Limits*		0.011		<0.008		0.01			0.013			
Iron, dissolved	mg/L	*No Limits*		<0.028		0.0		0.1			0.2			
Average Waste Flow	gal/day	-		54,000		56,000		56,000			44,000			
Days Discharged	day(s)	-		1		1		1			1			

Notes:

* TDA = 30-day Average

e - estimated value

** Fecal Coliform shall not exceed a log mean of 200/100 ml based on a minimum of four samples for any 30-day period, nor shall 10% of the total samples during any 30-day period exceed 400/100 ml.

Department of Water and Power

HAYNES GENERATING STATION

2010 Annual Summary of Monthly Discharge Monitoring Reports
NPDES Permit No. CA0000353 Compliance File No. 2769

IN-PLANT WASTESTREAMS
(LOW VOLUME WASTES)

Chemical and Physical Properties	Units	Limits* (TDA/Daily Max.)	Monthly Summaries for 2010											
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Settling Basins														
Suspended Solids	mg/L	*30 / 100*	10.8	11.4	12.0	11.5	5.4	8.8	5.4	14.0	4.3	10.2	1.2	1.4
Oil & Grease	mg/L	*15 / 20*	0.8	0.7	<0.5	0.6	0.6	<0.5	<0.5	0.5	2.0	1.4	0.5	<0.5
Average Waste Flow	gal/day	-	180,087	177,519	252,910	108,445	146,617	92,942	195,164	221,674	167,667	166,824	147,803	187,034
Days Discharged	day(s)	-	31	28	31	30	31	30	31	31	30	31	30	31
Reverse Osmosis														
Suspended Solids	mg/L	*30 / 45*	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	1.5	<0.5	<0.5
Oil & Grease	mg/L	*10 / 15*	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5
Average Waste Flow	gal/day	-	17,000	22,000	7,200	2,593	7,500	8,000	18,000	15,000	18,000	16,500	18,500	17,300
Days Discharged	day(s)	-	22	22	15	10	14	18	20	22	24	18	15	18

Notes:

* TDA = 30-day Average

Los Angeles Department of Water and Power

HAYNES GENERATING STATION

2010 Annual Summary of Monthly Discharge Monitoring Reports

NPDES Permit No. 0000353 Compliance File No. 2769

Chemical and Physical Constituents	Units	Limit ** Avg / Max	May 2010 Samples						
			Inlet	001A	001B	002A	002B	003A	003B
Metals *									
Antimony	ug/L	§	0.21	No Discharge	0.18	0.24	0.23	0.21	0.24
Arsenic	ug/L	*30.5/162.5*	<0.12	No Discharge	<0.12	<0.12	<0.12	0.32	<0.12
Cadmium	ug/L	*5.5/22*	0.07	No Discharge	0.07	0.07	0.07	0.08	0.07
Chromium	ug/L	11/44	<0.1	No Discharge	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	ug/L	7.5/57	2.7	No Discharge	2.70	2.8	2.7	2.90	3.1
Lead	ug/L	*11/44*	0.63	No Discharge	0.58	0.59	0.53	0.53	0.59
Mercury	ug/L	*.218/.878*	<0.03	No Discharge	<0.03	<0.03	<0.03	<0.03	<0.03
Nickel	ug/L	27.5/110	0.63	No Discharge	0.57	0.54	0.50	0.72	0.57
Silver	ug/L	3.13/14.68	0.11	No Discharge	0.12	0.11	0.14	0.11	0.10
Zinc	ug/L	*74/404*	3.1	No Discharge	3.80	6.1	3.6	4.80	6.0

Notes:

* Analyzed Semi-Annually ** Avg = 30 day average, Max = Daily Maximum ND - No discharge

§ Limits for these constituents have not been established

Chemical and Physical Constituents	Units	Limit	November 2010 Samples						
			Inlet	001A	001B	002A	002B	003A	003B
Metals *									
Antimony	ug/L	§	0.13	0.15	0.15	0.15	0.15	No Discharge	0.14
Arsenic	ug/L	*30.5/162.5*	11	14	14	14	14	No Discharge	16
Cadmium	ug/L	*5.5/22*	0.04	0.03	0.04	0.04	0.04	No Discharge	0.03
Chromium	ug/L	11 / 44	<0.5	<0.5	<0.5	<0.5	<0.5	No Discharge	<0.5
Copper	ug/L	7.5/57	1.7	1.9	2.0	2.1	1.6	No Discharge	1.8
Lead	ug/L	*11 / 44*	0.38	0.44	0.43	0.47	0.35	No Discharge	0.37
Mercury	ug/L	*.218/.878*	0.03	0.02	0.02	0.03	0.02	No Discharge	0.02
Nickel	ug/L	27.5/110	0.74	0.78	0.76	0.77	0.76	No Discharge	0.82
Silver	ug/L	3.13/14.68	0.25	0.24	0.24	0.24	0.24	No Discharge	0.24
Zinc	ug/L	*74/404*	6.1	6.5	13.0	13.0	15.0	No Discharge	5.4

Notes:

* Analyzed Semi-Annually ** Avg = 30 day average, Max = Daily Maximum

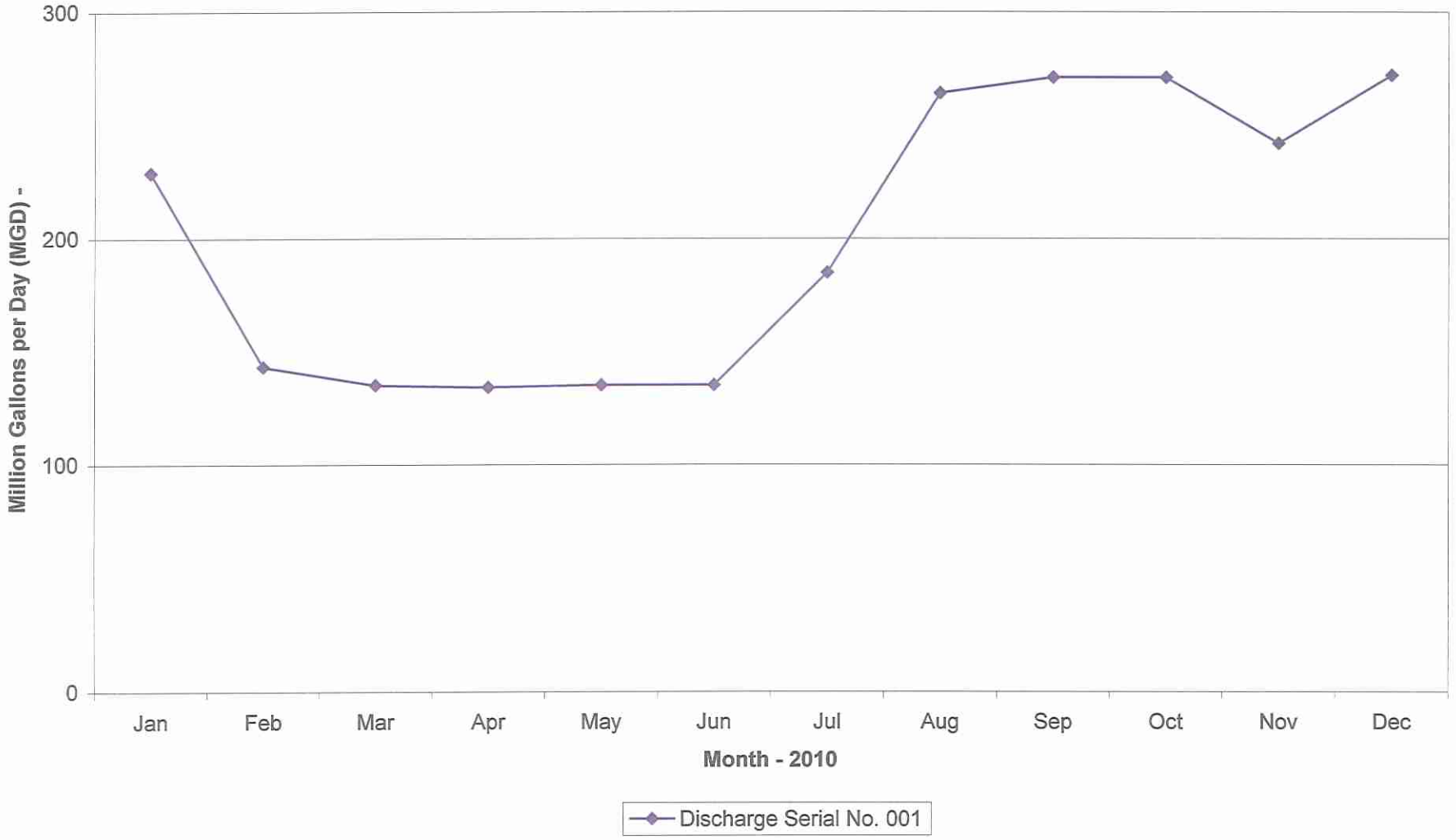
§ Limits for these constituents have not been established

HAYNES GENERATING STATION

2010 Annual Summary of Monthly Discharge Monitoring Reports

NPDES Permit No. CA0000353 Compliance File No. 2769

Average Daily Flow

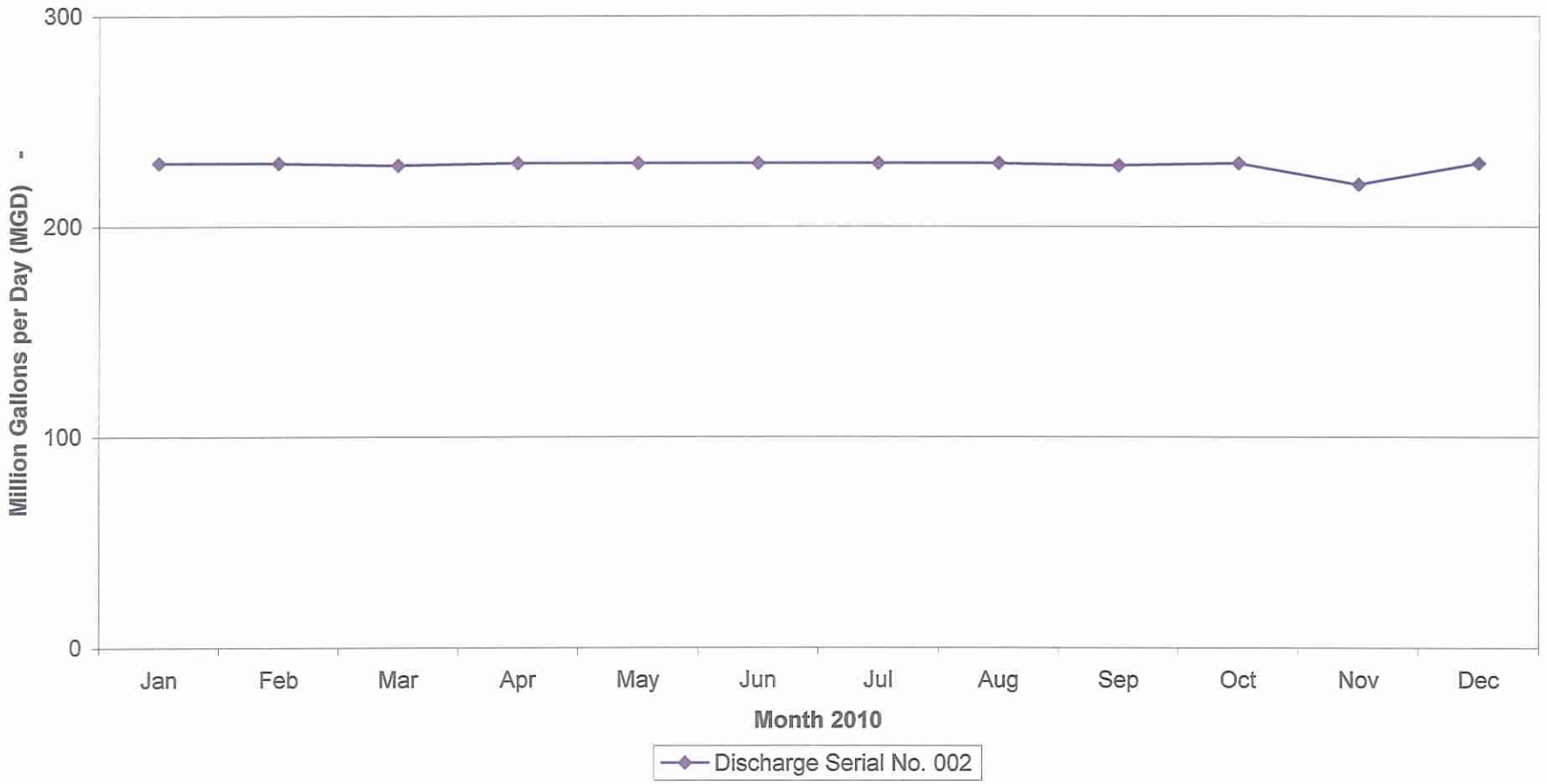


HAYNES GENERATING STATION

2010 Annual Summary of Monthly Discharge Monitoring Reports

NPDES Permit No. CA0000353 Compliance File No. 2769

Average Daily Flow

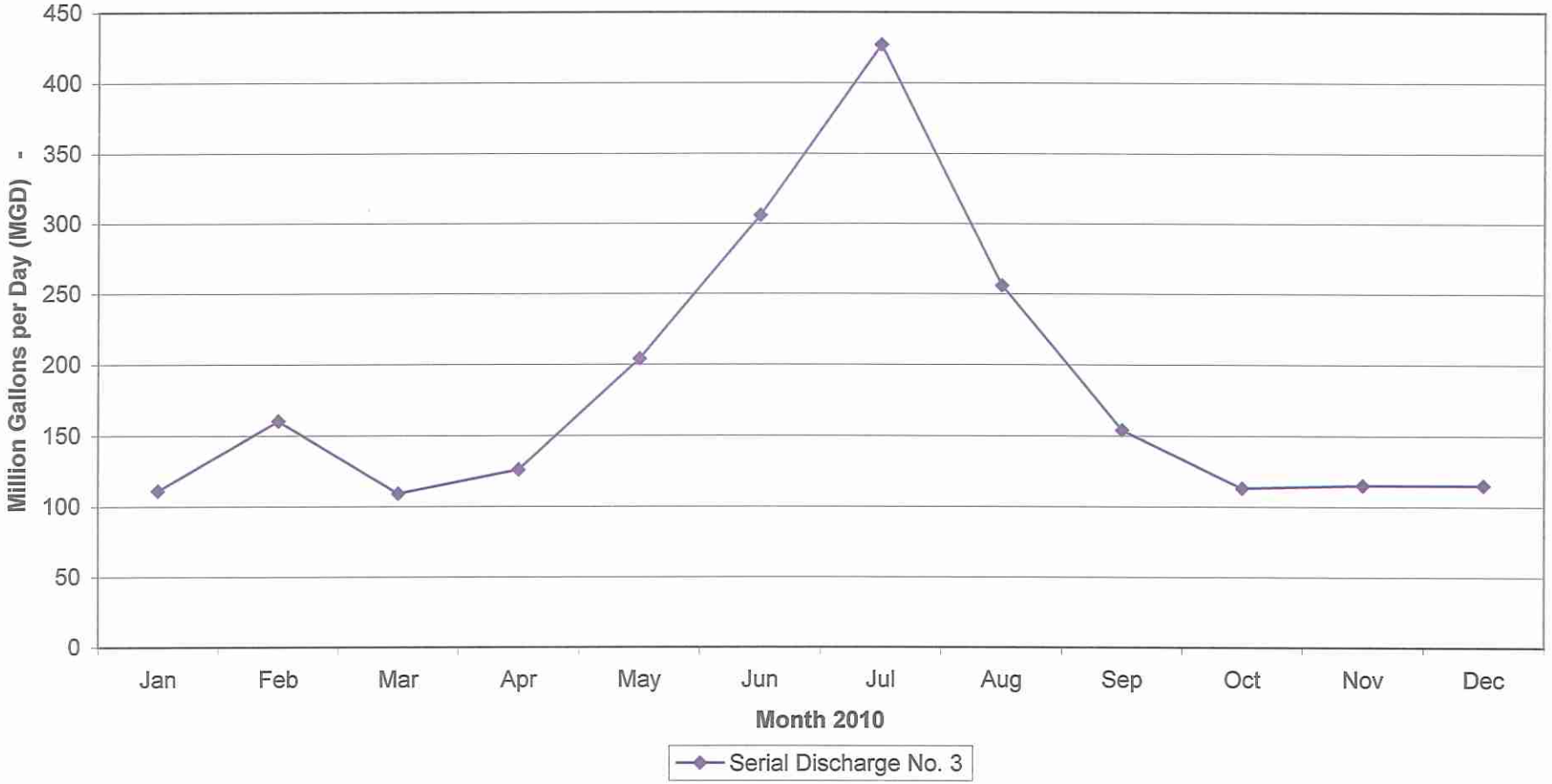


HAYNES GENERATING STATION

2010 Annual Summary of Monthly Discharge Monitoirng Reports

NPDES Permit CA0000353 Compliance File No. 2769

Average Daily Flow



HAYNES GS

PRIORITY POLLUTANTS

Sample Description:	HAYNES GS INLET ANNUAL PRIORIT
Chain of Custody Number:	10-1380
Sampling Date: 5/5/10	Sampling Time: 1:25 PM
Sampled By: CH/KC	

Annual Influent x

COC No.: 10-1380

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYSIS CONDUCTED BY	ANALYTICAL METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
METALS	ANTIMONY	5/14/2010	ug/L	0.21	CRG	EPA 1640M	0.23		0.01		0.05
	ARSENIC	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8	ND	105% @ 10ug	0.12	0.25	0.6
	BERYLLIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8	ND	115% @ 10ug	0.03	0.25	0.2
	CADMIUM	5/14/2010	ug/L	0.07	CRG	EPA 1640M	0.07		0.005		0.03
	CHROMIUM	5/10/2010	ug/L	0.55	ENV LAB	EPA 200.8	0.51	120% @ 10ug	0.04	0.25	0.2
	HEXAVALENT CHROMIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 218.6			0.1	0.5	0.5
	COPPER	5/14/2010	ug/L	2.7	CRG	EPA 1640M	2.6		0.01		0.05
	LEAD	5/14/2010	ug/L	0.63	CRG	EPA 1640M	0.60		0.005		0.03
	MERCURY	5/7/2010	ug/L	ND	ENV LAB	EPA 245.1			0.03	0.2	0.2
	NICKEL	5/14/2010	ug/L	0.63	CRG	EPA 1640M	0.60		0.005		0.03
	SELENIUM	5/10/2010	ug/L	0.15	ENV LAB	EPA 200.8	ND	77.7% @ 10ug	0.10	0.25	0.5
	SILVER	5/14/2010	ug/L	0.11	CRG	EPA 1640M	0.11		0.02		0.10
	THALLIUM	5/10/2010	ug/L	0.08	ENV LAB	EPA 200.8	0.12	82.6% @ 10ug	0.03	0.25	0.2
	ZINC	5/10/2010	ug/L	3.1	ENV LAB	EPA 200.8	3.9	73.0% @ 10ug	1.00	0.25	5.0
MISCELLANEOUS	CYANIDE, TOTAL	5/14/2010	ug/L	ND	ENV LAB	SM 4500-CN E			5	5	25.0
	ASBESTOS (only if specifically required)	5/5/2010	MFL	ND	EMS LABS	EPA 600R/R-93-116			1.1		5.5
pesticides & PCB's	ALDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0052	0.01
	CHLORDANE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.020	0.010	0.10
	DIELDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	4,4'-DDT	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	4,4'-DDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.031	0.052	0.16
	4,4'-DDD	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.031	0.052	0.16
	ALPHA-ENDOSULFAN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.010	0.021	0.05
	BETA-ENDOSULFAN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	ENDOSULFAN SULFATE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.021	0.052	0.11
	ENDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	ENDRIN ALDEHYDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	HEPTACHLOR	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	HEPTACHLOR EPOXIDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.010	0.01
	ALPHA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	BETA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0052	0.01
	GAMMA-BHC(LINDANE)	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.010	0.021	0.05
	DELTA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0052	0.01
	TOXAPHENE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1016	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1221	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1232	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1242	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1248	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1254	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1260	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3

HAYNES GS

PRIORITY POLLUTANTS

COC No.: 10-1380

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYZED BY	EPA METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
BASE/NEUTRAL EXTRACTIBLES	ACENAPHTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	BENZIDINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	1,2,4-TRICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	HEXACHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	BIS(2-CHLOROETHYL) ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	2-CHLORONAPHTHALENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	1,2-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	1,3-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	1,4-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	3,3'-DICHLOROBENZIDINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	2,4-DINITROTOLUENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	2,6-DINITROTOLUENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	1,2-DIPHENYLHYDRAZINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	FLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	4-CHLOROPHENYL PHENYL ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	4-BROMOPHENYL PHENYL ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	BIS(2-CHLOROISOPROPYL) ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	BIS(2-CHLOROETHOXY) METHANE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	HEXACHLOROBUTADIENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	HEXACHLOROCYCLOPENTADIENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	HEXACHLOROETHANE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	ISOPHORONE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	NAPHTHALENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	NITROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	N-NITROSODIMETHYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 1625C			0.002		0.010
	N-NITROSODI-N-PROPYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	N-NITROSODIPHENYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	BIS (2-ETHYLHEXYL) PHTHALATE	5/10/2010	ug/L	56.0	EMAX	EPA 625/8270C			11	11	55
	BUTYL BENZYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	DI-N-BUTYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	DI-N-OCTYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	DIETHYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	DIMETHYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	1,2-BENZANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	BENZO(A) PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	3,4-BENZOFLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	11,12-BENZOFLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	CHRYSENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	ACENAPHTHYLENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	ANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	1,12-BENZOPERYLENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	FLUORENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	PHENANTHRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	1,2,5,6-DIBENZANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	INDENO (1,2,3-CD) PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	TCDD	5/10/2010	pg/L	ND	Columbia Analytical Service	EPA 1613			0.662		3.3
ACID EXTRACTIBLES	2,4,6-TRICHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	PARACHLOROMETA CRESOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	2-CHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	2,4-DICHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	2,4-DIMETHYLPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	2-NITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	4-NITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	21	55
	2,4-DINITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	4,6-DINITRO-O-CRESOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			11	11	55
	PENTACHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	PHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6

HAYNES GS

PRIORITY POLLUTANTS

COC No.: 10-1380

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYZED BY	EPA METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
VOLATILE ORGANICS	ACROLEIN	5/11/2010	ug/L	ND	ENV LAB	EPA 8260B			0.39	5	2.0
	ACRYLONITRILE	5/11/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	2	0.7
	BENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND	89.7% @ 30.0ug	0.23	1	1.2
	CARBON TETRACHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.13	1	0.7
	CHLOROBENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND	98.3% @ 30.0ug	0.19	1	1.0
	1,2-DICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.18	1	0.9
	1,1,1-TRICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.22	1	1.1
	1,1-DICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.23	1	1.2
	1,1,2-TRICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.13	1	0.7
	1,1,2,2-TETRACHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.24	1	1.2
	CHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.15	1	0.8
	CHLOROFORM	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.20	1	1.0
	1,1-DICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND	104% @ 30.0ug	0.17	1	0.9
	1,2-TRANS-DICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.20	1	1.0
	1,2-DICHLOROPROPANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.25	1	1.3
	1,3-DICHLOROPROPYLENE*	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	ETHYLBENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.20	1	1.0
	METHYLENE CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.21	1	1.1
	METHYL CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.30	1	1.5
	METHYL BROMIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.33	1	1.7
	BROMOFORM	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.19	1	1.0
	DICHLOROBROMOMETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.21	1	1.1
	CHLORODIBROMOMETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.18	1	0.9
	TETRACHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.16	1	0.8
	TOLUENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND	95.3% @ 30.0ug	0.13	1	0.7
	TRICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND	88.0% @ 30.0ug	0.17	1	0.9
	VINYL CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.15	1	0.8
	2-CHLOROETHYL VINYL ETHER	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.59	1	3.0
	XYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.36	1	1.9

* - reported as trans-1,3-dichloropropylene & cis-1,3-dichloropropylene

(1)-If result is Non-Detectable, report results as <(detection limit of the instrument).

"All analyses were conducted at a laboratory certified for such analysis and in accordance with current USEPA procedures or as specified in this Monitoring Program."

Laboratory Approval: Stanley Kung

Title: Laboratory Director

Date: 6/30/10

RE 6/30/10

Environmental Laboratory
1630 N. Main Street, Bldg 7
Los Angeles , CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Power
City of Los Angeles

Chain of Custody Record

COC # : 10-1380

Page ___of___

Report C#_____ JC#_____ WO#_____

Refrig#. 8 Shelf 6 Bin#._____

Initial of Field Personnel: _____ No. of Field Test: _____

R9S7 VOC

Sample Location Haynes GS - Priority Pollutants Annual 2010

Chem.Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1 LK08349	5/5/10	1325	Inlet	HCl	4	glass	40 mL	H2O	VOC's-8260		ENV LAB
2 LK08350				NONE	2	glass	40 mL	H2O	acrolein, acrylonitrile-8260B		ENV LAB
3 LK08351				NONE	2	glass	1L	H2O	EPA 625/625SIM ✓		EMAX
4 LK08352				HNO_3	1	plastic	1L	H2O	ICP-MS, Hg		ENV LAB
5 LK08353				NONE	2	glass	1L	H2O	PCB/PEST-EPA 8081 ✓		EMAX
6 LK08354				NONE	2	glass	1L	H2O	DIOXINS-EPA 1613 b22	1613	EMAX
7 LK08355				NaOH	1	plastic	1L	H2O	FREE/TOTAL CYANIDE		B of S
8 LK08356				NONE	2	glass	1L	H2O	ASBESTOS		EMS
9 LK08357				NONE	2	glass	1L	H2O	NDMA b20	1625 C	EMAX
10 LK08358				NH_4OH	1	plastic	250 mL	H2O	Cr+6		ENV LAB
11											
12											
13											
14											
15											
16											

Rec'd by Chem Lab 752

Date & Time Stamp
Dept of Water & Power
2010 MAY -6

Chem Lab COC Form #1
Revision: 10/2/2001

COC10-1380

Requested by . Michael Hanson Organization / Div. WWC

Address. 1213 JFB Tele x70634 Fax. x73297

Analyst_____ date_____
Approved by_____ date_____

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify

KH
BT
KC
NM

Printed Name	Signature	Time	Date
Sampled by: CH/KC	Sampled by: Chia Yung Hwang	1325	5/5/10
Relinquished by: Chia Yung Hwang	Relinquished by: Chia Yung Hwang	752	5/6/10
Received by L SY	Received by	752	5/6/10

HAYNES GS

PRIORITY POLLUTANTS

Sample Description:	HAYNES SER DIS S001A ANNUAL
Chain of Custody Number:	10-2876 & 10-3340
Sampling Date: 9/22/10 & 11/3/10	Sampling Time: 10:55 AM
Sampled By: CH	

Annual Discharge Serial No. 001A Effluent x

COC No.: 10-2876 & 10-3340

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYSIS CONDUCTED BY	ANALYTICAL METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
METALS	ANTIMONY	11/11/2010	ug/L	0.15	CRG	EPA 1640M			0.01		0.1
	ARSENIC	9/28/2010	ug/L	4.4	ENV LAB	EPA 200.8			0.12	0.25	0.6
	BERYLLIUM	9/28/2010	ug/L	ND	ENV LAB	EPA 200.8			0.03	0.25	0.2
	CADMIUM	11/11/2010	ug/L	0.03	CRG	EPA 1640M			0.005		0.0
	CHROMIUM	9/28/2010	ug/L	0.95	ENV LAB	EPA 200.8			0.04	0.25	0.2
	HEXAVALENT CHROMIUM	9/23/2010	ug/L	ND	ENV LAB	EPA 218.6	ND	97.5% @ 200ug	0.1	0.5	0.5
	COPPER	11/11/2010	ug/L	1.9	CRG	EPA 1640M			0.01		0.1
	LEAD	11/11/2010	ug/L	0.44	CRG	EPA 1640M			0.005		0.03
	MERCURY	10/6/2010	ug/L	ND	ENV LAB	EPA 245.1			0.02	0.2	0.1
	NICKEL	11/11/2010	ug/L	0.78	CRG	EPA 1640M			0.005		0.0
	SELENIUM	9/28/2010	ug/L	1.0	ENV LAB	EPA 200.8			0.10	0.25	0.5
	SILVER	11/11/2010	ug/L	0.24	CRG	EPA 1640M		24% @ 20 ug/L*	0.02		0.1
	THALLIUM	9/28/2010	ug/L	0.14	ENV LAB	EPA 200.8			0.03	0.25	0.2
	ZINC	9/28/2010	ug/L	16	ENV LAB	EPA 200.8			1.00	0.25	5.0
MISCELLANEOUS	CYANIDE, TOTAL	9/27/2010	ug/L	ND	ENV LAB	SM 4500-CN E			5	5	25
	ASBESTOS (only if specifically required)	9/23/2010	MF/L	ND	EMS LABS	EPA 600R/R-93-116			1.1		5.5
pesticides & PCB's	ALDRIN	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.0020	0.0051	0.01
	CHLORDANE	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.020	0.010	0.10
	DIELDRIN	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.0051	0.010	0.03
	4,4'-DDT	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.0051	0.010	0.03
	4,4'-DDE	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.030	0.051	0.15
	4,4'-DDD	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.030	0.051	0.15
	ALPHA-ENDOSULFAN	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.010	0.020	0.05
	BETA-ENDOSULFAN	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.0051	0.010	0.03
	ENDOSULFAN SULFATE	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.020	0.051	0.10
	ENDRIN	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.0051	0.010	0.03
	ENDRIN ALDEHYDE	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.0051	0.010	0.03
	HEPTACHLOR	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.0051	0.010	0.03
	HEPTACHLOR EPOXIDE	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.0020	0.010	0.01
	ALPHA-BHC	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.0051	0.010	0.03
	BETA-BHC	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.0020	0.0051	0.01
	GAMMA-BHC(LINDANE)	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.010	0.020	0.05
	DELTA-BHC	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.0020	0.0051	0.01
	TOXAPHENE	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.25	0.51	1.3
	PCB 1016	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.25	0.51	1.3
	PCB 1221	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.25	0.51	1.3
	PCB 1232	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.25	0.51	1.3
	PCB 1242	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.25	0.51	1.3
	PCB 1248	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.25	0.51	1.3
	PCB 1254	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.25	0.51	1.3
	PCB 1260	9/29/2010	ug/L	ND	EMAX	EPA 8081A			0.25	0.51	1.3

* Recovery of the Matrix Spike and/or Matrix Spike Duplicate compound was out of control due to matrix interference." Matrix Spike and Matrix Spike Duplicate data were from a separate sample in the analytical batch.

HAYNES GS

PRIORITY POLLUTANTS

COC No.: 10-2876 & 10-3340

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYZED BY	EPA METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
BASE/NEUTRAL EXTRACTIBLES	ACENAPHTHENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			0.50	1.0	3
	BENZIDINE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	1,2,4-TRICHLOROBENZENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	HEXACHLOROBENZENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			0.50	1.0	3
	BIS(2-CHLOROETHYL) ETHER	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	2-CHLORONAPHTHALENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	1,2-DICHLOROBENZENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	1,3-DICHLOROBENZENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	1,4-DICHLOROBENZENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	3,3'-DICHLOROBENZIDINE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	2,4-DINITROTOLUENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	2,6-DINITROTOLUENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	1,2-DIPHENYLHYDRAZINE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			0.50	1.0	3
	FLUORANTHENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			0.50	1.0	3
	4-CHLOROPHENYL PHENYL ETHER	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	4-BROMOPHENYL PHENYL ETHER	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	BIS(2-CHLOROISOPROPYL) ETHER	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	BIS(2-CHLOROETHOXY) METHANE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	HEXACHLOROBUTADIENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	HEXACHLOROCYCLOPENTADIENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25.0
	HEXACHLOROETHANE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25.0
	ISOPHORONE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	NAPHTHALENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	NITROBENZENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	N-NITROSODIMETHYLAMINE	9/28/2010	ug/L	ND	EMAX	EPA 625/8270C			2.30	10	12
	N-NITROSODI-N-PROPYLAMINE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	N-NITROSODIPHENYLAMINE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	BIS (2-ETHYLHEXYL) PHTHALATE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	BUTYL BENZYL PHTHALATE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	DI-N-BUTYL PHTHALATE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	DI-N-OCTYL PHTHALATE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	DIETHYL PHTHALATE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	DIMETHYL PHTHALATE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	1,2-BENZANTHRACENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	BENZO(A) PYRENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	3,4-BENZOFLUORANTHENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	11,12-BENZOFLUORANTHENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	CHRYSENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	ACENAPHTHYLENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	ANTHRACENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	1,12-BENZOPERYLENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	FLUORENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	PHENANTHRENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	1,2,5,6-DIBENZANTHRACENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	INDENO (1,2,3-CD) PYRENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	PYRENE	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	TCDD	9/29/2010	pg/L	ND	Columbia Analytical Service	EPA 1613			0.354		1.8
ACID EXTRACTIBLES	2,4,6-TRICHLOROPHENOL	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			0.50	1.0	3
	PARACHLOROMETA CRESOL	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			0.50	1.0	3
	2-CHLOROPHENOL	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			0.50	1.0	3
	2,4-DICHLOROPHENOL	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			0.50	1.0	3
	2,4-DIMETHYLPHENOL	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			0.50	1.0	3
	2-NITROPHENOL	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	4-NITROPHENOL	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	2,4-DINITROPHENOL	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	4,6-DINITRO-O-CRESOL	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	PENTACHLOROPHENOL	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			0.50	1.0	3
	PHENOL	9/29/2010	ug/L	ND	EMAX	EPA 625/8270C			0.50	1.0	3

HAYNES GS

PRIORITY POLLUTANTS

COC No.: 10-2876 & 10-3340

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYZED BY	EPA METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
VOLATILE ORGANICS	ACROLEIN	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B			0.39	5	2.0
	ACRYLONITRILE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	2	0.7
	BENZENE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND	78.7% @ 30.0ug	0.23	1	1.2
	CARBON TETRACHLORIDE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.13	1	0.7
	CHLOROBENZENE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND	91.3% @ 30.0ug	0.19	1	1.0
	1,2-DICHLOROETHANE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.18	1	0.9
	1,1,1-TRICHLOROETHANE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.22	1	1.1
	1,1-DICHLOROETHANE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.23	1	1.2
	1,1,2-TRICHLOROETHANE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.13	1	0.7
	1,1,2,2-TETRACHLOROETHANE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.24	1	1.2
	CHLOROETHANE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.15	1	0.8
	CHLOROFORM	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.20	1	1.0
	1,1-DICHLOROETHYLENE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND	101% @ 30.0ug	0.17	1	0.9
	1,2-TRANS-DICHLOROETHYLENE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.20	1	1.0
	1,2-DICHLOROPROPANE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.25	1	1.3
	1,3-DICHLOROPROPYLENE*	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	ETHYLBENZENE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.20	1	1.0
	METHYLENE CHLORIDE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.21	1	1.1
	METHYL CHLORIDE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.30	1	1.5
	METHYL BROMIDE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.33	1	1.7
	BROMOFORM	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.19	1	1.0
	DICHLOROBROMOMETHANE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.21	1	1.1
	CHLORODIBROMOMETHANE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.18	1	0.9
	TETRACHLOROETHYLENE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.16	1	0.8
	TOLUENE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND	94.0% @ 30.0ug	0.13	1	0.7
	TRICHLOROETHYLENE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND	110% @ 30.0ug	0.17	1	0.9
	VINYL CHLORIDE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.15	1	0.8
	2-CHLOROETHYL VINYL ETHER	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.59	1	3.0
	XYLENE	9/27/2010	ug/L	ND	ENV LAB	EPA 8260B	ND		0.38	1	1.9

* - reported as trans-1,3-dichloropropylene & cis-1,3-dichloropropylene

(1)-If result is Non-Detectable, report results as <(detection limit of the instrument).

"All analyses were conducted at a laboratory certified for such analysis and in accordance with current USEPA procedures or as specified in this Monitoring Program."

Laboratory Approval: Sandy Kemp

Title: Laboratory Director

Date: 1/5/11

JMC 1/5/11

Environmental Laboratory
1630 N. Main Street, Bldg 7
Los Angeles , CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Power
City of Los Angeles

Chain of Custody Record

COC # : 10 -2876 Page 1 of 1

Report C#_____ JC#_____ WO#_____
Refrig#. 8 Shelf 12 Bin#._____
Initial of Field Personnel: No. of Field Test:

Sample Location Haynes GS - Priority Pollutants Annual 2010

Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1 LK16655	9/22/10	1055	Serial Dicharge 001A	HCl	4	glass	40 mL	H2O	VOC's-8260		ENV LAB
2 656				NONE	2	glass	40 mL	H2O	acrolein, acrylonitrile-8260B		ENV LAB
3 657				NONE	2	glass	1L	H2O	EPA 625/625SIM		EMAX
4 658				HNO_3	1	plastic	1L	H2O	ICP-MS, Hg		ENV LAB
5 659				NONE	2	glass	1L	H2O	PCB/PEST-EPA 8081		EMAX
6 660				NONE	2	glass	1L	H2O	DIOXINS-EPA 1613		EMAX
7 661				NaOH	1	plastic	1L	H2O	FREE/TOTAL CYANIDE		B of S
8 662				NONE	2	glass	1L	H2O	ASBESTOS		EMS
9 663				NONE	2	glass	1L	H2O	NDMA		EMAX
10 664				NH_4OH	1	plastic	250 mL	H2O	Cr+6		ENV LAB
11											
12			Temp = 4.3°C								
13											
14											
15											
16											

Dept of Water and Power
Date & Time Stamp
2010 SEP 22 1:01
Rec'd by: Environmental Lab

Requested by . Michael Hanson Organization / Div. WWC
Address. 1213 JFB Tele x70634 Fax. x73297

Analyst_____ date_____
Approved by_____ date_____

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify

KH RG BT CA CY NM BE

Printed Name	Signature	Time	Date
Sampled by: Chia Yung Hwang	Sampled by:	1055	9/22/10
Relinquished by: Chia Yung Hwang	Relinquished by:	1301	"
Received by K. Chung	Received by	1310	9/22/10

Chem Lab COC Form #1
Revision: 10/2/2001

COC10- 2876

...vironm ...al Laboratory
1630 N. Main Street, Bldg. 7, 3rd Flr.
Los Angeles, CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Power
City of Los Angeles

Chain of Custody Record

COC #: 10-3340

Report C# _____ JC# J98029 WO# AGT08
Refrig#. R8 Shelf S2 Bin#. _____
Initial of Field Personnel: KC/LS
No. of Field Test: _____

Sample Location: Haynes GS 2nd Semi-Annual 2010, 1st week

	Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1	LK19168	11/3/10	10:15	Inlet	HNO3	1	Plastic	1 L	Water	Metals ICPMS/Hg		Env. Lab
2	19169	11/3/10	10:15	Inlet	Buffer	1	Plastic	250ml	Water	Cr^{+6} *		Env. Lab
3	19170	11/3/10	10:15	Inlet	None	1	Plastic	1 L	Water	Metals 1640M		CRG
4	19171	11/3/10	11:00	001A	HNO3	1	Plastic	1 L	Water	Metals ICPMS/Hg		Env. Lab
5	19172	11/3/10	11:00	001A	Buffer	1	Plastic	250ml	Water	Cr^{+6} *		Env. Lab
6	19173	11/3/10	11:00	001A	None	1	Plastic	1 L	Water	Metals 1640M		CRG
7	19174	11/3/10	11:00	001A Duplicate	HNO3	1	Plastic	1 L	Water	Metals ICPMS/Hg		Env. Lab
8	19175	11/3/10	11:00	001A Duplicate	Buffer	1	Plastic	250ml	Water	Cr^{+6} *		Env. Lab
9	19176	11/3/10	11:00	001A Duplicate	None	1	Plastic	1 L	Water	Metals 1640M		CRG
10	19177	11/3/10	11:15	001B	HNO3	1	Plastic	1 L	Water	Metals ICPMS/Hg		Env. Lab
11	19178	11/3/10	11:15	001B	None	1	Plastic	250ml	Water	Cr^{+6} *		Env. Lab
12	19179	11/3/10	11:15	001B	None	1	Plastic	1 L	Water	Metals 1640M		CRG
13	19180	11/3/10	11:30	002A	HNO3	1	Plastic	1 L	Water	Metals ICPMS/Hg		Env. Lab
14	19181	11/3/10	11:30	002A	Buffer	1	Plastic	250ml	Water	Cr^{+6} *		Env. Lab
15	19182	11/3/10	11:30	002A	None	1	Plastic	1 L	Water	Metals 1640M		CRG
16				* added $(NH_4)_2SO_4$/ NH_4OH								

Date & Time Stamp
NOV -2 PM 4:01
Chem Lab COC Form #1
Revision: 08/01/02

Requester Mike Hanson
Address JFB1213 Tel. 70634 Organization/Div. Wastewater Compliance Fax 77134

Analyst: _____ Date _____
Approved: _____ Date _____

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify

KH
RG
AH
KC
BE
NM

Printed Name	Signature	Time	Date
Sampled by: Kasey Chung / Lety Sy	Sampled by: Kasey Chung	1205	11/3/10
Relinquished by: Kasey Chung	Relinquished by: Kasey Chung	1550	11/3/10
Received by D. Wong	Received by	0845	11/4/10

COC10-3340

HAYNES GS

PRIORITY POLLUTANTS

Sample Description:	HAYNES SER/DIS S001B ANNUAL
Chain of Custody Number:	10-1381
Sampling Date: 5/5/10	Sampling Time: 2:05 PM
Sampled By: CH/KC	

Annual Discharge Serial No. 001B Effluent x

COC No.: 10-1381

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYSIS CONDUCTED BY	ANALYTICAL METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
METALS	ANTIMONY	5/14/2010	ug/L	0.18	CRG	EPA 1640M		87.4% @ 20ug	0.01		0.05
	ARSENIC	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8			0.12	0.25	0.6
	BERYLLIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8			0.03	0.25	0.2
	CADMIUM	5/14/2010	ug/L	0.07	CRG	EPA 1640M		85.3% @ 20ug	0.005		0.03
	CHROMIUM	5/10/2010	ug/L	0.64	ENV LAB	EPA 200.8			0.04	0.25	0.2
	HEXAVALENT CHROMIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 218.6			0.1	0.5	0.5
	COPPER	5/14/2010	ug/L	2.7	CRG	EPA 1640M		94.4% @ 20ug	0.01		0.05
	LEAD	5/14/2010	ug/L	0.56	CRG	EPA 1640M		87.6% @ 20ug	0.005		0.03
	MERCURY	5/7/2010	ug/L	ND	ENV LAB	EPA 245.1	ND	109% @ 2.5ug	0.03	0.2	0.2
	NICKEL	5/14/2010	ug/L	0.57	CRG	EPA 1640M		86.1% @ 20ug	0.005		0.03
	SELENIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8			0.10	0.25	0.5
	SILVER	5/14/2010	ug/L	0.12	CRG	EPA 1640M		100% @20ug	0.02		0.10
	THALLIUM	5/10/2010	ug/L	0.09	ENV LAB	EPA 200.8			0.03	0.25	0.2
	ZINC	5/10/2010	ug/L	3.8	ENV LAB	EPA 200.8			1.00	0.25	5.0
MISCELLANEOUS	CYANIDE, TOTAL	5/14/2010	ug/L	ND	ENV LAB	SM 4500-CN E			5	5	25.0
	ASBESTOS (only if specifically required)	5/6/2010	MF/L	ND	EMS LABS	EPA 600R/R-93-116			1.1		5.5
pesticides & PCB's	ALDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0053	0.01
	CHLORDANE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.022	0.011	0.11
	DIELDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0053	0.011	0.03
	4,4'-DDT	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0053	0.011	0.03
	4,4'-DDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.032	0.063	0.16
	4,4'-DDD	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.032	0.053	0.16
	ALPHA-ENDOSULFAN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.011	0.021	0.06
	BETA-ENDOSULFAN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0053	0.011	0.03
	ENDOSULFAN SULFATE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.021	0.053	0.11
	ENDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0053	0.011	0.03
	ENDRIN ALDEHYDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0053	0.011	0.03
	HEPTACHLOR	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0053	0.011	0.03
	HEPTACHLOR EPOXIDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.011	0.01
	ALPHA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0053	0.011	0.03
	BETA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0053	0.01
	GAMMA-BHC(LINDANE)	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.011	0.021	0.06
	DELTA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0053	0.01
	TOXAPHENE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.53	1.3
	PCB 1016	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.53	1.3
	PCB 1221	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.53	1.3
	PCB 1232	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.53	1.3
	PCB 1242	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.53	1.3
	PCB 1248	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.53	1.3
	PCB 1254	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.53	1.3
	PCB 1260	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.53	1.3

HAYNES GS

PRIORITY POLLUTANTS

COC No.: 10-1381

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYZED BY	EPA METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
BASE/NEUTRAL EXTRACTIBLES	ACENAPHTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	BENZIDINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	1,2,4-TRICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	HEXACHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	BIS(2-CHLOROETHYL) ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	2-CHLORONAPHTHALENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	1,2-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	1,3-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	1,4-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	3,3'-DICHLOROBENZIDINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	2,4-DINITROTOLUENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	2,6-DINITROTOLUENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	1,2-DIPHENYLHYDRAZINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	FLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	4-CHLOROPHENYL PHENYL ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	4-BROMOPHENYL PHENYL ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	BIS(2-CHLOROISOPROPYL) ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	BIS(2-CHLOROETHOXY) METHANE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	HEXACHLOROBUTADIENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	HEXACHLOROCYCLOPENTADIENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	HEXACHLOROETHANE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	ISOPHORONE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	NAPHTHALENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	NITROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	N-NITROSODIMETHYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 1625C			0.002		0.010
	N-NITROSODI-N-PROPYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	N-NITROSODIPHENYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	BIS (2-ETHYLHEXYL) PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	BUTYL BENZYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	DI-N-BUTYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	DI-N-OCTYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	DIETHYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	DIMETHYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	1,2-BENZANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	BENZO(A) PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	3,4-BENZOFLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	11,12-BENZOFLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	CHRYSENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	ACENAPHTHYLENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	ANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	1,12-BENZOPERYLENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	FLUORENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	PHENANTHRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	1,2,5,6-DIBENZANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	INDENO (1,2,3-CD) PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	TCDD	5/10/2010	pg/L	ND	Columbia Analytical Service	EPA 1613			0.683		3.4
ACID EXTRACTIBLES	2,4,6-TRICHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	PARACHLOROMETA CRESOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	2-CHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	2,4-DICHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	2,4-DIMETHYLPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	2-NITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	4-NITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	10	25
	2,4-DINITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	4,6-DINITRO-O-CRESOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.0	5.0	25
	PENTACHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	3
	PHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	3

HAYNES GS

PRIORITY POLLUTANTS

COC No.: 10-1381

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYZED BY	EPA METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
VOLATILE ORGANICS	ACROLEIN	5/11/2010	ug/L	ND	ENV LAB	EPA 8260B			0.39	5	2.0
	ACRYLONITRILE	5/11/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	2	0.7
	BENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.23	1	1.2
	CARBON TETRACHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	CHLOROBENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.19	1	1.0
	1,2-DICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.16	1	0.9
	1,1,1-TRICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.22	1	1.1
	1,1-DICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.23	1	1.2
	1,1,2-TRICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	1,1,2,2-TETRACHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.24	1	1.2
	CHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.15	1	0.8
	CHLOROFORM	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	1,1-DICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	1,2-TRANS-DICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	1,2-DICHLOROPROPANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.25	1	1.3
	1,3-DICHLOROPROPYLENE*	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	ETHYLBENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	METHYLENE CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.21	1	1.1
	METHYL CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.30	1	1.5
	METHYL BROMIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.33	1	1.7
	BROMOFORM	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.19	1	1.0
	DICHLOROBROMOMETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.21	1	1.1
	CHLORODIBROMOMETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.18	1	0.9
	TETRACHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.16	1	0.8
	TOLUENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	TRICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	VINYL CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.15	1	0.8
	2-CHLOROETHYL VINYL ETHER	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.59	1	3.0
	XYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.38	1	1.9

* - reported as trans-1,3-dichloropropylene & cis-1,3-dichloropropylene

(1)-If result is Non-Detectable, report results as <(detection limit of the instrument).

"All analyses were conducted at a laboratory certified for such analysis and in accordance with current USEPA procedures or as specified in this Monitoring Program."

Laboratory Approval: Sandy Lewis

Title: Laboratory Director

Date: 6/30/10

AL 6/30/10

Environmental Laboratory
1630 N. Main Street, Bldg 7
Los Angeles , CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Power
City of Los Angeles

Chain of Custody Record

COC #: 10 - 1381 Page ___of___

Report C#_____ JC#_____ WO#_____
Refrig#. 8 Shelf 6 Bin#._____
Initial of Field Personnel: No. of Field Test:

R9S VOC

Sample Location Haynes GS - Priority Pollutants Annual 2010

Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1 LK08359	5/5/10	1405	Serial Discharge 001B	HCl	4	glass	40 mL	H2O	VOC's-8260		ENV LAB
2 LK08360				NONE	2	glass	40 mL	H2O	acrolein, acrylonitrile-8260B		ENV LAB
3 LK08361				NONE	2	glass	1L	H2O	EPA 625/625SIM		EMAX
4 LK08362				HNO_3	1	plastic	1L	H2O	ICP-MS, Hg		ENV LAB
5 LK08363				NONE	2	glass	1L	H2O	PCB/PEST-EPA 8081		EMAX
6 LK08364				NONE	2	glass	1L	H2O	DIOXINS-EPA 1613		EMAX
7 LK08365				NaOH	1	plastic	1L	H2O	FREE/TOTAL CYANIDE		B of S
8 LK08366				NONE	2	glass	1L	H2O	ASBESTOS		EMS
9 LK08367				NONE	2	glass	1L	H2O	NDMA		EMAX
10 LK08368				NH_4OH	1	plastic	250 mL	H2O	Cr+6		ENV LAB
11											
12											
13											
14											
15											
16											

Dept of Water & Power
2010 MAY -6 AM 7:50
Received by: Environmental Lab

Chem Lab COC Form #1
Revision: 10/2/2001

Date & Time Stamp

Requested by . Michael Hanson Organization / Div. WWC
Address. 1213 JFB Tele x70634 Fax. x73297

Analyst_____ date_____
Approved by_____ date_____

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify

KH
BT
KC
NM

	Printed Name	Signature	Time	Date
Sampled by:	CH / KC	Sampled by: Chia Yung Hwang	1405	5/5/10
Relinquished by:	Chia Yung Hwang	Relinquished by: Chia Hwang	750	"
Received by	C Sy	Received by	750	5/6/10

COC10- 1381

HAYNES GS

PRIORITY POLLUTANTS

Sample Description:	HAYNES SER DIS S002A ANNUAL
Chain of Custody Number:	10-1382
Sampling Date: 5/5/10	Sampling Time: 2:25 PM
Sampled By: CH/KC	

Annual Discharge Serial No. 002A Effluent x

COC No.: 10-1382

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYSIS CONDUCTED BY	ANALYTICAL METHOD	QA/QC DUPLICATE SAMPLE	QA/QC MATRIX SPIKE	MDL	ML	RL
METALS	ANTIMONY	5/10/2010	ug/L	0.24	CRG	EPA 1640M			0.01		0.05
	ARSENIC	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8			0.12	0.25	0.6
	BERYLLIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8			0.03	0.25	0.2
	CADMIUM	5/10/2010	ug/L	0.07	CRG	EPA 1640M			0.005		0.03
	CHROMIUM	5/10/2010	ug/L	0.73	ENV LAB	EPA 200.8			0.04	0.25	0.2
	HEXAVALENT CHROMIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 218.6			0.1	0.5	0.5
	COPPER	5/10/2010	ug/L	2.8	CRG	EPA 1640M			0.01		0.05
	LEAD	5/10/2010	ug/L	0.59	CRG	EPA 1640M			0.005		0.03
	MERCURY	5/7/2010	ug/L	ND	ENV LAB	EPA 245.1			0.03	0.2	0.2
	NICKEL	5/10/2010	ug/L	0.54	CRG	EPA 1640M			0.005		0.03
	SELENIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8			0.10	0.25	0.5
	SILVER	5/10/2010	ug/L	0.11	CRG	EPA 1640M			0.02		0.10
	THALLIUM	5/10/2010	ug/L	0.06	ENV LAB	EPA 200.8			0.03	0.25	0.2
	ZINC	5/10/2010	ug/L	6.1	ENV LAB	EPA 200.8			1.00	0.25	5.0
MISCELLANEOUS	CYANIDE, TOTAL	5/14/2010	ug/L	ND-	ENV LAB	SM 4500-CN E			5	5	25
	ASBESTOS (only if specifically required)	5/6/2010	MF/L	ND	EMS LABS	EPA 600R/R-93-116			1.1		5.5
pesticides & PCB's	ALDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0052	0.01
	CHLORDANE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.022	0.011	0.11
	DIELDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.011	0.03
	4,4'-DDT	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.011	0.03
	4,4'-DDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.032	0.052	0.16
	4,4'-DDD	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.032	0.052	0.16
	ALPHA-ENDOSULFAN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.011	0.021	0.06
	BETA-ENDOSULFAN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.011	0.03
	ENDOSULFAN SULFATE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.021	0.052	0.11
	ENDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.011	0.03
	ENDRIN ALDEHYDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.011	0.03
	HEPTACHLOR	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.011	0.03
	HEPTACHLOR EPOXIDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.011	0.01
	ALPHA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.011	0.03
	BETA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0052	0.01
	GAMMA-BHC(LINDANE)	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.011	0.021	0.06
	DELTA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0052	0.01
	TOXAPHENE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1016	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1221	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1232	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1242	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1248	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1254	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1260	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3

HAYNES GS

PRIORITY POLLUTANTS

COC No.: 10-1382

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYZED BY	EPA METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
BASE/NEUTRAL EXTRACTIBLES	ACENAPHTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	2.7
	BENZIDINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	1,2,4-TRICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	HEXACHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	2.7
	BIS(2-CHLOROETHYL) ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	2-CHLORONAPHTHALENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	1,2-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	1,3-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	1,4-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	3,3'-DICHLOROBENZIDINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	2,4-DINITROTOLUENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	2,6-DINITROTOLUENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	1,2-DIPHENYLHYDRAZINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	FLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	2.7
	4-CHLOROPHENYL PHENYL ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	2.7
	4-BROMOPHENYL PHENYL ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	BIS(2-CHLOROISOPROPYL) ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	BIS(2-CHLOROETHOXY) METHANE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	HEXACHLOROBUTADIENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	HEXACHLOROCYCLOPENTADIENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	HEXACHLOROETHANE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	ISOPHORONE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	NAPHTHALENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	NITROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	N-NITROSODIMETHYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 1625C			5.3	11	27
	N-NITROSODI-N-PROPYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.002		0.010
	N-NITROSODIPHENYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	BIS (2-ETHYLHEXYL) PHTHALATE	5/10/2010	ug/L	26.0	EMAX	EPA 625/8270C			5.3	11	27
	BUTYL BENZYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	DI-N-BUTYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	DI-N-OCTYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	DIETHYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	DIMETHYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	1,2-BENZANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	BENZO(A) PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	3,4-BENZOFLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	11,12-BENZOFLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	CHRYSENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	ACENAPHTHYLENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	ANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	1,12-BENZOPERYLENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	FLUORENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	PHENANTHRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	1,2,5,6-DIBENZANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	INDENO (1,2,3-CD) PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	TCDD	5/10/2010	pg/L	ND	Columbia Analytical Service	EPA 1613			0.223		1.1
ACID EXTRACTIBLES	2,4,6-TRICHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	2.7
	PARACHLOROMETA CRESOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	2.7
	2-CHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	2.7
	2,4-DICHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	2.7
	2,4-DIMETHYLPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	2.7
	2-NITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	2.7
	4-NITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	2,4-DINITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	4,6-DINITRO-O-CRESOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	PENTACHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	PHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	2.7

HAYNES GS

PRIORITY POLLUTANTS

COC No.: 10-1382

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYZED BY	EPA METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
VOLATILE ORGANICS	ACROLEIN	5/11/2010	ug/L	ND	ENV LAB	EPA 8260B			0.39	5	2.0
	ACRYLONITRILE	5/11/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	2	0.7
	BENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.23	1	1.2
	CARBON TETRACHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	CHLOROBENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.19	1	1.0
	1,2-DICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.18	1	0.9
	1,1,1-TRICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.22	1	1.1
	1,1-DICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.23	1	1.2
	1,1,2-TRICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	1,1,2,2-TETRACHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.24	1	1.2
	CHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.15	1	0.8
	CHLOROFORM	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	1,1-DICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	1,2-TRANS-DICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	1,2-DICHLOROPROPANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.25	1	1.3
	1,3-DICHLOROPROPYLENE*	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	ETHYLBENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	METHYLENE CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.21	1	1.1
	METHYL CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.30	1	1.5
	METHYL BROMIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.33	1	1.7
	BROMOFORM	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.19	1	1.0
	DICHLOROBROMOMETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.21	1	1.1
	CHLORODIBROMOMETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.18	1	0.9
	TETRACHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.16	1	0.8
	TOLUENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	TRICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	VINYL CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.15	1	0.8
	2-CHLOROETHYL VINYL ETHER	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.59	1	3.0
	XYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.38	1	1.9

* - reported as trans-1,3-dichloropropylene & cis-1,3-dichloropropylene

(1)-If result is Non-Detectable, report results as <(detection limit of the instrument).

"All analyses were conducted at a laboratory certified for such analysis and in accordance with current USEPA procedures or as specified in this Monitoring Program."

Laboratory Approval: Sandy Kemp

Title: Laboratory Director

Date: 6/30/10

AL 6/30/10

Environmental Laboratory
1630 N. Main Street, Bldg 7
Los Angeles , CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Power
City of Los Angeles

Chain of Custody Record

COC # : 10 - 1382 Page ___of___

Report C#_____ JC#_____ WO#_____
Refrig#. 8 Shelf 1 Bin#._____
Initial of Field Personnel: No. of Field Test:

Sample Location Haynes GS - Priority Pollutants Annual 2010

Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1 LK08369	5/5/10	1425	Serial Discharge 002A	HCl	4	glass	40 mL	H2O	VOC's-8260		ENV LAB
2 LK08370				NONE	2	glass	40 mL	H2O	acrolein, acrylonitrile-8260B		ENV LAB
3 LK08371				NONE	2	glass	1L	H2O	EPA 625/625SIM		EMAX
4 LK08372				HNO_3	1	plastic	1L	H2O	ICP-MS, Hg		ENV LAB
5 LK08373				NONE	2	glass	1L	H2O	PCB/PEST-EPA 8081		EMAX
6 LK08374				NONE	2	glass	1L	H2O	DIOXINS-EPA 1613		EMAX
7 LK08375				NaOH	1	plastic	1L	H2O	FREE/TOTAL CYANIDE		B of S
8 LK08376				NONE	2	glass	1L	H2O	ASBESTOS		EMS
9 LK08377				NONE	2	glass	1L	H2O	NDMA		EMAX
10 LK08378				NH_4OH	1	plastic	250 mL	H2O	Cr+6		ENV LAB
11											
12											
13											
14											
15											
16											

Dept of Water & Power
Date & Time Stamp
2010 MAY -6 AM 7:53
Rec'd by: Environmental Lab
Chem Lab COC Form #1
Revision: 10/2/2001

COC10-1382

Requested by . Michael Hanson Organization / Div. WWC
Address. 1213 JFB Tele x70634 Fax. x73297

Analyst_____ date_____
Approved by_____ date_____

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify

EH
BT
KC
NM

Printed Name	Signature	Time	Date
Sampled by: CH/KC	Sampled by: Chia Yung Hwang	1425	5/5/10
Relinquished by: Chia Yung Hwang	Relinquished by: Chia Yung Hwang	753	"
Received by C SC	Received by	8:40	5/6/10

HAYNES GS

PRIORITY POLLUTANTS

Sample Description:	HAYNES SER DIS S002B ANNUAL
Chain of Custody Number:	10/1383
Sampling Date: 5/5/10	Sampling Time: 2:40 PM
Sampled By: CH/KC	

Annual Discharge Serial No. 002B Effluent X

COC No.: 10-1383

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYSIS CONDUCTED BY	ANALYTICAL METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
METALS	ANTIMONY	5/14/2010	ug/L	0.23	CRG	EPA 1640M			0.01		0.05
	ARSENIC	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8			0.12	0.25	0.6
	BERYLLIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8			0.03	0.25	0.2
	CADMIUM	5/14/2010	ug/L	0.07	CRG	EPA 1640M			0.005		0.03
	CHROMIUM	5/10/2010	ug/L	0.58	ENV LAB	EPA 200.8			0.04	0.25	0.2
	HEXAVALENT CHROMIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 218.6			0.1	0.5	0.5
	COPPER	5/14/2010	ug/L	2.7	CRG	EPA 1640M			0.01		0.05
	LEAD	5/14/2010	ug/L	0.53	CRG	EPA 1640M			0.005		0.03
	MERCURY	5/7/2010	ug/L	ND	ENV LAB	EPA 245.1			0.03	0.2	0.2
	NICKEL	5/14/2010	ug/L	0.50	CRG	EPA 1640M			0.005		0.03
	SELENIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8			0.10	0.25	0.5
	SILVER	5/14/2010	ug/L	0.14	CRG	EPA 1640M			0.02		0.10
	THALLIUM	5/10/2010	ug/L	0.06	ENV LAB	EPA 200.8			0.03	0.25	0.2
	ZINC	5/10/2010	ug/L	3.6	ENV LAB	EPA 200.8			1.00	0.25	5.0
MISCELLANEOUS	CYANIDE, TOTAL	5/14/2010	ug/L	ND	ENV LAB	SM 4500-CN E			5	5	25
	ASBESTOS (only if specifically required)	5/8/2010	MF/L	ND	EMS LABS	EPA 600/R/R-93-116			1.1		5.5
pesticides & PCB's	ALDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0052	0.01
	CHLORDANE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.020	0.010	0.10
	DIELDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	4,4'-DDT	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	4,4'-DDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.031	0.052	0.16
	4,4'-DDD	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.031	0.052	0.16
	ALPHA-ENDOSULFAN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.010	0.021	0.05
	BETA-ENDOSULFAN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	ENDOSULFAN SULFATE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.021	0.052	0.11
	ENDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	ENDRIN ALDEHYDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	HEPTACHLOR	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	HEPTACHLOR EPOXIDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.010	0.01
	ALPHA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	BETA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0052	0.01
	GAMMA-BHC(LINDANE)	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.010	0.021	0.05
	DELTA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0052	0.01
	TOXAPHENE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1016	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1221	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1232	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1242	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1248	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1254	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1260	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3

HAYNES GS

PRIORITY POLLUTANTS

COC No.: 10-1383

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYZED BY	EPA METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
BASE/NEUTRAL EXTRACTIBLES	ACENAPHTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	2.7
	BENZIDINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	1,2,4-TRICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	HEXACHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	2.7
	BIS(2-CHLOROETHYL) ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	2-CHLORONAPHTHALENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	1,2-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	1,3-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	1,4-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	3,3'-DICHLOROBENZIDINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	2,4-DINITROTOLUENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	2,6-DINITROTOLUENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	1,2-DIPHENYLHYDRAZINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	2.7
	FLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	2.7
	4-CHLOROPHENYL PHENYL ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	4-BROMOPHENYL PHENYL ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	BIS(2-CHLOROISOPROPYL) ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	BIS(2-CHLOROETHOXY) METHANE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	HEXACHLOROBUTADIENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	HEXACHLOROCYCLOPENTADIENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	HEXACHLOROETHANE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	ISOPHORONE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	NAPHTHALENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	NITROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	N-NITROSODIMETHYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 1625C			0.002		0.010
	N-NITROSODI-N-PROPYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	N-NITROSODIPHENYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	BIS (2-ETHYLHEXYL) PHTHALATE	5/10/2010	ug/L	15.0	EMAX	EPA 625/8270C			5.3	5.3	27
	BUTYL BENZYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	DI-N-BUTYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	DI-N-OCTYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	DIETHYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	DIMETHYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	1,2-BENZANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	BENZO(A) PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	3,4-BENZOFLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	11,12-BENZOFLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	CHRYSENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	ACENAPHTHYLENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	ANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	1,12-BENZOPERYLENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	FLUORENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	PHENANTHRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	1,2,5,6-DIBENZANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	INDENO (1,2,3-CD) PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	TCDD	5/10/2010	pg/L	ND	Columbia Analytical Service	EPA 1613			0.591		3
ACID EXTRACTIBLES	2,4,6-TRICHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	3
	PARACHLOROMETA CRESOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	3
	2-CHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	3
	2,4-DICHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	3
	2,4-DIMETHYLPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	3
	2-NITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	3
	4-NITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	2,4-DINITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	11	27
	4,6-DINITRO-O-CRESOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	PENTACHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.3	5.3	27
	PHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.53	1.1	3
									0.53	1.1	3

HAYNES GS

PRIORITY POLLUTANTS

COC No.: 10-1383

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYZED BY	EPA METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
VOLATILE ORGANICS	ACROLEIN	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.39	5	2.0
	ACRYLONITRILE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	2	0.7
	BENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.23	1	1.2
	CARBON TETRACHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	CHLOROBENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.19	1	1.0
	1,2-DICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.18	1	0.9
	1,1,1-TRICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.22	1	1.1
	1,1-DICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.23	1	1.2
	1,1,2-TRICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	1,1,2,2-TETRACHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.24	1	1.2
	CHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.15	1	0.8
	CHLOROFORM	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	1,1-DICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	1,2-TRANS-DICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	1,2-DICHLOROPROPANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.25	1	1.3
	1,3-DICHLOROPROPYLENE*	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	ETHYLBENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	METHYLENE CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.21	1	1.1
	METHYL CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.30	1	1.5
	METHYL BROMIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.33	1	1.7
	BROMOFORM	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.19	1	1.0
	DICHLOROBROMOMETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.21	1	1.1
	CHLORODIBROMOMETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.18	1	0.9
	TETRACHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.16	1	0.8
	TOLUENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	TRICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	VINYL CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.15	1	0.8
	2-CHLOROETHYL VINYL ETHER	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.59	1	3.0
	XYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.38	1	1.9

* - reported as trans-1,3-dichloropropylene & cis-1,3-dichloropropylene

(1)-If result is Non-Detectable, report results as <(detection limit of the instrument).

"All analyses were conducted at a laboratory certified for such analysis and in accordance with current USEPA procedures or as specified in this Monitoring Program."

Laboratory Approval: Stanley Kung

Title: Laboratory Director

Date: 6/30/10

RK 6/30/10

Environmental Laboratory
1630 N. Main Street, Bldg 7
Los Angeles , CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Power
City of Los Angeles
Chain of Custody Record

COC # : 10-1383

Page ___of___

Report C#_____ JC#_____ WO#_____

Refrig#. 8 Shelf 6 Bin#._____

Initial of Field Personnel: _____ No. of Field Test: _____

Sample Location Haynes GS - Priority Pollutants Annual 2010 R9.52

Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1 LK08379	5/5/10	1440	Serial Discharge 002B	HCl	4	glass	40 mL	H2O	VOC's-8260		ENV LAB
2 LK08380				NONE	2	glass	40 mL	H2O	acrolein, acrylonitrile-8260B		ENV LAB
3 LK08381				NONE	2	glass	1L	H2O	EPA 625/625SIM		EMAX
4 LK08382				HNO_3	1	plastic	1L	H2O	ICP-MS, Hg		ENV LAB
5 LK08383				NONE	2	glass	1L	H2O	PCB/PEST-EPA 8081		EMAX
6 LK08384				NONE	2	glass	1L	H2O	DIOXINS-EPA 1613		EMAX
7 LK08385				NaOH	1	plastic	1L	H2O	FREE/TOTAL CYANIDE		B of S
8 LK08386				NONE	2	glass	1L	H2O	ASBESTOS		EMS
9 LK08387				NONE	2	glass	1L	H2O	NDMA		EMAX
10 LK08388				NH_4OH	1	plastic	250 mL	H2O	Cr+6		ENV LAB
11											
12											
13											
14											
15											
16											

Date & Time Stamp
Dept of Water & Power
2010 MAY -6 PM 2:51
Chem Lab COC Form #1
Revision: 10/2/2001

Requested by . Michael Hanson Organization / Div. WWC

Address. 1213 JFB Tele x70634 Fax. x73297

Analyst_____ date_____

Approved by_____ date_____

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify

KH
BT
KC
NM

	Printed Name	Signature	Time	Date
Sampled by:	CH/KC	Sampled by: Chia Yung Hwang	1440	5/5/10
Relinquished by:	Chia Yung Hwang	Relinquished by: Chia Yung Hwang	751	5/6/10
Received by	RO	Received by	751	5/6/10

COC10-1383

HAYNES GS

PRIORITY POLLUTANTS

Sample Description:	HAYNES SER DIS S003A ANNUAL
Chain of Custody Number:	10-1384
Sampling Date: 5/5/10	Sampling Time: 3:15 PM
Sampled By: CH/KC	

Annual Discharge Serial No. 003A Effluent x

COC No.: 10-1384

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYSIS CONDUCTED BY	ANALYTICAL METHOD	QA/QC DUPLICATE SAMPLE	QA/QC MATRIX SPIKE	MDL	ML	RL
METALS	ANTIMONY	5/14/2010	ug/L	0.21	CRG	EPA 1640M			0.01		0.05
	ARSENIC	5/10/2010	ug/L	0.32	ENV LAB	EPA 200.8			0.12	0.25	0.6
	BERYLLIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8			0.03	0.25	0.2
	CADMIUM	5/14/2010	ug/L	0.08	CRG	EPA 1640M			0.005		0.03
	CHROMIUM	5/10/2010	ug/L	0.26	ENV LAB	EPA 200.8			0.04	0.25	0.2
	HEXAVALENT CHROMIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 218.6			0.1	0.5	0.5
	COPPER	5/14/2010	ug/L	2.9	CRG	EPA 1640M			0.01		0.05
	LEAD	5/14/2010	ug/L	0.93	CRG	EPA 1640M			0.005		0.03
	MERCURY	5/7/2010	ug/L	ND	ENV LAB	EPA 245.1			0.03	0.2	0.2
	NICKEL	5/14/2010	ug/L	0.72	CRG	EPA 1640M			0.005		0.03
	SELENIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8			0.10	0.25	0.5
	SILVER	5/14/2010	ug/L	0.11	CRG	EPA 1640M			0.02		0.10
	THALLIUM	5/10/2010	ug/L	0.07	ENV LAB	EPA 200.8			0.03	0.25	0.2
	ZINC	5/10/2010	ug/L	4.6	ENV LAB	EPA 200.8			1.00	0.25	5.0
MISCELLANEOUS	CYANIDE, TOTAL	5/14/2010	ug/L	ND	ENV LAB	SM 4500-CN E			5	5	25
	ASBESTOS (only if specifically required)	5/6/2010	MFL	ND	EMS LABS	EPA 600/R-93-116			1.1		5.5
pesticides & PCB's	ALDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0052	0.01
	CHLORDANE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.020	0.010	0.10
	DIELDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	4,4'-DDT	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	4,4'-DDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.031	0.052	0.16
	4,4'-DDD	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.031	0.052	0.16
	ALPHA-ENDOSULFAN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.010	0.021	0.05
	BETA-ENDOSULFAN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	ENDOSULFAN SULFATE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.021	0.052	0.11
	ENDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	ENDRIN ALDEHYDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	HEPTACHLOR	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	HEPTACHLOR EPOXIDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.010	0.01
	ALPHA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	BETA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0052	0.01
	GAMMA-BHC(LINDANE)	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.010	0.021	0.05
	DELTA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0052	0.01
	TOXAPHENE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1016	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1221	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1232	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1242	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1248	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1254	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1260	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3

HAYNES GS

PRIORITY POLLUTANTS

COC No.: 10-1384

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYZED BY	EPA METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
BASE/NEUTRAL EXTRACTIBLES	ACENAPHTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	BENZIDINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	1,2,4-TRICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	HEXACHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	BIS(2-CHLOROETHYL) ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	2-CHLORONAPHTHALENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	1,2-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	1,3-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	1,4-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	3,3'-DICHLOROBENZIDINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	2,4-DINITROTOLUENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	2,6-DINITROTOLUENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	1,2-DIPHENYLHYDRAZINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	FLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	4-CHLOROPHENYL PHENYL ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	4-BROMOPHENYL PHENYL ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	BIS(2-CHLOROISOPROPYL) ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	BIS(2-CHLOROETHOXY) METHANE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	HEXACHLOROBUTADIENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	HEXACHLOROCYCLOPENTADIENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	HEXACHLOROETHANE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	ISOPHORONE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	NAPHTHALENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	NITROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	N-NITROSODIMETHYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 1626C			0.002		0.010
	N-NITROSODI-N-PROPYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	N-NITROSODIPHENYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	BIS (2-ETHYLHEXYL) PHTHALATE	5/10/2010	ug/L	32.0	EMAX	EPA 625/8270C			5.2	5.2	26
	BUTYL BENZYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	DI-N-BUTYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	DI-N-OCTYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	DIETHYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	DIMETHYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	1,2-BENZANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	BENZO(A) PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	3,4-BENZOFLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	11,12-BENZOFLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	CHRYSENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	ACENAPHTHYLENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	ANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	1,12-BENZOPERYLENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	FLUORENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	PHENANTHRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	1,2,5,6-DIBENZANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	INDENO (1,2,3-CD) PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	TCDD	5/10/2010	pg/L	ND	Columbia Analytical Service	EPA 1613			0.485		2.4
ACID EXTRACTIBLES	2,4,6-TRICHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	PARACHLOROMETA CRESOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	2-CHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	2,4-DICHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	2,4-DIMETHYLPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	2-NITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	4-NITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	11	26
	2,4-DINITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	4,6-DINITRO-O-CRESOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.2	5.2	26
	PENTACHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	PHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6

HAYNES GS

PRIORITY POLLUTANTS

COC No.: 10-1384

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYZED BY	EPA METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
VOLATILE ORGANICS	ACROLEIN	5/11/2010	ug/L	ND	ENV LAB	EPA 8260B			0.39	5	2.0
	ACRYLONITRILE	5/11/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	2	0.7
	BENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.23	1	1.2
	CARBON TETRACHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	CHLOROBENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.19	1	1.0
	1,2-DICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.18	1	0.9
	1,1,1-TRICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.22	1	1.1
	1,1-DICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.23	1	1.2
	1,1,2-TRICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	1,1,2,2-TETRACHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.24	1	1.2
	CHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.15	1	0.8
	CHLOROFORM	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	1,1-DICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	1,2-TRANS-DICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	1,2-DICHLOROPROPANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.25	1	1.3
	1,3-DICHLOROPROPYLENE*	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	ETHYLBENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	METHYLENE CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.21	1	1.1
	METHYL CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.30	1	1.5
	METHYL BROMIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.33	1	1.7
	BROMOFORM	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.19	1	1.0
	DICHLOROBROMOMETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.21	1	1.1
	CHLORODIBROMOMETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.18	1	0.9
	TETRACHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.16	1	0.8
	TOLUENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	TRICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	VINYL CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.15	1	0.8
	2-CHLOROETHYL VINYL ETHER	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.59	1	3.0
	XYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.38	1	1.9

* - reported as trans-1,3-dichloropropylene & cis-1,3-dichloropropylene

(1)-If result is Non-Detectable, report results as <(detection limit of the instrument).

"All analyses were conducted at a laboratory certified for such analysis and in accordance with current USEPA procedures or as specified in this Monitoring Program."

Laboratory Approval: Sandy Kang

Title: Laboratory Director

Date: 6/30/10

RR 6/30/10

Environmental Laboratory
1630 N. Main Street, Bldg 7
Los Angeles , CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Power
City of Los Angeles

Chain of Custody Record

COC # : 10 - 1384 Page ___ of ___

Report C#_____ JC#_____ WO#_____
Refrig#. 8 Shelf 6 Bin#._____
Initial of Field Personnel: No. of Field Test:

Sample Location Haynes GS - Priority Pollutants Annual 2010

Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1 LK0 8390	5/5/10	1515	Serial Discharge 003A	HCl	4	glass	40 mL	H2O	VOC's-8260		ENV LAB
2 LK08391				NONE	2	glass	40 mL	H2O	acrolein, acrylonitrile-8260B		ENV LAB
3 LK08392				NONE	2	glass	1L	H2O	EPA 625/625SIM		EMAX
4 LK08393				HNO_3	1	plastic	1L	H2O	ICP-MS, Hg		ENV LAB
5 LK08394				NONE	2	glass	1L	H2O	PCB/PEST-EPA 8081		EMAX
6 LK08395				NONE	2	glass	1L	H2O	DIOXINS-EPA 1613		EMAX
7 LK08396				NaOH	1	plastic	1L	H2O	FREE/TOTAL CYANIDE		B of S
8 LK08397				NONE	2	glass	1L	H2O	ASBESTOS		EMS
9 LK08398				NONE	2	glass	1L	H2O	NDMA		EMAX
10 LK08399				NH_4OH	1	plastic	250 mL	H2O	Cr+6		ENV LAB
11											
12											
13											
14											
15											
16											

Dept of Water & Power
Date & Time Stamp
2010 MAY -6
Rec'd by: Environmental Lab
Chem Lab COC Form #1
Revision: 10/2/2001

Requested by . Michael Hanson Organization / Div. WWC
Address. 1213 JFB Tele x70634 Fax. x73297

Analyst_____ date_____
Approved by_____ date_____

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify

KH
BT
KC
NM

Printed Name	Signature	Time	Date
Sampled by: CH/KC	Sampled by: Chia Yung Hwang	1515	5/5/10
Relinquished by: Chia Yung Hwang	Relinquished by: Chia Yung Hwang	750	5/6/10
Received by RO	Received by	750	5/6/10

COC10-1384

HAYNES GS

PRIORITY POLLUTANTS

Sample Description:	HAYNES SER/DIS S003B ANNUAL
Chain of Custody Number:	10-1385
Sampling Date: 5/5/10	Sampling Time: 3:30 PM
Sampled By: CH/KC	

Annual Discharge Serial No. 003B Effluent x

COC No.: 10-1385

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYSIS CONDUCTED BY	ANALYTICAL METHOD	QA/QC DUPLICATE SAMPLE	QA/QC MATRIX SPIKE	MDL	ML	RL
METALS	ANTIMONY	5/14/2010	ug/L	0.24	CRG	EPA 1640M			0.01		0.06
	ARSENIC	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8			0.12	0.25	0.6
	BERYLLIUM	5/10/2010	ug/L	0.03	ENV LAB	EPA 200.8			0.03	0.25	0.2
	CADMIUM	5/14/2010	ug/L	0.07	CRG	EPA 1640M			0.005		0.03
	CHROMIUM	5/10/2010	ug/L	0.66	ENV LAB	EPA 200.8			0.04	0.25	0.2
	HEXAVALENT CHROMIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 218.6			0.1	0.5	0.6
	COPPER	5/14/2010	ug/L	3.1	CRG	EPA 1640M			0.01		0.05
	LEAD	5/14/2010	ug/L	0.59	CRG	EPA 1640M			0.005		0.03
	MERCURY	5/7/2010	ug/L	ND	ENV LAB	EPA 245.1			0.03	0.2	0.2
	NICKEL	5/14/2010	ug/L	0.57	CRG	EPA 1640M			0.005		0.03
	SELENIUM	5/10/2010	ug/L	0.66	ENV LAB	EPA 200.8			0.10	0.25	0.5
	SILVER	5/14/2010	ug/L	0.10	CRG	EPA 1640M			0.02		0.10
	THALLIUM	5/10/2010	ug/L	0.05	ENV LAB	EPA 200.8			0.03	0.25	0.2
	ZINC	5/10/2010	ug/L	6.0	ENV LAB	EPA 200.8			1.00	0.25	5.0
MISCELLANEOUS	CYANIDE, TOTAL	5/14/2010	ug/L	ND	ENV LAB	SM 4500-CN E			5	5	25
	ASBESTOS (only if specifically required)	5/6/2010	MF/L	ND	EMS LABS	EPA 600R/R-93-116			1.1		5.5
pesticides & PCB's	ALDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0052	0.01
	CHLORDANE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.020	0.010	0.10
	DIELDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	4,4'-DDT	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	4,4'-DDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.031	0.052	0.16
	4,4'-DDD	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.031	0.052	0.16
	ALPHA-ENDOSULFAN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.010	0.021	0.05
	BETA-ENDOSULFAN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	ENDOSULFAN SULFATE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.021	0.052	0.11
	ENDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	ENDRIN ALDEHYDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	HEPTACHLOR	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	HEPTACHLOR EPOXIDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.010	0.01
	ALPHA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0052	0.010	0.03
	BETA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0052	0.01
	GAMMA-BHC(LINDANE)	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.010	0.021	0.05
	DELTA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0021	0.0052	0.01
	TOXAPHENE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1016	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1221	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1232	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1242	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1248	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1254	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3
	PCB 1260	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.26	0.52	1.3

HAYNES GS

PRIORITY POLLUTANTS

COC No.: 10-1385

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYZED BY	EPA METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
BASE/NEUTRAL EXTRACTIBLES	ACENAPHTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	BENZIDINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	1,2,4-TRICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	HEXACHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	BIS(2-CHLOROETHYL) ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	2-CHLORONAPHTHALENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	1,2-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	1,3-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	1,4-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	3,3'-DICHLOROBENZIDINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	2,4-DINITROTOLUENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	2,6-DINITROTOLUENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	1,2-DIPHENYLHYDRAZINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	FLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	4-CHLOROPHENYL PHENYL ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	4-BROMOPHENYL PHENYL ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	BIS(2-CHLOROISOPROPYL) ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	BIS(2-CHLOROETHOXY) METHANE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	HEXACHLOROBUTADIENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	HEXACHLOROCYCLOPENTADIENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	HEXACHLOROETHANE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	ISOPHORONE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	NAPHTHALENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	NITROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	N-NITROSODIMETHYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 1625C			0.002		0.010
	N-NITROSODI-N-PROPYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	N-NITROSODIPHENYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	BIS (2-ETHYLHEXYL) PHTHALATE	5/10/2010	ug/L	10.0	EMAX	EPA 625/8270C			5.1	5.1	26
	BUTYL BENZYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	DI-N-BUTYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	DI-N-OCTYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	DIETHYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	DIMETHYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	1,2-BENZANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	BENZO(A) PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	3,4-BENZOFLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	11,12-BENZOFLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	CHRYSENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	ACENAPHTHYLENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	ANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	1,12-BENZOPERYLENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	FLUORENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	PHENANTHRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	1,2,5,6-DIBENZANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	INDENO (1,2,3-CD) PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	TCDD	5/10/2010	pg/L	ND	Columbia Analytical Service	EPA 1613			0.866		4.33
ACID EXTRACTIBLES	2,4,6-TRICHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	PARACHLOROMETA CRESOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	2-CHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	2,4-DICHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	2,4-DIMETHYLPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	2-NITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	4-NITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	2,4-DINITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	4,6-DINITRO-O-CRESOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	PENTACHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6
	PHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.51	1.0	2.6

HAYNES GS

PRIORITY POLLUTANTS

COC No.: 10-1385

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYZED BY	EPA METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
VOLATILE ORGANICS	ACROLEIN	5/11/2010	ug/L	ND	ENV LAB	EPA 8260B			0.39	5	2.0
	ACRYLONITRILE	5/11/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	2	0.7
	BENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.23	1	1.2
	CARBON TETRACHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	CHLOROBENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.19	1	1.0
	1,2-DICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.18	1	0.9
	1,1,1-TRICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.22	1	1.1
	1,1-DICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.23	1	1.2
	1,1,2-TRICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	1,1,2,2-TETRACHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.24	1	1.2
	CHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.15	1	0.8
	CHLOROFORM	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	1,1-DICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	1,2-TRANS-DICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	1,2-DICHLOROPROPANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.25	1	1.3
	1,3-DICHLOROPROPYLENE*	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	ETHYLBENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	METHYLENE CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.21	1	1.1
	METHYL CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.30	1	1.5
	METHYL BROMIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.33	1	1.7
	BROMOFORM	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.19	1	1.0
	DICHLOROBROMOMETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.21	1	1.1
	CHLORODIBROMOMETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.18	1	0.9
	TETRACHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.16	1	0.8
	TOLUENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	TRICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	VINYL CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.15	1	0.8
	2-CHLOROETHYL VINYL ETHER	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.59	1	3.0
	XYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.38	1	1.9

* - reported as trans-1,3-dichloropropylene & cis-1,3-dichloropropylene

(1)-If result is Non-Detectable, report results as <(detection limit of the instrument).

"All analyses were conducted at a laboratory certified for such analysis and in accordance with current USEPA procedures or as specified in this Monitoring Program."

Laboratory Approval: Stanley Kemp

Title: Laboratory Director

Date: 6/30/10

6/30/10

Environmental Laboratory
1630 N. Main Street, Bldg 7
Los Angeles , CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Power
City of Los Angeles

Chain of Custody Record

COC # : 10-1385 Page ___of___

Report C#_____ JC#_____ WO#_____
Refrig#. 5 Shelf 6 Bin#._____
Initial of Field Personnel: No. of Field Test:

Sample Location Haynes GS - Priority Pollutants Annual 2010

	Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1	LK08400	5/5/10	1530	Serial Discharge 003B	HCl	4	glass	40 mL	H2O	VOC's-8260		ENV LAB
2	LK08401				NONE	2	glass	40 mL	H2O	acrolein, acrylonitrile-8260B		ENV LAB
3	LK08402				NONE	2	glass	1L	H2O	EPA 625/625SIM		EMAX
4	LK08403				HNO_3	1	plastic	1L	H2O	ICP-MS, Hg		ENV LAB
5	LK08404				NONE	2	glass	1L	H2O	PCB/PEST-EPA 8081		EMAX
6	LK08405				NONE	2	glass	1L	H2O	DIOXINS-EPA 1613		EMAX
7	LK08406				NaOH	1	plastic	1L	H2O	FREE/TOTAL CYANIDE		B of S
8	LK08407				NONE	2	glass	1L	H2O	ASBESTOS		EMS
9	LK08408				NONE	2	glass	1L	H2O	NDMA		EMAX
10	LK08409				NH_4OH	1	plastic	250 mL	H2O	Cr+6		ENV LAB
11												
12												
13												
14												
15												
16												

Date & Time Stamp
Dept of Water & Power
2010 MAY -6 AM 9:54
Environmental Lab
Chem Lab COC Form #1
Revision: 10/2/2001

COC10-1385

Requested by . Michael Hanson Organization / Div. WWC
Address. 1213 JFB Tele x70634 Fax. x73297

Analyst_____ date_____
Approved by_____ date_____

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify

KH
BT
KC
NM

Printed Name	Signature	Time	Date
Sampled by: CH/KC	Sampled by: Chia Yuan Hwang	1530	5/5/10
Relinquished by: Chia Yuan Hwang	Relinquished by: Chia Yuan Hwang	754	"
Received by ROS	Received by	754	5/6/10

HAYNES GS

PRIORITY POLLUTANTS

Sample Description:	HAYNES GS PRIORITY POLLUTANT LVW BASIN
Chain of Custody Number:	10-1386
Sampling Date: 5/5/10	Sampling Time: 1:00 PM
Sampled By: CH/KC	

Annual Settling Basin x

COC No.: 10-1386

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYSIS CONDUCTED BY	ANALYTICAL METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
METALS	ANTIMONY	5/10/2010	ug/L	0.13	ENV LAB	EPA 200.8			0.03	0.25	0.2
	ARSENIC	5/10/2010	ug/L	0.33	ENV LAB	EPA 200.8			0.12	0.25	0.6
	BERYLLIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8			0.03	0.25	0.2
	CADMIUM	5/10/2010	ug/L	0.03	ENV LAB	EPA 200.8			0.01	0.25	0.1
	CHROMIUM	5/10/2010	ug/L	0.99	ENV LAB	EPA 200.8			0.04	0.25	0.2
	HEXAVALENT CHROMIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 218.6			0.1	0.5	0.5
	COPPER	5/10/2010	ug/L	7.3	ENV LAB	EPA 200.8			0.10	0.25	0.5
	LEAD	5/10/2010	ug/L	0.45	ENV LAB	EPA 200.8			0.06	0.25	0.3
	MERCURY	5/28/2010	ug/L	ND	ENV LAB	EPA 245.1	ND	114% @ 2.5ug	0.03	0.2	0.2
	NICKEL	5/10/2010	ug/L	4.5	ENV LAB	EPA 200.8			0.05	0.25	0.3
	SELENIUM	5/10/2010	ug/L	0.11	ENV LAB	EPA 200.8			0.10	0.25	0.5
	SILVER	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8			0.02	0.25	0.1
	THALLIUM	5/10/2010	ug/L	ND	ENV LAB	EPA 200.8			0.03	0.25	0.2
	ZINC	5/10/2010	ug/L	8.6	ENV LAB	EPA 200.8			1.00	0.25	5.0
MISCELLANEOUS	CYANIDE, TOTAL	5/14/2010	ug/L	ND	ENV LAB	SM 4500-CN E			5	5	25
	ASBESTOS (only if specifically required)	5/6/2010	MFL	ND	EMS LABS	EPA 600R/R-93-116			1.1		5.5
pesticides & PCB's	ALDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0020	0.0051	0.01
	CHLORDANE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.020	0.010	0.10
	DIELDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0051	0.010	0.03
	4,4'-DDT	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0051	0.010	0.03
	4,4'-DDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.031	0.051	0.16
	4,4'-DDD	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.031	0.051	0.16
	ALPHA-ENDOSULFAN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.010	0.020	0.05
	BETA-ENDOSULFAN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0051	0.010	0.03
	ENDOSULFAN SULFATE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.020	0.051	0.10
	ENDRIN	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0051	0.010	0.03
	ENDRIN ALDEHYDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0051	0.010	0.03
	HEPTACHLOR	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0051	0.010	0.03
	HEPTACHLOR EPOXIDE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0020	0.010	0.01
	ALPHA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0051	0.010	0.03
	BETA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0020	0.0051	0.01
	GAMMA-BHC(LINDANE)	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.010	0.020	0.05
	DELTA-BHC	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.0020	0.0051	0.01
	TOXAPHENE	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.25	0.51	1.3
	PCB 1016	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.25	0.51	1.3
	PCB 1221	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.25	0.51	1.3
	PCB 1232	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.25	0.51	1.3
	PCB 1242	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.25	0.51	1.3
	PCB 1248	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.25	0.51	1.3
	PCB 1254	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.25	0.51	1.3
	PCB 1260	5/10/2010	ug/L	ND	EMAX	EPA 8081A			0.25	0.51	1.3

HAYNES GS

PRIORITY POLLUTANTS

COC No.: 10-1386

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYZED BY	EPA METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
BASE/NEUTRAL EXTRACTIBLES	ACENAPHTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	BENZIDINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	1,2,4-TRICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	HEXACHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	BIS(2-CHLOROETHYL) ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	2-CHLORONAPHTHALENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	1,2-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	1,3-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	1,4-DICHLOROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	3,3'-DICHLOROBENZIDINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	2,4-DINITROTOLUENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	2,6-DINITROTOLUENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	1,2-DIPHENYLHYDRAZINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	FLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	4-CHLOROPHENYL PHENYL ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	4-BROMOPHENYL PHENYL ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	BIS(2-CHLOROISOPROPYL) ETHER	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	BIS(2-CHLOROETHOXY) METHANE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	HEXACHLOROBUTADIENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	HEXACHLOROCYCLOPENTADIENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	HEXACHLOROETHANE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	ISOPHORONE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	NAPHTHALENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	NITROBENZENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	N-NITROSODIMETHYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 1625C			0.002		0.010
	N-NITROSODI-N-PROPYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	N-NITROSODIPHENYLAMINE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	BIS (2-ETHYLHEXYL) PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	BUTYL BENZYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	DI-N-BUTYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	DI-N-OCTYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	DIETHYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	DIMETHYL PHTHALATE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	1,2-BENZANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	BENZO(A) PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	3,4-BENZOFLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	11,12-BENZOFLUORANTHENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	CHRYSENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	ACENAPHTHYLENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	ANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	1,12-BENZOPERYLENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	FLUORENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	PHENANTHRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	1,2,5,6-DIBENZANTHRACENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	INDENO (1,2,3-CD) PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	PYRENE	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	TCDD	5/10/2010	pg/L	ND	Columbia Analytical Service	EPA 1613			0.554		2.8
ACID EXTRACTIBLES	2,4,6-TRICHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	PARACHLOROMETA CRESOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	2-CHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	2,4-DICHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	2,4-DIMETHYLPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	2-NITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	4-NITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	10	26
	2,4-DINITROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	4,6-DINITRO-O-CRESOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			5.1	5.1	26
	PENTACHLOROPHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6
	PHENOL	5/10/2010	ug/L	ND	EMAX	EPA 625/8270C			0.52	1.0	2.6

HAYNES GS

PRIORITY POLLUTANTS

COC No.: 10-1386

	POLLUTANT	DATE OF ANALYSIS	UNITS	SAMPLE RESULTS	ANALYZED BY	EPA METHOD	QA/QC		MDL	ML	RL
							DUPLICATE SAMPLE	MATRIX SPIKE			
VOLATILE ORGANICS	ACROLEIN	5/11/2010	ug/L	ND	ENV LAB	EPA 8260B			0.39	5	2.0
	ACRYLONITRILE	5/11/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	2	0.7
	BENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.23	1	1.2
	CARBON TETRACHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	CHLOROBENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.19	1	1.0
	1,2-DICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.18	1	0.9
	1,1,1-TRICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.22	1	1.1
	1,1-DICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.23	1	1.2
	1,1,2-TRICHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	1,1,2,2-TETRACHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.24	1	1.2
	CHLOROETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.15	1	0.8
	CHLOROFORM	5/12/2010	ug/L	0.877	ENV LAB	EPA 8260B			0.20	1	1.0
	1,1-DICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	1,2-TRANS-DICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	1,2-DICHLOROPROPANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.25	1	1.3
	1,3-DICHLOROPROPYLENE*	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	ETHYLBENZENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.20	1	1.0
	METHYLENE CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.21	1	1.1
	METHYL CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.30	1	1.5
	METHYL BROMIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.33	1	1.7
	BROMOFORM	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.19	1	1.0
	DICHLOROBROMOMETHANE	5/12/2010	ug/L	0.342	ENV LAB	EPA 8260B			0.21	1	1.1
	CHLORODIBROMOMETHANE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.18	1	0.9
	TETRACHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.16	1	0.8
	TOLUENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.13	1	0.7
	TRICHLOROETHYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.17	1	0.9
	VINYL CHLORIDE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.15	1	0.8
	2-CHLOROETHYL VINYL ETHER	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.59	1	3.0
	XYLENE	5/12/2010	ug/L	ND	ENV LAB	EPA 8260B			0.38	1	1.9

* - reported as trans-1,3-dichloropropylene & cis-1,3-dichloropropylene

(1)-If result is Non-Detectable, report results as <(detection limit of the instrument).

"All analyses were conducted at a laboratory certified for such analysis and in accordance with current USEPA procedures or as specified in this Monitoring Program."

Laboratory Approval: Sandy Lewis

Title: Laboratory Director

Date: 6/30/10

RL 6/30/10

Environmental Laboratory
1630 N. Main Street, Bldg 7
Los Angeles , CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Power
City of Los Angeles

Chain of Custody Record

COC #: 10-1386 Page ___of___

Report C#_____ JC#_____ WO#_____
Refrig#. 8 Shelf 6 Bin#._____
Initial of Field Personnel: No. of Field Test:

Sample Location Haynes GS - Priority Pollutants Annual 2010

Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1 LK08410	5/5/10	1300	LVW Basin G	HCl	4	glass	40 mL	H2O	VOC's-8260		ENV LAB
2 LK08411				NONE	2	glass	40 mL	H2O	acrolein, acrylonitrile-8260B		ENV LAB
3 LK08412				NONE	2	glass	1L	H2O	EPA 625/625SIM		EMAX
4 LK08413				HNO_3	1	plastic	1L	H2O	ICP-MS, Hg		ENV LAB
5 LK08414 KH				NONE	2	glass	1L	H2O	PCB/PEST-EPA 8081		EMAX
6 LK08415 KH				NONE	2	glass	1L	H2O	DIOXINS-EPA 1613		EMAX
7 LK08416 KH				NaOH	1	plastic	1L	H2O	FREE/TOTAL CYANIDE		B of S
8 LK08417 KH				NONE	2	glass	1L	H2O	ASBESTOS		EMS
9 LK08418 KH				NONE	2	glass	1L	H2O	NDMA		EMAX
10 LK08419				NH_4OH	1	plastic	250 mL	H2O	Cr+6		ENV LAB
11											
12											
13											
14											
15											
16											

Date & Time Stamp
Dept of Water & Power
2010 MAY -6 PM 4:44
Received by Environmental Lab

Chem Lab COC Form #1
Revision: 10/2/2001

COC10-1386

Requested by . Michael Hanson Organization / Div. WWC
Address. 1213 JFB Tele x70634 Fax. x73297

Analyst_____ date_____
Approved by_____ date_____

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify

KH
BT
KC
NM

	Printed Name	Signature	Time	Date
Sampled by:	CH/KC	Sampled by:	1300	5/5/10
Relinquished by:	Chia Yuns Hwang	Relinquished by:	744	5/6/10
Received by	RO	Received by:	744	5/6/10

CDPH
Public Health

CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM BRANCH

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

CITY OF LOS ANGELES DEPT OF WATER & POWER

WATER QUALITY & OPERATIONS

1630 NORTH MAIN STREET, BUILDING 7

LOS ANGELES, CA 90012

Scope of the certificate is limited to the
"Fields of Testing"
which accompany this Certificate.

Continued accredited status depends on successful completion of on-site, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: 1207

Expiration Date: 06/30/2010

Effective Date: 06/01/2008

George C. Kulasingam

Richmond, California
subject to forfeiture or revocation

George C. Kulasingam, Ph.D., Chief
Environmental Laboratory Accreditation Program Branch

CDPH
California Department of Public Health

CALIFORNIA STATE

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This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **1207**

Expiration Date: **06/30/2012**

Effective Date: **07/01/2010**

Richmond, California
subject to forfeiture or revocation

Issued Chosbe for
George C. Kulasingam, Ph.D., Chief
Environmental Laboratory Accreditation Program Branch

CITY OF LOS ANGELES DEPARTMENT OF WATER & POWER
WATER QUALITY AND OPERATION

ENVIRONMENTAL LABORATORY
CERTIFICATE NO. 1207

1630 North Main Street, Building No.7
Telephone: (213)367-7270
Fax: (213)367-7285

QUALITY ASSURANCE MANUAL

Revision 17
Effective Date: May 2008

Approved By: Rose Gentallan **Date:** 6/4/08
Rose P. Gentallan, QA/QC Supervisor

Approved By: Stanley Kung **Date:** 6/9/08
Stanley M. Kung, Lab Manager

Annual review has been performed, and there is no change to the current revision.

Reviewed By/Date:	**Reviewed By/Date:**
_____	_____
_____	_____
_____	_____

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1 INTRODUCTION

1.1 Quality System and Objectives

The goal of this Quality Assurance Program is to establish a standard for quality laboratory analyses that is in accordance with state and federal regulations and to meet the safety, moral and legal requirements of the Department of Water and Power, its employees, and the public it serves. The following are the objectives for quality.

1.1.1 Maintain a formal quality system in accordance with all standards developed by the state and/or Environmental Protection Agency (EPA) regulations or requirements.

1.1.2 Communicate all laboratory quality policies and objectives to laboratory personnel. All laboratory personnel are to be responsible and accountable for the quality of their work.

1.1.3 Provide education and training to all employees in order to achieve quality laboratory ethics, health, and safety.

1.1.4 Emphaisis on data collection and processing that is accurate and precisely performed in order to ensure scientifically valid and legally defensible results. Standardized procedures are documented for consistency of data generation.

1.1.5 Create statistical procedures to evaluate and control the accuracy of results from analytical measurements. Verify that all measurements are within acceptable control limits.

1.1.6 Identify early stages of possible problems that may affect data quality and determine the corrective action when necessary.

1.2 Laboratory Guidelines

1.2.1 This manual presents a detailed description of the Los Angeles Department of Water and Power (LADWP) Environmental Laboratory Quality Assurance Program. This program is written in accordance with the Environmental Protection Agency (EPA) and the California Department of Public Health (DPH) quality assurance guidelines, as outlined in SW 846 under RCRA, 40 CFR Part 136 under CWA, and other related documents. The Environmental Laboratory operates on a quality system that meets the requirements of the Environmental Lab Accreditation Program. (ELAP). The procedures described herein are mandatory for all authorized DWP Environmental Laboratory personnel. Incidents of noncompliance

with these procedures constitute insubordination and shall be subjected for disciplinary action up to and including dismissal.

1.2.2 No undue influence shall be allowed either to pressure an analyst to work beyond his/her capacity nor to change a result from an analyst's best judgment. Any such attempts shall be immediately reported to the Environmental Laboratory Manager.

1.2.3 Quality activities shall emphasize the prevention of quality problems rather than detection and correction of problems after they occur.

1.2.4 Laboratory QA objectives will be accomplished by applying EPA method acceptance criteria and laboratory internal controls for QC parameters including preparation blanks, surrogates, spikes, duplicates, and laboratory control samples.

1.2.5 Participation in various audit studies, internal and external will be used to verify the adequacy of the quality objectives.

1.3 Terminology

Laboratory data quality will be quantitatively assessed through accuracy, precision, and respective method limitations. Qualitative assessment will be conducted through comparability, representativeness, and completeness. These quality assurance parameters are used as quantitative goals for the quality of data generated in the analytical measurement process.

1.3.1 Accuracy – defined as the degree to which the analytical measurement reflects the true value present. Surrogate, initial calibration verification, continuing calibration verification, laboratory control sample, and matrix spike recoveries will be used to measure accuracy.

1.3.2 Precision – defined as the measure of mutual agreement among individual measurements of the same pollutant in a sample analyzed under the same analytical protocols. It is expressed as relative percent difference (RPD).

1.3.3 Representativeness – Dependent upon the sampling plan.Assessment of site and collection representativeness is done by subcontracted or laboratory field service personnel. Procedures to ensure representativeness will be determined prior to the start of individual projects.

1.3.3 Comparability – defined as the extent to which samples can be verified or duplicated by another independent laboratory or compared against results previously found. Comparability will be assessed through internal and external audit results.

1.3.4 Completeness – defined as the percentage of valid data obtained compared to the amount of data collected. QC parameters that shall be assessed for quantitative determinations of completeness shall include initial calibrations, continuing calibrations, surrogate percent recovery, RPD's of duplicates, percent recovery and RPD for matrix spike

recoveries, percent recovery for laboratory control samples, and holding times. The requirement for the quantitative assessment of completeness is 90%.

1.3.5 Sensitivity – established practical quantitation limits (PQL = 5 x mdl) and method detection limits based on procedures outlined in Appendix B of 40 CFR Part 136, have been documented for analytes of interest. Method detection limit (MDL) studies must be performed annually for each matrix type – water and soil. Minimum levels (MLs) are defined as the lowest standard concentration in the calibration curve, established for each analyte of interest.

1.4 Maintenance and Update Procedures

The Quality Assurance Manual is updated annually and whenever changes in the laboratory management's quality system are implemented. Such implementations would include changes in the laboratory's policies, systems, programmes, procedures, and/or instructions to further assure the quality of testing in the laboratory.

2 PROGRAM ORGANIZATION AND RESPONSIBILITY

Refer to the Environmental Laboratory Organizational Chart Appendix A.

2.1 Management / Supervisor Personnel

2.1.1 Environmental Laboratory Manager: Stanley M. Kung

- 2.1.1.1 Planning, budgeting, personnel.
- 2.1.1.2 Technical manager of laboratory.
- 2.1.1.3 Final report approval
- 2.1.1.4 Implement training programs for laboratory personnel.
- 2.1.1.5 Ensure compliance of QA program
- 2.1.1.6 Review new technologies which may improve laboratory efficiency and quality.
- 2.1.1.7 Maintain a work environment which emphasizes the importance of safety, data quality, teamwork, and client satisfaction.
- 2.1.1.8 Emergency Response Coordinator.
- 2.1.1.9 Familiarizes with laboratory quality documentation and implements the policies and procedures stated.
- 2.1.1.10 Ensures lab is in compliance with ISO/IEC 17025 requirements.

2.1.2 Assistant Environmental Laboratory Manager; operations, Safety/Wastes, Industrial: Lucas W. Wang

2.1.2.1 Assist in technical management of laboratory.
2.1.2.2 Technical Supervisor of laboratory.
2.1.2.3 Assist in planning, budgeting, personnel.
2.1.2.4 Review and initial all reports.
2.1.2.5 Review and execute QA Program.
2.1.2.6 Assign and prioritize work projects.
2.1.2.7 Conduct training to laboratory personnel.
2.1.2.8 Monitor laboratory job charges, turnaround/holding time of samples received.
2.1.2.9 Review all asbestos and metallurgical analysis and QA daily.
2.12.10 Responsible in all inorganic chemical analyses and maintenance of AA, ICP, ICP/MS, and wet chemistry devices.
2.1.2.11 Emergency Response Coordinator
2.1.2.12 Familiarizes with laboratory quality documentation and implements the policies and procedures stated.
2.1.2.13 Ensures lab is in compliance with ISO/IEC 17025 requirements.

2.1.3 Senior Chemist in charge of Organic, and Quality Control: Rose P. Gentallan

2.1.3.1 Responsible for the conduct of the Laboratory Quality Control Program and for taking measures to ensure fulfillment of the quality objectives and the continuing accuracy and precision of data produced.
2.1.3.2 Assists management in the installation and supervision of quality control program.
2.1.3.3 Monitors quality control activities of the laboratory to determine conformance with established policies, regulatory or accreditation requirements and makes recommendations for appropriate corrective action and follow-up.
2.1.3.4 Supervises the laboratory's interlaboratory proficiency testing program.
2.1.3.5 Reports the status of in-house QA/QC to the Environmental Laboratory Manager.
2.1.3.6 SOP maintenance.
2.1.3.7 Coordinate data review process.
2.1.3.8 Instrument/supply procurement.
2.1.3.9 Responsible for organic chemical analyses and instrumentation.
2.1.3.10 Emergency Response Coordinator.

2.1.3.11 Familiarizes with laboratory quality documentation and implements the policies and procedures stated.
2.1.3.12 Ensures lab is in compliance with ISO/IEC 17025 requirements.

2.1.4 Senior Chemist in charge of LIMS, NPDES, Mobile Laboratory, Inorganic: Kevin Han

2.1.4.1 Responsible for NPDES regulatory activities and reporting.
2.1.4.2 Responsible for mobile laboratory operations and maintenance.
2.1.4.3 Instrument/supply procurement.
2.1.4.4 Development of sampling program plans.
2.1.4.5 Responsible for NPDES subcontract samples.
2.1.4.6 Emergency Response Coordinator.
2.1.4.7 Supervises field sampling operations of monitoring wells, site assessment, and PCB spills.
2.1.4.8 Supervises sample receiving and data control.
2.1.4.9 LIMS development and maintenance.
2.1.4.10 Archives and secures electronic data.
2.1.4.11 Provides support to laboratory personnel regarding LIMS data entry and processing of final reports.
2.1.4.12 Familiarizes with laboratory quality documentation and implements the policies and procedures stated.
2.1.4.13 Ensures lab is in compliance with ISO/IEC 17025 requirements.

2.2 Laboratory Personnel

2.2.1 Chemists (15)

2.2.1.1 Instrumental and wet chemistry sample analyses in accordance with prescribed method protocols.
2.2.1.2 Data entry into LIMS system.
2.2.1.3 LIMS report generation.
2.2.1.4 Management of sample preparation, digestion, and extraction.
2.2.1.5 Analysis and instrument documentation.

2.2.1.5.1 Instrument maintenance.
2.2.1.5.2 Ordering instrument supplies.
2.2.1.5.3 Analysis records (Run/Analysis Log, Maintenace Log, Standards and Reagents Log, Extraction Log)

2.2.1.6 Data processing and storage.

2.2.1.7 Method development
2.2.1.8 SOP development
2.2.1.9 Field services.
2.2.1.10 Supervise sample log-in.
2.2.1.11 Prepare sample and paperwork to contract laboratory.
2.2.1.12 Participate in Emergency Response operations.
2.2.1.13 Management of sample tracking and final disposal.
2.2.1.14 Maintain centralized preparation and analysis logbooks.
2.2.1.15 Familiarizes with laboratory quality documentation and implements the policies and procedures stated.
2.2.1.16 Ensures lab is in compliance with ISO/IEC 17025 requirements.

2.2.2 Laboratory Technician (1)

2.2.2.1 Receive samples, sign and review COC in accordance to Sample Acceptance Criteria.
2.2.2.2 Entering sample information into LIMS system, including location and storage.
2.2.2.3 Assist chemists in sample tracking of holding time and disposal.
2.2.2.4 Monitor and maintain refrigerator temperature logbook.
2.2.2.5 Sample preparation, digestion, and extraction in accordance to QC protocols.
2.2.2.6 Prepare requisition for laboratory supplies, services and equipment.
2.2.2.7 Wet chemistry testing.
2.2.2.8 Field service duties.
2.2.2.9 Filing COCs, subcontract COCs, and final reports in appropriate binders/drawers.
2.2.2.10 Participate in Emergency Response.
2.2.2.11 Familiarizes with laboratory quality documentation and implements the policies and procedures stated.
2.2.2.12 Ensures lab is in compliance with ISO/IEC 17025 requirements.

2.3 Personnel Qualifications

A minimum requirement for the Chemist position for the City of Los Angeles involves graduating from a recognized four-year college or university with a major in Chemistry or Chemical Engineering and coursework involving at least two forms of instrumentation. Additional personnel qualifications for the Chemist position for the City of Los Angeles are also available on the web at http://www.lacity.org/per/perspecs/7833.pdf.

2.4 Employee Training

The training program is designed to ensure that all personnel are qualified and properly trained to perform all required tasks. It provides periodic evaluation of each analyst's skills by performance evaluation samples. Supplemental training includes development of SOPs, understanding of meeting QA/QC criteria to generate quality data, and the importance of proper documentation. Learning instrumentation can also be obtained from external training by agencies and manufacturers.

The goal of the environmental laboratory is to ensure a suitable and effective quality system and when necessary introduce changes and improvements which would benefit the laboratory.

Laboratory personnel shall comply with the qualifications set by the Human Resources of the City of Los Angeles which includes knowledge of laboratory background, instrumentation, and safety.

Employees shall comply with the policies stated in the "Department's Administrative Manual" disciplinary action, which may include termination, will be taken for offenses such as: falsifying data and/or laboratory records, violation of safety rules, commitment of financial resources without authorization of the Water System Manager or the General Manager.

2.4.1 Training is provided so that the analysts can have more experience with the laboratory's instrumentation or other general functions, such as sample management and field work.

2.4.2 Instrument training is needed whenever there are a shorthanded number of analysts for a particular analysis, or for the analyst to gain more experience for a particular instrumental analysis.

2.4.3 The analyst is assigned a mentor by laboratory management according to the mentor's expertise and experience with the instrument. The mentor must be able to train the analyst to perform and demonstrate proficiency by completing the "Accuracy and Precision" data and performance evaluation (PE) samples.

2.4.4 Training usually is performed for about a month, or until the new analyst completes all the required QA/QC criteria and demonstrate proficiency.

2.4.5 The following parameters are taught by the experienced mentor to the trainee during instrumental training:

- 2.4.5.1 Standard Operating Procedures (SOP)
- 2.4.5.2 Calibration
- 2.4.5.3 Method Detection Limit and Minimum level
- 2.4.5.4 Reporting Limit/Practical Quantitation Limit
- 2.4.5.5 Instrument Chemicals and Supplies
- 2.4.5.6 Instrumentation Principles

2.4.5.7 Instrument Parameters, Maintenance
2.4.5.8 Digestion/Extraction Procedures
2.4.5.9 Quality Assurance/Quality Control
2.4.5.10 Data Reduction and Record Keeping
2.4.5.11 Safety and Health Practices
2.4.5.12 Waste Management

2.4.6 At the end of training, the Demonstration of Capability (Training) Checklist is completed with the new analyst's name, the analyst's mentor (trainer), duration of training, instrument trained in, and date of authorization to start running the instrument independently. All training records are documented and kept with laboratory personnel records.

2.4.7 Safety training and tailgate meetings are held every third Tuesday of each month by laboratory personnel. Additional details are stated in our "Safety Manual".

2.4.8 Miscellaneous training (example: first aid, hazardous substance, computer skills, and employee relations) are available in-house by the human resources department of the Los Angeles Department of Water and Power.

3 PROCUREMENT

3.1 Chemical and supply procurement is handled from initial receipt to ultimate disposal. Procurement can be done one of two ways: 1) Direct order to vendors using credit cards and 2) Preparing a Requisition for Material Services (RMS) to be approved by the laboratory manager and sent to the purchasing division.

3.2 For more information on Chemical Procurement, please refer to the Chemical Hygiene Plan (effective October 1, 2006) under "V. Chemical Procurement".

4 CLIENT SERVICES

4.1 Client Communications

Clients requesting for analyses are contacted informally either through telephone call, fax, or e-mail. The client is reached whenever there is insufficient sample, concerns regarding actual analysis, when additional information is needed which is not stated in the chain-of-custody, or when to report a rush result. A contact log is available to monitor and track when clients have been communicated with, either concerning their sample or by reporting a result.

4.2 Complaints

It is the goal of the laboratory to eliminate the cause for complaints and to prevent the cause from recurring. Complaints may occur when nonconforming

work from the policies and procedures in the quality system or technical systems have been identified. Complaints received from clients and other parties are investigated and reviewed by the individuals involved and authorized personnel until the matter is resolved. Customer complaints are dated and recorded in the customer complaint logbook describing the situation and by whom the complaint was made by. Corrective action procedures are initiated and documented for the complaint. (Please refer to QA Manual, "15 Corrective Action".)

4.3 Abnormalities

Whenever there are abnormalities or departures from normal or specified conditions that would affect the quality of testing of the laboratory, the requestor of the project is notified for further instruction.

Notification is made by telephone call, fax, and/or email. Notification of the client and information as to how the sample or analysis should be treated is dated and documented in the laboratory's contact log. The same information can also be recorded in the sample's chain-of custody, and/or under "Analysis Comments" for that particular sample in the LIMS system.

Such abnormalities and departures from normal or specified conditions can be of the following:

4.3.1 Laboratory Samples

4.3.1.1 Insufficient amount of sample for the analysis requested.
4.3.1.2 Sample submitted passed sample holding time for that particular analysis.
4.3.1.3 Sample matrix will interfere with instrumental analysis.
4.3.1.4 Any other interference that would affect the ability of the analyst to report an acceptable result.

4.3.2 Laboratory Analysis

4.3.2.1 The instrument is down and maintenance would have to be performed therefore delaying the results of the sample.
4.3.2.2 Any other interferences that would affect the ability of the analyst to report an acceptable result.

5 SAMPLING PROCEDURES

Assuring the quality of environmental data begins in the field at the time of sample collection. The LADWP's Water Quality and Operations Business Unit provides personnel who are well-trained and knowledgeable in sample collection, using the appropriate equipment and approved methods for obtaining samples, sample

preservation, handling, storage, and transport, to insure the integrity of each sample.

Field tests and other pertinent information on the samples collected must be properly entered and completed in the field log books and Chain of Custody forms.

The selection of containers and application of appropriate preservatives are in accordance with the EPA guidelines published in the Federal Register, 40CFR Part 136.3 (Table 2). Special containers, including vials for volatile organics are purchased from suppliers who provide certificates of compliance with EPA regulations.

Containers, preservatives and holding times (See Table I)

Table I CONTAINERS, PRESERVATIVES AND HOLDING TIMES

Analysis	Container	Preservative	Holding Times	Customary Amount
Temperature	p/g	none	immediate	20 ml
pH	p/g	none	immediate	100 ml
Alkalinity	p/g	cool, 4°C	14 d	100 ml
Conductivity	p/g	cool, 4°C	28 d	200 ml
Total diss. solids	p/g	cool, 4°C	7 d	250 ml
Total hardness	p/g	pH<2 HNO_3/H_2SO_4	6 mo	250 ml
Chlorides	p/g	none	28 d	250 ml
Sulfate	p/g	cool, 4°C	28 d	120 ml
Nitrate	p/g	cool, 4°C	48 hrs	100 ml
Nitrite	p/g	cool, 4°C	48 hrs	100 ml
Nitrate & Nitrite	p/g	cool, 4°C (pH<2,H_2SO_4	28 d	100 ml
TOC	p/g	cool, 4°C(pH<2 H_2SO_4/HNO_3)	28 d	5x40-ml vials
Bromide	p/g	none	28 d	100 ml
VOC	g	pH< 2, cool, 4°C	14 d	5x40-ml vials
TCE, PCE, THM	g	cool, 4°C	14 d	5x40-ml vials
DBCP, EDB	g	cool, 4°C	14 d	5x40-ml vials
TSS	p/g	cool, 4°C	7 d	250 ml
Turbidity	p/g	cool, 4°C	48 hrs	200 ml
BOD5-20°C	p/g	cool, 4°C	48 HRS	1 L
Oil & grease	g	cool, 4°C (pH<2 H_2SO_4)	28 d	1 L
Settleable solids	p/g	cool, 4°C	48 hrs	1 L
Sulfide	p/g	ZnAc+NaOH to	7 d	500 ml

		pH>9		
PCB	g, teflon-lined caps	cool, 4°C	7 d, until extraction 7 d, 40 days after extraction	2-1 L
Phenols	g, teflon-lined caps	cool, 4°C, 0.008% $Na_2S_2O_3$	7 d until extraction. 40 d after extraction	2-1 L
Acidity	p/g	cool, 4°C	14 d	100 ml
Boron	p	none	6 mo	100 ml
Bromide	p/g/	none	28 d	100 ml
COD	p/g	cool, 4°C, pH<2,H_2SO_4	28d	100 ml
Chlorine Residual	p/g	none	Analyze immediately (on-site)	500 ml
Cyanide	p/g	cool, 4°C, pH>12, NaOH	14 d	1 L
Fluoride	p	none	28 d	300 ml
Nitrogen-Ammonia	p/g	cool, 4°C, pH<2,H_2SO_4	28 d	500 ml
Total Kjeldahl Nitrogen	p/g	cool, 4°C, pH<2,H_2SO_4	28 d	1 L
TRPH	g	cool, 4°C, pH<2,H_2SO_4	28 d	2 L
Total Phosphate	p/g	cool, 4°C, pH<2,H_2SO_4	28 d	100 ml
Surfactants/MBAS	p/g	cool, 4°C	48 hrs	1 L
Metals (except Hg & Cr+6)	p/g/	pH<2,HNO_3	6 mo	200 ml
Mercury	p/g	pH<2,HNO_3	28 d	500 ml
Hexavalent Chromium	p/g	pH >9, Cr6 Buffer, cool	28 d	100 ml
EPA8260	g	cool, 4°C pH<2	**	4, 40 ml vials
EPA8270	g (amber)	cool, 4°C	**	2-1 L
EPA8015B	g	cool, 4°C pH<2	14 d	4, 40 ml vials
EPA8015M	g	cool, 4°C	14 d	2-1 L
EPA8021B	g	cool, 4°C pH<2	14 d	4, 40 ml vials
DGA (xfmr/cable oil)	syringe	none	none	syringe - full
Dissolved gases	syringe	none	none	syringe - full

Moisture	Syringe or vial	none	none	
Wastewater Profile	p/g	cool, 4°C	Immediate	8 oz
pH	p/g		Immediate	
Ammonia	p/g	cool, 4°C		
Conductivity	p/g			
Oil & Grease	g	cool, 4°C pH<2	28 d	4-1 L
Chlorine by X-ray	p/g			
PCB (water)	g (amber)	cool, 4°C	28 d	4-1 L
Asbestos in:				
Bulk	*plastic bag	none	none	small but representative
Air	*cassette	none	none	1 cassette >400 L
Water	g		1 d	1 L
RAF oils:	p/g	none	none	16 oz
As, Cd, Co, Pb				
Flash Point				
Chlorine by X-ray				
PCB				
CBM (Lube Oils):	p/g	none	none	16 oz
Appearance				
Color, ASTM				
Viscosity, cST/40°C				
Total Acid No.				
Water by KF				
Metals				
Particle count				
Stator Oil Test:				
Moisture	p/g	none	none	20 ml
Dielectric Constant	p/g	none	none	1 L
Environmental Pb:				
Pb in Soil	p/g	none	6 months	8 oz
Pb in Wipe	ASTM E1792 wipes	none	none	Wipes placed in ICP Digestion Tubes
Pb in Paint Chips	p/g	none	6 months	8oz

* Should be airtight, double-bagged

** 7 days (aqueous) to extraction
g = glass
p = polyethylene
d = days
mo = month

5.1 Sampling Plans

5.1.1 Prepare Data Quality Objectives (DQO)
5.1.2 Arrange site sampling schedul
5.1.3 Available sampling equipment
5.1.4 Personnel experienced in the type of sampling
5.1.5 List of analytes

5.1.5.1 Specify Level of Detection (LOD)
5.1.5.2 Specify analytical method for each analyte
5.1.5.3 Sample size needed based on method and LOD.

5.1.6 List of QA/QC protocols
5.1.7 Type of sampling
5.1.8 Number of samples needed
5.1.9 Number of sample sites
5.1.10 Number of test samples needed for each method
5.1.11 Number of QC samples needed

5.2 Sampling Protocols

5.2.1 Record of observations at sampling site.
5.2.2 List of sampling equipment/devices.
5.2.3 List of sampling containers and preservatives.
5.2.4 List of supplies for equipment cleaning.
5.2.5 Necessary labels, tags, pens, and packaging materials.
5.2.6 Chain of Custody forms and sample seals
5.2.7 List of protective clothing and other safety equipment.
5.2.8 Instructions for equipment decontamination.
5.2.9 Instructions for sample collection

5.2.9.1 Number of samples and sample sizes.
5.2.9.2 Record of sampling times and conditions.
5.2.9.3 Instructions for field preparations or measurements.

5.2.10 Instructions for packaging, transport, and storage.
5.2.11 Instructions for Chain of Custody procedures.

5.3 Field Safety

5.3.1 Safety policies, regulations, and requirements

5.3.1.1 Department and Federal policies
5.3.1.2 Job hazard analysis
5.3.1.3 Personal protective equipment
5.3.1.4 Safety training

5.3.2 Emergency contacts
5.3.3 Environmental conditions

5.3.3.1 Humidity and sun exposure
5.3.3.2 Bad weather
5.3.3.3 Flood
5.3.3.4 Earthquake
5.3.3.5 Fire

5.3.4 Chemicals

5.3.4.1 Use and handling
5.3.4.2 Transport
5.3.4.3 Storage and disposal

5.3.5 Transportation
5.3.6 Animals and plants

5.4 Field QC

5.4.1 Blank samples are defined as matrices that have negligible or immeasurable amounts of the substance of interest.

5.4.1.1 Field blank
5.4.1.2 Trip blank
5.4.1.3 Equipment blank
5.4.1.4 Field spike

5.5 Field Records

5.5.1 Records of field activities to provide evidence and support for the analytical data.
5.5.2 Records should consist of bound logbook/notebook and must be legible and protected against damage and loss.
5.5.3 Records shall include at the minimum :

5.5.3.1 Sampling location

5.5.3.2 Sampling equipment/devices
5.5.3.3 Containers; types, sizes, numbers
5.5.3.4 Labels
5.5.3.5 Field logs
5.5.3.6 Number of samples, blanks and spikes
5.5.3.7 Preservatives needed
5.5.3.8 Chain of Custody procedures
5.5.3.9 Field measurements
5.5.3.10 Environmental conditions

5.6 Specific sampling procedures are included with the individual Standard Operating Procedures for the following:

5.6 .1 Asbestos sampling
5.6 .2 Soil sampling
5.6 .3 Water sampling
5.6 .4 Hazardous waste sampling
5.6 .5 Waste Drum sampling
5.6 .6 Working environment air sampling (Airborne Asbestos)
5.6 .7 Carbon Bed Air Sampling
5.6 .8 Emergency Response

5.7 Site Assessment

5.7.1 Assess soil and/or groundwater contamination from leaking underground storage tanks, superfund sites, and illegal dumping of hazardous wastes near or at the Department's real estate property.

5.7.1.1 Site investigation for potential environmental concerns within the context of state and federal regulations.
5.7.1.2 Historical evaluation of the property.
5.7.1.3 Review regulatory agency records
5.7.1.4 Sampling of soil, groundwater, waste materials on site.
5.7.1.5 Data analysis and reporting.

5.8 Field Sampling Equipment

5.8.1 Hand-held sampler
5.8.2 Cable and reel sampler
5.8.3 Open-mouth sampler
5.8.4 Thief sampler
5.8.5 Automatic sampler and pump
5.8.6 Bailer
5.8.7 Core sampler
5.8.8 Scoop/Shovel
5.8.9 Trowel

5.8.10 Auger
5.8.11 Soil probe
5.8.12 Tedlar bag

5.9 Field Measurements

5.9.1 Temperature
5.9.3 Dissolved oxygen
5.9.4 Specific electrical conductance
5.9.5 pH
5.9.6 Reduction-oxidation potential
5.9.7 Turbidity

6 MOBILE LABORATORY OPERATIONS

6.1 Generator Startup

6.1.1 Open the main circuit.
6.1.2 Do not crank engine continuously for more than 10 seconds.
6.1.3 Allow 60 seconds cool down period between cranking.
6.1.4 Crank only three times to prevent motor burnout.
6.1.5 If engine starts and then stops, allow the engine to come to complete stop before attempting to restart.

6.2 Stopping the Generator

6.2.1 Run generator set at no-load for five minutes to ensure adequate engine cool down.
6.2.2 Start/stop switch must be in the stop position until generator comes to a complete stop.

6.3 Generator Maintenance

6.3.1 Engine automatically shuts down 10 – 20 seconds after it reached 218°F (103°C).
6.3.2 Cool the generator before restarting.
6.3.3 Disconnect the battery negative lead first before servicing the generator.
6.3.4 Turn the generator set master switch to off position.
6.3.5 Disconnect power to battery charger.
6.3.6 Remove battery cable (remove negative lead first).
4.3.7 Reconnect negative lead last when reconnecting battery.

6.4 Mobile Lab Check List

6.4.1 Vehicle

6.4.1.1 Hour meter
6.4.1.2 Fault light
6.4.1.3 Input fuse (10 amp)
6.4.1.4 Engine oil level
6.4.1.5 Engine coolant level
6.4.1.6 Battery fluid level (lead-acid battery)
6.4.1.7 Air filter
6.4.1.8 Cooling system thermostat
6.4.1.9 Fuel filter
6.4.1.10 V belt

6.4.2 Analytical Instruments/Equipment/Accessories

6.4.2.1 Hewlett-Packard Gas Chromatograph

6.4.2.1.1 Electron Capture Detector (ECD) – for PCB analysis
6.4.2.1.2 Flame Ionization Detector (FID) – for Gasoline (GRO) analysis
6.4.2.1.3 Photo Ionization Detector (PID) – for BTEX, MTBE analysis
6.4.2.1.4 HP GC autosampler
6.4.2.1.5 O.I. Purge and Trap Concentrator Model 4560

6.4.2.2 HACH DR 4000

6.4.2.2.1 Dissolved Oxygen
6.4.2.2.2 Residual Chlorine

6.4.2.3 Air generator
6.4.2.4 Analytical balance
6.4.2.5 Argon-methane gas cylinder
6.4.2.6 Computer, printer
6.4.2.7 Fire extinguisher (1)
6.4.2.8 First Aid Kit
6.4.2.9 FOXBORO MIRAN 1 IR – for Total Recoverable Petroleum Hydrocarbons (TRPH) EPA 418.1
6.4.2.10 Helium gas cylinder
6.4.2.11 Hood
6.4.2.12 Hydrogen generator
6.4.2.13 Instrument manuals
6.4.2.14 Mechanical shaker
6.4.2.15 Microwave oven
6.4.2.16 Millipore deionized water
6.4.2.17 Mobile Lab Logbook

6.4.2.18 pH meter
6.4.2.19 Preservatives (Sulfuric acid, Nitric acid, etc.)
6.4.2.20 Refrigerators (samples and standards)
6.4.2.21 Sample bottles, vials
6.4.2.22 Sampling equipment
6.4.2.23 Solvent cabinet

6.4.2.23.1 Isooctane
6.4.2.23.2 Freon
6.4.2.23.3 Methanol

6.4.2.24 Thermometer
6.4.2.25 Turbidimeter
6.4.2.26 Safety/miscellaneous

6.4.2.26.1 Cell phone, Radio
6.4.2.26.2 Flashlight
6.4.2.26.3 Kimwipes
6.4.2.26.4 Paper and pens
6.4.2.26.5 Paper towels
6.4.2.26.6 Personal Protective Equipment
6.4.2.26.7 First Aid Kit

7 SAMPLE CUSTODY

Chain-of-Custody Form (see Appendix B) is an official document which traces the possession and handling of the sample from the time of collection through analysis and final disposition.

7.1 Sample Receiving

7.1.1 Samples are received and checked in accordance with COC protocols.
7.1.2 A Chain of Custody Form (Form # 1 Appendix B) must be properly completed but not limited to the following information:
7.1.2.1 Sample date and time of collection
7.1.2.2 Sample location and description
7.1.2.3 Sample matrix
7.1.2.4 Preservatives needed
7.1.2.5 Type, size, and number of containers
7.1.2.6 Analyses required
7.1.2.7 Work order/Job card number
7.1.2.8 Requestor's name, address, telephone/Fax numbers
7.1.2.9 Sampled by – (print and signature, date & time)
7.1.2.10 Relinquished by – (print and signature, date & time)
7.1.2.11 Received by – (print and signature, date & time)
7.1.2.12 COC log number
7.1.2.13 COC page number

7.1.2.14 Sample storage location
7.1.2.15 Analysts assigned
7.1.2.16 Sample priority

7.1.3 The COC is signed and stamped with the current date and time at the left hand bottom corner with the dating machine.

7.1.3.1 A COC number is attached on the left hand bottom corner of the form, a photo copy will be given to the sample originator/courier.
7.1.3.2 Sample labels must be consistent with the information written on the COC form.
7.1.3.3 The COC must be reviewed for completeness.
7.1.3.4 The original Chain of Custody (COC) Form will be recorded in the laboratory information management system (LIMS) and filed in the main COC folder on a monthly basis.

7.2 Sample Acceptance Criteria

7.2.1 Samples must be received in appropriate containers with proper preservation as specified in USEPA SW-846 for the intended analysis.

7.2.1.1 Sample size must be adequate and should be representative.
7.2.1.2 An Environmental Laboratory Job Card or yearly charge number must be established.
7.2.1.3 The sample must be accompanied by a properly completed, original Chain of Custody Form. See Appendix B.
7.2.1.4 Samples must be clearly labeled with all information required by the log-in procedure.
7.2.1.5 Samples requiring cooling must be shipped on ice; samples' temperature shall be measured and recorded at arrival.

7.3 Sample Control Procedure

7.3.1 Sample back-log and new samples are reviewed daily by an Assistant Laboratory Manager, Sample Manager, and LIMS manager.
7.3.2 The Sample Control Coordinator assigns a discrete alpha-numeric laboratory number to each sample and enters all the information into the LIMS system, including analyst's name assigned to the specific analysis.
7.3.3 Appropriate labels are attached on the samples before storing.
7.3.4 Samples needing refrigeration are stored in four appropriate refrigerators (# 1, 2, 4, & 8).
7.3.5 Samples for metal analysis as well as other samples which don't need refrigeration are stored in sample bins.
7.3.6 Oils for dissolved gas analysis (DGA) are at DGA receiving station
7.3.7 PCB samples are in the PCB testing room.

7.3.8 Asbestos samples in the asbestos hoods. Bulk samples in one hood and air samples in the other.

7.3.9 Asbestos, PCB and DGA analysts should be notified immediately for emergency samples.

7.3.10 Photocopies of COCs are distributed to assigned analysts, supervisors, and Records Management..

7.4 Subcontract Samples

7.4.1 Form # 2 Chain of Custody (Appendix B) must be completed in reference to the original COC which came with the sample.

7.4.1.1 Lab Log Number (from original COC)
7.4.1.2 Analysis requested
7.4.1.3 Analytical method
7.4.1.4 Date needed
7.4.1.5 Name of contract laboratory
7.4.1.6 Prepared by
7.4.1.7 Relinquished by
7.4.1.8 RMS No., and/or P/O No.

7.4.2 A photo copy of the completed subcontract COC should be attached to the original COC.

7.4.3 The completed form should go with the sample to the contract laboratory and signed by specified personnel.

7.4.4 The COC from the contract laboratory should be filed with 'Outside COC Binder'.

7.5 Sample and Waste Disposal

7.5.1 The LIMS sample tracking system provides a list of samples that can be disposed of on a monthly basis.

7.5.2 All samples are retained in their proper storage locations until their holding time has passed and the time for sample analysis has expired.

7.5.3 Solid and soil samples are retained for a year and water samples are retained from either 24 hours to 6 months depending on analysis requested.

7.5.4 Once the samples have expired or passed the time of retainment, they are now considered as waste and are disposed of accordingly. The samples are either drained in the sink, delivered to the 'Transformer Test Station', or handled by the Hazardous Waste Management depending on the matrix and nature of the sample.

7.5.5 Wastes generated from analyses are collected in suitable properly labeled containers. Information on these wastes is recorded in the Waste Logbook.

7.5.5.1 Waste log number
7.5.5.2 Container size
7.5.5.3 Start date of generating waste
7.5.5.4 Finish date of generating waste
7.5.5.5 Type of waste (liquid or solid)
7.5.5.6 Date removed from laboratory
7.5.5.7 Waste description
7.5.5.8 Initial of analyst/generator

7.5.6 Wastes of slightly acidic or slightly basic solutions are treated before disposal into the sink.

7.5.7 Oil wastes with < 2 ppm PCB are delivered to 'Transformer Test Station' for recycling.

7.5.8 Solid waste, such as soil, is stored in 55 gallon drums and is handled by the Hazardous Waste Management for proper disposal by an outside contractor.

7.5.9 Hazardous materials and wastes are handled according to current Federal, State and local regulations and the Departments' hazardous material and waste procedures manuals.

7.5.10 Final disposal of hazardous materials and wastes are conducted by licensed private contractors through the Department's Hazardous Waste Management Unit.

7.5.11 For samples concerning environmental lead analysis, the samples are stored and retained at room temperature in our sample storage room for approximately 6-12 months. After storage, the samples are disposed of according to the analysis SOP and Chemical Hygiene Plan. Samples are placed in either collection drums prior to disposal or digested and the digestate is disposed of in the heavy metals solutions disposal.

8 CALIBRATION PROCEDURES AND FREQUENCY

8.1 Calibration procedures apply to all instruments and gages used for analyses and tests, the results of which are recorded for decision making. Detailed calibration procedures are specified in the SOP for each analytical method.

8.2 All standards used for calibration must be cross-referenced to another source and documented. This includes both purchased and laboratory made standards. They are traceable to the NIST.

8.2.1 Reagents and standards used for environmental lead analysis are of ACS grade or better and consist of the following as specified by the SOP:

8.2.1.1 ASTM Type II water
8.2.1.2 Blanks and standards in a 5% HCl, 2% HNO_3 matrix

8.2.1.3 Plasma standard stock solutions from VHG Labs and Crescent Chemical Co. which were certified for high purity.
8.2.1.4 Calibration check standards from CPI certified for high purity.
8.2.1.5 Interference check solutions from standards purchased from VHG Labs.

8.3 Standards and reagents are logged-in with Q#s in the standards log book. The Q log book contains the following information:

8.3.1 Date received
8.3.2 Description
8.3.3 Storage location
8.3.4 Concentration
8.3.5 Solvent/matrix
8.3.6 Name of supplier (vendor)
8.3.7 Lot number
8.3.8 Catalog Number
8.3.9 Expiration date
8.3.10 Quantity

8.4 Stock and working standards are checked regularly for signs of deterioration, such as discoloration, formation of precipitates, significant change in concentration, and expiration dates.
8.5 A calibration curve must be constructed to meet the linear range of the analytical method, the instrument's capability and/or required by regulatory agencies. Samples exceeding the linear range must be diluted. Linearity is validated statistically (i.e. linear regression).
8.6 Continuing calibration verification (check standards) are analyzed at the beginning, every ten samples and at the end of the run. Recoveries should be ± 15%.
8.7 Sample duplicate analyses are required for every batch and/or ten samples.
8.8 Organic analyses require the addition of surrogate standards into each sample
8.9 Matrix spike/matrix spike duplicate are analyzed for every batch and/or ten samples.
8.10 Instruments are recalibrated after each major maintenance, failure of instrument performance evaluation, and a Relative Standard Deviation (%RSD) of over 20%.
8.11 Check standards and spiking solutions should be from a source other than the calibration standards.
8.12 Laboratory control sample (LCS) is processed along with other samples in the batch

9 ANALYTICAL PROCEDURES

The Environmental Laboratory makes extensive use of the USEPA SW-846 Methods American Society of Testing and Materials (ASTM) and Standard Methods for the Examination of Water and Wastewater. The Laboratory's Standard Operating Procedures are derived and adapted from these methods.

9.1 General list of applicable methods are:

9.1.1 EPA 120.1, Specific Conductance
9.1.2 SM 4500-H^+ B, pH, Electrometric Measurement
9.1.3 SM 2540C, Filterable Residue (Total Dissolved Solids)
9.1.4 SM 2540D, Non-filterable Residue (Total Suspended Solids)
9.1.5 SM 2540B, Total Residue, Gravimetric, Dried at 103 - 105°C (TS)
9.1.6 SM 2540F, Settleable Residue, Volumetric, Imhoff Cone
9.1.7 SM 2550B, Temperature, Thermometric
9.1.8 EPA 180.1, Turbidity, Nephelometric
9.1.9 EPA 200.7, Inductively Coupled Plasma-Atomic Emission Spectrometry
9.1.10 EPA 200.8, Inductively Coupled Plasma-Mass Spectrometry
9.1.11 EPA 218.6/7199, Determination of Hexavalent Chromium by Ion Chromatography
9.1.12 EPA 245.1, Mercury (Cold-Vapor Technique)
9.1.13 EPA 300.0, Anions by Ion Chromatography
9.1.14 SM 2520B, Alkalinity
9.1.15 SM 4500-Cl^- D, Total Residual Chlorine
9.1.16 EPA 335.4, Analysis of cyanide, manual distillation
9.1.17 EPA 335.4, Automated analysis of cyanide
9.1.18 SM 4500-NH_3 B, Ammonia Nitrogen
9.1.19 SM 4500-NH_3 B, Total Kjeldahl Nitrogen
9.1.20 SM 5220C, Chemical Oxygen Demand
9.1.21 SM 5310B, Total Organic Carbon
9.1.22 EPA 418.1, Petroleum Hydrocarbons (Total Recoverable, Infrared)
9.1.23 EPA 420.2, Phenolics, Total - Colorimetric
9.1.24 EPA 602, Analysis of BTEX and MTBE in water
9.1.25 EPA 604, Chlorinated Phenols
9.1.26 EPA 624, Volatiles by GC/MS
9.1.27 EPA 625, Semi-volatiles by GC/MS
9.1.28 EPA 1311, TCLP (Toxicity Characteristic Leaching Procedure)
9.1.29 EPA 1664A, Oil & Grease (HEM/SGT-HEM) by solid phase extraction
9.1.30 EPA 6010B, Inorganics by ICP - AES
9.1.31 EPA 6020A, Metals by ICP/MS
9.1.32 EPA 7471A, Mercury in solid or semi-solid waste
9.1.33 EPA 8011, DBCP & EDB by Microextraction & GC
9.1.34 EPA 8015B, Gasoline Range Organics, Purge & Trap
9.1.35 EPA 8015M, Total Petroleum Hydrocarbons, Diesel, Motor Oil
9.1.36 EPA 8021B, Aromatic Volatile Organics
9.1.37 EPA 8041A, Phenols by GC
9.1.38 EPA 8082, Polychlorinated Biphenyls (PCBs)
9.1.39 EPA 8100, PAH by GC/FID
9.1.40 EPA 8260B, Volatile Organic Compounds by GC/MS
9.1.41 EPA 8270D, Semi-volatile Organic Compounds by GC/MS

9.1.42 EPA 9045C, Soil and Waste pH
9.1.43 EPA 9056, Inorganic Anions by Ion Chromatography
9.1.44 EPA 9075, Test Method for Total Chlorine in New and Used Petroleum Products by X-Ray Fluorescence Spectrometry (XRF)
9.1.45 ASTM D1500, Color petroleum test
9.1.46 ASTM D1298, API Specific Gravity petroleum test
9.1.47 ASTM D92, 93, D3828, Flash point, Cleveland open cup, Pensky-Martens, Seta Flash
9.1.48 ASTM D445, Kinematic viscosity
9.1.49 ASTM D1533, Water content, Karl Fisher
9.1.50 ASTM D97, Pour point
9.1.51 ASTM D974, Neutralization No.
9.1.52 ASTM D892, Foam tendency/stability
9.1.53 ASTM D1401, Water Emulsion
9.1.54 ASTM D2668, Inhibitor content, FTIR
9.1.55 ASTM D2285, Interfacial tension
9.1.56 ASTM D877, Dielectric strength, disk electrode
9.1.57 ASTM D96, Bottom sediments and water
9.1.58 Particle counts (Spectrex)
9.1.59 Multielements in oil
9.1.60 Metallurgy – composition of metals
9.1.61 HUD Method, Lead in Paint Chips by Energy-Dispersive X-Ray Fluoresence Spectroscopy (XRF)*

* X-Ray Fluorescence (XRF) not accredited by American Industrial Hygiene Association (AIHA).

9.2 Standard Operating Procedures (SOP)

The laboratory's Standard Operating Procedures (SOPs) are created by the analyst who perform the specific analytical method. Original copies of these SOPs are stored in the network database. Hard copies are in binders accessible to all laboratory personnel. SOPs are continually monitored and updated as changes or new developments occur.

9.3 Calibration

9.3.1 Application of primary or secondary standards traceable to standards of the National Institute of Science and Technology (NIST) consistent with the test or analytical method.
9.3.2 Applies to all instruments and gages used for analyses and tests.
9.3.3 Laboratory calibration procedures and/or written instructions provided by the manufacturer of the equipment.
9.3.4 Calibration intervals

9.3.4.1 Initial calibration on new instruments

9.3.4.2 Based on stability, sensitivity, purpose, accuracy and analytical method.
9.3.4.3 Analytical balances are calibrated annually.
9.3.4.4 Calibration should be done after preventive maintenance and/or failed performance evaluation.

9.4 Document Control

A document control program is established to ensure that all documents issued or generated are accountable and traceable. All documents are reviewed and approved for use by authorized personnel prior to use. The general guidelines for documentation of any records or entries are listed below.

9.4.1 Logbooks/Notebooks

9.4.1.1 Legibility: All entries must be legible.
9.4.1.2 Recording entries: All entries are made using indelible ink pens, preferably blue or black.
9.4.1.3 Review all forms before entering information.
9.4.1.4 The originator(s) of all entries must be identified by initial(s) or signature(s).
9.4.1.5 All mistakes are crossed out with a single line so as to remain legible. Do not erase, write over, or use correction liquid. The cross out must be initialed and dated.
9.4.1.6 Abbreviations of chemical formula (e.g., NaCl, HCl, Na OH), and concentration units (e.g., ppb, ppm, ug/L, ug/mL, ug/Kg, mg/Kg) may be used without further clarification. Other abbreviations can be used but with traceable explanation.
9.4.1.7 Each logbook/notebook is identified with subject identification as instrument, method, and procedure. All entries must be clear, legible, initialed, and dated.
9.4.1.8 Analyst's Notebooks: Each analyst maintains a personal bound notebook to keep notes of their training sessions, seminars or meetings.
9.4.1.9 Instrument Maintenance Logbooks: Each instrument must have a logbook to record maintenance and repairs. These instruments are also covered by service contracts with the vendors.
9.4.1.10 Standard and Reagent Logbooks are logged-in with Q numbers and maintained in the front desk to keep records of standard traceability.
9.4.1.11 Extraction, Digestion Logbooks for each method is maintained to keep all documentations of extracted/digested samples.
9.4.1.12 Sequence Run Logbooks are used to record the sequence of the sample run, corresponding standards and QC samples.
9.4.1.13 Miscellaneous Logbooks: Refrigerator temperature log, balance check log, distilled water check, field log, etc. are used to record

various laboratory equipment on a daily basis.

9.4.1.14 Waste Logbook is used to record all identified laboratory wastes for disposal. All laboratory wastes are picked up by a contract waste disposal company every two to three months.

9.4.1.15 A list of all logbooks is maintained in the data base.

9.4.2 Reference Documents

9.4.2.1 The laboratory updates and reviews all reference documents annually.

9.4.2.2 Documents are readily available to all laboratory personnel.

9.4.2.3 Policies, procedures, systems, and programs are documented to assure the quality of information that laboratory provides.

9.4.2.4 QA Manual – Serves as a general guideline the laboratory follows in order to maintain a quality system appropriate to the scope of its activities.

9.4.2.5 Chemical Hygiene Plan and Environmental Laboratory Safety Manual - Guidelines on laboratory safety are available to assure that the laboratory is in acceptable working conditions and the safety of laboratory personnel is documented and taken into consideration.

9.4.2.6 SOP list – Used to reference and monitor the current SOP for analyses performed in the laboratory.

9.4.2.7 MDL list – Used to reference and monitor current MDL values of each analytical test performed in the lab.

9.4.2.8 Miscellaneous References – Documents used as reference in internal laboratory documents. Updated whenever a new edition is available.

9.4.3 Environmental Laboratory Forms

9.4.3.1 Forms and checklists are used to help monitor the quality of data that the laboratory provides. Forms are available in the network drive for analyst to complete on such occasions as completion of training and analytical data review.

9.4.3.2 Corrective Action form – to be filled out in order to monitor the outcome and result when analytical data is not within compliance of acceptable quality assurance standards.

9.4.3.3 Training Forms – also known as demonstration of capability. Checklist that is completed after analyst training to acknowledge that the individual is now capable of performing the analysis in the laboratory.

9.4.4 Document Changes

9.4.4.1 Handwritten changes in documents such as logbooks/notebooks

and raw data are crossed-out, dated, and initialed.

9.4.4.2 When a document is amended and additional information is added, the document is revised and re-issued as soon as practical. The revised document is titled with a revision number, revision date, and by whom the revision was done by. This information is included to assure that the document is the latest version to be referenced to.

9.4.4.3 All document changes are reviewed and approved for use by authorized personnel prior to use.

9.4.5 Document Location

9.4.5.1 Authorized editions of appropriate documents are available at locations where essential for laboratory operations. (Example: instrument manuals located at the instrument).

9.4.5.2 References are readily available to all laboratory personnel at the front desk or electronically via the internet.

9.4.5.3 Environmental laboratory forms are available for print via the laboratory network drive. A hard copy of the forms are also kept by the QAQC officer.

9.4.6 Computerized Documents

9.4.6.1 Computerized documents are maintained and controlled by QAQC and managerial staff. All of our computerized documents are dated on the document itself as well as in the file name . Whenever a revision has been made to a computerized document, such as a report or SOP, a new file name is created with the revised date and labeled as "REV #".

9.4.6.2 Newly revised documents are then saved in the file folder for that current year. Old computerized files are then archived in an "old" file folder which is subdivided annually for easier back reference.

9.4.6.3 List of computerized documents are available on the network drive and are checked and cross referenced by the user prior to use in order that the latest addition of that document is being used. These list are maintained by QAQC and managerial staff.

10 INTERNAL QUALITY CONTROL CHECKS

The Environmental Laboratory's Quality Assurance (QA) analyses represents at least 10 percent of the total number of the analyses performed. The minimum level of QA effort of one Reference Standard, one duplicate spike, and one blank (in addition to required instrument calibration samples) shall be performed for each set of ten samples.

10.1 QC Parameters – vary according to method, specific project requirements, and/or sample matrices encountered. They are also listed in specific SOP.

10.1.1 Wet Chemistry test

10.1.1.1 Sample/sample duplicate
10.1.1.2 Matrix spike/matrix spike duplicate
10.1.1.3 Laboratory control sample (water or solid)
10.1.1.4 Method blank

10.1.2 Metals test

10.1.2.1 Method blank
10.1.2.2 Sample/sample duplicate
10.1.2.3 Laboratory control sample
10.1.2.4 Matrix spike/matrix spike duplicate
10.1.2.5 Post spike

10.1.3 Organics test

10.1.3.1 Method blank
10.1.3.2 Sample/sample duplicate
10.1.3.3 Laboratory control sample
10.1.3.4 Matrix spike/matrix spike duplicate
10.1.3.5 Surrogates
10.1.3.6 Equipment blank
10.1.3.7 Field blank
10.1.3.8 Trip blank

10.2 Internal Standards

Internal standards are measured amounts of certain compounds added after sample preparation or extraction. They are used in an internal standard calibration method to correct sample results suffering from capillary column injection losses, or the effects of viscosity. Internal standard calibration is currently used for volatile organics, and GC/MS extractables.

10.3 Surrogates

Surrogates are measured amounts of certain compounds added before sample preparation or extraction. Analysts measure the recovery of the surrogate to samples analyzed for chlorinated pesticides, PCBs GC/MS extractables and volatiles, and GC volatiles.

10.4 Matrix Spikes

Matrix spike and matrix spike duplicates are analyzed to estimate precision and accuracy. Spikes are aliquots of samples to which known amounts of an analyte have been added. They are prepared and analyzed like samples. Stock solutions used for spiking are purchased or prepared independently of calibration standards. The spike recovery measures the effects of interferences in the sample matrix and reflects the accuracy of the determination. Spikes are prepared and run daily, at a frequency of at least 1 per 20 samples if more than 20 samples are run in a given batch. The results of matrix spikes are used to evaluate the effect of the sample matrix on the accuracy of the analytical procedure. Recoveries of matrix spike/matrix spike duplicates are calculated as % Recoveries and their difference as Relative Percent Difference (RPD).

10.5 Sample Duplicates

Duplicates are additional aliquots of samples subjected to the same preparation and analysis as the original sample. In cases where the analyte concentration is consistently below the detection limit, duplicate spikes are substituted for duplicates. The relative percent difference between duplicates or duplicate spikes measures the precision of a given analysis. Duplicates and duplicate spikes are prepared and analyzed daily, at a frequency of at least 1 per 20 samples if more than 20 samples are run in a given batch.

10.6 Laboratory Control Samples (LCS)

Certified QC blind samples from different suppliers are used as LCS. In some cases, it is a blank sample (reagent water) to which known concentrations of target analytes have been added. The spiked sample is then taken through the entire analytical procedure and the recovery of the analytes calculated. A LCS duplicate is also analyzed to measure process precision expressed as relative percent difference (RPD). The QC data derived from the analyses of LCSs are used to evaluate the effectiveness of the analytical process. Acceptable LCS results demonstrate that the batch analytical process is in control.

10.7 Initial Demonstration of Capability (IDC)

Every new employee must demonstrate initial proficiency by generating data of acceptable accuracy and precision. This demonstration is repeated for each new instrument and whenever any significant changes in instrumentation are made. Refer to Method 8000B section 8.4 for further discussion.

10.8 Method Detection Limit (MDL)

The method detection level (MDL) for each analyte in each method is to be determined before data from any samples are reported. Establish a MDL using deionized water fortified with an analyte concentraton of two to five times the estimated detection limit. To determine the MDL value, take seven replicate aliquots of the fortified water and process through the entire analytical method.

10.8.1 Calculate the average recovery and the standard deviation (s) of the seven replicates.

10.8.2 Calulate the MDL as follows:

$$MDL = (t) \times (s)$$

where:

t = Student's t value for n-1 degrees of freedom at the 99% confidence level; t = 3.143 for six degrees of freedom

s = standard deviation of the replicate analyses

10.8.3 The calculate MDL must satisfy the criteria set forth in the laboratory's MDL criteria spreadsheet or the entire process must be repeated.

10.8.4 The MDL is applied to reporting sample results by the following:

10.8.4.1 Results Below the MDL are reported as "not detected"

10.8.4.2 Results between the MDL and reporting limit (RL) are reported and qualified.

10.8.4.3 Results above the reporting limit (RL) are reported along its associated error.

11 DATA REDUCTION AND REPORTING

The analyst is responsible for the quality of his/her data generated according to QC protocols. After review of the data by the analyst, it is forwarded to the designated QA officer for secondary review in preparation for the final approval by the Laboratory Manager.

11.1 Data Reduction

11.1.1 Most of the data produced in the laboratory are generated through the use of dedicated instrumentation with microcomputer interfaces. These PC-based systems receive the original signal from the instrument to which the sample or extract has been submitted. The PC or minicomputer transforms the raw signal into a quantitative value.

11.1.2 An experienced analyst reviews this result either on screen or on a printout, to verify identifications, check quantitative formulas, and acquire final numerical values. The analyst then writes calculated

results or checks off computer-produced results directly on the computer printout. The printout is cross-referenced to a sample or run number in a bound run log.

11.1.3 For instruments that operate independently of computers, the signal is recorded as a strip-chart trace, numerical output on a printer strip, or a direct reading from a digital or analog dial. In these cases, the analyst must reduce the data to a reportable format. The original signal must be multiplied by a calibration factor or compared with a standard curve. Blank correction may be required. Aliquot results are divided by the mass of volume of sample to correct for the concentration-based final result. Calculations are performed using hand calculators or simple programs.

11.1.4 All data is recorded in a "bench book" dedicated for the particular analysis in question. Results are entered by the analyst in the assigned report form and appropriate logbook.

11.1.5 Some lab tests, such as titrations or sensory evaluations, are not instrumented. For these, the quantitative result of observation is recorded directly in a bound book by the assigned analyst. Calculations. if needed, are also recorded in the same book.

11.1.6 For all methods of data reduction, the final analytical value is written on a computer-generated work sheet by the analyst. Auxiliary information, such as analyst name, method number, equipment ID, etc., is entered on the same sheet. The worksheets are turned in daily to a data entry operator to be keyed into the Laboratory Information Management System (LIMS).

11.1.7 Analytical data generated from the instrument is "backed-up", or archived, using the CD-Writer. The CD-Writer program enables the data to be copied onto a compact disc for data storage. A schedule is created in which instrument data can be copied routinely at a certain time during non-work hours.

11.1.8 All laboratory analytical raw data is archived and stored on the second floor of Building 11 located in the Main Street Yard. The purpose of archiving data is to have access to previous raw data records which later may be referenced upon for such purposes as litigations, previous history of a site, etc. Laboratory reports and raw data print outs, as well as compact discs containing raw analysis data are stored in labeled boxes and shelved by the analyst. Archived data is stored for at least five years. All environmental lead records are maintained and archived for at least ten years.

11.2 Data Validation

QC parameters to be checked to validate results:

11.2.1 Colorimetric Testing

11.2.1.1 Holding Times
11.2.1.2 Initial calibration
11.2.1.3 Continuing calibration
11.2.1.4 Blanks
11.2.1.5 Batching
11.2.1.6 Duplicates
11.2.1.7 Matrix spike/matrix spike duplicate (if applicable)
11.2.1.8 Laboratory control sample
11.2.1.9 Quantitation and reporting limits
11.2.1.10 System performance
11.2.1.11 Overall assessment of data

11.2.2 Gravimetric Testing

11.2.2.1 Holding Times
11.2.2.2 Blanks
11.2.2.3 Batching
11.2.2.4 Duplicates
11.2.2.5 Laboratory control sample
11.2.2.6 Quantitation and reporting limits
11.2.2.7 System performance
11.2.2.8 Overall assessment of data

11.2.3 Ion Chromatography

11.2.3.1 Holding Times
11.2.3.2 Initial calibration
11.2.3.3 Continuing calibration
11.2.3.4 Blanks
11.2.3.5 Batching
11.2.3.6 Duplicates
11.2.3.7 Matrix spike/matrix spike duplicate (if applicable)
11.2.3.8 Laboratory control sample
11.2.3.9 Compound identification and chromatography
11.2.3.10 Compound quantitation and reporting limits
11.2.3.11 Retention times
11.2.3.12 System performance
11.2.3.13 Overall assessment of data

11.2.4 Metals (ICP, GFAA, AA)

11.2.4.1 Holding Times
11.2.4.2 Initial calibration
11.2.4.3 Continuing calibration
11.2.4.4 Blanks
11.2.4.5 Batching

11.2.4.6 ICP Interference check sample
11.2.4.7 Laboratory control sample
11.2.4.8 Duplicate sample
11.2.4.9 Matrix spike/matrix spike duplicate
11.2.4.10 Post spikes (if applicable)
11.2.4.11 Quantitation and reporting limits
11.2.4.12 System performance
11.2.4.13 Overall assessment of data

11.2.5 Metals (ICP-MS)

11.2.5.1 Holding times
11.2.5.2 Short-term stability check
11.2.5.3 Initial calibration
11.2.5.4 Continuing calibration
11.2.5.5 Blanks
11.2.5.6 Batching
11.2.5.7 Surrogate spikes
11.2.5.8 Duplicate
11.2.5.9 Matrix spike/matrix spike duplicate
11.2.5.10 Laboratory control sample
11.2.5.11 Post spike (if applicable)
11.2.5.12 Internal standards
11.2.5.13 Compound Quantitation and reporting limits
11.2.4.12 System performance
11.2.4.13 Overall assessment of data

11.2.6 Meter

11.2.6.1 Holding times
11.2.6.2 Calibration
11.2.6.3 Blanks
11.2.6.4 Batching
11.2.6.5 Matrix spike/matrix spike duplicate (if applicable)
11.2.6.6 Laboratory control sample
11.2.6.7 Quantitation and reporting limits
11.2.6.8 System performance
11.2.6.9 Overall assessment of data

11.2.7 Titrimetric Testing

11.2.7.1 Holding times
11.2.7.2 Blanks
11.2.7.3 Batching
11.2.7.4 Duplicates
11.2.7.5 Matrix spike/matrix spike duplicate (if applicable)

11.2.7.6 Laboratory control sample
11.2.7.7 Quantitation and reporting limits
11.2.7.8 System performance
11.2.7.9 Overall assessment of data

11.2.8 Volatiles (GC, GC/MS)

11.2.8.1 Holding times
11.2.8.2 GC/MS Instrument performance check
11.2.8.3 Initial calibration
11.2.8.4 Continuing calibration
11.2.8.5 Blanks
11.2.8.6 Batching
11.2.8.7 Surrogate spikes
11.2.8.8 Duplicate
11.2.8.9 Matrix spike/matrix spike duplicate
11.2.8.10 Laboratory control sample
11.2.8.11 Internal standards
11.2.8.12 Compound Identification and Chromatography
11.2.8.13 Compound Quantitation and reporting limits
11.2.8.14 Tentatively Identified Compounds
11.2.8.15 System performance
11.2.8.16 Retention times
11.2.8.17 Overall assessment of data

11.2.9 Semi-volatiles (GC, GC/MS)

11.2.9.1 Holding times
11.2.9.2 GC/MS Instrument performance check
11.2.9.3 Initial calibration
11.2.9.4 Continuing calibration
11.2.9.5 Blanks
11.2.9.6 Batching
11.2.9.7 Surrogate spikes
11.2.9.8 Duplicate
11.2.9.9 Matrix spike/matrix spike duplicate
11.2.9.10 Laboratory control sample
11.2.9.11 Internal standards
11.2.9.12 Compound Identification and Chromatography
11.2.9.13 Compound Quantitation and reporting limits
11.2.9.14 Tentatively Identified Compounds
11.2.9.15 System performance
11.2.9.16 Retention times
11.2.9.17 Overall assessment of data

11.3 Data Review

Before any analytical results are reported, the following criteria must be reviewed and met as part of our data review process:

11.3.1 Meet holding times

11.3.2 % RSD of initial calibration must be < 20%, unless specified differently in SOP.

11.3.3 % Difference of continuing calibration must be <15%, unless specified differently in SOP.

11.3.4 Relative Response Factor (RRF) must be greater than or equal to 0.05, unless specified differently in SOP.

11.3.5 Report method blank bias for associated sample concentrations > 10 times the respective PQL's. Results must not be corrected by subtracting any blank value, unless method references state otherwise.

11.3.6 Surrogate recoveries should be 70 – 130 percent unless specified by the method.

11.3.7 Matrix spike/spike duplicate recoveries should be 70 – 130 percent unless specified by the method or professional judgment is used in conjunction with other QC criteria.

11.3.8 Laboratory control sample recoveries should be within certified performance limits or based on both the number of compounds that are outside recovery limits and the magnitude of the exceedance of the criteria. If the LCS recovery criteria are not met, then the LCS results should be used to qualify samples data for the specific compounds that are in the LCS solution. If the LCS recovery is greater than the upper performance limit, then positive results for the particular compounds should be qualified. If LCS compounds are below lower performance limits, results are not usable.

11.3.9 Sample duplicate recoveries should be 75-125 percent unless specified by the method or professional judgment in conjunction with other QC criteria.

11.3.10 Spectral Interference Check Solution recoveries should be within 5 percent initially, and 10 percent thereafter in order to verify the inter-element and background correction factors for metals analysis.

11.3.11 Mid-range check standards: must agree within 10% of the expected value.

11.3.12 Diluted samples: If the sample result fails to fall within the initial calibration range, the sample must be diluted in order to assure accurate results.

11.3.13 Once all criteria have been met, the analytical data review checklist is documented with the data package to assure that the analytical results have met all quality assurance standards and

were verified.

11.3.14 Analytical data review checklist is provided with the analytical report upon client's request, otherwise the report will be noted "The quality assurance data validates that the accompanying sample data are of acceptable quality".

11.3.15 Original reports are signed by Laboratory Manager, a copy of which is released only to the client specified on the Chain-of-Custody. Our clients are from the different business units within the Department of Water and Power. Data requested by regulatory agencies or from a court-of-law, the data is obligated to submit all information when a written authorization is provided by the client.

11.4 Reporting

11.4.1 The Environmental Laboratory maintains log books, calibration books, and an original copy of each report. Each analyst maintains a copy of the chain of custody as well as a copy of the written report. The results of the analyses are entered daily into the lab book with the log number, initial, and date and finally into the LIMS system.

11.4.2 The LIMS system generates reports on some analyses. Special investigation reports are assigned to experienced analysts performing the analysis.

11.4.3 Report packages include: cover sheets that contain information pertaining to sampling procedures, analysis requested, analytical results, methods used, PQL, concentration units, requester, work order, analyst's initial approval signature, chain of custody documents and QC report if requested.

11.5 Control Charts

11.5.1 Control charts are generated in our LIMS database by the designated QA officer to monitor and detect trends of statistical analysis upon reviewing of results.

11.5.2 Control databases/charts are used to record quality control data and compare them with analysis specific acceptance limits such as upper and lower control limits.

11.5.3 Trend Monitoring

11.5.3.1 Analytical data trends are monitored using the control charts generated in LIMS. The charts are generated in LIMS by performing a search of results according to sample analysis and the date the sample was collected. The results are then complied in charts in a manner that is easy to interpret.

11.5.3.2 Control charts are adjusted according to sample collection dates in order to monitor the trends of the statistical analytical data over a specific time period.

11.5.3.3 Statistical data which are above or below the established QA acceptance limits are clearly defined in the control charts and are further investigated with necessary corrective action.

11.6 Computer Data Security

Laboratory employees are issued a unique network user name by IT manager. Each person must have a unique password. The passwords should be changed every 90 days or until an automatic "change password" warning is issued.

12 DATA ASSESSMENT AND VALIDATION

12.1 Precision

Precision is the degree to which the measurement is reproducible determined by replicate analysis of reference standards, samples or spiked samples. Sampling precision is evaluated from field duplicate samples and analytical precision is evaluated from matrix spike duplicate samples and split samples. It is calculated in terms of the relative percent difference (RPD).

$$RPD = \frac{[(C_1 - C_2) \times 100\%]}{(C_1 + C_2)/2}$$

Where: RPD = relative percent difference
C_1 = larger of the two observed values
C_2 = smaller of the two observed values

12.2 Accuracy

Accuracy is a determination of how close the measurement is to the true value. Accuracy is evaluated using reference standards, laboratory control sample (LCS), matrix spike/matrix spike duplicate and spiked samples with surrogate compounds.
Calculation to determine the accuracy of any spiked sample is as follows:

$$P = 100\,(A - B)/T$$

Where: P = percent spike recovery
A = concentration determined on spiked sample
B = concentration determined on original unspiked sample

T = true value of spike added

Using accumulated spike data, control limits for accuracy of an analysis are established and plotted as control charts. The average recovery and the standard deviation of the recovery are calculated and the limits set at two standard deviations for the warning limit and three standard deviations for the control limit.

13 PERFORMANCE AND SYSTEM AUDITS

13.1 The laboratory verifies the ability to correctly identify and quantitate analytes through participation in annual Performance Evaluation (PE) Program:

- 13.1.1 Underground Storage Tank (UST) Study through ERA
- 13.1.2 ELAP Soil Study through ERA
- 13.1.3 ELAP Water Pollution (WP) performance evaluation through ERA
- 13.1.4 NPDES DMRQA Study through ERA
- 13.1.5 Internal PE samples as blind checks through purchased certified standards from ERA, Ultra Scientific, NSI, AccuStandard, Absolute Standards, and RTC Corporation.
- 13.1.6 ELPAT (Environmental Lead Proficiency Analytical Testing)
  - 13.1.6.1 ELPAT samples are monitored by the American Industrial Hygiene Association (AIHA).
  - 13.1.6.2 ELPAT samples are analyzed to verify the laboratory's ability to correctly identify and quantitate environmental lead in soil, wipe, and paint chip samples using US EPA 6010B.
  - 13.1.6.3 Any changes that would significantly affect the laboratory's capability, scope of accreditation, or ability to meet the AIHA's requirements shall be reported to the AIHA within twenty (20) business days of the change.

Continuing evaluations of processes are reviewed through the use of control samples, replicate measurements, and use of reference materials in conjunction with control charts.

13.2 Internal Audits

Audits conducted internally shall be inclusive to the following parameters:

- 13.2.1 Verification of Standard Operating Procedures and analyst(s) understanding.
- 13.2.2 Verification and documentation of procedures and documents

13.2.3 Review of analytical data and calculations.

13.2.4 Review of analyst QA/QC data for accuracy, precision, completeness, representativeness, and comparability.

13.2.5 Review of instrument logs, performance test results and analyst performance

13.2.6 Review performance indicators such as blanks, surrogate recoveries, spike recoveries and duplicate/matrix spikes.

13.3 Management Review

13.3.1 Laboratory's executive management conducts reviews of the laboratory process to ensure the laboratory continues to be effective, suitable, and adequate for it's testing and/or calibration activities and to determine if any necessary changes or improvements need to be made.

13.3.2 Monthly meetings are held with laboratory management to record and document the laboratory activities from the past month and to determine if any decisions or actions need to be taken to ensure the laboratory's continual improvement.

13.3.3 Annual Management Reviews are held as an overview of the laboratory activities from the past twelve months and to determine a laboratory planning system which includes the goals, objectives, and action plans for the coming year.

13.3.4 Items to be included in the review include the following:

13.3.4.1 Suitability of policies and procedures
13.3.4.2 Reports from managerial and supervisory personnel
13.3.4.3 Outcome of recent internal audits
13.3.4.4 Corrective and Preventive Actions
13.3.4.5 External lab assessments
13.3.4.6 Results of proficiency tests
13.3.4.7 Changes in volume or type of work
13.3.4.8 Customer feedback
13.3.4.9 Complaints
13.3.4.10 Other relevant factors, such as quality control activities, resources, and staff training.

13.3.5 Findings from the Management Review and the actions that arise from them are recorded and shared with appropriate laboratory personnel. For any actions requested, management ensures that the actions are carried out within an appropriate timescale and is documented.

14 PREVENTIVE MAINTENANCE

The Environmental Laboratory maintains service contracts for all of the major instrumentation in the laboratory, such as Gas Chromatographs, Atomic Absorption Spectrophotometer, GC/MS systems, and the Inductively Coupled Plasma Spectrometer.

The Laboratory and Testing Services Subsection has its own in-house instrument repair shop, machine shop, and electrical equipment testing facilities and qualified personnel.

Instruments are monitored by the use of daily calibration, sensitivity, and response checks to determine when nonscheduled maintenance is required. Instrument operators perform routine maintenance checks on the respective instruments.

Preventive Maintenance Logs are maintained for all instrumentation and equipment. These are stored near respective instrumentation which is maintained by responsible analysts.

15 CORRECTIVE ACTION

Corrective action is a process by which analytical error is corrected to prevent future errors. Whenever the analytical process is out-of-control, investigation/corrective action will be initiated by one or more individuals.

The analyst must be able to recognize out-of-control conditions and immediately notify the supervisor for action plan.

The Quality Control Officer must notify the Laboratory Manager, help identify and solve the problem where applicable, and ensure that no suspect data is reported.

The immediate supervisor must review all analytical and Quality Control data for precision, accuracy, calculation errors, and completeness.

The Laboratory Manager will review all data; prevent the reporting of suspect data until the problem is resolved.

15.1 Factors that affect data quality:

15.1.1 Systematic error

15.1.1.1 Calibration error
15.1.1.2 Consistent blank contamination
15.1.1.3 Expired standards
15.1.1.4 Operator bias
15.1.1.5 Interference
15.1.1.6 Matrix effects

15.1.1.7 Instrument sensitivity
15.1.1.8 Incorrect method use
15.1.1.9 Poor training

15.1.2 Random error

15.1.2.1 Calculation error
15.1.2.2 Contamination
15.1.2.3 Dilution factor
15.1.2.4 Instrument shifts
15.1.2.5 Mislabeled sample
15.1.2.6 Poor sample preparation
15.1.2.7 Poor surrogate recovery
15.1.2.8 Transcription error
15.1.2.9 Wrong units reported

When re-analysis of sample batches is necessary, the resulting analysis will be investigated in a step-by-step method to isolate and correct faulty operations. Analyze a QC blind sample to demonstrate the effectiveness of the corrective action.

The Quality Control Officer shall document corrective action taken on the corrective action form.

15.2 Documentation of Corrective Action:

All out-of-compliance instances will be documented using a corrective action form. This form should be used by the analyst, supervisor, and Quality Control Officer and Lab Manager whenever an out-of-control situation is recognized. The report should include the following information:

15.2.1 EPA or ASTM Method #
15.2.2 Instrument/Detector
15.2.3 Description of problem
15.2.4 Dates (data recognized, date occurred, date corrected)
15.2.5 Number of samples affected
15.2.6 Cause of problem – known or suspected
15.2.7 Corrective action taken
15.2.8 Resolution of problem
15.2.9 Signatures of analyst, QC officer, Lab Manager

15.3 Quality Assurance Reports

15.3.1 Reports of all quality control parameters that are outside warning and/or is given to the supervisor and Quality Assurance Manager for review and corrective action. As a minimum, the reports shall contain the

Environmental Lab Log Number, run number, method number, date, analyst name, analyses results outside of limits, and established limit(s) that were exceeded.

15.3.2 Data cannot be reported to the client until corrective action validates the result. The Quality Assurance Manager receives a copy of the report, so that corrective action will proceed in a timely manner.

15.3.3 To supplement the routine quality control reporting, all events that significantly affect the quality assurance program are reported to the Quality Assurance Manager, who reports it to the Assistants and to the Laboratory Manager.

15.3.4 The LIMS system generates Quality Assurance Reports and is provided to clients if requested.

16 REFERENCES

Methods for Chemical Analysis of Water and Wastewater, EPA-600/4-79 020, revised March 1983 and EPA-600/4-84-017, March, 1984.

Standard Methods for the Examination of Water and Wastewater, APHA, AWWA and WPCF.

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition.

Criteria for Identification of Hazardous and Extremely Hazardous Wastes, California Code of Regulations, Title 22, Article 11.

Draft Method for Total Petroleum Hydrocarbons and Total Organic Lead, Draft Method Available from Hazardous Materials Laboratory, California Department of Health Services 1625 Shattuck Avenue, Room 101 Berkeley, CA 94709-1611.

40 CFR, Part 136.General Requirements for the Competence of Testing and Calibration Laboratories, ISO/IEC 17025, Internal Standard, 2nd edition, 2005.

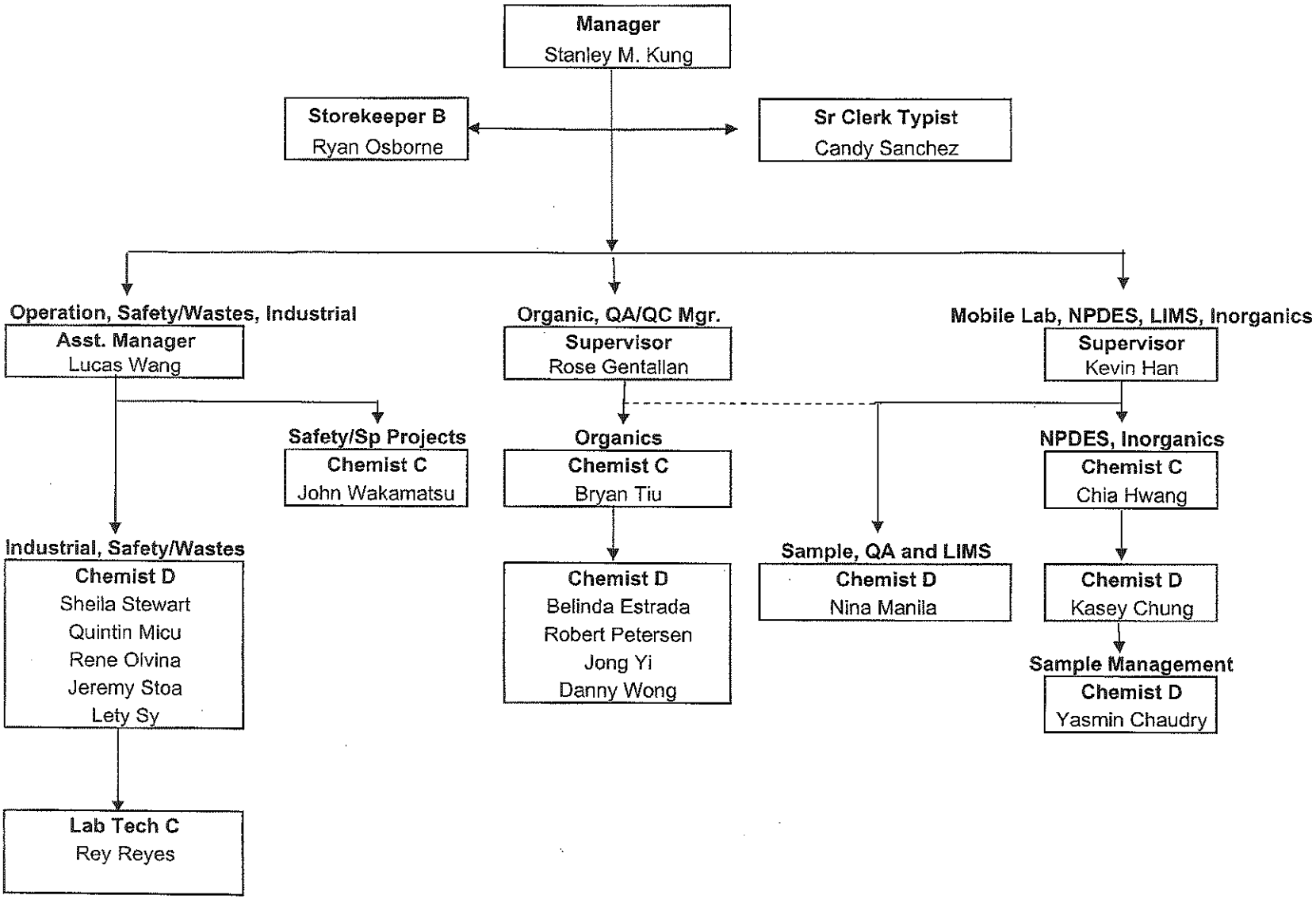
Appendix A

Environmental Laboratory Organizational Chart

Organization Chart

Environmental Laboratory, Water Quality and Compliance
1630 North Main Street, Building 7

4-Jun-08



Appendix B

Samples of Chain of Custodies

Environmental Laboratory
1630 N. Main Street, Bldg 7
Los Angeles, CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Power
City of Los Angeles

Chain of Custody Record

COC # : Page __ of __

Report C#_____ JC# _____ WO# _____
Refrig#. _____ Shelf _____ Bin#._____
Initial of Field Personnel: No. of Field Test:

Sample Location _____

Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											

Requested by . _____ Organization / Div. _____
Address. _____ Tele. _____ Fax. _____

Analyst_____ date_____
Approved by_____ date _____

Date & Time Stamp

<< COC# Label Here >>

Chem Lab COC Form #1
Revision: 10/2/2001

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify

Printed Name	Signature	Time	Date
Sampled by:	*Sampled by:*		
Relinquished by:	*Relinquished by:*		
Received by	*Received by*		

Department of Water and Power
City of Los Angeles

Chain of Custody Record

(For samples going to outside laboratory)

Environmental Laboratory

1630 N. Main Street, Bldg 7
Los Angeles, CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Site Description: _____

RMS# _____ **S/PO#**

COC # _____ **Page OF**

(Please attach a copy of this COC to the original COC)

Storage Location _____

Supervisor Approval: _____ (This signature and RMS # are **required** for authorizing payment)

LOG NUMBERS	Sample Date	COLLECTION TIME	DWP Log Number	Preservatives	Container Size	Container No.	Analysis Required	Analytical Method
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								

Please send and fax the test results and report(s) to Environmental Laboratory ONLY. Fax number (213) 367-7285
Sample log numbers must be transmitted as part of the billing process. If bills are submitted without relevant sample log numbers, such bill cannot be approved for payment.

Date and Time
sample received

Chem Lab COC Form #3
Revision 9/09/02

Date Needed

Sent Report to: Mr. Stanley M. Kung
Address: P.O. Box 51111, 1630 N. Main St., Bldg.#7, Los Angeles CA 90012

Tele. (213) 367-7270
Fax. (213) 367-7285

Printed Name	Signature	Time	Date
Prepared by:	*Prepared by:*		
Relinquished by:	*Relinquished by:*		
Received by	*Received by*		

Contract Laboratory: _____