## San Diego County Regional Airport Authority

Fiscal Year 2009-2010 Industrial Stormwater Permit Annual Report

July 2010



## State of California STATE WATER RESOURCES CONTROL BOARD

2009-2010

### **ANNUAL REPORT**

FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES

Reporting Period July 1, 2009 through June 30, 2010

An annual report is required to be submitted to your local Regional Water Quality Control Board (Regional Board) by July 1 of each year. This document must be certified and signed, under penalty of perjury, by the appropriate official of your company. Many of the Annual Report questions require an explanation. Please provide explanations on a separate sheet as an attachment. Retain a copy of the completed Annual Report for your records.

Please circle or highlight any information contained in Items A, B, and C below that is new or revised so we can update our records. Please remember that a Notice of Termination and new Notice of Intent are required whenever a facility operation is relocated or changes ownership.

If you have any questions, please contact your Regional Board Industrial Storm Water Permit Contact. The names, telephone numbers and e-mail addresses of the Regional Board contacts, as well as the Regional Board office addresses can be found at http://www.waterboards.ca.gov/stormwtr/contact.html. To find your Regional Board information, match the first digit of your WDID number with the corresponding number that appears in parenthesis on the first line of each Regional Board office.

### GENERAL INFORMATION:

4.	Facility Information:	Facility WDID No: <u>9371018035</u>
	Facility Business Name: San Diego International Airport	Contact Person: Richard Gilb
	Physical Address: 3225 North Harbor Drive	e-mail: _RGilb@san.org
	City: San Diego	<u>CA</u> Zip: <u>92101</u> Phone: <u>(619)400-2790</u>
	Standard Industrial Classification (SIC) Code(s): 4581 - Airports,	Flying Fields, and Airport Terminal Services
В.	Facility Operator Information:	
	Operator Name: San Diego County Regional Airport Authority	Contact Person: Richard Gilb
	Mailing Address: P.O. Box 82776	e-mail: RGilb@san.org
	City: San Diego	State: <u>CA</u> Zip: <u>92101</u> Phone: <u>(619)400-2790</u>
C.	Facility Billing Information:	
	Operator Name: San Diego County Regional Airport Authority	Contact Person: Richard Gilb
	Mailing Address: P.O. Box 82776	e-mail: RGilb@san.org
	City: San Diego	State: <u>CA</u> Zip: <u>92101</u> Phone: <u>(619)400-2790</u>

## SPECIFIC INFORMATION

## MONITORING AND REPORTING PROGRAM

D.

E.

SA	MPLING	AND AN	ALYSIS EXEMPTIONS AND REDUCTIONS			
1.	For the accorda	reporting ince with	period, was your facility exempt from collect sections B.12 or 15 of the General Permit?	ting and a	analyzin	g samples from <b>two</b> storm events in
		YES	Go to Item D.2		NO	Go to Section E
2.			son your facility is exempt from collecting and page of the appropriate certification if you ch			
	i. 🗌	Particip	eating in an Approved Group Monitoring Plan		Grou	p Name:
	ii.		ted No Exposure Certification (NEC)		Date	Submitted: / /
			luation Date:/ acility continue to satisfy NEC conditions?		YES	П ио
	iii.	Submit	ted Sampling Reduction Certification (SR	C)	Date	Submitted:/
		Re-eva	luation Date://			
		Does fa	acility continue to satisfy SRC conditions?		YES	□ NO
	iv.	Receive	ed Regional Board Certification		Certif	ication Date://
	v. 🗌	Receive	ed Local Agency Certification		Certif	ication Date:/
3.	If you ch	necked b	oxes i or iii above, were you scheduled to sa	ımple <b>one</b>	storm	event during the reporting year?
		YES	Go to Section E		NO	Go to Section F
4.	If you ch	necked b	oxes ii, iv, or v, go to Section F.			
SA	MPLING	AND AN	ALYSIS RESULTS			
1.	How ma	any storm	n events did you sample? <u>3</u>		2.i or iii	attach explanation (if you checked above, only attach explanation if you
2.			torm water samples from the first storm of the y operating hours? (Section B.5 of the Gene			at produced a discharge during
		YES			NO	attach explanation (Please note that if you do not sample the first storm event, you are still required to sample 2 storm events)

3. How many storm water discharge locations are at your facility? 14

4.		r each storm event sampled, did you collect and analyze a mple from each of the facility's' storm water discharge locations?		YES,	go to I	tem E.6 NO	
5.		as sample collection or analysis reduced in accordance h Section B.7.d of the General Permit?		YES		NO, attach explanatio	n
		YES", attach documentation supporting your determination t two or more drainage areas are substantially identical.					
	Dat	te facility's drainage areas were last evaluated 6/21-23/10					
6.	We	ere all samples collected during the first hour of discharge?		YES		NO, attach explanatio	n
7.		as <u>all</u> storm water sampling preceded by three (3) rking days without a storm water discharge?		YES		NO, attach explanatio	n
8.		ere there any discharges of storm water that had been inporarily stored or contained? (such as from a pond)		YES		NO, go to Item E.10	
9.	con	I you collect and analyze samples of temporarily stored or ntained storm water discharges from two storm events? one storm event if you checked item D.2.i or iii. above)		YES		NO, attach explanatio	n
10.	(TS	ction B.5. of the General Permit requires you to analyze storm wa SS), Specific Conductance (SC), Total Organic Carbon (TOC) or Opresent in storm water discharges in significant quantities, and a neral Permit.	Oil and	d Ġreas	e (O&0	G), other pollutants likely	to
	a.	Does Table D contain any additional parameters related to your facility's SIC code(s)?	$\bowtie$	YES	П	NO, Go to Item E.11	
	b.	Did you analyze all storm water samples for the applicable parameters listed in Table D?		YES		NO	
	C.	If you did not analyze all storm water samples for the applicable Table D parameters, check one of the following reasons:					
		In prior sampling years, the parameter(s) have not be consecutive sampling events. <b>Attach explanation</b>	en de	tected in	n signi	ficant quantities from two	)
		The parameter(s) is not likely to be present in storm we discharges in significant quantities based upon the factorial states.					
		Other. Attach explanation					
11.		r each storm event sampled, attach a copy of the laboratory analy alysis results using <b>Form 1</b> or its equivalent. The following must b					
	•	Date and time of sample collection  Name and title of sampler  Parameters tested  Name of analytical testing laboratory  Discharge location identification	• Te	esting reest methest dete	nods u ction li esting		te

### F. QUARTERLY VISUAL OBSERVATIONS

1.	Sec	thorized Non-Storm Water Discharges ction B.3.b of the General Permit requires quarterly visual observations of all authorized non-storm water charges and their sources.
	a.	Do authorized non-storm water discharges occur at your facility?
		YES On One of the or
	b.	Indicate whether you visually observed all authorized non-storm water discharges and their sources during the quarters when they were discharged. <b>Attach an explanation for any "NO" answers</b> . Indicate "N/A" for quarters without any authorized non-storm water discharges.
		July-September YES NO NA October-December YES NO NA
		January-March YES NO N/A April-June YES NO N/A
	C.	Use <b>Form 2</b> to report quarterly visual observations of authorized non-storm water discharges or provide the following information:
		<ul> <li>i. name of each authorized non-storm water discharge</li> <li>ii. date and time of observation</li> <li>iii. source and location of each authorized non-storm water discharge</li> <li>iv. characteristics of the discharge at its source and impacted drainage area/discharge location</li> <li>v. name, title, and signature of observer</li> <li>vi. any new or revised BMPs necessary to reduce or prevent pollutants in authorized non-storm water discharges. Provide new or revised BMP implementation date.</li> </ul>
2.	Sec	authorized Non-Storm Water Discharges ction B.3.a of the General Permit requires quarterly visual observations of all drainage areas to detect the sence of unauthorized non-storm water discharges and their sources.
	a.	Indicate whether you visually observed all drainage areas to detect the presence of unauthorized non-storm water discharges and their sources. Attach an explanation for any "NO" answers.
		July-September YES NO October-December YES NO
		January-March YES NO April-June YES NO
	b.	Based upon the quarterly visual observations, were any unauthorized non-storm water discharges detected?
		YES O Go to Item F.2.d
	c.	Have each of the unauthorized non-storm water discharges been eliminated or permitted?
	d.	Use <b>Form 3</b> to report quarterly unauthorized non-storm water discharge visual observations or provide the following information:
		<ul> <li>i. name of each unauthorized non-storm water discharge</li> <li>ii. date and time of observation</li> <li>iii. source and location of each unauthorized non-storm water discharge</li> <li>iv. characteristics of the discharge at its source and impacted drainage area/discharge location</li> <li>v. name, title, and signature of observer</li> <li>vi. any corrective actions necessary to eliminate the source of each unauthorized non-storm water discharge and to clean impacted drainage areas. Provide date unauthorized non-storm water discharge(s) was</li> </ul>

eliminated or scheduled to be eliminated.

### MONTHLY WET SEASON VISUAL OBSERVATIONS

Section B.4.a of the General Permit requires you to conduct monthly visual observations of storm water discharges at all storm water discharge locations during the wet season. These observations shall occur during the first hour of discharge

	or, i	n the case of tem	iporarily stored or	contained storm water,	at the time of	discharge.		
	1.	Attach an expla	nation for any "N scheduled facility	sual observations of sto NO" answers. Include operating hours that die erson who observed that	in this explana d not result in	ation whether a storm wate	r any el <mark>igi</mark> ble er discharge, a	storm events
		October	YES	NO 	February	YES		10
		November		$\boxtimes$	March			
		December	$\boxtimes$		April			
		January	$\boxtimes$		May			$\boxtimes$
	2.	Report monthly	wet season visual	observations using For	m 4 or provide	e the followin	g information	n:
		b. name and ti c. characterist d. any new or Provide new	revised BMPs ned v or revised BMP i	ge (i.e., odor, color, etc. cessary to reduce or pre mplementation date.	event pollutant	s in storm wa		
A۱	INUA	AL COMPREHE	NSIVE SITE CC	MPLIANCE EVALUA	ATION (ACS	CE)		
H.	ACS	SCE CHECKLIST	•					
	Ju be ste	ne 30). Evaluation revised and impleps necessary to	ons must be condu emented, as nece	uires the facility operatucted within 8-16 month ssary, within 90 days o E. Indicate whether yo	s of each othe f the evaluatio	er. The SWP n. The chec	PP and moni klist below in	toring program shall cludes the minimum
	1.		cted all potential pe eas should be insp	ollutant sources and inc pected:	dustrial activitie	es areas?	X YES	□ NO
		<ul><li>during the la</li><li>outdoor was</li><li>process/ma</li><li>loading, unle</li><li>waste storage</li></ul>	sh and rinse areas nufacturing areas oading, and transf ge/disposal areas late generating ar	er areas	<ul><li>mat</li><li>veh</li><li>truc</li><li>roof</li><li>veh</li></ul>	erial storage icle/equipme k parking an top equipme icle fueling/m	areas nt storage are d access area nt areas naintenance a	as
	2.			to assure that its BMPs		ng	X YES	
	2			lustrial activities areas?			∠√ YES	∐ NO
	3.	•		lity to verify that the SW nap items should be ve		яþ	XES	☐ NO
		facility boun	daries	•			nd conveyand	•

- outline of all storm water drainage areas
- areas impacted by run-on

- storm water discharges locations
- structural control measures such as catch basins, berms, containment areas, oil/water separators, etc.

4.	Have you reviewed all General Permit compliance records g since the last annual evaluation?	enera	ted	XES	NO
	The following records should be reviewed:				
	<ul> <li>quarterly authorized non-storm water discharge visual observations</li> <li>monthly storm water discharge visual observation</li> <li>records of spills/leaks and associated clean-up/response activities</li> </ul>	•	quarterly unautho visual observatior Sampling and Ana preventative main maintenance reco	ns alysis records Itenance inspec	
5.	Have you reviewed the major elements of the SWPPP to associate compliance with the General Permit?	sure		XES	□ NO
	The following SWPPP items should be reviewed:				
	<ul> <li>pollution prevention team</li> <li>list of significant materials</li> <li>description of potential pollutant sources</li> </ul>	•	assessment of poidentification and implemented for e	description of the	he BMPs to be
6.	Have you reviewed your SWPPP to assure that a) the BMPs in reducing or preventing pollutants in storm water discharge non-storm water discharges, and b) the BMPs are being imp	es and	authorized	YES	□ NO
	The following BMP categories should be reviewed:				
	<ul> <li>good housekeeping practices</li> <li>spill response</li> <li>employee training</li> <li>erosion control</li> <li>quality assurance</li> </ul>	•	preventative main material handling waste handling/st structural BMPs	and storage pra	actices
7.	Has all material handling equipment and equipment needed implement the SWPPP been inspected?	to		YES	□ NO
<u>AC</u>	SCE EVALUATION REPORT				
The	facility operator is required to provide an evaluation report th	at incl	udes:		
•	identification of personnel performing the evaluation the date(s) of the evaluation necessary SWPPP revisions	•	schedule for imple any incidents of n corrective actions	on-compliance	
Use	Form 5 to report the results of your evaluation or develop ar	n equiv	alent form.		
AC:	SCE CERTIFICATION				
	facility operator is required to certify compliance with the Ind				ermit. To certify
	ed upon your ACSCE, do you certify compliance with the Indivities Storm Water General Permit?	ustrial		XES	□ NO
	ou answered "NO" <b>attach an explanation</b> to the ACSCE Evalustrial Activities Storm Water General Permit.	luation	n Report why you a	re not in compli	ance with the

I.

J.

### **ATTACHMENT SUMMARY**

Answer the questions below to help you determine what should be attached to this annual report. Answer NA (Not Applicable) to questions 2-4 if you are not required to provide those attachments.

1.	Have you attached Forms 1,2,3,4, and 5 or their equivalent?	XES (Mar	ndatory)						
2.	If you conducted sampling and analysis, have you attached the laboratory analytical reports?	⊠ YES	□ NO	☐ NA					
3.	If you checked box II, III, IV, or V in item D.2 of this Annual Report, have you attached the first page of the appropriate certifications?	YES	□ NO	⊠ NA					
4.	Have you attached an explanation for each "NO" answer in items E.1, E.2, E.5-E.7, E.9, E.10.c, F.1.b, F.2.a, F.2.c, G.1, H.1-H.7, or J?	⊠ YES	□ №	□ NA					
ΑN	INUAL REPORT CERTIFICATION								
PE we pe wh su sig	appropriate certifications?  NA  NA  NA  NA  NA  NA  NA  NA  NA  N								
Pr	inted Name: Paul Manasjan								
Si	nature: P. 200   Date: 6/16/10								
Ti	tle: Director, Environmental Affairs Department								



## SAN DIEGO COUNTY REGIONAL AIRPORT AUTHORITY

### INTER-OFFICE COMMUNICATION

Date:

June 27, 2003

To:

Thella F. Bowens President/CEO

From:

**Ted Sexton** 

Vice President, Operations

Subject:

Authorization to Sign National Pollutant Discharge Elimination System

(NPDES) Documents

NPDES Permits (including General NPDES Permits) require submission of various reports and certifications, which must be prepared and signed by a principal executive office or duly authorized representative. A person is a duly authorized representative if: (1) the authorization is made in writing by the executive officer and (2) a copy of the authorization is retained as part of the permit records for each facility. The authorized representative must be the individual or position having overall responsibility for environmental matters.

This is to request your approval, evidenced by your signature below, authorizing the Director of Environmental Affairs for the Authority to serve as the duly authorized representative for purposed of executing all documents related to the NPDES Permit requirements.

Thella F. Bowens
President/CEO

San Diego County Regional Airport Authority

Cc: Paul Manasjan, Director, Environmental Affairs

Zane Gresham, Morris & Foerster





30 May 03

## **Attachment 1**

Explanations and Discussion of Analytical Data

## SAN DIEGO INTERNATIONAL AIRPORT (SDIA) ATTACHMENT #1

REQUIRED EXPLANATIONS AND DISCUSSION OF ANALYTICAL DATA

### 1) Explanations to General Information (pages 1-7 of the Annual Report)

The following explanations are provided where necessary to comply with the General Annual Report format. The item numbers are presented in the order of the Annual Report.

### E.1

December 11, 2009 was the second monitored storm event of the 2009/2010 wet season. The consultant (MACTEC) mobilized for the event and was able to collect samples at all locations except for C-B03-2, where insufficient water was available. This site was sampled during the next storm event on January 18, 2010 to insure that each location was sampled for two storms. Lab data for all three sampling events is provided in Attachment 4.

### **E.5**

In 2005, the Airport Authority initiated a project to analyze the hydrology of the airport and to evaluate the existing storm water sampling plan. The project resulted in the development of a new storm water sampling plan that replaced many of the previous sample sites and also added additional sampling locations. That sampling plan identified pollutants of concern and provided statistical power to future analysis of pollutant loads. The sampling plan was finalized in November 2005, and was implemented for the first time in the 2005-2006 wet season. The sampling plan divides the airport into fourteen drainage basins. Ten sites within those 14 basins have been chosen to represent the areas of industrial activity at the airport. The sampling plan was last reviewed and incorporated into the storm water management program in March 2008.

### **E.6**

As noted in previous Annual Reports, program experience has led to the practical determination that sample collection can only be accomplished during storm events with a rainfall intensity of at least 0.10 inches per hour over at least a two-hour period. With ten sample sites identified for the monitoring program, practice has shown that more than one hour of time elapses between the initiation of sampling and the collection of the tenth sample. Such was the case again this year, and therefore, not all samples were collected during the first hour of discharge.

### **G.1**

During the months of October 2009, November 2009, and May 2010, there were no rain events occurring during daylight hours of sufficient intensity or duration to allow for visual observations. The history of storm events during daylight hours for this reporting period is provided on Form 4.

## SAN DIEGO INTERNATIONAL AIRPORT (SDIA) ATTACHMENT #1

REQUIRED EXPLANATIONS AND DISCUSSION OF ANALYTICAL DATA

### 2) Discussion of Analytical Results

The following information provides a brief discussion of the analytical data included with this Annual Report (see Form 1 and attached Analytical Lab Reports). A total of 20 samples were taken during the reporting period and all were compared to the USEPA Multi-Sector General Permit benchmarks. Only pollutants that had results that went above their benchmarks are discussed below. Based on this information, the Airport Authority continues to evaluate the effectiveness of the BMPs being implemented at the airport.

### BASIC PARAMETERS

Basic parameters include pH, total suspended solids (TSS), specific conductance (SC), and oil and grease (O&G). One sample had a pH level above the higher benchmark value of 9.0 pH units.

### **METALS**

The samples were analyzed for total aluminum, total and dissolved copper, total iron, total lead, and total and dissolved zinc. Ten samples had total aluminum concentrations above the benchmark of 0.750 mg/L. Samples above the benchmark ranged from 0.770 - 4.300 mg/L. Twenty samples had total copper concentrations above the benchmark of 0.014 mg/L. Samples above the benchmark ranged from 0.023 - 0.910 mg/L. Eighteen samples had dissolved copper concentrations above the benchmark level of 0.014 mg/L. Samples above the benchmark ranged from 0.020 - 0.850 mg/L. Nine samples had total iron concentrations at or above the benchmark of 1.0 mg/L. Samples above the benchmark ranged from 1.2 - 4.0 mg/L. Sixteen samples had total zinc concentrations above the benchmark level of 0.120 mg/L. Samples above the benchmark ranged from 0.130 - 1.200 mg/L. Thirteen samples had dissolved zinc concentrations above the benchmark level of 0.120 mg/L. Samples above the benchmark ranged from 0.130 - 1.100 mg/L.

### OTHER PARAMETERS

Other parameters analyzed were methylene blue active substances (MBAS), diesel range organics (C10-C24), Jet-A, oil range organics (C10-C36), biological oxygen demand (BOD), chemical oxygen demand (COD), ammonia as N, and glycols. BOD exceeded the benchmark level of 30 mg/L in nine of the samples. Samples above the benchmark ranged from 43.8 – 89.0 mg/L. COD exceeded the benchmark level of 120 mg/L in nine of the samples. Samples above the benchmark ranged from 172 – 302 mg/L.

### 3) Summary of Analytical Results

A total of 380 analyses were performed on the 20 samples taken during the 2009-2010 reporting period. Of these 380 analyses, a total of 113 samples had USEPA Multi-Sector Permit benchmark exceedances. The pollutants with USEPA Multi-Sector Permit Benchmark levels are listed in the table below with the percentage of times each was exceeded during the two sampling events. The pollutants that exceeded the benchmarks

## SAN DIEGO INTERNATIONAL AIRPORT (SDIA) ATTACHMENT #1

### REQUIRED EXPLANATIONS AND DISCUSSION OF ANALYTICAL DATA

50% or more of the time were ammonia, total aluminum, total and dissolved copper, and total and dissolved zinc. Historically these pollutants have exceeded benchmark levels in previous monitoring reports and are associated with day to day operations at an airport.

Pollutant	USEPA Multi Sector Permit Benchmark	Number of Analyses	Number of Exceedances	Exceedance Frequency
Ammonia as N	2.14 mg/L	20	10	50%
BOD	30 mg/L	20	9	45%
COD	120 mg/L	20	9	45%
Oil & Grease	15 mg/L	20	0	0%
pН	6.0 – 9.0 s.u.	20	1	5%
TSS	100 mg/L	20	0	0%
Al, Total	0.750 mg/L	20	10	50%
Cu, Total	0.014 mg/L	20	20	100%
Cu, Dissolved	0.014 mg/L	20	18	90%
Fe, Total	1 mg/L	20	7	35%
Pb, Total	0.082 mg/L	20	0	0%
Zn, Total	0.120 mg/L	20	16	80%
Zn, Dissolved	0.120 mg/L	20	13	65%

Sites C-B01-1, C-B05-4, C-B06-5, C-B07-6, C-B07-7, and C-B09-10 had the highest number of individual pollutant exceedances across the two sampling events. Exceedances ranged from 16 pollutants exceeding the benchmarks at site C-B09-10 to 11 pollutants exceeding benchmarks at site C-B01-1. These areas are in the vicinity of the runway, taxiways, and ground service vehicle operations. The Airport Authority will use this data to re-evaluate the adequacy and effectiveness of the BMPs implemented near these sample sites, and to identify any needed improvements.

The analytical results for stormwater samples collected during the 2009-2010 reporting period are consistent with historic sampling data at the airport. Total copper and dissolved copper, total zinc and dissolved zinc have been consistently identified as contaminants of concern in previous runoff monitoring. Past analysis has suggested that tire and brake pad wear from landing aircraft and/or vehicles, as well as building roofs, may be a likely source of heavy metals. In response, the Airport Authority has continued to revise and develop their stormwater sampling plan to identify the sources of these heavy metals. The Airport Authority is simultaneously evaluating the BMPs currently in place to control and eliminate heavy metal concentrations in stormwater runoff at the airport. A two year pilot project assessing the effectiveness of downspout filters for the removal of heavy metals was implemented during the 2008/2009 wet season but the filters were found to be ineffective. Other pilot projects to address known storm water pollutants are in the planning phase.

Along with evaluating its sampling plan and BMPs, the Airport Authority also conducts site audits every 2 years of all its tenants and their respective activities. Audits were conducted 2005, 2007, and most recently in the spring of 2009. The site audit results serve as a means to aid in the identification of potential pollutant sources and help to evaluate the current BMPs implemented by the tenants. These efforts are intended to outline new,

## SAN DIEGO INTERNATIONAL AIRPORT (SDIA) ATTACHMENT #1

### REQUIRED EXPLANATIONS AND DISCUSSION OF ANALYTICAL DATA

additional, or modified BMPs that can be implemented to control or eliminate contaminants and to provide storm water BMP education for tenants who perform activities with the potential to impact stormwater runoff. Overall, the results of the 2007 and 2009 audits indicate a continued improvement in BMP implementation at San Diego International Airport. The site audits identify deficiencies in BMP implementation and provide a list of recommended changes for the Authority's Stormwater Management Program. Revisions were made to the Authority's 2008 Storm Water Management Plan based on the findings from previous audits. As more storm water data is collected in the future, the increased statistical power of the dataset will be used to determine long-term adequacy and effectiveness of both BMPs and the runoff monitoring program.

# **Attachment 2** Storm Drain System and Sampling Locations Map





## Legend

Storm Drain Lines
Sampling Locations
Airport Boundary

## **Storm Drain System and Sampling Locations**

San Diego International Airport

## **Attachment 3**

Forms

## Form 1 - page 1 of 8

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## FORM 1 - SAMPLING & ANALYSIS RESULTS 2009-2010 ANNUAL REPORT

FIRST STORM EVENT

If analytical results are less than the detection limit (or non detectable), show the value as less than the ... When analysis numerical value of the detection limit (example: <.05)

· When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.

. Make additional copies of this form as necessary.

· If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank

NAME OF PERSON COLLECTING SAMPLES: Amanda Archenhold

TITLE: Mactec, Consultant

SIGNATURE: A T. Archarlold

			TOTAL ZINC Zn <sub>t</sub>	240	200	3	94	099	000	020	430	µg/L	5.0	EPA 200.8	LAB	
11			TOTAL 1 IRON Fe,	2.6	0.43	0.40	4.0	1.2		0.89	0.94	mg/L	0.050	EPA 200.8 E	LAB	
	meters		OIL RANGE ORGANICS (C22-C36)	0.62		ND	0.13	2.3		1.4	0.86	mg/L	0.05	EPA 8015B	LAB	jā.
LTS	Other Parameters		JET-A	0.47	4	QN	0.095	15	S. C.	1.2	0:30	mg/L	0.05	EPA 8015B	LAB	Substances
ANALYTICAL RESULTS for First Storm Event			DIESEL RANGE ORGANICS (C10-C24)	QN		Q	QN	CN	2	ON	QN	mg/L	0.05	EPA 8015B	LAB	MBAS - Methylene Blue Active Substances
ANALYTIC for First			MBAS	0.130	6	QN	0.180	0.000	0.240	0.210	0.110	mg/L	0.0500	EPA 425.1	LAB	MBAS - Meth
			5%	250	2.30	9	2.10		NO	2.20	ND	mg/L	2.00	EPA 1664	LAB	d Grease
	ometere	amercia	၁	ų.	CS.	103	1970	200	370	583	56.0	umhos/cm	0.100	EPA 120.1 EPA 1664	IAB	O&G - Oil and Grease
	Doois Darameters	Dasic rai	TSS	Ş	16.0	2.00	19.0	19.0	25.0	18.0	26.0	ma/L	9.0	EPA 160.2	I AB	
4			Ħ <u></u>	!!	7.17	7.34	7 00	00.7	6.35	6.54	7.26	sh units		EPA 150.1	4	ŀ
TIME DISCHARGE STARTED					12/7/2009 5:30 AM	12/7/2009 5:30 AM	MA COLL COCCUTION	12/7/2009 5:30 AIM	12/7/2009 5:30 AM	12/7/2009 5:30 AM	12/7/2009 5:30 AM	TECT REPORTING UNITS:	TEST METHOD DETECTION LIMIT:	TEST METHOD USED: EPA 150.1	ANALYZED BY (SELEJI AB):	SC - Specific Conductance
DATE/TIME OF TESTINE OF SAMPLE COLLECTION					12/7/2009 6:33 AM	19/7/9000 11:51 AM	MW 16:11 6007/171	12/7/2009 6:04 AM	12/7/2009 11:38 AM	12/7/2009 12:24 PM	12/7/2009 8:15 AM	TEST D	TEST METHOD (	TES	25.7	
DESCRIBE DISCHARGE LOCATION Example:	NW Outrail				C-B01-1	200	STATE OF THE PERSON NAMED IN	C-B05-3	C-B05-4		Til.					TSS - Total Suspended Solids

## Form 1 - page 2 of 8

## FORM 1 - SAMPLING & ANALYSIS RESULTS 2009-2010 ANNUAL REPORT

FIRST STORM EVENT

If analytical results are less than the detection limit (or non detectable), show the value as less than the ... When an numerical value of the detection limit (example: <.05)

When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.

· If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank · · Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLES: Amanda Archenhold

TITLE: Mactec, Consultant

SIGNATURE: A. J. Archenhold

- 1		-		-			- 27					
			TOTAL ZINC Znt	1200	59	130	240	µg/L	2.0	EPA 200.8	LAB	
			TOTAL IRON Fe <sub>t</sub>	0.79	2	0.46	1.9	mg/L	0.050	EPA 200.8	LAB	
		ameters	OIL RANGE ORGANICS (C22-C36)	1.4	0.17		0.63	mg/L	0.05	EPA 8015B	LAB	
	JLTS rent	Other Parameters	JET-A	1.2	0.22	0.51	0.42	mg/L	0.05	EPA 8015B	LAB	Substances
	ANALYTICAL RESULTS for First Storm Event		DIESEL RANGE ORGANICS (C10-C24)	QN	ON	QN	QN	mg/L	0.05	EPA 8015B	LAB	MBAS - Methylene Blue Active Substances
	ANALYT for Firs		MBAS	0.310	9	QN	0.150	mg/L	0.0500	EPA 425.1	LAB	MBAS - Methy
			0&G	2.80	QN	S	2.90	mg/L	2.00	EPA 1664	LAB	Grease
53		Basic Parameters	၁ဇ	380	97.3	2220	260	mp/soqund	0.100	EPA 120.1	LAB	O&G - Oil & Grease
		Basic Pa	TSS	42.0	2.00	3.00	31.0	mg/L	1.00	EPA 160.2	LAB	
	X 18		¥.	6.68	7.41	7.21	7.40	pH units	0.100	EPA 150.1	LAB	
	TIME DISCHARGE STARTED			12/7/2009 5:30 AM	12/7/2009 5:30 AM	12/7/2009 5:30 AM	12/7/2009 5:30 AM	TEST REPORTING UNITS:	CTION LIMIT:	TEST METHOD USED:	ANALYZED BY (SELF/LAB):	SC - Specific Conductance
	TIME		-	12/7/	12/7/	12/1/2	12/7/21	r repor	D DETE	EST ME	YZED BY	SC - Spe
	DATE/TIME OF SAMPLE COLLECTION			12/7/2009 12:05 PM	12/7/2009 4:33 PM	12/7/2009 7:40 PM	12/7/2009 6:35 PM	TEST	TEST METHOD DETECTION LIMIT:	_		ed Solids
	DESCRIBE DISCHARGE LOCATION Example: NW Out Fall			C-B07-7 12	C-B08-8 12	C-B12-9 12	C-B09-10 12				TCC Total Comment	155 - 10tal Suspended Solids

## Form 1 - page 3 of 8

## 2009-2010 ANNUAL REPORT FORM 1 - SAMPLING & ANALYSIS RESULTS

FIRST STORM EVENT

If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of the · When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.

· Make additional copies of this form as necessary.

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NAME OF PERSON COLLECTING SAMPLES: Amanda Archenhold

TITLE: Mactec, Consultant

SIGNATURE: A. J. Archenlald

			STEEDING STREET	and and	TO THE REAL PROPERTY.								
		GLYCOLS	QN	Q	QN	QN	Q	QN	mg/L	10	EPA 8015B	LAB	
	Ŋ	AMMONIA as N	2.55	1.95	2.10	5.6	6.70	1.10	mg/L	0.100	SM 4500-NH3	LAB	Demand
		COD	95.0	14.0	302	285	302	52.0	mg/L	0.100	EPA 410.4	LAB	COD - Chemical Oxygen Demand
SULTS	ters	BOD1	27.0	4.60	80.0	84.0	89.0	16.2	mg/L	2.0	EPA 405.1	PA PA	COD - Chem
ANALYTICAL RESULTS for First Storm Event	Other Parameters	DISSOLVED COPPER Cu <sub>d</sub>	220	130	14	850	700	97	µg/L	2.0	EPA 200.8	LAB	
ANA		TOTAL COPPER Cu <sub>t</sub>	310	150	29	910	770	140	hg/L	2.0	EPA 200.8	LAB	Demand
		TOTAL ALUMINUM Alt	1900	320	3500	870	077	580	hg/L	20	EPA 200.8	LAB	BOD - Biological Oxygen Demand
		TOTAL LEAD Pb <sub>t</sub>	24	11	19	9.9	4.4	7.5	hg/L	2.0	EPA 200.8	LAB	BOD - E
6 W		DISSOLVED ZINC Zn <sub>d</sub>	130	190	13	620	560	350	µg/L	2.0	EPA 200.8	PA PA	
TIME DISCHARGE STARTED			12/7/2009 5:30 AM	12/7/2009 5:30 AM	12/7/2009 5:30 AM	12/7/2009 5:30 AM	12/7/2009 5:30 AM	12/7/2009 5:30 AM	TEST REPORTING UNITS:	TEST METHOD DETECTION LIMIT:	TEST METHOD USED:	ANALYZED BY (SELF/LAB):	
DATE/TIME OF SAMPLE COLLECTION			12/7/2009 6:33 AM	12/7/2009 11:51 AM	12/7/2009 6:04 AM	12/7/2009 11:38 AM	12/7/2009 12:24 PM	12/7/2009 8:15 AM	TEST	TEST METHOD	TE	ZV JANA	
DESCRIBE DISCHARGE LOCATION Example: NW Out Fall			C-B01-1	C-B03-2	C-B05-3	C-B05-4	C-B06-5	C-B07-6					

¹ CB05-3 dilution factor is 10 for aluminum.

## Form 1 - page 4 of 8

## 2009-2010 ANNUAL REPORT FORM 1 - SAMPLING & ANALYSIS RESULTS

FIRST STORM EVENT

If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of ·When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate the detection limit (example: s.05)

· If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank

· Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLES: Amanda Archenhold

TITLE: Mactec, Consultant

SIGNATURE: A. J. Archarled

Ε.												
		GLYCOLS	Q	9	9	Q		mg/L	10	EPA 8015B	LAB	ıand
ii.		AMMONIA as N	2.50	0.900	1.45	3.05		mg/L	0.100	SM 4500-NH3	LAB	COD - Chemical Oxygen Demand
		COD	280	2.00	274	172		mg/L	0.100	EPA 410.4	LAB	COD - Chem
SULTS	ers	BOD¹	78.0	2	75.0	47.0		mg/L	2.0	EPA 405.1	LAB	
ANALYTICAL RESULTS for First Storm Event	Other Parameters	DISSOLVED COPPER Cu <sub>d</sub>	310	20	27	80	His Albandaria	hg/L	2.0	EPA 200.8	LAB	land
ANAL		TOTAL COPPER Cu <sub>t</sub>	360	83	34	94		µg/L	2.0	EPA 200.8	LAB	BOD - Biological Oxygen Demand
		TOTAL ALUMINUM Alt	730	26	210	1400		J/Brl	20	EPA 200.8	LAB	BOD - Biolog
c.		TOTAL LEAD Pb <sub>t</sub>	6.8	Q	2.1	5.6		hg/L	5.0	EPA 200.8	LAB	
		DISSOLVED ZINC Zn <sub>d</sub>	1100	55	120	200		hg/L	2.0	EPA 200.8	LAB	•
TIME DISCHARGE STARTED			12/7/2009 5:30 AM	12/7/2009 5:30 AM	12/7/2009 5:30 AM	12/7/2009 5:30 AM		TEST REPORTING UNITS:	TEST METHOD DETECTION LIMIT:	TEST METHOD USED:	ANALYZED BY (SELF/LAB):	
DATE/TIME OF SAMPLE COLLECTION			12/7/2009 12:05 PM	12/7/2009 4:33 PM	12/7/2009 7:40 PM	12/7/2009 6:35 PM		TEST	TEST METHOD	11	ANALYZ	
DESCRIBE DISCHARGE LOCATION Example: NW Out Fall			C-B07-7	C-B08-8	C-B12-9	C-B09-10						

## Form 1 - page 5 of 8

## FORM 1 - SAMPLING & ANALYSIS RESULTS 2009-2010 ANNUAL REPORT

SECOND STORM EVENT

If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical · When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.

If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank

· Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLES: Lijun Xu

TITLE: Mactec, Consultant

SIGNATURE:

		L TOTAL ZINC Zn,	29	210	160	280			- µg/L	0 2.0	0.8 EPA 200.8	LAB	
		TOTAL IRON Fe <sub>t</sub>	1.0	0.80	4.4	0.70	2.4	1.7	mg/L	0.050	EPA 200.8	LAB	
	Other Parameters	OIL RANGE ORGANI CS (C22-	0.20	0.40	0.15	0.53	0.062	2.7 1.7	mg/L	0.050	EPA 8015B	LAB	ances
S tr	Other Pa	JET-A	0.12	QN	0.085	0.50	0.14	0.95	mg/L	0.050	EPA 8015B	LAB	Active Subst
ANALYTICAL RESULTS for Second Storm Event		DIESEL RANGE ORGANI CS (C10-	Ð	Q	Q	QN	QN	QN	mg/L	0.050	EPA 425.1 EPA 8015B EPA 8015B EPA 8015B	LAB	MBAS - Methylene Blue Active Substances
YTICAL		MBAS	0.150	0.180	0.180	0.160	0.120	0.110	mg/L	0.0500	EPA 425.1	LAB	MBAS - Met
ANAL for Se		0&G	QN	QN	QN	QN	QN	QN	mg/L	2.00	EPA 1664	LAB	Grease
:	meters	ပ္တ	138	147	328	230	173	196	mp/soqum	0.100	EPA 120.1	LAB	O&G - Oil & Grease
	<b>Basic Parameters</b>	TSS	16.0	24.0	14.0	8.00	11.0	17.0	mg/L	1.00	EPA 160.2	LAB	
	8	HZ.	7.19	7.02	8.19	7.13	7.12	6.47	pH units	0.100	EPA 150.1	LAB	
TIME DISCHARGE STARTED			11:16 AM	1/19/10 3:00 PM	11:16 AM	11:16 AM	11:16 AM	11:16 AM	TEST REPORTING UNITS:	ION LIMIT:	OD USED:	ANALYZED BY (SELF/LAB):	SC - Specific Conductance
TIME DIS			12/11/09 11:16	1/19/10	12/11/09 11:16	12/11/09 11:16	12/11/09 11:16	12/11/09 11:16	REPORTI	DETECT	TEST METHOD U	ZED BY (	SC - Specifi
DATE/TIME OF SAMPLE COLLECTION			12/11/09 11:50 AM	01/18/10 3:15 PM	12/11/09 12:10 PM	12/11/09 12:40 PM	12/11/09 1:00 PM	12/11/09 11:40 AM	TEST	TEST METHOD DETECTION LIMIT:	2	ANALY	
DESCRIBE DISCHARGE LOCATION Example: NW Out Fall		2	C-B01-1	N	C-B05-3								TSS - Total Suspended Solids

## Form 1 - page 6 of 8

## 2009-2010 ANNUAL REPORT FORM 1 - SAMPLING & ANALYSIS RESULTS

SECOND STORM EVENT

If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical · value of the detection limit (example: <.05)

· If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank

· When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.

· Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLES: Lijun Xu

TITLE: Mactec, Consultant SIGNATURE:

DESCRIBE DISCHARGE LOCATION Example: NW Out Fall	DATE/TIME OF SAMPLE COLLECTION	TIME DISCHARGE STARTED	la la	v.		ANALYT for Secc	riCAL I	ANALYTICAL RESULTS for Second Storm Event	gs te			
				Basic Parameters	neters				Other P	Other Parameters		700
			Ha	TSS	ပ္တ	080	MBAS	DIESEL RANGE ORGANI	JET-A	OIL RANGE ORGANI	TOTAL	TOTAL
			•					CS (C10-		CS (C22-	Fe	Zut
C-B07-7	12/11/09 1:20 PM	12/11/09 11:16 AM	99.9	12.0	237	QN	0.180	QN	0.48	0.79	1.0	280
C-B08-81	12/11/09 11:50 AM	12/11/09 11:16 AM	7.16	4.00	467	Q	0.110	2	0.78	0.42	0.15	380
C-B12-9	12/11/09 11:30 AM	12/11/09 11:16 AM	96.6	38.0	1890	3.10	0.140	Q.	0.38	0.44	0.11	24
C-B09-10	12/11/09 11:30 AM	12/11/09 11:16 AM	7.53	29.0	285	2.50	0.170	2	0.39	0.77	0.79	160
												Section of the sectio
	TEST	TEST REPORTING UNITS:	pH units	mg/L	µmhos/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L
	TEST METHOD	TEST METHOD DETECTION LIMIT:	0.100	1.00	0.100	2.00	0.0500	0.050	0.050	0.050	0.050	2.0
	TE TE	TEST METHOD USED:	EPA 150.1	EPA 160.2	EPA 120.1	EPA 1664	EPA 425.	EPA 8015B	EPA 8015B	EPA 1664 EPA 425.: EPA 8015B EPA 8015B EPA 200.8	EPA 200.8	EPA 200.8
	ANALY	ANALYZED BY (SELF/LAB):	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB
TSS - Total Suspended Solids	ended Solids	SC - Specific Conductance			O&G - Oil & Grease	Grease	MBAS - M	MBAS - Methylene Blue Active Substances	e Active Sut	stances		

CB08-8 dilution factor is 1 for total iron and total zinc

## Form 1 - page 7 of 8

## FORM 1 - SAMPLING & ANALYSIS RESULTS 2009-2010 ANNUAL REPORT

SECOND STORM EVENT

· If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of · When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the detection limit (example: <.05)

· If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank

· Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLES: Lijun Xu

TITLE: Mactec, Consultant

SIGNATURE:

		GLYCOLS	QN	ON	Q	ND	QN	QN	mg/L	10.0	EPA 8015B	LAB	
		AMMONIA as N	2.45	1.30	1.80	3.55		1.55	mg/L	0.100	SM 4500-NH3	LAB	COD - Chemical Oxygen Demand
		QOO	25.0	55.0	41.0	87.0	26.0	98.0	mg/L	0.100	EPA 410.4	LAB	COD - Chemi
ESULTS m Event	ters	BOD	7.80	28.0	11.9	20.9	6.30	24.3	mg/L	2.00	EPA 405.1	LAB	
ANALYTICAL RESULTS for Second Storm Event	Other Parameters	DISSOLVED COPPER Cu <sub>d</sub>	65	140	9.8	240	130	140	µg/L	2.0	EPA 200.8	LAB	and
ANA for S		TOTAL COPPER Cu <sub>t</sub>	87	200	30	290	180	220	hg/L	2.0	EPA 200.8	LAB	BOD - Biological Oxygen Demand
		TOTAL ALUMINUM Al <sub>t</sub>	850	099	4300	540	2000	1000	hg/L	20	EPA 200.8	LAB	BOD - Biolog
		TOTAL LEAD Pb <sub>t</sub>	5.1	3.3	24	2.7	7.0	13.0	µg/L	2.0	EPA 200.8	LAB	
		DISSOLVED ZINC Zn <sub>d</sub>	40	140	9.7	230 2.7	120	780	µg/L	2.0	EPA 200.8	LAB	
TIME DISCHARGE STARTED			12/11/09 11:16 AM	1/19/10 3:00 PM	12/11/09 11:16 AM	12/11/09 11:16 AM	12/11/09 11:16 AM	12/11/09 11:16 AM	TEST REPORTING UNITS:	TEST METHOD DETECTION LIMIT:	TEST METHOD USED:	ANAI YZED BY (SELF/LAB):	
DATE/TIME OF SAMPLE COLLECTION			19/11/09 11:50 AM	01/18/10 3:15 PM	12/11/09 12:10 PM	12/11/09 12:40 PM	12/11/09 1:00 PM	12/11/09 11:40 AM	TEST	TEST METHOD	II.	ANA	
DESCRIBE DISCHARGE LOCATION Example: NW Out Fall			P. B01-1	prosper	2002	督	I	20					

<sup>1</sup> CB03-2 dilution factor is 2 for dissolved zinc and dissolved copper

BOD - Biological Oxygen Demand <sup>2</sup> CB05-3 dilution factor is 10 for aluminum.

## Form 1 - page 8 of 8

## 2009-2010 ANNUAL REPORT FORM 1 - SAMPLING & ANALYSIS RESULTS

SECOND STORM EVENT

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NAME OF PERSON COLLECTING SAMPLES: Lijun Xu

TITLE: Mactec, Consultant

SIGNATURE:

	_			_	_					_	
			Construction of the Constr								
		GLYCOLS	Q	17.32	Q	2	mg/L	10.0	EPA 8015B	LAB	put
×		AMMONIA as N	1.40	1.35	2.45	2.95	mg/L	0.100	SM 4500-NH3	LAB	COD - Chemical Oxygen Demand
		COD	103	207	325	175	mg/L	0.100	EPA 410.4	LAB	COD - Chem
ESULTS m Event	eters	вор	27.2	43.8	79.0	45.0	mg/L	2.0	EPA 405.1	LAB	
ANALYTICAL RESULTS for Second Storm Event	Other Parameters	DISSOLVED COPPER Cu <sub>d</sub>	100	83	24	47	µg/L	2.0	EPA 200.8	LAB	and
ANA for S		TOTAL COPPER Cu <sub>t</sub>	130	120	30	26	µg/L	2.0	EPA 200.8	LAB	BOD - Biological Oxygen Demand
		TOTAL ALUMINUM Alt	860	160	83	420	µg/L	20	EPA 200.8	LAB	BOD - Biolog
		TOTAL LEAD Pb <sub>t</sub>	7.3	9	Q	2.2	µg/L	2.0	EPA 200.8	LAB	
		DISSOLVED ZINC Zn <sub>d</sub>	480	320	20	130	µg/L	2.0	EPA 200.8	LAB	
TIME DISCHARGE STARTED			12/11/09 11:16 AM	12/11/09 11:16 AM	12/11/09 11:16 AM	12/11/09 11:16 AM	TEST REPORTING UNITS:	TEST METHOD DETECTION LIMIT:	TEST METHOD USED:	ANALYZED BY (SELF/LAB):	
DATE/TIME OF SAMPLE COLLECTION			12/11/09 1:20 PM	12/11/09 11:50 AM	12/11/09 11:30 AM	12/11/09 11:30 AM	TEST	TEST METHOD	11	ANALYZ	
DESCRIBE DISCHARGE LOCATION Example: NW Out Fall			C-B07-7	C-B08-8	C-B12-9	C-B09-10					

<sup>1</sup>The value reflects propylene glycol. Ethylene gycol was ND.

- Quarterly dry weather visual observations are required of each authorized NSWD. Observe each authorized NSWD source, impacted drainage area, and discharge location.
- Authorized NSWDs must meet the conditions provided in Section D (pages 5-6), of the General Permit.
  - Make additional copies of this form as necessary.

QUARTER:	Observers Name: Apple Martin		
JULY-SEPT.	Title: Associate Environmental Specialist	WEDE ANY ALITHODIZED NEWDS	If YES, complete
DATE:	M. M. M.	RTER?	reverse side of this form.
Sept. 29 - 30, 2009	Signature:		
QUARTER:	Observers Name: Annie Martin		
OCTDEC.	Title: Associate Environmental Specialist	T YES	if VES complete
DATE:	Similar May My.		reverse side of
Dec. 15 - 16, 2009	Signature:	ON	<u></u>
QUARTER:	Observers Name: Annie Martin		
JANMARCH	Title: Associate Environmental Specialist	T YES	if VES complete
DATE:	My May J.		reverse side of
March 26 & 29, 2010	Signature:	ON T	
QUARTER:	Observers Name: Annie Martin		
APRIL-JUNE	Title: Associate Environmental Specialist	\_\ \ \	
DATE:	of 11, Malles Me.	WERE ANY AUTHORIZED NSWDS DISCHARGED DURING THIS QUARTER?	reverse side of
Apr. 19 – May 21, 2010	Signature:	ON The state of th	

DESCRIBE ANY REVISED OR NEW	BMPs AND PROVIDE THEIR IMPLEMENTATION DATE				25							
THODIZED NEWD	CHARACTERISTICS CHARACTERISTICS Indicate whether authorized NSWD is clear, cloudy, or discolored, causing staining, contains floating objects or an oil sheen, has odors, etc.	At the NSWD Drainage Area and Discharge Location										
A TOROCTO	CHARA CHARA Indicate whether authori discolored, causing stai	At the NSWD Source						11				
	NAME OF AUTHORIZED NSWD	EXAMPLE: Air conditioner condensate										
	SOURCE AND LOCATION OF AUTHORIZED NSWD	EXAMPLE: Air conditioner Units on Building C										
	DATE /TIME OF OBSERVATION		7 /	.	///	□ AM	/ /	 PM PM PM	, ,	AM	1 1	DAM

## 2009-2010

## **ANNUAL REPORT**

- Unauthorized NSWDs are discharges (such as wash or rinse waters) that do not meet the conditions provided in Section D (pages 5-6) of the General Permit.
  - Quarterly visual observations are required to observe current and detect prior unauthorized NSWDs.
- Quarterly visual observations are required during dry weather and at all facility drainage areas.
- Each unauthorized NSWD source, impacted drainage area, and discharge location must be identified and observed.
- Unauthorized NSWDs that cannot be eliminated within 90 days of observation must be reported to the Regional Board in accordance with Section A.10.e of the General Permit.
- Make additional copies of this form as necessary.

QUARTER: JULY-SEPT. DATE/TIME OF	Observers Name: Annie Martin	WERE UNAUTHORIZED NSWDs OBSERVED?		YES   NO	If YES to either question,
OBSERVATIONS ☐ AM 9/29-30/09 2:04+ ■ PM	Signature: MAN MOR	WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWDs?	IS OF SWDs?	□ YES ■NO	complete reverse side.
QUARTER: OCTDEC. DATE/TIME OF	Observers Name: Annie Martin Title: Associate Environmental Specialist	WERE UNAUTHORIZED NSWDs OBSERVED?	:	YES   NO	If <b>YES</b> to either question,
UBSERVATIONS ■ AM 12/15-16/09 10:46+ □ PM	Signature: DM May 72.	WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWDs?	IS OF SWDs?	☐YES ■NO	reverse side.
QUARTER: JANMARCH DATE/TIME OF	Observers Name: Annie Martin Title: Associate Environmental Specialist	WERE UNAUTHORIZED NSWDs OBSERVED?	-	YES   NO	If YES to either question,
OBSERVATIONS ■ AM 3/26+29/10 10:53+ □ PM	Signature: MAN M.	WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWDs?	IS OF SWDs?	☐ YES ■NO	complete reverse side.
QUARTER: APRIL-JUNE DATE/TIME OF	Observers Name: Annie Martin Titte: Associate Environmental Specialist	WERE UNAUTHORIZED NSWDs OBSERVED?	•	YES   NO	If YES to either question,
4/19-5/21/10 9:00+ PM	Signature: AAAM MALY M.	WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWDs?	IS OF SWDs?	☐YES NO	complete reverse side.

OBSERVATION	NAME OF	SOURCE AND	DESCRIBE UNAUTHORIZED NSWD CHARACTERISTICS	DESCRIBE CORRECTIVE
DATE (FROM REVERSE SIDE)	UNAUTHORIZED NSWD	LOCATION OF UNAUTHORIZED NSWD	Indicate whether unauthorized NSWD is clear, cloudy, discolored, causing stains; contains floating objects or an oil sheen, has odors, etc.	ACTIONS TO ELIMINATE UNAUTHORIZED NSWD AND TO CLEAN IMPACTED DRAINAGE AREAS. PROVIDE UNAUTHORIZED
	EXAMPLE: Vehicle Wash Water	EXAMPLE: NW Corner of Parking Lot		NSWD ELIMINATION DATE.
9/29/10	Used absorbent	GAT cargo yard	Used absorbent left out in several areas within the GAT cargo yard.	Confirmation of issue(s) resolution received 10/16/09.
2:04				Email sent to Delta (GAT is their subtenant). Absorbent was properly disposed of.
9/29/10	Used absorbent	ASIG fuel truck parking lot	Used absorbent left out in several areas in ASIG fuel truck lot.	Confirmation of issue(s) resolution received 10/20/09.
2:27   AM				Email sent to ASIG. Absorbent was properly disposed of.
9/29/10	Soapy water	United Airlines Gate	Evidence of outdoor hand washing, including multiple bottles of hand soap, were observed at an outdoor hose between Gates 11 & 12.	Confirmation of issue(s) resolution received 10/16/09.  Email sent to United. Absorbent was
2:41 AM				
9/29/10	Used absorbent and trash	US Airlines Gate	Used absorbent left out under Gate.  Trash and debris accumulated by Gate 33.	Confirmation of issue(s) resolution received 10/30/09.  Email sent to US Airlines. Absorbent
3:01 AM				and trash were properly disposed of.

OBSERVATION DATE (FROM REVERSE SIDE)	NAME OF UNAUTHORIZED NSWD EXAMPLE:	SOURCE AND LOCATION OF UNAUTHORIZED NSWD EXAMPLE:	DESCRIBE UNAUTHORIZED NSWD CHARACTERISTICS Indicate whether unauthorized NSWD is clear, cloudy, discolored, causing stains; contains floating objects or an oil sheen, has odors, etc.	DESCRIBE CORRECTIVE ACTIONS TO ELIMINATE UNAUTHORIZED NSWD AND TO CLEAN IMPACTED DRAINAGE AREAS. PROVIDE UNAUTHORIZED NSWD ELIMINATION DATE.
	Vehicle Wash Water	NW Corner of Parking Lot		المارية المامه (م)مسور على حديد على حالم
60/ 08/6	Trash and debris	SDCRAA storage yard	Piles of painting debris (glass beads) from runway painting in the SDCRAA storage yard.	Confirmation of issue(s) resolution received 10/10/09.
2:49   AM			Trash and debris around large dumpsters in the SDCRAA storage yard.	
12/15 / 09	Soapy water	United Airlines Gate	Evidence of outdoor hand washing, including multiple bottles of hand soap, were observed at an outdoor hose between Gates 11 & 12.	Confirmation of issue(s) resolution received 1/16/09.
10:46 <b>A</b> AM				Email sent to United. Water connection was shut off.
12/15 / 09	Sediment	SDCRAA, Gate 22	Sediment from underground plumbing repair work at Gate 22 was not properly cleaned up.	Confirmation of issue(s) resolution received 12/21/09.
11:25 M AM				Ocean Blue was contacted to remove sediment and clean area.
12/15/09	Trash	HMS Host grease container storage area	Significant amount to trash accumulated around the base of the grease container at the T2 connector area.	Confirmation of issue(s) resolution received 12/16/09.
11:39 ■ AM				Email sent to HMS Host. Area was cleaned and trash was removed.

OBSERVATION DATE (FROM REVERSE SIDE)	NAME OF UNAUTHORIZED NSWD	SOURCE AND LOCATION OF UNAUTHORIZED NSWD	DESCRIBE UNAUTHORIZED NSWD CHARACTERISTICS Indicate whether unauthorized NSWD is clear, cloudy, discolored, causing stains; contains floating objects or an oil sheen, has odors, etc.	dy, ACTIONS TO ELIMINATE  an oil UNAUTHORIZED NSWD AND  TO CLEAN IMPACTED  DRAINAGE AREAS.  PROVIDE UNAUTHORIZED
	EXAMPLE: Vehicle Wash Water	EXAMPLE: NW Corner of Parking Lot		NSWD ELIMINATION DATE.
3/26/10	Grease spill and trash	HMS Host, Terminal 1 and 2	Many spills and used absorbent were present at grease trap area between Gates 10 and 11.	rea   Confirmation of issue(s) resolution   received 4/9/10.
2:02			Trash accumulation around the base of the grease bin at the Terminal 2 connector dumpster area.	Email was sent to HMS Host. Both areas were cleaned.
3/26/10	Leaking Equipment	Hawaiian Airlines Gate	Leaking piece of Aviation Port Services equipment between Gates 20 and 21.	Gates   Confirmation of issue(s) resolution received 3/30/10.
2:29   AM				· a = 1
3/26/10	Broken sand bags	American Airlines Gate	Broken absorbent bags at American Airlines gate.	Confirmation of issue(s) resolution received 4/14/10.
2:42   AM				Email was send to American Airlines. Sand bags were disposed of.
3/26/10	Trash	US Airways Gate	A trash bin at Gate 34 was observed tipped over with trash coming out of it onto the ramp.	
2:50 AM				Email was sent to US Airways. Trash was properly disposed of.

DESCRIBE CORRECTIVE ACTIONS TO ELIMINATE UNAUTHORIZED NSWD AND TO CLEAN IMPACTED DRAINAGE AREAS. PROVIDE UNAUTHORIZED NSWD ELIMINATION DATE.	Confirmation of issue(s) resolution received 4/14/10.  Email was sent to Landmark Aviation. Staining was cleaned using dry absorbent.	Confirmation of issue(s) resolution received 5/26/10.  Email was sent to Landmark Aviation. Leaked material was properly cleaned up and drip pan was provided for the vehicle.	Confirmation of issue(s) resolution received 6/29/10.  Work order was submitted for areas to be addressed and debris to be properly disposed of.	
ERISTICS Sloudy, s or an oil	:			
DESCRIBE UNAUTHORIZED NSWD CHARACTERISTICS Indicate whether unauthorized NSWD is clear, cloudy, discolored, causing stains; contains floating objects or an oil sheen, has odors, etc.	Fresh staining by the shop building.	Leaking vehicle without drip pan.	Broken sand bags by maintenance shops.  Debris on ground by runway lighting vaults.  Debris on ground in bone yard.	
SOURCE AND LOCATION OF UNAUTHORIZED NSWD EXAMPLE: NW Corner of Parking Lot	Landmark Aviation workshop area	Landmark Aviation fuel truck parking area	SDCRAA shops and storage areas	3
NAME OF UNAUTHORIZED NSWD SXAMD EXAMPLE: Vehicle Wash	Oil Staining	Oil leak	Debris and broken sand bags	
OBSERVATION DATE (FROM REVERSE SIDE)	3/29/10 11:40 AM	5/4/10 10:45 ■ AM	6/21/10 10:30	/ / / AM -:- PM

## **ANNUAL REPORT** 2009 - 2010

## STORM WATER DISCHARGES Indicate "None" in the first column of this form if you did not conduct a monthly visual observation. FORM 4 - MONTHLY VISUAL OBSERVATIONS OF

Storm water discharge visual observations are required for at least one storm event per month between October 1 and May 31.

Visual observations must be conducted during the first hour of discharge

at all discharge locations.

Discharges of temporarily stored or contained storm water must be observed at the time of discharge.

SIDE A

Make additional copies of this form as necessary.

Until a monthly visual observation is made, record any eligible storm events that do not result in a storm water discharge and note the date, time, name, and title of who observed there was no storm water discharge.

	Drainage Location Description	Observation Time	Were Pollutants Observed
	C-B01-1	: A.M. / PM	□ YES □ NO
Observation Date: October 2009	C-B03-2	: A.M. / PM	□ YES □ NO
vers	C-B05-3	: A.M. / PM	□ YES □ NO
Trite: Associate Environmental Specialist	C-B05-4	: A.M. / PM	□ YES □ NO
Signature: Avy Mc	C-B06-5	: A.M. / PM	□ YES □ NO
Time Discharge Began: None – no storms during daylight hours.	C-B07-6	: A.M. / PM	□ YES □ NO
Observation Time:NA	C-B07-7	: A.M. / PM	□ YES □ NO
Were Pollutants Observed: NA	C-B08-8	: A.M. / PM	□ YES □ NO
(If yes, complete reverse side)	C-B12-9	: A.M. / PM	□ YES □ NO
	C-B09-10	: A.M. / PM	□ YES □ NO

	Drainage Location Description	Observation Time	Were Pollutants Observed
Observation Date: November 2009	C-B01-1	10: 27 A.M.	□ YES □ NO
Observers Name: Annie Martin	C-B03-2	10:10 A.M.	□ YES □ NO
Title: Associate Environmental Specialist	C-B05-3	9: 00 A.M.	□ YES □ NO
Signatures: dry Men Dr.	C-B05-4	10: 35 A.M.	□ YES □ NO
0	C-B06-5	9: 45 A.M.	□ YES □ NO
Time Discharge Began: None - no storms during dayling dayling hours	C-B07-6	10: 45 A.M.	□ YES □ NO
Observation Time: NA	C-B07-7	9: 25 A.M.	□ YES □ NO
Ware Dalitants Observed: NA	C-B08-8	10: 50 A.M.	□ YES □ NO
(F)	C-B12-9	11: 00 A.M.	□ YES □ NO
	C-B09-10	9: 10 A.M.	□ YES □ NO

## FORM 4-MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

SIDE B

DESCRIBE ANY REVISED OR NEW BMPs AND THEIR DATE OF IMPLEMENTATION						
: source(s) of Ts						
IDENTIFY AND DESCRIBE SOURCE(S) OF POLLUTANTS						.13
DESCRIBE STORM WATER DISCHARGE CHARACTERISTICS Indicate whether storm water discharge is clear, cloudy, or discolored; causing staining; containing floating objects or an oil sheen, has odors, etc.						
DRAINAGE AREA DESCRIPTION					Я	
DATE/TIME OF OBSERVATION (From Reverse Side)	NA / / AM   DAM   DAM	NA / /				

## 2009 – 2010 ANNUAL REPORT FORM 4-MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

## ADDITIONAL PAGES

	Drainage Location Description	Observation Time	Were Pollutants Observed	served
	C-B01-1	3:36 PM	□ YES ■ NO	Q
Observation Date: January 18, 2010	C-B03-2	3:10 PM	☐ YES ■ NO	0
Observers Name: Lijun Xu	C-B05-3	3:55 PM	□ YES ■ NO	0
Title: Mactec, Consultant	C-B05-4	3:20 PM	□ YES ■ NO	0
Signature:	C-B06-5	3:45 PM	□ YES ■ NO	0
Time Discharge Began: 1/18/10 3:00 PM	C-B07-6	4:40 PM	■ YES □ NO	0
Observation Time: 3:10 – 4:40 PM	C-B07-7	4:15 PM	☐ YES ■ NO	Q
Were Pollutants Observed: Yes	C-B08-8	3:50 PM	□ YES ■ NO	0
	C-B12-9	4:30 PM	□ YES ■ NO	0
	C-B09-10	4:10 PM	□ YES ■ NO	Q

## FORM 4-MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

SIDE B

DESCRIBE ANY REVISED OR NEW		Oil water separator is serviced as needed.					
SOURCE(S) OF	<b>v</b>	effluent ator.					
IDENTIFY AND DESCRIBE SOURCE(S) OF	POLLUTANT	Site is connected to the effluent from an oil water separator.	-				
DESCRIBE STORM WATER DISCHARGE	CHARACTERISTICS Indicate whether storm water discharge is clear, cloudy, or discolored; causing staining; containing floating objects or an oil sheen, has odors, etc.	Discharge was cloudy, brown, with visible sheen, slight foam (from turbulence of the water), and a petroleum smell. No unusual activities were observed upstream.	2				
DRAINAGE AREA	DESCRIPTION	CB07-6					
DATE/TIME OF	OBSERVATION (From Reverse Side)	1/18/10 4:40 \( \text{\tint{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tinte\tai\text{\texi}\text{\text{\texit{\text{\texi}\titt{\text{\texi}\tittileft{\text{\texit{\text{\tex{\text{\text{\texi{\text{\texi}\text{\texi}\texit{\text{\ti	NA / /	/ / NA   : : : : : : : : : : : : : : : : : :	NA / /	NA / / SM : AM :	

## 2009 – 2010 ANNUAL REPORT FORM 4 – MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

SIDE A

### ADDITIONAL PAGES

	Drainage Location Description	Observation Time	Were Pollutants Observed
	C-B01-1	7:40 AM	□ YES ■ NO
Observation Date: February 27, 2010	C-B03-2	7:36 AM	□ YES ■ NO
Observers Name: Mariamawit Yirsalign	C-B05-3	8:05 PM	□ YES ■ NO
Title: MAGTEC Consulant	C-B05-4	7:16 AM	□ YES ■ NO
Signature:	C-B06-5	7:45 AM	□ YES ■ NO
Time Discharge Began: <u>2/27/10 6:51 AM</u>	C-B07-6	8:53 AM	□ YES ■ NO
Observation Time: 6:55 AM - 8:53 AM	C-B07-7	7:05 PM	□ YES ■ NO
Were Pollutants Observed: No	C-B08-8	8:43 AM	□ YES ■ NO
	C-B12-9	8:31 AM	□ YES ■ NO
	C-B09-10	6:55 AM	□ YES ■ NO

	Drainage Location Description	Observation Time	Were Pollutants Observed
	C-B01-1	5:10 PM	□ YES ■ NO
Observation Date: March 6, 2010	C-B03-2	5:06 PM	□ YES ■ NO
Observers Name: Lijun Xu	C-B05-3	5:25 PM	■ YES □ NO
Title: MACTEC, Consultant	C-B05-4	4:58 PM	☐ YES ■ NO
Signature:	C-B06-5	5:14 PM	☐ YES ■ NO
Time Discharge Began: 3/6/10 4:42 PM	C-B07-6	5:45 PM	□ YES ■ NO
Observation Time: 4:42 PM - 5:52 PM	C-B07-7	5:52 PM	☐ YES ■ NO
Were Pollutants Observed: No (If wes. complete reverse side)	C-B08-8	5:39 PM	□ YES ■ NO
	C-B12-9*	5:37 PM	□ YES ■ NO
	C-B09-10	4:42 PM	☐ YES ■ NO

### Form 4 - page 6 of 8

## 2009 – 2010 ANNUAL REPORT FORM 4 – MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

SIDE B

### ADDITIONAL PAGES

DESCRIBE ANY REVISED OR NEW	BMPs AND THEIR DATE OF IMPLEMENTATION		NA	AA A				
			ntified.					
IDENTIFY AND DESCRIBE	POLLUTANTS	=	No sources identified.	¥ Z			-	
MATER DISCHARGE	CHARACTERISTICS	Indicate whether storm water discharge is clear, cloudy, or discolored; causing staining; containing floating objects or an oil sheen, has odors, etc.	Discharge was cloudy and brown. A small amount of sediment was observed in the runoff.	*CB12-9 was not accessible due to construction. SB12-13 was observed as an alternate upstream location. No pollutants were observed.				
	DRAINAGE AREA DESCRIPTION	9	CB05-3	CB12-9 / SB12-13				
	DATE/TIME OF OBSERVATION		3/6/10 5:25 \(\text{S}\) \(\text{PM}\)	3/6/10 5:37 \( \text{\text{\text{\$A\$}}} \)	NA / /	NA / /	NA /	NA / /

## 2009 – 2010 ANNUAL REPORT FORM 4 – MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

### **ADDITIONAL PAGES**

	Drainage Location Description	Observation Time	Were Pollutants Observed
	C-B01-1	2:00 PM	■ YES □ NO
Observation Date: April 5, 2010	C-B03-2	1:56 PM	■ YES □ NO
Observers Name: Lijun Xu	C-B05-3	2:17 PM	□ YES ■ NO
Title: Mactec, Consultant	C-B05-4	1:50 PM	□ YES ■ NO
Signature:	C-B06-5	2:10 PM	■ YES □ NO
Time Discharge Began: 4/5/10 1:36 PM	C-B07-6	2:33 PM	□ YES ■ NO
Observation Time: 1:36PM - 2:45PM	C-B07-7	1:36 PM	□ YES ■ NO
Were Pollutants Observed: Yes	C-B08-8	2:30 PM	□ YES ■ NO
	C-B12-9*	2:27 PM	□ YES ■ NO
	C-B09-10	2:45 PM	□ YES ■ NO
	Drainage Location Description	Observation Time	Were Pollutants Observed

	Drainage Location Description	Observation Time	Were Pollutants Observed
Obc. 1845. Peter Peter Population	C-B01-1	: A.M. / PM	□ YES □ NO
Observation Date: May 2009	C-B03-2	: A.M. / PM	□ YES □ NO
Cuservers nature: Alline martin	C-B05-3	: A.M. / PM	□ YES □ NO
I ille: Associate Environmental Specialist	C-B05-4	: A.M. / PM	□ YES □ NO
Signature:	C-B06-5	: A.M. / PM	□ YES □ NO
Ime Discharge Began: None – no storms during daylight hours	C-B07-6	: A.M. / PM	□ YES □ NO
Observation Time: NA	C-B07-7	: A.M. / PM	□ YES □ NO
Were Pollutants Observed: NA	C-B08-8	: A.M. / PM	□ YES □ NO
(if yes, complete reverse side)	C-B12-9	: A.M. / PM	□ YES □ NO
	C-B09-10	: A.M. / PM	□ YES □ NO

### 2009 – 2010 ANNUAL REPORT

## FORM 4 – MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

SIDE B

DATE/TIME OF OBSERVATION	DRAINAGE AREA DESCRIPTION	DESCRIBE STORM WATER DISCHARGE CHARACTERISTICS	IDENTIFY AND DESCRIBE SOURCE(S) OF POLLUTANTS	OURCE(S) OF	DESCRIBE ANY REVISED OR NEW BMPs AND THEIR DATE OF IMPLEMENTATION
(From Reverse Side)		Indicate whether storm water discharge is clear, cloudy, or discolored; causing staining; containing floating objects or an oil sheen, has odors, etc.			
4/5/10 2:00 □ AM ■ PM	CB01-1	Foam (small bubbles) was observed in the discharge.	Possible source was nearby construction or water turbulence. No true source identified.	rby oulence.	NA
4/5/10 1:56 □ AM	CB03-2	Foam (small bubbles) was observed in the discharge.	Possible source was water turbulence. Could not determine source.	er stermine	NA
4/5/10	CB06-5	Foam (small bubbles) was observed in the discharge.	Possible source was water turbulence. Could not determine source.	er stermine	NA
4/5/10 2:27 \( \text{\tin}\text{\tint{\text{\tett{\text{\text{\text{\text{\texi}\text{\text{\texi}\text{\text{\tin}\tint{\text{\text{\text{\texi}\text{\text{\texi}\text{\text{\text{\text{\text{\text{\text{\texi}\tint{\text{\texi}\tex{	CB12-9 / SB12-13	*CB12-9 was not accessible due to construction. SB12-13 was observed as an alternate upstream location. No pollutants were observed.	NA A		NA
NA / / N : : AM : : PM					
NA / / N :	,				

## POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY BMP STATUS FORM 5 - ANNUAL COMPREHENSIVE SITE COMPLIANCE EVAЏUATION

Allied was notified of the deficiency by e-mail. American was notified of the deficiency by e-Describe additional/revised BMPs or corrective actions and their date(s) of Describe additional/revised BMPs or corrective actions and their date(s) of Describe additional/revised BMPs or corrective actions and their date(s) of Air Tran was notified of the deficiency by e-Confirmation that deficiencies were abated was received on 5/28/10. Confirmation that deficiencies were abated Confirmation that deficiencies were abated was received on 6/29/10. implementation implementation implementation was received on 5/11/10. mail. TITLE: Associate Environmental Specialist SIGNATURE: FOD bucket at the gate with out a lid FOD bucket at the gate without a lid Describe deficiencies in BMPs or BMP implementation Describe deficiencies in BMPs or BMP Describe deficiencies in BMPs or BMP Drums stored outside without overhead cover implementation implementation If yes, to either question, complete question, complete question, complete columns of this form columns of this form columns of this form If yes, to either If yes, to either the next two the next two the next two INSPECTOR NAME: Annie Martin YES NO VES NO YES NO YES YES YES No HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? ARE ADDITIONAL/REVISED BMPs NECESSARY? ARE ADDITIONAL/REVISED BMPs NECESSARY? ARE ADDITIONAL/REVISED BMPs NECESSARY? SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP) SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP) SOURCE/INDUSTRIAL ACTIVITY AREA /ALUATION DATE: April - June 2010 (as identified in your SWPPP) POTENTIAL POLLUTANT **American Airlines** Air Tran Airways **Allied Aviation** (5/12/10)(5/11/10)(5/4/10)

### Annual Report 2009 - 2010

## POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY BMP STATUS FORM 5 - ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION

TITLE: Associate Environmental Specialist SIGNATURE: Associate Environmental Specialist SIGNATURE: INSPECTOR NAME: Annie Martin /ALUATION DATE: April - June 2010

American Eagle was notified of the deficiency ASIG was notified of the deficiency by e-mail. ELS was notified of the deficiency by e-mail. Describe additional/revised BMPs or corrective actions and their date(s) of Describe additional/revised BMPs or corrective actions and their date(s) of Describe additional/revised BMPs or corrective actions and their date(s) of Describe additional/revised BMPs or corrective actions and their date(s) of Confirmation that deficiencies were abated Confirmation that deficiencies were abated was received on 6/15/10. Confirmation that deficiencies were abated was received on 4/23/10. Confirmation that deficiencies were abated was received on 4/22/10. FedEx was notified deficiency by e-mail. implementation implementation implementation implementation was received on 5/14/10. by e-mail. Spill pallets stored outdoors that are filling with rain water Oily equipment stored by a doorway without secondary containment Trash can on the ramp without a lid Describe deficiencies in BMPs or BMP Outdoor trash can without a lid implementation implementation implementation implementation If yes, to either question, complete columns of this form columns of this form columns of this form columns of this form the next two the next two the next two the next two YES YES VES NO VES NO VES NO VES NO YES NO VES NO HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? ARE ADDITIONAL/REVISED BMPs NECESSARY? ARE ADDITIONAL/REVISED BMPs NECESSARY? ARE ADDITIONAL/REVISED BMPs NECESSARY? SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP) SOURCE/INDUSTRIAL ACTIVITY AREA
(as identified in your SWPPP) SOURCE/INDUSTRIAL ACTIVITY AREA SOURCE/INDUSTRIAL ACTIVITY AREA
(as identified in your SWPPP) (as identified in your SWPPP) POTENTIAL POLLUTANT POTENTIAL POLLUTANT **Elite Line Services** American Eagle (4/16/10)(4/27/10)(4/22/10)(5/11/10)ASIG

ARE ADDITIONAL/REVISED BMPs NECESSARY?

## POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY BMP STATUS FORM 5 - ANNUAL COMPREHENSIVE SITE COMPLIANCE EVAЏUATION

φ Host was notified of the deficiency by e-mail. Flagship was notified of the deficiency by email. Describe additional/revised BMPs or corrective actions and their date(s) of Describe additional/levised BMPs or corrective actions and their date(s) of Describe additional/revised BMPs or corrective actions and their date(s) of Describe additional/revised BMPs or corrective actions and their date(s) of Confirmation that deficiencies were abated Confirmation that deficiencies were abated Frontier was notified of the deficiency by e-Confirmation that deficiencies were abated Confirmation that deficiencies were abated was received on 5/10/10. Hawaiian was notified of the deficiency by TITLE: Associate Environmental Specialist SIGNATURE: COMMUM MUM MUM MATURE: implementation implementation implementation implementation was received on 5/24/10. was received on 4/19/10. was received on 6/23/09. Grease being stored/transported in FOD bucket without a lid at the gate FOD bucket without a lid at the gate Outdoor trash cans without lids Describe deficiencies in BMPs or BMP Describe deficiencies in BMPs of BMP Describe deficiencies in BMPs or BMP Describe deficiencies in BMPs of BMP open containers outside implementation implementation implementation implementation • question, complete If yes, to either question, complete question, complete question, complete columns of this form columns of this form columns of this form columns of this If yes, to either If yes, to either yes, to either the next two the next two the next two he next two INSPECTOR NAME: Annie Martin form ₽ S S VES NO VES NO YES O VES NO ¥ S S S S ¥ Se Se YES No HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? ARE ADDITIONAL/REVISED BMPs NECESSARY? ARE ADDITIONAL/REVISED BMPs NECESSARY? ARE ADDITIONAL/REVISED BMPs NECESSARY? ARE ADDITIONAL/REVISED BMPs NECESSARY? SOURCE/INDUSTRIAL ACTIVITY AREA SOURCE/INDUSTRIAL ACTIVITY AREA SOURCE/INDUSTRIAL ACTIVITY AREA SOURCE/INDUSTRIAL ACTIVITY AREA 'ALUATION DATE: April - June 2010 (as identified in your SWPPP) POTENTIAL POLLUTANT POTENTIAL POLLUTANT POTENTIAL POLLUTANT Hawaiian Airlines Frontier Airlines **HMS Host** Flagship (4/19/10)(5/21/10)(6/3/10)(5/7/10)

## POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY BMP STATUS FORM 5 - ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION

φ Southwest was notified of the deficiency by e-Landmark was notified of the deficiency by e-Describe additional/revised BMPs or corrective actions and their date(s) of Describe additional/revised BMPs or corrective actions and their date(s) of Describe additional/revised BMPs or corrective actions and their date(s) of Describe additional/revised BMPs or corrective actions and their date(s) of Confirmation that deficiencies were abated LPI was notified of the deficiency by e-mail. Confirmation that deficiencies were abated Confirmation that deficiencies were abated Confirmation that deficiencies were abated was received on 5/7/10. Sky West was notified of the deficiency by implementation implementation implementation implementation was received on 5/26/10. was received on 6/29/10. was received on 4/28/10 Outdoor trash receptacle without lids Spill pallet being used in an area without overhead cover is filling with Outdoor trash receptacles and FOD Leaky equipment without drip pans Describe deficiencies in BMPs or BMP Hazardous materials storage area Used drip pans stored outdoors Soaps stored outdoors without secondary containment Outdoor trash cans without lids Outdoor trash can without lid without over head cover implementation implementation implementation implementation buckets without lids water. question, complete If yes, to either question, complete question, complete question, complete columns of this form columns of this form columns of this form If yes, to either columns of this If yes, to either If yes, to either the next two the next two the next two he next two INSPECTOR NAME: Annie Martin XES NO VES NO YES NO N KES YES No VES NO N KE YES HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? ARE ADDITIONAL/REVISED BMPs NECESSARY? ARE ADDITIONAL/REVISED BMPs NECESSARY? ARE ADDITIONAL/REVISED BMPs NECESSARY? ARE ADDITIONAL/REVISED BMPs NECESSARY? SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP) SOURCE/INDUSTRIAL ACTIVITY AREA SOURCE/INDUSTRIAL ACTIVITY AREA SOURCE/INDUSTRIAL ACTIVITY AREA /ALUATION DATE: April - June 2010 (as identified in your SWPPP) (as identified in your SWPPP) (as identified in your SWPPP) POTENTIAL POLLUTANT POTENTIAL POLLUTANT POTENTIAL POLLUTANT POTENTIAL POLLUTANT Southwest Airlines **Landmark Aviation Sky West** (4/28/10)(4/26/10)(5/4/10)(2/7/10)

## POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY BMP STATUS FORM 5 - ANNUAL COMPREHENSIVE SITE COMPLIANCE EVAĻUATION

United was notified of the deficiency by e-mail. UPS was notified of the deficiency by e-mail. West Jet was notified of the deficiency by e-Describe additional/revised BMPs or corrective actions and their date(s) of Describe additional/revised BMPs or corrective actions and their date(s) of Describe additional/revised BMPs or corrective actions and their date(s) of Describe additional/revised BMPs or corrective actions and their date(s) of Confirmation that deficiencies were abated Confirmation that deficiencies were abated φ Confirmation that deficiencies were abated Confirmation that deficiencies were abated US Air was notified of the deficiency by implementation implementation implementation mplementation was received on 6/29/10. was received on 6/15/10. was received on 6/23/10. was received on 6/2/10. mail TITLE: Associate Environmental Specialist SIGNATURE: Radiator fluid stored outdoors without FOD bucket without a lid at the gate Oil cans outdoors without secondary Outdoor trash receptacles and FOD proper secondary containment Outdoor trash receptacles and FOD Describe deficiencies in BMPs or BMP Describe deficiencies in BMPs or BMP Describe deficiencies in BMPs or BMP overhead cover but no secondary Describe deficiencies in BMPs or BMF Grease buckets outdoors without Hazardous materials stored with overhead cover and secondary containment underneath implementation Implementation Implementation implementation buckets without lids buckets without lids containment containment question, complete question, complete question, complete question, complete columns of this form columns of this form columns of this columns of this form If yes, to either If yes, to either f yes, to either f yes, to either the next two the next two he next two the next two INSPECTOR NAME: Annie Martin ᄪ YES NO VES NO N YES N KE VES NO NES OF YES NO YES NO HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? ARE ADDITIONAL/REVISED BMPs NECESSARY? ARE ADDITIONAL/REVISED BMPs NECESSARY? ARE ADDITIONAL/REVISED BMPs NECESSARY? ARE ADDITIONAL/REVISED BMPs NECESSARY? SOURCE/INDUSTRIAL ACTIVITY AREA SOURCE/INDUSTRIAL ACTIVITY AREA SOURCE/INDUSTRIAL ACTIVITY AREA SOURCE/INDUSTRIAL ACTIVITY AREA /ALUATION DATE: April - June 2010 (as identified in your SWPPP) POTENTIAL POLLUTANT POTENTIAL POLLUTANT POTENTIAL POLLUTANT POTENTIAL POLLUTANT West Jet Airlines **United Airlines US Airways** (4/29/10)(5/6/10)(2/1/10) **UPS** 

### 2009 – 2010 Annual Report

## POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY BMP STATUS FORM 5 - ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION

TITLE: Associate Environmental Specialist SignATURE:

INSPECTOR NAME: Annie Martin

VALUATION DATE: April - June 2010

Describe additional/revised BMPs or corrective actions and their date(s) of Describe additional/revised BMPs or corrective actions and their date(s) of Describe additional/revised BMPs or corrective actions and their date(s) of Allegiant was notified of the deficiency by e-Describe additional/revised BMPs or corrective actions and their date(s) of Confirmation that deficiencies were abated Confirmation that deficiencies were abated was received on 6/29/10. SDCRAA was notified of the deficiency by implementation implementation implementation implementation was received on 6/23/10. work order. Broken sand bags by maintenance Debris on ground by runway lighting FOD bucket without a lid at the gate Describe deficiencies in BMPs or BMP Debris on ground in bone yard implementation implementation implementation implementation spops vaults If yes, to either question, complete If yes, to either question, complete question, complete question, complete columns of this form columns of this form columns of this form f yes, to either solumns of this If yes, to either the next two the next two the next two the next two E □ N 58 NS S YES NO NO VES NO NO NO YES No HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? ARE ADDITIONAL/REVISED BMPs NECESSARY? ARE ADDITIONAL/REVISED BMPs NECESSARY? ARE ADDITIONAL/REVISED BMPs NECESSARY? ARE ADDITIONAL/REVISED BMPs NECESSARY? SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP) SOURCEANDUSTRIAL ACTIVITY AREA SOURCE/INDUSTRIAL ACTIVITY AREA POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA San Diego County Regional (as identified in your SWPPP) (as identified in your SWPPP) (as identified in your SWPPP) POTENTIAL POLLUTANT POTENTIAL POLLUTANT Airport Authority **Allegiant** (6/11/10)(6/21/10)

### **Attachment 4**

Analytical Data for Storm Events





18 December 2009

Amanda Archenhold MACTEC Engineering & Consulting 9177 Sky Park Court Suite A San Diego, CA 92123

RE:San Diego Airport

Work Order No.:

0912126

Attached are the results of the analyses for samples received by the laboratory on 12/07/09 13:00.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report. If you require any additional retaining time, please advise us.

Sincerely,

Richard K Foresyth

Laboratory Director

Sierra Analytical Labs, Inc. is certified by the California Department of Health Services (DOHS), Environmental Laboratory Accredidation Program (ELAP) No. 2320.



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]
Project Manager: Amanda Archenhold

Reported: 12/18/09 13:09

San Diego CA, 92123

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C-B01-1-12-7-09	0912126-01	Liquid	12/07/09 06:33	12/07/09 13:00
C-B05-3-12-7-09	0912126-02	Liquid	12/07/09 06:04	12/07/09 13:00
C-B07-6-12-7-09	0912126-03	Liquid	12/07/09 08:15	12/07/09 13:00
C-B12-9-12-7-09	0912126-05	Liquid	12/07/09 07:40	12/07/09 13:00
C-B09-10-12-7-09	0912126-06	Liquid	12/07/09 06:35	12/07/09 13:00
C-B07-6-12-7-09-DUP	0912126-13	Liquid	12/07/09 08:17	12/07/09 13:00
C-B12-9-12-7-09-BL	0912126-14	Liquid	12/07/09 07:50	12/07/09 13:00

### CASE NARRATIVE

SAMPLE RECEIPT:

Samples were received intact, at 4°C, and accompanied by chain of custody documentation.

PRESERVATION: HOLDING TIMES:

Samples requiring preservation were verified prior to sample preparation and analysis. All holding times were met, unless otherwises noted in the report with data qualifiers.

QA/QC CRITERIA:

All quality objective criteria were met, except as noted in the report with data qualifiers.



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A San Diego CA, 92123

Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/18/09 13:09

### Conventional Chemistry Parameters by APHA/EPA Methods Sierra Analytical Labs, Inc.

Analyte	Result			Dilution	Batch	Drangrad	Analyzed	Method	Nata
						Frepared	Allalyzed	Method	Notes
C-B01-1-12-7-09 (0912126-01) Liquid	Sampled: 12/0//	09 06:33	Received: 1	2/07/09 1	3:00				
Ammonia as N	2.55	0.100	mg/L	1	B9L1521	12/07/09	12/07/09 16:45	SM 4500-NH3	
Biochemical Oxygen Demand	27.0	2.00	**	"	**	**	12/12/09 16:45	EPA 405.1	
Chemical Oxygen Demand	95.0	0.100	**	"	**	"	12/07/09 16:45	EPA 410.4	
Specific Conductance (EC)	195	0.100	μmhos/cm	**	"	"	**	EPA 120.1	
Hexane Extractable Material (HEM)	2.50	2.00	mg/L	"	**	"	"	EPA 1664	
Methylene Blue Active Substances	0.130	0.0500	••	"	**	"	**	EPA 425.1	
рН	<b>7.1</b> 7	0.100	pH Units		**	"	**	EPA 150.1	
Total Suspended Solids	16.0	1.00	mg/L	"	**	"	"	EPA 160.2	
C-B05-3-12-7-09 (0912126-02) Liquid	5-3-12-7-09 (0912126-02) Liquid Sampled: 12/07/09 06:04 Received: 12/07/09 13:00  onia as N  2.10  0.100  mg/L  1  B9L1521  12/07/09  12/07/09 16:45 SM 4500-NH3  emical Oxygen Demand  80.0  2.00  " " " 12/12/09 16:45 EPA 405.1  ical Oxygen Demand  302  0.100  " " " " 12/07/09 16:45 EPA 410.4								
Ammonia as N	2.55 0.100 mg/L 1 B9L1521 12/07/09 12 27.0 2.00 " " " " 12 95.0 0.100 μmhos/cm " " " " 12 195 0.100 μmhos/cm " " " " " 12 195 0.130 0.0500 " " " " " " " 12 0.130 0.0500 " " " " " " " 12 16.0 1.00 mg/L " " " " 12 16.0 1.00 mg/L " " " 12 17.17 0.100 pH Units " " " " 12 18.00 2.00 " " " " 12 19.0 0.100 mg/L 1 B9L1521 12/07/09 12 19.0 0.100 μmhos/cm " " " 12 19.0 0.100 μmhos/cm " " " 12 19.0 1.00 mg/L " " " 12 19.0 1.00 mg/L " " " " " 12 19.0 1.00 mg/L " " " " " 12 19.0 1.00 mg/L " " " " 12	12/07/09 16:45	SM 4500-NH3						
Biochemical Oxygen Demand	80.0	2.00		"	"	"	12/12/09 16:45	EPA 405.1	
Chemical Oxygen Demand	302	0.100		"	"	**	12/07/09 16:45	EPA 410.4	
Specific Conductance (EC)	1970	0.100	μmhos/cm	"	**	**		EPA 120.1	
Hexane Extractable Material (HEM)	2.10	2.00	mg/L	"	**	"		EPA 1664	
Methylene Blue Active Substances	0.180	0.0500	"	"	**	"		EPA 425.1	
pH	7.88	0.100	pH Units	"	**	"		EPA 150.1	
Total Suspended Solids	19.0	1.00	mg/L		**	"	"	EPA 160.2	
C-B07-6-12-7-09 (0912126-03) Liquid	Sampled: 12/07/	/09 08:15	Received: 1	2/07/09 1	3:00				
Ammonia as N	1.10	0.100	mg/L	1	B9L1521	12/07/09	12/07/09 16:45	SM 4500-NH3	
Biochemical Oxygen Demand	16.2	2.00	"	**	**	"	12/12/09 16:45		
Chemical Oxygen Demand	52.0	0.100	**	"	••		12/07/09 16:45	EPA 410.4	
Specific Conductance (EC)	56.0	0.100	μmhos/cm	"	**		**	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"		**	••	EPA 1664	
Methylene Blue Active Substances	0.110	0.0500	_	"	"	**	**	EPA 425.1	
pH	7.26	0.100	pH Units		"	**	*	EPA 150.1	
Total Suspended Solids	26.0	1.00	•	**			**	EPA 160.2	



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Reported: 12/18/09 13:09 Project Manager: Amanda Archenhold

Conventional Chemistry Parameters by APHA/EPA Methods

### Sierra Analytical Labs, Inc.

		Reporting				-			
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B12-9-12-7-09 (0912126-05) Liquid	Sampled: 12/07	/09 07:40 l	Received: 1	2/07/09 1	3:00				
Ammonia as N	1.45	0.100	mg/L	1	B9L1521	12/07/09	12/07/09 16:45	SM 4500-NH3	
Biochemical Oxygen Demand	75.0	2.00	"	**	11	"	12/12/09 16:45	EPA 405.1	
Chemical Oxygen Demand	274	0.100	11	**	11	**	12/07/09 16:45	EPA 410.4	
Specific Conductance (EC)	2220	0.100	μmhos/cm	11	11	**	11	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"	11	**	11	EPA 1664	
Methylene Blue Active Substances	ND	0.0500	**	11	"	n		EPA 425.1	
pH	7.21	0.100	pH Units	"	**	"	**	EPA 150.1	
Total Suspended Solids	3.00	1.00	mg/L	**	11	"	55	EPA 160.2	
C-B09-10-12-7-09 (0912126-06) Liquid	Sampled: 12/0	7/09 06:35	Received:	12/07/09	13:00				
Ammonia as N	monia as N 3.05 chemical Oxygen Demand 47.0 mical Oxygen Demand 172			1	B9L1521	12/07/09	12/07/09 16:45	SM 4500-NH3	
Biochemical Oxygen Demand	47.0	2.00	"	11	11	"	12/12/09 16:45	EPA 405.1	
Chemical Oxygen Demand	172	0.100	**	11	"	"	12/07/09 16:45	EPA 410.4	
Specific Conductance (EC)	260	0.100	μmhos/cm	"	Ħ	"	•	EPA 120.1	
Hexane Extractable Material (HEM)	2.90	2.00	mg/L		"	"	11	EPA 1664	
Methylene Blue Active Substances	0.150	0.0500	"	"	11	"		EPA 425.1	
pH	7.40	0.100	pH Units	"	"	"	"	EPA 150.1	
Total Suspended Solids	31.0	1.00	mg/L	"	**	"	11	EPA 160.2	
C-B07-6-12-7-09-DUP (0912126-13) Li	iquid Sampled:	12/07/09 0	8:17 Recei	ved: 12/0	07/09 13:00	1			
Ammonia as N	1.15	0.100	mg/L	1	B9L1521	12/07/09	12/07/09 16:45	SM 4500-NH3	
Biochemical Oxygen Demand	15.5	2.00	"	"	11	11	12/12/09 16:45	EPA 405.1	
Chemical Oxygen Demand	49.0	0.100	"	_ 11	"	11	12/07/09 16:45	EPA 410.4	
Specific Conductance (EC)	49.0	0.100	μmhos/cm	11	**	"	11	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	n	11	**	**	EPA 1664	
Methylene Blue Active Substances	0.110	0.0500	"	**	**	11	11	EPA 425.1	
pH	7.19	0.100	pH Units	**	. "	11	**	EPA 150.1	
Total Suspended Solids	23.0	1.00	mg/L	**	"	"	**	EPA 160.2	



9177 Sky Park Court Suite A San Diego CA, 92123 Project: San Diego Airport

Project Number: [none]
Project Manager: Amanda Archenhold

Reported: 12/18/09 13:09

### Conventional Chemistry Parameters by APHA/EPA Methods

### Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
C-B12-9-12-7-09-BL (0912126-14) Liquid	Sampled:	12/07/09 07:5	0 Receive	ed: 12/07/	09 13:00				
Ammonia as N	ND	0.100	mg/L	1	B9L1521	12/07/09	12/07/09 16:45	SM 4500-NH3	
Biochemical Oxygen Demand	ND	2.00		**		**	12/12/09 16:45	EPA 405.1	
Chemical Oxygen Demand	2.00	0.100	"			11	12/07/09 16:45	EPA 410.4	
Specific Conductance (EC)	1.20	0.100	μmhos/cm	**	"	11	"	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"		н	"	EPA 1664	
Methylene Blue Active Substances	ND	0.0500	11	"			"	EPA 425.1	
рН	7.31	0.100	pH Units		"	"	••	EPA 150.1	
Total Suspended Solids	ND	1.00	mg/L		"	"	**	EPA 160.2	



9177 Sky Park Court Suite A San Diego CA, 92123 Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/18/09 13:09

### Metals by EPA 200 Series Methods Sierra Analytical Labs, Inc.

		Reporting						14 - A 3	Notes
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B01-1-12-7-09 (0912126-01) Liquid	Sampled: 12/07	/09 06:33	Received:	12/07/09 1	3:00				
Aluminum	1900	50	μg/L	2	B9L1410	12/14/09	12/17/09 12:56	EPA 200.8	
Copper	310	2.0	"	"	"	"	12/15/09 12:31	**	
Iron	2.6	0.050	mg/L	"	"	"	**	"	
Lead	24	2.0	μg/L	"	"	**	11	**	
Zinc	240	2.0	"	"	"	"	11	"	
C-B05-3-12-7-09 (0912126-02) Liquid	Sampled: 12/07	/09 06:04	Received:	12/07/09	13:00				
Aluminum	3500	250	μg/L	10	B9L1410	12/14/09	12/17/09 12:58	EPA 200.8	
Copper	29	2.0	"	2	"	"	12/15/09 12:43	"	
Iron	4.0	0.050	mg/L	"	"	"	11	"	
Lead	19	2.0	μg/L	**	11	"	"	"	
Zinc	94	2.0	**	"	"	"	"	**	
C-B07-6-12-7-09 (0912126-03) Liquid	Sampled: 12/07	7/09 08:15	Received:	12/07/09	13:00				
Aluminum	580	50	μg/L	2	B9L1410	12/14/09	12/17/09 12:58	EPA 200.8	
Copper	140	2.0	"	**	"	"	12/15/09 12:47	**	
Iron	0.94	0.050	mg/L	"	"	"	"	"	
Lead	7.5	2.0	μg/L	**	"	"	"	"	
Zinc	430	2.0	"	"	**	"	"	"	
C-B12-9-12-7-09 (0912126-05) Liquid	Sampled: 12/0	7/09 07:40	Received	12/07/09	13:00			-	
Aluminum	210	50	μg/L	2	B9L1410	12/14/09	12/17/09 12:59	EPA 200.8	
Copper	34	2.0	"	"	= "	"	12/15/09 12:51	"	
Iron	0.46	0.050	mg/L	"	"	**	"	**	
Lead	2.1	2.0	μg/L	11	"	"	**	"	
Zinc	130	2.0		"	"	"	**	"	



9177 Sky Park Court Suite A San Diego CA, 92123 Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/18/09 13:09

### Metals (Dissolved) by EPA 200 Series Methods

### Sierra Analytical Labs, Inc.

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B01-1-12-7-09 (0912126-01) Liquid	Sampled: 12/07/	09 06:33 I	Received:	12/07/09 1	3:00				
Copper	220	2.0	μg/L	2	B9L1413	12/14/09	12/15/09 17:14	EPA 200.8	
Zinc	130	2.0	••	11	"	Ħ	11	Ħ	
C-B05-3-12-7-09 (0912126-02) Liquid	Sampled: 12/07/	09 06:04 1	Received:	12/07/09 1	13:00				
Copper	14	2.0	μg/L	2	B9L1413	12/14/09	12/15/09 17:18	EPA 200.8	•
Zinc	13	2.0	**	"	"	"	11	11	
C-B07-6-12-7-09 (0912126-03) Liquid	Sampled: 12/07/	09 08:15 l	Received:	12/07/09 1	13:00				
Copper	97	2.0	μg/L	2	B9L1413	12/14/09	12/15/09 17:22	EPA 200.8	
Zinc	350	2.0	"	**	11	57	"	"	
C-B12-9-12-7-09 (0912126-05) Liquid	Sampled: 12/07/	09 07:40	Received:	12/07/09 1	13:00				
Copper	27	2.0	μg/L	2	B9L1413	12/14/09	12/15/09 17:26	EPA 200.8	
Zinc	120	2.0	"	"	**	**	**		
C-B09-10-12-7-09 (0912126-06) Liquid	Sampled: 12/07	7/09 06:35	Received	l: 12/07/09	13:00				
Copper	80	2.0	μg/L	2	B9L1413	12/14/09	12/15/09 17:45	EPA 200.8	
Zinc	200	2.0	11	11	**	"	"	**	
C-B07-6-12-7-09-DUP (0912126-13) Li	iquid Sampled:	12/07/09 08	:17 Rece	eived: 12/0	7/09 13:00				
Copper	93	2.0	μg/L	2	B9L1413	12/14/09	12/15/09 17:49	EPA 200.8	
Zinc	390	2.0	11	11	"	**	11	**	
C-B12-9-12-7-09-BL (0912126-14) Liq	uid Sampled: 12	2/07/09 07:5	50 Receiv	ved: 12/07/	/09 13:00				
Copper	ND	2.0	μg/L	2	B9L1413	12/14/09	12/15/09 17:53	EPA 200.8	
Zinc	ND	2.0	**	"	11	**	11	**	



9177 Sky Park Court Suite A San Diego CA, 92123 Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/18/09 13:09

### Metals by EPA 200 Series Methods Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B09-10-12-7-09 (0912126-06) Liquid	Sampled: 12/0	7/09 06:35	Received	: 12/07/09	13:00				
Aluminum	1400	50	μg/L	2	B9L1410	12/14/09	12/17/09 12:59	EPA 200.8	
Copper	94	2.0	**	"	••		12/15/09 13:02		
Iron	1.9	0.050	mg/L	**	"	#	"	"	
Lead	5.6	2.0	μg/L	"	**	"	"	"	
Zinc	240	2.0	11	"	"	"	н	"	
C-B07-6-12-7-09-DUP (0912126-13) Liq 	1100	12/07/09 08 50	μg/L	2	B9L1410	12/14/09	12/17/09 13:00	EPA 200.8	,
Copper	190	2.0	**	"	"	11	12/15/09 13:06	11	
Iron	1.7	0.050	mg/L		**	"	**	••	
Lead	18	2.0	μg/L	n		"	н	**	
Zinc	500	2.0	"	"	#	"	**	"	
C-B12-9-12-7-09-BL (0912126-14) Liqui	id Sampled: 1	2/07/09 07:	50 Receiv	ved: 12/07	/09 13:00				
Aluminum	ND	50	μg/L	2	B9L1410	12/14/09	12/17/09 13:02	EPA 200.8	
Copper	ND	2.0	11	**	**		12/15/09 13:10	. "	
Iron	ND	0.050	mg/L	11	"		"	"	
Lead	ND	2.0	μg/L	"	"	"	•	n i	
Zinc	ND	2.0	"		"	"	**	"	



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A San Diego CA, 92123

Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/18/09 13:09

### Total Petroleum Hydrocarbons (TPH) by GC/FID Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B01-1-12-7-09 (0912126-01) Liquid	Sampled: 12/07/	09 06:33 R	Received: 12	/07/09 1	3:00		· · · · · · · · · · · · · · · · · · ·		
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L0905	12/09/09	12/10/09 10:54	4 EPA 8015B	-
Surrogate: o-Terphenyl		135 %	60-17	5	17	"	"	"	
Jet-A	0.47	0.050	u .				**	II .	D-49
Surrogate: o-Terphenyl		135 %	60-17	5	"	. "	#	tr	
Oil Range Organics (C22-C36)	0.62	0.050	"	"			=======================================	17	D-4
Surrogate: o-Terphenyl		135 %	60-17	5	"	"	"	"	
C-B05-3-12-7-09 (0912126-02) Liquid	Sampled: 12/07	/09 06:04 R	Received: 12	/07/09 1	3:00				
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L0905	12/09/09	12/10/09 10:54	4 EPA 8015B	
Surrogate: o-Terphenyl		96.7%	60-17	5	"	"	"	"	
Jet-A	0.095	0.050	**	**		"	"		D-49
Surrogate: o-Terphenyl		96.7 %	60-17	5	"	"	,"	"	
Oil Range Organics (C22-C36)	0.13	0.050	"	••	••	"	••		D-41
Surrogate: o-Terphenyl		96.7 %	60-17	5	#	"	#	"	
C-B07-6-12-7-09 (0912126-03) Liquid	Sampled: 12/07	/09 08:15 R	Received: 12	/07/09 1	3:00				
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L0905	12/09/09	12/10/09 10:54	4 EPA 8015B	
Surrogate: o-Terphenyl		103 %	60-17	5	"	#	"	"	
Jet-A	0.30	0.050	11	"	"	"	"	"	D-49
Surrogate: o-Terphenyl		103 %	60-17	5	"	"	"	"	
Oil Range Organics (C22-C36)	0.86	0.050		••	**	**	•		D-41
Surrogate: o-Terphenyl		103 %	60-17	5	"	"	"	"	
C-B12-9-12-7-09 (0912126-05) Liquid	Sampled: 12/07	/09 07:40 R	Received: 12	/07/09 1	3:00				
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L0905	12/09/09	12/10/09 10:54	EPA 8015B	
Surrogate: o-Terphenyl		95.0 %	60-17	5	"	"	"	"	
Jet-A	0.51	0.050		"	**	**	"		D-49
Surrogate: o-Terphenyl		95.0%	60-17	5	. "	"	"	"	
Oil Range Organics (C22-C36)	1.1	0.050						"	D-41
Surrogate: o-Terphenyl		95.0 %	60-17	5	"	"	"	"	



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/18/09 13:09

### Total Petroleum Hydrocarbons (TPH) by GC/FID

### Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units D	ilution	Batch	Prepared	Analyzed	Method	Notes
C-B09-10-12-7-09 (0912126-06) Liquid S	ampled: 12/	07/09 06:35 F	Received: 12	/07/09	13:00				
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L0905	12/09/09	12/10/09 10:5	4 EPA 8015B	
Surrogate: o-Terphenyl		114%	60-175		"	11	"	**	
Jet-A	0.42	0.050	"	11	"	٧	# 07873	· · · · · · · · · · · · · · · · · · ·	D-49
Surrogate: o-Terphenyl		114%	60-175		"	"	"	"	
Oil Range Organics (C22-C36)	0.63	0.050	"	"	"	"	n	"	D-41
Surrogate: o-Terphenyl		114 %	60-175		"	"	"	"	
C-B07-6-12-7-09-DUP (0912126-13) Liquid	d Sampled	l: 12/07/09 08:	17 Receive	d: 12/0	7/09 13:00				
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L0905	12/09/09	12/10/09 10:5	4 EPA 8015B	
Surrogate: o-Terphenyl		91.5 %	60-175		"	"	"	"	
Jet-A	0.30	0.050	11	"	11	11	**		D-49
Surrogate: o-Terphenyl		91.5 %	60-175		"	"	11	"	
Oil Range Organics (C22-C36)	0.87	0.050	**	"	"	**	"	11	D-41
Surrogate: o-Terphenyl		91.5 %	60-175		"	W	"	"	
C-B12-9-12-7-09-BL (0912126-14) Liquid	Sampled:	12/07/09 07:50	) Received:	12/07	//09 13:00			_	
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L0905	12/09/09	12/10/09 10:5	54 EPA 8015B	
Surrogate: o-Terphenyl		74.6 %	60-175	5	"	11	"	n	
Jet-A	ND	0.050	**	"	"	"	"	"	
Surrogate: o-Terphenyl		74.6 %	60-173	5	n	"	"	"	
Oil Range Organics (C22-C36)	ND	0.050	"	11	11	**	"	11	
Surrogate: o-Terphenyl		74.6 %	60-17:	5	"	"	"	"	



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/18/09 13:09

### Metals by EPA 200 Series Methods - Quality Control Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9L1410 - EPA 200 Series	- · · · · · · · · · · · · · · · · · · ·			<del></del>					Lillit	IVOICS
Blank (B9L1410-BLK1)	<del></del>			Prepared:	12/14/09	Analyzed	. 12/17/00			
Aluminum	ND	50	μg/L	Tropulou.	12/14/05	Analyzeu	. 12/1//09			
Copper	ND	2.0	"							
lron	ND	0.050	mg/L							
Lead	ND	2.0	μg/L							
Zinc	ND	2.0	"							
Blank (B9L1410-BLK2)				Prepared:	12/14/09	Analyzed	12/17/09			
Aluminum	ND	50	μg/L			·······	. 12/1//05			
Copper	ND	2.0	"							
Iron	ND	0.050	mg/L							
Lead	ND	2.0	μg/L							
Zinc	ND	2.0	. "							
LCS (B9L1410-BS1)				Prepared:	12/14/09	Analyzed	12/17/09			
Aluminum	116	50	μg/L	100		116	85-120			
Copper	96.0	2.0	"	100		96.0	85-115			
lron	1.05	0.050	mg/L	1.00		105	85-115			
Lead	108	2.0	μg/L	100		108	85-115			
Zinc	103	2.0	"	100		103	85-115			
LCS (B9L1410-BS2)				Prepared:	12/14/09	Analyzed:	12/17/09			
Aluminum	108	50	μg/L	100		108	85-120			
Copper	96.0	2.0	"	100		96.0	85-115			
lron	1.03	0.050	mg/L	1.00		103	85-115			
Lead	110	2.0	μg/L	100		110	85-115			
Zinc	105	2.0	"	100		105	85-115			
Matrix Spike (B9L1410-MS1)	Sou	rce: 0912126	5-01	Prepared:	12/14/09	Analyzed:	12/17/09			
Aluminum	1860	50	μg/L	100	1900	NR	70-130			QM-0
Copper	376	2.0	"	100	310	66.0	70-130			QM-0 QM-0
Iron	3.41	0.050	mg/L	1.00	2.6	81.0	70-130			QM-0
Lead	122	2.0	μg/L	100	24	98.0	70-130			
Zinc	331	2.0	"	100	240	91.0	70-130			



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/18/09 13:09

### Metals by EPA 200 Series Methods - Quality Control

### Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9L1410 - EPA 200 Series										
Matrix Spike (B9L1410-MS2)	Sou	rce: 091215	5-04	Prepared:	12/14/09	Analyzed:	12/17/09			
Aluminum	1490	50	μg/L	100	970	520	70-130			QM-07
Copper	116	2.0	**	100	25	91.0	70-130			
lron	2.65	0.050	mg/L	1.00	1.5	115	70-130			
Lead	114	2.0	μg/L	100	8.5	106	70-130			
Zinc	219	2.0	11	100	110	109	70-130			
Matrix Spike Dup (B9L1410-MSD1)	So	urce: 091212	6-01	Prepared:	12/14/09	Analyzed	: 12/17/09			
Aluminum	1840	50	μg/L	100	1900	NR	70-130	1.08	20	QM-0
	360	2.0		100	310	50.0	70-130	4.35	20	QM-0
Copper	3.26	0.050	mg/L	1.00	2.6	66.0	70-130	4.50	20	QM-0
Iron	122	2.0	μg/L	100	24	98.0	70-130	0.00	20	
Lead Zinc	300	2.0	#	100	240	60.0	70-130	9.83	20	QM-0
Matrix Spike Dup (B9L1410-MSD2)	So	urce: 091215	5-04	Prepared:	12/14/09	Analyzed	: 12/17/09			
Aluminum	1560	50	μg/L	100	970	590	70-130	4.59	20	QM-0
• • • • • • • • • • • • • • • • • • • •	122	2.0	"	100	25	97.0	70-130	5.04	20	
Copper	2.65	0.050	mg/L	1.00	1.5	115	70-130	0.00	20	
lron	117	2.0	μg/L	100	8.5	108	70-130	2.60	20	
Lead Zinc	231	2.0	"	100	110	121	70-130	5.33	20	



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

San Diego CA, 92123

Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/18/09 13:09

### Metals (Dissolved) by EPA 200 Series Methods - Quality Control Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source	A/DEG	%REC		RPD	8
	resur		Onns	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B9L1413 - EPA 200 Series										
Blank (B9L1413-BLK1)				Prepared:	12/14/09	Analyzed:	12/15/09			
Copper	ND	2.0	μg/L	Ţ.			12,10,05			
Zinc	ND	2.0	"							
Blank (B9L1413-BLK2)				Prepared:	12/14/09	Analyzed:	12/15/09			
Copper	· ND	2.0	μg/L							
Zinc	ND	2.0	"							
LCS (B9L1413-BS1)				Prepared:	12/14/09	Analyzed:	12/15/09			
Copper	93.9	2.0	μg/L	100		93.9	85-115			
Zinc	103	2.0	"	100		103	85-115		*	
LCS (B9L1413-BS2)				Prepared:	12/14/09	Analyzed:	12/15/09			
Copper	91.5	2.0	μg/L	100		91.5	85-115			
Zinc	99.6	2.0	**	100		99.6	85-115			
Matrix Spike (B9L1413-MS1)	Source	e: 091212	6-05	Prepared:	12/14/09	Analyzed:	12/15/09			
Copper	114	2.0	μg/L	100	27	87.0	70-130			
Zinc	207	2.0	11	100	120	87.0	70-130			
Matrix Spike (B9L1413-MS2)	Source	e: 091215	5-04	Prepared:	12/14/09	Analyzed:	12/15/09			
Copper	110	2.0	μg/L	100	16	94.0	70-130			
Zinc	163	2.0	H	100	60	103	70-130			
Matrix Spike Dup (B9L1413-MSD1)	Source	e: 091212	6-05	Prepared:	12/14/09	Analyzed:	12/15/09			
Copper	113	2.0	μg/L	100	27	86.0	70-130	0.881	20	
Zinc	200	2.0	Ħ	100	120	80.0	70-130	3.44	20	
Matrix Spike Dup (B9L1413-MSD2)	Source	e: 091215	5-04	Prepared:	12/14/09	Analyzed:	12/15/09			
Copper	107	2.0	μg/L	100	16	91.0	70-130	2.76	20	
Zinc	158	2.0	"	100	60	98.0	70-130	3.12	20	



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Reported: 12/18/09 13:09

Project Manager: Amanda Archenhold

### Total Petroleum Hydrocarbons (TPH) by GC/FID - Quality Control Sierra Analytical Labs, Inc.

	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Analyte	Result	Emit	Onits						- 1	
Batch B9L0905 - EPA 3510C Sep Funne	l				<del> </del>					
Blank (B9L0905-BLK1)				Prepared:	12/02/09	Analyzed:	12/08/09			
Diesel Range Organics (C10-C24)	ND	0.050	mg/L							
Jet-A	ND	0.050	"							
Oil Range Organics (C22-C36)	ND	0.050	"							
Surrogate: o-Terphenyl	0.109		"	0.100		109	60-175			
Surrogate: o-Terphenyl	0.109		**	0.100		109	60-175			
Surrogate: o-Terphenyl	0.109		**	0.100		109	60-175			
LCS (B9L0905-BS1)				Prepared:	12/02/09	Analyzed:	12/08/09			
Diesel Range Organics (C10-C24)	0.568	0.050	mg/L	0.500		114	80-120			
Diesel Range Organics (C10-C24)	0.568	0.050	**	0.500		114	80-120			
Diesel Range Organics (C10-C24)	0.568	0.050	**	0:500		114	80-120			
LCS (B9L0905-BS2)				Prepared:	12/02/09	Analyzed:	12/08/09			
Diesel Range Organics (C10-C24)	0.475	0.050	mg/L	0.500		95.0	80-120			
Diesel Range Organics (C10-C24)	0.475	0.050	Ħ	0.500		95.0	80-120			
Diesel Range Organics (C10-C24)	0.475	0.050	n	0.500		95.0	80-120			
LCS Dup (B9L0905-BSD1)				Prepared	: 12/02/09	Analyzed:	12/08/09			
Diesel Range Organics (C10-C24)	0.485	0.050	mg/L	0.500		97.0	80-120	15.8	30	
Diesel Range Organics (C10-C24)	0.485	0.050	"	0.500		97.0	80-120	15.8	30	
Diesel Range Organics (C10-C24)	0.485	0.050	"	0.500		97.0	80-120	15.8	30	



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A San Diego CA, 92123

Project: San Diego Airport

Project Number: [none]

Reported: 12/18/09 13:09

Project Manager: Amanda Archenhold

### Notes and Definitions

D-41 Sample appears to be a mixture of fuel hydrocarbons. Oil Range Hydrocarbons (C22-C36) reported.

D-49 Sample appears to be a mixture of fuel hydrocarbons. Total Petroleum Hydrocarbons quantified using a Jet-A standard for

calibration.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

recovery.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

## TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING

14201 FRANKLIN AVENUE · TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 · FAX (714) 730-6462 · www.truesdall.com

Established 1931

December 16, 2009 986759 Laboratory No: Report Date:

REPORT

26052 Merit Circle, Suite #105 Sierra Analytical Labs, Inc.

Client:

Laguna Hills, CA 92653

Liquid / 12 Samples

**EPA 8015B** #0912126

Project Name: Method: Investigation:

Glycols

**Nick Forsyth** 

Attention: Sample:

December 10, 2009 December 7, 2009 Sampling Date: Receiving Date:

December 15, 2009 Analysis Date:

mg/L 2 Units:

Dilution Factor:

LES Reported By:

		l	Ethylana Glycol	Surrogate	Surrogate	
Sample ID	Sample	Propylerie Giycol		(1-Butanol)	% Recovery	
	Description		012	192	%6:36	
708592-MB	Method Blank	QN	ON.	10	1080/	
10000 V	0 004 4 40 7 00	QN.	2	217	10070	
986/59-T	C-D01-1-17-1-03		CN	237	119%	
986759-2	C-B05-3-12-7-09	ON		235	118%	
986759-3	C-B07-6-12-7-09	ON	ON.	007	116%	
086750-4	S-B08-14/C-B08-8-12-7-09	QN	QN	232	1070	
1 01100	000000000000000000000000000000000000000	CN	2	206	103%	
986759-5	C-B1Z-8-1Z-1-08	2		219	109%	
986759-6	C-B09-10-12-7-09	ON.	2	2007	95 9%	
086759-7	S-B08-1-12-7-09	QN	ND	192	4420/	
1-00 1000	00000	CN	Q	226	11370	
986759-8	S-B08-2-12-1-08	2	9	247	108%	
986759-9	S-B11-4-12-7-09	ND	ON	406	%U 80	
986759-10	S-B12-13-12-7-09	ND	QN	061	4050/	
20000	0 00 40 40 7 00	CN	2	209	W.CO.I	
986/58-11	O-D00-12-12-1-00		94	488	94.0%	
986759-12	C-B07-6-12-7-09-DUP	ND	מא		2000C 03 = GG V	
atimi I notatitation Control	otion I imite	5.0	5.0	Surrogate Conc. = 200	AFR = 50-2007	
Fracilitai Qualitit	ation ciriles	10.0	40.0			
Sample RLs		10.0	0.01			
				_		
				_		

ND: Not detected, or below limit of detection.

RL: Reporting limit, or least amount of analyte quantifiable based on average sample size used and analytical technique employed.

APR: Allowable Percent Recovery

Analyticál Services, Truesdail Labbratories, Inc. Rossina Tomova, Project Manager

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or muthicity matter without prior written authorization from Truesdail Laboratories.

## TRUESDAIL LABORATORIES, INC.

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Established 1931

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Sierra Analytical Labs, Inc.

26052 Merit Circle, Suite #105

Client:

Laguna Hills, CA 92653

-iquid / 12 Samples

**EPA 8015B** 

Method Number: Project Name:

Investigation:

Glycols

#0912126

Nick Forsyth

Attention: Sample:

REPORT

986759 QA/QC Batch No: Laboratory No:

December 16, 2009 December 7, 2009 Report Date: Sampling Date:

December 10, 2009 December 15, 2009 Receiving Date: Analysis Date:

mg/L LES Units:

Reported By:

# Quality Control/Quality Assurance Calibration Check Report

	MRCVS (1)				Section of the sectio
Parameter	Spiked	Recovered	Percent	Flag	Accuracy
	Concentration	Concentration	Recovery	•	Control limits
Propylene Glycol	50.0	40.8	81.7%	DACC	
Ethylana Clycol	0 00		27 ::: 5	200	081-0/
Euryleine Cilycol	0.00	44.7	89.4%	PASS	70.430
					201-00

# Quality Control/Quality Assurance Spikes Report

LCS/LCSD

Parameter	Conc.	Concen	vered itration	Reco	Percent Recovery (%)	RPD	Floor	Accı	Accuracy
		rcs	CSD	CS	CSD	(8/)	Sal L		
ropylene Glycol	50.0	49.7	57.4	/800				מאא	% Rec
thylene Glycol	50.0	177		93%	102%	2.91%	PASS	20	0,
and Carpool	30.0	61.7	61.7	123%	123%	%000	DACC	2 2	2 1
						0.02/0	200	2	Ś

% Recovery 70-130 70-130

MRCVS: Mid Range Calibration Venification Standard

LCS: Laboratory Control Spike

LCSD: Laboratory Control Spike Duplicate RPD: Relative Percent Difference

Flag: "Pass" if within Control Limits; otherwise "Fail"

Analytical Services/Truesdail Laboratories, Inc. Rossifia Tombva, Project Mana

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.



8100 Secura Way • Santa Fe Springs, CA 90670 Telephone (562) 347-2500 • Fax (562) 907-3610

December 23, 2009

Nick Forsyth Sierra Analytical Labs, Inc. 26052 Merit Circle, Suite 105 Laguna Hills, CA 92653

Re:

PTS File No: 391049
Physical Properties Data
0912126

Dear Mr. Forsyth:

Please find enclosed report for Physical Properties analyses conducted upon fluid received from your 0912126 project. All analyses were performed by applicable ASTM, EPA, or API methodologies. An electronic version of the report has previously been sent to your attention via the internet. The sample is currently in storage and will be retained for thirty days past completion of testing at no charge. Please note that the sample will be disposed of at that time. You may contact me regarding storage, disposal, or return of the sample.

PTS Laboratories appreciates the opportunity to be of service. If you have any questions or require additional information, please give me a call at (562) 347-2504.

Sincerely,

PTS Laboratories

Rachel Spitz Project Manager

Encl.

### PTS Laboratories

Project Name: Project Number:

N/A 0912126

**TEST PROGRAM** 

PTS File No: 391049 Client: Sierra Analytical Labs, Inc.

			Fluid	Particle		
FLUID ID	Date	Time	Type /	Size:		,
			Matrix	Microsize		Notes
Wethod:				ASTM D4464		
Docaived 12/0/00						
S-B06-12-PAR-12-7-09	701100	110	A	>		
(0912126-11)	60///71	CCCO .	Shoenby	<		
TOTALS:			1 Water	1		
Laboratory Test Program Notes	Notes	<u>.</u>				

### PTS Laboratories, Inc.

### PARTICLE SIZE SUMMARY (METHODOLOGY: ASTM D4464M)

N/A 0912126 PROJECT NAME:

12.013 92% 21.365 %06 40.702 84% 68.513 75% CUMULATIVE PERCENT GREATER THAN
Distribution percent, microris
25% | 40% | 50% | 60% | 75 25% 16% Median Grain Size, micron (1) Matrix Sample ID

S-B06-12-PAR-12-7-09 (0912126-11)

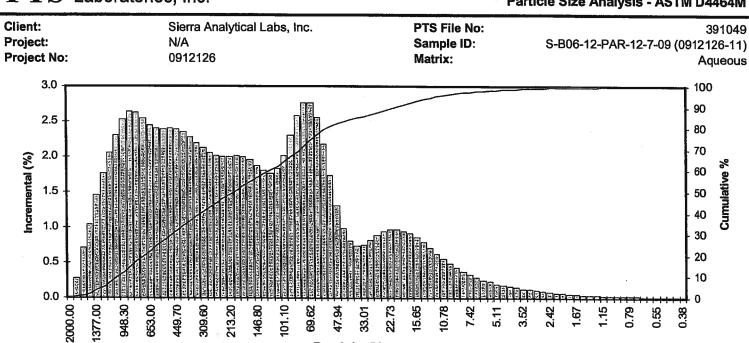
1314.277 1029.129 820.445 585.327 316.586 202.411 124.132

202.411

Aqueous

### PTS Laboratories, Inc.

### Particle Size Analysis - ASTM D4464M



Particle	Particle D	istribution	Particle	Particle D	istribution	Particle	Particle Di	stribution
Diameter, micron	Incremental percent	Cumulative percent	Diameter, micron	Incremental percent	Cumulative percent	Diameter, micron	Incremental percent	Cumulative percent
2000.00	0.00	0.0	52.63	1.73	81.2	1.385	0.041	99.7
1822.00	0.28	0.3	47.94	1.31	82.5	1.261	0.036	99.7
1660.00	0.71	1.0	43.67	0.99	83.5	1.149	0.033	99.8
1512.00	1.04	2.0	39.78	0.81	84.3	1.047	0.030	99.8
1377.00	1.46	3.5	36.24	0.74	85.0	0.954	0.028	99.8
1255.00	1.76	5.3	33.01	0.75	85.8	0.869	0.026	99.9
1143.00	2.05	7.3	30.07	0.82	86.6	0.791	0.024	99.9
1041.00	2.31	9.6	27.39	0.89	87.5	0.721	0.022	99.9
948.30	2.53	12.1	24.95	0.94	88.4	0.657	0.020	99.9
863.90	2.64	14.8	22.73	0.97	89.4	0.598	0.018	99.9
787.00	2.62	17.4	20.71	0.97	90.3	0.545	0.015	100.0
716.90	2.54	19.9	18.86	0.95	91.3	0.496	0.012	100.0
653.00	2.45	22.4	17.18	0.92	92.2	0.452	0.009	100.0
594.90	2.40	24.8	15.65	0.86	93.1	0.412	0.006	100.0
541.90	2.39	27.2	14.26	0.79	93.9	0.375	0.003	100.0
493.60	2.40	29.6	12.99	0.71	94.6	TOTALS:	99,99	100.0
449.70	2.39	32.0	11.83	0.63	95.2		-	
409.60	2.35	34.3	10.78	0.55	95.8	Measure	Trask	Inman
373.10	2.28	36.6	9.82	0.49	96.2	Median, mm	0.2024	0,2024
339.90	2.20	38.8	8.94	0.43	96.7	Median, micron	202.411	202.411
309.60	2.12	40.9	8.15	0.37	97.0	Mean, mm	0.3269	0.1827
282.10	2.06	43.0	7.42	0.33	97.4	Mean, micron	326.920	182.740
			II			11	0_0.020	102

0.29

0.25

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0.16

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0.13

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0.09

0.08

0.07

0.06

0.05

0.05

Particle Size, micron

Cumulative Percent greater than					
Distribution	Particle Size				
percent	Micron	Millimeters			
5	1314.277	1.3143			
10	1029.129	1.0291			
16	820.445	0.8204			
25	585.327	0.5853			
40	316.586	0.3166			
- 50	202.411	0.2024			
60	124.132	0.1241			
75	68.513	0.0685			
84	40.702	0.0407			
90	21.365	0.0214			

12.013

2.9229

0.9894

0.2564

Sorting

Skewness

95

Kurtosis

97.7

97.9

98.1

98.3

98.5

98.7

98.8

99.0

99.1

99.2

99.3

99.4

99.4

99.5

99.6

99.6

99.7

256.90

234.10

213.20

194.20

176.90

161.20

146.80

133.80

121.80

111.00

101.10

92.10

83.90

76.43

69.62

63.42

57.77

2.02

2.00

2.00

2.01

2.00

1.96

1.88

1.80

1.77

1.84

2.02

2.30

2.58

2.77

2.76

2.55

2.18

45.0

47.0

49.0

51.0

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56.9

58.7

60.4

62.3

64.3

66.6

69.2

71.9

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79.4

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6.16

5.61

5.11

4.66

4.24

3.86

3.52

3.21

2.92

2.66

2.42

2.21

2.01

1.83

1.67

1.52

2.167

0.068

0.563



### SUBCONTRACT ORDER

### Sierra Analytical Labs, Inc. Sierra Proiect #: 0912126

12-9-09

18

### SENDING LABORATORY:

Sierra Analytical Labs, Inc. 26052 Merit Circle, Suite 105 Laguna Hills, CA 92653 Phone: (949) 348-9389

Fax: (949) 348-9115

Laboratory Contact: Nick Forsyth

				_
	Tum Around	Nonral	24 Hour	
0.40	Time Requested:	48 Hour	72 Hour	
		4 Day	5 Day	

**RECEIVING LABORATORY:** 

Comments

PTS Laboratories 8100 Secura Way Santa Fe Springs, CA 90670 Phone: (562) 907-3607

Fax: (562) 907-3610

Analysis	Expires	Sampled:	Laboratory ID	Comments		noir on totales one of
Sample ID: S-B06-12-PAR-12-7-09 (0912126-11)	Liquid	12/07/09 05:55				v 10
Full Particle Sizing	06/05/10	)5:55			#	
Containers Supplied:  1L Amber (A)					el .	

		/	
Special Instructions:			pie Senis
	8 *	🖳 Properly Cabeled 🖫 Chil	led TEMP (3C)
		Appropriate Container Pres	ervatives - Verified By
744	12.9.09/14:10 Date/Time	Received By	Date/Time
Relinquished By		9	
Relinquished By	Date / Time	Received By	Date / Time
Relinguished By	Date / Time	Received By	Date / Time

### CHAIN OF CUSTODY RECORD

SIERRA ANALYTICAL

TEL: 949 • 348 • 9389

FAX: 949 • 348 • 9115 26052 Merit Circle • Suite 105 • Laguna Hills, CA • 92653

Client: MACTEC	MACTEC	Client Project ID:	Ą	Analyses Requested	
Client Address: 9177 SKY PARK COURT	KCOURT	FOOGIA COTIGNAD	(1		
		- SAN DIEGO AIRPORI	_		Geotracker EDD Info:
SAN DIEGO, CA 92123	A 92123	1			
			(		
		Tum Amand	ge.		Client LOGCODE
Client Tel. No.: (858) 278-3600	1600		(0)		
Client Fax. No.: (858) 278-5300	9300		эге		
Client Proj. Mgr.:		0	e di		Site Global ID
Client Sample 1D.	Sierra Date Time	Matrix Preservative Container Containers	as, as, ac, ac, ac, ac, ac, ac, ac, ac, ac, ac		Field Point Names /
C-B01-1- 12-7-09	61 127/09 0632 STG	STORMWATER NONE PLASTIC 2			Comments
C-B01-1- (1-7-0)	12/0/0632 800	STORMWATER NONE 40ml VOA 2	×		
C-B01-1-12-7-09	12/7/09/0633800	STORMWATER NONE CLR GLASS 1	×		
C-B01-1-12-7-09	0633	STORMWATER NONE AMBERGLASS 1	×		36
-Z-cng-5		TODAM NONE PLASTIC 2	×		
C-B03-2-	SIO	STORMWATER NONE 40ml VOA 2	×		
C-B98-2	DIS	STORWWATER WOON FOLK GLASS	×		
	CARTING ANTHROPY		+		
-2-cog -	100	STORMWATER NONE PROPERTY	X		
C-B05-3- 12-7-09	0 12/7/09 060/ STOIL	STORMWATER NONE PLASTIC 2	×		
C-B05-3-12-7-09	060 K	STORMWATER NONE 40ml VOA 2	×		
Sampler Signature A. J. Ander	Lied " States Steps	REG PRIVER	Tal	Total Number of Containers Submitted to	Samulo Dienacali
tho A	7. 7.	ks	Lab	Laboratory	Between to Close
Relinquistical By: A TA-Leaved	4 12/7/4 Received By 7-2 14-4	PO. L. T.	-	The delivery of samples and the signature un this chalu of custody form constitutes outloots along the state of the same of th	
	This : OO conput		1	Conditions, unless otherwise agreed upon in writing between SIERRA and CLIENT.  Samules descending to be honoratous by SIERBA will to accommand to CLIENT.	rup Disposa
Continuished By: To Kith				Total Number of Containers Received by	
-7.	Company:	OES1 and		Laboratory	
A Relinquished By:	j,	G4	FOR LABORATORY USE ONLY - Sample Receipt Coodifinasi	mple Receipt Coodifians  Chilled - Temp (°C)	
Cunyany:	Тпле: Селиралу:	Tine:	Sample Scals	Preservatives - Verified By	
Openial Instructions:			Property Labelled		
			8	<b>S</b>	

### CHAIN OF CUSTODY RECORD

SIERRA ANALYTICAL

FEL: 949 • 348 • 9389

26052 Merit Circle • Suite 105 • Laguna Hills, CA • 92653 FAX: 949 • 348 • 9115

6	Page: of
10 7 01	ate: 1 4/ / 2/
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9616160

Lab Work Order No.:

Geotrocker EDD Info: Client LOGCODE Field Point Nancs/ Site Global ID DISTRIBUTOR: White - To Accompany Samples, Yellow - Laboratory Copy, Plak - Field P. Return to Clien Sample Disposal: Lob Disposai \* ٥ ٥ Chilled - Temp (\*C) . \*E. Total Number of Containers Received by Total Number of Containers Submitted to Conditions, unless otherwise agreed upon in writing hetween SIERRA and CLIENT. . Samples deternified to be hazardous by SIERRA will be returned to CLIENT. authorization to perform the analyses specified ahove under SIERRA's Terms and The stellwery of samples and the signature on this chain of custody form constitutes Preservatives - Verified By \_\_ Storage Lucuilon Analyses Requested FOR LABORATORY USE ONLY - Sample Recelpt

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| Sample Recelp Laboratory Laboratory Appropriate Sample Container TPH (jet fuel, diesel, motor oil) × Properly Labelied oil and grease (O&G) Sample Seals ethylene glycol PH, TSS, Specific Conductance, (SC) Int(Al,Cu,Fe, Pb,Zn), diss(Cu,Zn), BOD, COD, ammonia, MBAS 2 Pocs. Containers 12.7.64 13:00 SS No. of 24 Hour 72 Hour S Day Mobile SAN DIEGO AIRPORT DRIVER O 60 X STORMWATER | NONE | CLR GLASS 060 V STORMWATER NONE AMBER GLASS ATEN NONE PLASTIC Container Innediate 48 Hour Normtal 1 4 Day Client Project 1D: Preservative NON NONE MIEK | VOIVE NONE STORMWATER INCINE ENDIVE ime Requested um Around Si CRRA STORMWATER STORES ! Scentra W. W. Matrix (1-19th Time Shipped Via: 12/7/04 Remotived By. Received By: TIPE : DO Company. 1709 10/11/21 AKCHENHOLD 12.7.0g 15,20 06,51 Date Sierra No. B 1 Amenda 9177 SKY PARK COURT SAN DIEGO, CA 92123 (858) 278-3600 (858) 278-5300 A-1 Arestala ANAMOA MACTEC MACTEC Client Sample 1D. SIGNARY 702 TriMA C-B05-3-12-7. Client Proj. Mgr.: Client Fax. No .: Client Address: Client Tel. No.: C-B05-3- / 2 Special Instructions: 3 Relinquiched Oy: CPECT 

Date: 12,7,09 Page: 3 of 7

SIERRA ANALYTICAL

TEL: 949 · 348 · 9389 FAX: 949 · 348 · 9115 26052 Merit Circle · Suite 105 · Laguna Hills, CA · 92653

	26052 Merit Circle · Suite 105 · Laguna Hills, CA · 92653	Laguna Hill	s, CA • 92653	i							Lab WB	Lab Wark Order No.:	00	9619180
Client: MACTEC				Client Project ID:	t ID:				•	nalvse	Analyses Requested	ited		
Client Address: 9177 SKY PARK COURT	court			NAC	SAN DIEGO AIBDODT	Tanac		-		.ac	_	_		
SAN DIEGO, CA 92123	1 92123					1201	Cu.Fe			 (le:			_	Gestracker EDD Info:
43							), IA)Joi Vi , Bind			od (n. esib.llo		2		
			25	Tum Amund	Immodiala	37 182	(SC)	(5)	n ,le	X,uO)ez rotom.	II	i .		Client LOGCODE
Client Tel. No.: (858) 278-3600	009			Time Requested:	all dis Haur		9UCB,		əsəi	db.(nZ jeuì fel		Е		
Client Fax. No.: (858) 278-5300	300						BOD,		ib ,li	,44,64, ) H9T ,		94		ű
Cllent Proj. Mgr.:					Normal	Mabile	oO office (nS,uO		euì i	.65, C8.6,				Site Global 1D
Client Sample ID.	Sierra D.	Date Time	ne Matrix	r Preservative	tive Container		aq2 ,32T ,H ))seib ,(nZ,d	nəlyhti ———— Dns li	əį) Hq	1, TSS, SC, te			·	Field Point Names /
C-B07-6- (2-7-04	03 [7]	180 %/	STORMWATER	TER NONE	<u>  =</u>	2	d ×		L	ure -idi				Comments
C-B07-6-[2-7-09]	7		у втопиматеп	TER NONE	E 40ml VOA			×		-				
17-71	70	1/0/ 08/5	STORMWATER	TER NONE	E CLR GLASS	S 1		×						
C-B07-6- 12-7-09	771	1/09/03/	STORMWATER	IER NONE	E AMBER GLASS	S .		(4	×					
B07.7		+	STORMWATER	ER NONE	F PI ASTIC	C	×			-				
D67-7-	HANGE STREET		Amanoro	EN NOWE	40mm vO	C		X						
-B07.7			COLO		1			:		+			+	
	4414-20482C		STORWANTER			**		K		-	ı			
EA7.7	主体が対対		0.00	NON	AIMBER GLASS	-	l	1	*				8	*1
-B08 44/C-B08-8-		-	STORMWATER	TACON X	J ONEL OF			$oxed{\parallel}$						
-B08-14/C-B08-8-12-7-09	Out 12/07/09	F280 Pol	7 STORMWATER		40ml VOA	2		×					-	
miles Separature A. J. A. B.	کامکٹ	Shipped Vin:	Sierr	4	DRIVER					N	- Jon	Total Number of Contriners Street	- 4	i
AMENDA ARC	2C KENHAW		III No.}						<u> </u>	Laboratory				Sample Disposal:
quidred By A - J. Arden	Led Dish	The 109 Received By: Toy Kith	「マガオ			127.09	The delive	rry of samplified to perfe	es and the si	gnature un t	ils chain af cu	The delivery of samples and the signiture in this chain of custody form consiltates analysation to neclining the majores specified into enrice SIFDDA's Towns and	2 3	
MACTEC	1. C. 1	Campany:	, SIBREM	<u> </u>	G88	13:00	Condition	s, unless of	rerwise agre	w ni naqu ba	riting betwee	Conditions, unless otherwise agreed upon in writing between SIGRRA and CLIENT.  Sample determined to he tusseeling to the state of the	ENT.	
quicinen By: 7' The Fath	VR-7-OS	Received By:	The second			स्मिति				Ital Nim	per of Con	Total Number of Containers Received Inc.		
SIEDRA	15:3°		Steared	4		(576)				Laboratory		ameis Necelye	<u> </u>	Olher
uished By:	Date	Received By:				Date:	FOR LABO	RATORY U	FOR LABORATORY USE ONLY - Sample Receipt	mple Receipt		Conditions Childed Term PC:	برو	
yany: seliti Instructions:	Time:	Company:				THE:	Sample Scals	ole Seals				Preservatives - Verified By		
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							A Apple	opriate Samp	le Container		Storage Location			

Date: 12, 7,09 Page: 4 af

Lab Work Order No.: 0913136

SIERRA ANALYTICAL

TEL: 949 • 348 • 9389

FAX: 949 • 348 • 9115 26052 Merit Circle • Suite 105 • Laguna Hills, CA • 92653

<u> </u>	Geotracker EDD Info:			Cilent LOGCODE			Site Globai 1D	Field Point Names / Comments		N			50				Outspezille tugemer min 6-000 E.		Sampic Disposal:	Return to Client	Lab Disposal *	Archive mas.	Other					
quested		<u> </u>					1									9			Total Number of Containers Submitted to		unin of custnety form cansiltutes ve under SIERRA's Terms and	Caaditions, unless otherwise agreed upon in writing between SIERRA and CLIENT.  Somples determined to be hazardans by SIERRA will be returned to CLIENT.	Total Number of Containers Received by		Conditionar	Preservatives - Verified By	Other	4570
Analyses Requested			ow	ʻlə:	səib	,lə	uì te	oil and JH (jg ph. Tss. sc cop. os.e			×	×		5	×	×	*		Total Number o	Laboratory	The delivery of samples and the alguature on this chain of custady form constitutes audinorization to perform the analyses specified obave under SIERRA's Terms and	Canditions, unless otherwise agreed upon in writing lietween SIERRA and CLIEN  Somples determined to be hazardaus by SIERRA will be returned to CLIENT.	Total Number	Laboratory	FOR LABORATORY USE ONLY - Sampik Receipt Conditions			
	F8,	AB,Cu,I	_		ļc	λοο	6 ə	eth. (nz.dg oh. Zn.), dige nethyler	×	×	•		×	×	_			×			The delivery of sn authorization to p	Canditions, unless			FOR LABORATOR	Sample Scale	7 Property Labelled	
	ORT			24 Hour	72 Hour	5 Day		No. of Containers	2	2	-	-	2	2	1	1		2			ba-1-21	82:52	40/471°	SS	Daic	Tince		
	SAN DIEGO AIRPORT	25		Immediate	☐ 48 Hour	O <sub>4 Day</sub>	Normal	Container Type	PLASTIC	40ml VOA	CLR GLASS	AMBER GLASS	PLASTIC	40ml VOA	CLR GLASS	AMBER GLASS	5 GALL GLASS	40ml VOA	ORIVER									
ient Project ID:	SAN DIE			ì	Time Requested:		נם ו	Preservative	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	A OR	2	:							
Š					Time	!		Matrix	STORMWATER	STORMWATER	STORMWATER	STORMWATER	STORMWATER	STORMWATER	STORMWATER	STORMWATER	STORMWATER	12/07/09 0640 STORIMWATER NONE	SIERK		T. C.	STELLER	K.	Segue				
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	K COURT	A 92123			0091	300		Slerra No.	20				90			<b>\</b>	A CONTRACTOR	န	797	ARCHENHOLD	و							
Client: MACTEC	Client Address: 9177 SKY PARK COURT	SAN DIEGO, CA 92123			Client Tel. No.: (858) 278-3600	Client Fax. No.: (858) 278-5300	1 ::	Client Sample 1D.	C-B12-9- 12-7-09	C-B12-9-12-7-09	C-B12-9-12-7-09	C-B12-9-12-7-09	C-B09-10-12-07-09	C-B09-10-12-07-09	C-B09-10-12-07-09	C-B09-10-12-07-04	9-B08-1-	S-B08-1- (2-07-09	Supple Signature: A. J. A. A.	AMANDA	19	Ž		SIEDRA	4 Relinquiched By:	.kirshi	Special Instructions:	

SIERRA ANALYTICAL

TEL: 949 • 348 • 9389 FAX: 949 • 348 • 9115 26052 Merit Circle • Suite 105 • Laguna Hills, CA • 92653

FAX: 949 • 348 • 9115 26052 Merit Circle • Suite 105 • Laguna Hills, CA • 92653	148 • 9115 Circle • Suite	105 • Lagur	ta Hills, C	A • 92653								Lab Work Order No.:		9618180	0
Client: MACTEC			,-	l	Client Project ID:	Ö				¥	nalyses	Analyses Requested			$\overline{}$
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SAN DIEGO, CA 92123	CA 92123				5		5	8 (uz							
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Client Fax. No.: (858) 278-5300	-5300						D 5 Day	Э,иЭ,		- n a	:3				
Client Proj. Mgr.:								.tA);al ,:		710			7.	Site Global 1D	
Client Sample ID.	Sierra Nó.	Date	Time	Matrix	Preservati	Containe	No. of Containers	1 pH, TSS, SC COD, O&G	ethylen Particle	Particle		15		Field Paint Names /	
S-868-2		<b>添</b> 若		STORMWATER	ER NONE	5 GALL GLASS		×	1					Commignis Commendation was 8-600 F	T :
S-B08-2-(2-7-09	90	12/0/109	0590	2 STORMWATER	ER NONE	40ml VOA	2		×						_
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Date: 12,7,09 Page: 6

Lab Work Order No.: 09 14-136

SIERRA ANALYTICAL

TEL: 949 • 348 • 9389 FAX: 949 • 348 • 9115 26052 Merit Circle • Suite 105 • Laguna Hills, CA • 92653

::	Geotracker EDD Info:	i de	Cilent LOGCODE		Site Global 1D	39	Field Point Names / Comments						¥ 8 8	3				Sample Disposal:	Return to Client	Lnb Disposal *	Archive mus.	Other	*				
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0913136

Lab Work Order No.:

SIERRA ANALYTICAL

TEL: 949 • 348 • 9389
FAX: 949 • 348 • 9115
26052 Merit Circle • Suite 105 • Laguna Hills, CA • 92653

Client: MACTEC				Client Project 1D:	D:				An	alyses F	Analyses Requested			
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Company: MACTEC	Tine: 13:00	Company:	, gremen	K,	Œ	42,00	Conditions,	unless others describe	rwisc ogree i to be haza	l upon In wri	Conditions, unless otherwise opreed upon to writing between SIERRA and CLJEN  Samples determined to be hazardous by SIERRA will be returned to CLJENT,	Conditions, unless otherwise ogreed upon in writing between SIERRA and CLIENT.  Snaples determined to be hazardous by SIERRA will be returned to CLIENT.	0	Archive 1805.
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18 December 2009

Amanda Archenhold MACTEC Engineering & Consulting 9177 Sky Park Court Suite A San Diego, CA 92123

RE:San Diego Airport

Work Order No.:

0912155

Attached are the results of the analyses for samples received by the laboratory on 12/08/09 15:40.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report. If you require any additional retaining time, please advise us.

Sincerely,

Kukard K. Forsyth

Laboratory Director

Sierra Analytical Labs, Inc. is certified by the California Department of Health Services (DOHS), Environmental Laboratory Accredidation Program (ELAP) No. 2320.



Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/18/09 13:27

### ANALYTICAL REPORT FOR SAMPLES

Sample 1D	Laboratory ID	Matrix	Date Sampled	Date Received
C-B07-7	0912155-01	Liquid	12/07/09 12:05	12/08/09 15:40
S-B08-14/C-B08-8	0912155-02	Liquid	12/07/09 16:33	12/08/09 15:40
Composite S-B08-1/S-B08-2	0912155-03	Liquid	12/08/09 00:00	12/08/09 15:40
Composite S-B09-3/S-B11-4	0912155-04	Liquid	12/08/09 00:00	12/08/09 15:40
S-B12-13	0912155-05	Liquid	12/07/09 16:44	12/08/09 15:40
S-B06-12	0912155-06	Liquid	12/07/09 17:00	12/08/09 15:40
S-B12-13 DUP	0912155-07	Liquid	12/07/09 16:44	12/08/09 15:40
S-B08-1 BL	0912155-08	Liquid	12/07/09 17:45	12/08/09 15:40
C-B05-4	0912155-09	Liquid	12/07/09 11:38	12/08/09 15:40
C-B06-5	0912155-10	Liquid	12/07/09 12:24	12/08/09 15:40
C-B03-2	0912155-11	Liquid	12/07/09 11:51	12/08/09 15:40

### **CASE NARRATIVE**

SAMPLE RECEIPT: Samples were received intact, at 4°C, and accompanied by chain of custody documentation. PRESERVATION: Samples requiring preservation were verified prior to sample preparation and analysis. All holding times were met, unless otherwises noted in the report with data qualifiers. All quality objective criteria were met, except as noted in the report with data qualifiers.



Project: San Diego Airport

Project Number: [none]

Reported: 12/18/09 13:27

Project Manager: Amanda Archenhold

### Conventional Chemistry Parameters by APHA/EPA Methods Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
C-B07-7 (0912155-01) Liquid Sampled: 1	2/07/09 12:05	Received	1: 12/08/09	15:40				···	
Ammonia as N	2.50	0.100	mg/L	1	B9L1523	12/08/09	12/08/09 16:30 5	SM 4500-NH3	
Biochemical Oxygen Demand	78.0	2.00	"	**	**	"	12/13/09 16:30	EPA 405.1	
Chemical Oxygen Demand	280	0.100	11	**	"	"	12/08/09 16:30	EPA 410.4	
Specific Conductance (EC)	380	0.100	μmhos/cm	**	**	"	**	EPA 120.1	
Hexane Extractable Material (HEM)	2.80	2.00	mg/L	**	**	"	**	EPA 1664	
Methylene Blue Active Substances	0.310	0.0500	"	**	"	"	**	EPA 425.1	
рН	6.68	0.100	pH Units	**	"	**	**	EPA 150.1	
Total Suspended Solids	42.0	1.00	mg/L	**	**	"	**	EPA 160.2	
S-B08-14/C-B08-8 (0912155-02) Liquid S	Sampled: 12/07	/09 16:33	Received	12/08/09	15:40				
Ammonia as N	0.900	0.100	mg/L	1	B9L1523	12/08/09	12/08/09 16:30 5	SM 4500-NH3	
Biochemical Oxygen Demand	ND	2.00	*	**	"	"	12/13/09 16:30	EPA 405.1	
Chemical Oxygen Demand	5.00	0.100	"	**	"	"	12/08/09 16:30	EPA 410.4	
Specific Conductance (EC)	97.3	0.100	μmhos/cm	**	**	"	#	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"	"	"	**	EPA 1664	
Methylene Blue Active Substances	ND	0.0500	"	**	**	"	"	EPA 425.1	
рН	7.41	0.100	pH Units	**	""	"	11	EPA 150.1	
Total Suspended Solids	2.00	1.00	mg/L	**	**	**	**	EPA 160.2	
Composite S-B08-1/S-B08-2 (0912155-03)	Liquid Samp	led: 12/08	8/09 00:00	Received	: 12/08/09	15:40			
Biochemical Oxygen Demand	13.8	2.00	mg/L	1	B9L1523	12/08/09	12/13/09 16:30	EPA 405.1	
Chemical Oxygen Demand	52.0	0.100	"	**	**	"	12/08/09 16:30	EPA 410.4	
Specific Conductance (EC)	98.4	0.100	μmhos/cm	**	"	"	"	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"	**	"	"	EPA 1664	
рН	7.08	0.100	pH Units	"	**	"	"	EPA 150.1	
Total Suspended Solids	17.0	1.00	mg/L	**	**	"	"	EPA 160.2	



San Diego CA, 92123

MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Reported: 12/18/09 13:27

Project Manager: Amanda Archenhold

### Conventional Chemistry Parameters by APHA/EPA Methods

### Sierra Analytical Labs, Inc.

							***		
Analyte	Result	Reporting Limit		Dilution	Batch	Prepared	Analyzed	Method	Notes
Composite S-B09-3/S-B11-4 (0912155	-04) Liquid Sa	ampled: 12/08	3/09 00:00	Received	: 12/08/09	15:40			
Biochemical Oxygen Demand	9.20	2.00	mg/L	1	B9L1523	12/08/09	12/13/09 16:30	EPA 405.1	
Chemical Oxygen Demand	30.0	0.100	**	"	"	"	12/08/09 16:30	EPA 410.4	
Specific Conductance (EC)	72.8	0.100	μmhos/cm		tt	"	••	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	. п	**	"	"	EPA 1664	
pH	7.04	0.100	pH Units	"	"	"	"	EPA 150.1	
Total Suspended Solids	11.0	1.00	mg/L	"	"	"	"	EPA 160.2	
S-B12-13 (0912155-05) Liquid Sam	pled: 12/07/09 1	6:44 Receive	ed: 12/08/0	9 15:40					
Biochemical Oxygen Demand	ND	2.00	mg/L	1	B9L1523	12/08/09	12/13/09 16:30	EPA 405.1	
Chemical Oxygen Demand	2.00	0.100	**	"	n	"	12/08/09 16:30	EPA 410.4	
Specific Conductance (EC)	78.5	0.100	μmhos/cm	"	**	"	H	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"	**	17	**	EPA 1664	
рН	7.17	0.100	pH Units	"	**	**	••	EPA 150.1	
Total Suspended Solids	1.00	1.00	mg/L	"	**	#	••	EPA 160.2	
S-B06-12 (0912155-06) Liquid Sam	pled: 12/07/09 1	7:00 Receiv	ed: 12/08/0	9 15:40		· &			
Biochemical Oxygen Demand	28.4	2.00	mg/L	1	B9L1523	12/08/09	12/13/09 16:30	EPA 405.1	
Chemical Oxygen Demand	102	0.100	**	**	"	**	12/08/09 16:30	EPA 410.4	
Specific Conductance (EC)	102	0.100	μmhos/cm	ı <b>"</b>	"	"	•	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	**	"	11	**	EPA 1664	
pH	6.97	0.100	pH Units	**	**	"	"	EPA 150.1	
Total Suspended Solids	34.0	1.00	mg/L	"	"	**	"	EPA 160.2	
S-B12-13 DUP (0912155-07) Liquid	Sampled: 12/0	7/09 16:44 F	Received: 1	2/08/09 15	5:40				
Biochemical Oxygen Demand	ND	2.00	mg/L	1	B9L1523	12/08/09	12/13/09 16:30		
Chemical Oxygen Demand	3.00	0.100	"	**	"	"	12/08/09 16:30	EPA 410.4	
Specific Conductance (EC)	77.6	0.100	μmhos/cm	1 "	**	**	"	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	11	"		"	EPA 1664	
pH	7.15	0.100	pH Units	"	11	n	"	EPA 150.1	
Total Suspended Solids	1.00	1.00	mg/L	"	"	••	"	EPA 160.2	



Project: San Diego Airport

Project Number: [none]

Reported: 12/18/09 13:27

Project Manager: Amanda Archenhold

### Conventional Chemistry Parameters by APHA/EPA Methods Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit		Dilution	Batch	Prepared	Analyzed	Method	Notes
L	Sampled: 12/07/09 17:	45 Recei	ived: 12/08/	09 15:40		-		<del></del>	
Biochemical Oxygen Demand	ND	2.00	mg/L	1	B9L1523	12/08/09	12/13/09 16:30	EPA 405.1	
Chemical Oxygen Demand	1.50	0.100	11	"	**		12/08/09 16:30	EPA 410.4	
Specific Conductance (EC)	1.07	0.100	μmhos/cm	**	"	"	"	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	**	**		n	EPA 1664	
рН	6.56	0.100	pH Units	**	If	*	"	EPA 150.1	
Total Suspended Solids	ND	1.00	mg/L	"	**	**	"	EPA 160.2	
C-B05-4 (0912155-09) Liquid San	npled: 12/07/09 11:38	Received	1: 12/08/09	15:40					
Ammonia as N	5.60	0.100	mg/L	1	B9L1523	12/08/09	12/08/09 16:30 5	SM 4500-NH3	
Biochemical Oxygen Demand	84.0	2.00	"	"		"	12/13/09 16:30	EPA 405.1	
Chemical Oxygen Demand	285	0.100	"	"	**	"	12/08/09 16:30	EPA 410.4	
Specific Conductance (EC)	370	0.100	μmhos/cm	**	**	"	"	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"		**	**	EPA 1664	
Methylene Blue Active Substances	0.240	0.0500	11	**	"	"	**	EPA 425.1	
pH	6.35	0.100	pH Units	"	**	Ħ	n .	EPA 150.1	
<b>Total Suspended Solids</b>	25.0	1.00	mg/L	"	"	**	**	EPA 160.2	
C-B06-5 (0912155-10) Liquid Sar	mpled: 12/07/09 12:24	Received	d: 12/08/09	15:40					
Ammonia as N	6.70	0.100	mg/L	1	B9L1523	12/08/09	12/08/09 16:30 5	SM 4500-NH3	
Biochemical Oxygen Demand	89.0	2.00	"	"	"	"	12/13/09 16:30	EPA 405.1	
Chemical Oxygen Demand	302	0.100	11	**	"	**	12/08/09 16:30	EPA 410.4	
Specific Conductance (EC)	583	0.100	μmhos/cm	**	"	"	**	EPA 120.1	
Hexane Extractable Material (HEM	M) 2.20	2.00	mg/L	**	"	**	Ħ	EPA 1664	
Methylene Blue Active Substances	0.210	0.0500	"	"	*	**	Ħ	EPA 425.1	
pH	6.54	0.100	pH Units	"	er	**	**	EPA 150.1	
Total Suspended Solids	18.0	1.00	mg/L	"	**	**	**	EPA 160.2	



San Diego CA, 92123

MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Reported: 12/18/09 13:27

Project Manager: Amanda Archenhold

### Conventional Chemistry Parameters by APHA/EPA Methods

### Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B03-2 (0912155-11) Liquid	Sampled: 12/07/09 11:51	Received	1: 12/08/09	15:40	<u> </u>				
Ammonia as N	1.95	0.100	mg/L	1	B9L1523	12/08/09	12/08/09 16:30	SM 4500-NH3	
Biochemical Oxygen Demand	4.60	2.00	**	"	"	"	12/13/09 16:30	EPA 405.1	
Chemical Oxygen Demand	14.0	0.100		"	"	"	12/08/09 16:30	EPA 410.4	
Specific Conductance (EC)	103	0.100	μmhos/cm	"	"	"	**	EPA 120.1	
Hexane Extractable Material (HE	M) ND	2.00	mg/L	**	"	"	11	EPA 1664	
Methylene Blue Active Substance		0.0500	"	"	"	"	"	EPA 425.1	
рН	7.34	0.100	pH Units	**	**	"	"	EPA 150.1	
Total Suspended Solids	2.00	1.00	mg/L	"	"	"	"	EPA 160.2	



Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/18/09 13:27

### Metals by EPA 200 Series Methods Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L C-B07-7 (0912155-01) Liquid Sam <sub>l</sub>	pled: 12/07/09 12:05	Received	: 12/08/09	15:40			· · · · · · · · · · · · · · · · · · ·		
Aluminum	730	50	μg/L	2	B9L1410	12/14/09	12/17/09 13:02	EPA 200.8	
Copper	360	2.0	"	10 H	**	"	12/15/09 13:14	n	
Iron	0.79	0.050	mg/L	"	"	"	"	n	
Lead	6.8	2.0	μg/L	"	"	"	"	Ħ	
Zinc	1200	2.0	"	"	"	"	**	**	
S-B08-14/C-B08-8 (0912155-02) Liqu	uid Sampled: 12/07	/09 16:33	Received	l: 12/08/09	15:40				
Aluminum	56	50	μg/L	2	B9L1410	12/14/09	12/17/09 13:03	EPA 200.8	
Copper	23	2.0	Ħ	"	**	"	12/15/09 13:18	"	
Iron	ND	0.050	mg/L	"	11	"		n	
Lead	ND	2.0	μg/L	"	**	"	"	n	
Zinc	59	2.0	"	"	" =	"	**	n	
Composite S-B08-1/S-B08-2 (091215	5-03) Liquid Samp	led: 12/08	/09 00:00	Received	l: 12/08/09	15:40			
Composite S-B08-1/S-B08-2 (091215: Aluminum	5-03) Liquid Samp 410	led: 12/08	/ <b>09 00:00</b> μg/L	Received 2	B9L1410	<b>15:40</b> 12/14/09	12/17/09 13:04	EPA 200.8	
						_	12/17/09 13:04 12/15/09 13:22	EPA 200.8	
Aluminum	410	50	μg/L	2	B9L1410	12/14/09			
Aluminum Copper	410 67	50 2.0	μg/L "	2	B9L1410	12/14/09	12/15/09 13:22	11	
Aluminum Copper Iron	410 67 0.63	50 2.0 0.050	μg/L " mg/L	2	B9L1410	12/14/09	12/15/09 13:22	11	
Aluminum Copper Iron Lead	410 67 0.63 3.0 260	50 2.0 0.050 2.0 2.0	μg/L " mg/L μg/L "	2 "	B9L1410 " "	12/14/09	12/15/09 13:22	11 11 11 🥛	
Aluminum Copper Iron Lead Zinc	410 67 0.63 3.0 260	50 2.0 0.050 2.0 2.0	μg/L " mg/L μg/L "	2 "	B9L1410 " " "	12/14/09	12/15/09 13:22	11 11 11 🥛	
Aluminum Copper Iron Lead Zinc Composite S-B09-3/S-B11-4 (091215)	410 67 0.63 3.0 260 5-04) Liquid Samp	50 2.0 0.050 2.0 2.0 led: 12/08	μg/L " mg/L μg/L "	2 " " " Received	B9L1410 " " " " 1: 12/08/09	12/14/09 " " " " 15:40	12/15/09 13:22	" " " " " " " " " " " " " " " " " " " "	-
Aluminum Copper Iron Lead Zinc Composite S-B09-3/S-B11-4 (091215)	410 67 0.63 3.0 260 5-04) Liquid Samp 970	50 2.0 0.050 2.0 2.0 2.0 led: 12/08	μg/L " mg/L μg/L " '09 00:00	2 " " " Received	B9L1410 " " " " !: 12/08/09 B9L1410	12/14/09 " " " 15:40 12/14/09	12/15/09 13:22 " " " 12/17/09 13:06	"" " " EPA 200.8	
Aluminum Copper Iron Lead Zinc Composite S-B09-3/S-B11-4 (091215) Aluminum Copper	410 67 0.63 3.0 260 5-04) Liquid Samp 970 25	50 2.0 0.050 2.0 2.0 2.0 led: 12/08 50 2.0	μg/L " mg/L μg/L " /09 00:00 μg/L "	2 " " Received	B9L1410 ". ". "!: 12/08/09 B9L1410	12/14/09 " " " 15:40 12/14/09 "	12/15/09 13:22 " " " 12/17/09 13:06 12/15/09 13:33	EPA 200.8	<u></u>



Project: San Diego Airport

Project Number: [none]

Reported: 12/18/09 13:27

Project Manager: Amanda Archenhold

### Metals by EPA 200 Series Methods Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-B12-13 (0912155-05) Liquid	Sampled: 12/07/09 16:44	Received	l: 12/08/0	9 15:40		_			
Aluminum	62	50	μg/L	2	B9L1410	12/14/09	12/17/09 13:07	EPA 200.8	
Copper	18	2.0	11	,,	"	"	12/15/09 13:53	**	
Iron	0.084	0.050	mg/L	"	- "	"	"	**	
Lead	ND	2.0	μg/L	11	**	**	11	**	
Zinc	40	2.0	"	"	**	"	11	"	
S-B06-12 (0912155-06) Liquid	Sampled: 12/07/09 17:00	Received	1: 12/08/0	9 15:40					
Aluminum	1300	50	μg/L	2	B9L1410	12/14/09	12/17/09 13:09	EPA 200.8	
Copper	79	2.0	"	11	T #	"	12/15/09 13:57	"	
Iron	1.9	0.050	mg/L	"	**	"	**	**	
Lead	8.8	2.0	μg/L	11	"	"	"	**	
Zinc	320	2.0	n	"	**	"	"	"	
S-B12-13 DUP (0912155-07) Li	quid Sampled: 12/07/09	16:44 Re	ceived: 1	2/08/09 15	:40		<u>-</u>		
Aluminum	74	50	μg/L	2	B9L1410	12/14/09	12/17/09 13:10	EPA 200.8	
Copper	30	2.0	**	"	"	. <b>"</b>	12/15/09 14:01	**	
Iron	0.13	0.050	mg/L	"	**	"	"	**	
Lead	ND	2.0	μg/L	"	Ħ	"	"	**	
Zinc	47	2.0	"	"	**	"	"	"	
S-B08-1 BL (0912155-08) Liqu	id Sampled: 12/07/09 17:	45 Recei	ived: 12/0	8/09 15:40	)				
Aluminum	ND	50	μg/L	2	B9L1410	12/14/09	12/17/09 13:10		
Copper	ND	2.0		"	**	**	12/15/09 14:05	; "	
Iron	ND	0.050	mg/L	**	**	11	"	"	
Lead	ND	2.0	μg/L	Ü	***	11	#	n	
Zinc	ND	2.0	11	"	"	**	**	"	



Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/18/09 13:27

### Metals by EPA 200 Series Methods Sierra Analytical Labs, Inc.

C-B05-4 (0912155-09) Liquid   Sampled: 12/07/09 11:38   Received: 12/08/09 15:40   Received: 12/08/0	Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Copper         910         2.0         " " " " " " " " 12/15/09 14:08         " " " " 12/15/09 14:08         " " " " " " " " " " " " " " " " " " "	C-B05-4 (0912155-09) Liquid	Sampled: 12/07/09 11:38	Received	: 12/08/09	9 15:40	16				
1.2   0.050   mg/L	Aluminum	870	50	μg/L	2	B9L1410	12/14/09	12/17/09 13:11	EPA 200.8	
Lead Zinc         6.6 660         2.0 μg/L " " " " " " " " " " " " " " " " " " "	Copper	910	2.0	**	"	"	**	12/15/09 14:08	**	
Zinc         660         2.0         "         12/15/09 13:12         EPA 200.8         Copper         Topac         Dotted         Topac         To	Iron	1.2	0.050	mg/L	11	"	**	**	**	
C-B06-5 (0912155-10) Liquid Sampled: 12/07/09 12:24 Received: 12/08/09 15:40  Aluminum 770 50 μg/L 2 B9L1410 12/14/09 12/17/09 13:12 EPA 200.8  Copper 770 2.0 " " " 12/15/09 14:12 " 12/15/09 14:12 " 12/16/09 12/17/09 13:12 EPA 200.8  Lead 4.4 2.0 μg/L " " " " " " " " " " " " " " " " " " "	Lead	6.6	2.0	μg/L	"	**	**	**	**	
Aluminum         770         50 μg/L         2 B9L1410         12/14/09 12/17/09 13:12         EPA 200.8           Copper         770         2.0 " " " " 12/15/09 14:12         " 12/15/09 14:12         " " " " " " " " " " " " " " " " " " "	Zinc	660	2.0	< n	"	"	"	"	"	
Copper         770         2.0         "         "         "         12/15/09 14:12         "           Iron         0.89         0.050 mg/L         "	C-B06-5 (0912155-10) Liquid	Sampled: 12/07/09 12:24	Received	: 12/08/09	9 15:40					
Iron   0.89   0.050   mg/L   "   "   "   "   "   "   "   "   "	Aluminum	770	50	μg/L	2	B9L1410	12/14/09	12/17/09 13:12	EPA 200.8	
Lead       4.4       2.0 μg/L       μg/L       " " " " " " " " " " " " " " " " " " "	Copper	770	2.0	11	**	**	11	12/15/09 14:12		
Zinc         620         2.0         "	Iron	0.89	0.050	mg/L	11	**	"	"		
C-B03-2 (0912155-11) Liquid         Sampled: 12/07/09 11:51         Received: 12/08/09 15:40           Aluminum         320         50         μg/L         2         B9L1410         12/14/09         12/17/09 13:12         EPA 200.8           Copper         150         2.0         "         "         "         12/15/09 14:16         "           Iron         0.43         0.050         mg/L         "         "         "         "         "           Lead         11         2.0         μg/L         "         "         "         "         "	Lead	4.4	2.0	μg/L	11	**	"	"	"	
Aluminum         320         50         μg/L         2         B9L1410         12/14/09         12/17/09 13:12         EPA 200.8           Copper         150         2.0         "         "         "         12/15/09 14:16         "           Iron         0.43         0.050         mg/L         "         "         "         "         "           Lead         11         2.0         μg/L         "         "         "         "         "         "	Zinc	620	2.0	***	11	#	"	"	"	
Copper       150       2.0       "       "       "       " 12/15/09 14:16       "         Iron       0.43       0.050       mg/L       "       "       "       "       "       "         Lead       11       2.0       µg/L       "       "       "       "       "	C-B03-2 (0912155-11) Liquid	Sampled: 12/07/09 11:51	Received	: 12/08/09	9 15:40					
Iron     0.43     0.050     mg/L     "     "     "       Lead     11     2.0     µg/L     "     "     "     "	Aluminum	320	50	μg/L	2	B9L1410	12/14/09	12/17/09 13:12	EPA 200.8	
Lead 11 2.0 µg/L " " " "	Copper	150	2.0	**	n	"	**	12/15/09 14:16	"	
, <u>.</u>	Iron	0.43	0.050	mg/L	Ħ	81	"	"	"	
	Lead	11	2.0	μg/L	"	"	"	"	"	
	Zinc	200	2.0		"	"	"	"	"	



Project: San Diego Airport

Project Number: [none]

Reported: 12/18/09 13:27 Project Manager: Amanda Archenhold

### Metals (Dissolved) by EPA 200 Series Methods Sierra Analytical Labs, Inc.

Analyte	Resu	Reporting lt Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
C-B07-7 (0912155-01) Liquid	Sampled: 12/07/09	12:05 Received	1: 12/08/09	15:40					
Copper	31	-	μg/L	2	B9L1413	12/14/09	12/15/09 17:57	EPA 200.8	
Zinc	110	0 2.0	"	**	"				
S-B08-14/C-B08-8 (0912155-02	2) Liquid Sampled	: 12/07/09 16:33	Received	1: 12/08/09	15:40				
Copper	_ 2	2.0	μg/L	2	B9L1413	12/14/09	12/15/09 18:01	EPA 200.8	
Zinc	5	55 2.0	"	"	"	"	**	"	
Composite S-B08-1/S-B08-2 (0	912155-03) Liquid	Sampled: 12/08	3/09 00:00	Received	1: 12/08/09	15:40			
Copper		50 2.0	μg/L	2	B9L1413	12/14/09	12/15/09 18:05	EPA 200.8	
Zinc	21	2.0	"	**	"	n	"	"	
Composite S-B09-3/S-B11-4 (0	)912155-04) Liquid	Sampled: 12/08	8/09 00:00	Received	l: 12/08/09	15:40			
Copper		16 2.0	μg/L	2	B9L1413	12/14/09	12/15/09 18:16	EPA 200.8	
Zinc	•	<b>60</b> 2.0	9 "	"	"	"	"	"	
S-B12-13 (0912155-05) Liquid	Sampled: 12/07/0	9 16:44 Receive	ed: 12/08/0	09 15:40					
Copper		15 2.0	μg/L	2	B9L1413	12/14/09	12/15/09 18:36	EPA 200.8	
Zinc	;	37 2.0	"	"	**	"	11	"	
S-B06-12 (0912155-06) Liquid	i Sampled: 12/07/0	9 17:00 Receive	ed: 12/08/0	09 15:40					
Copper		44 2.0	μg/L	2	B9L1413	12/14/09	12/15/09 18:40	EPA 200.8	
Zinc	. 1	80 2.0	"	"	"	**	"	"	
S-B12-13 DUP (0912155-07) I	Liquid Sampled: 12	2/07/09 16:44 R	eceived: 1	2/08/09 15	:40		"		
Copper		14 2.0	μg/L	2	B9L1413	12/14/09			
Zinc		40 2.0	"	**	"	"	"	"	



San Diego CA, 92123

MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Reported: 12/18/09 13:27

Project Manager: Amanda Archenhold

### Metals (Dissolved) by EPA 200 Series Methods

### Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B05-4 (0912155-09) Liquid	Sampled: 12/07/09 11:38	Received:	12/08/09	9 15:40					
Copper	850	2.0	μg/L	2	B9L1413	12/14/09	12/15/09 18:47	EPA 200.8	
Zinc	620	2.0	**	11	"	**	11	"	
C-B06-5 (0912155-10) Liquid	Sampled: 12/07/09 12:24	Received:	12/08/0	9 15:40			8		
Copper	700	2.0	μg/L	2	B9L1413	12/14/09	12/15/09 18:51	EPA 200.8	
Zinc	560	2.0	**	11	**	"	"	"	
C-B03-2 (0912155-11) Liquid	Sampled: 12/07/09 11:51	Received	12/08/0	9 15:40					
Copper	130	2.0	μg/L	2	B9L1413	12/14/09	12/15/09 18:55	EPA 200.8	
Zinc	190	2.0	11	"	"	"	<b>"</b>	11	



MACTEC Engineering & Consulting

9177 Sky Park Court Suite A San Diego CA, 92123 Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/18/09 13:27

### Total Petroleum Hydrocarbons (TPH) by GC/FID

### Sierra Analytical Labs, Inc.

		Reporting							
Analyte	Result	Limit	Units D	ilution	Batch	Prepared	Analyzed	Method	Notes
C-B07-7 (0912155-01) Liquid	Sampled: 12/07/09 12:05	Received	: 12/08/09 15:	40					
Diesel Range Organics (C10-C2-	4) ND	0.050	mg/L	1	B9L1407	12/11/09	12/11/09 16:5	4 EPA 8015B	
Surrogate: o-Terphenyl		169 %	60-175		"	"	1/	"	
Jet-A	1.2	0.050	"	"	11	"	"	**	D-49
Surrogate: o-Terphenyl		169 %	60-175		"	"	"	"	
Oil Range Organics (C22-C36)	1.4	0.050	"	"	**	**	**	11	D-41
Surrogate: o-Terphenyl		169 %	60-175		"	n	1/	"	
S-B08-14/C-B08-8 (0912155-02	) Liquid Sampled: 12/0	7/09 16:33	Received: 12	2/08/09	15:40				
Diesel Range Organics (C10-C2	4) ND	0.050	mg/L	1	B9L1407	12/11/09	12/11/09 16:3	2 EPA 8015B	5/6
Surrogate: o-Terphenyl		92.5 %	60-175		"	n	"	"	
Jet-A	0.22	0.050	"	"	"	**	"	"	D-49
Surrogate: o-Terphenyl		92.5 %	60-175		"	"	11	"	
Oil Range Organics (C22-C36)	0.17	0.050		"	11	"	**	11	D-41
Surrogate: o-Terphenyl		92.5 %	60-175		"	"	"	*	
C-B05-4 (0912155-09) Liquid	Sampled: 12/07/09 11:38	Received	: 12/08/09 15:	:40					
Diesel Range Organics (C10-C2	4) ND	0.050	mg/L	1	B9L1407	12/11/09	12/11/09 17:0	5 EPA 8015B	
Surrogate: o-Terphenyl		234 %	60-175		17	"	"	"	S-07
Jet-A	1.5	0.050	"	"	"	"	**	11	D-49
Surrogate: o-Terphenyl		234 %	60-175		"	"	#	n	S-07
Oil Range Organics (C22-C36)	2.3	0.050	"	"		"	"	"	D-41
Surrogate: o-Terphenyl		234 %	60-175		**	"	"	"	S-07
C-B06-5 (0912155-10) Liquid	Sampled: 12/07/09 12:24	Received	: 12/08/09 15:	:40					
Diesel Range Organics (C10-C2	(4) ND	0.050	mg/L	i	B9L1407	12/11/09	12/11/09 16:4	3 EPA 8015B	
Surrogate: o-Terphenyl		208 %	60-175		"	"	"	"	S-07
Jet-A	1.2	0.050	"	"	11	"	"	11	D-49
Surrogate: o-Terphenyl		208 %	60-175		"	"	"	"	S-07
Oil Range Organics (C22-C36	) 1.4	0.050	"	"	"	"	"	"	D-41
Surrogate: o-Terphenyl		208 %	60-175		11	"	17	"	S-07



Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/18/09 13:27

### Total Petroleum Hydrocarbons (TPH) by GC/FID

### Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B03-2 (0912155-11) Liquid S	Sampled: 12/07/09 11:51	Received:	12/08/09 15	5:40					_
Diesel Range Organics (C10-C24)	) ND	0.050	mg/L	1	B9L1407	12/11/09	12/11/09 16:21	EPA 8015B	-
Surrogate: o-Terphenyl		87.7%	60-17.	5	"	"	n	"	
Jet-A	ND	0.050	"	"	"	n	"	"	
Surrogate: o-Terphenyl		87.7 %	60-17.	5	"	"	"	"	
Oil Range Organics (C22-C36)	ND	0.050	**	**	"	"	**	11	
Surrogate: o-Terphenyl	######################################	87.7 %	60-17.	5	"	"	"	"	



Lead

Zinc

MACTEC Engineering & Consulting 9177 Sky Park Court Suite A San Diego CA, 92123 Project: San Diego Airport

Project Number: [none]

Reported: 12/18/09 13:27

Project Manager: Amanda Archenhold

### Metals by EPA 200 Series Methods - Quality Control Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
		2				,,,,,,,				
Batch B9L1410 - EPA 200 Series								88		
Blank (B9L1410-BLK1)				Prepared:	12/14/09	Analyzed:	12/17/09			
Aluminum	ND	50	μg/L							
Copper	ND	2.0	"							
ron	ND	0.050	mg/L							
Lead	ND	2.0	$\mu g/L$							
Zinc	ND	2.0	**							
Blank (B9L1410-BLK2)				Prepared	: 12/14/09	Analyzed:	12/17/09			
Aluminum	ND	50	μg/L							
Copper	ND	2.0	**							
ron	ND	0.050	mg/L							
Lead	ND	2.0	μg/L							
Zinc	ND	2.0	"							
LCS (B9L1410-BS1)				Prepared	: 12/14/09	Analyzed	: 12/17/09			
Aluminum	116	50	μg/L	100		116	85-120			
Copper	96.0	2.0	**	100		96.0	85-115			
Iron	1.05	0.050	mg/L	1.00		105	85-115			
Lead	108	2.0	$\mu g/L$	100		108	85-115			
Zinc	103	2.0	"	100		103	85-115			
LCS (B9L1410-BS2)				Prepared	: 12/14/09	Analyzed	: 12/17/09			
Aluminum	108	50	μg/L	100		108	85-120			
Copper	96.0	2.0	**	100		96.0	85-115			
lron	1.03	0.050	mg/L	1.00		103	85-115			
Lead	110	2.0	μg/L	100		110	85-115			
Zinc	105	2.0	"	100		105	85-115			
Matrix Spike (B9L1410-MS1)	So	urce: 091212	6-01	Prepared	l: 12/14/09	Analyzed	: 12/17/09			
Aluminum	1860	50	μg/L	100	1900	NR	70-130			QM-
Copper	376	2.0	**	100	310	66.0	70-130			QM-
Iron	3.41	0.050	mg/L	1.00	2.6	81.0	70-130			
			-							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

2.0

2.0

122

331

100

100

24

240

98.0

91.0

70-130

70-130



Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/18/09 13:27

### Metals by EPA 200 Series Methods - Quality Control Sierra Analytical Labs, Inc.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B9L1410 - EPA 200 Series										
Matrix Spike (B9L1410-MS2)	Sour	rce: 091215	5-04	Prepared:	12/14/09	Analyzed	l: 12/17/09			
Aluminum	1490	50	μg/L	100	970	520	70-130	2300		OM-07
Copper	116	2.0	••	100	25	91.0	70-130			
Iron	2.65	0.050	mg/L	1.00	1.5	115	70-130			
Lead	114	2.0	μg/L	100	8.5	106	70-130			
Zinc	219	2.0	"	100	110	109	70-130			
Matrix Spike Dup (B9L1410-MSD1)	Sou	rce: 091212	6-01	Prepared:	12/14/09	Analyzed	: 12/17/09			
Aluminum	1840	50	μg/L	100	1900	NR	70-130	1.08	20	QM-07
Copper	360	2.0	"	100	310	50.0	70-130	4.35	20	QM-07
Iron	3.26	0.050	mg/L	1.00	2.6	66.0	70-130	4.50	20	QM-07
Lead	122	2.0	μg/L	100	24	98.0	70-130	0.00	20	•
Zinc	300	2.0	"	100	240	60.0	70-130	9.83	20	QM-07
Matrix Spike Dup (B9L1410-MSD2)	Sou	ce: 091215	5-04	Prepared:	12/14/09	Analyzed	: 12/17/09			
Aluminum	1560	50	μg/L	100	970	590	70-130	4.59	20	QM-07
Copper	122	2.0	**	100	25	97.0	70-130	5.04	20	
Iron	2.65	0.050	mg/L	1.00	1.5	115	70-130	0.00	20	
Lead	117	2.0	μg/L	100	8.5	108	70-130	2.60	20	
Zinc	231	2.0	"	100	110	121	70-130	5.33	20	



Project: San Diego Airport

Project Number: [none]

Reported: 12/18/09 13:27

Project Manager: Amanda Archenhold

### Metals (Dissolved) by EPA 200 Series Methods - Quality Control

### Sierra Analytical Labs, Inc.

		Reporting		Spike	Source		%REC		RPD	N.
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B9L1413 - EPA 200 Series										
Blank (B9L1413-BLK1)				Prepared:	12/14/09	Analyzed:	12/15/09			
Copper	ND	2.0	μg/L							
Zine	ND	2.0	n							
Blank (B9L1413-BLK2)				Prepared:	12/14/09	Analyzed:	12/15/09			
Copper	ND	2.0	μg/L							
Zinc	ND	2.0	17							
LCS (B9L1413-BS1)				Prepared:	12/14/09	Analyzed:	12/15/09			
Copper	93.9	2.0	μg/L	100		93.9	85-115	8		
Zinc	103	2.0	"	100		103	85-115			
LCS (B9L1413-BS2)				Prepared:	12/14/09	Analyzed:	12/15/09			
Copper	91.5	2.0	μg/L	100		91.5	85-115			
Zinc	99.6	2.0	"	100		99.6	85-115			
Matrix Spike (B9L1413-MS1)	Sou	ırce: 091212	6-05	Prepared:	: 12/14/09	Analyzed	: 12/15/09			
Copper	114	2.0	μg/L	100	27	87.0	70-130			
Zinc	207	2.0	**	100	120	87.0	70-130			
Matrix Spike (B9L1413-MS2)	Sou	ırce: 091215	55-04	Prepared	: 12/14/09	Analyzed	: 12/15/09			
Copper	110	2.0	μg/L	100	16	94.0	70-130			
Zinc	163	2.0	"	100	60	103	70-130			
Matrix Spike Dup (B9L1413-MSD1)	Soi	urce: 091212	26-05	Prepared	: 12/14/09	Analyzed	: 12/15/09			
Copper	113	2.0	μg/L	100	27	86.0	70-130	0.881	20	
Zinc	200	2.0	"	100	120	80.0	70-130	3.44	20	
Matrix Spike Dup (B9L1413-MSD2)	So	urce: 091215	55-04	Prepared	: 12/14/09	Analyzed	l: 12/15/09	)		
Copper	107	2.0	μg/L	100	16	91.0	70-130	2.76	20	
Zinc	158	2.0	"	100	60	98.0	70-130	3.12	20	



Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/18/09 13:27

### Total Petroleum Hydrocarbons (TPH) by GC/FID - Quality Control Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9L1407 - EPA 3510C Sep	Funnel						11			
Blank (B9L1407-BLK1)				Prepared &	& Analyze	ed: 12/11/0	)9			
Diesel Range Organics (C10-C24)	ND	0.050	mg/L							
Jet-A	ND	0.050	u							
Oil Range Organics (C22-C36)	ND	0.050	"							
Surrogate: o-Terphenyl	0.0934		"	0.100		93.4	60-175			
Surrogate: o-Terphenyl	0.0934		"	0.100		93.4	60-175			
Surrogate: o-Terphenyl	0.0934		"	0.100		93.4	60-175			
LCS (B9L1407-BS1)				Prepared of	& Analyze	ed: 12/11/0	09			
Diesel Range Organics (C10-C24)	0.463	0.050	mg/L	0.500		92.6	80-120			
Diesel Range Organics (C10-C24)	0.463	0.050	"	0.500		92.6	80-120			
Diesel Range Organics (C10-C24)	0.463	0.050	11	0.500		92.6	80-120			
LCS (B9L1407-BS2)				Prepared	& Analyze	ed: 12/11/	09			
Diesel Range Organics (C10-C24)	0.444	0.050	mg/L	0.500		88.8	80-120			
Diesel Range Organics (C10-C24)	0.444	0.050	- "	0.500		88.8	80-120			
Diesel Range Organics (C10-C24)	0.444	0.050	"	0.500		88.8	80-120			
LCS Dup (B9L1407-BSD1)				Prepared	& Analyze	ed: 12/11/	09			
Diesel Range Organics (C10-C24)	0.498	0.050	mg/L	0.500		99.6	80-120	7.28	30	- 11
Diesel Range Organics (C10-C24)	0.498	0.050	"	0.500		99.6	80-120	7.28	30	
Diesel Range Organics (C10-C24)	0.498	0.050	"	0.500		99.6	80-120	7.28	30	



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

San Diego CA, 92123

Project: San Diego Airport

Project Manager: Amanda Archenhold

Project Number: [none]

Reported:

12/18/09 13:27

### **Notes and Definitions**

D-41 Sample appears to be a mixture of fuel hydrocarbons. Oil Range Hydrocarbons (C22-C36) reported.

D-49 Sample appears to be a mixture of fuel hydrocarbons. Total Petroleum Hydrocarbons quantified using a Jet-A standard for

calibration.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

recovery.

S-07 Surrogate recovery outside of control limits due to coelution with high levels of petroleum hydrocarbons.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

# TRUESDAIL LABORATORIES, INC.

**EXCELLENCE IN INDEPENDENT TESTING** 

Sierra Analytical Labs, Inc. Client:

26052 Merit Circle, Suite #105

Laguna Hills, CA 92653

Liquid / 4 Samples **Nick Forsyth** Attention: Sample:

**EPA 8015B** #0912155 Project Name: Method:

Glycols Investigation:

REPORT

986761 Laboratory No:

14201 FRANKLIN AVENUE - TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 - FAX (714) 730-6462 - www.truesdall.com

Established 1931

December 17, 2009 December 7, 2009 Sampling Date: Report Date:

December 16, 2009 Analysis Date: Receiving Date:

December 10, 2009

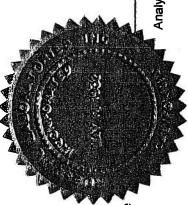
mg/L 2 Dilution Factor: **Units**:

ES Reported By:

**Analytical Results** 

Page 1 of 1

APR = 50-200% % Recovery Surrogate 99.3% 112% 103% 102% 100% Surrogate Conc. = 200 Surrogate (1-Butanol) 199 205 224 204 200 Ethylene Glycol 10.0 9 9 QN 2 5.0 2 Propylene Glycol 5.0 10.0 9 S 2 2 S **Description** Sample Method Blank C-B05-4 C-B06-5 C-B03-2 C-B07-7 Practical Quantitation Limits Sample RLs Sample ID 708593-MB 986761-1 986761-2 986761-3 986761-4



Analytical Services | Truesdail Ladoratories, Inc. Rossiná Tomova, Project M

RL: Reporting limit, or least amount of analyte quantifiable based on average sample size used and analytical technique employed. APR: Allowable Percent Recovery

ND: Not detected, or below limit of detection.

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

# FRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING

Established 1931

14201 FRANKLIN AVENUE · TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 · FAX (714) 730-6462 · www.truesdall.com

REPORT

26052 Merit Circle, Suite #105 Sierra Analytical Labs, Inc.

Client:

Laguna Hills, CA 92653

iquid / 4 Samples Nick Forsyth

> Sample: Project Name: Method Number:

Attention:

**EPA 8015B** #0912155

Glycols

Investigation

708593 QA/QC Batch No:

December 17, 2009 986761 Laboratory No: Report Date:

December 10, 2009 December 7, 2009 Sampling Date:

December 16, 2009 Receiving Date: Analysis Date:

mg/L **Units**:

LES Reported By:

# Quality Control/Quality Assurance Calibration Check Report

	MRCVS (1)				
Parameter	Spiked	Recovered	Percent Recovery	Flag	Accura Control L
	001001111011				707
Propylene Glycol	50.0	47.0	94.1%	PASS	61-0/
inchin cultidat I	C	640	110%	PASS	70-13
Ethylene Glycol	0.00	0.4.0	801	2007	

Ξ

# Quality Control/Quality Assurance Spikes Report

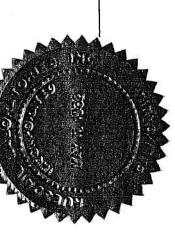
		1001001						V V	
	Spike	Recovered	vered	Percent	<b>=</b>	RPD	Ī	Acc	Accuracy
Parameter	Conc.	Concer	Concentration	Recovery (%)	(%)	(%)	riag		
		CS	CSD	SOT	CSD		0	טקא	KPU % Recovery
							00 40	c	70-130
Confload Charle	0 05	980	45.5	93.9%		#VALUE!	LASS	200	200
Tiopylaina Glycol	0.00	5.5	2:2:			,000	0000	c	70-130
Ethylone Glycol	50.0	57.2	53.8	114%	108%	2.99%	FASS	22	201-07
Lulyici ic Olycol	5.50			W-W-					

MRCVS: Mid Range Calibration Verification Standard LCS: Laboratory Control Spike

LCSD: Laboratory Control Spike Duplicate

RPD: Relative Percent Difference

Flag: "Pass" if within Control Limits; otherwise "Fail"



Analytical Services, Truesdail Latoratories, Inc. omova, Project M**án**ager Rossina/

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

SIERRAANALYTICAL

FAX: 949•348•9115 TEL: 949•348•9389

26052 Merit Circle Suite 105 Laguna Hills, CA 92653

Date: 12 6 / 09

2216120

Lab Project No.:

DISTRIBUTION: White - To Accompany Samples. Yellow - Laboratory Copy. Pink - Field Personnel Conv Geotracker EDD Info: Field Point Names/ Client LOGCODE mos. Site Global ID Comments Return to Client ☐ Lab Disposal\* Sample Disposal: ☐ Archive Other 2003 かか FOR LABORATORY USE ONLY - Sample Receipt Conditions: Preservatives - Verified By \_ The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analysis specified above under SIERRA's Terms and Total Number of Containers Submitted to Conditions, unless otherwise agreed upon in writing between SIERRA and CLIENT.
\* - Samples determined to be hazardous by SIERRA will be returned to CLIENT. Chilled - Temp. (°C) Total Number of Containers Received Storage Location\_ KRENTE X × X Other PORCINODISCIA K **Analysis Requested** 607 Y X 4 X X Ø K. X ණව by Laboratory الح Laboratory Appropriate Sample Container Y m X 9520 b X H2'02' 25'00'1H F THIAL b X K X Properly Labelled Y 267 AG X. K χ ķ Sample Seals בונות ובחב לות וסת X. X Intact יבר ניסר ישופים איסנמיכור भक्षा K k 4+0 X X X X X D O W D Container No. of **を** isto Time: T2 Hour 24 Hour Z Day Mobile Date: Ţij Time Dale くなななど Container Type Immediate 48 Hour Normal ☐ 4 Day Client Project ID: Preservative かんから 4/2 Time Requested Turn Around 4 (Carrier/Waybill,No.) Matrix 2 Received By: Shipped Via Received By Received Сотрапу 1138 1644 おいか 2001 いため Time 14:05 1855 Š Cocont 93/33 **GALLECTER** Date 5 しゅう Time ij Time iga g 3 ふ 흠 Date Die 200 3 Ĩ Š 之 Sierra SKY PAME SAW DORO , CA 8 Š 8 8 6 pa G B 0 3 01 Client Proj. Mgr.: Dunawold Coup. 5-50 B-1/6-506-3 Comp. Stacks / Stallth 5-BOB-14/6-BOB-6 Client Sample D. Client Address: Q177 とすれたの 9 3 Special Instructions: Client Fax. No.: Client Tel. No. 2-505-C C-08-0 5-4187-63 1-200-5 2-40p-5 Sampler Signature 5-615-6 C-808-4 ev: 102005 Relinguished By Relinquished By: nquished By: Printed Nume: Company:

SIERRAANALYTICAL

TEL: 949•348•9389 FAX: 949•348•9115 26052 Merit Circle• Suite 105•Laguna Hills, CA•92653

Date: 12, 8 / 09 Page Of

5516190 Lab Project No.:

Client: Lateric				บ 	Client Project ID:	<b>.</b> .			722	Anal	ysis Ro	Analysis Requested	Ę		
Client Address: のなり らばん	7	COCKE						———	22024	HZ.10					Geotracker EDD Info:
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Client Sample ID.	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No. of Containers	77O		ואסן מאו	310	න වෙ	MA DV4		Field Point Names/ Comments
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elinquished By:		Date	Recei	Received By:	K		00/ 7/20 NO	The delivery authorization	of samples a to perform	nd the sign the analysis	ture on the	is chain of above un	custody for	The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analysis specified above under SIERRA's Terms and	Lab Disposal*
отрапу:		Тіте:	Сотрапу:		Sreven		UGCO Time:	Conditions, unless otherwise agreed upon in writing between SIERRA and CLIENT.  * - Samples determined to be huzardous by SIERRA will be returned to CLIENT.	nless otherw etermined to	ise agreed u be hazarde	pon in wri ous by STE	ting betwe RRA will	en SIERRA : be returned I	and CLIENT.	Archive mos.
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pecial Instructions:									Sample Seals			<u> </u>	rescryative	Prescryatives - Verified By_	yy
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v: 102005							DISTRIBUTION: White - To Accompany Samples	N. White	To Acco	mnanv	Samule	50	w - I ah	100	Dint - Viol Demonstrate Com

### **Second Storm Event**



28 December 2009

Amanda Archenhold MACTEC Engineering & Consulting 9177 Sky Park Court Suite A San Diego, CA 92123

RE:San Diego Airport

Work Order No.:

0912228

Attached are the results of the analyses for samples received by the laboratory on 12/12/09 14:00.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report. If you require any additional retaining time, please advise us.

Sincerely,

Kukard X. Forsyth

Laboratory Director

Sierra Analytical Labs, Inc. is certified by the California Department of Health Services (DOHS), Environmental Laboratory Accredidation Program (ELAP) No. 2320.



Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/28/09 10:40

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C-B01-1-12-11-09	0912228-01	Liquid	12/11/09 11:50	12/12/09 14:00
C-B05-3-12-11-09	0912228-02	Liquid	12/11/09 12:10	12/12/09 14:00
C-B05-4-12-11-09	0912228-03	Liquid	12/11/09 12:40	12/12/09 14:00
C-B06-5-12-11-09	0912228-04	Liquid	12/11/09 13:00	12/12/09 14:00
C-B07-6-12-11-09	0912228-05	Liquid	12/11/09 11:40	12/12/09 14:00
C-B07-7-12-11-09	0912228-06	Liquid	12/11/09 13:20	12/12/09 14:00
S-B08-14/C-B08-8-12-11-09	0912228-07	Liquid	12/11/09 23:50	12/12/09 14:00
C-B12-9-12-11-09	0912228-09	Liquid	12/11/09 11:30	12/12/09 14:00
C-B09-10-12-11-09	0912228-10	Liquid	12/11/09 11:30	12/12/09 14:00
S-B12-13-12-11-09	0912228-18	Liquid	12/11/09 15:17	12/12/09 14:00
S-B06-12-12-11-09	0912228-21	Liquid	12/11/09 00:16	12/12/09 14:00
C-06-5-12-11-09-DUP	0912228-23	Liquid	12/11/09 13:00	12/12/09 14:00
C-05-4-12-11-09-BL	0912228-24	Liquid	12/11/09 12:40	12/12/09 14:00
S-B08-14-12-11-09-DUP	0912228-25	Liquid	12/11/09 23:50	12/12/09 14:00
S-06-12-12-11-09-BL	0912228-26	Liquid	12/11/09 12:10	12/12/09 14:00
Composite S-B08-1/S-B08-2	0912228-27	Liquid	12/12/09 00:00	12/12/09 14:00
Composite S-B09-3/S-B11-4	0912228-28	Liquid	12/12/09 00:00	12/12/09 14:00

### CASE NARRATIVE

SAMPLE RECEIPT:

Samples were received intact, at 4°C, and accompanied by chain of custody documentation.

PRESERVATION:

Samples requiring preservation were verified prior to sample preparation and analysis.

**HOLDING TIMES:** 

All holding times were met, unless otherwises noted in the report with data qualifiers.

QA/QC CRITERIA:

All quality objective criteria were met, except as noted in the report with data qualifiers.



Project: San Diego Airport

Project Number: [none] Project Manager: Amanda Archenhold

Reported: 12/28/09 10:40

### Conventional Chemistry Parameters by APHA/EPA Methods Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B01-1-12-11-09 (0912228-01) Liquid	Sampled: 12/1	1/09 11:50	Received:	12/12/09	14:00		4		
Ammonia as N	2.45	0.100	mg/L	1	B9L2207	12/12/09	12/12/09 16:30	SM 4500-NH3	
Biochemical Oxygen Demand	7.80	2.00	"	11	11	"	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	25.0	0.100	"	11	**	"	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	138	0.100	μmhos/cm	11	"	n	"	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	n	"	"	**	EPA 1664	
Methylene Blue Active Substances	0.150	0.0500	"	"	"	"	**	EPA 425.1	
рH	7.19	0.100	pH Units	"		"	**	EPA 150.1	H-01
Total Suspended Solids	16.0	1.00	mg/L	"	"	"	"	EPA 160.2	
C-B05-3-12-11-09 (0912228-02) Liquid	Sampled: 12/1	1/09 12:10	Received:	12/12/09	14:00				
Ammonia as N	1.80	0.100	mg/L	1	B9L2207	12/12/09	12/12/09 16:30	SM 4500-NH3	
Biochemical Oxygen Demand	11.9	2.00	11		"	"	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	41.0	0.100	"	**	17	11	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	328	0.100	μmhos/cm	**	n	11	**	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"	"	11	n	EPA 1664	
Methylene Blue Active Substances	0.180	0.0500	11	**	**	**	"	EPA 425.1	
pH	8.19	0.100	pH Units	н .	11	#	**	EPA 150.1	H-01
Total Suspended Solids	14.0	1.00	mg/L	**	. "	"	"	EPA 160.2	
C-B05-4-12-11-09 (0912228-03) Liquid	Sampled: 12/1	1/09 12:40	Received:	12/12/09	14:00				
Ammonia as N	3.55	0.100	mg/L	1	B9L2207	12/12/09	12/12/09 16:30	SM 4500-NH3	
Biochemical Oxygen Demand	20.9	2.00	"		"	"	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	87.0	0.100	"	11	"	"	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	230	0.100	μmhos/cm	"	"	"	"	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	**	**	"	"	EPA 1664	
Methylene Blue Active Substances	0.160	0.0500	"	"	"	•	"	EPA 425.1	
pH	7.13	0.100	pH Units		n	"	•	EPA 150.1	H-01
Total Suspended Solids	8.00	1.00	mg/L	**	11	"	**	EPA 160.2	•



San Diego CA, 92123

MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Reported: 12/28/09 10:40

Project Manager: Amanda Archenhold

### Conventional Chemistry Parameters by APHA/EPA Methods Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B06-5-12-11-09 (0912228-04) Liquid	Sampled: 12/1	1/09 13:00	Received:	12/12/09	14:00				
Ammonia as N	2.90	0.100	mg/L	ì	B9L2207	12/12/09	12/12/09 16:30 5		
Biochemical Oxygen Demand	6.30	2.00	11	"	**	**	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	26.0	0.100	"	"	•	"	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	173	0.100	μmhos/cm	"	**		"	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	**	"	"	"	EPA 1664	
Methylene Blue Active Substances	0.120	0.0500	"	"	"	"	**	EPA 425.1	
рН	7.12	0.100	pH Units	**	"	"	"	EPA 150.1	H-01
Total Suspended Solids	11.0	1.00	mg/L	"	"	**	"	EPA 160.2	
C-B07-6-12-11-09 (0912228-05) Liquid	Sampled: 12/1	1/09 11:40	Received:	12/12/09	14:00				
Ammonia as N	1.55	0.100	mg/L	1	B9L2207	12/12/09	12/12/09 16:30	SM 4500-NH3	
Biochemical Oxygen Demand	24.3	2.00	**	"	"	17	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	98.0	0.100	"	***	**	"	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	196	0.100	μmhos/cm	**	"	**	"	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"	**	**	"	EPA 1664	
Methylene Blue Active Substances	0.110	0.0500	**	11	"	. "	**	EPA 425.1	
pH	6.47	0.100	pH Units	**	"	"	**	EPA 150.1	H-01
Total Suspended Solids	17.0	1.00	mg/L	"	"	"	, ff	EPA 160.2	
C-B07-7-12-11-09 (0912228-06) Liquid	Sampled: 12/1	11/09 13:20	Received:	12/12/09	14:00				
Ammonia as N	1.40	0.100	mg/L	1	B9L2207	12/12/09	12/12/09 16:30	SM 4500-NH3	
Biochemical Oxygen Demand	27.2	2.00	"	"	"	"	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	103	0.100	**	"	**	"	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	237	0.100	μmhos/cm	"	"	**	**	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	**	**	11	**	EPA 1664	
Methylene Blue Active Substances	0.180	0.0500	"	11	"	**	#	EPA 425.1	
pH	6.66	0.100	pH Units	"	n	**		EPA 150.1	H-01
Total Suspended Solids	12.0	1.00	mg/L	"	"	"	tt	EPA 160.2	



**Total Suspended Solids** 

MACTEC Engineering & Consulting 9177 Sky Park Court Suite A San Diego CA, 92123

Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/28/09 10:40

EPA 160.2

### Conventional Chemistry Parameters by APHA/EPA Methods Sierra Analytical Labs, Inc.

Analyte	Resul	Reporting t Limit		Dilution	Batch	Prepared	Analyzed	Method	Notes
S-B08-14/C-B08-8-12-11-09 (0912228-07	) Liquid	Sampled: 12/11	/09 23:50	Received	: 12/12/09	14:00			·· ·· · · · · · · · · · · · · · · · ·
Ammonia as N	1.35	0.100	mg/L	1	B9L2207	12/12/09	12/12/09 16:30	SM 4500-NH3	
Biochemical Oxygen Demand	43.8	3 2.00	"	**	"	"	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	207	0.100	"	**		**	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	467	0.100	μmhos/cm	"	"	"	"	EPA 120.1	
Hexane Extractable Material (HEM)	NE	2.00	mg/L	"	"	"	**	EPA 1664	
Methylene Blue Active Substances	0.110	0.0500	11		"	••	"	EPA 425.1	
рH	7.10	0.100	pH Units	"	**	•	"	EPA 150.1	
Total Suspended Solids	4.00	1.00	mg/L	"	"	***	11	EPA 160.2	
C-B12-9-12-11-09 (0912228-09) Liquid	Sampled:	12/11/09 11:30	Received	: 12/12/09	14:00				
Ammonia as N	2.45	5 0.100	mg/L	1	B9L2207	12/12/09	12/12/09 16:30	SM 4500-NH3	
Biochemical Oxygen Demand	79.0	2.00	"	"	"	#	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	325	0.100	**	**	"	"	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	1890	0.100	μmhos/cm	**	"	"	"	EPA 120.1	
Hexane Extractable Material (HEM)	3.10	2.00	mg/L	**	"	••	"	EPA 1664	
Methylene Blue Active Substances	0.140	0.0500	"	"	**	"	"	EPA 425.1	
рН	9.90	0.100	pH Units	"	"	"	**	EPA 150.1	H-01
Total Suspended Solids	38.0	1.00	mg/L	"	**	"	**	EPA 160.2	
C-B09-10-12-11-09 (0912228-10) Liquid	Sampled	: 12/11/09 11:30	) Receive	d: 12/12/09	9 14:00				
Ammonia as N	2.9	5 0.100	mg/L	1	B9L2207	12/12/09	12/12/09 16:30	SM 4500-NH3	
Biochemical Oxygen Demand	45.0	2.00	"	"	**	**	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	175	0.100	**	"	•	**	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	28	0.100	μmhos/cm	Ħ	•	**	"	EPA 120.1	
Hexane Extractable Material (HEM)	2.50	2.00	mg/L	#	•	**	•	EPA 1664	
Methylene Blue Active Substances	0.17		"	"	••	Ħ	"	EPA 425.1	
pH	7.5	0.100	pH Units	"		"	. "	EPA 150.1	H-01
<u>.</u>			•						01

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29.0

1.00

mg/L



MACTEC Engineering & Consulting

Project: San Diego Airport

9177 Sky Park Court Suite A San Diego CA, 92123 Project Number: [none]

Reported: 12/28/09 10:40

Project Manager: Amanda Archenhold

### Conventional Chemistry Parameters by APHA/EPA Methods

### Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-B12-13-12-11-09 (0912228-18) Liquid	Sampled: 1	2/11/09 15:17	Received:	12/12/09	14:00				
Biochemical Oxygen Demand	16.3	2.00	mg/L	1	B9L2207	12/12/09	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	62.0	0.100	*	"	"	**	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	279	0.100	μmhos/cm	"	"	"	"	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"	"	"	н	EPA 1664	
рН	7.18	0.100	pH Units	"	**	"	"	EPA 150.1	H-01
Total Suspended Solids	4.00	1.00	mg/L	"	"	"	11	EPA 160.2	
S-B06-12-12-11-09 (0912228-21) Liquid	Sampled: 1	2/11/09 00:16	Received	: 12/12/09	14:00				
Biochemical Oxygen Demand	7.60	2.00	mg/L	i	B9L2207	12/12/09	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	29.0	0.100	"	"	"	"	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	243	0.100	μmhos/cm	"	"	"	"	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"	"	<b>H</b> g	**	EPA 1664	
pH	7.32	0.100	pH Units	"	"	"	**	EPA 150.1	H-01
Total Suspended Solids	7.00	1.00	mg/L	"	"		**	EPA 160.2	
C-06-5-12-11-09-DUP (0912228-23) Liqu	uid Sample	d: 12/11/09 13	:00 Recei	ved: 12/1	2/09 14:00				
Ammonia as N	2.75	0.100	mg/L	1	B9L2207	12/12/09	12/12/09 16:30	SM 4500-NH3	
Biochemical Oxygen Demand	6.70	2.00	"	"	"	"	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	27.0	0.100	**	"	**	"	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	172	0.100	μmhos/cm	"	"	"	**	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"	"	**	"	EPA 1664	
Methylene Blue Active Substances	0.130	0.0500	"	"	"	"	•	EPA 425.1	
pH	7.09	0.100	pH Units	"	**	**	"	EPA 150.1	H-0
Total Suspended Solids	10.0	1.00	mg/L	"	**	"	"	EPA 160.2	



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Reported: 12/28/09 10:40

Project Manager: Amanda Archenhold

### Conventional Chemistry Parameters by APHA/EPA Methods Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-05-4-12-11-09-BL (0912228-24) Liquid	Sampled:	12/11/09 12:40	Receive	d: 12/12/0	09 14:00				
Ammonia as N	ND	0.100	mg/L	1	B9L2207	12/12/09	12/12/09 16:308	M 4500-NH3	···
Biochemical Oxygen Demand	ND	2.00	"	"	11	**	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	ND	0.100	"	**	"	"	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	1.42	0.100	µmhos/cm	"	"	**	"	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	**	"	"	"	EPA 1664	
Methylene Blue Active Substances	ND	0.0500	"	"	"	"	**	EPA 425.1	
pH	7.43	0.100	pH Units	"	**	"	н	EPA 150.1	H-01
Total Suspended Solids	ND	1.00	mg/L	"	**	11	•	EPA 160.2	
S-B08-14-12-11-09-DUP (0912228-25) Liq	uid Samp	oled: 12/11/09 2	23:50 Rec	eived: 12	/12/09 14:0	)0			
Biochemical Oxygen Demand	49.5	2.00	mg/L	1	B9L2207	12/12/09	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	190	0.100	***	"	"	15 H	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	442	0.100	μmhos/cm	"	"	11	11	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"	"	"	"	EPA 1664	
рН	7.17	0.100	pH Units	**	**	"	"	EPA 150.1	
Total Suspended Solids	14.0	1.00	mg/L	11	**	•	11	EPA 160.2	
S-06-12-12-11-09-BL (0912228-26) Liquid	Sampled	l: 12/11/09 12:1	0 Receiv	ed: 12/12	/09 14:00				
Biochemical Oxygen Demand	ND	2.00	mg/L	1	B9L2207	12/12/09	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	ND	0.100	"	**	**	"	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	3.04	0.100	μmhos/cm		"	"	**	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	**	"	"	"	EPA 1664	
рН	7.38	0.100	pH Units	"	"	**	**	EPA 150.1	H-01
Total Suspended Solids	ND	1.00	mg/L	"	"	11	n	EPA 160.2	



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Reported: 12/28/09 10:40

Project Manager: Amanda Archenhold

### Conventional Chemistry Parameters by APHA/EPA Methods Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Composite S-B08-1/S-B08-2 (0912228-27) I	iquid San	npled: 12/12/	09 00:00	Received	: 12/12/09	14:00			
Biochemical Oxygen Demand	22.6	2.00	mg/L	1	B9L2207	12/12/09	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	80.0	0.100	"	**	11	"	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	193	0.100	μmhos/cm	"	"	"	"	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"	"	"	11	EPA 1664	
рН	6.43	0.100	pH Units	**	"	"	"	EPA 150.1	
Total Suspended Solids	23.0	1.00	mg/L	"	"	"	**	EPA 160.2	
Composite S-B09-3/S-B11-4 (0912228-28)	Liquid San	npled: 12/12/	/09 00:00	Received	l: 12/12/09	14:00			
Biochemical Oxygen Demand	34.8	2.00	mg/L	1	B9L2207	12/12/09	12/17/09 16:30	EPA 405.1	
Chemical Oxygen Demand	130	0.100	"	11	**	**	12/12/09 16:30	EPA 410.4	
Specific Conductance (EC)	252	0.100	μmhos/cm	"	"	"	"	EPA 120.1	
Hexane Extractable Material (HEM)	2.00	2.00	mg/L	"	"		**	EPA 1664	
рН	6.67	0.100	pH Units	**	**	"	"	EPA 150.1	
Total Suspended Solids	26.0	1.00	mg/L	**	"	"	"	EPA 160.2	



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Project: San Diego Airport

Project Number: [none]
Project Manager: Amanda Archenhold

Reported: 12/28/09 10:40

### Metals by EPA 200 Series Methods Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B01-1-12-11-09 (0912228-01) Liquid	Sampled: 12/1	1/09 11:50	Received	: 12/12/09	14:00				
Aluminum	850	50	μg/L	2	B9L1810	12/18/09	12/22/09 11:48	EPA 200.8	
Copper	87	2.0	"	n	**	"	**	**	
Iron	1.0	0.050	mg/L	"	11	**	"	**	
Lead	5.1	2.0	μg/L	**	"		11	Ħ	
Zinc	67	2.0		"	"	"	"	"	
C-B05-3-12-11-09 (0912228-02) Liquid	Sampled: 12/1	1/09 12:10	Received	: 12/12/09	14:00				
Aluminum	4300	250	μg/L	10	B9L1810	12/18/09	12/22/09 17:29	EPA 200.8	
Copper	30	2.0	"	2	"	"	12/22/09 12:00	"	
Iron	4.4	0.050	mg/L	**	"	11	"	"	
Lead	24	2.0	μg/L	"	"	"	***	"	
Zinc	160	2.0	**	"	**	"	**	"	
C-B05-4-12-11-09 (0912228-03) Liquid	Sampled: 12/1	1/09 12:40	Received	: 12/12/09	14:00				
Aluminum	540	50	μg/L	2	B9L1810	12/18/09	12/22/09 12:03	EPA 200.8	
Copper	290	2.0	"	"	"	"	**	"	
Iron	0.70	0.050	mg/L	"	11	"	"	"	
Lead	2.7	2.0	μg/L	"	"	**	"	n	
Zine	280	2.0	"	"	"	"	"	n	
C-B06-5-12-11-09 (0912228-04) Liquid	Sampled: 12/1	11/09 13:00	Received	l: 12/12/09	14:00		9.		
Aluminum	2000	50	μg/L	2	B9L1810	12/18/09	12/22/09 12:07	EPA 200.8	
Copper	180	2.0	"	**	**	"	11	11	
Iron	2.4	0.050	mg/L	"	"	11	**	n	
Lead	7.0	2.0	μg/L	"	***	"	"	"	



MACTEC Engineering & Consulting

9177 Sky Park Court Suite A San Diego CA, 92123 Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/28/09 10:40

### Metals by EPA 200 Series Methods Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B07-6-12-11-09 (0912228-05) Liquid	Sampled: 12/1	1/09 11:40	Received	: 12/12/09	14:00		<u>-</u>		
Aluminum	1000	50	μg/L	2	B9L1810	12/18/09	12/22/09 12:11	EPA 200.8	
Copper	220	2.0	"	"	**	"	"	"	
Iron	1.7	0.050	mg/L	"	"	"	"	"	
Lead	13	2.0	μg/L	"	"	"	"	**	
Zinc	970	2.0	"	"	**	# .	"	"	
C-B07-7-12-11-09 (0912228-06) Liquid	Sampled: 12/1	11/09 13:20	Received	: 12/12/09	14:00	20			
Aluminum	860	50	μg/L	2	B9L1810	12/18/09	12/22/09 12:15	EPA 200.8	
Copper	130	2.0	"	"	"	"	"	"	
Iron	1.0	0.050	mg/L	**	"	"	"	**	
Lead	7.3	2.0	μg/L	"	"	"	"	"	
Zinc	580	2.0	**	11	"	"	n	"	
S-B08-14/C-B08-8-12-11-09 (0912228-0	7) Liquid San	npled: 12/11	/09 23:50	Received	: 12/12/09	14:00			
Aluminum	160	50	μg/L	2	B9L1810	12/18/09	12/22/09 12:19	EPA 200.8	
Copper	120	2.0	"	"	"	"	"	"	
Iron	0.15	0.050	mg/L	"	**	"	"	**	
Lead	ND	2.0	μg/L	"	"	**	**	"	
Zinc	380	2.0	"	11	"	"	"	"	
	CI-d. 13/	11/00 11-30	Received	i: 12/12/09	14:00				
C-B12-9-12-11-09 (0912228-09) Liquid	Sampled: 12/	11/07 11.30							
C-B12-9-12-11-09 (0912228-09) Liquid Aluminum	93	50	μg/L	2	B9L1810	12/18/09	12/22/09 12:23	EPA 200.8	
Aluminum				2	B9L1810	12/18/09	12/22/09 12:23	EPA 200.8	
	93	50	μg/L						i i
Aluminum Copper	93 30	50 2.0	μg/L "	"	"	***	"	"	# ** **

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Project: San Diego Airport

Project Number: [none]
Project Manager: Amanda Archenhold

Reported: 12/28/09 10:40

### Metals by EPA 200 Series Methods Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
						ттеритес	7 that y 2cc	Method	
C-B09-10-12-11-09 (0912228-10) Liquid	Sampled: 12/	11/09 11:30	Receive	d: 12/12/09	9 14:00				
Aluminum	420	50	μg/L	2	B9L1810	12/18/09	12/22/09 12:34	EPA 200.8	
Copper	56	2.0	"	**	**	**	"	"	
Iron	0.79	0.050	mg/L	"	"	**	**	"	
Lead	2.2	2.0	μg/L	"	"	"	Ħ	"	
Zinc	160	2.0	"	**	"	"	**	"	
S-B12-13-12-11-09 (0912228-18) Liquid	Sampled: 12/	11/09 15:17	Receive	d: 12/12/09	14:00				
Aluminum	ND	50	μg/L	2	B9L1810	12/18/09	12/22/09 12:46	EPA 200.8	·
Copper	63	2.0	"	**	"	"	"	"	
Iron	0.087	0.050	mg/L	"	**	"	"	"	
Lead	ND	2.0	μg/L	"	"	**	*	"	
Zine	130	2.0	tt	"	"	"	11	"	
S-B06-12-12-11-09 (0912228-21) Liquid	Sampled: 12/	11/09 00:16	Receive	d: 12/12/09	9 14:00				
Aluminum	92	50	μg/L	2	B9L1810	12/18/09	12/22/09 12:58	EPA 200.8	
Copper	35	2.0	"	**	"	. "	"	"	
Iron	0.18	0.050	mg/L	n	"	"	**	"	
Lead	ND	2.0	μg/L	"	n	"	"	"	
Zine	110	2.0	*	"	"		"	"	
C-06-5-12-11-09-DUP (0912228-23) Liqu	id Sampled:	12/11/09 13:	00 Rece	eived: 12/1	2/09 14:00				
Aluminum	1700	50	μg/L	2	B9L1810	12/18/09	12/22/09 13:02	EPA 200.8	
Copper	190	2.0	"	"	"	"	"	**	
Iron	2.3	0.050	mg/L	n	"	**	"	**	
Lead	6.5	2.0	μg/L	"	**	**	"	"	
Zinc	170	2.0	**	"	**		**	"	

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MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]
Project Manager: Amanda Archenhold

Reported: 12/28/09 10:40

### Metals by EPA 200 Series Methods

### Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-05-4-12-11-09-BL (0912228-24) Liquid	Sampled: 1	2/11/09 12:40	Receiv	ed: 12/12/	09 14:00				
Aluminum	ND	50	μg/L	2	B9L1810	12/18/09	12/22/09 13:05	EPA 200.8	
Copper	ND	2.0	"	"	"	"	**	11	
Iron	ND	0.050	mg/L	"	**	"	**	**	
Lead	ND	2.0	μg/L	19	**	"	**	**	
Zinc	ND	2.0	"	**	11	11	#	"	
S-B08-14-12-11-09-DUP (0912228-25) Liq	uid Sample	ed: 12/11/09 23	3:50 Re	ceived: 12	/12/09 14:0	00			
Aluminum	ND	50	μg/L	2	B9L1810	12/18/09	12/22/09 13:09	EPA 200.8	
Copper	110	2.0	**	"	"	"	m .	"	
Iron	ND	0.050	mg/L	"	**	"	"	11	
Lead	ND	2.0	μg/L	"	11	"	"	**	
Zinc	370	2.0	"	**	"	11	**	"	
S-06-12-12-11-09-BL (0912228-26) Liquid	Sampled:	12/11/09 12:10	Recei	ved: 12/12	/09 14:00				
Aluminum	ND	50	μg/L	2	B9L1810	12/18/09	12/22/09 13:21	EPA 200.8	
Copper	ND	2.0	"	**	"	11	n	"	
Iron	ND	0.050	mg/L	"	"	"	n	"	
Lead	ND	2.0	μg/L	"	Ħ	"	"	"	
Zinc	ND	2.0	"	"	"	"	"	"	
Composite S-B08-1/S-B08-2 (0912228-27)	Liquid Sar	npled: 12/12/0	9 00:00	Received	1: 12/12/09	14:00	11		
Aluminum	640	50	μg/L	2	B9L1810	12/18/09	12/22/09 13:25	EPA 200.8	
Copper	92	2.0	**	"	"	"	**	"	
Iron	1.0	0.050	mg/L	n	"	n	"	**	
Lead	4.2	2.0	μg/L	**	11	11	**	n	
Zinc	320	2.0	"	**	#	**	n	"	



Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/28/09 10:40

### Metals by EPA 200 Series Methods Sierra Analytical Labs, Inc.

Analyte		Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Composite S-B09-3/S-	B11-4 (0912228-28)	Liquid Sam	pled: 12/12/0	09 00:00	Received	: 12/12/09	14:00		· · · · · · · · · · · · · · · · · · ·	
Aluminum		1100	50	μg/L	2	B9L1810	12/18/09	12/22/09 13:29	EPA 200.8	
Copper		73	2.0	11	**	11	11	**	**	
Iron		1.7	0.050	mg/L	**	11	11	**	**	
Lead		9.6	2.0	μg/L	11	11	"	"	**	
Zinc		250	2.0	11	"	**	**	"	11	



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Reported: 12/28/09 10:40

Project Manager: Amanda Archenhold

### Metals (Dissolved) by EPA 200 Series Methods

### Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B01-1-12-11-09 (0912228-01) Liquid				: 12/12/09	14:00	•			*
Copper	65	2.0	μg/L	2	B9L1812	12/18/09	12/22/09 14:54	EPA 200.8	
Zinc	40	2.0	"	"	"	"	"	"	
C-B05-3-12-11-09 (0912228-02) Liquid	Sampled: 12/11	/09 12:10	Received	: 12/12/09	14:00				
Copper	9.8	2.0	μg/L	2	B9L1812	12/18/09	12/22/09 15:06	EPA 200.8	
Zinc	9.7	2.0	"	**	**	"	11	11	
C-B05-4-12-11-09 (0912228-03) Liquid	Sampled: 12/11	/09 12:40	Received	: 12/12/09	14:00				
Copper	240	2.0	μg/L	2	B9L1812	12/18/09	12/22/09 15:09	EPA 200.8	
Zinc	230	2.0	**	"	"	"	n	"	
C-B06-5-12-11-09 (0912228-04) Liquid	Sampled: 12/11	/09 13:00	Received	1: 12/12/09	14:00				·
Copper	130	2.0	μg/L	2	B9L1812	12/18/09	12/22/09 15:13	EPA 200.8	
Zinc	120	2.0	"	"	"	"	"	n	
C-B07-6-12-11-09 (0912228-05) Liquid	Sampled: 12/11	/09 11:40	Received	l: 12/12/09	14:00				
Copper	140	2.0	μg/L	2	B9L1812	12/18/09	12/22/09 15:17	EPA 200.8	
Zinc	780	2.0	"	11	"	"	"	"	
C-B07-7-12-11-09 (0912228-06) Liquid	Sampled: 12/11	/09 13:20	Received	1: 12/12/09	14:00		=		
Copper	100	2.0	μg/L	2	B9L1812	12/18/09	12/22/09 15:21	EPA 200.8	
Zinc	480	2.0	"	**	"	"	"	"	
S-B08-14/C-B08-8-12-11-09 (0912228-0	7) Liquid Samp	oled: 12/11	/09 23:50	Received	l: 12/12/09	14:00			·
Copper	83	2.0	μg/L	2	B9L1812	12/18/09	12/22/09 15:25	EPA 200.8	
Zinc	320	2.0	"	**	"	"	11	"	



Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/28/09 10:40

### Metals (Dissolved) by EPA 200 Series Methods Sierra Analytical Labs, Inc.

		Reporting						<del></del>	
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
C-B12-9-12-11-09 (0912228-09) Liquid	Sampled: 12/1	1/09 11:30	Received	l: 12/12/09	14:00				
Copper	24	2.0	μg/L	2	B9L1812	12/18/09	12/22/09 15:29	EPA 200.8	
Zinc	20	2.0	**	"	"	"	**	"	
C-B09-10-12-11-09 (0912228-10) Liquid	Sampled: 12/	11/09 11:30	Receive	d: 12/12/0	9 14:00				
Copper	47	2.0	μg/L	2	B9L1812	12/18/09	12/22/09 15:40	EPA 200.8	
Zinc	130	2.0	**	"	**	**	"	"	
S-B12-13-12-11-09 (0912228-18) Liquid	Sampled: 12/	11/09 15:17	Receive	d: 12/12/09	14:00				
Copper	49	2.0	μg/L	2	B9L1812	12/18/09	12/22/09 15:52	EPA 200.8	
Zinc	110	2.0	"	**	tt	"	••	"	
S-B06-12-12-11-09 (0912228-21) Liquid	Sampled: 12/	11/09 00:16	Receive	d: 12/12/09	14:00				
Copper	25	2.0	μg/L	2	B9L1812	12/18/09	12/22/09 16:04	EPA 200.8	
Zinc	85	2.0	**	11	**	"	**	"	
C-06-5-12-11-09-DUP (0912228-23) Liqu	uid Sampled:	12/11/09 13:	00 Rece	ived: 12/12	2/09 14:00				
Copper	140	2.0	μg/L	2	B9L1812	12/18/09	12/22/09 16:08	EPA 200.8	
Zinc	120	2.0	"	"	"	**	"	"	
C-05-4-12-11-09-BL (0912228-24) Liquid	d Sampled: 12	2/11/09 12:40	0 Receiv	ed: 12/12/	09 14:00				
Copper	ND	2.0	μg/L	2	B9L1812	12/18/09	12/22/09 16:11	EPA 200.8	<del> </del>
Zinc	ND	2.0	"	"	tt	"	"	"	
S-B08-14-12-11-09-DUP (0912228-25) Li	iquid Sampleo	i: 12/11/09 2	23:50 Re	ceived: 12	/12/09 14:0	00			
Copper	90	2.0	μg/L	2	B9L1812	12/18/09	12/22/09 16:15	EPA 200.8	
Zinc	320	2.0	"	**	"	"	"	"	



MACTEC Engineering & Consulting

9177 Sky Park Court Suite A San Diego CA, 92123 Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/28/09 10:40

### Metals (Dissolved) by EPA 200 Series Methods

### Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Composite S-B08-1/S-B08-2 (0912	228-27) Liquid Sample	d: 12/12/	09 00:00	Received	: 12/12/09	14:00			
Copper Zinc	71 270	2.0 2.0	μg/L "	2	B9L1812	12/18/09	12/22/09 16:31	EPA 200.8	
Composite S-B09-3/S-B11-4 (0912	2228-28) Liquid Sample	ed: 12/12/	09 00:00	Received	: 12/12/09	14:00			
Copper Zinc	56 170	2.0 2.0	μg/L "	2	B9L1812	12/18/09	12/22/09 16:35	EPA 200.8	3



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/28/09 10:40

### Total Petroleum Hydrocarbons (TPH) by GC/FID Sierra Analytical Labs, Inc.

		Oldii a M	iiaiy ticai i	Jan 10 3 9 1	1101				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B01-1-12-11-09 (0912228-01) Liquid	Sampled: 12/1	1/09 11:50	Received: 1	2/12/09	14:00				
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L2101	12/18/09	12/18/09 12:2	2 EPA 8015B	
Surrogate: o-Terphenyl		84.6 %	60-17	5	"	"	"	1/	
Jet-A	0.12	0.050	11	**	**	11	11	#	D-49
Surrogate: o-Terphenyl		84.6 %	60-17	'5	"	"	"	"	
Oil Range Organics (C22-C36)	0.20	0.050	11	11	"	11		11	D-41
Surrogate: o-Terphenyl		84.6 %	60-17	'5	"	"	"	"	
C-B05-3-12-11-09 (0912228-02) Liquid	Sampled: 12/1	1/09 12:10	Received: 1	2/12/09	14:00				
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L2101	12/18/09	12/18/09 12:4	5 EPA 8015B	
Surrogate: o-Terphenyl	•	96.3 %	60-17	75	"	"	"	"	
Jet-A	0.085	0.050	11	"	H	11	11	11	D-49
Surrogate: o-Terphenyl		96.3 %	60-17	75	"	"	"	"	
Oil Range Organics (C22-C36)	0.15	0.050	. 11	11	"	11		11	D-41
Surrogate: o-Terphenyl		96.3 %	60-17	75	"	"	"	"	
C-B05-4-12-11-09 (0912228-03) Liquid	Sampled: 12/1	11/09 12:40	Received: 1	12/12/09	14:00				
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L2101	12/18/09	12/18/09 12:1	1 EPA 8015B	
Surrogate: o-Terphenyl		124 %	60-17	75	"	"	"	"	
Jet-A	0.50	0.050		11	## ###################################	"	"	"	D-49
Surrogate: o-Terphenyl		124 %	60-17	75	n	"	"	"	
Oil Range Organics (C22-C36)	0.53	0.050	11	11	11	11	8	11	D-41
Surrogate: o-Terphenyl		124 %	60-17	75	"	"	"	"	
C-B06-5-12-11-09 (0912228-04) Liquid	Sampled: 12/	11/09 13:00	Received:	12/12/09	14:00				
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L2101	12/18/09	12/18/09 11:2	5 EPA 8015B	
Surrogate: o-Terphenyl		93.5 %	60-17	75	"	"	"	"	
Jet-A	0.14	0.050	11	11	"	**	11	11	D-49
Surrogate: o-Terphenyl		93.5 %	60-17	75	"	"	"	"	
Oil Range Organics (C22-C36)	0.062	0.050	11			11	11	11	D-41
Surrogate: o-Terphenyl		93.5 %	60-17	75	"	"	"	"	



Project: San Diego Airport

Project Number: [none]
Project Manager: Amanda Archenhold

Reported: 12/28/09 10:40

### Total Petroleum Hydrocarbons (TPH) by GC/FID Sierra Analytical Labs, Inc.

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B07-6-12-11-09 (0912228-05) Liquid	Sampled: 12/1	1/09 11:40	Received: 1	2/12/09	14:00				
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L2101	12/18/09	12/18/09 13:0	8 EPA 8015B	
Surrogate: o-Terphenyl		123 %	60-17	75	"	"	"	"	
Jet-A	0.95	0.050	1/	**	"	"	"		D-49
Surrogate: o-Terphenyl		123 %	60-17		"	"	n	v	
Oil Range Organics (C22-C36)	2.7	0.050		"			"	t/	D-41
Surrogate: o-Terphenyl		123 %	60-17	75	"	"	"	n	
C-B07-7-12-11-09 (0912228-06) Liquid	Sampled: 12/1	1/09 13:20	Received:	12/12/09	14:00				
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L2101	12/18/09	12/18/09 12:5	7 EPA 8015B	
Surrogate: o-Terphenyl		123 %	60-17	75	"	"	"	#	
Jet-A	0.48	0.050	"	**	11	"	"	"	D-49
Surrogate: o-Terphenyl		123 %	60-17	75	"	"	"	"	
Oil Range Organics (C22-C36)	0.79	0.050	"	"	"	"	11	11	D-41
Surrogate: o-Terphenyl		123 %	60-17	75	"	"	"	"	
S-B08-14/C-B08-8-12-11-09 (0912228-0	7) Liquid Sam	pled: 12/11	/09 23:50 F	Received	: 12/12/09	14:00			
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L2101	12/18/09	12/18/09 11:3	6 EPA 8015B	
Surrogate: o-Terphenyl		137 %	60-17	75	"	"	"	"	
Jet-A	0.78	0.050	"	"	"	"	"	"	D-49
Surrogate: o-Terphenyl		137 %	60-17	75	"	• #	"	"	
Oil Range Organics (C22-C36)	0.42	0.050	"	**	11	"	"	Ф.	D-41
Surrogate: o-Terphenyl		137 %	60-1	75	"	"	"	w	
C-B12-9-12-11-09 (0912228-09) Liquid	Sampled: 12/1	1/09 11:30	Received:	12/12/09	14:00				
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	i	B9L2101	12/18/09	12/18/09 11:5	9 EPA 8015B	
Surrogate: o-Terphenyl		79.0 %	60-1	75	"	"	"	"	
Jet-A	0.38	0.050	"	"	"	**	#	"	D-49
Surrogate: o-Terphenyl		79.0 %	60-1	75	"	"	"	"	
Oil Range Organics (C22-C36)	0.44	0.050	"	"	"	"	"	"	D-41
Surrogate: o-Terphenyl		79.0 %	60-1	75	"	n	Ħ	"	



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/28/09 10:40

### Total Petroleum Hydrocarbons (TPH) by GC/FID

### Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B09-10-12-11-09 (0912228-10) Liquid	Sampled: 1	2/11/09 11:30	Received:	12/12/0	9 14:00				
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L2101	12/18/09	12/18/09 12:3-	4 EPA 8015B	
Surrogate: o-Terphenyl		118 %	60-17	5	"	"	"	"	
Jet-A	0.39	0.050	11	**	**	11	r r	11	D-49
Surrogate: o-Terphenyl	3 H-11024 - 102-111001	118 %	60-17	5	**	"	"	"	
Oil Range Organics (C22-C36)	0.77	0.050	11	11	11		11	"	D-41
Surrogate: o-Terphenyl		118%	60-17	5	"	"	"	"	
C-06-5-12-11-09-DUP (0912228-23) Liqui	d Sampled	l: 12/11/09 13:0	0 Receive	d: 12/1	2/09 14:00				
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L2101	12/18/09	12/18/09 11:4	8 EPA 8015B	-31 -01
Surrogate: o-Terphenyl		93.9 %	60-17	5	"	"	"	"	
Jet-A	0.18	0.050	11	11		11	**	11	D-49
Surrogate: o-Terphenyl		93.9 %	60-17	5	"	"	"	"	
Oil Range Organics (C22-C36)	0.15	0.050	"	"	"	н	**	11	D-41
Surrogate: o-Terphenyl		93.9 %	60-17	5	"	"	"	"	
C-05-4-12-11-09-BL (0912228-24) Liquid	Sampled:	12/11/09 12:40	Received	: 12/12/	09 14:00				
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	1	B9L2101	12/18/09	12/18/09 11:1-	4 EPA 8015B	
Surrogate: o-Terphenyl		83.4 %	60-17	5	"	"	"	11	
Jet-A	ND	0.050	**	"	"	"	"	11	
Surrogate: o-Terphenyl		83.4 %	60-17	5	"	"	"	"	
Oil Range Organics (C22-C36)	ND	0.050	"	11	"	"	11	11 8	D-41
Surrogate: o-Terphenyl		83.4 %	60-17	5	"	"	"	"	



Project: San Diego Airport

Project Number: [none]

Reported: 12/28/09 10:40 Project Manager: Amanda Archenhold

### Metals by EPA 200 Series Methods - Quality Control

### Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9L1810 - EPA 200 Series										
Blank (B9L1810-BLK1)				Prepared:	12/18/09	Analyzed	: 12/22/09			
Aluminum	ND	50	μg/L							
Copper	ND	2.0	**							
ron	ND	0.050	mg/L							
.ead	ND	2.0	μg/L							
Line	ND	2.0	11							
Blank (B9L1810-BLK2)				Prepared:	12/18/09	Analyzed	: 12/22/09			
Aluminum	ND	50	μg/L							
Copper	ND	2.0	"							
ron	ND	0.050	mg/L							
Lead	ND	2.0	μg/L							
Zinc	ND	2.0	"							
LCS (B9L1810-BS1)				Prepared:	12/18/09	Analyzed				
Aluminum	118	50	μg/L	100		118	85-120			
Copper	95.7	2.0	**	100		95.7	85-115			
ron	0.932	0.050	mg/L	1.00		93.2	85-115			
Lead	93.3	2.0	μg/L	100		93.3	85-115			
Zine	107	2.0	"	100		107	85-115			
LCS (B9L1810-BS2)				Prepared:	12/18/09	Analyzed				
Aluminum	104	50	μg/L	100		104	85-120			
Copper	94.7	2.0	**	100		94.7	85-115			
lron	0.973	0.050	mg/L	1.00		97.3	85-115			
Lead	95.8	2.0	μg/L	100		95.8	85-115			
Zinc	105	2.0	**	100		105	85-115			
Matrix Spike (B9L1810-MS1)	So	urce: 091222	8-01	Prepared	: 12/18/09	Analyzed	l: 12/22/09			
Aluminum	1380	50	μg/L	100	850	530	70-130			QM-0
Copper	197	2.0	"	100	87	110	70-130			
Iron	2.95	0.050	mg/L	1.00	1.0	195	70-130			QM-0
Lead	109	2.0	μg/L	100	5.1	104	70-130			
Zinc	191	2.0	17	100	67	124	70-130			



Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 12/28/09 10:40

### Metals by EPA 200 Series Methods - Quality Control

### Sierra Analytical Labs, Inc.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B9L1810 - EPA 200 Series	58					-				
Matrix Spike (B9L1810-MS2)	Sour	ce: 091222	8-18	Prepared:	12/18/09	Analyzed:	12/22/09	7.5		
Aluminum	161	50	μg/L	100	28	133	70-130			QM-07
Copper	150	2.0	"	100	63	87.0	70-130			
Iron	2.97	0.050	mg/L	1.00	0.087	288	70-130			QM-07
Lead	93.1	2.0	μg/L	100	0.68	92.4	70-130			
Zinc	222	2.0	"	100	130	92.0	70-130			
Matrix Spike Dup (B9L1810-MSD1)	Soui	rce: 091222	8-01	Prepared:	12/18/09	Analyzed	: 12/22/09			
Aluminum	1440	50	μg/L	100	850	590	70-130	4.26	20	QM-07
Copper	187	2.0	"	100	87	100	70-130	5.21	20	
Iron	2.49	0.050	mg/L	1.00	1.0	149	70-130	16.9	20	QM-07
Lead	104	2.0	μg/L	100	5.1	98.9	70-130	4.69	20	
Zinc	184	2.0	"	100	67	117	70-130	3.73	20	
Matrix Spike Dup (B9L1810-MSD2)	Sou	rce: 091222	8-18	Prepared:	: 12/18/09	Analyzed	: 12/22/09			
Aluminum	159	50	μg/L	100	28	131	70-130	1.25	20	QM-07
Copper	152	2.0	**	100	63	89.0	70-130	1.32	20	
lron	1.15	0.050	mg/L	1.00	0.087	106	70-130	88.3	20	QM-07
Lead	92.6	2.0	μg/L	100	0.68	91.9	70-130	0.539	20	
Zinc	225	2.0	"	100	130	95.0	70-130	1.34	20	



Project: San Diego Airport

Project Number: [none]
Project Manager: Amanda Archenhold

Reported: 12/28/09 10:40

### Metals (Dissolved) by EPA 200 Series Methods - Quality Control

### Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
	Rosun	Limit	Cinto	20701	Result	761626	Limits		Ziiiiii	110.00
Batch B9L1812 - EPA 200 Series										
Blank (B9L1812-BLK1)				Prepared:	12/18/09	Analyzed:	12/22/09			_
Copper	ND	2.0	μg/L							
Zinc	ND	2.0	"							
Blank (B9L1812-BLK2)				Prepared:	12/18/09	Analyzed:	12/22/09			
Copper	ND	2.0	μg/L					7		
Zinc	ND	2.0	11							
LCS (B9L1812-BS1)				Prepared:	12/18/09	Analyzed:	12/22/09			
Copper	95.3	2.0	μg/L	100		95.3	85-115			
Zinc	101	2.0	"	100		101	85-115			
LCS (B9L1812-BS2)				Prepared:	12/18/09	Analyzed:	12/22/09			
Copper	90.7	2.0	μg/L	100		90.7	85-115			
Zinc	100	2.0	**	100		100	85-115			
Matrix Spike (B9L1812-MS1)	Sou	rce: 091222	8-01	Prepared:	12/18/09	Analyzed:	12/22/09			-
Copper	161	2.0	μg/L	100	65	96.0	70-130			
Zinc	138	2.0	11	100	40	98.0	70-130			
Matrix Spike (B9L1812-MS2)	Sou	rce: 091222	8-18	Prepared:	12/18/09	Analyzed	12/22/09		20	
Copper	133	2.0	μg/L	100	49	84.0	70-130			
Zinc	197	2.0	"	100	110	87.0	70-130			
Matrix Spike Dup (B9L1812-MSD1)	Sou	rce: 091222	8-01	Prepared	12/18/09	Analyzed	: 12/22/09			
Copper	159	2.0	μg/L	100	65	94.0	70-130	1.25	20	
Zinc	136	2.0	"	100	40	96.0	70-130	1.46	20	
Matrix Spike Dup (B9L1812-MSD2)	Sou	rce: 091222	8-18	Prepared	: 12/18/09	Analyzed	: 12/22/09			
Copper	141	2.0	μg/L	100	49	92.0	70-130	5.84	20	
Zinc	211	2.0	**	100	110	101	70-130	6.86	20	



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Reported: 12/28/09 10:40

Project Manager: Amanda Archenhold

### Total Petroleum Hydrocarbons (TPH) by GC/FID - Quality Control Sierra Analytical Labs, Inc.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Blank (B9L2101-BLK1)				Prepared & An	alyzed: 12/18/	09			
Diesel Range Organics (C10-C24)	ND	0.050	mg/L						
Jet-A	ND	0.050	"						
Oil Range Organics (C22-C36)	ND	0.050	"						
Surrogate: o-Terphenyl	0.0876			0.100	87.6	60-175			
Surrogate: o-Terphenyl	0.0876		"	0.100	87.6	60-175			
Surrogate: o-Terphenyl	0.0876		n	0.100	87. <b>6</b>	60-175			
LCS (B9L2101-BS1)				Prepared & An	alyzed: 12/18/	09			
Diesel Range Organics (C10-C24)	0.499	0.050	mg/L	0.500	99.8	80-120			
Diesel Range Organics (C10-C24)	0.499	0.050	**	0.500	99.8	80-120			
Diesel Range Organics (C10-C24)	0.499	0.050	**	0.500	99.8	80-120			
LCS (B9L2101-BS2)				Prepared & An	alyzed: 12/18/	09			
Diesel Range Organics (C10-C24)	0.539	0.050	mg/L	0.500	108	80-120			
Diesel Range Organics (C10-C24)	0.539	0.050	- 11	0.500	108	80-120			
Diesel Range Organics (C10-C24)	0.539	0.050	**	0.500	108	80-120			
LCS Dup (B9L2101-BSD1)				Prepared & An	alyzed: 12/18/	09			
Diesel Range Organics (C10-C24)	0.532	0.050	mg/L	0.500	106	80-120	6.40	30	
Diesel Range Organics (C10-C24)	0.532	0.050	"	0.500	106	80-120	6.40	30	
Diesel Range Organics (C10-C24)	0.532	0.050	"	0.500	106	80-120	6.40	30	



MACTEC Engineering & Consulting

9177 Sky Park Court Suite A San Diego CA, 92123

Project: San Diego Airport

Project Number: [none] Project Manager: Amanda Archenhold

Reported: 12/28/09 10:40

**Notes and Definitions** 

Sample appears to be a mixture of fuel hydrocarbons. Oil Range Hydrocarbons (C22-C36) reported. D-41

Sample appears to be a mixture of fuel hydrocarbons. Total Petroleum Hydrocarbons quantified using a Jet-A standard for D-49

calibration.

Sample received without sufficient time to complete analysis within recommended holding time. H-01

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS QM-07

recovery.

Analyte DETECTED DET

Analyte NOT DETECTED at or above the reporting limit ND

Not Reported NR

Sample results reported on a dry weight basis dry

Relative Percent Difference RPD



8100 Secura Way • Santa Fe Springs, CA 90670 Telephone (562) 347-2500 • Fax (562) 907-3610

December 29, 2009

Nick Forsyth Sierra Analytical Labs, Inc. 26052 Merit Circle, Suite 105 Laguna Hills, CA 92653

Re:

PTS File No: 391066 Physical Properties Data

0912228

Dear Mr. Forsyth:

Please find enclosed report for Physical Properties analyses conducted upon the sample received from your 0912228 project. All analyses were performed by applicable ASTM, EPA, or API methodologies. An electronic version of the report has previously been sent to your attention via the internet. The sample is currently in storage and will be retained for thirty days past completion of testing at no charge. Please note that the sample will be disposed of at that time. You may contact me regarding storage, disposal, or return of the sample.

PTS Laboratories appreciates the opportunity to be of service. If you have any questions or require additional information, please give me a call at (562) 347-2504.

Sincerely, PTS Laboratories

Rachel Spitz Project Manager

Encl.

### PTS Laboratories

Project Name: Project Number:

N/A 0912228

PTS File No: 391066 Client: Sierra Analytical Labs, Inc.

			Notes				
IES I PROGRAM	Particle	Size:	Microsize	ASTM D4464		×	1
	Fluid	Type/	Matrix			Aqueous	1 Water
		Time				1210	
		Date				12/11/09	
		FLUID ID		Mothod	Received 12/16/09	S-B06-12-12-11-09 (0912228-20) 12/11/09	TOTALS:

Laboratory Test Program Notes

Sierra Analytical Labs, Inc. PTS File No: 391066

TS Laboratories, Inc.

PARTICLE SIZE SUMMARY (METHODOLOGY: ASTM D4464M)

OJECT NAME:

N/A 0912228

		Median				COMOL	CUMULATIVE PERCENI GREATER THAN	CENI G	EAIER	HAN	のでは、 日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日本の日	C. S. C. L. C.	かいのはなかないとればいればいい
		Grain Size.	Mary States of the Party of the	PARTY CONTRACTOR OF THE PARTY O	THE PROPERTY OF THE PROPERTY O		Distribution	i percent, r	nicrons	HELL STATES	THE PROPERTY.	The state	STATE OF STA
Cample 10	Matrix	micron (1)	2%	10%	16%	25%	40%	20%	%09	75%	84%	%06	95%
or ording	NI COLON												
S-B06-12-12-11-09 (0912228-20)	N/A	74.202	110.122	102.212	96.929	89.512	79.934	74.202	67.698	56.445	44.888	25.723	14.362

he concentration of particles in sample S-B06-12-12-11-09 (0912228-20) was 4%. e sample was below the required limits of 8-12% for diffraction cell obscuration.

### PTS Laboratories, Inc. Particle Size Analysis - ASTM D4464M **Client:** Sierra Analytical Labs, Inc. PTS File No: 391066 **Project:** N/A Sample ID: S-B06-12-12-11-09 (0912228-20) **Project No:** 0912228 Matrix: N/A 16.0 100 The concentration of particles in 90 14.0 sample S-B06-12-12-11-09 (0912228-20) was 4% and is 80 12.0 below the required limits of 8-70 12% for diffraction cell Incremental (%) 10.0 obscuration. 60 Cumulative 8.0 50 40 6.0 30 4.0 20 2.0 10 0.0 101.10 146.80 69.62 309.60 47.94 3.52 0.55 0.38 Particle Size, micron **Particle Particle Distribution Particle Particle Distribution Particle** Particle Distribution Diameter. Incremental Cumulative Diameter, incremental Cumulative Diameter, Incremental Cumulative micron percent micron percent percent percent micron percent percent 2000.00 0.00 0.0 52.63 5.04 79.4 1.385 0.013 99.6 1822.00 0.00 0.0 47.94 3.83 83.3 1.261 800.0 99.6 1660.00 0.00 0.0 43.67 1.46 84.7 1.149 0.006 99.6 1512.00 0.00 0.0 39.78 0.20 84.9 1.047 0.007 99.6 1377.00 0.00 0.0 36.24 0.28 85.2 0.954 0.012 99.6 0.00 1255.00 0.0 33.01 1.18 86.4 0.869 0.021 99.6 1143.00 0.00 0.0 30.07 1.74 88.1 0.791 0.031 99.7 1041.00 0.00 0.0 27.39 1.40 89.5 0.721 0.043 99.7 948.30 0.00 0.0 24.95 0.96 90.5 0.657 0.055 99.8 863.90 0.00 0.0 22.73 0.76 91.2 0.598 0.064 99.8 786.90 0.00 0.0 20.71 0.78 92.0 0.545 0.067 99.9 716.90 0.00 0.0 18.86 0.91 92.9 0.496 0.063 100.0 653.00 0.00 0.0 17.18 0.89 93.8 0.452 0.050 100.0 594.90 0.00 0.0 15.65 0.74 94.6 0.412 0.031 100.1 541.90 0.00 0.0 14.26 0.66 95.2 0.375 0.016 100.1 493.60 0.00 0.0 12.99 0.62 95.8 TOTALS: 100.07 100.1 449.70 0.00 0.0 11.83 0.52 96.4 409.60 0.00 0.0 10.78 0.42 96.8 Measure Trask Inman 373.10 0.00 0.0 9.82 0.37 97.1 Median, mm 0.0742 0.0742 339.90 0.00 0.0 8.94 0.36 97.5 Median, micron 74.202 74.202 309.60 0.00 0.0 8.15 0.36 97.9 Mean, mm 0.0730 0.0660 282.10 0.00 0.0 7.42 0.33 98.2 Mean, micron 72.979 65.962 256.90 0.00 0.0 6.76 0.26 98.5 Sorting 1.2593 0.555 234.10 0.00 0.0 6.16 0.19 98.6 Skewness 0.9579 0.306 213.20 0.00 0.0 5.61 0.13 98.8 Kurtosis 0.2162 1.646 194.20 0.00 0.0 5.11 0.10 98.9 176.90 0.00 0.0 4.66 0.10 99.0 **Cumulative Percent greater than** 161.20 0.00 0.0 4.24 0.12 99.1 Distribution Particle Size 146.80 0.00 0.0 3.86 0.13 99.2 percent Micron Millimeters 133.70 0.00 0.0 3.52 0.12 99.3 110.122 0.1101 121.80 0.00 0.0 3.21 0.09 99.4 10 102.212 0.1022 111.00 2.98 3.0 2.92 0.06 99.5 16 96.929 0.0969 101.10 6.48 2.66 9.5 0.03 99.5 25 89.512 0.0895 92.10 10.80 20.3 2.42 0.01 99.5 40 79.934 0.0799 83.90 13.60 33.9 2.21 0.00 99.5 50 74.202 0.0742 76.43 12.40 46.3 2.01 0.00 99.5 60 67.698 0.0677 69.62 11.60 57.9 1.83 0.01 99.5 75 56,445 0.0564 63.42 9.82 67.7 1.67 0.02 99.6 84 44.888 0.0449 57.77 6.70 74.4 1.52 0.02 90 99.6 25.723 0.0257 14.362 0.0144

Dhana /562\ 007 2607

@PTC I shoretories Inc



### SUBCONTRACT ORDER

### Sierra Analytical Labs, Inc. Sierra Proiect #: 0912228

# 391066

Comments SENDING LABORATORY: RECEIVING LABORATORY: Sierra Analytical Labs, Inc. PTS Laboratories 26052 Merit Circle, Suite 105 Tum Around Nonmi 24 Hour Time Requested: 8100 Secura Way Laguna Hills, CA 92653 48 Hour 72 Hour Santa Fe Springs, CA 90670 Phone: (949) 348-9389 4Day 5 Day Phone: (562) 907-3607 Fax: (949) 348-9115 Laboratory Contact: Nick Forsyth Fax: (562) 907-3610 Apalysis Expires Sampled: Laboratory ID Comments Sample ID: S-B06-12-12-11-09 (0912228-20) Liquid 12/11/09 12:10 Full Particle Sizing 06/09/10 12:10 Containers Supplied: 1L Amber (A)

Special Instructions :		MINITED FOR THE STANLES OF THE	ple Seals
		The property of the second sec	
		Appropriate Container Pres	ervalives - Verified By
TOKA	17.16.09/13:00		Lats Inc 12/16/09 13:00
Relinquished By	Date / Time	Received By	Date / Time
Relinquished By	Date / Time	Received By	Date / Time
Relinquished By	Date / Time	Received By	Date / Time
			Page 1 of 4

# TRUESDAIL LABORATORIES, INC.

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14201 FRANKLIN AVENUE - TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 - FAX (714) 730-6462 - www.truesdail.com

Established 1931

986878 Laboratory No:

REPORT

26052 Merit Circle, Suite #105 Sierra Analytical Labs, Inc.

**Client:** 

Laguna Hills, CA 92653

iquid / 15 Samples

Sample: Attention:

Project Name:

**EPA 8015B** #0912228

Glycols

Investigation: Method

**Nick Forsyth** 

December 22, 2009 December 11, 2009 December 17, 2009 Report Date: Sampling Date: Receiving Date:

December 21, 2009 Analysis Date:

mg/L Units:

Dilution Factor:

LES Reported By: 1 of 1

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Sample ID	Sample	Propylene Glycol	Ethylene Glycol	Surrogate	Surrogate	]
Calliple ID	Description	9		(1-Butanol)	% Recovery	14 
708610-MB	Method Blank	QN	QN	245	122%	1
986878-1	C-B01-1-12-11-09	QN	ND	253	126%	ļ
986878-2	C-B05-3-12-11-09	QN	QN	227	113%	ł
986878-3	C-B05-4-12-11-09	QN	QN	217	109%	i
986878-4	C-B06-5-12-11-09	QN	QN	252	126%	1
986878-5	C-B07-6-12-11-09	QN	QN	245	122%	ì
986878-6	C-B07-7-12-11-09	ND	QN	223	112%	
986878-7	S-B08-14/C-B08-8-12-11-09	17.3	QN	204	102%	ŀ
986878-8	C-B12-9-12-11-09	QN	QN	221	110%	ŀ
986878-9	C-B09-10-12-11-09	ND	QN	216	108%	ı
986878-10	S-B08-1-12-11-09	QN	QN	217	108%	1
986878-11	S-B08-2-12-11-09	QN	QN	227	113%	ı
986878-12	S-B11-4-12-11-09	ND	QN	223	112%	ı
986878-13	S-B12-13-12-11-09	QN	QN	226	113%	1
986878-14	S-B06-12-12-11-09	QN	QN	219	110%	,
986878-15	C-06-5-12-11-09-Dup	QN	ND	210	105%	
Practical Quantitation Limits	ation Limits	5.0	5.0	Surrogate Conc. = 200	APR = 50-200%	a i
Sample RLs		10.0	10.0			1 1

ND: Not detected, or below limit of detection.

RL: Reporting limit, or least amount of analyte quantifiable based on average

sample size used and analytical technique employed.

APR: Allowable Percent Recovery

Truesdail Laboratories, Inc. Ros≰ina Yorhǿva, Project Manager Analytical Services This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

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Established 1931

Sierra Analytical Labs, Inc.

Client:

26052 Merit Circle, Suite #105

Laguna Hills, CA 92653

**Nick Forsyth** 

Attention:

Liquid / 15 Samples Sample:

**EPA 8015B** #0912228 Project Name: Method Number:

Glycols Investigation:

REPORT

708610 QA/QC Batch No:

December 22, 2009 986878 Laboratory No: Report Date:

December 11, 2009 December 17, 2009 Sampling Date: Receiving Date:

December 21, 2009 Analysis Date:

mg/L LES

Reported By:

# Quality Control/Quality Assurance Calibration Check Report

	MRCVS (1)		:		
Parameter	Spiked	Recovered	Percent	Flag	Acc
	Concentration	Concentration	Recovery		Contro
Propylene Glycol	50.0	51.1	102%	PASS	02
Ethylene Glycol	50.0	57.4	115%	PASS	-02

Accuracy	<b>Control Limits</b>	70-130	70-130	
•	ပိ			

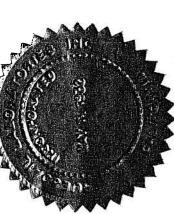
# Quality Control/Quality Assurance Spikes Report

**TCS/ICSD** 

	Spike	Recovered	vered	Pe	Percent	RPD		1
Parameter	Conc.	Concentration	ıtration	Reco	Recovery (%)	(%)	Flag	S
		SOT	CSD	SOT	CSD			RPD
Propylene Glycol	50.0	49.5	51.4	%0.66	103%	3.86%	PASS	20
Ethylene Glycol	50.0	60.4	53.6	121%	· 107%	11.9%	PASS	20
					7			

% Recovery 70-130 70-130

ontrol Limits Accuracy



Analytical Berylces Truesdail Laboratories, Inc. Rossina Tómolva, Project Man

LCSD: Laboratory Control Spike Duplicate RPD: Relative Percent Difference LCS: Laboratory Control Spike

MRCVS: Mid Range Calibration Verification Standard

Flag: "Pass" if within Control Limits; otherwise "Fail"

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

SIERRA ANALYTICAL

TEL: 949 • 348 • 9389 FAX: 949 • 348 • 9115 26052 Merit Circle • Suite 105 • Laguna Hills, CA • 92653

26052 Merit Circle - Suite 105 - Laguna Hills, CA - 92653	9115 le • Suite 1	105 • Lagui	na Hills, C	.A • 92653							Lab Work Order No.:	der No.:	0619996
Client: MACTEC				_	Client Project ID:	••				Analys	Analyses Requested		Γ
Client Address: 9177 SKY PARK COURT	COURT				SANDI	SAN DIEGO AIRPORT	ORT	.e7, 2,4	(1:0	(IIO			Geotracker EDD Info:
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Client Tel. No.: (858) 278-3600	300			     	inc Requested:	_	T2 Hour		O) ∈	əin			-0
Client Fax. No.: (858) 278-5300	300				<b>ئ</b>	O 4 Day	J s Day		988	'lar			
Client Proj. Mgr.:						Nonnal	- Mobile		ag l	ופו זו			Site Global ID
Client Sample ID.	Sierra No.	Date	Time	Matrix	Preservative	Container	No. of Containers	2 ,22T ,Hq isib ,(n5,d9	ethyle	() нат			Field Point Nancs / Comments
-B01-1- 12-11-69	jo	10-11-01	11150	STORMWATER	NONE	PLASTIC	2	×	-	1_			
-B01-1-12-11-09		10-11-09	-	) STORMWATER	NONE	40ml VOA	2	×	<u></u>				
-B01-1-12-11-09		12.11.09	_	STORMWATER	NONE	CLR GLASS	-		×				
-B01-1- 13-11-04	>	2 = 2	1	STORMWATER		AMBER GLASS	-		×	<b>S.A</b>			
T	1.00			STORMWATER	NONE	FEMOTIC	7	k		\ \			
		100		STOPMMATER	NONE	10 minutes				5760			
-7-cod-	AND DESCRIPTION						1	+		1			
B69-2				or community	NONE	כבוג פבאפפ			*				
9,000	THE PARTY OF THE P		1		HOKE	AMBER GLASS	-			l			
-B05-3- []- 11- 0 4	80	10-11-09	1310	STORMWATER	STORMWATER NONE	PLASTIC	7	×					
-805-3- 13-11-09		1011-09	17.00	STORMWATER	NONE	40ml VOA	2	×					
aples Signame: "MMM	1	aes	Shipped Vin							Total N	mber of Contai	Total Number of Containers Submitted to	Sample Disposal:
MONTH ON CO	どわ	5	(Carrier(Vay bill No	No.1						Laboratory	اع 		Return In Client
Mineral By Mineral		Date: W/W Of Received By	D)	13- Mul	<b>.</b>		to.Ti.sh	-	ery of samples on los to perform t	nd the signitur he unidyses spe	The delivery of sumplies and the signiture on this chain at custody form consultates authorbadon to perform the unalyses specified alove under SIERRA's Terus unit	nity farnı cansillules ERRA's Ternıs unit	Lab Disposal *
MACTEC		Time: 140 o Company:	Company	48	•		14 00 Time.	Condition	s, unless utherw les determined t	dse agreed opo o be hazardous	in writing helween by SIERRA will be r	Conditions, unless utterwise agreed upon in writing hetween SIERRA mut CLIENT. • - Samples determined to be luzaredaus by SIERRA will be returned in CLIENT.	Archive mas.
		Date	Received By:				Delc:			Total	umber of Conta	Total Number of Containers Received by	Other
industrial (1)		į	à mund				Time			Laboratory	lory		
onpany:		Date:	Received By:				Date	FOR LABC	RATORY USE O	ONLY - Sample 1	FOR LABORATORY USE ONLY - Sample Receipt Conflitions:  [X] Infact  Chilled -	Chilled - Tomp (°C) - 4-0	
Change Co.		Tine	Company:				Time	Sample Scale	ple Scals		Preserval	Preservalives - Verified By	
pecial Justructions:	ř			8				Z Z	K Properly: Labelled.		*		
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Page: 2

Date:

091999

Lab Work Order No.:

SIERRA ANALYTICAL

TEL: 949 · 348 · 9389 FAX: 949 · 348 · 9115 26052 Merit Circle · Suite

	CA • 92653	
	Hills, CA	
	105 · Laguna Hi	
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111 - 040 - 747 - 1110	052 Merit Circle • Suite 105 •	
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Client: MACTEC	EC		_	Clie	Client Project ID:			-		۲-	Analyses Kequested	Kedi	esteu		Γ		
Address:	9177 SKY PARK COURT				SAN DIE	SAN DIEGO AIRPORT		.a-r,		(lio					_	Geotracker EDD Info:	
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				Turn A	Turn Around	Immediate	24 Hour	Jej, Bi	Ð.86	ʻləs						Client LOGCODE	
Client Tel. No.: (858) 2	(858) 278-3600			Time F				DD, CO		əib		_					
Client Fax. No.: (858) 2	(858) 278-5300					4 Day	□ 5 Day	u)' ac		ʻįər						City Clair ID	-
Client Proj. Mgr.:							Nobile	S(Cu,Z)		iì 19			-			Site Cional LD	
Client Sample ID.	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No. of Containers	s . s s r. Hq en . (n z . drs ethyle	ons lio	) нат						Field Point Names / Comments	
C-B05-3- 17-11-04	8	1211-09	1310	STORMWATER NONE		CLR GLASS	1		×								
C-B05-3- 12.11.09		8-1-0	1210	STORMWATER	NONE	AMBER GLASS	_			×					•		$\neg$
$\downarrow =$	8	60/11/21	1240	STORMWATER	NONE	PLASTIC	2	×				-					
C-B05-4- 12-11-09		12/11/21		STORMWATER NONE		40ml VOA	2	×									7
C-B05-4-12-11-09		12/11/09	1240	STORMWATER NONE		CLR GLASS	_		×								
C-B05-4- 12-11-09		60/11/21	040)	STORMWATER	NONE	AMBER GLASS	1			×						\$25	
C-B06-5- 12-11-09	5	12/11/09	1300	STORMWATER	NONE	PLASTIC	2	×									
C-B06-5-12-11-09		10/11/08	1300	STORMWATER	NONE	40ml VOA	2	×									$\neg \neg$
C-B06-5- (2-11-09	The second secon	80/11/21	1300	STORMWATER NONE		CLR GLASS	-		×		_	8	- 8				
C-B06-5-11-11-09	<b>%</b> //	6911/A	1300	STORMWATER NONE		AMBER GLASS	_			×							
Sampler Signature:	- Ma	Tri	Shipped Var							<u> </u>	otal Nur	ber of	Containers	Total Number of Containers Submitted to	Sai	Sample Disposal:	
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Lab Work Order No.:

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27 January 2010

Amanda Archenhold MACTEC Engineering & Consulting 9177 Sky Park Court Suite A San Diego, CA 92123

RE:San Diego Airport

Work Order No.:

1001264

Attached are the results of the analyses for samples received by the laboratory on 01/19/10 12:20.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report. If you require any additional retaining time, please advise us.

Sincerely,

Richard K. Forsyth

Laboratory Director

Sierra Analytical Labs, Inc. is certified by the California Department of Health Services (DOHS), Environmental Laboratory Accredidation Program (ELAP) No. 2320.



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Reported: 01/27/10 15:34 Project Manager: Amanda Archenhold

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-B08-1-1-18-10	1001264-02	Liquid	01/18/10 16:20	01/19/10 12:20
S-B08-2-1-18-10	1001264-04	Liquid	01/18/10 16:30	01/19/10 12:20
S-B09-3-1-18-10	1001264-06	Liquid	01/18/10 16:10	01/19/10 12:20
S-B11-4-1-18-10	1001264-08	Liquid	01/18/10 16:15	01/19/10 12:20
S-B06-12-1-18-10	1001264-09	Liquid	01/18/10 17:35	01/19/10 12:20
S-B06-12-1-18-10	1001264-10	Liquid	01/18/10 15:30	01/19/10 12:20
S-B12-13-1-18-10	1001264-11	Liquid	01/18/10 17:46	01/19/10 12:20
S-B12-13-1-18-10	1001264-12	Liquid	01/18/10 16:00	01/19/10 12:20
S-B08-14-1-18-10	1001264-13	Liquid	01/18/10 22:08	01/19/10 12:20
S-B08-14-1-18-10	1001264-14	Liquid	01/18/10 15:50	01/19/10 12:20
S-B06-12-1-18-10-DUP	1001264-15	Liquid	01/18/10 17:35	01/19/10 12:20
S-B09-3-1-18-10-BL	1001264-16	Liquid	01/18/10 17:55	01/19/10 12:20
C-B03-2-1-18-10	1001264-18	Liquid	01/18/10 15:15	01/19/10 12:20
Composite S-B08-1/ S-B08-2	1001264-19	Liquid	01/19/10 00:00	01/19/10 12:20
Composite S-B09-3/ S-B11-4	1001264-20	Liquid	01/19/10 00:00	01/19/10 12:20

### CASE NARRATIVE

SAMPLE RECEIPT:

Samples were received intact, at 4°C, and accompanied by chain of custody documentation.

PRESERVATION:

Samples requiring preservation were verified prior to sample preparation and analysis. All holding times were met, unless otherwises noted in the report with data qualifiers.

**HOLDING TIMES:** QA/QC CRITERIA:

All quality objective criteria were met, except as noted in the report with data qualifiers.



9177 Sky Park Court Suite A San Diego CA, 92123 Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 01/27/10 15:34

### Conventional Chemistry Parameters by APHA/EPA Methods Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-B06-12-1-18-10 (1001264-09) Liquid	Sampled: 01/18	/10 17:35	Received:	01/19/10	12:20				
Biochemical Oxygen Demand	3.60	2.00	mg/L	1	B0A2508	01/19/10	01/24/10 16:00	EPA 405.1	
Chemical Oxygen Demand	7.00	0.100	"	*	н	**	01/19/10 16:00	EPA 410.4	
Specific Conductance (EC)	52.0	0.100	μmhos/cm	**	11	"	**	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"	**	"	"	EPA 1664	
pH	7.43	0.100	pH Units	**	**	"	n	EPA 150.1	
Total Suspended Solids	3.00	1.00	mg/L	#	**	Ħ	17	EPA 160.2	
S-B12-13-1-18-10 (1001264-11) Liquid	Sampled: 01/18	/10 17:46	Received:	01/19/10	12:20				
Biochemical Oxygen Demand	3.40	2.00	mg/L	1	B0A2508	01/19/10	01/24/10 16:00	EPA 405.1	
Chemical Oxygen Demand	10.0	0.100	"	"	"	**	01/19/10 16:00	EPA 410.4	
Specific Conductance (EC)	51.5	0.100	μmhos/cm	"	"	"	"	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	**	"	"	"	EPA 1664	
pН	7.36	0.100	pH Units	"	"	"	**	EPA 150.1	
Total Suspended Solids	2.00	1.00	mg/L	**	**	**	Ħ	EPA 160.2	
S-B08-14-1-18-10 (1001264-13) Liquid	Sampled: 01/18	3/10 22:08	Received:	01/19/10	12:20				
Biochemical Oxygen Demand	ND	2.00	mg/L	1	B0A2508	01/19/10	01/24/10 16:00	EPA 405.1	
Chemical Oxygen Demand	4.00	0.100	"	n	"	#	01/19/10 16:00	EPA 410.4	
Specific Conductance (EC)	106	0.100	μmhos/cm	**	"	. "	"	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"	11	"	**	EPA 1664	
рН	7.25	0.100	pH Units	11	**	11	**	EPA 150.1	
Total Suspended Solids	4.00	1.00	mg/L	**		Ħ	**	EPA 160.2	
S-B06-12-1-18-10-DUP (1001264-15) Li	iquid Sampled:	01/18/10 1	7:35 Rece	eived: 01/	19/10 12:20	)			
Biochemical Oxygen Demand	3.20	2.00	mg/L	1	B0A2508	01/19/10	01/24/10 16:00	EPA 405.1	
Chemical Oxygen Demand	8.00	0.100	11	**	"		01/19/10 16:00	EPA 410.4	
Specific Conductance (EC)	52.3	0.100	μmhos/cm	**	11	**	"	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"	"	**	**	EPA 1664	
pH	7.40	0.100	pH Units			**	**	EPA 150.1	
Total Suspended Solids	2.00	1.00	mg/L	"	"	"	"	EPA 160.2	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



9177 Sky Park Court Suite A San Diego CA, 92123 Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 01/27/10 15:34

### Conventional Chemistry Parameters by APHA/EPA Methods

### Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
   S-B09-3-1-18-10-BL (1001264-16) Liquid	Sampled:	01/18/10 17:5	5 Receive	d: 01/19/	10 12:20	-			
Biochemical Oxygen Demand	ND	2.00	mg/L	1	B0A2508	01/19/10	01/24/10 16:00	EPA 405.1	
Chemical Oxygen Demand	ND	0.100	11	"	"	**	01/19/10 16:00	EPA 410.4	
Specific Conductance (EC)	1.66	0.100	μmhos/cm	11	**	11	н	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	**	11	11	**	EPA 1664	
рН	7.14	0.100	pH Units	**	"	"	n	EPA 150.1	
Total Suspended Solids	ND	1.00	mg/L	"	"	11	"	EPA 160.2	
C-B03-2-1-18-10 (1001264-18) Liquid S	Sampled: 01/	/18/10 15:15 F	Received: (	1/19/10 1	12:20				
Ammonia as N	1.30	0.100	mg/L	1	B0A2508	01/19/10	01/19/10 16:00 \$	SM 4500-NH3	
Biochemical Oxygen Demand	28.0	2.00	11	11	"	**	01/24/10 16:00	EPA 405.1	
Chemical Oxygen Demand	55.0	0.100	11	"	"	#	01/19/10 16:00	EPA 410.4	
Specific Conductance (EC)	147	0.100	μmhos/cm	11	11	"	11	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	***	11	**	11	EPA 1664	
Methylene Blue Active Substances	0.180	0.0500	11	**	11	**	н	EPA 425.1	
pH	7.02	0.100	pH Units	**	"	"	11	EPA 150.1	H-0
Total Suspended Solids	24.0	1.00	mg/L	"	"	"	**	EPA 160.2	
Composite S-B08-1/ S-B08-2 (1001264-19	9) Liquid S	Sampled: 01/19	/10 00:00	Receive	d: 01/19/10	12:20			
Biochemical Oxygen Demand	12.0	2.00	mg/L	1	B0A2508	01/19/10	01/24/10 16:00	EPA 405.1	
Chemical Oxygen Demand	27.0	0.100	"	"		11	01/19/10 16:00	EPA 410.4	
Specific Conductance (EC)	43.4	0.100	μmhos/cm	"	н	**	n	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	**	**	"	11	EPA 1664	
рН	7.47	0.100	pH Units	11	11	"	**	EPA 150.1	
Total Suspended Solids	9.00	1.00	mg/L	11	11	**	**	EPA 160.2	



9177 Sky Park Court Suite A San Diego CA, 92123 Project: San Diego Airport

Project Number: [none]
Project Manager: Amanda Archenhold

Reported: 01/27/10 15:34

### Conventional Chemistry Parameters by APHA/EPA Methods

### Sierra Analytical Labs, Inc.

			•						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Composite S-B09-3/ S-B11-4 (1001264-20)	) Liquid San	npled: 01/19	/10 00:00	Received	1: 01/19/10	12:20			
Biochemical Oxygen Demand	20.6	2.00	mg/L	1	B0A2508	01/19/10	01/24/10 16:00	EPA 405.1	
Chemical Oxygen Demand	42.0	0.100	11	11	**	n	01/19/10 16:00	EPA 410.4	
Specific Conductance (EC)	60.1	0.100	μmhos/cm	**	**	11	**	EPA 120.1	
Hexane Extractable Material (HEM)	ND	2.00	mg/L	"	11	11	11	EPA 1664	
рН	7.16	0.100	pH Units	"	**	11	**	EPA 150.1	
Total Suspended Solids	17.0	1.00	mg/L	11	"	"	11	EPA 160.2	



San Diego CA, 92123

MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 01/27/10 15:34

### Metals by EPA 200 Series Methods Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-B06-12-1-18-10 (1001264-09) Liquid	Sampled: 01/1	8/10 17:35	Received	: 01/19/10	12:20				
Aluminum	260	50	μg/L	2	B0A2109	01/21/10	01/25/10 17:53	EPA 200.8	
Copper	39	2.0	"	57	11	11	**	"	
Iron	0.39	0.050	mg/L	11	11	"	**	"	
Lead	2.3	2.0	μg/L	11	11	"	**	"	
Zinc	110	2.0	11	11	**	"	50	"	
S-B12-13-1-18-10 (1001264-11) Liquid	Sampled: 01/1	8/10 17:46	Received	: 01/19/10	12:20				
Aluminum	130	50	μg/L	2	B0A2109	01/21/10	01/25/10 18:05	EPA 200.8	
Copper	16	2.0	**	**	11	"	"	**	
Iron	0.18	0.050	mg/L	**	**	"	"	11	
Lead	ND	2.0	μg/L	**	**	11	**	11	
Zinc	72	2.0	"	"	tt	11	Ħ	**	
S-B08-14-1-18-10 (1001264-13) Liquid	Sampled: 01/1	8/10 22:08	Received	: 01/19/10	12:20				
Aluminum	160	50	μg/L	2	B0A2109	01/21/10	01/25/10 18:09	EPA 200.8	
Copper	41	2.0	"	**	"	**	**	**	
Iron	0.16	0.050	mg/L	**	**	**	11	**	
Lead	2.3	2.0	μg/L	"	11	11	**	11	
Zinc	140	2.0	11	"	"	"	**	**	
S-B06-12-1-18-10-DUP (1001264-15) Li	quid Sampled	: 01/18/10 1	7:35 Rec	eived: 01/1	19/10 12:20	)			
Aluminum	160	50	μg/L	2	B0A2109	01/21/10	01/25/10 18:12	EPA 200.8	
Copper	20	2.0	11	"	"	11	**	"	
Iron	0.23	0.050	mg/L	**	"	11	11	11	
			-						
Lead	ND	2.0	μg/L	Ħ	11	11	19	**	

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MACTEC Engineering & Consulting 9177 Sky Park Court Suite A San Diego CA, 92123 Project: San Diego Airport

Project Number: [none]
Project Manager: Amanda Archenhold

Reported: 01/27/10 15:34

### Metals by EPA 200 Series Methods

### Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-B09-3-1-18-10-BL (1001264-16) Liquid	Sampled: 0	1/18/10 17:55	Receive	ed: 01/19/	10 12:20				
Aluminum	ND	50	μg/L	2	B0A2109	01/21/10	01/25/10 18:16	EPA 200.8	
Copper	ND	2.0	11	n	**	**	**	11	
Iron	ND	0.050	mg/L	11	**	**	11	**	
Lead	ND	2.0	μg/L	19	11	11	**	11	
Zinc	ND	2.0	"	"	11	11	11	11	
C-B03-2-1-18-10 (1001264-18) Liquid Sa	ampled: 01/18	8/10 15:15 Re	eceived:	01/19/10 1	2:20				
Aluminum	660	50	μg/L	2	B0A2109	01/21/10	01/25/10 18:20	EPA 200.8	
Copper	200	2.0	"	"	**	"	"	"	
Iron	0.80	0.050	mg/L	"	**	**	"	"	
Lead	3.3	2.0	μg/L	**	"	**	"	"	
Zinc	210	2.0	"	11	**	"	11	II .	
Composite S-B08-1/ S-B08-2 (1001264-19	) Liquid Sa	mpled: 01/19/	10 00:00	Receive	d: 01/19/10	12:20			
Aluminum	1400	50	μg/L	2	B0A2109	01/21/10	01/25/10 18:32	EPA 200.8	
Copper	43	2.0	"	11	"	"	**	11	
Iron	1.8	0.050	mg/L	11	"	"	**	"	
Lead	7.9	2.0	μg/L	11	**	**	**	"	
Zinc	180	2.0	11	11	"	"	**	"	
Composite S-B09-3/ S-B11-4 (1001264-20	) Liquid Sa	mpled: 01/19/	10 00:00	Receive	d: 01/19/10	12:20			
Aluminum	5200	500	μg/L	20	B0A2109	01/21/10	01/26/10 14:45	EPA 200.8	<del></del>
Copper	66	2.0	**	2	"	**	01/25/10 18:36	"	
Iron	6.0	0.050	mg/L	**	**	"	**	"	
Lead	42	2.0	μg/L	11	11	**	11	11	
Zinc	400	2.0	"	"	11	**	"	"	



9177 Sky Park Court Suite A San Diego CA, 92123

Project: San Diego Airport

Project Number: [none]

Reported: Project Manager: Amanda Archenhold 01/27/10 15:34

### Metals (Dissolved) by EPA 200 Series Methods

### Sierra Analytical Labs, Inc.

		Reporting				1.0			,
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-B06-12-1-18-10 (1001264-09) Liquid	Sampled: 01/18	/10 17:35	Received:	01/19/10	12:20				
Copper	5.7	1.0	μg/L	1	B0A2133	01/21/10	01/25/10 20:32	EPA 200.8	
Zinc	37	1.0	"	"	**	"	"	"	
S-B12-13-1-18-10 (1001264-11) Liquid	Sampled: 01/18	3/10 17:46	Received:	01/19/10	12:20				
Copper	6.1	1.0	μg/L	1	B0A2133	01/21/10	01/25/10 20:36	EPA 200.8	
Zinc	34	1.0	"	"	"	"	"	**	
S-B08-14-1-18-10 (1001264-13) Liquid	Sampled: 01/18	3/10 22:08	Received:	01/19/10	12:20				
Copper	23	1.0	μg/L	i	B0A2133	01/21/10	01/25/10 20:40	EPA 200.8	
Zinc	88	1.0	11	"	"	"	**	"	
S-B06-12-1-18-10-DUP (1001264-15) Li	quid Sampled:	01/18/10 1	7:35 Rec	eived: 01/	19/10 12:20	)			
Copper	5.0	1.0	μg/L	i	B0A2133	01/21/10	01/25/10 20:51	EPA 200.8	
Zinc	31	1.0	н	**	"	"	"	#	
C-B03-2-1-18-10 (1001264-18) Liquid	Sampled: 01/18	/10 15:15	Received:	01/19/10 1	12:20				
Copper	140	1.0	μg/L	1	B0A2133	01/21/10	01/25/10 20:59	EPA 200.8	
Zinc	140	1.0	"	"	**	**	**	"	
Composite S-B08-1/ S-B08-2 (1001264-	19) Liquid San	npled: 01/1	9/10 00:00	Receive	d: 01/19/10	12:20			
Copper	10	1.0	μg/L	1	B0A2133	01/21/10	01/25/10 21:03	EPA 200.8	
Zinc	42	1.0	"	"	"	"	"	n	
Composite S-B09-3/ S-B11-4 (1001264-2	20) Liquid San	npled: 01/1	9/10 00:00	Receive	d: 01/19/10	12:20			
Copper	8.5	1.0	μg/L	i	B0A2133	01/21/10	01/25/10 21:07	EPA 200.8	
Zinc	37	1.0	**	**	"	"	"	"	



San Diego CA, 92123

MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 01/27/10 15:34

### Total Petroleum Hydrocarbons (TPH) by GC/FID

Sierra Analytical Labs, Inc.

		21011411	J						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C-B03-2-1-18-10 (1001264-18) Liquid	Sampled: 01/18/	/10 15:15 R	eceived: 01/	19/10	12:20				
Diesel Range Organics (C10-C24)	ND	0.050	mg/L	ì	B0A2622	01/22/10	01/22/10 19:2	8 EPA 8015B	
Surrogate: o-Terphenyl		105 %	60-175	5	"	"	"	"	
Jet-A	ND	0.050	"	"	"	"			
Surrogate: o-Terphenyl		105 %	60-17:	5	"	"	•	"	
Oil Range Organics (C22-C36)	0.40	0.050	"		"	11	"	"	
Surrogate: o-Terphenyl		105 %	60-17.	5	"	"	"	"	



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A

San Diego CA, 92123

Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

**Reported:** 01/27/10 15:34

### Metals by EPA 200 Series Methods - Quality Control Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B0A2109 - EPA 200 Series									<u> </u>	
Blank (B0A2109-BLK1)				Prepared:	01/21/10	Analyzed	: 01/25/10			
Aluminum	ND	50	μg/L							
Соррег	ND	2.0	"							
lron	ND	0.050	mg/L							
Lead	ND	2.0	μg/L							
Zinc	ND	2.0	11							
Blank (B0A2109-BLK2)				Prepared:	01/21/10	Analyzed	: 01/25/10			
Aluminum	ND	50	μg/L							
Copper	ND	2.0	11							
Iron	ND	0.050	mg/L							
Lead	ND	2.0	μg/L							
Zinc	ND	2.0	н							
LCS (B0A2109-BS1)				Prepared:	01/21/10	Analyzed	: 01/25/10			
Aluminum	109	50	μg/L	100		109	85-115			
Copper	95.8	2.0	"	100		95.8	85-115			
Iron	0.958	0.050	mg/L	1.00		95.8	85-115			
Lead	106	2.0	μg/L	100		106	85-115			
Zinc	105	2.0	***	100		105	85-115			
LCS (B0A2109-BS2)				Prepared:	01/21/10	Analyzed	: 01/25/10			
Aluminum	106	50	μg/L	100		106	85-115			
Copper	94.8	2.0	"	100		94.8	85-115			
lron	0.942	0.050	mg/L	1.00		94.2	85-115			
Lead	108	2.0	μg/L	100		108	85-115			
Zinc	105	2.0	**	100		105	85-115			
Matrix Spike (B0A2109-MS1)	Sou	rce: 100126	4-09	Prepared:	01/21/10	Analyzed	: 01/25/10			
Aluminum	331	50	μg/L	100	260	71.0	70-130			· · · · · · · · · · · · · · · · · · ·
Copper	118	2.0	"	100	39	79.0	70-130			
lron	1.23	0.050	mg/L	1.00	0.39	84.0	70-130			
Lead	105	2.0	μg/L	100	2.3	103	70-130			
Zinc	184	2.0	"	100	110	74.0	70-130			



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A San Diego CA, 92123 Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 01/27/10 15:34

### Metals by EPA 200 Series Methods - Quality Control

### Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B0A2109 - EPA 200 Series						Ø.				
Matrix Spike (B0A2109-MS2)	Sour	ce: 1001278	8-01	Prepared:	01/21/10		: 01/25/10			
Aluminum	223	50	μg/L	100	110	113	70-130			
Copper	599	2.0	11	100	530	69.0	70-130			QM-07
Iron	1.10	0.050	mg/L	1.00	0.17	93.0	70-130			
Lead	116	2.0	μg/L	100	6.3	110	70-130			
Zinc	244	2.0	"	100	140	104	70-130			
Matrix Spike Dup (B0A2109-MSD1)	Soui	rce: 100126	4-09	Prepared:	01/21/10	Analyzed	1: 01/25/10			
Aluminum	339	50	μg/L	100	260	79.0	70-130	2.39	30	
Copper	129	2.0	"	100	39	90.0	70-130	8.91	30	
Iron	1.26	0.050	mg/L	1.00	0.39	87.0	70-130	2.41	30	
Lead	103	2.0	μg/L	100	2.3	101	70-130	1.92	30	
Zinc	183	2.0	11	100	110	73.0	70-130	0.545	30	
Matrix Spike Dup (B0A2109-MSD2)	Sou	rce: 100127	8-01	Prepared	: 01/21/10	Analyze	d: 01/25/10			
Aluminum	222	50	μg/L	100	110	112	70-130	0.449	30	
Copper	595	2.0	"	100	530	65.0	70-130	0.670	30	QM-07
Iron	1.15	0.050	mg/L	1.00	0.17	98.0	70-130	4.44	30	
Lead	108	2.0	μg/L	100	6.3	102	70-130	7.14	30	
Zinc	241	2.0	"	100	140	101	70-130	1.24	30	



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A San Diego CA, 92123

Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 01/27/10 15:34

### Metals (Dissolved) by EPA 200 Series Methods - Quality Control

### Sierra Analytical Labs, Inc.

1		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B0A2133 - EPA 200 Series										
Blank (B0A2133-BLK1)				Prepared:	01/21/10	Analyzed	l: 01/25/10			
Copper	ND	1.0	μg/L				. 01.20.10		-	
Zinc	NĐ	1.0	"							
Blank (B0A2133-BLK2)				Prepared:	01/21/10	Analyzed	l: 01/25/10			
Copper	ND	1.0	μg/L			,,				
Zinc	ND	1.0	**							
LCS (B0A2133-BS1)				Prepared:	01/21/10	Analyzed	: 01/25/10			
Copper	85.7	1.0	μg/L	100		85.7	85-115			-
Zinc	88.4	1.0	"	100		88.4	85-115			
LCS (B0A2133-BS2)				Prepared:	01/21/10	Analyzed	: 01/25/10			
Copper	87.7	1.0	μg/L	100		87.7	85-115			
Zinc	91.1	1.0	11	100		91.1	85-115			
Matrix Spike (B0A2133-MS1)	Sour	ce: 100126	3-01	Prepared:	01/21/10	Analyzed	: 01/25/10			
Copper	98.9	1.0	μg/L	100	13	85.9	70-130			
Zinc	274	1.0	"	100	180	94.0	70-130			
Matrix Spike (B0A2133-MS2)	Sour	ce: 100126	3-10	Prepared:	01/21/10	Analyzed	: 01/25/10			
Copper	88.9	1.0	μg/L	100	0.15	88.8	70-130			
Zinc	93.0	1.0	"	100	0.31	92.7	70-130			
Matrix Spike Dup (B0A2133-MSD1)	Sour	ce: 1001263	3-01	Prepared:	01/21/10	Analyzed	. 01/25/10			
Copper	99.4	1.0	μg/L	100	13	86.4	70-130	0.504	30	
Zinc	272	1.0	"	100	180	92.0	70-130	0.733	30	
Matrix Spike Dup (B0A2133-MSD2)	Sour	ce: 1001263	3-10	Prepared:	01/21/10	Analyzed	01/25/10			
Copper	90.1	1.0	μg/L	100	0.15	90.0	70-130	1.34	30	
Zinc	96.7	1.0		100	0.31	70.0	,0-150	1.54	30	



9177 Sky Park Court Suite A San Diego CA, 92123 Project: San Diego Airport

Project Number: [none]

Reported: 01/27/10 15:34

Project Manager: Amanda Archenhold

### Total Petroleum Hydrocarbons (TPH) by GC/FID - Quality Control

### Sierra Analytical Labs, Inc.

	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Analyte	noun		-					<del></del>	=	
Batch B0A2622 - EPA 3510C Sep F	unnel					<del></del>	<del></del>			
Blank (B0A2622-BLK1)				Prepared	& Analyze	ed: 01/22/	10			
Diesel Range Organics (C10-C24)	ND	0.050	mg/L							
Jet-A	ND	0.050	"							
Oil Range Organics (C22-C36)	ND	0.050	"						9 <u>—</u>	
Surrogate: o-Terphenyl	0.113		"	0.100		113	60-175			
Surrogate: o-Terphenyl	0.113		"	0.100		113	60-175			
Surrogate: o-Terphenyl	0.113		"	0.100		113	60-175			
LCS (B0A2622-BS1)				Prepared	& Analyz	ed: 01/22/	10			
Diesel Range Organics (C10-C24)	0.567	0.050	mg/L	0.500		113	80-120			
Diesel Range Organics (C10-C24)	0.567	0.050	"	0.500		113	80-120			
Diesel Range Organics (C10-C24)	0.567	0.050	••	0.500		113	80-120			
LCS (B0A2622-BS2)	18	•		Prepared	& Analyz	ed: 01/22/	10			
Diesel Range Organics (C10-C24)	0.540	0.050	mg/L	0.500	24	108	80-120			
Diesel Range Organics (C10-C24)	0.540	0.050	17	0.500		108	80-120			
Diesel Range Organics (C10-C24)	0.540	0.050	**	0.500		108	80-120			
LCS Dup (B0A2622-BSD1)				Prepared	& Analyz	zed: 01/22	/10			
Diesel Range Organics (C10-C24)	0.506	0.050	mg/L	0.500		101	80-120	11.4	30	
Diesel Range Organics (C10-C24)	0.506	0.050	"	0.500		101	80-120	11.4	30	
Diesel Range Organics (C10-C24)	0.506	0.050	"	0.500		101	80-120	11.4	30	



MACTEC Engineering & Consulting 9177 Sky Park Court Suite A San Diego CA, 92123

Project: San Diego Airport

Project Number: [none]

Project Manager: Amanda Archenhold

Reported: 01/27/10 15:34

### **Notes and Definitions**

H-01 Sample received without sufficient time to complete analysis within recommended holding time.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS

recovery.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

## TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING

14201 FRANKLIN AVENUE · TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 · FAX (714) 730-6462 · www.truesdall.com

Established 1931

987360 Laboratory No:

January 18, 2010 January 20, 2010 January 22, Sampling Date: Receiving Date: Report Date:

January 22, 2010 mg/L Analysis Date: Units:

LES Reported By: **Dilution Factor:** 

REPORT

26052 Merit Circle, Suite #105 Sierra Analytical Labs, Inc.

Client:

Laguna Hills, CA 92653

iquid / 8 Samples

**EPA 8015B** #1001264

Method:

Glycols

Investigation:

**Nick Forsyth** 

Attention: Sample: Project Name:

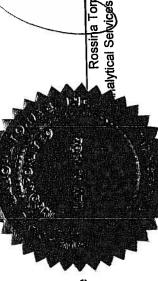
Surrogate Page 1 of 1 Analytical Results

				oll rodate	
Ci elumes	Sample	Propylene Glycol		(1-Butanol)	% Recovery
Sample	Description		CIV	209	105%
708660-MB	Method Blank	QN		204	102%
987360-1	S-B08-1-1-18-10	ND	ON C	980	143%
987360-2	S-B08-2-1-18-10	ND		370	185%
987360-3	S-B09-3-1-18-10	QN		200	100%
987360-4	S-B11-4-1-18-10	ND		222	110%
987360-5	S-B06-12-1-18-10	ND		22.1	128%
987360-6	S-B12-13-1-18-10	ND	ON C	202	103%
987360-7	S-B08-14-1-18-10	ND	ON	707	102%
987360-8	C-B03-2-1-18-10	ND	GN	+02 +02 - 000 - 000 - 000	APR = 50-200%
Dractical Organitation   imits	tation I imits	5.0	5.0	Sulfogate Colic 200	
רומכווסמו לממווים		10.0	10.0		
Sample KLS					

ND: Not detected, or below limit of detection.

RL: Reporting limit, or least amount of analyte quantifiable based on average sample size used and analytical technique employed.

APR: Allowable Percent Recovery



riuesdail Laboratories, Inc. Rossirla Tordova, Project Manager alytical Selvices, This report applies only to the samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or mather without prior written authorization from Truesdail Laboratories.

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Established 1931

REPORT

Sierra Analytical Labs, Inc. 26052 Merit Circle, Suite #105

Client:

Laguna Hills, CA 92653

Liquid / 8 Samples

Sample:

Attention:

**EPA 8015B** 

Method Number:

Investigation:

Project Name:

Glycols

#1001264

**Nick Forsyth** 

QA/QC Batch No: Laboratory No:

708660

Report Date: January 22, 2010

Sampling Date: January 18, 2010 Receiving Date: January 20, 2010

Analysis Date: January 22, 2010

Units: mg/L

Reported By: LES

# Quality Control/Quality Assurance Calibration Check Report

Vacilian	Control Limits	70-130
	rlag	PASS PASS
	Percent Recovery	87.3% 101%
	Recovered Concentration	43.6 50.6
MRCVS (1)	Spiked	50.0
	Parameter	Propylene Glycol Ethylene Glycol

## Quality Control/Quality Assurance Spikes Report

		CS/LCSD			uda	5	Accuracy	
	Spike	Recovered	ed tion	Percent Recovery (%)	(%)	Flag	Control Limits	
Parameter	Conc.		CSD	TCSD TCSD			KPU % Nec	130
			E4.0		17.9%	PASS	707	200
Propylene Glycol	20.0	42.8	51.5	20.170	6.84%	PASS	20	200
Tabulano Chicol	50.0	44.9	41.9					
Eulyielle Glycol			÷	A C				

Rossina Tomova, Project Manager Analytical Services, Truesdail Laboratories, Inc.

LCS: Laboratory Control Spike
LCSD: Laboratory Control Spike Duplicate
RPD: Relative Percent Difference
Flag: "Pass" if within Control Limits; otherwise "Fail"

MRCVS: Mid Range Calibration Verification Standard

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or matter without prior written authorization from Truesdail Laboratories.



8100 Secura Way • Santa Fe Springs, CA 90670 Telephone (562) 347-2500 • Fax (562) 907-3610

February 8, 2010

Nick Forsyth Sierra Analytical Labs, Inc. 26052 Merit Circle, Suite 105 Laguna Hills, CA 92653

Re:

PTS File No: 40050 Physical Properties Data 1001264

Dear Mr. Forsyth:

Please find enclosed report for Physical Properties analyses conducted upon waters received from your 1001264 project. All analyses were performed by applicable ASTM, EPA, or API methodologies. An electronic version of the report has previously been sent to your attention via the internet. Please note that the samples were consumed during testing.

PTS Laboratories appreciates the opportunity to be of service. If you have any questions or require additional information, please give me a call at (562) 347-2504.

Sincerely,

**PTS Laboratories** 

Rachel Spitz Project Manager

Encl.

### PTS Laboratories

Project Name: Project Number:

N/A 1001264

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PTS File No: 40050 Client: Sierra Analytical Labs, Inc.

	Notes							
					÷.			
Particle Size:	Microsize	ASTM D4464		×	×	2		
Fluid Type /	Matrix			Aqueous	Aqueous	2 Waters		
Time				1735	1530		-	
Date				1/18/10	1/18/10		Notes	
FLUID ID		Method:	Date Received: 1/20/10	S-B06-12-1-18-10	S-B06-12-PAR-1-18-10 1/18/10	TOTALS:	Laboratory Test Program Notes	

### PTS Laboratories, Inc.

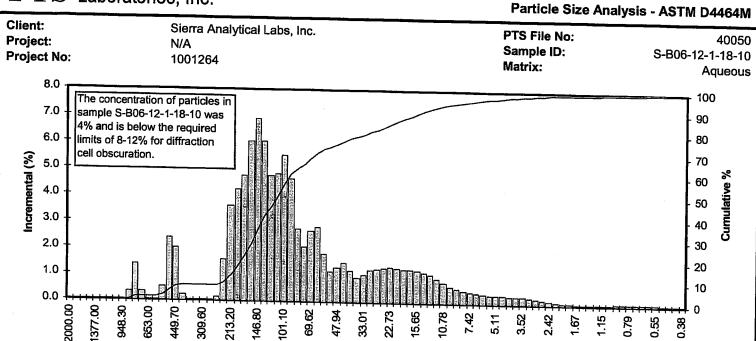
PARTICLE SIZE SUMMARY (METHODOLOGY: ASTM D4464M)

N/A 1001264

CUMULATIVE PERCENT GREATER THAN Distribution percent, miorons  15%   40%   50%   60%   75%   84%   90%    15%   40%   11.552 90.889   47.045   23.244   14.760    2.991   133.310   111.552   90.889   47.045   23.244   14.760    3.195   72.852   64.746   54.944   26.874   14.743   8.756	
60% 75%   90.889 47.045	
60%   60%   90.889	
REATER T microns 60% 90.889	
CUMULATIVE PERCENT GRE Distribution percent, mi 16% 25% 40% 50% 232.779 198.097 167.991 133.310 111.552 102.343 94.752 85.195 72.852 64.746	
LATIVE PE 40% 133.310 72.852	
CUMU 25% 167.991 85.195	
10% 16% 232.779 198.097 1	
102.343	
5% 487.844 113.579	
Median Grain Size, micron (1) 111.552 64.746	
N/A 1001264 Matrix Aqueous Aqueous	
PROJECT NAME: PROJECT NO: Sample ID S-B06-12-1-18-10 S-R08-12-PAR-1-18-10	

\* The concentration of particles in samples S-B06-12-1-18-10 was 4% and S-B06-12-PAR-1-18-10 was 3%. These samples were below the required limits of 8-12% for diffraction cell obscuration.

### PTS Laboratories, Inc.



Particle Size, micron								
Particle		stribution	Particle	Particle D	istribution	Particle	Particle Di	istribution
Diameter, micron	incrementai percent	Cumulative percent	Diameter, micron	incremental percent	Cumulative percent	Diameter,	Incremental percent	Cumulative
2000.00 1822.00 1660.00 1512.00 1377.00 1255.00 1143.00 1041.00 948.30 863.90 786.90 716.90 653.00 594.90 541.90 493.60	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.34 1.36 0.34 0.00 0.02 0.53 2.36	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.3 1.7 2.0 2.1 2.6	52.63 47.94 43.67 39.78 36.24 33.01 30.07 27.39 24.95 22.73 20.71 18.86 17.18 15.65 14.26	1.15 1.29 1.49 1.17 0.91 1.03 1.21 1.27 1.31 1.33 1.30 1.26 1.25 1.23 1.16	73.3 74.6 76.1 77.3 78.2 79.2 80.4 81.7 83.0 84.3 85.6 86.9 88.2 89.4	1.385 1.261 1.149 1.047 0.954 0.869 0.791 0.721 0.657 0.598 0.545 0.496 0.452 0.412	0.035 0.037 0.042 0.049 0.058 0.066 0.072 0.076 0.076 0.073 0.066 0.055 0.042 0.026 0.014	99.3 99.3 99.3 99.4 99.4 99.5 99.6 99.7 99.7 99.8 99.9 99.9
449.70 409.60 373.10	2.00 0.23	4.9 6.9 7.2	12.99 11.83 10.78	1.06 0.93 0.77	91.6 92.5 93.3	TOTALS:  Measure	100.01	100.0
373.10 339.90 309.60 282.10 256.90	0.00 0.00 0.00 0.00	7.2 7.2 7.2 7.2	9.82 8.94 8.15 7.42	0.64 0.54 0.48 0.44	94.5 95.0	Median, mm Median, micron Mean, mm Mean, micron	7rask 0.1116 111.552 0.1075 107.518	0.1116 111.552 0.0679 67.856

0.41

0.37

0.35

0.33

0.32

0.31

0.30

0.28

0.26

0.22

0.18

0.14

0.11

0.08

0.06

0.05

0.04

95.8

96.2

96.5

96.9

97.2

97.5

97.8

98.1

98.3

98.6

98.7

98.9

99.0

99.1

99.1

99.2

Measure	Trask	inman
Median, mm	0.1116	0.1116
Median, micron	111.552	111.552
Mean, mm	0.1075	0.0679
Mean, micron	107.518	67.856
Sorting	1.8897	1.546
Skewness	0.7969	0.464
Kurtosis	0.2774	0.917

0.55 0.38

Cumulati	ve Percent gre	ater than
Distribution		cle Size
percent	Micron	Millimeters
5	487.844	0.4878
10	232.779	0.2328
16	198.097	0.1981
25	167.991	0.1680
40	133.310	0.1333
50	111.552	0.1116
60	90.889	0.0909
75	47.045	0.0470
84	23.244	0.0232
90	14.760	0.0148
95	8.023	0.0080

© PTS Laboratories, Inc.

234.10

213.20

194.20

176.90

161.20

146.80

133.70

121.80

111.00

101.10

92.10

83.90

76.43

69.62

63.42

57.77

0.14

1.56

3.60

4.21

4.74

6.02

6.90

6.03

4.73

4.80

5.52

4.63

2.73

2.09

2.67

2.82

1.82

7.3

8.9

12.5

16.7

21.4

27.4

34.3

40.4

45.1

49.9

55.4

60.1

62.8

64.9

67.5

70.4

72.2

6.76

6.16

5.61

5.11

4.66

4.24

3.86

3.52

3.21

2.92

2.66

2.42

2.21

2.01

1.83

1.67

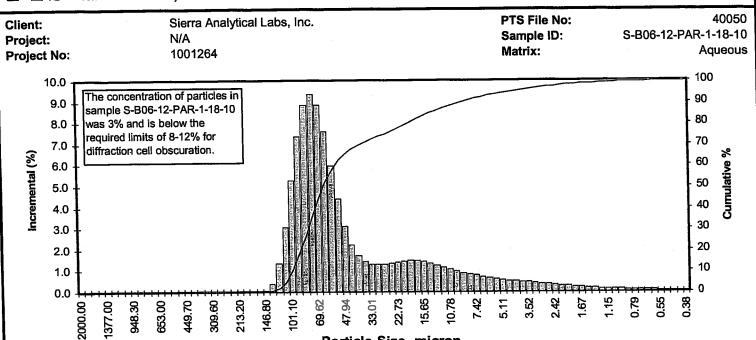
1.52

Phone: (562) 907-3607

Fax: (562) 907-3611

### PTS Laboratories, Inc.

### Particle Size Analysis - ASTM D4464M



Particle	Particle Di	stribution	Particle	Particle D	istribution	Particle	Particle Di	stribution
Diameter,	Incremental	Cumulative	Diameter,	Incremental	Cumulative	Diameter, micron	Incremental percent	Cumulative percent
micron	percent	percent	micron	percent	percent		0.170	98.8
2000.00	0.00	0.0	52.63	4.39	62.4	1.385		98.9
1822.00	0.00	0.0	47.94	3.11	65.5	1.261	0.150	99.1
1660.00	0.00	0.0	43.67	2.22	67.7	1.149	0.140	
1512.00	0.00	0.0	39.78	1.69	69.4	1.047	0.130	99.2
1377.00	0.00	0.0	36.24	1.42	70.8	0.954	0.120	99.3
1255.00	0.00	0.0	33.01	1.31	72.1	0.869	0.110	99.4
1143.00	0.00	0.0	30.07	1.29	73.4	0.791	0.100	99.5
1041.00	0.00	0.0	27.39	1.29	74.7	0.721	0.094	99.6
948.30	0.00	0.0	24.95	1.32	76.0	0.657	0.084	99.7
863.90	0.00	0.0	22.73	1.37	77.4	0.598	0.074	99.8
786.90	0.00	0.0	20.71	1.42	78.8	0.545	0.064	99.9
716.90	0.00	0.0	18.86	1.47	80.3	0.496	0.051	99.9
653.00	0.00	0.0	17.18	1.48	81.7	0.452	0.036	99.9
594.90	0.00	0.0	15.65	1.45	83.2	0.412	0.025	100.0
541.90	0.00	0.0	14.26	1.36	84.6	0.375	0.014	100.0
493.60	0.00	0.0	12.99	1.25	85.8	TOTALS:	99.98	100.0
449.70	0.00	0.0	11.83	1.15	87.0			
409.60	0.00	0.0	10.78	1.05	88.0	Measure	Trask	lnman
373.10	0.00	0.0	9.82	0.97	89.0	Median, mm	0.0647	0.0647
339.90	0.00	0.0	8.94	0.90	89.9	Median, micron	64.746	64.746
309.60	0.00	0.0	8.15	0.83	90.7	Mean, mm	0.0560	0.0374
282.10	0.00	0.0	7.42	0.77	91.5	Mean, micron	56.034	37.376
256.90	0.00	0.0	6.76	0.71	92.2	Sorting	1.7805	1.342
234.10	0.00	0.0	6.16	0.66	92.8	Skewness	0.7390	0.591
213.20	0.00	0.0	5.61	0.61	93.5	Kurtosis	0.3116	0.784
194.20	0.00	0.0	5.11	0.57	94.0	! <del></del>		
176.90	0.00	0.0	4.66	0.53	94.6	Cumula	tive Percent gre	ater than
161.20	0.00	0.0	4.24	0.50	95.1	Distribution		cle Size
146.80	0.05	0.1	3.86	0.47	95.5	percent	Micron	Millimeters
133.70	0.37	0.4	3.52	0.44	96.0	5	113.579	0.1136
121.80	1.32	1.7	3.21	0.41	96.4	10	102.343	0.1023
121.80	3.05	4.8	2.92	0.38	96.8	16	94.752	0.0948
101.10	5.26	10.1	2.66	0.35	97.1	25	85.195	0.0852
		17.4	2.42	0.32	97.4	40	72.852	0.0729
92.10	7.37	17.4	11 2.42	0.52	<i>31.</i> ¬	1 70	04.746	0.0047

Measure	Trask	lnman
Median, mm	0.0647	0.0647
Median, micron	64.746	64.746
Mean, mm	0.0560	0.0374
Mean, micron	56.034	37.376
Sorting	1.7805	1.342
Skewness	0.7390	0.591
Kurtosis	0.3116	0.784

Cumulativ	ve Percent grea	ater than
Distribution	Partic	le Size
percent	Micron	Millimeters
5	113.579	0.1136
10	102.343	0.1023
16	94.752	0.0948
25	85.195	0.0852
40	72.852	0.0729
50	64.746	0.0647
60	54.944	0.0549
75	26.874	0.0269
84	14.743	0.0147
90	8.756	0.0088
95	4.112	0.0041

83.90

76.43

69.62

63.42

57.77

8.84

9.34

8.82

7.57

5.97

26.3

35.6

44.4

52.0

58.0

2.21

2.01

1.83

1.67

1.52

0.29

0.26

0.24 0.21

0.19

97.7

98.0

98.2

98.4

98.6



### SUBCONTRACT ORDER Sierra Analytical Labs, Inc. Sierra Proiect #: 1001264

40050

SENDING LABORATORY:				Comments
Sierra Analytical Labs, Inc. 26052 Merit Circle, Suite 105 Laguna Hills, CA 92653 Phone: (949) 348-9389 Fax: (949) 348-9115 Laboratory Contact: Nick Forsyth		Turn Around Non Time Requested: 48 H	bur 72 Flour	RECEIVING LABORATORY:  PTS Laboratories 8100 Secura Way Santa Fe Springs, CA 90670 Phone: (562) 907-3607 Fax: (562) 907-3610
Analysis	Expires	Sampled:	Laboratory ID	Comments
Sample ID; S-B06-12-1-18-10 (1001264-09)	Liquid	01/18/10 17:35		
Full Particle Sizing  Containers Supplied:  1L Amber (C)	07/17/10	17:35		
Sample ID: S-B06-12-PAR-1-18-10 (1001264-17)	Liquid	01/18/10 15:30		
Full Particle Sizing  Containers Supplied:  1L Amber (A)	07/17/10	15:30		
	3			

Special Instructions:		☑ Intact	Sample Seals
		Property Labeled	Chilled TEMP (°C) 43/
		. Appropriate Container	Prescryatives - Verified By
Relinquished By	1-20-10/11:40 Date/Time	Received By	1/20/10 1145
Relinquished By	Date / Time	Received By	Date / Time
Relinquished By	Date / Time	Received By	Date / Time

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Lab Work Order No.:

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TEL: 949 • 348 • 9389 FAX: 949 • 348 • 9115 26052 Merit Circle • Suite 105 • Laguna Hills, CA • 92653

Transcensor   Contribute	1 15
Preservative	9177 SKY PARK COUKT SAN DIEGO, CA 92123
NONE 5 GALL GLASS   X   X   X   X   X   X   X   X   X	(858) 278-3600 (858) 278-5300
NONE   COAL GLASS	3
NONE         5 cALL GLASS         / X         X           NONE         40ml VOA         2         X           NONE         5 cALL GLASS         / X         X           NONE         7 cAll Laboration         Containing Submitted to Laboration           NONE         7 call that the cellexy of samples and the alguardren the indiate of centric form of merital partner of Containers Received by Laboration           Call Laboration         7 call laboration         X         X           Call Laboration         7 call laboration         X         X           Call Laboration         X         X         X           Call Laborati	), Date 11me
R   NONE   5 GALL GLASS	ON 1/18/10 1620 STORM
ER NONE 5 GALL GLASS / X	05/10 1/81/11
NONE 5 GALL GLASS X X X X X X X X X X X X X X X X X X	1/18/10 1650
TER NONE 5 GALL GLASS  TER NONE 5 GALL GLASS  TER NONE PLASTIC 1  The delivery of samples and the aligneter an its chain of costany form contilluses  The delivery of samples and the aligneter an its chain of costany form contilluses  The delivery of samples and the aligneter an its chain of costany form contilluses  The delivery of samples and the aligneter an its chain of costany form contilluses  The delivery of samples and the aligneter an its chain of costany form contilluses  The delivery of samples and the aligneter and the chain of costany form contilluses  The delivery of samples and the aligneter and the chain of costany form contilluses  The delivery of samples and the aligneter and the chain of costaning and the chain of costanin	0141 0/2/2
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NONE 5 GAL GLASS  NONE PLASTIC 4  The delivery of samples and the signature un tild chain a patients into analyses specified above and continuous preferral the analyses specified above and conditions, onless otherwise agreed upon in writing better conditions.  The delivery of samples and the signature un tild chain of Conditions.  The delivery of samples and the signature un tild chain of Conditions.  The delivery of samples and the signature un tild chain of Conditions.  The conditions of Conditions and the signature of Conditions.  The conditions of Conditions.  The conditions of Conditions and the signature of Conditions.  The conditions of Conditions of Conditions.  The conditions of Conditions of Conditions.	1/8/10
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Time: 15°16/2  Due:  Time:  Ti	Company:
Sampili Seals	
Appropriate Sample Container	Date: Received By:
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SIERRA ANALYTICAL

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1	FAX: 949 • 348 • 9115 26052 Merit Circle • Suite 105 • Laguna Hills, CA • 92653	92653		Lab Work Order No.:	1001964
Client:	MACTEC	Client Project ID:	7	Analyses Requested	
nt Address:	Client Address: 9177 SKY PARK COURT	SAN DIEGO AIRPORT	,doe	- E	Geotrac
	SAN DIEGO, CA 92123	***			
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		Tum Around   Immediate   24 Hour	UO Zn), dis e, Pb, z		Client
ıt Tel. No.:	Client Tel. No.: (858) 278-3600	Time Requested: 48 Hour 72 Hour	lo		
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Client Address: 9177 SKY PARK COURT	RK COURT				SAND	SAN DIEGO AIRPORT	ORT	U	,doa		F0				Geotra	Geotracker EDD Info:
SAN DIEGO, CA 92123	CA 92123	1,2				i 	<b>9</b> .7	ıZ bn	(nS,uc						1	
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Client Tel. No.: (858) 278-3600	-3600			Lim.	Time Requested:	48 Hour	72 Hour							<u> </u>		
Client Fax. No.: (858) 278-5300	-5300				U		] 5 Day						11			
Client Proj. Mgr.:							Mobile						=		Site	Site Global ID
Client Sample ID.	Sierra	Date	Time	Matrix	Preservative	Container Type	No. of Containers	Total 8	ethyle: PH, TSS, S COD, O&G	O&G, SC, pł Zn), 800, C					Field	Field Point Names / Comments
8-B42-7-				OTORNWATER	<b>半0</b> 4	PLASTIC	+	*								R.)
S-B08-8				OTORAWATER	NON	PLASTIC	+	*								
S-B08-9				STORMWATER	NONE	PI ASTIC	+	×								
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S-B06 11				STORMWATER	_	NONE PLASTIC	+	×	$\frac{1}{1}$		-			-	1	
S-B06-12-1-14 10	8	1/18/10	1735	STORMWATER		5 GALL GLASS	_		-	×	-					
S-B06-12- (-1840	3	0//8//1	1530	STORMWATER	NONE	40ml VOA	2		×							
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S-B12-13- /-/8-/0	ę.	1/18/10	1600	STORMWATER	NONE	40ml VOA	2	×	-	ņē.						32
S-B08-14-1-18-1U	3	1/18/10	14 3348	STORMWATER	NONE	5 GALL GLASS	1		×				21			
Sampler Signature:		, ,	Shipped Via:	Sin	K		8			Ţ	otal Num	ber of C	Total Number of Containers Submitted to	bmitted to	Sample Disposal:	sposal:
Printed Name: LIJUN X4			(Carter/Wayhill No.)		*					<u>تـ</u>	Laboratory		Es.		Return	Return to Cilent
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sa ,	E.	Time: 1540	Соправу	Score			LSCE			-	Laboratory					
4 Relinquished By:	ä	Ì	Received By:				Date:	FOR LABO	RATORY L	SE ONLY -	FOR LABORATORY USE ONLY - Sample Recelp		Conditions Chilled Temp (C)	٠ <del>٠</del>		
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Lab Work Order No.:

SIERRA ANALYTICAL

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		Laguna Hills, CA • 92653
1 E.L.: 949 - 340 - 7307	FAX: 949 • 348 • 9115	26052 Merit Circle • Suite 105 • Laguna Hil

Geotracker EDD Info: Client LOGCODE Field Point Names Archive mos. Site Giobal ID Return to Client Sample Disposal: Lab Disposal \* Comments Other . 0 0 4.0 Total Number of Containers Received by Laboratory Total Number of Containers Submitted to Conditions, unless otherwise agreed upon in writing between SIERRA and CLIENT. outherization to perform the onalyses specified obove under SLERRA's Terms and \* - Samples determined to be bazardous by SIERRA will be returned to CLIENT. The delivery of samples and the signature on this chain of custody form constitutes Analyses Requested FOR LABORATORY USE ONLY, Sample Receipt of the control of the cont Laboratory Appropriate Salaple Container × ini(Al,Cu,Fe,Pb,Zn). BOD, COD, O&G erphleue alycol × tot(Al,Cu,Fe,Pb,Zn). diss(Cu,Zn) BOD, 1/19/10 (540 17.20 1/2/2/3 1/2/20 Containers No. of 72 Hour 2 Mobile ☐ 24 Hour S Day SAN DIEGO AIRPORT 735 STORMWATER NONE 5 GALL GLASS 1755 STORIMWATER NONE SGALL GLASS 15 To STORMWATER NONE 40ml VOA Container ☐ Immediate 48 Hour Normal 1 Day Preservative Client Project ID: Fum Around B- Ne# er a (A) Matrix Time Received By Time: (229 Company Date: 1 /19/62 Time: 1840 18/18 118/10 1/19/10 Date Slerra No. 2 7 15 9177 SKY PARK COURT SAN DIEGO, CA 92123 (858) 278-5300 (858) 278-3600 -DUP 헉 MACTEC N 入本の方 1-18-10 Client Sample 1D. 1-18-10 S-B08-14- [- [8-[0 -Tiun Client Proj. Mgr.: Client Fax. No.: Client Address: Client Tel. No.: Company: Special Instructions: s-09-3--2)-90-s

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Date: 1 / 8 / 0	Lab Work Order No.:	Requested		<b>Qa1</b>	82	გ	250	,'co3	प्रशन्त						Ú#			×	 	Total Number of Containers Submitted to		The delivery of samples and the signature on this chain of eastedy form constitutes nutherization to perform the analyses specified above under SIERRA's Terms and	Conditions, unless otherwise agreed upon in writing between SIERRA and CLIENT.  • - Samples determined to be hazardaas by SIERRA will be returned to CLIENT.	Total Number of Containers Received by		Chilliste Temp (16) Ke-b	Preservatives - Vurifical By		T Stiffings Locardian ALCZ	Control of the Contro
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F CUST			SAN DIEGO AIRPORT			48 Hour	1 4 Pay		Container Type	PLASTIC	40ml VOA	CLR GLASS	AMBER GLASS	PLASTIC	40ml VOA	CLR GLASS	AMBER GLASS	PLASTIC	40ml VOA							1				
CHAIN OF CUSTODY RECORD		Client Project ID:	SAN DIE				Ò	ő	Preservative	NONE	NONE '	NONE	NONE '	NONE	NONE '	NONE	NONE '	NONE	NONE 4			۰								
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SIERRA ANALYTICAL TEL: 949 · 348 · 9389	FAX: 949 · 348 · 9115 26052 Merit Circle · Suite 105 · Laguna Hills, CA · 92653	Client: MACTEC	Client Address: 9177 SKY PARK COURT	SAN DIEGO, CA 92123		Cllent Tel. No.: (858) 278-3600	Client Fax. No.: (858) 278-5300	Client Proj. Mgr.:	Client Sample ID.				S-Bob-12-PAR-1-18-10	C-B03-2- /-/8-/0	C-B03-2- /-/8-/0	C-B03-2- /- 18-10	C-B03-2-1-18-10	Contess 300-1/300-3	Company Secrit Secrit	Sampler Stypular.	A North / Link	ahala Ar Archand	Ī	Married By N. M. M.	5	4 Rollmuithed Br.	tion.	Special Instructions:		