

May 22, 2006

Mr. Robert Kennedy ENSR 2 Technology Park Drive Westford, MA 01886-3140

Subject: Data Package for MWH Laboratories Report 169215

Mr. Kennedy:

Enclosed is MWH Laboratories Report 169215 with the data, Subcontractor Report and the MWH Labs raw data package as requested.

Sample receipt: The soil samples arrived at MWH Laboratories, Monrovia, CA on March 8, 2006 for other subcontractor analysis after being picked up from EMAX Laboratories. EMAX retained the containers needed for analysis and these were reported separately under MWH Report 169338.

All containers were received without any visible signs of tampering or breakage. No analysis was performed by MWH Labs.

The samples were identified as follows:

MWH LAB#	CLIENT ID	SUBCONTRACTOR LAB
2603090024	M120-0.5	EMS, STL, GEL, FRONTIER
2603090026	M120-5	GEL
2603090027	M120-10	EMS, STL, GEL, FRONTIER
2603090028	M120-30	EMS, STL, GEL, FRONTIER
2603090029	M120-50	GEL

The subcontractor labs are as follows:

EMS: EMS, Pasadena, CA - Soil Asbestos Analysis

STL: Severn Trent Laboratories, West Sacramento, CA - Congener Analysis

GEL: General Engineering Laboratories, LLC, Charleston, SC - Radioactivity Analysis

FRONTIER: Frontier GeoSciences, Seattle, WA - Methyl mercury Analysis

Case Narrative: Please see the subcontractor reports for any technical or administrative problem during analysis, data review and reduction are contained in the analytical case narratives in the associated data package.

Data Package: The enclosed data package includes the Report, Chain of Custody, applicable Subcontractor Lab reports to document the billing and the MWH Raw data package.

Sincerely,

Linda Geddes Project Manager

Fax: 626 386 1101

Anda Dedda



750 Royal Oaks Drive, Suite 100 Monrovia, California 91016-3629 Tel: 626 386 1100 Fax: 626 386 1101 1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

ENSR 2 Technology Park Drive

Westford , MA 01886-3140

Attention: Robert Kennedy Fax: 978-589-3282

DATE OF ISSUE

MAY 2 2 2006 Historia

MWH LABORATORIES

LXG Linda Geddes Project Manager



Report#: 169215 HENDERSON

Laboratory certifies that the test results meet all **NELAC** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Comments,QC Report,QC Summary,Data Report,Hits Report, totaling 5 page[s].

THE SHADING GROUND VILL

		1835 W. 205th Street, Torrange, CA 90401	1300 F 3 6300 13	Q.			dewa		AND AND DESCRIPTION OF THE PARTY OF THE PART	SANDARION CONTRACTOR	eliteraturary screens income a continue property of the second screens of the second as
Person I Address III (ACC)	LV. K. J. J. J. J.	Tel #: 310-618-8889 Fax #: 310-618-1818	#: 310-618-0818		L'O NUMBER:			EMAX	EMAX CONTROL NO.	4.	からのダイン
LABOR	LABORAN SANDRIA SANC	Errail: info(@erraxiatements	941	*	MPLE STORAGE			PROJE	PROJECT CODE	A STATE OF THE TOTAL SPRINGS STATE OF THE ST	овомужения политим может пто выпомучение от променения по поставления в поставления в поставления в поставлени
CHENT 7	JUDNOK LLC	estadorisho de Vele ima en apal de Estadorista de Landa de Sena, de comença de Landa de Sena de Landa de Landa La	Control of the contro	100000000	MATRIX CODE	WESENVETTVE CODE	STONE CONTRACTOR CONTR	AMALYSIS KEOUIKED	(ED)	NANOS ANIA EL PORTO PARA EN ESTA A SE MATERO MARA PARA EL PORTO PARA EL	increases the proposition of the contract of
PROFECT	Logic dient	r Investigation	(AC.	Diff. Britishing Maler	et en registration de la companyation de la company		Annual Company of Company of Company	Make Manager of Prophers of Stranger Property	The state of the s	A. S. A. A. S. A.
COORDINATOR	المربع المسكر	Ye Myint CEMAS)	**************************************	N.	IW-Quant Water	AC = MC	30	POW Assessay or		ELL MASH MANAGEMENT (III)	A belong of the first of management organization of the state of the s
910-618-8889	121x 138.81	134.24.	TAN A STRUCTURE OF THE PROPERTY OF THE PROPERT	TANK TANK	WWWYSTAME VIEW	Harataon	sto.			2	erfolding or a military and makes facility of the property of
SEND REPORT TO	hadiga o o missa waada aa aa aa aa aa	en (Proming) VIII i	And the state of t	Ŝ	SD-Solid Waste SL-Studge	SH-N4OH			**	\$ 4 days	With the second section of the second section of the second section of the second seco
COMPANY	gennet ekszekk érkaldsumon/haspadel/konspagni ekszásák ú pszitták felküspásák köv	Alexandra Halista de Leita de	Verlanderen er		SS-Said Sections	57*N:25203	े ५।(21 days	PA-PHINAPHORISHING LAMINIMATIAN (PRICTARING) AND HISTORY OF COMMISSION OF THE COMMIS
AUDRESS	en de de transporte de destado de del proprio persona y perio grando de de estado a conseguir de perio	Safeta antonato en grancino, Astri difigira est el cilendo Pofetanco de exposoco comprenente socialización describendo en comprenente esta esta esta esta esta esta esta es	Overfiche on the manufacture of the control of the		Wentschauser Problem Frederica	ZA=Zine Amerate) De			30 days	-Affinificant blice in the Automorphism behavior of polycobecond and techniques and another polycomes.
Administration of the second o	та 100 km, та обласня фафторовору в выфейциодно двогра мерециот дел столого пол 110	www.windingermajourped.pod.pod.cove.acmis/s.nodigoildp1.polisiolopidamais/seria-piped-evacus	SPACES AND A SPACE	AR	AR.Air	HS-112504	Afs.	_		days	
EMAX PM	19/2/Partity(Overview Vacual/Avjoileach) (2004/07/CV) (20/2/CV)	diservasuulks soottaatii vootalaakseedhaalkaa olkeeleksi suottaaksi laikitaaksi koopulineess ooma	MAY deliminate deliminate company deliminate	eros	viewian betrobelielige Francisco en manadry kany kfrinse excels	and deliment of the standard purpose the standard p	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			And the state of t	And the state of t
- Partie of the second	SAMELE D	andra a venera reparta a securitar per securitar per per securitar de securitar de securitar per securitar de s	SAMPLING		CONTAINER	MATRIX	PRESER	RESERVATIVE CO	CODE		
[-A19		NOLLY303	DATE	TIME NO	A SIZE TYPE	3 2005 1000		**************************************	********	COMMENTS	MAMENTS 40
MIZO	and the second of the second o	об в поизболька перед не профессиона в гольных действа перенера предерга, ада став.	3/7/66	1t. 45 4	80 100	- SS	× ×		of rate of particular and particular	2621-61	And the second s
mizo - 50	- 50	And A Colomic of the Selection Associated and Andrews and Andrews and Andrews Associated Colomic Colomic Andrews	3/7/06 12:45	.45 2			×		And the state of t	- CQ7 - QT	THE PROPERTY OF THE PROPERTY O
20-0-0-20-0-2	2.0.5	and the decision of the property of the proper	3/7/00 00	7 0360	>	**************************************	××××	The Court of the C	Providence and the control of the co	CAZI AZ	
(M120 - 5	med elektromental managen elektromente kan menere (pa apos jet delemante delemante delemante elektroment je s delemante elektromente elektromente elektromente (pa apos jet delemante elektromente elekt	вест на на видельфей (иле напистерефей) мейтойн Алереф Алектиптърија е ф. Алек	3/7/100 00	0630	11000000	The second section of the section of th	×		-	C 66.21 - 65.0	Mas por Personal
M120 - 10	9 -		3/4/bc 10	1010	1508	5.5	×	and the second second		C# 2: 10	
THE TO		The second secon	97 - 18 P. T.	370	7			-		and professional representations of the contract of the contra	t a pymostycony manady uje čros y cardigo d y appurato Additional Architectura and account
Section of the sectio	to a see an estimated the major of the politica and complete of politicalities and analysis of a sequence of the		Anchemity observed Illevana Anchemique October 1988	2	8 % (16.6	S	**************************************			ードタン	en e
	BERNANDERFORMENDE AMERIKAN ANDERSKANDERFORMEN EN STEDEN ARTONE EN VERFEREN ARTONE EN VERFEREN ARTONE EN VERFE SER FAMILIER ARTONE ANDERSKANDE EN VERFEREN ARTONE ANDERSKANDE EN VERFEREN ARTONE EN VERFEREN ARTONE ANDERSKANDE	American de la composition della composition del	es de demando de esta	Academy and programming comments		A character of a char					te sy etter jelle en in en yekskele serialisjen sjordyck fallere om jegersyckmisjen kalend An en
(I) and the contraction of the c	CONTRACTOR OF THE CONTRACTOR O	100 rolanos y en ensista billende varagi a tres enarcostracco-paraceros continentanas	**************************************		Contribution of Contribution of Contribution (Contribution)	A THE RESIDENCE OF THE PARTY OF		Here the state of	WATER CONTRACTOR CONTR	en e	Eddiship (Negarap) daa ay na ara'aa Aradii ay jaayigi yariigi daada. Laa araa araa araa ahaa ahaa ahaa ahaa a
MIZO	SO (FRANK'S	MIZO - OS (EMAX: CO71-48) for Radionactides	zdionuclide	-	wt received.	endlishisson visuladh abbada nadaupabi Arabavi	saille saige perioniconinciarde designaces de procedidado periodidade sobre de la constantidad de la constanti	Cooler	Temp. (C)	ere rende mited as damit selvjemejm je pojednjih jehodniti se iz se gjesje	Sample #s
tun *	A CHICK COTT IN IT	was received (2 jars)	2 (8x9) 2	Ž	no chent sample to		Date /Time		and the color description of the color descrip	The state of the s	e de la company de mantene de mantene de destina de destante de la company constituira de la company de destina
SK RS		and Radio nuclides crolysis on the	Cabely but	Act	not documented	ر في				STEVEN COME AND THE COMMENTS STATEMENT OF THE STATEMENT O	e von dans series en est
SAMPLER	**************************************	element of the first personal property of the first personal property of the first personal p	TO THE PROPERTY OF THE PROPERT	2/44/800000	COURER/AIRBL.	(CONTRACTOR A TRUMBULY OF THE STATE OF THE S	Shirteen States on the control of th			hin i Vocanamas on allem et evidos et allem da incidenta de la medica de la menegació de ploquestos o	en istorien en e
And the second s	RELINQUISHED BY	Cambian disassocycle je je i a avena sa accepto o jejioje je je i			- definition	RECEIVED BY	ealeksentoekopianenskopiaronskopianokraniskooristenskooristensk		A distribution of the second s	Tribal Affinish Andrews and Antrews and Antrews and Antrews and Antrews Antrews Antrews Andrews Andrews Andrews	and the state of t
CERTON FALTON ADMINISTRAÇÃO (VILLADONIA)	De Constitution of the Con	The second common selection is a second control of the second cont	18-06 D30	200	Control and Contro	44	Y Commission of the Commission	ĝ	130	elder nakona na kriteriorez i de dious karibardan substantantista ez susuntat varantza den manajon.	A see the current or
and the second s	www.Wildelectororororororororororororororororororor	de y el ferre messaca ministración, de mundo de melos especial commo de desdejendo, civil a dispressivam escana La composição de la compo	Terror cans an extended about the can select the ca	3	Oddinates America, i i i i i i i i i i i i i i i i i i i	The second secon		di yasilookkaa	-	Relinguished	h mwn ch
RADOVARIED V Comment accompany to vectorize	жүй кө женей күчей баркей мараларайтан тарталында жарында X Xiboidiang н					, M	スシン	28 E	25.57	ermen verstedt. Kaladad unterskijde met prinsen kunstanskum geligdig yks gliste project	VARANTA WASAA AMAMAMAANA AMAMAA A

Page 3 of 95

Linda Geddes printed this.



Ye Myint <YMyint@emaxlabs.com> 03/09/2006 11:38 AM To "Kennedy, Robert" <rkennedy@ensr.aecom.com>

cc "Krish, Ed" <ekrish@frontiernet.net>, Linda Geddes <Linda.Geddes@us.mwhglobal.com>, "Bilodeau, Sally" <SBilodeau@ensr.aecom.com>

bcc

Subject RE: Henderson COC modifications

History:

This message has been replied to.

Robert,

Item#3: We have only 2 sleeves for the analyses we need to do here. 2 out of 3 samples you listed need full list of analytes and with added MS/MSD on M120-30. We will need most of the samples. All the extra jars for other labs are in MWH custody and we have no extra jar left.

One question: Do you need MBAS and Conductivity for soil? I believe you need TDS and TSS for water only and they won't be logged in for soil.

Linda: If you haven't sent out the samples to other labs yesterday, Could you please get the samples for Asbestos from the jars that were picked-up yesterday? Thanks.

Ye Myint EMAX Laboratories, Inc. 1835 W 205th. St. Torrance, CA 90501 Phone: (310) 618-8889 x121

Fax: (310) 618-0818

E-mail: <u>ymyint@emaxlabs.com</u>
-----Original Message-----

From: Kennedy, Robert [mailto:rkennedy@ensr.aecom.com]

Sent: Thursday, March 09, 2006 11:08 AM

To: Ye Myint

Cc: Krish, Ed; Linda Geddes; Bilodeau, Sally **Subject:** Henderson COC modifications

Ye,

I have talked to Brian about a few changes we want to make in the COC with the serial no. 5219 from the samples collected 3/7/06:

- 1) Please add perchlorate and hexavalent chromium to the analytes for MS/MSD analysis of sample M120-50 MS/MSD at line item 5.
- 2) Please add MS/MSD analyses to the organochlorine pesticides, PCBs, organophosphorous pesticides, and SVOCs for sample M120-30 at line item 1.
- 3) Please add bulk asbestos in soil analysis to sample M120-30 (line item 1 on COC 5219), sample M120-0.5 (line item 1 on COC 5218), and sample M120-10 (line item 3 on COC 5218). These samples should go to EMS Laboratory. Linda said someone from MWH will be by to make a pick-up today so call Linda to see if she needs extra sample jars from your lab. If Emax can

Linda Geddes printed this.

have them ready to go then MWH will take care of the shipping to EMS.

If you have any questions please call or email me.

Robert Kennedy Senior Project Chemist

ENSR 2 Technology Park Drive Westford, MA 01886-3140 T 978-589-3324 F 978-589-3282 www.ensr.aecom.com

3	COURIER SERVICE 401 N. Brand Blvd., Suite 660 * Glendale, CA 91203 Phone: 818/546-8684 Fax: 818/546-2580	REF. NO	20948
HARGE TO -	Montigomory	Lu ly	<u>-08.0</u>
	Torrance	- Montovia	
PACHAGES	DESCRIPTION	PURE MERCENTERS SERVICES SERVI	CHARGES
IVER:	PICK UP TIME: DISTORT	PERYTIME/SSY NOW	

MWH Laboratories

750 Royal Oaks Drive, Monrovia, CA 91016 PHONE: 626-386-1100/FAX: 626-386-1101

ACKNOWLEDGMENT OF SAMPLES RECEIVED

ENSR

2 Technology Park Drive Westford, MA 01886-3140 Attn: Robert Kennedy

Phone: 978-589-3324

Customer Code: ENSR-TRONOX

Group#: 169215 Project#: HENDERSON Proj Mgr: Linda Geddes

Phone: (626) 386-1163

The following samples were received from you on 03/08/06. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using MWH Laboratories.

Sample#	Sample	Id Tests Scheduled	Matrix	Sample Date
260309002 260309002 260309002	7 M120-10 88 M120-30	ASBTEM CONGEN CUSTSUB ASBTEM CONGENI	Soil	07-mar-2006 09:30:00 07-mar-2006 10:10:00 METHYLHG 07-mar-2006 11:45:00
		Test Acronym	Description	
Test A	.cronym	Description		
CO: CU:	BTEM NGENER STSUB THYLHG	Asbestos by PLM TCDDs+PCDFs by 1613b f Subcontracted Analyses Methyl mercury	ull list -soils	



750 Royal Oaks Drive, Suite 100 Monrovia, California 91016-3629 Tel: 626 386 1100 Fax: 626 386 1101 1 800 566 LABS (1 800 566 5227)

Group Comments

Analytical results for Asbestos by PLM are submitted by EMS Labs Pasadena, CA.
Analytical results for Methyl Mercury are submitted by Frontier GeoSciences, Inc, Seattle, WA.
Analytical results for CONGENER are submitted by Severn Trent Laboratories, Sacramento, CA. NELAP 01119CA
Analytical results for radiologicals are submitted by General Engineering Laboratories, LLC, Charleston, SC.



Laboratory Hits Report #169215

750 Royal Oaks Drive, Suite 100 Monrova, California 91016-3629 Tel: 626 386 1100 Fax: 626 385 1101 1 800 566 LABS (1 800 566 5227)

ENSR Robert Kennedy 2 Technology Park Drive Westford , MA 01886-3140

Samples Received 08-mar-2006 15:54:00

Analyzed	Sample#	Sample ID	Result	Federal MCL	UNITS	MRL
03/07/06	2603090024 Methyl mercury	M120-0.5	0.024			
, , ,	2603090027	M120-10	0.034		ng/g	0.020
	2603090028	M120-30				

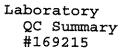


750 Royaf Oaks Drive, Suite 100 Monrovia, California 91016-3629 Tel: 626 386 1100 Fax: 626 386 1101 1 800 566 LABS (1 800 566 5227)

ENSR Robert Kennedy 2 Technology Park Drive Westford , MA 01886-3140

Samples Received 03/08/06

Prepared	Analyzed	QC Ref#	Method	Analyte	Result	Units	MRL	Dilution
M120-	0.5 (26030	90024	Sam	pled on 03/07/06 09:10				
	03/15/06 00:00		(SUBCONTRACT) Asbestos by PLM	ND	96	0.2	1
	04/13/06 00:00		(8290) TCDDs+PCDFs by 8290 full list	SUB STL	PGG	1.0	1
	04/24/06 00:00		() Subcontracted Analyses-soils	SUB GEL	None	0	1
	03/07/06 00:00	315069	(EPA 1630) Methyl mercury	0.034	ng/g	0.020	1
M120-5	(2603090	026)	Sample	ed on 03/07/06 09:30				
	04/24/06 00:00		() Subcontracted Analyses-soils	SUB GEL	None	0	1
M120-1	.0 (260309	0027)	Sampl	led on 03/07/06 10:10				
	03/15/06 00:00		(SUBCONTRACT) Asbestos by PLM	ND	_		
	04/13/06 00:00		(8290) TCDDs+PCDFs by 8290 full list	ND SUB STL	%	0.2	1
	04/24/06 00:00		() Subcontracted Analyses-soils	SUB GEL	PGG	1.0	1
	03/07/06 00:00	315069	(EPA 1630) Methyl mercury	ND GEL	None ng/g	0 0.020	1
M120-3	0 (260309	0028)	Samol	ed on 03/07/06 11:45				_
	03/15/06 00:00	•	(SUBCONTRACT) Asbestos by PLM				
	04/13/06 00:00		(8290) TCDDs+PCDFs by 8290 full list	ND	%	0.2	1
	04/24/06 00:00		{		SUB STL	PGG	1.0	1
	03/07/06 00:00	315069	(EPA 1630) Subcontracted Analyses-soils) Methyl mercury	SUB GEL	None	0	1
			2550	, Methyl mercury	ND	ng/g	0.020	1
	0 (260309	0029)	Sampl	ed on 03/07/06 12:45				
	04/24/06 00:00		() Subcontracted Analyses-soils	SUB GEL	None	0	1





750 Royal Oaks Drive, Suife 100 Monrovie, California 91016-3629 Tel: 626 386 1100 Fax: 626 386 1101 1 800 566 LABS (1 800 566 5227)

ENSR

QC Ref #315069 - Methyl mercury

Analysis Date: 03/07/2006

2603090024 M120-0.5 2603090027 M120-10 2603090028 M120-30

Analyzed by: rbc

Analyzed by: rbc

Analyzed by: rbc



750 Royal Oaks Drive, Suite 100 Monrovia, California 91016-3629 7st 626 386 1100 Fax: 626 386 1101 1 800 566 LABS (1 800 566 5227)

ENSR

QC Ref #315069

Methyl mercury

ÕC.	Analyte	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPD (%)
AASPKSMP	Spiked sample	Lab # 26	03090027	NGG	0.0	(0-0)	
LCS	Methyl mercury	5.49	5.74	NGG	104.6	(50-150)	
MBLK	Methyl mercury	ND	<0.020	NGG		-	
MS	Methyl mercury	4.43	4.28	NGG	96.6	(50-150)	
MSD	Methyl mercury	4.43	4.44	NGG	100.2	(50-150)	

Spikes which exceed Limits and Method Blanks with positive results are highlighted by <u>Underlining</u>. Criteria for MS and DUP are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.



April 19, 2006

Linda Geddes MWH Laboratories 750 Royal Oaks Drive Suite 100 Monrovia, CA 91016

Re: Methyl Mercury for Project # 169215

Dear Ms. Geddes,

Enclosed, please find our report concerning methyl mercury in three (3) soil samples received on March 17, 2006 for Project #169215.

High QA and a complete data package were added to the project on March 30, 2006 per our phone conversation.

There were no analytical issues encountered with this analysis and any QC issues are addressed in the following report.

Please feel free to call or e-mail if you have further questions or concerns.

Sincerely,

Kristina Spadafora Project Manager

KristinaS@FrontierGeoSciences.com

Enitina Soudgina

414 Pontius Ave. N. Seattle WA 98109
206.622.6960 • fax 206.622.6870
info@frontiergeosciences.com • www.frontiergeosciences.com

MWH Laboratories Methyl Mercury in Soil Project # 169215

April 19, 2006

Frontier Geosciences Inc. 414 Pontius Ave. North Seattle, WA 98109

1. Scope of Work

Three (3) soil samples were submitted on March 16, 2006 for methyl mercury analysis using cold vapor gas chromatographic atomic fluorescence spectrometry (CV-GC-AFS, FGS-070).

2. Sample Receipt

The samples identified above were received at Frontier Geosciences in good condition on March 17, 2006 within a sealed cooler at a temperature of 2.7 °C. All samples were securely received and logged in according to Frontier's protocols on the day of receipt.

3. Analysis

Samples were processed using ultra-clean sample handling techniques in laminar flow clean areas known to be low in atmospheric trace metals. Reagents, gases, and deionized water are all reagent or ultra-pure grade, and were previously analyzed for trace metals to ensure very low blanks.

Daily analytical runs were begun with a 5-point standard curve, spanning the entire analytical range of interest, with additional standards run every 10 samples. The daily standard curves were calculated using a linear regression forced through zero of the blank-corrected initial standards. For each analytical set, one matrix duplicate, two matrix spikes, and three method blanks were co-processed and analyzed in exactly the same manner as ordinary samples.

<u>Sample Extraction</u>. Samples were processed with an extraction designed for a soil/sediment matrix (Frontier standard operating procedure FGS-045) on March 26, 2006. In summary, the methyl Hg in an aliquot of the sample is extracted from acidic bromide slurry into methylene chloride and then back into pure water.

Methyl Hg analysis. Extracted samples were analyzed for methyl Hg in accordance with the standard operating procedures (SOPs) described in the Frontier Geosciences Quality

Assurance manual. Acetate buffer and ethylating agent were added to an aliquot of sample and the methyl Hg purged onto carbotraps. The mercury species on the carbotrap column were volatilized and separated using a gas chromatography column, reduced on a pyrolytic column and detected by an atomic fluorescence detector. The extracted samples were analyzed on March 27, 2006.

4. Analytical Issues

There were no analytical issues and all QC samples were within control.

Please feel free to contact me with any questions or concerns regarding this report.

MWH

Methyl Mercury for Project 169215

Reported by Frontier Geosciences, Inc. 414 Pontius Avenue N, Seattle, WA 98109 April 19, 2006

Results

Sample ID	Date Sampled	Methyl Hg as Hg (ng/g) *
2603090024	3/7/06	0.034
2603090027	3/7/06	<0.020
2603090028	3/7/06	<0.020

^{*} Reported on a wet-mass basis (not corrected for total solids)

MWH

Methyl Mercury for Project 169215

Reported by Frontier Geosciences, Inc. 414 Pontius Avenue N, Seattle, WA 98109 April 19, 2006

Preparation Blank Report

Anolyto (note)	7 546					,
7/31 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	E	PB2	PB3	Mean	St Dev	RI
Meinyl Hg as Hg PB = Preparation Blank	0.012 k	0.013	0.008	0.011	0.003	0.020
RL = Reporting Limit	1					

Certified Reference Material Report

% Rec	104.6
Obs Value	5.74
Cert Value	5.49
CRM Identity	IAEA-405
Analyte (ng/g)	CRM = Certified Reference N

Cert Value = Certified Value

Obs Value = Observed Value

% Rec = Percent Recovery

Matrix Duplicate Report

RPD	NC
Mean	NC
Duplicate	<0.020
Sample	<0.020
Sample ID	2603090027
Analyte (ng/g)	Metnyl Hg as Hg

RPD = Relative Percent Difference

NC = Not calculated; one or more values below the reporting limit

Matrix Spike Report

	KFD	3.0	2:5
2 /6	/o Kec	99.4	
Men	CENT	4.436	
Smilze	- Aurar	4.464	
% Rec		96.4	
MS	110	4.275	
Spike	A 133	4.433	
Sample	0000>	0.770.00	
Sample ID	2603090027	ļ	
Analyte (ng/g)	Melnyi Hg as Hg	MS = Matrix Snile	AND THE PARTY OF T

MSD = Matrix Spike Duplicate

MWH

Methyl Mercury for Project 169215

Reported by Frontier Geosciences, Inc. 414 Pontius Avenue N, Seattle, WA 98109 April 19, 2006

ICB/CCB report

Analyte (ng/L)	ICB	CCB1
Methyl Hg as Hg	0.018	0.016

ICB = Initial Calibration Blank

CCB = Continuing Calibration Blanks

ICV/CCV report

Analyte (ng/L)		ICV			CCV1	
	TV	Found	% Rec.	TV	Found	% Rec.
Methyl Hg as Hg	2.240	1.956	87.3	2.000	1.956	97.8

ICV = Initial Calibration Verification

CCV = Continuing Calibration Verification

Frontier Geosciences

Dataset for CV.GC.AFS Analysis

Analysis Method: FGS-070

MMHg

Dataset ID: Analyst: Data Prep: Analysis Date:

MHg7-060327-1 Citronc Citronc 3/27/2006

No.	HiQA	Sample Group			Inst. Blank	Prep Blank	MSA	Effic Factor
2		PBS *Prep Method:	FGS-045	MMHg MeCl Extraction	Yes-1	No	No	No
3 .		MWH 3/17/06 *Prep Method:	FGS-045	MMHg MeCl Extraction	Yes-1	Yes-2	No	No

Analytical Remarks:

No Analytical issues to report.

All results were in control.

Col 100 3/28/00 G/1

QUALITY ASSURANCE

PEER - REVIEWED

INITIALS: plo3/28/2001

QUALITY ASSURANCE REVIEWED

INITIALS: 4/10/06

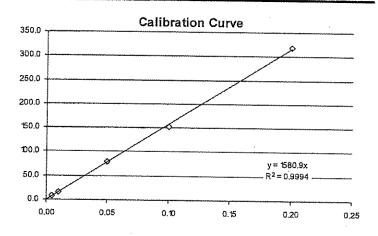
Frontier Geosciences

Dataset for CV.GC.AFS Analysis

Dataset ID: Analyst: Date: MHg7-060327-1 Citrónc 3/27/2006

Calibration Data for MMHg

	ng vs. Mea:	sured Inten	sity
Siope:	1580.89784	R:	0.99971
SE:	2.73386	Obs:	5
True Value-x	IBC Intensity-y	Calc Value	Calc intensity
0,0050	7.3500	0.0046	7.9045
0.0500	79.9500	0,0506	79.0449
0.1000	152,6500	0.0966	158.0898
0.2000	318.6500	0.2016	316,1796
0.0100	16.5500	0.0105	15.8090



Instrument Blank (IB) Sets

Group Analyte	Count	Avg	St Dev	EMDL	Units	Intensity
1 MMHg	2	0.0171	0.0009	0.0027	ng/L	1.35

Preparation Blank (PB) Sets

Group Analyte Count	Avg	St Dev	EMDL	Units	PB1	PB2	PB3	PB4
2 MMHg 3	0.011	0.003	800.0	ng/g	0.012	0.013	0.000	

MSA Sets

QC Sets

Sample	Analyte	Sample	Düplicate Tr	plicate 🕍 Sr	ike 🔠	Spike Dup.	Spike TV S	nike Dun TV
M120-10	MMHg M	-0.005	-0.004		4.275	4,436	4.433	4.464
STATE STREET,	ng/g	Avg=-0.004	14.6% RPD		排写 場	3.0% RPD	96.5%Rec	99.5%Rec
				the second possible to be seen to be a block of the land	and the same of th	A PART AND A SECOND	Name of the Participation of t	COLUMN TRANSPORT

Frontier Geosciences Dataset for CV.GC.AFS Analysis

Citronc 3/27/2006		Remark		and department of the same and						***************************************		and a state of the									and the state of t		
			0	o				3 6	3	-				2							-		
	j		0.0050	0.0500	ŧ	1	1		Į				2 4900	_!_				4 4220	200	4.4040		2.0000	
		Yec.	93.0%	101.1%	268 60	100 86	104 786	87.3%	20.10		The state of the s	***************************************	106 864	20.70					-			87.0%	
Analyst: Date:	70.00	מחומ רסנום (חפו)						1.956 notn	B.B.	0.012 nafa	0.013.00/0	0,00,800.0	5 741 note	2000	บ.ชอ4 กฎ/g	6/6u 900'0~	-0.004 ng/g	4 275 nnin	Systematics A	g/gir ach-r	Siffer 100'0		
	1	į	,~-	٠	*						1	-	0.971	*	7		1	*		- -		- -	
	Solid Conn	2000						1.958 na/a		0.012 na/a	4		5.574 note	0.024.2000	Billi tron	-0.005 ng/g	-0.004 ng/g	4.275 na/a	4 436 notn	0.001 no/n	n h		
	Africe	00000						1.0000 a	•	0.5000 a	0.5000 g	0.4100 a	0.2110.0	D 5440 G	A CALL	0.5310 g	0.5380 g	0.5640 a	0.5500 p	0.5310 a			
	Dran Vini							1000,00 mL		57.60 mL	57.60 mL	57,50 mL	57.50 mL			57.60 mt.	57.60 ml.	57.50 mL			4-		
	Il foreign Next	0.000	O.USO HOLL	1.011 ng/L	1,931 ng/L	4.031 ng/L	0.209 ng/L	1.956 ng/L	0.018 ng/L	0.102 ng/L	0.113 ng/L	0.058 ng/L	20.420 ng/L	0.324 net		-0.044 ng/L	-0.038 ng/t.	41,863 ng/L	43.129 ng/L	0.011 ng/L	1.956 na/l	0.016 ng/L	
	Riguid Grossi	0000	מימים נומני	1.011 ng/L	1.931 ng/L	4.031 ng/l.	0.209 ng/l.	1.956 ng/L	0.018 ng/L	0.102 ng/l.	0.113 ng/L	0.058 ng/l.	20.510 ng/L	0.415.00/		G.U47 ng/L	0.052 ng/L	41.954 ng/L	43.219 ng/l.	0.102 ng/L	1.956 na/L	0.016 ng/L	
	66			1.	, '	- -	-	-	1	5.	ιςi	5.	Вý	5,	4	;	က်	ć,	j.	5.	ا	<u> </u>	7
	Inst Vatue	0.0048 pg		0.0506 ng	0.0966 ng	0,2016 ng	0.0105 ng	0.0978 ng	0.0009 ng	0.0012 ng	0.0013 ng	0.0007 ng	0.0410 ng	0.0048 no	0 000%	200	0,0006 ng	0.0839 ng	0.0864 ng	0.0012 ng	0.0978 ng	0.000B rrg	
		╁		B1.3 0.0	154 0.0	320 0.2	17.9 0.0	156 0.0	1.4 0.00	3.2 0.00	3.4 0.00	2.4 0.00	66.2 0.04	8.9 0.00	2000	l	2.3 0.00	134 0.06	138 0.08	3.2 0.00	158 0.05	1.3 0.00	-
	i Infen.	• ~~~	4	l		L	<u> </u>	<u> </u>	<u> </u>	Ļ			_	L	Ļ	1	_		Ļ	Ŀ	L.	L	
	Aliquo	50.000 mi		1000.0c	50.000 ml.	50,000 ml.	50.000 ml	50.000 mL	50.000 mL	57.600 mL	57,600 mL	57.500 mL	10.000 mL	57.600 ml	57 500 ml		2/.500 mi	10.000 ml.	10.000 mil	57,600 mL	50.000 ml	50.000 ml.	
	Type	CAI		-8- -8-	CAL	CAL	CAL	SOT	8	8	89	ed.	rcs	so.	o;			365	GSM	S	<u>ک</u>	æ	
Ì	Excl.][E	I	1						
	Sample (D	D.005 ng	O ORG AS	M.UGO FIN	ნ.100 ივ	D.200 ng	D.010 ng	ICV/Darm-2 (2.24ng/L)	ica ica	PBS1	PBS2	PES3	IAEA-405	M120-0.5	M120-10	834 20. 40/14FD3	W. LEO. LOUNED.	M120-10(MS)	M120-10(MSD)	M120-30	CCVI	CCB1	
An American Andrewson (An Andrewson and American Andrewson Andrews	s Sample Group	1 [Analysis]	2 ZAnsluciei	le ment anal	3 (Analysis)	4 (Analysis)	1 (Analysis)	2 (Analysis)	3 (Analysis)	4 258	1 pas	2 PBS	3 MWH 3/17/06	4 MWH 3/17/08	1 MWH 3/17/05	2 MWH 3/17/08	Detail of the Co	3 MWH 371/UD	4 MWH 3/17/06	1 MWH 3/17/06	2 (Analysis)	3 (Analysis)	
- ×	Trap Pos	***	-		77	4	The state of the s		8						9	8				8	4	5 3	
- 1	Run Tr	~	6	1 0	2	*F	¥O.	60	~	8	Ca j	- P	=	12	ţ.	14	¥	,	16	11	18	19	

	Mut Annu Dratt D Mut 3/17/02				
	Maters Tissues	FSIM Iraps	☐ Filters	Other	
mple Matrix	otal Hg Methyl Hg 7% Dry Weig	nt Other_	,	·	
alysis: 🔲 T	ofal Hg Lawring Lawring				
an# r%TS	Sample ID Number	Sample Size	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ght Determing Pan wt.+ wet sample (g)	Pan wt.+ arv
TOBSE					
	7	- 410			
	3 (teften chips)	0.410			
VIA	EN 408	0.211			
Imi	20-0.5	0.544			
2 V.	-10	0.538			
2no V	MO	<u></u>			
200 V	ms (2511 100 ng/s	0.560			
MEDY	MS() +	0.531	 		
3 MC	20-30				
					<u> </u>
				1	,
		00			
		02000			
		100			_
· · ·					
-					

Frontier GeoSciences, Inc

High QA Report:

Analyst: Citron Choice
Data Set: MHg7-060327-1
Reviewer: Shelly Fank
Reviewed Date: 4/10/06

- 1. Calibration was performed on at least five calibration standards.
- 2. The calibration curve used at least four standards and achieved a correlation coefficient of greater than 0.995.
- 3. The ICV meets acceptable criteria of 80-120%R.
- 4. The ICB meets acceptable criteria of less than or equal to 0.02 ng/g.
- 5. All CCVs have %R within 75-125% except:

	CCV	Analyte	%R	Comments
ĺ	None			

6. All LCS have %R within 75-125% except:

LCS ID	Analyte	%R	Comments
None			

- 7. All MD results pass the < 25% RPD Criteria. Except:None
- 8. No prep issues noted.

TDS checked transcription.

Any other comments regarding instrument/data packages (internal standard trends/missing portions such as prep logs etc.):

All Sample Duplicates/Triplicates/ have RPD/RSD below 25%. Except: None.

All sample MS and MSD have %R within 75-125% unless spike concentration is less than 1x the ambient concentration. Except: None.

All analytical issues or other problems:

1. No other issues noted.

Page 1 of 2

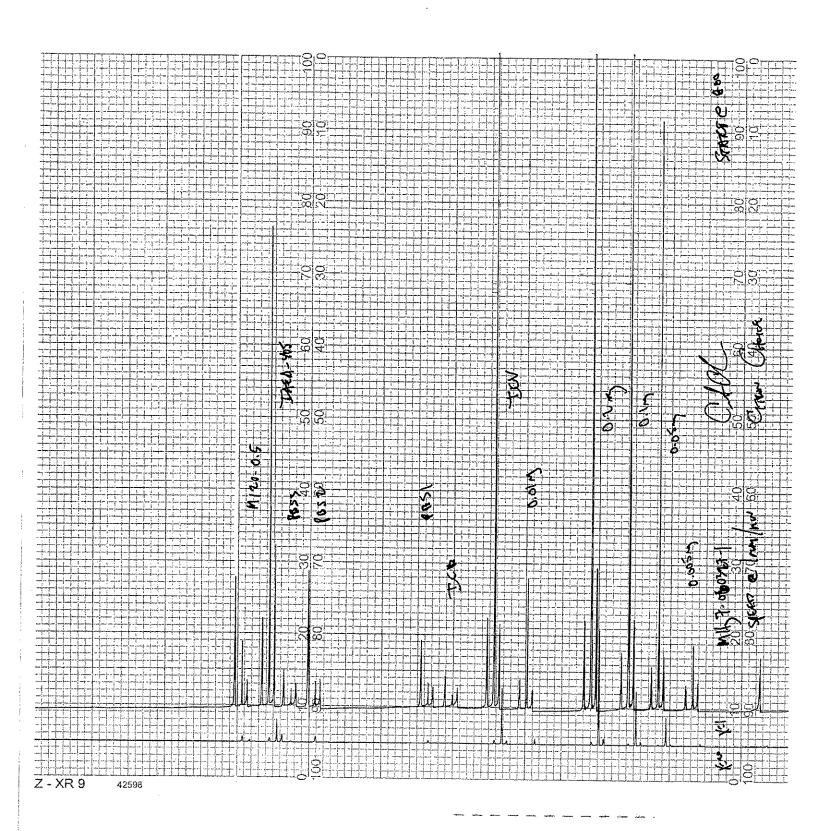
Frontier GeoSciences, Inc

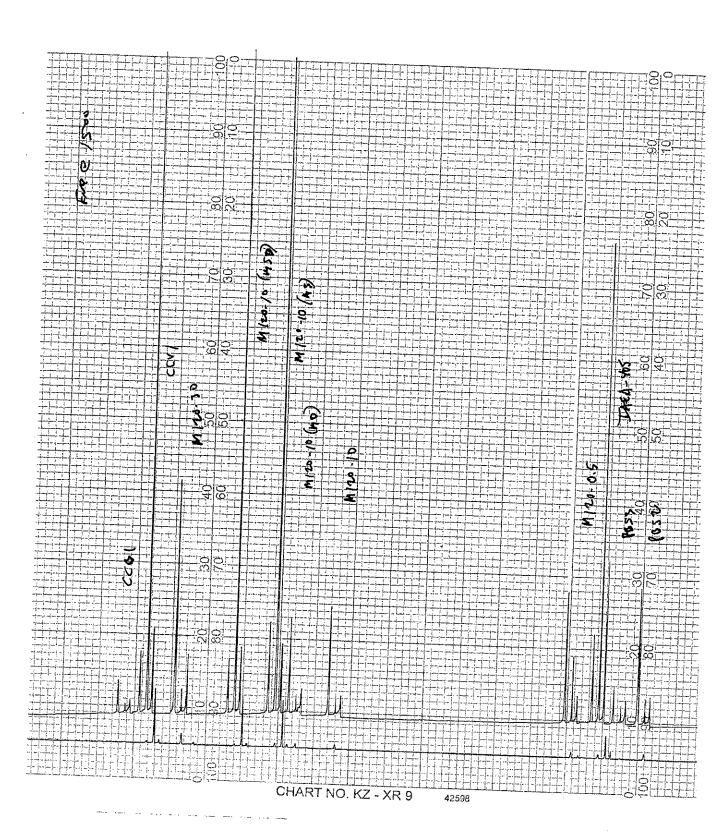
High QA Report:

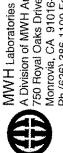
Analyst: Citron Choice Data Set: MHg7-060327-1 Reviewer: Shelly Fank Reviewed Date: 4/10/06

Follow-up items. (This would be items such as mass or dilution factors that have a problem or if a sample was changed on the Sample/Batch report but did not appear to be changed on the sample analysis report.)

These items should be emailed to the QA coordinator, lab manager, AL group leader, PM and PM group leader. They should respond as to how the item was addressed and what action was taken. That should then be amended to this report.







PM-165 Monrovia, CA 91016-3629 Ph (626) 386-1100 Fax (626) 386-1095 A Division of MWH Americas, Inc. 750 Royal Oaks Drive Suite 100

Russell Gerads Frontier Geo-Science Ship To

414 Pontius North Seattle WA 98109

03/16/06

Submittal Form & Purchase Order 99-22196

*REPORTING REQUIREMENTS: Do Not Combine Report with any other samples submitted under different MWH project numbers!

Report & Invoice must have the MWH Project Number 169215 Sub PO# 99-22196 and Job # Find Out

Report all quality control data according to Method. Include dates analyzed, date extracted (if extracted) and Method reference on the report. Results must have Complete data & QC with Approval Signature. See reverse side for List of Terms and Conditions.

MWH Laboratories 750 Royal Oaks Dr. Stc. 100, Monrovia, CA 91016 Reports: Julie Lee Sub-contracting Administrator EMAIL TO: Julie Lee@mwhglobal.com

Accounts Payable PO BOX 6610, Broomfield, CO 80021 Phone (626) 386-1136 Fax (626) 386-1095 Invoices to: MWH LABORATORIES

Provide in each Report the Specified State Certification # & Exp Date for requested tests + matrix

QC REQUESTED

TREPLES THE

MWH Project # Report Due: 03/31/06 169215

99-22196 Sub PO#

(206) 622-6870

Fax

(206) 622-6960

Client Sample ID for reference only

Analysis Requested

Sample Date & Time

Matrix

B oz. glass jars 8 oz. glass jars 8 oz. glass jars

soil

03/07/06 9:10

methyl mercury

2603090024 M120-0.5

custsub custsub

M120-10 M120-30

2603090027 2603090028

custsub

methyl mercury methyl mercury

03/07/06 10:10 03/07/06 11:45

Soil So

Container

(ed. ox brown # 6912 3665 2972 Cooled tempion, 7°C

VF5R:10:00

Co.C Sal: NIK

Sample Control

Date 03/16/06 Time 15/3 MUST HAVE NOTIFICATION IF TEMP IS GREATER THAN 6 OR LESS THAN 2 CELSIUS

Time 19:05

Date

An Acknowledgement of Receipt is requested to attn. Julie Lee

Received by: NW

Relinquished by:

Page 27 of 95

豆

ENSR. TROMY

SEVERN TRENT LABORATORIES, INC. PRELIMINARY DATA SUMMARY

PARAMETER Client Sample ID: M120-0. Cample #: 001 Date Sample ID: M120-0.	MWL-169215/Sub Project Number: 1	69215)309	2090	Date Re	man to make .	
lient Sample ID: M120-0.	* **** A. P. H. H. A. P.	A STATE OF THE PROPERTY OF THE PARTY.			por ceu:	3/27/0
lient Sample ID: M120-0.	RESULT	ישמרטמים פ		* * * * * * * * * * * * * * * * * * * *	· · · · · · · · · · · · · · · · · · ·	
		REPORT:	UNITS	ANALY METHO	TICAL D	
	Jr.					Provident Address of the Control of
	mpled: 03/07/06 09:	l0 Date	Received:	03/10/06	Matrix:	SOLID
Dibenzodioxins and Dibe						
2,3,7,8-TCDD	ND	0.18	mar / m	Orac 4.C	0000	Reviewed
Total TCDD	0.55	0.10	pg/g	SW846		
1,2,3,7,8-PeCDD	ND	0.62	pg/g	SW846		
Total PeCDD	ND	0.02	pg/g	SW846		
1,2,3,4,7,8-HxCDD	ND	0.34	pg/g	SW846		
1,2,3,6,7,8-HxCDD	ND	0.94	pg/g	SW846		
1,2,3,7,8,9-HxCDD	ND	1.0	pg/g	SW846		
Total HxCDD	ND	2.4	pg/g	SW846		
1,2,3,4,6,7,8-HpCDD	6.7	۵.₩	pg/g	SW846		
Total HpCDD	12		pg/g	SW846		
OCDD	33		pg/g	SW846		
2,3,7,8-TCDF	2.9 CON		pg/g	SW846		
Total TCDF	2.5 CON 20		pg/g	SW846		
1,2,3,7,8-PeCDF	4.7 J		pg/g	SW846		
2,3,4,7,8-PeCDF	2.7 J		pg/g	SW846		
Total PeCDF	22		pg/g	SW846		
1,2,3,4,7,8-HxCDF	11		pg/g	SW846		
1,2,3,6,7,8-HxCDF	7.7		pg/g	SW846		
2,3,4,6,7,8-HxCDF	7.7 2.8 J		ba\a	SW846		
1,2,3,7,8,9-HxCDF	ND	0 00	pg/g	SW846		
Total HxCDF	51	0.69	ba\a	SW846		
1,2,3,4,6,7,8-HpCDF	30		pg/g	SW846		
1,2,3,4,7,8,9-HpCDF	6.5		pg/g	SW846		
Total HpCDF	52		pg/g	SW846		
OCDF	54		pg/g pg/g	SW846 SW846		
Results and reporting limits have been adjuste CON Confirmation analysis. J Estimated result. Result is less than the rep						

(Continued on next page)

SEVERN TRENT LABORATORIES, INC. PRELIMINARY DATA SUMMARY

	MWH Labora					
ot #: G6C100424	WL-169215/Sub		090	Date Po	ported:	PAGE
Pro	ject Number: 1	69215/309	0024	Date Re	:bor cea:	3/27/06
		REPORTI		አ እተጽ ፕ ኣ/	TICAL	
PARAMETER	RESULT		<u>UNITS</u>	METHO		
Client Sample ID: M120-10						
Sample #: 002 Date Sampled	: 03/07/06 10:	10 Date	Received:	03/10/06	Matrix:	SOLID
Dibenzodioxins and Dibenzofu	rans, HRGC/HRM	IS				Reviewed
2,3,7,8-TCDD	ND	0.27	pg/g	SW846	8290	restewed
Total TCDD	ND	0.27	pg/g	SW846		
1,2,3,7,8-PeCDD	ND	1.2	pg/g	SW846		
Total PeCDD	ND	1.8	pg/g	SW846		
1,2,3,4,7,8-HxCDD	ND	0.56	pg/g	SW846		
1,2,3,6,7,8-HxCDD	ND	1.1	pg/g	SW846		
1,2,3,7,8,9-HxCDD	ND	1.9	pg/g	SW846		
Total HxCDD	ND	1.9	pg/g	SW846		
1,2,3,4,6,7,8-HpCDD	ND	0.84	ba\a	SW846		
Total HpCDD	ND	0.84	pa/a	SW846		
OCDD	ND	1.4	pg/g	SW846		
2,3,7,8-TCDF	ND	0.29	bd/d 59,3	SW846		
Total TCDF	0.74	· · · · · · ·	pg/g	SW846		
1,2,3,7,8-PeCDF	ND	0.48	pg/g	SW846		
2,3,4,7,8-PeCDF	ND	0.47	pg/g	SW846		
Total PeCDF	ND	0.69	pg/g	SW846		
1,2,3,4,7,8-HxCDF	ND	0.87	pg/g	SW846		
1,2,3,6,7,8-HxCDF	ND	0.65	pg/g	SW846		
2,3,4,6,7,8-HxCDF	ND	0.71	pg/g	SW846		
1,2,3,7,8,9-HxCDF	ND	0.74	pg/g	SW846		
Total HxCDF	ND	0.87	pg/g	SW846		
1,2,3,4,6,7,8-HpCDF	ND	0.79	ba\a	SW846		
1,2,3,4,7,8,9-HpCDF	ND	0.59	pg/g	SW846		
Total HpCDF	ND	0.79	ba\a	SW846		
OCDF	ND	1.3	pg/g	SW846		
Results and reporting limits have been adjusted for dry w	eight.					
Inorganic Analysis		Soil			ĵ	Reviewed
Method for Determination	9.1		F	ASTM D	2216-9	
of Water Content of Soil						

(Continued on next page)

SEVERN TRENT LABORATORIES, INC. PRELIMINARY DATA SUMMARY

The results shown below may still require additional laboratory review and are subject to change. Actions taken based on these results are the responsibility of the data user. MWH Laboratories PAGE 3 Lot #: G6C100424 MWL-169215/Sub PO# 99-22090 Date Reported: 3/27/06 Project Number: 169215/3090024 REPORTING ANALYTICAL RESULT LIMIT UNITS METHOD Client Sample ID: M120-30 Sample #: 003 Date Sampled: 03/07/06 11:45 Date Received: 03/10/06 Matrix: SOLID Dibenzodioxins and Dibenzofurans, HRGC/HRMS Reviewed 2,3,7,8-TCDD ND 0.23 pg/g SW846 8290 Total TCDD ND0.23 pg/g SW846 8290 1,2,3,7,8-PeCDD ND 0.79 pg/g SW846 8290 Total PeCDD ND 2.4 SW846 8290 pg/g 1,2,3,4,7,8-HxCDD ND 0.56 SW846 8290 pg/g 1,2,3,6,7,8-HxCDD ND 0.51 pg/g SW846 8290 1,2,3,7,8,9-HxCDD ba\a ba\a ba\a ba\a ba\a ND 0.50 SW846 8290 Total HxCDD ND0.56 0.56 0.81 SW846 8290 1,2,3,4,6,7,8-HpCDD ND SW846 8290 Total HpCDD ND 0.81 SW846 8290 OCDD SW846 8290 ND 1.3 2,3,7,8-TCDF ND 0.17 SW846 8290 pg/g Total TCDF ND 0.37 SW846 8290 pg/g 1,2,3,7,8-PeCDF ND0.34 pg/g SW846 8290 2,3,4,7,8-PeCDF ND 0.33 SW846 8290 pg/g Total PeCDF ND 0.38 SW846 8290 pg/g 1,2,3,4,7,8-HxCDF ND 0.54 pg/g SW846 8290 1,2,3,6,7,8-HxCDF ND SW846 8290 0.51 pg/g ND ND 2,3,4,6,7,8-HxCDF0.55 pg/g SW846 8290 1,2,3,7,8,9-HxCDF 0.56 pg/g SW846 8290 Total HxCDF ND 0.56 pg/g SW846 8290 1,2,3,4,6,7,8-HpCDF ND 0.56 SW846 8290 pg/g 1,2,3,4,7,8,9-HpCDF SW846 8290 ND 0.63 pg/g Total HpCDF 0.63 ND pg/g SW846 8290 OCDF ND 1.4 SW846 8290 pg/g Results and reporting limits have been adjusted for dry weight. Inorganic Analysis Soil Reviewed Method for Determination 11.3 ASTM D 2216-90 of Water Content of Soil

CASE NARRATIVE

for

MWH LABORATORIES MWH PROJECT: 99-22088/169215 CDM/ASHTABULA SITE

SDG: 158048

April 12, 2006

Laboratory Identification:

General Engineering Laboratories, LLC 2040 Savage Road Charleston, South Carolina 29407 (843) 556-8171

Summary

Sample receipt The samples arrived at General Engineering Laboratories, LLC, Charleston, South Carolina on March 10, 2006 for analysis. Shipping container temperatures were checked, documented, and within specifications. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage.

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
158048001	2603090024
158048002	2603090027
158048003	2603090028
158048004	2603090026
158048005	2603090029

Case Narrative

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

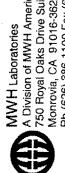
This data package, to the best of my knowledge, is in compliance with technical and administrative requirements.

Edith Kent

Project Manager

Edisk M. Kest

Chain of Custody and Supporting Documentation



750 Royal Oaks Drive Suite 100 Monrovia, CA 91016-3629 Ph (626) 386-1100 Fax (626) 386-1095 A Division of MWH Americas, Inc.

Report all quality control data according to Method, Include dates analyzed, date extracted (if extracted) and Method reference on the report. Results must have Complete data & QC with Approval Signature. See reverse side for List of Terms and Conditions

Provide in each Report
the Specified State
Certification # & Exp Date for
requested tests + matrix

MWH Laboratories 750 Royal Oaks Dr. Ste. 100, Mourovia, CA 91016

EMAIL TO: Julie, Lee@mwhglobal.com Phone (626) 386-1136 Fax (626) 386-1095 Invoices to: MWH LABORATORIES

Reports: Julie Lee Sub-contracting Administrator

Accounts Payable PO BOX 6610, Broonifield, CO 80021

*REPORTING REQUIREMENTS: Do Not Combine Report with any other samples submitted under different MWH project numbers!

Report & Invoice must have the MWH Project Number 169215

90/60/20

Sub PO# 99-22088

Submittal Form & Purchase Order 99-22088

EXTRA VOLUME PROVIDED FOR 2603090029. PLEASE SPIKE IF POSSIBLE OR ANALYZE IN DUPLICATE.

CA ELAP OK

General Engineering Laboratories, LLC Charleston, SC 29414 2040 Savage Road **Edie Kent** Ship To

(843) 556-8171 X4433

(843) 766-1178 Sub PO# Fax MWH Project # Report Due:

03/24/06 169215 ď

99-22088

Client Sample ID for reference only Lab # for ID Use MWH

Matrix Date & Time Sample Analysis Requested

Container

soil 80z. glass jars												soil 8oz. glass jars		Date 03/09/06 Time 1534 MUST HAVE NOTIFICAION IF TEMP IS GREATER THAN 6 OR LESS THAN 2 (An Acknowledgement of Receipt is requested to attn: Michael Lettona
												1		FICAION	adgement
03/07/06 9:10												03/07/06 10:10		HAVE NOT	in Acknowl
03/	-											03/60		MUST	
														ime 1534	Date 3/10/66 Time 0915
				PIC)	PIC)	•	231			GROSS ALPHA (ADJUSTED)				1 90/6	1 99°
1226	1228	10	2	THORIUM (ISOTOPIC)	URANIUM (ISOTOPIC)	URANIUM (TOTAL)	PRONACTINIUM 231	JM 228	H 212	ALPHA (A	POLONIUM 210	1226	1228	ate 03/0	ate 2/10
RADIUM 226	RADIUM 228	LEAD 210	LEAD212	THORIU	URANIC	URANIU	PRONA	ACTINIUM 228	BISMUTH 212	GROSS	POLON	RADIUM 226	RADIUM 228		۵
														Sample Control	
														San	
M120-0.5												M120/10			
ì	HIMMAN PROVINCE	Showman was a part of the state			Illenizopassy elizyppoppydat	***************************************	ALVANORE MARKET PARTY AND	***************************************			· · · · · · · · · · · · · · · · · · ·	ĺ	***************************************		
2603090024	The state of the s											2603090027			ercolle
														i by:	74
CUSTSUB		WOODS OF STREET	SOCIOLISM PROPERTY CONTRACTOR CON	***************************************	Annedownie de la company	VANDAGOOVAN ORAN MARAGEMENTA		**************************************		Albert Street Control of the Street Street	**************************************	CUSTSUB		Relinquished by.	Received by:
ر ان ان	∝ f Ω	en -	*	ø	φ	£	623	න න	9	<u>=</u>	42	^ಜ ೧	\$	Reli	Rec

SELSIUS

Page 34 of 95

_Date 03/09/06

Received by:

Sample Control

Time 09/5

Time/5% MUST HAVE NOTIFICAION IF TEMP IS GREATER THAN 6 OR LESS THAN 2 CELSIUS

An Acknowledgement of Receipt Is requested to attm Michael Lettona

Container											
		ì	1	03/07/06 12:45 soil 8oz glass jars		ı	ı	ı	ı		1
Matrix				12:45 soil							***************************************
Sample Date & Time				03/07/06		**************************************					
Analysis Requested	THORIUM (ISOTOPIC)	URANIUM (ISOTOPIC)	URANIUM (TOTAL)	RADIUM 226	RADIUM 228	LEAD 210	LEAD212	THORIUM (ISOTOPIC)	URANIUM (ISOTOPIC)	URANIUM (TOTAL)	
Client Sample ID for reference only	THC	URA	URA	-50	RAD	LEA	LEA	OHL	URA	URA	1
Clier	WAYSHAND PROGRAMMAN	deferituelestraammunge eranietaksproggesta	AND THE CHANGE AND THE PARTY OF	03090029 M120	**************************************	reforement (objects of the control o			***************************************	ИМИСТВЕСО орторужен поружения	
	ne pro cinema a piespes pe è i dei addiminima processo, que	The state of the s	The state of the s	260309002	Walter to the same of the same		Marie Comment of the second of		**************************************	Appropriet, blokenbyr, cyman mana, man hygar	
Row	Page 8	0 0)I &	4 GUSTSUB	**************************************	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	4.7	MG And an annual	Community of the Control of the Cont	CAC	

Date 03/09/06 Time 5 3k MUST HAVE NOTIFICAION IF TEMP IS GREATER THAN 6 OR LESS THAN 2 CELSIUS Page 3 An Acknowledgement of Receipt is requested to after Michael Lettona

Sample Control

Received by:

Relinquished by:



SAMPLE RECEIPT & REVIEW FORM

	···			PM use only					
Client: MUH Jubs	in the same of			SDG/ARCOC/Work Order: 169215/99-22088					
Date Received: 2/10/66				PM(A) Review (ensure non-conforming items are resolved prior to signing):					
Received By:	"""""""""""""""""""""""""""""""""""""	******	****	End conforming nears are resolved prior to signing):					
									
* 	20	١.							
Sample Receipt Criteria	Yes	Z	B	Comments/Qualifiers (Required for Non-Conforming Items)					
Shipping containers received inta	ct /	T		Circle Applicable: seals broken damaged container leaking container other (describe)					
and sealed?				James Colonia					
Samples requiring cold				Circle Coolant # ice bags blue ice dry ice none other describe					
2 preservation within (4 +/- 2 C)?			1						
Record preservation method.		Ľ		17°C					
Chain of custody documents	. /								
included with shipment?	V								
4 Sample containers intact and		75.		Circle Applicable: seals broken damaged container leaking container other (describe)					
sealed?	, V								
5 Samples requiring chemical			1	Sample ID's, comainers affected and observed pH:					
preservation at proper pH?		1	<u> </u>						
6 VOA vials free of headspace	жен органия Стана	Same.	1	Sample ID's and containers affected:					
(defined as < 6mm bubble)?		L.							
Are Encore containers present?	and the second								
7 (If yes, immediately deliver to			V						
VOA laboratory)	-								
8 Samples received within holding time?				id's and tesix affected:					
Samula ID's on COC much ID's	+			Constant St.					
on bottles?				Sample ID's and containers affected:					
Data & rims on COC	+		 	Sample ID's affected:					
& time on bottles?				an you have a conspicted.					
Number of containers received				Sample ID's affected: 8001/1 0327 4536					
match number indicated on COC?			V	0024,0027,0028 - 1 each					
COC form is properly signed in	+-1			- 00+6,0029-2 lach					
relinquished/received sections?									
	i								
Air Bill ,Tracking #'s, &	FLA	i k	Property of	12 3665 1440					
Additional Comments	Ex		671						
	pa	cd	vel.	RSO RAD Receipt #					
Suspected Hazard Information	Non-	nini I	Level	*If > x2 area background is observed on samples identified as "non-					
	Non- Regulated	Regulated	00 II	egulated/non-radioactive", contact the Radiation Safety group for further					
Radiological Classification?		_		nvestigation.					
PCB Regulated?		tan zonamonia de	7.00	Maximum Counts Observed*: 20 CPTN Comments:					
Shipped as DOT Hazardous	\vdash / \vdash			UHHELIN .					
Material? If yes, contact Waste	· ·			Hazard Class Shipped:					
Manager or ESH Manager.		Š		IN#:					
PM (or PMA) review of Hazard clas	sificatio			Initials // Date:					
The state of the s		****	'` ^.	~~************************************					

Subject: More on Tronox Samples Received

From: Edie Kent <emk@gel.com> **Date:** Fri, 10 Mar 2006 13:27:58 -0500

To: Linda Geddes <Linda.Geddes@us.mwhglobal.com>

CC: Edie Kent <emk@gel.com>, benjamin Jenkins <ben01079@gel.com>

Linda:

Additionally, the samplers did not sign the chain when they relinquished the samples.

Also, there is a note on the chain that an acknowledgment of receipt is requested to Michael Lettona's attention. Can you provide an e-mail address for him so that we can send that to him?

Will we be receiving samples tomorrow?

Edie

Edie Kent wrote:

Linda:

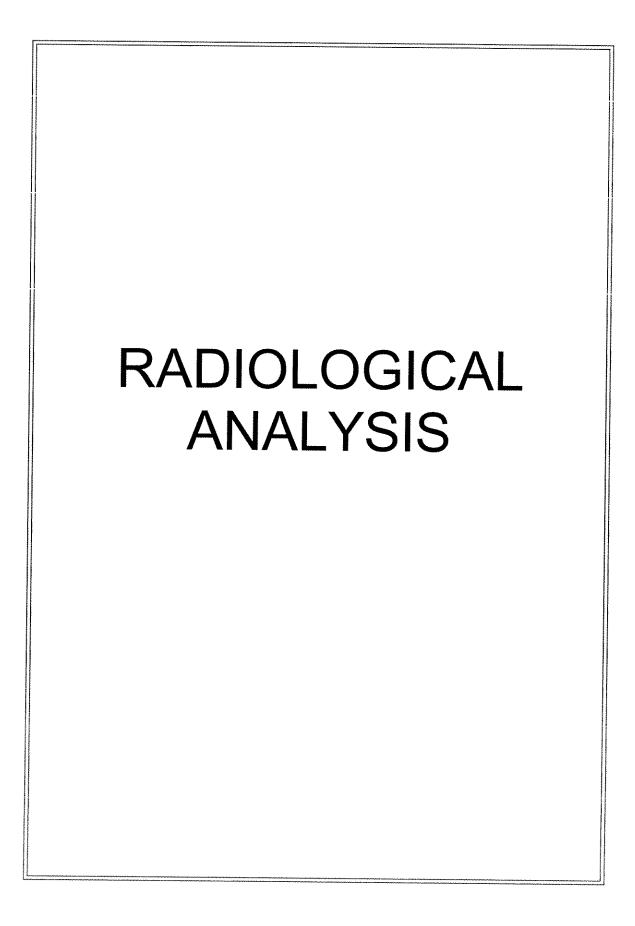
We received the soil samples today. The samples arrived at 17C which would not be an issue with the tests requested. We received 2 containers each for 2603090026 and 2603090029 and one container each for all other samples. The chain only indicates that extra volume is being sent for sample 2603090029.

Edie

Edith M. Kent Project Manager General Engineering Laboratories, LLC 2040 Savage Road PO Box 30712 Charleston, SC 29407

Phone: 843-556-8171, ext. 4453

Fax: 843-766-1178 e-mail: emk@gel.com web-site: www.gel.com



Radiochemistry Case Narrative MWH Laboratories (MWHL) Work Order 158048

Method/Analysis Information

Product:

Alphaspec Po210, solid

Analytical Method:

DOE EML HASL-300, Po-01-RC Modified

Prep Method:

Dry Soil Prep

Analytical Batch Number: 515989

Prep Batch Number:

511798

Sample ID	Client ID
158048001	2603090024
158048002	2603090027
158048003	2603090028
1201060425	Method Blank (MB)
1201060426	158048002(2603090027) Sample Duplicate (DUP)
1201060427	158048002(2603090027) Matrix Spike (MS)
1201060428	Laboratory Control Sample (LCS)
1201060429	Oualification Sample (KNOWN)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-016 REV# 8.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 158048002 (2603090027).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

Batch was repreped due to poor resolution. Sample 1201060428 (LCS) was recounted due to low/high recovery.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration

No manual integrations were performed on data in this batch.

Additional Comments

The sample and duplicate, 1201060426 (2603090027) and 158048002 (2603090027), do not meet the relative percent difference requirements for Po-210, however they do meet the relative error ratio requirements with a value of 0.515.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	Alphaspec Th, Solid
Analytical Method:	DOE EML HASL-300, Th-01-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	512068
Prep Batch Number:	511800

Sample ID	Client ID
158048001	2603090024
158048002	2603090027
158048003	2603090028
158048004	2603090026
158048005	2603090029
1201051873	Method Blank (MB)
1201051874	158048005(2603090029) Sample Duplicate (DUP)
1201051875	158048005(2603090029) Matrix Spike (MS)
1201051876	Laboratory Control Sample (LCS)

Dry Soil Prep GL-RAD-A-021 Batch Number: 511798

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-038 REV# 9.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 158048005 (2603090029).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration

No manual integrations were performed on data in this batch.

Additional Comments

The sample 158048005 and duplicate 1201051874 do not meet the relative percent difference requirements for Th-232, however they do meet the relative error ratio requirements with a value of 1.48.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product: Alphaspec U, Solid

Analytical Method: DOE EML HASL-300, U-02-RC Modified

Prep Method: Ash Soil Prep

Dry Soil Prep GL-RAD-A-021 Method: Dry Soil Prep Analytical Batch Number: 512069
Prep Batch Number: 511800
Dry Soil Prep GL-RAD-A-021 Batch Number: 511798

Sample ID	Client ID
158048001	2603090024
158048002	2603090027
158048003	2603090028
158048004	2603090026
158048005	2603090029
1201051877	Method Blank (MB)
1201051878	158048005(2603090029) Sample Duplicate (DUP)
1201051879	158048005(2603090029) Matrix Spike (MS)
1201051880	Laboratory Control Sample (LCS)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 14.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 158048005 (2603090029).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration

No manual integrations were performed on data in this batch.

Additional Comments

The sample 158048005 and duplicate 1201051878 do not meet the relative percent difference requirements for U-238, however they do meet the relative error ratio requirements with a value of 1.24.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product: Gamma, (Ac-228,Bi-212,Pb-212,Ra-226,Ra-228,Pa-231)

Analytical Method: EML HASL 300, 4.5.2.3

Prep Method: Dry Soil Prep Analytical Batch Number: 513799

Prep Batch Number: 511798

Sample ID	Client ID
158048001	2603090024
158048002	2603090027
158048003	2603090028
158048004	2603090026
158048005	2603090029
1201055603	Method Blank (MB)
1201055604	158048005(2603090029) Sample Duplicate (DUP)
1201055605	Laboratory Control Sample (LCS)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 158048005 (2603090029).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

Sample 1201055605 (LCS) was recounted due to low/high recovery.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to low abundance.	Lead-212	1201055603

Method/Analysis Information

Product: GFPC, Pb210, Solid
Analytical Method: DOE RP280 Modified

Prep Method: Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method: Dry Soil Prep

Analytical Batch Number: 517517
Prep Batch Number: 511800

Dry Soil Prep GL-RAD-A-021 Batch Number: 511798

Sample ID Client ID 158048001 2603090024 158048002 2603090027 158048003 2603090028 158048004 2603090026 158048005 2603090029 1201063764 Method Blank (MB) 158048005(2603090029) Sample Duplicate (DUP) 1201063765

1201063766 158048005(2603090029) Matrix Spike (MS)

1201063767 Laboratory Control Sample (LCS)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-018 REV# 5.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 158048005 (2603090029).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries

All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product: GFPC, Gross Alpha Solid

Analytical Method: EPA 900.0 Modified

Prep Method: Dry Soil Prep

Analytical Batch Number: 516630 Prep Batch Number: 511798

Sample ID	Client ID
158048001	2603090024
158048002	2603090027
158048003	2603090028
1201061724	Method Blank (MB)
1201061725	158048001(2603090024) Sample Duplicate (DUP)
1201061726	158048001(2603090024) Matrix Spike (MS)
1201061727	Laboratory Control Sample (LCS)
1201061728	158048001(2603090024) Matrix Spike Duplicate (MSD)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-001B REV# 9.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 158048001 (2603090024).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries

All chemical recoveries meet the required acceptance limits for this sample set.

Gross Alpha/Beta Preparation Information

High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	KPA, Total U, Solid
Analytical Method:	ASTM D 5174
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	517556
Prep Batch Number:	511800
Dry Soil Prep GL-RAD-A-021 Batch Number:	511798

Sample ID	Client ID
158048001	2603090024
158048002	2603090027
158048003	2603090028
158048004	2603090026
158048005	2603090029
1201063863	Method Blank (MB)
1201063864	158048005(2603090029) Sample Duplicate (DUP)
1201063865	158048005(2603090029) Matrix Spike (MS)
1201063866	Laboratory Control Sample (LCS)
1201063867	Laboratory Control Sample Duplicate (LCSD)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-023 REV# 11.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met. The calibration for Total Uranium is

performed prior to each analysis and is located in the raw data section.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 158048005 (2603090029).

OC Information

Refer to Non-Conformance Report.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

The initial result of the following sample, 158048003 (2603090028), failed lifetime during initial analysis. Sample was reanalyzed and passed. Second result is reported. The initial results for samples 158048001 (2603090024) and 158048004 (2603090026) failed lifetime. Samples were diluted 1:10 and reanalyzed. The diluted samples were reanalyzed a second time to verify the initial diluted results. The initial diluted results are reported. The initial results for samples 158048002 (2603090027) and 158048005 (2603090029) were greater than CRDL. Samples were reanalyzed and passed. The batch was reprepped due to a failed laboratory control sample recovery and a failed relative percent difference.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG: NCR 306774 was generated due to Failed Recovery for MS/PS. 1. The matrix spike, 1201063865, did not meet the recovery requirement due to matrix interference. The batch was previously prepped with similar results. 1. Reporting results.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

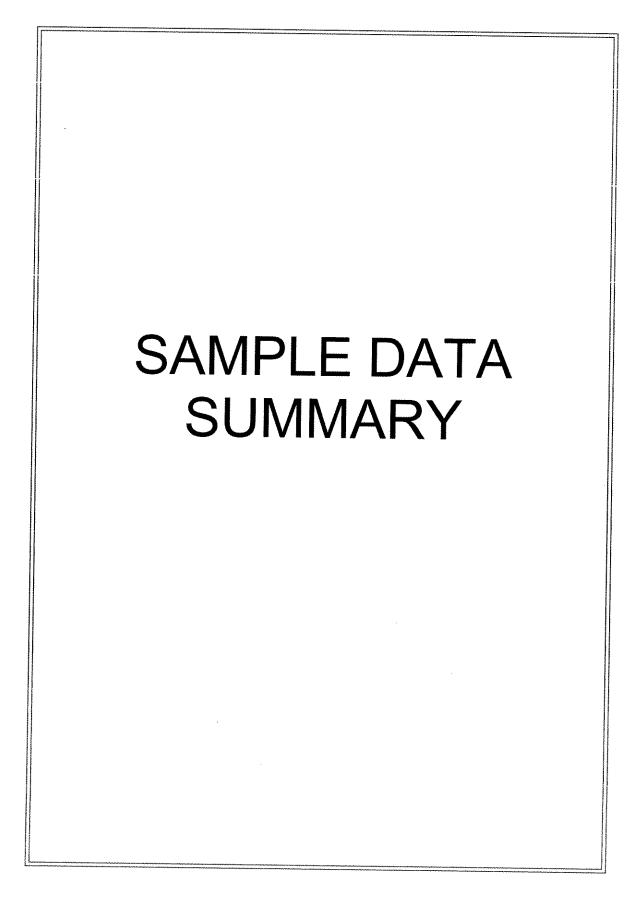
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data val	idator verified the information presented in this case narrative:
Reviewer/Date:	Kad B Cell At 4/12/66

NCR Report No.: 306774 Revision No.: 2

COMPANY - WIDE NONCONFORMANCE REPORT								
Mo.Day Yr. 10-APR-06	Division: Radiochemistry	Quality Criteria: Specifications	Type: Process	-A				
Instrument Type: Kinetic Phosphorescence Analyzer	Test / Method: ASTM D 5174	Matrix Type: Solid	Client Code: MWHL					
Batch ID: 517556	Sample Numbers: See Below	·F	<u>.</u>					
Potentially affected work order(s)(s Application Issues: Failed Recovery for MS/PS	SDG): 158048							
Specification and Requirements Nonconformance Description:		NRG Disposition:						
The matrix spike, 1201063865, dic due to matrix interference. The batch results.	f not meet the recovery requirement in was previously prepped with similar	Reporting results.						
Originator's Name:		Data Validator/Group	Leader:					
Salina Pizarro 10-APR-06 Quality Review:		Melanie Aycock	11-APR-06					

Director:



2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report

MWHL002 MWH Laboratories (PO 99-22088) Client SDG: 158048 GEL Work Order: 158048

The Qualifiers in this report are defined as follows:

- Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Results below the MDC or low tracer recovery.
- D Sample has been diluted and reanalyzed after initially exceeding inst. calibration range
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value,
- P The response between the confirmation and the primary columns is >40% Different.
- R Sample results are rejected.
- U Target analyte was analyzed for but not detected above the MDL or LOD.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- Z Paint Filter qualifier: Particulates passed through the filter. No free liquids were observed.
- The 2:1 depletion requirement was not met for this sample
- Sample preparation or preservation holding time exceeded.
- ND The analyte concentration is not detected above the reporting limit.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

** Indicates the analyte is a surrogate compound.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Edith Kent.

Reviewed by

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MWH Laboratories

Address:

750 Royal Oaks Drive, Suite 100

Monrovia, California 91016

Contact:

Ms. Julie Lee

Project:

Matrix:

Tronox Henderson Client Sample ID: Sample ID:

2603090024

158048001

Soil

Collect Date: Receive Date:

07-MAR-06 09:10

Project: Client ID:

MWHL00106 MWHL002

Report Date: April 12, 2006

DRS1 04/07/06 1326 517556 7

	Collector:); 	10-MAR-06 Client	9							
Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	D-4.1	***
Rad Alpha Spec Analysis								AnalystDate	1 11116	baten	Method
Alphaspec Po210, solid Polonium—210		1.76	+/-0.600	0.326	1.00	pCi/g		JXG1 04/05/06	1724	£15000	•
Alphaspec Th, Solid						pong		JAG1 04/03/00	1/34	213969	1
Thorium-228		2.01	+/-0.617	0.348	1.00	pCi/g	÷	DDR1 04/05/06	0052	512060	2
Thorium-230		1.09	+/-0.419	0.272	1.00	pCi/g		DDI(1 04/05/00	0932	312008	2
Thorium-232		1.94	+/-0.592	0.187	1.00	pCi/g					
Alphaspec U, Solid						. 0					
Uranium-233/234		0.962	+/-0.339	0.227	1.00	pCi/g		DDR1 04/05/06	0610	512060	3
Uranium-235/236	U	-0.00891	+/-0.0748	0.196	1.00	pCi/g		DDI(1 04/05/00	0017	312009	3
Uranium-238		0.911	+/-0.335	0.271	1.00	pCi/g					
Rad Gamma Spec Analysi											
Gamma, (Ac-228,Bi-212	2,Pb=212,Ra=2	26,Ra-228,	Pa-231)								
Actinium-228		1.87	+/-0.126	0.0854	1.00	pCi/g		MJH1 04/06/06	2345	\$13700	4
Bismuth-212		1.28	+/-0.238	0.184	1.00	pCi/g			<u> </u>	113177	4
Lead-212		1.97	+/~0.0566	0.042	10.0	pCi/g					
Protactinium-231 Radium-226	U	0.177	+/-0.626	1.10	0.500	pCi/g					
Radium-228		1.02	+/-0.0667	0.0462	2.00	pCi/g					
	3.C. (1	1.87	+/-0.126	0.0854	1.00	pCi/g					
Rad Gas Flow Proportiona	~										
GFPC, Gross Alpha Solid	'										
Alpha		19.9	+/-4.41	2.76	5.00	pCi/g		CXO1 04/03/06	1910 5	16630	5
GFPC, Pb210, Solid											-
Lead-210	U	0.462	+/-0.490	1.03	3.00	pCi/g		BXF1 04/09/06	0957-5	17517	6
Rad Total Uranium											U

The following Prep Methods were performed

KPA, Total U, Solid Total Uranium

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	MXP2	03/16/06	0900	511800
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	03/15/06	1043	511798

1.08

1.00

ug/g

The following Analytical Methods were performed

Method Description **Analyst Comments** ¥.

+/-1.69

21.1

DOE EML HASL-300, Po-01-RC Modified

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MWH Laboratories

Address: 750 Royal Oaks Drive, Suite 100

Monrovia, California 91016

Contact:

Ms. Julie Lee

Project: Tronox Henderson

Report Date: April 12, 2006

	Client Sample ID Sample ID:): 	2603090024 158048001		^	Proj Clier	ect; nt ID:	MWHL00106 MWHL002			
Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
2	DOE EML HASL	-300, Th	-01-RC Modifie	ed			~		~		
3	DOE EML HASL	-300, U-	-02-RC Modified	d							

DOE EML HASL-300, U

EML HASL 300, 4.5.2.3

EPA 900.0 Modified

DOE RP280 Modified

ASTM D 5174

Surrogate/Tracer recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Polonium-209	Alphaspec Po210, solid				
Actinium-227	Alphaspec Th, Solid			57 108	(25%–125%)
Actinium-227	Alphaspec Th, Solid			108	
Actinium-227	Alphaspec Th, Solid			108	
Uranium-232	Alphaspec U, Solid			90	(25%-125%)
Uranium-232	Alphaspec U, Solid			90	(25%-125%)
Uranium-232	Alphaspec U, Solid			90	(25%-125%)
Lead-210	GFPC, Pb210, Solid			50	(25%-125%)

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MWH Laboratories

Address:

750 Royal Oaks Drive, Suite 100

Monrovia, California 91016

Contact:

Ms. Julie Lee

Project:

Tronox Henderson

Sample ID:

Matrix:

Client Sample ID:

2603090027 158048002

+/-0.152

+/-0.572

+/-0.122

+/-0.250

 $\pm /-4.10$

+/-0.322

1.86

1.06

1.87

20.1

-0.0593

-0.753

U

U

Soil

Report Date: April 12, 2006

Project: Client ID:

MWHL00106 MWHL002

Collect Date: 07-MAR-06 10:10 Receive Date: 10-MAR-06 Collector: Client **Parameter** Qualifier Result Uncertainty DL RLUnits AnalystDate Time Batch Method Rad Alpha Spec Analysis Alphaspec Po210, solid Polonium-210 0.648 +/-0.3830.177 1.00 pCi/g JXG1 04/05/06 1734 515989 1 Alphaspec Th, Solid Thorium-228 1.44 +/-0.499 0.364 1.00 pCi/g DDR1 04/05/06 0952 512068 2 Thorium-230 1.13 +/-0.426 0.310 1.00 pCi/g Thorium-232 1.98 +/-0.5970.252 1.00 pCi/g Alphaspec U, Solid Uranium-233/234 1.24 +/-0.396 0.240 1.00 pCi/g DDR1 04/05/06 0819 512069 Uranium-235/236 0.197 +/-0.172 0.118 1.00 pCi/g Uranium-238 0.812 +/-0.319 0.198 1.00 pCi/g Rad Gamma Spec Analysis Gamma, (Ac-228,Bi-212,Pb-212,Ra-226,Ra-228,Pa-231) Actinium-228 1.87 +/-0.250 0.084 1.00 pCi/g MJH1 04/06/06 2345 513799 Bismuth-212 1.18 +/-0.233 0.183 1.00 pCi/g

Radium-228 Rad Gas Flow Proportional Counting

GFPC, Gross Alpha Solid Alpha GFPC, Pb210, Solid

Lead-210 Rad Total Uranium

Lead-212

Radium-226

Protactinium-231

KPA, Total U, Solid Total Uranium

Method

Ash Soil Prep

2.73 The following Prep Methods were performed

Description

 $\pm / -0.134$ 0.106

0.842

0.0383

0.981

0.0429

0.084

2.35

10.0

0.500

2.00

1.00

5.00

3.00

1.00

Analyst

MXP2

JMB1

ug/g

Date

pCi/g

pCi/g

pCi/g

pCi/g

pCi/g

pCi/g

BXF1 04/09/06 0957 517517

Prep Batch

511800

511798

Time

0900

1043

CXO1 04/03/06 1901 516630

DRS1 04/07/06 1328 517556

Dry Soil Prep Dry Soil Prep GL-RAD-A-021

The following Analytical Methods were performed Method

Description

Analyst Comments

03/16/06

03/15/06

DOE EML HASL-300, Po-01-RC Modified

Ash Soil Prep, GL-RAD-A-021B

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MWH Laboratories

Address:

750 Royal Oaks Drive, Suite 100

Monrovia, California 91016

Contact:

Ms. Julie Lee

Project:

Tronox Henderson

n	Sample ID: 15	503090027 58048002			Proi Clie	ect: nt ID:	MWHL00106 MWHL002			
Parameter	Qualifier Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
2	DOE EML HASL-300, Th-6	01-RC Modifie	ed		^ 	~				***************************************
3	DOE EML HASL-300, U-0.									
4	EML HASL 300, 4.5.2.3		_							
5	EPA 900.0 Modified									
6	DOE RP280 Modified									
7	ASTM D 5174									

Surrogate/Tracer recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Polonium-209	Alphaspec Po210, solid			·////	
Actinium-227	Alphaspec Th, Solid			45	(25%-125%)
Actinium-227	Alphaspec Th. Solid			106	
Actinium-227	Alphaspec Th. Solid			106	
Uranium-232	Alphaspec U. Solid			106	/ ***
Uranium-232	Alphaspec U, Solid			91	(25%-125%)
Uranium-232	Alphaspec U, Solid			91	(25%–125%)
Lead-210	GFPC, Pb210, Solid			91	(25%-125%)
	0x 1 0, 1 02 10, 50HQ			66	(25%-125%)

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Report Date: April 12, 2006

MWHL00106

MWHL002

Project:

Client ID:

Certificate of Analysis

Company: MWH Laboratories

Address:

750 Royal Oaks Drive, Suite 100

Monrovia, California 91016

Contact:

Ms. Julie Lee

Sample ID:

Project:

Tronox Henderson

Client Sample ID:

2603090028 158048003

Soil

Matrix: Collect Date: Receive Date:

07-MAR-06 11:45 10-MAR-06

	Collector:	•	TU-MAR-0	6							
Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	A mala mAD = 6			
Rad Alpha Spec Analysis	3					Omes	Dr	AnalystDate	lime	Batch	Method
Alphaspec Po210, solid											
Polonium-210		0.623	+/-0.499	0.594	1.00	nCi/a		137.01 04.07.0			
Alphaspec Th, Solid		3.520		0.571	1.00	pCi/g		JXG1 04/05/06	5 1734	515989	1
Thorium-228		2.06	+/-0.567	0.281	1.00						
Thorium-230		1.77	+/-0.504	0.128	1.00	pCi/g		DDR1 04/05/06	5 0952	512068	2
Thorium-232		1.74	+/-0.499	0.123	1.00	pCi/g					
Alphaspec U, Solid		1., 4	. 0.1,,,	0.151	1.00	pCi/g					
Uranium-233/234		2.00	+/-0.493	0.216	1.00						
Uranium-235/236		0.280	+/-0.216	0.216	1.00	pCi/g		DDR1 04/05/06	0819	512069	3
Uranium-238		1.39	+/-0.416	0.267	1.00	pCi/g					
Rad Gamma Spec Analys	is	1.33		0.207	1.00	pCi/g					
Gamma, (Ac-228,Bi-21		26 Ra=228 I	Pa=2311								
Actinium-228		2.24	+/-0.208	0.155	1.00	0.1					
Bismuth-212		1.33	+/-0.348	0.133	1.00	pCi/g		MJH1 04/06/06	2346	513799	4
Lead-212		2.26	+/-0.0797	0.0652	10.0	pCi/g					
Protactinium-231	U	0.00123	+/-1.01	1.81	0.500	pCi/g					
Radium-226		1.73	+/-0.114	0.0835	2.00	pCi/g					
Radium-228		2.24	+/-0.208	0.155	1.00	pCi/g					
Rad Gas Flow Proportion	al Counting	-/	,	0.100	1.00	pCi/g					
GFPC, Gross Alpha Solia	l										
Alpha		18.9	+/-3.98	2.14	5.00	mCi/m		03/01/01/05/05			
GFPC, Pb210, Solid		10,5	., 3,30	*** 1 -£	5.00	pCi/g		CXO1 04/03/06	1901 5	16630	5
Lead-210	U	0.0294	+/-0.329	0.010	* 00						
Rad Total Uranium	Ų	0.0274	17 9.329	0.810	3.00	pCi/g		BXF1 04/09/06	0957 5	17517	6
KPA, Total U, Solid											
Total Uranium		2 45	3 / 0 100	0.105							
. ~ * * *******************************		3.45	+/-0.128	0.107	1.00	ug/g		DRS1 04/07/06	1410 5	17556	7
**** #											

The following Prep Methods were performed

Method	Description		***************************************		
	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	MXP2	03/16/06	0900	511800
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	03/15/06	1043	511798

The following Analytical Methods were performed

Method Description **Analyst Comments**

DOE EML HASL-300, Po-01-RC Modified

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MWH Laboratories

Address:

750 Royal Oaks Drive, Suite 100

Monrovia, California 91016

Contact:

Ms. Julie Lee

Report Date: April 12, 2006

P1	oject: Tronox Henderson									
Parameter	Client Sample ID: Sample ID:	2603090028 158048003			Proje Clier	ect: nt ID:	MWHL00106 MWHL002			
-	Qualifier Result	Oncortung,	DL	RL	Units	DF	AnalystDate	Time	Rateb	Method
2	DOE EML HASL-300, T	h-01-RC Modifi	ed						Daten	MICHIOG
3	DOE EML HASL-300, U									
4	EML HASL 300, 4.5.2.3	on the modific	u							
5	EPA 900.0 Modified									
6	DOE RP280 Modified									
7	ASTM D 5174									

Surrogate/Tracer recovery	Test	Docult	Mominal	D	
Polonium-209 Actinium-227 Actinium-227 Actinium-227 Uranium-232 Uranium-232 Uranium-232	Alphaspec Po210, solid Alphaspec Th, Solid Alphaspec Th, Solid Alphaspec Th, Solid Alphaspec U, Solid Alphaspec U, Solid Alphaspec U, Solid	Result	Nominal	28 119 119 119 104 104	(25%-125%) (25%-125%) (25%-125%) (25%-125%)
ead-210	GFPC, Pb210, Solid			66	(25%-125%) (25%-125%)

GENERAL ENGINEERING LABORATORIES, LLC 2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

tact:	Monrovia, Calii Ms. Julie Lee Tronox Hende i		10								
ect; ,	Tronox Hende							Report Date: Apr	ril 12 2	006	
								, , , , , , , , , , , , , , , , , , ,	11, 12, 2	000	
		rson		····							
(Collector:	ID:	2603090026 158048004 Soil 07-MAR-00 10-MAR-00 Client	6 09:30		Pro Cli	piect: ent ID:	MWHL00106 MWHL002			
	Qualifier	Result		DL	RL	Units	DE	Anabathata	TV		
nalysis		***********	***************************************		-~	Onto	171	AnalystDate	Time	Batch	Meth
lid	•										
		1.88	+/-0.537	0.377	1.00	C:/-		***			
					-100			DDR1 04/05/06	0952	512068	1
id				0.250	1.00	pCI/g					
4		1 10	+/-0.350	0.369	1.00	~					
5	U							DDR1 04/05/06	0952 5	12069	2
	_										
Analysis		1.10	17 0.342	0.205	1.00	pCi/g					
,114 220,	,na 220)	1 70									
			-			pCi/g		MJH1 04/06/06	2346 5	13799	3
						pCi/g				-0,3,	2
ortional	Counting	1.86	+/-0.22/	0.167	1.00	pCi/g					
	Counting										
144	* *										
	U	0.0735	+/-0.414	1.01	3.00	pCi/g		BXF1 04/09/06	0957 5	17517	4
•									0,5, 5	17517	4
d											
		26.2	+/-1.58	1.08	1.00	ug/g		DRS1_04/07/06	1332 5	7556	_
N.F., 43									1932 3,	7330	5
		1ed									
	·				Analyst	Date	Time	Prep Batch			************
A	sh Soil Prep, G	L-RAD-A	1-021B		MXP2	03/16/06	ΛΟΛΛ				
					3141151	03/13/00	1043	511798			
ytical Me	ethods were pe	rformed									
De	escription				A	nalyst Comma	nte	/A//A//A//A//A		///	
Do	OE EML HASI	-300 Tb-	Ol-PC Modif				***************************************				
Do	DE EMI HASI	-300 H-0	VI-DO M-350	cu					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
FA	AI HASI 200	/ 500, U~€ / 500	z "KC Modifie	a							
		illed									
AS	SIM D 5174										
in 45 Arr.	nalysis lid Analysis Ra-226 ortional id Method D A E Vtical M D D D D D D D D D D D D D	Receive Date: Collector: Qualifier malysis did U Analysis Ra-226,Ra-228) ortional Counting id U d Methods were perform Description Ash Soil Prep, G Dry Soil Prep GI vtical Methods were pe Description DOE EML HASL DOE EML HASL EML HASL 300, DOE RP280 Modi ASTM D 5174	Receive Date: Collector: Qualifier Result	Receive Date: Collector: 10-MAR-00	Receive Date: Collector:	Receive Date: Collector:	Receive Date: Collector: 10-MAR-06 Client	Receive Date: Collector: Client	Receive Date: 10-MAR-06 Client Cl	Receive Date:	Receive Date: 10-MAR-06 Cilent Collector Cilent Collector Cilent Collector Cilent Collector Cilent Collector Cilent Cilent Collector Cilent Cilent Collector Ci

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MWH Laboratories

Address:

750 Royal Oaks Drive, Suite 100

Monrovia, California 91016

Contact: Project:

Ms. Julie Lee

Tronox Henderson

Report Date: April 12, 2006

	Client Sample Sample ID:	ID:	2603090026 158048004			Project Client		MWHL0010 MWHL002	6	***************
Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time Batch N	 Aethod
Surrogate/Tracer recovery	Test				Result	Nominal	Į	Recovery%	Acceptable Limi	
Actinium-227	Alphaspec	Th. Solid		T-7///					Acceptable Limi	12
Actinium-227	Alphaspec							118		
Actinium-227	Alphaspec	-						118		
Uranium-232	Alphaspec	,						118		
Uranium-232		· ·						105	(25%-125%)	
Uranium-232	Alphaspec							105	(25%-125%)	
Lead-210	Alphaspec							105	(25%-125%)	
Loui 210	GFPC, Pb2	10, Solid						51	(25%-125%)	

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MWH Laboratories

Address: 750 Royal Oaks Drive, Suite 100

Monrovia, California 91016

Contact;

Ms. Julie Lee

Project:

Tronox Henderson

Client Sample ID: Sample ID:

Matrix:

Collect Date: Receive Date: 2603090029 158048005

Soil 07-MAR-06 12:45

10-MAR-06

Report Date: April 12, 2006

Project:

MWHL00106 MWHL002 Client ID:

	Collector:		Client	3							
Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Tr:		
Rad Alpha Spec Analysis							171	AnalysiDate	1 ime	Batch	Method
Alphaspec Th, Solid											
Thorium-228		1.80	+/-0.534	0.355	1.00	mCi/a		DDD 1 0 1 10 - 11			
Thorium-230		1.55	+/-0.475	0.232	1.00	pCi/g pCi/g		DDR1 04/05/06	0952	512068	1
Thorium-232		1.28	+/-0.414	0.0738	1.00	pCi/g					
Alphaspec U, Solid					2,00	pC1/g					
Uranium-233/234		2.36	+/0.512	0.243	1.00	nCi/a		DDD A O LIGHT			
Uranium-235/236	U	0.0797	+/-0.122	0.243	1.00	pCi/g pCi/g		DDR1 04/05/06	0952	512069	2
Uranium-238		1.97	+/-0.464	0.176	1.00	pCi/g pCi/g					
Rad Gamma Spec Analys	is				1,00	pCi/g					
Gamma, (Pb-212,Ra-22	26,Ra-228)										
Lead-212	•	1.50	+/-0.135	0.0539	10.0	pCi/g		LETTEL DAMES			
Radium-226		1.34	+/-0.155	0.065	2.00	pCi/g pCi/g		MJH1 04/06/06	2346 5	513799	3
Radium-228		1.45	+/-0.251	0.128	1.00	pCi/g					
Rad Gas Flow Proportion	al Counting					peng					
GFPC, Pb210, Solid											
Lead-210	U	0.533	+/-0.462	0.935	3.00	pCi/g		DVE1 04/00/07	0055 5		
Rad Total Uranium					2.00	peng		BXF1 04/09/06	095/-5	17517	4
KPA, Total U, Solid											
Total Uranium		4.10	+/-0.202	0.0981	1.00	ug/g		DDC1 04/07/07	1224 6	*****	_
***						*6 5		DRS1 04/07/06	1554 5	1/556	5
The following Prep Metho	ods were nerfor	med									

e following Prep Methods were performed

Method	Description			~	
	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	MXP2	03/16/06	0900	511800
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	JMB1	03/15/06	1043	511798

The following Analytical Methods were performed

Method	Description	Analyst Comments	**************************************
1	DOE EML HASL-300, Th-01-RC Modified		//////////////////////////////////////
2	DOE EML HASL-300, U-02-RC Modified		
3	EML HASL 300, 4.5.2.3		
4	DOE RP280 Modified		
5	ASTM D 5174		

Surrogate/Tracer recovery

Test

Result

Nominal

Recovery%

Acceptable Limits

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company: MWH Laboratories

Address:

750 Royal Oaks Drive, Suite 100

Monrovia, California 91016

Contact:

Ms. Julie Lee

Project:

Parameter

Tronox Henderson

Report Date: April 12, 2006

C Sa	lient Sample I ample ID:	D:	2603090029 158048005			Project Client I		MWHL00106 MWHL002	5		
	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
ery	Test				Result	Nominal	F	Recovery%	Accept	able Lin	nits
	Alphaspec	Th, Solid			3,2,2			101			



2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: April 12, 2006

Page 1 of 5

MWH Laboratories

750 Royal Oaks Drive, Suite 100

Monrovia, California

Contact:

Ms. Julie Lee

Workorder: 158048

Parmname			NOI	M	Sample	Qual	QC	Units	RPD%	REC	% Range Anlst	Paco Time
Rad Alpha Spec											A Mange Amsi	Date Time
Batch 5	12068											
QC1201051874	15804800	5 DUP										
Thorium-228					1.80		1.69	pCi/g	6		(0%-20%) DDR1	04/05/06 09:52
fra ' aaa					+/-0.534		+/-0.586	POPE			(070 2070) DDK1	04/03/00 09.32
Thorium-230					1.55		1.59	pCi/g	3		(0%-20%)	
Thorium-232					+/-0.475		+/-0.549				. ,	
1 normin-232					1.28		1.83	pCi/g	35*		(0%-20%)	
QC1201051876	LCS				+/-0.414		+/-0.600					
Thorium-228	LCD					U	0.0767	G11			(M**) < 1 = 10 + 10 + 1	
						U	0.0767 +/-0.166	pCì/g			(75%-125%)	
Thorium-230							39.4	-C1/-			(750/ 1350/)	
							+/~6.74	pCi/g			(75%-125%)	
Thorium-232			45.3			U	0.0899	pCi/g		88	(75%-125%)	
							+/-0.105	perg		00	(7370-12370)	
QC1201051873 Thorium-228	MB											
1 11011um-225						U	0.172	pCi/g				
Thorium-230							+/-0.163					
1110114111 200						U	-0.0102	pCi/g				
Thorium-232						¥ 7	+/-0.054					
						U	-0.00558 +/-0.0112	pCi/g				
QC1201051875	158048005	MS					17-0.0112					
Thorium-228					1.80		1.66	pCi/g			(75%-125%)	
					+/-0.534		+/-0.494	peng			(7370-12370)	
Thorium-230					1.55		41.2	pCi/g			(75%-125%)	
775 222					+/-0.475		+/-6.64	, ,-			(
Thorium-232			45.3		1.28		1.86	pCi/g		88	(75%-125%)	
Batch 512	069				+/-0.414		+/-0.503				·	
QC1201051878 Uranium-233/234	158048005	DUP										
Olamani - 2,55,254					2.36		2.22	pCi/g	6		(0%-20%) DDR1	04/05/06 09:52
Uranium-235/236				U	+/-0.512		+/-0.513					
2007200				U	0.0797 +/-0.122	U	0.176	pCi/g	75*		(0%-20%)	
Uranium-238					1.97		+/-0.163		Pt 2 40			
					+/-0.464		1.52 +/-0.424	pCi/g	26*		(0%-20%)	
QC1201051880	LCS				17 01104		11-0.424					
Uranium-233/234							10.1	pCi/g			(75%-125%)	
							+/-1.31	pC#g			(1370-12370)	
Uranium-235/236							0.488	pCi/g			(75%-125%)	
1 imminum 222							+/-0.319	5 F				
Uranium-238			11.0				11.0	pCi/g		100	(75%-125%)	
QC1201051877	MD						+/-1.36				11	
QC12010318//	МВ											

GENERAL ENGINEERING LABORATORIES, LLC 2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder:	158048							-					
Parmname											Page	2 of 5	
			NO	И	Sample	Qual	QC	Units	RPD%	REC	% Range	Anlst	Date Time
Rad Alpha Spec Batch	12069												
Uranium-233/23	4												
Uranium-235/23						Ŭ	0.106 +/-0.117	pCi/g					
Uranium-238	•					U	0.0168 +/-0.067	pCi/g				DDR1	04/05/06 09:52
V. 421.1433, 2250						U	-0.0377 +/-0.0302	pCi/g					
QC120105187		5 MS					17-0.0302						
Uranium-233/23	4				2.36		9.55	pCi/g			(75%-125%	.)	
Uranium-235/236	5			U	+/-0.512		+/-1.10						
200,20				U	0.0797 +/-0.122		1.57 +/-0.496	pCi/g			(75%-125%)	
Uranium-238			11.0		1.97		12.4	pCi/g		95	(75%-125%)	
Batch 5	15989				+/-0.464		+/-1.25						
QC1201060426	158048002	DUP											
Polonium-210					0.648 +/-0.383		0.802	pCi/μ	21*		(0%-20%)) JXG1	04/05/06 17:34
QC1201060429	KNOW	J			₹7₹0.363		+/-0.406						
Polonium-210			7.70				7.41	pCi/g		96			
QC1201060428	LCS						+/-0.958						
Polonium-210			7.70				6.08	pCi/g		79	(75%-125%)		04/04/04 12 22
QC1201060425)						+/-1.19	рсид		, ,	(1370-12370)		04/06/06 13:23
Polonium-210	MB					U	0.030#						
						U	-0.0227 +/-0.0315	pCi/g					04/05/06 17:34
QC1201060427	158048002	MS					7,3210						
Polonium-210			8.90		0.648		10.6	pCi/g		112	(75%-125%)		
Rad Gamma Spec					+/-0.383		+/-1.52						
	3799												
QC1201055604 Actinium-228	158048005	DUP											
Actinium-228					1.45		1.47	pCi/g	2			МЈН	04/10/06 15:42
Bismuth-212					+/-0.251 0.979		+/-0.262 0.908	677	Đ				
					+/-0.325		+/-0.261	pCi/g	8				
Lead-212					1.50		1.60	pCi/g	6				
Protactinium-231				¥ t	+/-0.135		+/-0.167						
- Took Direction Division				U	-0.347 +/-0.825	U	-0.378 +/-0.855	pCi/g	9				
Radium-226					1.34		1.49	pCi/g	100		(0%-20%)		
D. U. 226					+/-0.155		+/-0.158	bena			(076-2076)		
Radium-228					1.45		1.47	pCi/g	2		(0%-20%)		
QC1201055605	LCS				+/-0.251		+/-0.262						
Actinium-228	. 75					U	0.401	pCi/g					D4/10/02 10:00
Americian 243							+/-0.573	henk					04/12/06 12:22
Americium-241			24.4				24.3	pCi/g		100	(75%-125%)		

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder:	1.500.40				<u> </u>	CTENTENTER .	_					
	158048									Page 3 o	f 5	
Parmname	······································		NOM	Sample	e Qual	QC	Units	RPD%	REC%	6 Range	Anlst	Date Time
Rad Gamma Spec Batch	: 513799											Jan Hill
Bismuth-212					U	+/-1.38 -0.248	pCi/g			Ν	Л ЈН1	04/12/06 12:22
Cesium-137			9.29			+/-0.930 9.78	pCi/p		105	(75%-125%)		
Cobalt-60			13.4			+/-0.441 13.9	pCi/g		104	(75%-125%)		
Lead-212					U	+/-0.616 0.00864	pCi/g					
Protactinium-231	l				U	+/-0.155 -2.99	pCi/g					
Radium-226					U	+/-4.49 0.0932	pCi/p			(75%-125%)		
Radium-228					U	+/-0.211 0.401	pCi/g			(75%-125%)		
QC1201055603 Actinium-228	з мв				U	+/-0.573 0.000515	01/					
Bismuth-212					U	+/-0.0619 -0.00629	pCi/g					04/10/06 11:17
Lead-212					UUI	+/-0.0918	pCi/e					
Protactinium-231					U	+/-0.0338	pCi/g pCi/g					
Radium-226					U	+/-0.506 0.0138	pCi/g					
Radium-228					U	+/-0.0214 0.000515	pCi/g					
Rad Gas Flow Batch 51	6630					+/-0.0619	per					
QC1201061725 Alpha	158048001	DUP		19.9		22.1	pCi/g	10		(0%-20%) CX	'O1	04/03/06 19:01
QC1201061727 Alpha	LCS		100	+/-4.41		+/-4.81	pong			(070 2070) 071	.01	04/03/00 19.01
QC1201061724	MB		108			102 +/-7.72	pCi/g		94	(75%-125%)		
Alpha	.****				U	0.514 +/-0.742	pCi/g					
QC1201061726 Alpha	158048001	MS	102	19.9		112	pCi/g		90 (75%-125%)		
QC1201061728 Alpha	158048001	MSD	too	+/-4.41		+/-10.1						
	7517		102	19.9 +/-4.41		103 +/-9.30	pCi/g	8	82			
		20 4 783										
QC1201063765	158048005	DUP										

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 158048		7	CO	ummar y					
								Page 4 of 5	
Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Rad Gas Flow									2410 11110
Batch 517517									
Lead-210	U	0.533	U	0.0696	a	0		(001 2001) P2101	
		+/-0.462	C	+/-0.366	pCi/g	0		(0%-20%) BXF1	04/09/06 09:57
QC1201063767 LCS		7 0.102		17-0.500					
Lead-210	7.02			5.38	pCi/g		77	(75%-125%)	
				+/-0.793	PC4/g		. ,	(1370-12370)	
QC1201063764 MB									
Lead-210			U	0.0926	pCi/g				
OC12018/27// 1/2048004 1/2				+/-0.347	•				
QC1201063766 158048005 MS Lead-210	7.67 U	0.600							
	7.07	0.533 +/-0.462		6.53	pCi/g		85	(75%-125%)	
Rad Total U		T/*U.40.2		+/-1.01					
Batch 517556									
QC1201063864 158048005 DUP									
QC1201063864 158048005 DUP Total Uranium		4.10							
		4.10 +/-0.202		4.20	ug/g	3		(0%-20%) DRS1	04/07/06 13:14
QC1201063866 LCS		₹7-0.202		+/-0.155					
Total Uranium	9.52			7.26			76	(750/ 1050/)	0.440.0010.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4
				+/-0.779	ug/g		70	(75%-125%)	04/07/06 13:24
QC1201063867 LCSD				. 011.72					
Total Uranium	0.952			0.898	ug/g	156	94		04/07/06 13:19
				+/-0.0199					040000 13.19
QC1201063863 MB Total Uranium									
Total Clamum			U	0.0814	ug/g				04/07/06 13:10
QC1201063865 158048005 MS				+/-0.00273					
Total Uranium	8.77	4.10							
	0.77	4.10 +/-0.202		9.94	ug/g		67* (75%-125%)	04/07/06 13:18
		77-0.202		+/-0.739					

Notes:

The Qualifiers in this report are defined as follows:

- В Target analyte was detected in the sample as well as the associated blank.
- BDResults below the MDC or low tracer recovery.
- Concentration of the target analyte exceeds the instrument calibration range. E
- Н Analytical holding time exceeded.
- Indicates an estimated value.
- U Target analyte was analyzed for but not detected above the MDL or LOD.
- Uncertain identification for gamma spectroscopy. UI
- Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details. X
- The 2:1 depletion requirement was not met for this sample đ
- Sample preparation or preservation holding time exceeded. h

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

								Page 5	of 5	
Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

Workorder:

158048

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

[^] The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Laboratory Data Package

Lab Name: EMS Laboratories, Inc.

City/State: Pasadena, California

MWH PROJECT # 169215, Sub PO#99-22089

	<u>Page</u>	<u>Nos</u>
	<u>From</u>	<u>To</u>
1. Inventory Sheet (DC-2) not numbered		
2. Cover Page	1	1
3. Narrative	2	
4. PLM Results	2 3	2 4
5. Bench Sheets	5	6
PLM		
6. Calibrations	7	10
7. Blank - SRM Glass Fibers as the Blank	11	14
8. Replicate	3	4
9. Shipping /Receiving Documents		
Airbill (No. of Shipments 1)	NONE	
Seals, Copies of Tags	NONE	
Chain-of-Custody Records EMS, MWH	15	16
10. Sample Log-in-sheet		
EMS Laboratories	17	19
DC - 1	20	20
11: Tracking Sheets	21	21
12. PLM NVLAP proficiency Results	22	26

Completed by:

Burnadeni Kolh Signature

Bernadine Kolk, Laboratory Director 5/19/06 Print Name & Title Date

COVER PAGE

DATE:

May 19, 2006

CLIENT:

MWH Laboratories, Inc.

750 Royal Oaks Drive, Ste 100

Monrovia, CA 91016

ATTENTION:

Julie Lee, Linda Geddes

REFERENCE:

Project No.: 169215

Sub PO#99-22089

REPORT NO:

106002

SAMPLES SUBMITTED IN PACKAGE:

Soils

Three samples were submitted for PLM analysis

The samples were identified as follows:

2603090024 2603090027 2063090028

The sample identifications and assigned EMS Laboratories, Numbers are found in the Narrative which follows.

Respectfully submitted,

EMS LABORATORIES, INC.

A.J. Wolk

Technical Director

AJK/ah

NOTE: The results of the analysis are based upon the samples submitted to the laboratory. No representation is made regarding the sampling area other than that implied by the analytical results for the immediate vicinity of the samples analyzed as calculated from the data presented with those samples.

This report, from a NIST laboratory through NVLAP, must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

This report shall not be reproduced, except in full, without the written approval of EMS Laboratories, Inc.

Any deviation or exclusion from the test method is noted in this cover letter.

Unless otherwise noted in this cover letter, the samples were received properly packaged, clearly identified and intact.

NARRATIVE

REFERENCE:

Project No.: 169215

Sub PO#99-22089

REPORT NO:

106002

Three samples were received on March 10, 2006 at 12:00pm for asbestos analysis by PLM. The samples were collected on March 7, 2006. The samples were identified as:

Sample No.	EMS Lab No.
2603090024	106002-4
2603090027	106002-7
2603090028	106002-8

No problems were encounter during sample receipt.

The soil samples were prepared according to CARB 435 and analyzed according to EPA 600/R-93/116.

The samples were dried at 60°C for four hours. The dried soil was crushed and milled until the final material was 200 mesh or less.

The soil was first examined at low magnification in a stereo microscope for suspected asbestos fiber bundles or mats.

The samples were then analyzed by PLM with dispersion staining for asbestos fibers. If none were found in the first preparation, two more preparations were made.

Instruments used were Zeiss a microscopes, Serial Nos. 122310 and 102702. The microscopes were serviced on May 13, 2005 by an optical microscope specialist firm.

The calibration of the refractive index liquid (used for dispersion staining) is enclosed.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. In addition, I certify that to the best of my knowledge and belief, the data as reported are true and accurate. Release of the data contained in this data package has been authorized by A.J. Kolk, Jr., Technical Director, as verified by the following signature.

A.J. Kolk, Jr.
Technical Director
May 19, 2006

2 OF 26

Page: 2

Soil Analysis CARB 435 METHOD (Determination of Asbestos Content)

LABORATORY NO:	106002	DATE OF RECEIVED:	3-10-06
CLIENT:	MWH LABS	DATE OF ANALYSIS:	3-15-06
ATTENTION:	Julie Lee	QC ANALYST:	Sojean Peau
REFERENCE NO:	169215	ANALYST:	A. Ja
		_	Jeff Wan
SAMPLE ID:	2603090024		
SAMPLE APPEARANC	E BROWN GRANULAR	-	
OTHER FIBROUS	CELLULOSE LESS THAN 1%	_	
MATERIAL	GLASSWOOL LESS THAN 1%		
NON FIBROUS	GRANULAR MINERALS		
MATERIAL	OPAQUES	-	
	MICA	-	
POINT COUNT	1 NA	POINT COUNT	5 NA
	2 NA	···	6 NA
	3 <u>NA</u>	_	7 NA
	4 <u>NA</u>	_	8 <u>NA</u>
VISUAL ESTIMATE	1 NONE DETECTED	ASBESTOS TYPE &	NONE DETECTED
	2 NONE DETECTED	PERCENTAGE	·
	3 NONE DETECTED	_	
SAMPLE ID:	2603090027		
SAMPLE APPEARANC	E BROWN GRANULAR		
OTHER FIBROUS	CELLULOSE LESS THAN 1%,	GLASSWOOL LESS THAN	1%
MATERIAL	SYNTHETICS LESS THAN 1%	2	
NON FIBROUS	GRANULAR MINERALS		
	GRANULAR MINERALS OPAQUES	-	
		- -	
MATERIAL	OPAQUES	POINT COUNT	5 NA
MATERIAL	OPAQUES MICA	- - _POINT COUNT	5 NA 6 NA
MATERIAL	OPAQUES MICA 1 NA	POINT COUNT	
MATERIAL	OPAQUES MICA 1 NA 2 NA	POINT COUNT	6 NA
MATERIAL POINT COUNT	OPAQUES MICA 1 NA 2 NA 3 NA	POINT COUNT ASBESTOS TYPE &	6 NA 7 NA
NON FIBROUS MATERIAL POINT COUNT VISUAL ESTIMATE	OPAQUES MICA 1 NA 2 NA 3 NA 4 NA	~ ~ -	6 NA 7 NA 8 NA

If visual extimate <10%, do 8 preps with 50 pts each, 3 preps for negative and >10% do visual estimate

Page: 3

Soil Analysis CARB 435 METHOD (Determination of Asbestos Content)

LABORATORY NO:	106002	DATE OF RECEIVED:	3-10-06
CLIENT:	MWH LABS	DATE OF ANALYSIS:	3-15-06
ATTENTION:	Julie Lee	QC ANALYST:	
REFERENCE NO:	169215	ANALYST:	A
			Jeff Wan
SAMPLE ID:	2603090028		
SAMPLE APPEARANCE	BROWN GRANULAR		
OTHER FIBROUS	CELLULOSE LESS THAN 1%	_	
MATERIAL	GLASSWOOL LESS THAN 1%	<u>.</u>	
NON FIBROUS	GRANULAR MINERALS		
MATERIAL	OPAQUES	an.	
	MICA	_	
POINT COUNT	1 NA	POINT COUNT	5 NA
;	NA NA	•	6 <u>NA</u>
:	3 <u>NA</u>	-	7 <u>NA</u>
4	1 NA	-	8 NA
VISUAL ESTIMATE	NONE DETECTED	ASBESTOS TYPE &	NONE DETECTED
2	NONE DETECTED	PERCENTAGE	
	NONE DETECTED	_	**************************************

Soil Analysis

CARB 435 METHOD (Determination of Asbestos Content)

LABORATORY NO:	106002	DATE OF RECEIVED:	3-10-06
CLIENT:	MWH LABS	DATE OF ANALYSIS:	3-15-06
ATTENTION:	N.A.	QC ANALYST:	Sp
REFERENCE NO:	169215	ANALYST:	~~
SAMPLE ID:	2603090024		·
SAMPLE APPEARAN	CE BROWN GRANULAR		
OTHER FIBROUS MATERIAL	Cillulose < 1		
NON FIBROUS MATERIAL	Granulas Mray Mila	<u>-</u>	
POINT COUNT	1 2 3 4	POINT COUNT 	5 6 7 8
VISUAL ESTIMATE	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	ASBESTOS TYPE & PERCENTAGE 	N.D.
SAMPLE ID:	2603090027		
SAMPLE APPEARAN	CE BROWN GRANULAR		
OTHER FIBROUS MATERIAL	cellilore <	L 6 lasiwidl	<12
NON FIBROUS	Grapular mine	21	
MATERIAL	muce		
POINT COUNT	1 2 3 4	_POINT COUNT	5 6 7 8
VISUAL ESTIMATE	1	_ASBESTOS TYPE & _PERCENTAGE _	

Soil Analysis CARB 435 METHOD (Determination of Asbestos Content)

LABORATORY NO:	106002	DATE OF RECEIVED:	3-10-06
CLIENT:	MWH LABS	DATE OF ANALYSIS:	3-15-06
ATTENTION:	N.A.	QC ANALYST:	
REFERENCE NO:	169215	ANALYST:	~
SAMPLE ID:	2603090028		
SAMPLE APPEARAN			
OTHER FIBROUS MATERIAL	Cellelose- Glasswood		
NON FIBROUS MATERIAL	granler mi		
POINT COUNT	1 2 3 4	POINT COUNT	5 6 7 8
VISUAL ESTIMATE	1	ASBESTOS TYPE & PERCENTAGE	<u>~</u> (0 ·
SAMPLE ID:			
SAMPLE APPEARANO	CE		
OTHER FIBROUS MATERIAL		no Andreanne	
NON FIBROUS MATERIAL			
POINT COUNT	1 2 3 4	POINT COUNT	5
VISUAL ESTIMATE	1 2 3	ASBESTOS TYPE & PERCENTAGE	

PLM CALIBRATION LOG BOOK 2006

Microscope Type:

ZEISS STD 14

Mircoscope Serial No: 122310

Analyst:

SOJEAN

			Objective	<i>SHEET</i> Kohler		, , , , , , , , , , , , , , , , , , , ,	CMPTR, F		Daily RTI F	lef.	
Dates	User	Microscope			Align		Temp.	No.	Result	OC	Remarks
3/1/06	-DP	NIKONZEISS	, L			6	22.0	/3	89, ANOV.	6/2 / 199	AU
3/2/06	58	NIKONZEISS) L-	Ĺ	•		2/6	14	7.17. onto	70% orth	
3/3/06	55	NIKON(ZEIS)S	L				215	15	12 pm	1-27, Am	
3/4/06	£./	NIKON/ZEISS									
3/5/06		NIKON/ZEISS									
3/6/06	De	NIKON/ZEISŠ) '	V	٠	i	22.0	16	ND	NB	
3/7/06	3	NIKONZEISS	L-		レ	V	22.0	1	Shefm	<12 cm	1
3/8/06	9	NIKOWZEISS	V				21.5	- 1	- 10 ceth		
3/9/06	Sp.	NIKON/EISS	V	V		~	21.0	्३	1) clfm	Stickmi	
3/10/06	50	NIKON/ZEISS)				Ju. 5	- 4	37 chang	33 ctsh	7
3/11/06		NIKON/ZEISS						7			
3/12/06		NIKON/ZEISS									
3/13/06	N	NIKONÆEIS\$				*****	17.5	5	37. c/m	29.com	1
3/14/06	<u> </u>	NIKON/ZEISS					21.0	6	1.9% db	1 stock	1
3/15/06	58	NIKON/ZEISS/		-			21.0	7	7.12 Chr.	5 % Alexander	
3/16/06	502	NIKONZEISS		1		_	22,0	0,	190 and	7 0	7
3/17/06	S	NIKON/ZEISŜ					21. U	1/	3% can		7
3/18/06		NIKON/ZEISS		To garding the state of the sta					/	1	
3/19/06		NIKON/ZEISS			***************************************						
3/20/06	507	NIKOWZEISS	-				20.0	12	12.97, pm	102 pm	t
3/21/06	51	NIKON ZEISS				_	200	1.0		T 8% Núp	reg
3/22/06	591	NIKONZEISS		<u> </u>			20.0	14	7. 12 with	/ 1	
3/23/06	302	NIKON/ZEISS					20.0	15	12 pm 0	1% som	
3/24/06	3	NIKONZEISS					20-5	16	NO	NA	······································
3/25/06		NIKON/ZEISS		1 AAA TITA				The state of the s			····
3/26/06		NIKON/ZEISS		O TOTAL DE LA MARIANTE						The state of the s	100 h h h h h h h h h h h h h h h h h h
3/27/06	W	NIKON/ZEISS		-			20.0	ĺ	3 20 Aug		1
3/28/06	S7/1	VIKOV/ZEISS					200	Q	2 1. 1. Al		Andrew Com at a field to dear comments and company processing and company processing
3/29/06	SA	VIKONZEISS				-	19.5	3	5% CATU	ST. CON	
3/30/06	SP	NIKON/ZEISS				1		4	Stating	37 mul	
3/31/06	504	VIKON ZEISS					20.0	5	326 mg	3/1c/sm/1	

PLM **CALIBRATION LOG BOOK** 2005-6

Microscope Type:

ZEISS STD

Mircoscope Serial No: 102742

Analyst:

JEFF WAN

		E DAILY CALIL	Objective				CMPTR, P	LM	Daily RTI	Dof	
Dates	User	Microscope	Centering	Illum.	Align	}	Temp.	No.	Result	QC	Remarks
3/1/06		NIKON/ZEISS									X CHIMI RO
3/2/06		NIKON/ZEISS						1			·····
3/3/06		NIKON/ZEISS		**************************************				THE POWER PROPERTY AND ADDRESS OF THE POWER POWER PROPERTY AND ADDRESS OF THE POWER POWER PROPERTY AND ADDRESS OF THE POWER PROPERTY ADDRESS OF THE POWER PROPERTY AND ADDRESS OF THE POWER PROPERTY ADDRESS OF THE POWER PROPERTY ADDRESS OF THE POWER PROPERTY AND ADDRESS OF THE POWER PROPERTY AND ADDRESS OF THE POWER PROPERTY ADDRESS OF			
3/4/06		NIKON/ZEISS									·····
3/5/06		NIKON/ZEISS									
3/6/06		NIKON/ZEISS									
3/7/06		NIKON/ZEISS									
3/8/06		NIKON/ZEISS									
3/9/06		NIKON/ZEISS				***************************************					
3/10/06		NIKON/ZEISS									
3/11/06		NIKON/ZEISS									
3/12/06		NIKON/ZEISS									
3/13/06	32	NIKONZEISS	> /				2./*		cye.1	(Be12.	
3/14/06	2	NIKON/ŹEISS					2. }`	<u>ン</u> シ	(T ->1)+	1	
3/15/06	=	NIKONZEISS					23 3		(His)	10/10	
3/16/06	~	NIKON/ZEISS	- Andrews				٤٧	-	Amo 12:	1452	
3/17/06		NIKON/ZEISS							7.7.7.0	0	
3/18/06		NIKON/ZEISS									
3/19/06		NIKON/ZEISS									
3/20/06		NIKOWZEISS					LJ	,	BMDLT S	(HR, C17)	
3/21/06	-	NIKONZEISȘ			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		24	3	BM27	149mos 17=	
3/22/06		NIKON ZEISS					21)	(HAZ)	cH0 = 19	·
3/23/06	2	NIKON/ZEISS					27	f	A/12 Ze	Amoc Z	
3/24/06	2	NIKON/ZEISS					24	ς	(HR) 37.15	(HO)	
3/25/06		NIKON/ZEISS					711				
3/26/06		NIKON/ZEISS		The state of the s			***************************************				
3/27/06		NIKON/ZEISS>					23	12	A111372 11-250 14	Amos 2,	······································
3/28/06		NIKON/ŒEISS					24		(NA) 1.28	(HP)	
3/29/06	2	NIKONÆĖŠS					wi l	5	(HP) 2.6	(HB=12)	
3/30/06		NIKON/ZEISS							<u> </u>		
3/31/06		NIKON/ZEISS		The state of the s			THE STATE OF THE S				W MARIN

EMS LABORTORIES

PLM Hood #2

Log book

2006

HOOD #2		CONT	'AMINA'	TION CI	łeck		
DATE	USER	GLASS SILDE			1866A F.GLASS	CLEANING	REMARK
3/1/06							
3/2/06	13		V	J.			
3/3/06							d a management of the second s
3/4/06							
3/5/06				Taxana and a			
3/6/06	4						
3/7/06							
3/8/06							
3/9/06							
3/10/06	(5)	***					
3/11/06	To the state of th						
3/12/06							
3/13/06	2.9						
3/14/06	_>						······································
3/15/06	Giz						
3/16/06	1	-//		-//	7		
3/17/06							
3/18/06							
3/19/06							
3/20/06							
3/21/06							
3/22/06	63						
3/23/06	63				, <u>, , , , , , , , , , , , , , , , , , </u>		
3/24/06							· · · · · · · · · · · · · · · · · · ·
3/25/06							
3/26/06							
3/27/06	4		ANA tables de la constante de				
8/28/06	6						^^^
3/29/06			1				
/30/06	700						
/31/06	*************					V V V V V V V V V V V V V V V V V V V	

EMS

REFRACTIVE INDEX LIQUID CALIBRATION USING OPTICAL GLASS STANDARDS

Cargillie Series

- 1.550 (Series E)
- 1.605 (Series E)
- 1.680 (Series B)

Table 11. A Suggested Format for Recording Results of RI Liquids Calibration Using Cargille Glass Standard and Dispersion Staining Method R.I. Liquid Calibration Using Glass Standard

D 0	
; vivetinou	
M S	
S S Statement and Dispulsion Stating	
2	
30.57	
101	
)	
)	
0	
	LBE.WKS
	ON TALB
	ATION
	ALIBR.
	RIC
	name
	2

Nominal	Nominal Cargille Glass	lass		Cantral Ston	De Oberes	* * *				
0r	D		Expiration	Contra 200p	DO OBSELVATION	Daguid	Actual	Difference	Accept	
Labeled	Nominal or	T.o.f	Date	Dradominont	2	Woolin	0 L	Detween	0r.	1
nD 25Cel.	_]	No.		DS Color	Corresponding Lambda	Celsius (C) nD 25 Deg	Calibrated nD 25 Dec	Calibrated nD 25 Cel.	Reject	Analyst
1.600	C J J J	Ø	0/22/01	5705	600	1	イクシ		A	Microsoft of the state of the s
1.622			10/22/3	C. 15te	623	7 7	Teg ./	180.0	₹ <	
.55.		-7	2/202/2	Blue	1	7 ()	DX 5.1	1 (10. 7.	\ \ \	X
1402	1.400		16/2010	2/10	6.13	255	1.845	1000	17	
Je 3.7	Q. 9 J		ch ye	572	300	27	2087	0.003	8	A Commence of the Commence of
	(25)	7	Rock	Puz	Sf 2	25%	1.5.5		4	/ _N
79	737	V	202/2)	1 50c	620	25%	1881	0.00/	4	
(X X)			Clock	1.1. (ma.	めない		7097	7000	3	\n
\ \ \ \ \	14 C	7	frost/2	-Sare	794	7	女び	2000	4	1
J'A	127	R.	(2/2/c)	, 270°	5/0	0 (2	でもと	(20.00	, X	
5			(1/2/1)	B. Green	200		1.600	7007	×	/ s
して	7.7	7	Pool	Pr. Blue	けんり	The second secon	1.477	7.001	4%	1
127	2 PJ-1	S	0/6/1/01	0.00c	200	かな	789/	1.001	4	14
ره برا	091		10/no	B. Gra	のダン	47	よ39)	1.00.7		1
44	124	J	Des (/z	May	000	1 t2	1,577	1.000	+ \ \	<u> </u>
And the second second second	and entered the film of the first wave constraints and a constraint and a constraint was been as a constraint of the first and a constraint of the constraint of the first and a constraint of the con		William Tonomical State of the	TO COO TO THE PERSON NAMED AND A PARTY OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRE		A THE PARTY OF THE			7	
and the second s	And And Andrews on the Control of th	A COMPANY OF THE PARTY OF THE P	AND THE STATE OF T	reconstitute of Communications and an acceptance in the Act of States of States and Stat	The state of the s	2000 PM 2000 P		Management of the state of the	TOTAL PROPERTY AND ADDRESS OF THE PARTY AND AD	Volume play de proces de dadage um a construir
			MA-Millery date						10 A	A Thomas A Committee A Andrewson A Andrewson A
		Victoria de la constante de la	THE REAL PROPERTY AND ADDRESS OF THE PERSON NAMED IN COLUMN TWO IS NOT					_		

Original version: October 1996 (Shu-Chun Su, Technical Expert for NVLAP Asbestos Programs), EMS EDITED VERSION, SEPT. 2001 VERSION

EMS LABORATORIES 117 WEST BELLIEVUE DR. /PASADENA CA 91105-2503 / 626-568-4065 /FAX: 626-796-5282

MWH Laboratories

Ph (626) 386-1100 Fax (626) 386-1095 A Division of MWH Americas, Inc. 750 Royal Oaks Drive Suite 100 Monrovia, CA 91016-3629

Bernie Kolk Ship To

EMS Labs

117 West Bellvue Drive Pasadena, CA 91105

Date

Submittal Form & Purchase Oro. 90/60/80

REPORTING REQUIREMENTS: Do Not Combine Report with any other samples submitted under differen. 99-22089 Sub PO# Report & Invoice must have the MWH Project Number 169215 Report all quality control data according to Method, Include dates analyzed, date extracted (if extracted) and Method refers. Results must have Complete data & QC with Approval Signature. See reverse side for List of Terms and Conditions

MWH Laboratories 750 Royal Oaks Dr. Ste. 100, Monrovia, CA 91016 Accounts Payable PO BOX 6610, Broomfield, CO 80021 Reports: Julie Lee Sub-contracting Administrator Phone (626) 386-1136 Fax (626) 386-1095 Invoices to: MWH LABORATORIES EMAIL TO: Julie Lee@mwhglobal.com

the Specified State Certification # & Bxp Date for requested tests + matrix Provide in each Report

CA ELAP OK

Еах (626) 568-4065 ext 2542

(626) 796-5282

Sub PO# MWH Project # Report Due:

169215

릴

Page 84 of 95

99-22089 03/24/06

ab#forID

Client Sample ID for reference only

Analysis Requested

Date & Time Sample

03/07/06 9:10 03/07/06 10:10 03/07/06 11:45

soil 8 oz. glass jars soil 8 oz. glass jars

soil 8 oz. glass jars

Container

ASBESTOS BY PLM ASBESTOS BY PLM ASBESTOS BY PLM M120-0.5 M120-10 M120-30 2603090028 2603090024 2603090027 CUSTSUB CUSTSUB CUSTSUB

Relinquished by:

Sample Control

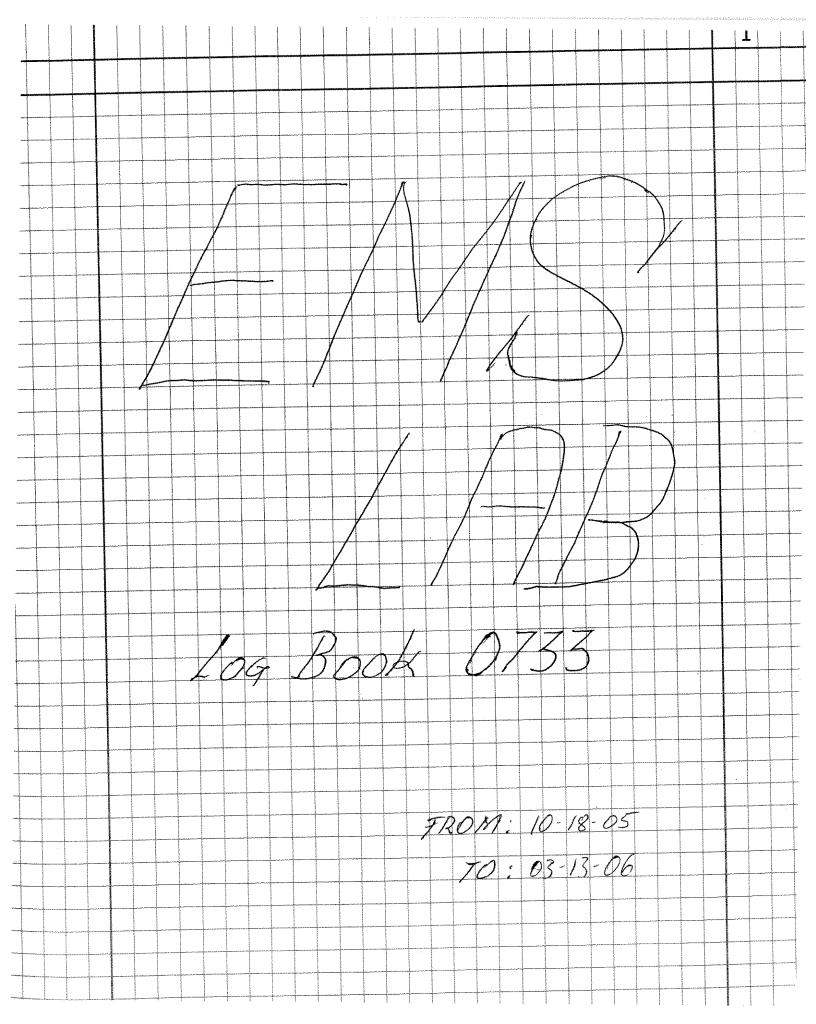
__ Date 03/09/06 Time 15/7 MUST HAVE NOTIFICAION IF TEMP IS GREATER THAN 6 OR LESS THAN 2 CELSIU

An Acknowledgement of Receipt is requested to attn: Michael Lettona

3-10-06 Ime

3/A/G EMS LABORATORIFS

11 Page 8 5 9 fe 9 fe Drive / Pasadena CA 91105-2503 / 626-568-4065



152		
L1934 DAVE	Cart III	
105990 03-006	Del May Puglished	
105991 0310:06	adversel & Robert	
105992 03-10-06	Edgesard, B. Rabeach & See	100
105993 08-10-06	tower & Robert &	+++14
105994 03:10:06	GEN Services	1 1 154
105995 03-10-06	Carris Hall	
105996 03:00-06	Ludenandent Rocking Co	+++653
105997 031006	Aurha IH - Shual Beach	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
105998 0310.06	Sola Europennahall	CILED
105999 03-10-06	Bota Environertal	CHA
106000 03-10-06	Sota Excellences for	CHAI
106001 03-1006	Lota Euchgun fail	Collan
106002 03-10-06	May 1 Lab	300
106003 03-10-06	C. A. Shapiro,	11/2%
106004 03.10.06	Euricumental Johnsteins	RA
10000 03-10-06	Menserican Speckery fine	PA
106006 03-10-06	7M Hitselberger	CHOU
106007 03-10-04	MACTEC	PIM
10000 0510-06	facific Health's Oafety	TEM
106009 03-10-06	Pacific Health & Safety	TEM
106000 03-10-06	Pacific Health & School (RC (INDEPENDENT ROOTING CONSULTANTS)	TEM TEM PLM
106000 03-10-06 106010 03-10-06 106011 03-10-06	Pacific Health & Safety IRC (INDEPENDENT Roofing Consultants)	TEM TEM PLM PLM
106012 03-12-06	Ace Emocl	TEM PLM PLM TEM
106013 03-12-06	Pautic Health & Bufuty	TEM PLM PLM TEM TEM
106012 03-12-06	Routic Health & Inferty	Part Fait
106012 03-12-06 106014 03-13-06 106014 03-13-06	Pacific Health & Inferty Facific Health & Inferty Facific Health & Inferty	Part Fait
106012 03-12-06 106014 03-13-06 106015 03-13-06 106016 03-13-06	Pacific Health & Infully Pacific Health & Infully Pacific Health & Infully Pacific Health & Infully	TOU!
106012 03-12-06 106014 03-13-06 106015 03-13-06 106016 03-13-06 106017 08-13-06	Pacific Health & Infully Pacific Health & Infully Pacific Health & Infully Pacific Health & Infully	Part Fait
106012 03-12-06 106014 03-13-06 106015 03-13-06 106016 03-13-06 106017 03-13-06 106018 03-13-06	Pacific Health & Infully Pacific Health & Infully Pacific Health & Infully Pacific Health & Infully	TOU!
106012 03-12-06 106014 03-13-06 106015 03-13-06 106016 03-13-06 106017 03-13-06 106018 03-13-06 106018 03-13-06	Pacific Health & Infully Pacific Health & Infully Pacific Health & Infully Pacific Health & Infully	TOUN TOUN CHECK PLAN CHECK PLAN
106012 03-12-06 106014 03:13:06 106014 03:13:06 106016 03:13:06 106017 03:13:06 106018 03:13:06 106019 03:13:06	Pacific Health & Infully Pacific Health & Infully Pacific Health & Infully Pacific Health & Infully	TOUN TOUN CHECK PLAN CHECK PLAN
106012 03-12-06 106014 03-13-06 106015 03-13-06 106018 03-13-06 106018 03-13-06 106018 03-13-06 106019 03-13-06 106019 03-13-06 106019 03-13-06	Acc Emoil Routic Health & Inferty Facilitie Health & Inferty	TOUN TOUN TOUN TOUN TOUN PENN OUTGH TOUN TOUN TOUN
106012 03-12-06 106014 03:13:06 106015 03:13:06 106018 03:13:06 106018 03:13:06 106018 03:13:06 106019 03:13:06 106020 03:13:06 106020 03:13:06	Pacific Health & Infully Pacific Health & Infully Pacific Health & Infully Pacific Health & Infully	TOUN TOUN TOUN TOUN TOUN PEM POM TOUN TOUN TOUN TOUN TOUN TOUN
106012 03-12-06 106014 03:13:06 106015 03:13:06 106018 03:13:06 106018 03:13:06 106019 03:13:06 106019 03:13:06 106020 03:13:06 106022 03:13:06 106023 03:13:06	Acc Emocl Pacific Health & Safery Pacific Health & Jakery	TOUN TOUN TOUN TOUN PENN OUT TOUN TOUN TOUN TOUN TOUN TOUN TOU
106012 03-12-06 106014 03:13:06 106015 03:13:06 106018 03:13:06 106018 03:13:06 106019 03:13:06 106019 03:13:06 106020 03:13:06 106022 03:13:06 106023 03:13:06	Acc Emoil Pacific Health & Safety Invest Bennett Inverse Health & Safety	TOUN TOUN TOUN TOUN TOUN PENN OUTGH TOUN TOUN TOUN
106012 03-12-06 106014 03-13-06 106014 03-13-06 106016 03-13-06 106017 03-13-06 106019 03-13-06 106020 03-13-06 106021 03-13-06 106023 03-13-06 106023 03-13-06 106023 03-13-06 106023 03-13-06	Acc Emoil Pacific Health & Safety Inuras Hughes	TOUN TOUN TOUN TOUN PENN OUT TOUN TOUN TOUN TOUN TOUN TOUN TOU
106012 03-12-06 106014 03-13-06 106014 03-13-06 106016 03-13-06 106017 03-13-06 106019 03-13-06 106020 03-13-06 106023 03-13-06 106024 03-13-06 106024 03-13-06	Toutic Health & Inferty Pautic Health & Inferty Tauthic Health & Inferty Tauthic Health & Inferty Tauthic Health & Inferty Pautic Health & Inferty Pautic Health & Inferty Pautic Health & Inferty Tautic Health & Inferty Thurses Hughes Thurses Hughes THA Jac	TOUN TOUN TOUN TOUN PENN OUT TOUN TOUN TOUN TOUN TOUN TOUN TOU
106012 03-12-06 106014 03-13-06 106014 03-13-06 106016 03-13-06 106017 03-13-06 106019 03-13-06 106020 03-13-06 106021 03-13-06 106023 03-13-06 106023 03-13-06 106023 03-13-06 106023 03-13-06	Lec Emocl Pacific Health & Safety Pacific He	TOUN TOUN TOUN TOUN PENN OUT TOUN TOUN TOUN TOUN TOUN TOUN TOU

153 15	Printer an encountry of the second		
12. 11.	PO/2084	GAMPLE A SECOLOGIA	
The colic 1 p redicated the colics of as a loss of the colics of the col	12 03/2	777777	cour)
MES CALCE SE COMMENTED PROCESSES CALCULATED TO THE SECRETARY CALCULATED TO THE CONTROL OF THE CO		1 10 1 EU (CUASTO) H 1965 - 0312 01 - EGG #10 5990 01.	
183 0906 2 1 TRAILMEN	1 1 1 1	1 40 (Text) (Western # 100 0946-01, COASIT 105947-01.	a -
15 4	() ()	7 h 100 (word & 1760 - 0406 (3 2000 4 1000003)	Q Z
24000 13 1 1000 1 1 1 2 300 1 1 2 3 1 1 1 1 2 3 1 1 1 1 2 3 1 1 1 1	-	B 1 (EN HHERA) HOLD 13. 5100 # 100973-122.	Ce 3
14040 17 1 120 14 12 18 10 14 12 18 14 100 147 12 2 14 14 12 2 14 14 14 14 14 18 18 18 18 18 18 18 18 18 18 18 18 18	IIC	4 W Chien 188. APA 4 8106- K-9 124 105005 - 1,24	- c> [i
24 COMP 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	and a second sec		- C - E
2 p. A. M.	24040		4 4
	100 Annual Control of	12 for dru (PAWIE) 4 70-36-10-216, 37-10-11 in & to cope = 36-10-27	
## 12	***************************************	12 / du of M. WIRE ANDB 32-10-15, 33-10-15, 000 100 100 100 100 100 100 100 100 10	
A 215 3 WENT SE THE COURT SE ONTE TO COURS ON A SECOND SE TO SECOND SE	El distribuir de la constant de la c	12 1 Mun 190,000 # CHE 29 (07/16 MSR 13-104/8 CEUST 106000-24-10-90C 13-10-16	
THE STATE OF SELECTION OF SELECTION OF SUPPLY		12 for day 18: WAGE NT 35 10-11 10-10-18: CHSA 10001-35-10-15, 10-10-18	
2002 3 1 PAN 102 1 2 3 CONTROLOGIA 2 5 CONTROL	972/5	3 LU TUM SOL) # 960 30 900 24, 27, 28. 51115 4 50 6002 - 24. 27. 28.	7
\$\$\text{\$\	7454		
2. US 0702 FOR PUMINDO PICT) # 24 : EMSH 10:0007 - 24 OK WINDOWN 2 FOR PUMINDO POURS BOLD PI PS. GASH 10:000 - PI PS OK WINDOWN 2 FOR PUMINDO POURS BOLD PI PS. GASH 10:000 - PI PS OK WINDOWN 2 FOR PUMINH CMSH 10:000 POUR PS. GASH 10:000 - PI PS OK WINDOWN 2 FOR PUMINH CMSH 10:000 POUR PS. FO OK WINDOWN 2 FOR PUMINH CMSH 10:000 POUR PS. FO OK WINDOWN 2 FOR PUMINH CMSH 10:000 POUR PS. FO OK WINDOWN 2 FOR PUMINH CMSH 10:000 POUR 2 FOR PUMINH 2	00.027		0 9
1 FOR PAN(MUN) FITT # 24 ENCH 10000 - 24 0086 2 FOR TEN(MUN) # DINIST 1806 PI. P3; EMSH 104000 - PI. P3 0086 2 FOR TEN(MUN) # DINIST 1806 PI. P3; EMSH 104000 - PI. P3 0086 1 FOR MEN 10 10 10 10 10 10 10 10 10 10 10 10 10	700	2 1 12 cust 106008-12	J. 7
086 3 Limites and 100086 030 81123 CHERREDOR 123 CARESTOR 1123 CARESTOR	-	1 For DIAMOND BY 1 3 3 call \$105006 - (2 3	C 3
49.00 70R PUM#H ENS#106010-1 0K 1 1 1 1 1 1 1 1 1		2 FIR TENMOUNT # NOWEL BOX OF PORT OF THE NEW OF THE PROPERTY	OK W
1 10 10 10 10 10 10 10 10 10 10 10 10 10	1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 FIR TEMPONA # NOUSE DOWN P3, F3, EMSH 106000- P1, P3	OK N
TRE 180 10 FOT TENT 01 - 18 , EMG 106012 - 01 to 12 - 00 26 3 provide 06 00 86 03 01 pt 35. 8kg, conference 13 · 1 2 3 . - 00 26 3 provide 06 00 86 03 01 pt 35. 8kg, conference 13 · 1 2 3 . - 00 26 2 provide 06 00 86 03 10 pt 35. 8kg, conference 13 · 1 2 3 . - 00 26 2 provide 06 00 86 03 10 pt 35. 8kg, conference 15 · 1 2 3 . - 00 26 2 provide 06 00 86 03 10 pt 35. 8kg, conference 15 · 1 2 3 . - 00 27 45 provide 06 00 27 pt 20 21, conference 16 · 01 - 13 . - 00 28 3 provide 06 00 28 03 20 pt 20 21 . - 00 28 3 provide 06 00 28 03 20 pt 20 21 . - 00 20 3 provide 06 00 28 03 20 pt 20 21 . - 00 20 3 provide 06 00 28 03 20 pt 20 21 . - 00 20 3 provide 06 00 20 00 20 pt 20 21 . - 00 20 3 provide 06 00 20 00 20 pt 20 21 . - 00 20 3 provide 06 00 20 20 pt 20 21 . - 00 20 3 pt 20 20 pt 20 21 . - 00 20 3 pt 20 20 pt 20 21 . - 00 20 3 pt 20 20 pt 20 20 . - 00 20 3 pt 20 20 pt 20 20 pt 20 20 . - 00 20 20 20 pt 20 20 pt 20 20 . - 00 20 20 20 pt 20 20 pt 20 20 . - 00 20 20 20 pt 20 20 pt 20 20 . - 00 20 20 20 pt 20 20 pt 20 20 . - 00 20 20 20 pt 20 20 pt 20 20 . - 00 20 20 20 pt 20 20 pt 20 20 . - 00 20 20 20 pt 20 20 pt 20 20 . - 00 20 20 20 20 pt 20 20 pt 20 20 . - 00 20 20 20 20 pt 20 20 . - 00 20 20 20 20 pt 20 20 . - 00 20 20 20 20 pt 20 20 . - 00 20 20 20 20 pt 20 20 . - 00 20 20 20 20 pt 20 20 . - 00 20 20 20 20 pt 20 20 . - 00 20 20 20 20 pt 20 20 . - 00 20 20 20 pt 20 20 . - 00 20 20 20 pt 20 20 . - 00 20 20 20 pt 20 20 . - 00 20 20 20 pt 20 20 . - 00 20 20 20 pt 20 20 . - 00 20 pt 20 20 pt 20 . - 00 20 pt 20 20 pt 20 . - 00 20 pt 20 20 pt 20 . - 00 20 pt 20 20 pt 20 20 . - 00 20 pt 20 20 pt 20 . - 00 20 pt 20 20 pt 20 . - 00 20 pt 20 20 pt 20 . - 00 20 pt 20 pt 20 pt 20 . - 00 20 pt 20 pt 20 pt 20 pt 20 . - 00 20 pt		1 FOR PLM# 1. EMG# 10000-1	OK Q
5.00 26 3 p RAME 06.00 86.03 CM PH. 2.3. CM SHORD 13.1.2.3. 5.00 26 3 p RAME 06.00 86.03 CM PH. 2.3. CM SHORD 13.1.2.3. 6.00 26 0 p RAME 06.00 86.03 10 PH. 2.8. SH. CM SHORD 14.1.2.8. BH. BH. 7.00 21 2 pp Chu - PB BUND 106.00 91 03 CM SHORD 14.2. CM SHORD 15.1.2.3. 8.00 20 0 p RAME 06.00 91 BOL - 43. CM SHORD 16.01-43. 8.00 20 3 p RAME 06.00 91 p. 2. CM SHORD 16.00 16.2.3. 8.00 20 3 p RAME 06.00 91 p. 2. CM SHORD 19.2.2. 8.00 3 p RAME 06.00 86.03 07 BL 12.3. CM SHORD 17.2.3. 8.00 3 p RAME 06.00 86.03 07 BL 12.3. CM SHORD 17.4.6.7. 8.00 5 p RAME 06.00 86.03 11 BL 95. CM SHORD 17.4.6.7. 8.00 5 p RAME 06.00 86.03 11 BL 95. CM SHORD 17.4.6.7. 8.00 5 p RAME 06.00 86.03 11 BL 95. CM SHORD 17.4.6.7. 8.00 5 p RAME 06.00 86.03 11 BL 95. CM SHORD 17.4.6.7. 8.00 5 p RAME 06.00 86.03 11 BL 95. CM SHORD 17.4.6.7. 8.00 5 p RAME 06.00 86.03 11 BL 95. CM SHORD 17.4.6.7. 8.00 5 p RAME 06.00 86.03 11 BL 95. CM SHORD 17.4.6.7. 8.00 5 p RAME 06.00 86.03 11 BL 95. CM SHORD 17.8.3. 8.00 1 p RAME 06.00 86.03 11 BL 95. CM SHORD 17.8.3. 8.00 1 p RAME 06.00 86.03 11 BL 95. CM SHORD 17.8.3. 8.00 1 p RAME 06.00 86.03 11 BL 95. CM SHORD 17.8.3. 8.00 1 p RAME 06.00 86.03 11 BL 95. CM SHORD 17.8.3. 8.00 1 p RAME 06.00 86.03 11 BL 95. CM SHORD 17.8.3. 8.00 1 p RAME 06.00 86.00 11 BL 95. CM SHORD 17.8.3. 8.00 1 p RAME 06.00 86.00 11 BL 95.00 86.00 11	A A A A A A A A A A A A A A A A A A A	1 A PLATKOOD POINT COUNT HI FURCKIOGOILI	OR- III
	180 /	0701 EM 01-10 EMS 106012-01 to 12	Cu-
1086 3 W MM 06 0086 0304 BULL 3 EMEMOROUS 1,23 COM 1080 MAN 1080 M	5-0086	3 NV PONTE 06-0086-0304 PV 23 EVERTED 13-1 2 2	F
3 0091 43 1 POM 06 0091 BOL 043 142 EMERIOSOIS 12 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 - 0086	8 12 Part 66-00 86-0310 Plas 8181. East 100014-1200 DK 21	
6.0086 3 W WM + 0603 19 20.21. CIME H 106015 19 20.21. 6.0086 3 W WM + 0603 19 20.21. CIME H 106015 19 20.21. 6.0086 3 W WM + 0603 19 20.21. CIME H 106015 19 20.21. 6.0086 3 W WM + 06 0086 0309. BL123. CM\$ + 106018 1.23. 6.0086 6 W 2041 + 06 0086 0309. BL123. CM\$ + 106019 1-41, 6.21. 6.0086 5 W 2041 + 06 0086 0310 R1-44. P6. CM\$ + 106019 1-41, 6.21. 6.0086 5 W 2041 + 06 0086 0310 R1-44. P6. CM\$ + 106019 1-41, 6.21. 6.0086 5 W 2041 + 06 0086 0311 R1-35; EM\$ + 106019 1-41, 6.21. 6.0086 5 W 2041 + 06 0086 0311 R1-35; EM\$ + 106019 1-41, 6.21. 6.0086 5 W 2041 + 06 0086 0311 R1-35; EM\$ + 106020 1-45; 6.0086 5 W 2041 + 06 0086 0310 R1-44. P6.35; EM\$ + 106020 1-45; 6.0086 5 W 2041 + 1060086 0310 R1-44. P6.35; EM\$ + 106020 1-45; 6.0086 5 W 2041 + 1060086 0310 R1-44. P6.35; 6.0086 5 W 2041		2 fr du (PB BULL) 406 009/ 0309/12 540 400015. 12	
1086 3 W Chu (18; 844) # 060086 0309 BU1; 23; EUG # 106018 1, 23. Co y 2086 3 W CHU (18; 844) # 060086 0309 BU1; 23; EUG # 106018 1, 23. 2086 6 W REAL # 06 0086 0309 BU1; 23; EUG # 106018 1, 23. 2086 5 W REAL # 06 0086 0310 R1-74; P6; 2; EUG # 106019 1-94; 6; 2. 2086 5 W REAL # 06 0086 0311 A 1-75; EUG # 106020 1-95; 2072 3 W REAL # 12 3 EUG # 106020 1-25; 2074 3 W ROUMON # 1, 23; EUG # 106020 1-25; 2075 3 W ROUMON # 1, 23; EUG # 106020 1-25; 2076 3 W ROUMON # 1, 23; EUG # 106020 1-23; 4. 2076 3 W ROUMON # 1, 23; EUG # 106020 1-23; 4. 2076 4 3 W ROUMON # 1, 23; EUG # 106020 1-23; 4. 2076 5 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2076 7 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2076 7 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2077 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2077 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2078 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2079 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2079 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2079 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2079 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2079 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2079 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2079 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2070 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2070 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2070 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2070 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2070 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2070 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2070 8 W ROUMON # 1, 23; 5. 2070 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2070 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2070 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2070 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2070 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2070 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2070 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2070 8 W ROUMON # 1, 23; EUG # 106020 1-25; 5. 2070 8 W ROUMON # 1, 23; 5. 2070		43 A PONTA 06-0091- BO1-43- CHISTOGO16-01-143.	
3 h (Mm (Pb; BUUK) # 06 0086 0309 B1/23 EUG # 106018-1, 23. co 24 5 0086 3 h Repl # 06 0086 0309 B1/2; 3 co 11/3 # 106018-1, 23. co 24 5 0086 6 h Repl # 06 0086 0310 R1-24, P6 & cus # 106019/24; 67. co 24 5 0086 5 h Repl # 06 0086 0311 B1/35; EUG # 106020 1-35; 6 170		3 No 18/14 0603-19 20-21, CEPTS # 100017-19-20-21.	
2008 6 1 REAL OC 0086-0310 R1-24. PG 5. EUS # 10808.1-1.2.3. 2008 5 10 REAL OC 0086-0311 A175: EUS #108019 1-44. 6.7. 2008 5 10 REAL OC 0086-0311 A175: EUS #108020-1-5. 2008 5 10 REAL HOLD SECOND		3 Lu Mun (16; BULL) + 06 00 86 - 0309 BULZ 3 FUG + 106018 1 2 2	co 21
1086 5 10 1011 4 06 0086-0311 A 1-95; Edg \$106020 - 1-95; Company 1-94; 6.7; Company 1-95; Company 1-95		5 NA 179 4 06.0086.0809. BY 1.253-CMS # 10808 1-12 2	The state of the s
168 Le Che Che Che Che Hard Co		6 1 100 # 06-60 86-0310 R1-74. P.6. 2. EUS #106019 1-4; 6. 7.	4
EC. MAR 4 W BLOG MOLD # 1.2 3. 4. EUG # 106025-1.2 3.4. 6 170 \$ 3 60 BLOC MOLD # 1.2 3. 649 \$ 106025-1.2 3.4. 74 \$ 8 5 60 PCCR# 030806-66-P1.2 44-P1.2 BL. EUG # 106024 46 1.2 44-1.2 BL. 71-13 7 60 Che-1B: 6P. A. W. & SORBOL MY-PB-1-16. EUG # 106028-\$1. MI-16. 7-17 60 Che-1B: 6P. A. W. & PB-18. OL. EUG # 106026-01. 3498 4 6 Che-1PB: 18:36. \$1. \$1. \$2. \$4. \$1. \$2. \$2. \$2. \$2. \$2. \$2. \$2. \$2. \$2. \$2	4	5 1 100 4 00 0086-03/1 A 195; EUGA 106020-1-95	ce de
6 170 \$ 3 for BIOLINO \$ \$ 1.2.3. 549 \$ 106025-1;2.3. 4,58 5 for Pechal \$30806-46-P1.2. 44-P1.2. BL. General \$106024 46 1.2. 44-1.2. BL. G. \$11-13 7 for diver \$18,6 P. A. 14 508 \$01. AY PB-1-16. ENGRIPO 6028-\$1. MI-16. 4-12 16 diver \$18. P. A. 4 P\$ - PR-01. ENG. \$1.00026-\$1. MI-16. 3448 4 for Are \$18.18.32. \$4 738498-\$1. W. 23. CHICKDOOZ-\$1. W. 2,3. UP		1 1 200 (MOV) AV 2 2 (5 40 60 3) 1 / 2 · 3 ·	0-1
14.58 5 Li Packet 030806-46-P1.2.44-P1.2. BL. cind #106024-46-1.2.44-1.2. BL. C. P. 11-13 7 for diver [18:6P.Ch. 14.4 508801/147-P3-1-16. curs #106028-\$1-M1-6. C. P. 12.44-1.2. BL. C. P. 12.48-12.6026-01. 3.448 4 li Chie [PB:18:32.3473848-81-W1.2.3. curs #106027-\$1-W1.2.3. C. P. 18.68-168 1.00 [PB:18:32.3473848-81-W1.2.3. curs #106027-\$1-W1.2.3. W. P. 18.68-168 1.00 [PB:18:32.3473848-81-W1.2.3. W. P. 18.68-168 1.00 [PB:18:32.34848-81-W1.2.3. W. P. 18.68-168 1.00 [PB:18:32.34848-81-W1.2.3848-81-W1.2.2		3 2. 200 (40) 4 1 3 5 500 4 10 6 22-1.23,4.	es m
11-13 7 for dwe-18:68 dwy 5088 of MY-88-1-96. CAY A106028-\$1-101-16.	1458	5 11 Port 1820806-16-212 11. 21. 21.	C+ A
3498 4 la Che 196.18.36.94 738498.81.W.2.3. crass406027.41.W.2.3. W 108	11-13		0 1
8168 1 se Clar (18.36) 4 738498. 81-W1.23 - 145406027. \$1-W1.2, 8.	1-12	12 Mul PB - P. C. D. 20 20 00 514 400000 5 4 1 M 76.	C 1
	3448	4 le dre 198: 18.30 9 738400. 811.1122 Justin 1022 41. 11	
	8/68	se cler 18: soil H 18/68-61 days 0981	

		SAMPLE LO	G-IN	SHEET					
Lab Name		-			•				
EMS Laborator				Page of					
Received By (Print Name) 1 7-2024342962			Log i	Log in Date					
Received by (Signat				<i>⊘</i> >.	10-06				
		upto.							
	S	ample Delivery (Group N	٥.					
				Comes	ponding	Remarks			
		EPA Sample	, *	Sample Tag#	Assigned Tag#	Condition of Sample, Shipment etc			
Remarks		260 3090	2014		106002-4	(6001)			
1.Custody Sea(s)	Present Absen	2603090	75027		106002-7	G001) G001)			
2.Custody Seal Nos	. The sale of the	2603090	1850		106002-8	900)			
3.Chain-of-Custody Records	Present Abse	nt							
4.Traffic Reports or Lists	Packing (Present) Abs	ent							
5 AHBIII	Airbill Sticker Present/Absen	t.			The state of the s				
6 Ar Bill No.									
7.Sample Tags	Present/Absent								
Sample Tag Number	Unan-of-Custody	•							
8.Sample Condition	fftact)Broken/Le.	aking			***************************************				
9 Does information o ecords, traffic repor sample tags agree?									
0. Date Received at		5							
1.Time Received	1200								
Sample	Transfer					La company of the com			
Fraction	Fraction								
4reá	Área		The state of the s	4					
3y	By			And the state of t					
Printer of the Printe	Jn			-					
ontract Clent and A	ttach Records of Reso	ution							
eceived By			Logbool	k No.					
Pate	-	Papel	-ogbook	Page No.	***************************************				

FORM DC-1

TRACKING SHEET

DATE DUE:	TIME DUE	
EMS REPORT:	106002	
DATE IN: 3/10/6		•
PRIORITY: STD		
CLIENT:	MWH Laboratories 750 Royal Oaks Drive, Ste Monrovia, CA 91016	100
ATTENTION:		
CUSTOMER REFE	ERENCE NO.:169215	
NO. OF SAMPLES: SUBJECT:	: 3 DEPT:	PLM
DATE TO ANALYS	ST: 3/10/0-6	ANALYST:
ANALYTIC METH	ODS:	u (43t)
DATE ANALYZED	: 3/14/06	/
QA ANALYST:	52	QA DATE: 3/15/06
DATE FAXED:	3-14-04	VERBAL RESULTS:
DATE MAILED:	3-22-06	
INVOICE INSTRUC	CTIONS:	

PROFICIENCY TEST M22005 SUBTOTALS

Sample 1	0
Sample 2	0
Sample 3	0
Sample 4	0

TOTAL POINTS 0

Failure = 150 or more total points

SAMPLE 1

Criteria	Reported by Laboratory	Reference Values	Acceptable Answers	Assigned Points
Asbestos Type (150 pts./type)	CHRY	Chrysotile	Chrysotile	
Reporting Additional Asbestos Type (150 pts. if >0.1%, 75 pts. if 0.1%)	NONE	None	None	0
% Asbestos (50 pts.)	1.9	3%	1% to 10%	0
Color (10 pts.)	CL	CL (clear)	CL (clear)	0
Pleochroism (10 pts.)	N	N (no)	N (no)	0
Extinction (10 pts.)	P	P (parallel)	P (parallel)	0
Sign of Elongation (10 pts.)	Р	P (positive)	P (positive)	0
Average Refractive Index (40 pts. each index, 10 pts. if γ = α or γ & α reversed)	1.554 1.549	γ=1.557 α=1.549	γ=1.550 to 1.564 α=1.542 to 1.556	0
Birefringence (10 pts.)	L	L (low)	L (low)	0

Total Points Assigned for Sample 1 = 0

SAMPLE 2

Criteria	Reported by Laboratory	Reference Values	Acceptable Answers	Assigned Points
Asbestos Type (150 pts./type)	CHRY	Chrysotile	Chrysotile	0
Reporting Additional Asbestos Type (150 pts. if >0.1%, 75 pts. if 0.1%)	NONE	None	None	0
% Asbestos (50 pts.)	14.1	7%	1% to 30%	0
Color (10 pts.)	CL	CL (clear)	CL (clear)	0
Pleochroism (10 pts.)	Ň	N (no)	N (no)	0
Extinction (10 pts.)	P	P (parallel)	P (parallel)	0
Sign of Elongation (10 pts.)	P	P (positive)	P (positive)	0
Average Refractive Index (40 pts. each index, 10 pts. if $\gamma = \alpha$ or $\gamma & \alpha$ reversed)	1.553 1.551	γ=1.558 α=1.551	γ=1.551 to 1.565 α=1.544 to 1.558	0
Birefringence (10 pts.)	L	L (low)	L (low)	0

Total Points Assigned for Sample 2 = 0

SAMPLE 3

Criteria	Reported by	Reference	Acceptable	Assigned
	Laboratory	Values	Answers	Points
Asbestos Type (150 pts/type)	NONE	None	None	О

Total Points Assigned for Sample 3 = 0

SAMPLE 4

Criteria	Reported by Laboratory	Reference Values	Acceptable Answers	Assigned Points
Asbestos Type (150 pts./type)	TREM	Tremolite	Actinolite or Tremolite	0
Reporting Additional Asbestos Type (150 pts. if >0.1%, 75 pts. if 0.1%)	NONE	None	None	0
% Asbestos (50 pts.)	1.3	0.5%	0.1% to 4%	0
Color (10 pts.)	CL	CL (clear)	CL (clear)	0
Pleochroism (10 pts.)	N	N (no)	N (no)	()
Extinction (10 pts.)	Ι	I (inclined)	I (inclined)	0
Sign of Elongation (10 pts.)	P	P (positive)	P (positive)	0
Average Refractive Index (40 pts. each ndex, 10 pts. if γ=α or γ & α reversed)	1.630 1.606	γ=1.633 α=1.603	γ=1.618 to 1.648 α=1.588 to 1.618	<u> </u>
tirefringence (10 pts.)	M	M (medium)	M (medium)	0

Total Points Assigned for Sample 4 = 0