

STL ChromaLab
Environmental Services (CA 1094)

3978/293

Submission #: 2001-07-0290

Date: July 24, 2001

*FYI,
Barney this is
your copy of the
stormwater trench
stockpile sample results
@ the MSC near
Bldg 5.
Joseph
Cotton
238-6259*

Harding ESE, Inc.
600 Grand Ave, Suite 300
Oakland, CA 94607

Attn.: Mr. Luis Fraticelli

Project: 52975.1
Oakland Municipal Service Center

Dear Mr. Fraticelli,

Attached is our report for your samples received on Tuesday July 17, 2001
This report has been reviewed and approved for release. Reproduction of this report
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after August 31, 2001
unless you have requested otherwise. We appreciate the opportunity to be of service to you.
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.
My email address is: ssidhu@chromalab.com

Sincerely,

Surinder Sidhu

JUL 26 2001

Surinder Sidhu

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-07-0290

Gas/BTEX Compounds by 8015M/8021

Harding ESE, Inc.

☒ 600 Grand Ave, Suite 300
Oakland, CA 94607

Attn: Luis Fraticelli

Phone: (510) 628-3212 Fax: (510) 451-3165

Project #: 52975.1

Project: Oakland Municipal Service Center

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
STOCKPILE#1-#4	Soil	07/17/2001 09:45	1

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-07-0290

To: **Harding ESE, Inc.**Test Method: 8021B
8015M

Attn.: Luis Fraticelli

Prep Method: 5035

Gas/BTEX Compounds by 8015M/8021

Sample ID: STOCKPILE#1-#4	Lab Sample ID: 2001-07-0290-001
Project: 52975.1 Oakland Municipal Service Center	Received: 07/17/2001 16:48
Sampled: 07/17/2001 09:45	Extracted: 07/19/2001 16:59
Matrix: Soil	QC-Batch: 2001/07/19-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	07/19/2001 16:59	
Benzene	ND	0.0050	mg/Kg	1.00	07/19/2001 16:59	
Toluene	ND	0.0050	mg/Kg	1.00	07/19/2001 16:59	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	07/19/2001 16:59	
Xylene(s)	ND	0.0050	mg/Kg	1.00	07/19/2001 16:59	
<i>Surrogate(s)</i>						
Trifluorotoluene	58.3	53-125	%	1.00	07/19/2001 16:59	
Trifluorotoluene-FID	58.8	53-125	%	1.00	07/19/2001 16:59	

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Environmental Services (CA 1094)

Submission #: 2001-07-0290

To: **Harding ESE, Inc.**

Test Method: 8015M

8021B

Attn.: Luis Fraticelli

Prep Method: 5035

Batch QC Report
Gas/BTEX Compounds by 8015M/8021

Method Blank	Soil	QC Batch # 2001/07/19-01.01
MB: 2001/07/19-01.01-004		Date Extracted: 07/19/2001 12:05

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	07/19/2001 12:05	
Benzene	ND	0.0050	mg/Kg	07/19/2001 12:05	
Toluene	ND	0.0050	mg/Kg	07/19/2001 12:05	
Ethyl benzene	ND	0.0050	mg/Kg	07/19/2001 12:05	
Xylene(s)	ND	0.0050	mg/Kg	07/19/2001 12:05	
Surrogate(s)					
Trifluorotoluene	92.6	53-125	%	07/19/2001 12:05	
4-Bromofluorobenzene-FID	75.6	58-124	%	07/19/2001 12:05	

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-07-0290

To: Harding ESE, Inc.

Test Method: 8021B

Attn: Luis Fraticelli

Prep Method: 5035

Batch QC Report

Gas/BTEX Compounds by 8015M/8021

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2001/07/19-01.01	
LCS:	2001/07/19-01.01-005	Extracted:	07/19/2001 12:37	Analyzed	07/19/2001 12:37
LCSD:	2001/07/19-01.01-006	Extracted:	07/19/2001 13:10	Analyzed	07/19/2001 13:10

Compound	Conc. [mg/Kg]		Exp. Conc. [mg/Kg]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Benzene	0.0980	0.0936	0.1000	0.1000	98.0	93.6	4.6	77-123	35		
Toluene	0.0986	0.0941	0.1000	0.1000	98.6	94.1	4.7	78-122	35		
Ethyl benzene	0.0984	0.0950	0.1000	0.1000	98.4	95.0	3.5	70-130	35		
Xylene(s)	0.286	0.273	0.300	0.300	95.3	91.0	4.6	75-125	35		
<i>Surrogate(s)</i>											
Trifluorotoluene	489	458	500	500	97.8	91.6		53-125			

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Environmental Services (CA 1094)

Submission #: 2001-07-0290

To: Harding ESE, Inc.

Test Method: 8015M

Attn: Luis Fraticelli

Prep Method: 5035

Batch QC Report

Gas/BTEX Compounds by 8015M/8021

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2001/07/19-01.01	
LCS:	2001/07/19-01.01-007	Extracted:	07/19/2001 13:42	Analyzed	07/19/2001 13:42
LCSD:	2001/07/19-01.01-008	Extracted:	07/19/2001 14:15	Analyzed	07/19/2001 14:15

Compound	Conc. [mg/Kg]		Exp. Conc. [mg/Kg]		Recovery [%]			Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	RPD [%]	Recovery	RPD	LCS	LCSD
Gasoline	0.426	0.412	0.500	0.500	85.2	82.4	3.3	75-125	35		
<i>Surrogate(s)</i>											
4-Bromofluorobenzene-FI	332	319	500	500	66.4	63.8		58-124			

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STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-07-0290

Total Extractable Petroleum Hydrocarbons (TEPH)

Harding ESE, Inc.

✉ 600 Grand Ave, Suite 300
Oakland, CA 94607

Attn: Luis Fraticelli

Phone: (510) 628-3212 Fax: (510) 451-3165

Project #: 52975.1

Project: Oakland Municipal Service Center

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
STOCKPILE#1-#4	Soil	07/17/2001 09:45	1

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STL ChromaLab

Submission #: 2001-07-0290

Environmental Services (CA 1094)

To: **Harding ESE, Inc.**

Test Method: 8015M

Attn.: Luis Fraticelli

Prep Method: 3550/8015M

Total Extractable Petroleum Hydrocarbons (TEPH)

Sample ID:	STOCKPILE#1-#4	Lab Sample ID:	2001-07-0290-001
Project:	52975.1 Oakland Municipal Service Center	Received:	07/17/2001 16:48
Sampled:	07/17/2001 09:45	Extracted:	07/19/2001 10:38
Matrix:	Soil	QC-Batch:	2001/07/19-03.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	12	1.0	mg/Kg	1.00	07/21/2001 01:14	ndp
Motor Oil	ND	50	mg/Kg	1.00	07/21/2001 01:14	
<i>Surrogate(s)</i> o-Terphenyl	81.6	60-130	%	1.00	07/21/2001 01:14	

STL ChromaLab

Submission #: 2001-07-0290

Environmental Services (CA 1094)

To: Harding ESE, Inc.
Attn.: Luis Fraticelli

Test Method: 8015M
Prep Method: 3550/8015M

Batch QC Report Total Extractable Petroleum Hydrocarbons (TEPH)

Method Blank	Soil	QC Batch # 2001/07/19-03.10
MB: 2001/07/19-03.10-001		Date Extracted: 07/19/2001 10:38

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	1	mg/Kg	07/19/2001 19:07	
Motor Oil	ND	50	mg/Kg	07/19/2001 19:07	
<i>Surrogate(s)</i> o-Terphenyl	79.5	60-130	%	07/19/2001 19:07	

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-07-0290

To: Harding ESE, Inc.

Test Method: 8015M

Attn: Luis Fraticelli

Prep Method: 3550/8015M

Batch QC Report

Total Extractable Petroleum Hydrocarbons (TEPH)

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2001/07/19-03.10	
LCS:	2001/07/19-03.10-002	Extracted:	07/19/2001 10:38	Analyzed	07/19/2001 17:51
LCSD:	2001/07/19-03.10-003	Extracted:	07/19/2001 10:38	Analyzed	07/19/2001 18:29

Compound	Conc. [mg/Kg]		Exp. Conc. [mg/Kg]		Recovery [%]			RPD		Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	RPD	Recovery	RPD	LCS	LCSD	LCS	LCSD
Diesel	30.2	29.7	41.7	41.7	72.4	71.2	1.7	60-130	25				
Surrogate(s)													
o-Terphenyl	17.1	17.3	20.0	20.0	85.5	86.5		60-130					

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STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-07-0290

To: Harding ESE, Inc.

Attn: Luis Fraticelli

Test Method: 8015M

Prep Method: 3550/8015M

Legend & Notes

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte Flags

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-07-0290

Halogenated Volatile Organic Compounds

Harding ESE, Inc.

✉ 600 Grand Ave, Suite 300
Oakland, CA 94607

Attn: Luis Fraticelli

Phone: (510) 628-3212 Fax: (510) 451-3165

Project #: 52975.1

Project: Oakland Municipal Service Center

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
STOCKPILE#1-#4	Soil	07/17/2001 09:45	1

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Printed on: 07/23/2001 15:37

Page 1 of 4

STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-07-0290

To: Harding ESE, Inc.

Test Method: 8260A

Attn.: Luis Fraticelli

Prep Method: 5030

Halogenated Volatile Organic Compounds

Sample ID:	STOCKPILE#1-#4	Lab Sample ID:	2001-07-0290-001
Project:	52975.1 Oakland Municipal Service Center	Received:	07/17/2001 16:48
Sampled:	07/17/2001 09:45	Extracted:	07/20/2001 17:46
Matrix:	Soil	QC-Batch:	2001/07/20-V1.39

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Dichlorodifluoromethane	ND	10	ug/Kg	1.00	07/20/2001 17:46	
Vinyl chloride	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
Chloroethane	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
Trichlorofluoromethane	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
1,1-Dichloroethene	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
Methylene chloride	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
1,1-Dichloroethane	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
Chloroform	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
Carbon tetrachloride	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
1,2-Dichloroethane	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
Trichloroethene	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
1,2-Dichloropropane	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
Bromodichloromethane	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
2-Chloroethylvinyl ether	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
Tetrachloroethene	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
Dibromochloromethane	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
Chlorobenzene	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
Bromoform	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
Trichlorotrifluoroethane	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
Chloromethane	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
Bromomethane	ND	5.0	ug/Kg	1.00	07/20/2001 17:46	
<i>Surrogate(s)</i>						
4-Bromofluorobenzene	96.8	74-121	%	1.00	07/20/2001 17:46	
1,2-Dichloroethane-d4	109.4	70-121	%	1.00	07/20/2001 17:46	
Toluene-d8	92.0	81-117	%	1.00	07/20/2001 17:46	

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STL ChromaLab

Environmental Services (CA 1094)

Submission #: 2001-07-0290

To: Harding ESE, Inc.

Test Method: 8260A

Attn.: Luis Fraticelli

Prep Method: 5030

Batch QC Report
Halogenated Volatile Organic Compounds

Method Blank	Soil	QC Batch # 2001/07/20-V1.39
MB: 2001/07/20-V1.39-007		Date Extracted: 07/20/2001 14:34

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Bromodichloromethane	ND	5.0	ug/Kg	07/20/2001 14:34	
Bromoform	ND	5.0	ug/Kg	07/20/2001 14:34	
Bromomethane	ND	5.0	ug/Kg	07/20/2001 14:34	
Carbon tetrachloride	ND	5.0	ug/Kg	07/20/2001 14:34	
Chlorobenzene	ND	5.0	ug/Kg	07/20/2001 14:34	
Chloroethane	ND	5.0	ug/Kg	07/20/2001 14:34	
2-Chloroethylvinyl ether	ND	5.0	ug/Kg	07/20/2001 14:34	
Chloroform	ND	5.0	ug/Kg	07/20/2001 14:34	
Chloromethane	ND	5.0	ug/Kg	07/20/2001 14:34	
Dibromochloromethane	ND	5.0	ug/Kg	07/20/2001 14:34	
1,2-Dichlorobenzene	ND	5.0	ug/Kg	07/20/2001 14:34	
1,3-Dichlorobenzene	ND	5.0	ug/Kg	07/20/2001 14:34	
1,4-Dichlorobenzene	ND	5.0	ug/Kg	07/20/2001 14:34	
Dichlorodifluoromethane	ND	10.0	ug/Kg	07/20/2001 14:34	
1,1-Dichloroethane	ND	5.0	ug/Kg	07/20/2001 14:34	
1,2-Dichloroethane	ND	5.0	ug/Kg	07/20/2001 14:34	
1,1-Dichloroethene	ND	5.0	ug/Kg	07/20/2001 14:34	
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	07/20/2001 14:34	
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	07/20/2001 14:34	
1,2-Dichloropropane	ND	5.0	ug/Kg	07/20/2001 14:34	
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	07/20/2001 14:34	
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	07/20/2001 14:34	
Methylene chloride	ND	5.0	ug/Kg	07/20/2001 14:34	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/Kg	07/20/2001 14:34	
Tetrachloroethene	ND	5.0	ug/Kg	07/20/2001 14:34	
1,1,1-Trichloroethane	ND	5.0	ug/Kg	07/20/2001 14:34	
1,1,2-Trichloroethane	ND	5.0	ug/Kg	07/20/2001 14:34	
Trichloroethene	ND	5.0	ug/Kg	07/20/2001 14:34	
Trichlorofluoromethane	ND	5.0	ug/Kg	07/20/2001 14:34	
Trichlorotrifluoroethane	ND	5.0	ug/Kg	07/20/2001 14:34	
Vinyl chloride	ND	5.0	ug/Kg	07/20/2001 14:34	
Surrogate(s)					
4-Bromofluorobenzene	102.8	74-121	%	07/20/2001 14:34	
1,2-Dichloroethane-d4	111.8	70-121	%	07/20/2001 14:34	
Toluene-d8	92.4	81-117	%	07/20/2001 14:34	

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STL ChromaLab

Submission #: 2001-07-0290

Environmental Services (CA 1094)

To: **Harding ESE, Inc.**

Test Method: 8260A

Attn: Luis Fraticelli

Prep Method: 5030

Batch QC Report

Halogenated Volatile Organic Compounds

Laboratory Control Spike (LCS/LCSD)	Soil	QC Batch # 2001/07/20-V1.39
LCS: 2001/07/20-V1.39-005	Extracted: 07/20/2001 13:11	Analyzed 07/20/2001 13:11
LCSD: 2001/07/20-V1.39-006	Extracted: 07/20/2001 13:58	Analyzed 07/20/2001 13:58

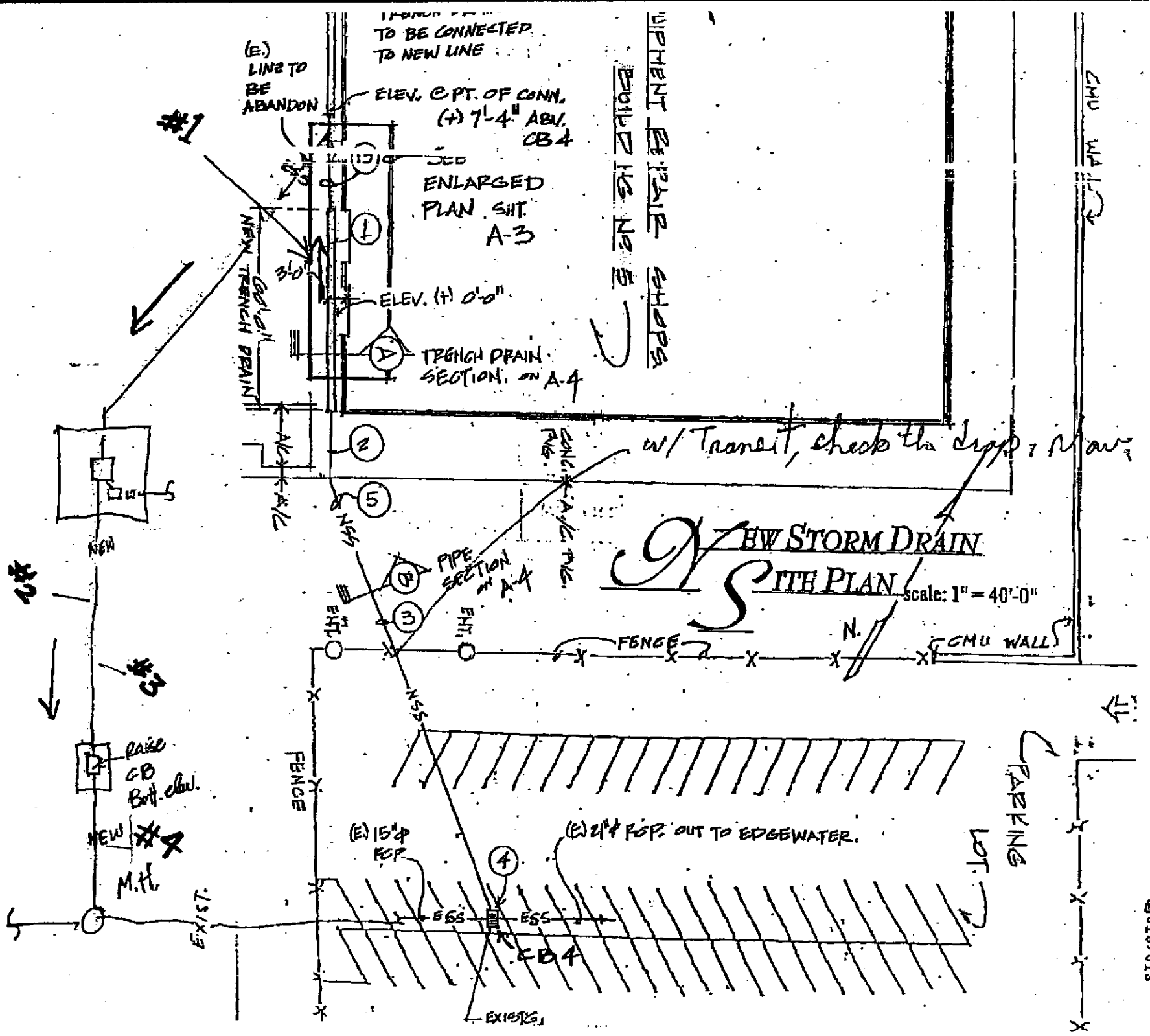
Compound	Conc. [ug/Kg]		Exp. Conc. [ug/Kg]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Chlorobenzene	102	110	100	100	102.0	110.0	7.5	61-121	20		
1,1-Dichloroethene	95.5	97.6	100	100	95.5	97.6	2.2	65-125	20		
Trichloroethene	94.6	89.9	100	100	94.6	89.9	5.1	74-134	20		
Surrogate(s)											
4-Bromofluorobenzene	530	535	500	500	106.0	107.0		74-121			
1,2-Dichloroethane-d4	548	525	500	500	109.6	105.0		70-121			
Toluene-d8	466	441	500	500	93.2	88.2		81-117			

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Page 4 of 4

** TOTAL PAGE.16 **



FACSIMILE TRANSMISSION

To: Joseph Cotton, City of Oakland

Fax Number: 238-7286

From: Trish Eliasson

Date: July 24, 2001

Subject: Oakland Municipal Service Center - Soil Sample Locations

Project Number: 52975.1

Number of pages (Including this cover sheet): 2

Original or copy to follow by mail: Yes No

Remarks:

Joseph:

Attached is a site plan marked with the four sample locations. Sample #1 was collected from a stockpile next to the building, samples #2 - #4 were collected from stockpiles along the trench. The four samples were combined into one composite sample, per the proposal.

If you have questions please call Luis Fraticelli at (510) 628-3212

Thank you,

Trish Eliasson 510-628-3240

cc:

Transmitted by: tac

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Engineering and Environmental Services
600 Grand Ave., Suite 300
Oakland, CA 94610 - (510) 451-1001

FAX (510) 451-3165

FACSIMILE TRANSMISSION**To:** Joseph Cotton, City of Oakland**Fax Number:** 238-7286**From:** Trish Eliasson**Date:** July 24, 2001**Subject:** Analytical Results - Oakland Municipal Service Center**Project Number:** 52975.1**Number of pages (including this cover sheet):** 16**Original or copy to follow by mail:** Yes _____ No x **Remarks:**

Attached are the analytical results for the soil sampling at the Oakland Municipal Service Center

If you have questions please call Luis Fraticelli at 628-3212.

Thank you,

Trish Eliasson

510-628-3240

cc:

Transmitted by: tae

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Engineering and Environmental Services
600 Grand Ave., Suite 300
Oakland, CA 94610 - (510) 451-1001

FAX (510) 451-3165