

**DTSC Report
Appendix G2**



CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM BRANCH

CERTIFICATE OF ENVIRONMENTAL ACCREDITATION

Is hereby granted to

C & E LABORATORIES, INC. (Chemical & Environmental Laboratories, Inc.)

14148 EAST FIRESTONE BOULEVARD
SANTA FE SPRINGS, CA 90670

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

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

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

Certificate No.: **2268**

Expiration Date: **8/31/2011**

Effective Date: **9/1/2009**

Richmond, California
subject to forfeiture or revocation

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

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

August 4, 2010

ELAP Certificate No: 2268

Dr. Chi Huang
ACS Associates
P.O. Box 4258
Irvine, CA 92616

Project: Kettleman 09 T 9122
C&E ID: 100722A

Dear Dr. Huang,

Enclosed is an analytical report for the sample(s) received by Chemical & Environmental Laboratories, Inc. on July 22, 2010, and analyzed as indicated in the chain-of-custody attached.

Unless otherwise noted, no problems were encountered during receiving, preparation and analysis of these samples.

Please call me at (562) 921-8123 if you have any questions regarding this report.

Sincerely,

A handwritten signature in cursive script, appearing to read "Larry Zhang".

Larry Zhang, Ph.D.
Laboratory Director

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- EPA 8082 (PCBs) ---

Client Name: ACS Associates
 Project Manager: Chi Huang
 Project Name: Kettleman 09 T 9122
 Sample Matrix: Soil

Date Sampled: 07/21/10
 Date Extracted: 07/26/10
 Batch Number: PCB100726-1
 Date Analyzed: 07/26/10

C&E LAB ID	100722A-1	100722A-2	100722A-3	100722A-4	100722A-9
SAMPLE ID	PCB1	PCB2	PCB3	PCB4	PCB1X
DF	1	1	1	1	1

Unit Reported: µg/kg or ppb

COMPOUND	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
PCB-1016	ND	20	ND	20	ND	20	ND	20	ND	20
PCB-1221	ND	20	ND	20	ND	20	ND	20	ND	20
PCB-1232	ND	20	ND	20	ND	20	ND	20	ND	20
PCB-1242	ND	20	ND	20	ND	20	ND	20	ND	20
PCB-1248	ND	20	ND	20	ND	20	ND	20	ND	20
PCB-1254	ND	20	ND	20	ND	20	ND	20	ND	20
PCB-1260	ND	20	ND	20	ND	20	ND	20	ND	20

Surrogate Compounds	% Surrogate Recovery (40-150)				
2,4,5,6-tetrachloro-m-xylene	91	88	103	108	105
decachlorobiphenyl	74	68	80	61	78

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.

MI = Matrix Interference; unquantifiable due to coeluting organics in sample.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- EPA 8082 (PCBs) ---

Client Name: ACS Associates
 Project Manager: Chi Huang
 Project Name: Kettleman 09 T 9122
 Sample Matrix: Water

Date Sampled: 07/21/10
 Date Extracted: 07/26/10
 Batch Number: PCB100726-1
 Date Analyzed: 07/26/10

C&E LAB ID	100722A-11				
SAMPLE ID	BCB.ER				
DF	1				

Unit Reported: µg/L or ppb

COMPOUND	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
PCB-1016	ND	1.0								
PCB-1221	ND	1.0								
PCB-1232	ND	1.0								
PCB-1242	ND	1.0								
PCB-1248	ND	1.0								
PCB-1254	ND	1.0								
PCB-1260	ND	1.0								

Surrogate Compounds	% Surrogate Recovery (40-150)				
2,4,5,6-tetrachloro-m-xylene	79				
decachlorobiphenyl	65				

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.
 MI = Matrix Interference; unquantifiable due to coeluting organics in sample.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- CA Title 22 Metals (17) ---

Client Name: ACS Associates
 Project Manager: Chi Huang
 Project Name: Kettleman 09 T 9122
 Sample Matrix: Soil

Date Sampled: 07/19-07/20/10
 Date Extracted: 07/27/10
 Batch Number: CAM100727-1
 Date Analyzed: 07/27/10

C&E LAB ID	100722A-5	100722A-6	100722A-7	100722A-8	100722A-10
SAMPLE ID	B1-5	B2-5	B3-5	B4-5	B3X
DF	1	1	1	1	1

Unit Reported: mg/kg

COMPOUND	Method	Result		Result		Result		Result		Result	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Antimony (Sb)	6010B	ND	2	ND	2	ND	2	ND	2	ND	2
Arsenic (As)	6010B	ND	1	ND	1	ND	1	ND	1	ND	1
Barium (Ba)	6010B	60	1	61	1	53	1	42	1	49	1
Beryllium (Be)	6010B	ND	1	ND	1	ND	1	ND	1	ND	1
Cadmium (Cd)	6010B	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Chromium (Cr)	6010B	11	1	12	1	10	1	11	1	13	1
Cobalt (Co)	6010B	4	1	5	1	5	1	5	1	5	1
Copper (Cu)	6010B	7	1	7	1	6	1	6	1	6	1
Lead (Pb)	6010B	3	1	3	1	3	1	3	1	3	1
Mercury (Hg)	7471	1.8	0.1	ND	0.1	ND	0.1	ND	0.1	ND	0.1
Molybdenum (Mo)	6010B	ND	1	ND	1	ND	1	ND	1	ND	1
Nickel (Ni)	6010B	23	1	23	1	22	1	24	1	23	1
Selenium (Se)	6010B	ND	2	ND	2	ND	2	ND	2	ND	2
Silver (Ag)	6010B	ND	1	ND	1	ND	1	ND	1	ND	1
Thallium (Tl)	6010B	ND	2	ND	2	ND	2	ND	2	ND	2
Vanadium (V)	6010B	8	1	10	1	10	1	9	1	9	1
Zinc (Zn)	6010B	13	1	15	1	14	1	14	1	16	1

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- CA Title 22 Metals (17) ---

Client Name: ACS Associates
 Project Manager: Chi Huang
 Project Name: Kettleman 09 T 9122
 Sample Matrix: Water

Date Sampled: 07/20/10
 Date Extracted: 07/27/10
 Batch Number: CAM100727-1
 Date Analyzed: 07/27/10

C&E LAB ID	100722A-12		
SAMPLE ID	B-ER		
DF	1		

Unit Reported: $\mu\text{g/L}$ or ppb

COMPOUND	Method	Result	RL	Result	RL	Result	RL	Result	RL
Antimony (Sb)	6010B	ND	10						
Arsenic (As)	6010B	ND	10						
Barium (Ba)	6010B	ND	10						
Beryllium (Be)	6010B	ND	2						
Cadmium (Cd)	6010B	ND	5						
Chromium (Cr)	6010B	ND	5						
Cobalt (Co)	6010B	ND	5						
Copper (Cu)	6010B	ND	5						
Lead (Pb)	6010B	ND	5						
Mercury (Hg)	7470A	ND	1						
Molybdenum (Mo)	6010B	ND	5						
Nickel (Ni)	6010B	ND	5						
Selenium (Se)	6010B	ND	10						
Silver (Ag)	6010B	ND	5						
Thallium (Tl)	6010B	ND	10						
Vanadium (V)	6010B	ND	5						
Zinc (Zn)	6010B	ND	10						

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- EPA 8082 (PCBs in soil) ---

I. Laboratory Control Sample

Date Extracted: 07/26/10
Date Analyzed: 07/26/10
Batch Number: PCB100726-1
LCS ID: PCB100726L

ANALYTE	LCS %	ACP % CL
PCB-1016	82	60-130
PCB-1260	87	60-130

Surrogate Compounds	% Surr. Rec. (40-150)
2,4,5,6-tetrachloro-m-xylene	85
decachlorobiphenyl	74

II. Matrix Spike/Matrix Spike Duplicate

Date Extracted: 07/26/10
Date Analyzed: 07/26/10
Batch Number: PCB100726-1
Sample ID: 100722A-1

ANALYTE	MS %	MSD %	RPD	ACP%CL	ACP RPD
PCB-1016	71	75	5	60-130	30
PCB-1260	78	80	3	60-130	30

Surrogate Compounds	% Surr. Rec. (40-150) (MS)	% Surr. Rec. (40-150) (MSD)
2,4,5,6-tetrachloro-m-xylene	83	89
decachlorobiphenyl	61	72

III. Method Blank

Date Extracted: 07/26/10
Date Analyzed: 07/26/10
Batch Number: PCB100726-1
MBLK ID: PCB100726B

Unit: µg/kg

COMPOUND	REPORTING LIMIT	RESULT
PCB-1016	20	ND
PCB-1221	20	ND
PCB-1232	20	ND
PCB-1242	20	ND

COMPOUND	REPORTING LIMIT	RESULT
PCB-1248	20	ND
PCB-1254	20	ND
PCB-1260	20	ND

Surrogate Compounds	% Surr. Rec. (40-150)
2,4,5,6-tetrachloro-m-xylene	80
decachlorobiphenyl	71

ND = Not detected at the indicated reporting limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- EPA 8082 (PCBs in Water) ---

I. Laboratory Control Sample

Date Extracted: 07/26/10
Date Analyzed: 07/26/10
Batch Number: PCB100726-1
LCS ID: PCB100726L

ANALYTE	LCS %	ACP % CL
PCB-1016	68	60-130
PCB-1260	73	60-130

Surrogate Compounds	% Surr. Rec. (40-150)
2,4,5,6-tetrachloro-m-xylene	71
decachlorobiphenyl	62

II. Matrix Spike/Matrix Spike Duplicate

Date Extracted: 07/26/10
Date Analyzed: 07/26/10
Batch Number: PCB100726-1
Sample ID: 100722A-11

ANALYTE	MS %	MSD %	RPD	ACP%CL	ACP RPD
PCB-1016	63	66	5	60-130	30
PCB-1260	69	74	7	60-130	30

Surrogate Compounds	% Surr. Rec. (40-150) (MS)	% Surr. Rec. (40-150) (MSD)
2,4,5,6-tetrachloro-m-xylene	69	73
decachlorobiphenyl	58	66

III. Method Blank

Date Extracted: 07/26/10
Date Analyzed: 07/26/10
Batch Number: PCB100726-1
MBLK ID: PCB100726B

Unit: µg/L

COMPOUND	REPORTING LIMIT	RESULT
PCB-1016	1.0	ND
PCB-1221	1.0	ND
PCB-1232	1.0	ND
PCB-1242	1.0	ND

COMPOUND	REPORTING LIMIT	RESULT
PCB-1248	1.0	ND
PCB-1254	1.0	ND
PCB-1260	1.0	ND

Surrogate Compounds	% Surr. Rec. (40-150)
2,4,5,6-tetrachloro-m-xylene	77
decachlorobiphenyl	64

ND = Not detected at the indicated reporting limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- EPA 6010B (Metals in Soil) ---

I. Laboratory Control Sample

Date Extracted: 07/27/10
Date Analyzed: 07/27/10
Batch Number: CAM100727-1
LCS ID: CAM100727L-1

ANALYTE	LCS %	ACP %CL
Arsenic	98	70-130
Selenium	98	70-130
Cadmium	96	70-130
Lead	97	70-130
Barium	100	70-130

II. Matrix Spike/Matrix Spike Duplicate

Date Prepared: 07/27/10
Date Analyzed: 07/27/10
Batch Number: CAM100727-1
Sample ID: 100722A-5

ANALYTE	MS %	MSD %	RPD	ACP %CL	ACP RPD
Arsenic	74	74	0	70-130	20
Selenium	102	96	6	70-130	20
Cadmium	96	95	1	70-130	20
Lead	90	89	1	70-130	20
Barium	90	89	1	70-130	20

III. Method Blank

Date Prepared: 07/27/10
Date Analyzed: 07/27/10
Batch Number: CAM100727-1
MBLK ID: CAM100727B-1

COMPOUND	REPORTING LIMIT	RESULT
Antimony (Sb)	2	ND
Arsenic (As)	1	ND
Barium (Ba)	1	ND
Beryllium (Be)	1	ND
Cadmium (Cd)	0.5	ND
Chromium (Cr)	1	ND
Cobalt (Co)	1	ND
Copper (Cu)	1	ND
Lead (Pb)	1	ND

Unit: mg/kg

COMPOUND	REPORTING LIMIT	RESULT
Mercury (Hg)	0.1	ND
Molybdenum (Mo)	1	ND
Nickel (Ni)	1	ND
Selenium (Se)	2	ND
Silver (Ag)	1	ND
Thallium (Tl)	2	ND
Vanadium (V)	1	ND
Zinc (Zn)	1	ND

ND = Not detected at the indicated reporting limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- EPA 6010B (Metals in Water) ---

I. Laboratory Control Sample

Date Extracted: 07/27/10
Date Analyzed: 07/27/10
Batch Number: CAM100727-1
LCS ID: CAM100727L-1

ANALYTE	LCS %	ACP %CL
Arsenic	101	70-130
Selenium	101	70-130
Cadmium	98	70-130
Lead	101	70-130
Barium	98	70-130

II. Matrix Spike/Matrix Spike Duplicate

Date Prepared: 07/27/10
Date Analyzed: 07/27/10
Batch Number: CAM100727-1
Sample ID: 100722A-12

ANALYTE	MS %	MSD %	RPD	ACP %CL	ACP RPD
Arsenic	101	99	2	70-130	20
Selenium	101	99	2	70-130	20
Cadmium	97	97	0	70-130	20
Lead	100	99	1	70-130	20
Barium	97	97	0	70-130	20

III. Method Blank

Date Prepared: 07/27/10
Date Analyzed: 07/27/10
Batch Number: CAM100727-1
MBLK ID: CAM100727B-1

COMPOUND	REPORTING LIMIT	RESULT
Antimony (Sb)	10	ND
Arsenic (As)	10	ND
Barium (Ba)	10	ND
Beryllium (Be)	2	ND
Cadmium (Cd)	5	ND
Chromium (Cr)	5	ND
Cobalt (Co)	5	ND
Copper (Cu)	5	ND
Lead (Pb)	5	ND

Unit: µg/L

COMPOUND	REPORTING LIMIT	RESULT
Mercury (Hg)	1	ND
Molybdenum (Mo)	5	ND
Nickel (Ni)	5	ND
Selenium (Se)	10	ND
Silver (Ag)	5	ND
Thallium (Tl)	10	ND
Vanadium (V)	5	ND
Zinc (Zn)	10	ND

ND = Not detected at the indicated reporting limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- CA Title 22 Metals (17) ---

Client Name: ACS Associates
 Project Manager: Chi Huang
 Project Name: Kettleman 09 T 9122
 Sample Matrix: Soil

Date Sampled: 07/19-07/20/10
 Date Extracted: 10/08/10
 Batch Number: CAM101008
 Date Analyzed: 10/08/10

C&E LAB ID	100722A-1	100722A-2	100722A-3	100722A-4	100722A-5
SAMPLE ID	PCB1	PCB2	PCB3	PCB4	B1-5
DF	1	1	1	1	1

Unit Reported: mg/kg

COMPOUND	Method	Result		Result		Result		Result		Result	
		RL	RL	RL	RL	RL	RL	RL	RL	RL	RL
Antimony (Sb)	6010B	ND	2	ND	2	ND	2	ND	2	ND	2
Arsenic (As)	6010B	1.5	1.0	2.0	1.0	2.2	1.0	1.9	1.0	1.0	1.0
Barium (Ba)	6010B	51	1	76	1	61	1	78	1	58	1
Beryllium (Be)	6010B	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1
Cadmium (Cd)	6010B	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Chromium (Cr)	6010B	16	1	19	1	16	1	22	1	16	1
Cobalt (Co)	6010B	4	1	6	1	6	1	6	1	5	1
Copper (Cu)	6010B	9	1	14	1	18	1	15	1	9	1
Lead (Pb)	6010B	5	1	7	1	5	1	14	1	2	1
Mercury (Hg)	7471	ND	0.05	ND	0.05	ND	0.05	ND	0.05	0.31	0.05
Molybdenum (Mo)	6010B	ND	1	ND	1	ND	1	ND	1	ND	1
Nickel (Ni)	6010B	23	1	28	1	24	1	32	1	23	1
Selenium (Se)	6010B	ND	2	ND	2	ND	2	ND	2	ND	2
Silver (Ag)	6010B	ND	1	ND	1	ND	1	ND	1	ND	1
Thallium (Tl)	6010B	ND	2	ND	2	ND	2	ND	2	ND	2
Vanadium (V)	6010B	14	1	17	1	19	1	20	1	15	1
Zinc (Zn)	6010B	27	1	55	1	43	1	58	1	20	1

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- CA Title 22 Metals (17) ---

Client Name: ACS Associates
 Project Manager: Chi Huang
 Project Name: Kettleman 09 T 9122
 Sample Matrix: Soil

Date Sampled: 07/19-07/20/10
 Date Extracted: 10/08/10
 Batch Number: CAM101008
 Date Analyzed: 10/08/10

C&E LAB ID	100722A-6	100722A-7	100722A-8	100722A-9	100722A-10
SAMPLE ID	B2-5	B3-5	B4-5	PCB1X	B3X
DF	1	1	1	1	1

Unit Reported: mg/kg

COMPOUND	Method	Result		Result		Result		Result		Result	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
Antimony (Sb)	6010B	ND	2	ND	2	ND	2	ND	2	ND	2
Arsenic (As)	6010B	1.3	1.0	1.5	1.0	1.0	1.0	1.8	1.0	1.3	1.0
Barium (Ba)	6010B	65	1	65	1	44	1	83	1	71	1
Beryllium (Be)	6010B	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1
Cadmium (Cd)	6010B	ND	0.5	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Chromium (Cr)	6010B	18	1	18	1	15	1	22	1	20	1
Cobalt (Co)	6010B	5	1	5	1	4	1	7	1	6	1
Copper (Cu)	6010B	11	1	10	1	8	1	13	1	12	1
Lead (Pb)	6010B	3	1	3	1	2	1	3	1	3	1
Mercury (Hg)	7471	ND	0.05	ND	0.05	ND	0.05	ND	0.05	ND	0.05
Molybdenum (Mo)	6010B	ND	1	ND	1	ND	1	ND	1	ND	1
Nickel (Ni)	6010B	26	1	26	1	21	1	31	1	29	1
Selenium (Se)	6010B	ND	2	ND	2	ND	2	ND	2	ND	2
Silver (Ag)	6010B	ND	1	ND	1	ND	1	ND	1	ND	1
Thallium (Tl)	6010B	ND	2	ND	2	ND	2	ND	2	ND	2
Vanadium (V)	6010B	17	1	17	1	14	1	20	1	18	1
Zinc (Zn)	6010B	23	1	23	1	18	1	27	1	25	1

ND = Not detected at the indicated reporting limit; DF = Dilution Factor; RL = Reporting limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- EPA 6010B (Metals in Soil) ---

I. Laboratory Control Sample

Date Extracted: 10/08/10
Date Analyzed: 10/08/10
Batch Number: CAM101008
LCS ID: CAM101008L

ANALYTE	LCS %	ACP %CL
Arsenic	106	70-130
Selenium	106	70-130
Cadmium	102	70-130
Lead	106	70-130
Barium	99	70-130

II. Matrix Spike/Matrix Spike Duplicate

Date Prepared: 10/08/10
Date Analyzed: 10/08/10
Batch Number: CAM101008
Sample ID: 100722A-9

ANALYTE	MS %	MSD %	RPD	ACP %CL	ACP RPD
Arsenic	95	80	17	70-130	20
Selenium	78	70	11	70-130	20
Cadmium	115	95	19	70-130	20
Lead	115	95	19	70-130	20
Barium	78	75	4	70-130	20

III. Method Blank

Date Prepared: 10/08/10
Date Analyzed: 10/08/10
Batch Number: CAM101008
MBLK ID: CAM1001008B

COMPOUND	REPORTING LIMIT	RESULT
Antimony (Sb)	2	ND
Arsenic (As)	1.0	ND
Barium (Ba)	1	ND
Beryllium (Be)	0.1	ND
Cadmium (Cd)	0.5	ND
Chromium (Cr)	1	ND
Cobalt (Co)	1	ND
Copper (Cu)	1	ND
Lead (Pb)	1	ND

Unit: mg/kg

COMPOUND	REPORTING LIMIT	RESULT
Mercury (Hg)	0.05	ND
Molybdenum (Mo)	1	ND
Nickel (Ni)	1	ND
Selenium (Se)	2	ND
Silver (Ag)	1	ND
Thallium (Tl)	2	ND
Vanadium (V)	1	ND
Zinc (Zn)	1	ND

ND = Not detected at the indicated reporting limit.

CHAIN OF CUSTODY RECORD

C & E Laboratories, Inc.
 14148 E. Firestone Blvd., Santa Fe Springs, CA 90670
 Tel: (562) 921-8123 Fax: (562) 921-7974

C&E LAB ID
10722A

Company Name: ACS Associates Site Address: Kettleman City, CA
 Project Manager: Chi Huang
 Project No./Name: Kettleman 09.T9122
 Tel: 949-509 9123 Fax: 509 9136
 Sampled By: Chi Huang
 Turn Around Time Desired: Normal / Same Day / 24hr / 48hr

Page 1 of 1
 Sample Conditions
 Chilled Seals Intact

SAMPLE ID	SAMPLING DATE	SAMPLING TIME	SAMPLE MATRIX (air/soil/water)	NO. OF CONTAINERS/TYPE	8015M TPH-G	8015M TPH-D	8021B BTEX MTBE	418.1 TRPH	8280B BTEX OXY.	8290B VOC	8270C SVOC	6010B LEAD	PCBs
PCB 1	0721	0746	Soil	1 Glass									<input checked="" type="checkbox"/>
PCB 2		0750	↓	↓									<input checked="" type="checkbox"/>
PCB 3		0805	↓	↓									<input checked="" type="checkbox"/>
PCB 4		0821	↓	↓									<input checked="" type="checkbox"/>
B 1-5	0719	1940	Soil	1 Glass									<input checked="" type="checkbox"/>
B 2-5	0720	0925	↓	↓									<input checked="" type="checkbox"/>
B 3-5	0720	0905	↓	↓									<input checked="" type="checkbox"/>
B 4-5	0720	0940	↓	↓									<input checked="" type="checkbox"/>
PCB 1X	0721	0746	Soil	1 "									<input checked="" type="checkbox"/>
B 3 X	0920	0805	Soil	1 "									<input checked="" type="checkbox"/>
BCB 4R	0721	0822	Water	1 6 Glass Jar									<input checked="" type="checkbox"/>
B-4R	0720	0944	Water	1 12 Glass Jar									<input checked="" type="checkbox"/>

1
2
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11
12

Relinquished By: [Signature] Date/Time: 7/22/10
 Received By: Magn Date/Time: 7/22/10
 EDF Required: (circle) Yes No
 EDF Global ID No.: T
 Comments:

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

SAMPLE RECEIPT FORM

DATE: 7/22/10 CLIENT: ACS Associates

Cooler 1 of 1

C&E Lab ID: 100722A

Initials: M.D

LABORATORY (Other than C&E Courier):	C & E COURIER:
<input type="checkbox"/> °C Temperature Blank	<input checked="" type="checkbox"/> Chilled, cooler with temperature blank provided.
<input type="checkbox"/> Ambient Temperature	<input type="checkbox"/> Chilled, cooler without temperature blank.
	<input type="checkbox"/> Chilled and placed in cooler with wet ice.
	<input type="checkbox"/> Ambient and placed in cooler with wet ice.
	<input type="checkbox"/> Ambient Temperature
	<input checked="" type="checkbox"/> 4 °C Temperature blank

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact): _____ Not Applicable (N/A):

SAMPLE CONDITION:	Yes	No	NA
1. Chain-of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Sample container label(s) consistent with custody papers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Sample container(s) intact and in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Correct containers for analyses required	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Proper preservation used	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. VOA vial(s) free of headspace	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

COMMENTS:



July 22, 2010

Dr. Chi Huang
ACS Associates
PO BOX 4258
Irvine, CA 92616

Dear Dr. Huang:

This letter presents the results of the soil vapor investigation conducted by Optimal Technology (Optimal), for ACS Associates on July 20-21, 2010. The study was performed in various locations throughout Kettleman City, California.

Optimal was contracted to perform a soil vapor survey at this site to screen for possible chlorinated solvents and aromatic hydrocarbons. The primary objective of this soil vapor investigation was to determine if soil vapor contamination is present in the subsurface soil.

Gas Sampling Method

Gas sampling was performed by hydraulically pushing soil gas probes to a depth of 5.0-15.0 feet below ground surface (bgs). An electric rotary hammer drill was used to drill a 1.0-inch diameter hole through the overlying surface to allow probe placement when required. The same electric hammer drill was used to push probes in areas of resistance during placement.

At each sampling location an electric vacuum pump set to draw 0.2 liters per minute (L/min) of soil vapor was attached to the probe and purged prior to sample collection. Vapor samples were obtained in SGE gas-tight syringes by drawing the sample through a luer-lock connection which connects the sampling probe and the vacuum pump. New tubing was used at each sampling point to prevent cross contamination. Samples were immediately injected into the gas chromatograph/purge and trap after collection.

All analyses were performed on a laboratory grade Hewlett Packard model 5890 Series II gas chromatograph equipped with a Hewlett Packard model 5971 Mass Spectra Detector and Tekmar LSC 2000 Purge and Trap. An SGE capillary column using helium as the carrier gas was used to perform all analysis. All results were collected on a personal computer utilizing Hewlett Packard's 5971 MS and chromatographic data collection and handling system.

Quality Assurance

3-Point Calibration

An initial 3-point calibration was performed on July 20, 2010. Laboratory control standards were performed on each day of sampling by preparing a calibration solution from a pre-mixed standard supplied by CPI International, Inc. The standard contained common halogenated solvents and aromatic hydrocarbons. The individual compound concentrations in the standards ranged between 0.025 nanograms per microliter(ng/ul) and 0.25 ng/ul.

The initial three point calibrations consisted of 250, 500 and 1000 ul injections of the calibration solutions. A calibration factor on each analyte was generated using a best fit line method using the HP data system. If the r^2 factor generated from this line was not greater than 0.990, an additional three point calibration would have been performed. Method reporting limits were calculated to be 0.01-1.0 micrograms per Liter (ug/L) for the individual compounds.

Sample Replicates

A replicate analysis (duplicate) was run each day to evaluate the reproducibility of the sampling system and instrument. The difference between samples did not vary more than 20%.

Equipment Blanks

Blanks were run at the beginning of each workday and after calibrations. The blanks were collected using an ambient air sample. These blanks checked the septum, syringe, GC column, GC detector and the ambient air. Contamination was not found in any of the blanks analyzed during this investigation. Blank results are given along with the sample results.

Tracer Gas

A tracer gas was applied to the soil gas probes at each point of connection in which ambient air could enter the sampling system. These points include the top of the sampling probe where the tubing meets the probe connection and the surface bentonite seals. Isobutane was used as the tracer gas, found in common shaving cream. No Isobutane was found in any of the samples.

Purge Volume Test

"Purge volume" is the total internal volume of the sampling probe. Three separate purge volumes were tested: 1, 3, and 7 volumes. It was found that 3 volumes were best for this soil vapor survey.

Surrogate Compounds

Two surrogate compounds were added to each sample throughout the day. One aromatic hydrocarbon and one chlorinated compound with early and middle eluting were used. (1-Chloro-2-Bromopropane, 4-Bromofluorobenzene).

Scope of Work

To achieve the objective of this investigation a total of 29 vapor samples were collected from 23 locations throughout the site. Sampling depths, vacuum readings, purge volume and sampling volumes are given on the analytical results page. All the collected vapor samples were analyzed on-site using Optimal's mobile laboratory.

Subsurface Conditions

Subsurface soil conditions at this site ranged between sand and silty-sand from ground surface to 15.0 feet bgs. These soil conditions offered sampling flows at 0" water vacuum. Depth to groundwater was unknown at the time of the investigation.

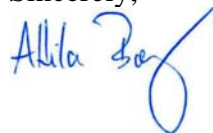
Results

During this vapor investigation SG24 @ Residence11 contained 0.44 ug/L of Chloroform. SG26 @ JD Towing contained 0.17 ug/L of Ethylbenzene, 0.72 ug/L of m/p-Xylene and 0.49 ug/L of o-Xylene, while SG28 @ JD Towing-15' contained 0.18 ug/L of Ethylbenzene, 0.53 ug/L of m/p-Xylene and 0.25 ug/L of o-Xylene. A complete table of analytical results is included with this report.

Disclaimer

All conclusions presented in this letter are based solely on the information collected by the soil vapor survey conducted by Optimal Technology. Soil vapor testing is only a subsurface screening tool and does not represent actual contaminant concentrations in either the soil and/or groundwater. We enjoyed working with you on this project and look forward to future projects. If you have any questions please contact me at (877) 764-5427.

Sincerely,



Attila Baly
Project Manager



SOIL VAPOR RESULTS

Site Name: Kettleman City, CA

Lab Name: Optimal Technology

Date: 7/21/10

Analyst: A. Baly **Collector:** A. Baly

Inst. ID: HP-5890 Series II

Method: Modified EPA 8260C

Detector: HP-5971 Mass Spectrometer

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SAMPLE ID	SG13 @ KCES 2	SG09 @ Beacon GS-1	SG10 @ Beacon GS-1 Dup				
Sampling Depth (Ft.)	10.0	10.0	10.0				
Purge Volume (ml)	2,250	2,250	2,250				
Vacuum (in. of Water)	0	0	0				
Injection Volume (ul)	50,000	50,000	50,000				
Dilution Factor	1	1	1				

COMPOUND	REP. LIMIT	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)			
Dichlorodifluoromethane	1.00	ND	ND	ND			
Chloroethane	1.00	ND	ND	ND			
Trichlorofluoromethane	1.00	ND	ND	ND			
Freon 113	1.00	ND	ND	ND			
Methylene Chloride	1.00	ND	ND	ND			
1,1-Dichloroethane	1.00	ND	ND	ND			
Chloroform	0.30	ND	ND	ND			
1,1,1-Trichloroethane	1.00	ND	ND	ND			
Carbon Tetrachloride	0.02	ND	ND	ND			
1,2-Dichloroethane	0.04	ND	ND	ND			
Trichloroethene (TCE)	0.50	ND	ND	ND			
1,1,2-Trichloroethane	1.00	ND	ND	ND			
Tetrachloroethene (PCE)	0.10	ND	ND	ND			
1,1,1,2-Tetrachloroethane	1.00	ND	ND	ND			
1,1,1,2,2-Tetrachloroethane	1.00	ND	ND	ND			
Vinyl Chloride	0.01	ND	ND	ND			
Acetone	1.00	ND	ND	ND			
1,1-Dichloroethene	1.00	ND	ND	ND			
trans-1,2-Dichloroethene	1.00	ND	ND	ND			
2-Butanone (MEK)	1.00	ND	ND	ND			
cis-1,2-Dichloroethene	1.00	ND	ND	ND			
Cyclohexane	1.00	ND	ND	ND			
Benzene	0.03	ND	ND	ND			
4-Methyl-2-Pentanone	1.00	ND	ND	ND			
Toluene	0.10	ND	ND	ND			
Chlorobenzene	1.00	ND	ND	ND			
Ethylbenzene	0.10	ND	ND	ND			
m/p-Xylene	0.10	ND	ND	ND			
o-Xylene	0.10	ND	ND	ND			
Tert-Butyl-Alcohol	1.00	ND	ND	ND			
Methyl-Tert-Butyl-Ether	1.00	ND	ND	ND			
Diisopropylether	1.00	ND	ND	ND			
Ethyl-Tert-Butyl-Ether	1.00	ND	ND	ND			
Tert-Amyl-Methyl-Ether	1.00	ND	ND	ND			
Isobutane (Tracer Gas)	1.00	ND	ND	ND			

Note: ND = Not Detected