Project No._____

42 Book No._____ TITLE ISS / SURFACE MONITORING

From Page No.____ 6-1-90 (OV)

Min to walk in work	TIME	WIND SP (mph)	OVA (ppm)	
0	0947	2.3	1.0	flow = 0.3 Lpm
1	0948	4.3	1.0	
2	0949	Ø	0.8	
3	0950	0.8	1.2	
4	0951	3.1	1.6	
5	0952	4.1	1.5	
6	0953	3.2	1.4	
7	0954	1.4	1.2	
8	0955	1.8	1.0	
9	0956	3.6	1.0	
10	0957	Ø	1.0	
11	0958	1.0	1.0	
12	0959	0.2	1.0	flow = 0.3 Lpm
13	1000	0.4	1.0	
14	1001	(W) 0.1	0.9	
15	1002	0.2	0.8	
16	1003	Ø	0.8	
17	1004	0.1	0.8	
18	1005	Ø	0.9	
19	1006	Ø	1.0	
20	1007	Ø	0.9	
21	1008	1.5	0.9	
22	1009	2.3	0.8	
23	1010	0.8	0.9	
24	1011	2.9	1.0	
25	1012	4.1	1.0	flow = 0.3 Lpm

To Page N

Witnessed & Understood by me,	Date	Invented by	Date
		Recorded by	

TITLE 155 / LG Project No. Book No. 43

From Page No.

6-1-90

0815 D. V. Dunn + B. Hamilton on site to walk 155 + sample LG wells.

0830 check met station. winds calm (1-2 mph but picking up.

calibrating OVA #3 to zero air, 50 ppm

0845 Batteries in wind sensor dead. Will have to head off site to purchase new batteries.

0920 Back on site. Wind sensor working well.

0945 Begin walking 155 / surface monitoring. Wind 2-3 mph. Background reading 1 ppm. B. Hamilton collecting 155 samples. D. V. Dunn doing surface monitoring / wind check.

1015 Surface walk completed. winds below 5 mph for entire walk. No OVA reading > 1.5 ppm.

Tedlar bag #62.

1030 Setting up to sample LG-03.

Problem with sampler. No flow to sampler / exhaust.

Called office. Spoke w/ D. Christopherson re sampler. He suggested trying a pump from an ambient air sampler + adjusting over-flow valve (allen fitting).

To Page No.

Witnessed & Understood by me,	Date	Invented by	Date
		Recorded by	

Page No.

6-1-90 (p. 2)

1145. Completely tore down sampler. After disassembling flow control valve, the sampler appears to be working properly.

1150 Cannot find sampling cap. Suspect it is still at office. Breaking down equipment and loading it FED-EX to ship 155 sample.

1200 Off site.

Read & Understood by me,	Date	Invented by	Date

TLE LG Sampling Project No.____ Book No.____ 47

om Page No.___

6-4-90

1530 D. VanDam M. Contreras on site to sample LG probes

Setting up at LG-03

1540 Purging 10 min on ambient air

1550 Purge 10 min zero air

1612 Begin collecting sample

1620 Sample CO-LG-03-02 collected can # AV076, 7½ PSI

1645 Off site.

DV

To Page No.____

Witnessed & Understood by me,	Date	Invented by	Date
		Recorded by	

6-1-90 (p. 2)

1145. Completely tore down sampler. After dismantling flow control valve, the sampler appears to be working properly.

150 Cannot find sampling cap. Suspect it is still at office. Breaking down equipment and loading to FED-EX to ship 155 sample.

1200 Off site.

Read & Understood by me,	Date	Invented by	Date

TLE LG Sampling Project No. Book No. 47

om Page No.

6-4-90

1530 D. VanDam M. Contreras on site to sample LG probes

setting up at LG-03

1540 Purging 10 min on ambient air

1550 Purge 10 min zero air

1612 Begin collecting sample

1620 Sample CO-LG-03-02 collected can # AV076, 7½ PSI

1645 off site.

DV

To Page No.

itnessed & Understood by me, Date Invented by Date

Page No.

6-5-90

0805 D. Duran, R. Contreras on site to sample LG probes.

Sampler purged 3 hrs on ambient.

Purge 10 min zero air

0820 Begin sampling LG-04

0830 CO-LG-04-02 collected can # AV061, 7½ PSI

0845 Off site

Back on site. Setting up at LG-05

Sampler purged 1½ hr ambient air. FID = ND

Purge w zero air

Begin sampling LG-05

1045 Off site. Heading to FED-EX

all sampling complete at Communications Station Landfill.

1230 NOTE: Blank not collected previously. will collect after OR-MG-01. Standard Deviation

1245 CO-LG-00-02 can # AV072, 7½ PSI

To Page No.

TLE Communications Station Project No. 50233 Book No. 51

om Page No. 6/22/90

1030 LGC & NC on site @ communications station Landfill. preparing to sample probe LG-01. Resampling.

1035 Sampled LG-01 on Communications.

Sampler	can	sample Id	collection time.	PSI
AV02	AV086	CO-LG-R1-02	5 min. 50 sec.	7.5

1100 -

sampler	can	sample Id	collection Time	Psi
AV02	AV103	CO-LG-R2-02	6 min.	7.5

To Page No.

tnessed & Understood by me,	Date	Invented by	Date
		[signature]	6/22/90

Appendix D

LABORATORY DATA REPORTS

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client: AeroVironment
Site: CO-IA-C1-04
Lab #: 00552
Can #: 43

Sample Date: 5-23-90
Date Anal: 5-25-90
Analyst: Vivian Longacre

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	2.00	not detected
75-09-2	Dichloromethane	1.00	6.0
67-66-3	Chloroform	0.80	not detected
71-55-6	1,1,1-Trichloroethane	0.50	6.4
107-06-2	1,2-Dichloroethane	0.20	not detected
71-43-2	Benzene	2.00	not detected
56-23-5	Carbon Tetrachloride	0.20	not detected
79-01-6	Trichloroethene	0.60	not detected
106-93-4	1,2-Dibromoethane	0.50	not detected
127-18-4	Tetrachloroethene	0.20	0.29

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	5-24-90
Site:	CO-IA-02-09	Date Anal:	5-25-90
Lab #:	00555	Analyst:	Vivian Longacre
Can #:	104		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	2.00	not detected
75-09-2	Dichloromethane	1.00	1.7
67-66-3	Chloroform	0.80	not detected
71-55-6	1,1,1-Trichloroethane	0.50	0.73
107-06-2	1,2-Dichloroethane	0.20	not detected
71-43-2	Benzene	2.00	not detected
56-23-5	Carbon Tetrachloride	0.20	not detected
79-01-6	Trichloroethene	0.60	not detected
106-93-4	1,2-Dibromoethane	0.50	not detected
127-18-4	Tetrachloroethene	0.20	not detected

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	5-23-90
Site:	CO-IA-01-09	Date Anal:	5-25-90
Lab #:	00550	Analyst:	Vivian Longacre
Can #:	71		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	2.00	not detected
75-09-2	Dichloromethane	1.00	2.2
67-66-3	Chloroform	0.80	not detected
71-55-6	1,1,1-Trichloroethane	0.50	1.2
107-06-2	1,2-Dichloroethane	0.20	not detected
71-43-2	Benzene	2.00	not detected
56-23-5	Carbon Tetrachloride	0.20	not detected
79-01-6	Trichloroethene	0.60	not detected
106-93-4	1,2-Dibromoethane	0.50	not detected
127-18-4	Tetrachloroethene	0.20	0.26

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	5-23-90
Site:	CO-IA-01-03	Date Anal:	5-25-90
Lab #:	00551	Analyst:	Vivian Longacre
Can #:	55		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	2.00	not detected
75-09-2	Dichloromethane	1.00	1.2
67-66-3	Chloroform	0.80	not detected
71-55-6	1,1,1-Trichloroethane	0.50	1.0
107-06-2	1,2-Dichloroethane	0.20	not detected
71-43-2	Benzene	2.00	not detected
56-23-5	Carbon Tetrachloride	0.20	not detected
79-01-6	Trichloroethene	0.60	not detected
106-93-4	1,2-Dibromoethane	0.50	not detected
127-18-4	Tetrachloroethene	0.20	0.26

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	5-24-90
Site:	CO-IA-02-03	Date Anal:	5-25-90
Lab #:	00556	Analyst:	Vivian Longacre
Can #:	45		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	2.00	not detected
75-09-2	Dichloromethane	1.00	1.1
67-66-3	Chloroform	0.80	not detected
71-55-6	1,1,1-Trichloroethane	0.50	0.87
107-06-2	1,2-Dichloroethane	0.20	not detected
71-43-2	Benzene	2.00	not detected
56-23-5	Carbon Tetrachloride	0.20	not detected
79-01-6	Trichloroethene	0.60	not detected
106-93-4	1,2-Dibromoethane	0.50	not detected
127-18-4	Tetrachloroethene	0.20	not detected

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	5-24-90
Site:	CO-IA-C2-04	Date Anal:	5-25-90
Lab #:	00557	Analyst:	Vivian Longacre
Can #:	131		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	2.00	not detected
75-09-2	Dichloromethane	1.00	4.3
67-66-3	Chloroform	0.80	not detected
71-55-6	1,1,1-Trichloroethane	0.50	2.7
107-06-2	1,2-Dichloroethane	0.20	not detected
71-43-2	Benzene	2.00	not detected
56-23-5	Carbon Tetrachloride	0.20	not detected
79-01-6	Trichloroethene	0.60	not detected
106-93-4	1,2-Dibromoethane	0.50	not detected
127-18-4	Tetrachloroethene	0.20	not detected

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	5-25-90
Site:	CO-IA-03-09	Date Anal:	5-30-90
Lab #:	00573	Analyst:	Vivian Longacre
Can #:	57		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	2.00	not detected
75-09-2	Dichloromethane	1.00	1.8
67-66-3	Chloroform	0.80	not detected
71-55-6	1,1,1-Trichloroethane	0.50	0.74
107-06-2	1,2-Dichloroethane	0.20	not detected
71-43-2	Benzene	2.00	not detected
56-23-5	Carbon Tetrachloride	0.20	not detected
79-01-6	Trichloroethene	0.60	not detected
106-93-4	1,2-Dibromoethane	0.50	not detected
127-18-4	Tetrachloroethene	0.20	not detected

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client: AeroVironment
Site: CO-IA-03-03
Lab #: 00574
Can #: 129

Sample Date: 5-25-90
Date Anal: 5-30-90
Analyst: Vivian Longacre

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	2.00	not detected
75-09-2	Dichloromethane	1.00	1.2
67-66-3	Chloroform	0.80	not detected
71-55-6	1,1,1-Trichloroethane	0.50	0.66
107-06-2	1,2-Dichloroethane	0.20	not detected
71-43-2	Benzene	2.00	not detected
56-23-5	Carbon Tetrachloride	0.20	not detected
79-01-6	Trichloroethene	0.60	not detected
106-93-4	1,2-Dibromoethane	0.50	not detected
127-18-4	Tetrachloroethene	0.20	not detected

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	5-23-90
Site:	CO-IA-D1-01	Date Anal:	5-25-90
Lab #:	00548	Analyst:	Vivian Longacre
Can #:	08		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	2.00	not detected
75-09-2	Dichloromethane	1.00	1.2
67-66-3	Chloroform	0.80	not detected
71-55-6	1,1,1-Trichloroethane	0.50	0.89
107-06-2	1,2-Dichloroethane	0.20	not detected
71-43-2	Benzene	2.00	not detected
56-23-5	Carbon Tetrachloride	0.20	not detected
79-01-6	Trichloroethene	0.60	not detected
106-93-4	1,2-Dibromoethane	0.50	not detected
127-18-4	Tetrachloroethene	0.20	0.23

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	5-23-90
Site:	CO-IA-D1-08	Date Anal:	5-25-90
Lab #:	00549	Analyst:	Vivian Longacre
Can #:	51		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	2.00	not detected
75-09-2	Dichloromethane	1.00	1.2
67-66-3	Chloroform	0.80	not detected
71-55-6	1,1,1-Trichloroethane	0.50	0.94
107-06-2	1,2-Dichloroethane	0.20	not detected
71-43-2	Benzene	2.00	not detected
56-23-5	Carbon Tetrachloride	0.20	not detected
79-01-6	Trichloroethene	0.60	not detected
106-93-4	1,2-Dibromoethane	0.50	not detected
127-18-4	Tetrachloroethene	0.20	0.25

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	5-24-90
Site:	CO-IA-D2-08	Date Anal:	5-25-90
Lab #:	00554	Analyst:	Vivian Longacre
Can #:	130		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	2.00	not detected
75-09-2	Dichloromethane	1.00	1.2
67-66-3	Chloroform	0.80	not detected
71-55-6	1,1,1-Trichloroethane	0.50	0.51
107-06-2	1,2-Dichloroethane	0.20	not detected
71-43-2	Benzene	2.00	not detected
56-23-5	Carbon Tetrachloride	0.20	not detected
79-01-6	Trichloroethene	0.60	not detected
106-93-4	1,2-Dibromoethane	0.50	not detected
127-18-4	Tetrachloroethene	0.20	not detected

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	5-24-90
Site:	CO-IA-D2-01	Date Anal:	5-25-90
Lab #:	00553	Analyst:	Vivian Longacre
Can #:	29		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	2.00	not detected
75-09-2	Dichloromethane	1.00	not detected
67-66-3	Chloroform	0.80	not detected
71-55-6	1,1,1-Trichloroethane	0.50	0.69
107-06-2	1,2-Dichloroethane	0.20	not detected
71-43-2	Benzene	2.00	not detected
56-23-5	Carbon Tetrachloride	0.20	not detected
79-01-6	Trichloroethene	0.60	not detected
106-93-4	1,2-Dibromoethane	0.50	not detected
127-18-4	Tetrachloroethene	0.20	not detected

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	5-25-90
Site:	CO-IA-D3-01	Date Anal:	5-30-90
Lab #:	00571	Analyst:	Vivian Longacre
Can #:	26		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	2.00	not detected
75-09-2	Dichloromethane	1.00	1.2
67-66-3	Chloroform	0.80	not detected
71-55-6	1,1,1-Trichloroethane	0.50	0.72
107-06-2	1,2-Dichloroethane	0.20	not detected
71-43-2	Benzene	2.00	not detected
56-23-5	Carbon Tetrachloride	0.20	not detected
79-01-6	Trichloroethene	0.60	not detected
106-93-4	1,2-Dibromoethane	0.50	not detected
127-18-4	Tetrachloroethene	0.20	not detected

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	5-25-90
Site:	CO-IA-D3-08	Date Anal:	5-30-90
Lab #:	00572	Analyst:	Vivian Longacre
Can #:	128		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	2.00	not detected
75-09-2	Dichloromethane	1.00	1.2
67-66-3	Chloroform	0.80	not detected
71-55-6	1,1,1-Trichloroethane	0.50	0.70
107-06-2	1,2-Dichloroethane	0.20	not detected
71-43-2	Benzene	2.00	not detected
56-23-5	Carbon Tetrachloride	0.20	not detected
79-01-6	Trichloroethene	0.60	not detected
106-93-4	1,2-Dibromoethane	0.50	not detected
127-18-4	Tetrachloroethene	0.20	not detected

Environmental Analytical Service, Inc.

Total Organic Compound

Client: AeroVironment	Ref#: CO-IS-01-03
Analyst: Vivian Longacre	Lab #: 00612
	Can #: Bag 66
	Date Sampled: 6-1-90
	Date Analyzed: 6-6-90

Methane ppmv	Non-Methane ppmv	Total Organic Carbon ppmv
4.1	< 1	4.1

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ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	5-25-90
Site:	CO-LG-01-02	Date Anal:	5-30-90
Lab #:	00575	Analyst:	Vivian Longacre
Can #:	49		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	500	not detected
75-09-2	Dichloromethane	60	76
67-66-3	Chloroform	2	not detected
71-55-6	1,1,1-Trichloroethane	10	not detected
107-06-2	1,2-Dichloroethane	20	not detected
71-43-2	Benzene	5	not detected
56-23-5	Carbon Tetrachloride	500	not detected
79-01-6	Trichloroethene	10	not detected
106-93-4	1,2-Dibromoethane	1	not detected
127-18-4	Tetrachloroethene	10	not detected

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client: AeroVironment
Site: CO-LG-R1-02
Lab #: 00731
Can #: 103

Sample Date: 6-22-90
Date Anal: 6-25-90
Analyst: Vivian Longacre

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	500	not detected
75-09-2	Dichloromethane	60	not detected
67-66-3	Chloroform	2	not detected
71-55-6	1,1,1-Trichloroethane	10	not detected
107-06-2	1,2-Dichloroethane	20	not detected
71-43-2	Benzene	5	not detected
56-23-5	Carbon Tetrachloride	500	not detected
79-01-6	Trichloroethene	10	not detected
106-93-4	1,2-Dibromoethane	1	not detected
127-18-4	Tetrachloroethene	10	not detected

FIXED GAS ANALYSIS

Permanent Gases By GC/TCD

Component	Sample Concentration Percent by Volume
Hydrogen	0.00
Oxygen	7.41
Nitrogen	80.85
Methane	0.00
Carbon Monoxide	0.00
Carbon Dioxide	11.32
Total	99.6

Environmental Analytical Service, Inc.

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	5-25-90
Site:	CO-LG-02-02	Date Anal:	5-30-90
Lab #:	00576	Analyst:	Vivian Longacre
Can #:	122		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	500	not detected
75-09-2	Dichloromethane	60	not detected
67-66-3	Chloroform	2	not detected
71-55-6	1,1,1-Trichloroethane	10	not detected
107-06-2	1,2-Dichloroethane	20	not detected
71-43-2	Benzene	5	not detected
56-23-5	Carbon Tetrachloride	500	not detected
79-01-6	Trichloroethene	10	not detected
106-93-4	1,2-Dibromoethane	1	not detected
127-18-4	Tetrachloroethene	10	not detected

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ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	6-22-90
Site:	CO-LG-R2-02	Date Anal:	6-25-90
Lab #:	00732	Analyst:	Vivian Longacre
Can #:	86		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	500	not detected
75-09-2	Dichloromethane	60	370
67-66-3	Chloroform	2	not detected
71-55-6	1,1,1-Trichloroethane	10	not detected
107-06-2	1,2-Dichloroethane	20	not detected
71-43-2	Benzene	5	not detected
56-23-5	Carbon Tetrachloride	500	not detected
79-01-6	Trichloroethene	10	not detected
106-93-4	1,2-Dibromoethane	1	not detected
127-18-4	Tetrachloroethene	10	not detected

FIXED GAS ANALYSIS

Permanent Gases By GC/TCD

Component	Sample Concentration Percent by Volume
Hydrogen	0.00
Oxygen	5.54
Nitrogen	79.11
Methane	0.00
Carbon Monoxide	0.00
Carbon Dioxide	14.67
Total	99.3

Environmental Analytical Service, Inc.

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client: AeroVironment
Site: CO-LG-03-02
Lab #: 00622
Can #: 76

Sample Date: 6-4-90
Date Anal: 6-7-90
Analyst: Vivian Longacre

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	500	not detected
75-09-2	Dichloromethane	60	270
67-66-3	Chloroform	2	not detected
71-55-6	1,1,1-Trichloroethane	10	not detected
107-06-2	1,2-Dichloroethane	20	not detected
71-43-2	Benzene	5	not detected
56-23-5	Carbon Tetrachloride	500	not detected
79-01-6	Trichloroethene	10	not detected
106-93-4	1,2-Dibromoethane	1	not detected
127-18-4	Tetrachloroethene	10	not detected

FIXED GAS ANALYSIS

Permanent Gases By GC/TCD

Component	Sample Concentration Percent by Volume
Hydrogen	0.00
Oxygen	17.95
Nitrogen	77.74
Methane	0.00
Carbon Monoxide	0.00
Carbon Dioxide	4.30
Total	100.0

170-C Granada San Luis Obispo, CA 93401 (805) 541-3666 FAX: (805) 541-4550

Environmental Analytical Service, Inc.

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client: AeroVironment
Site: CO-LG-04-02
Lab #: 00623
Can #: 61

Sample Date: 6-5-90
Date Anal: 6-8-90
Analyst: Vivian Longacre

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	500	not detected
75-09-2	Dichloromethane	60	820
67-66-3	Chloroform	2	not detected
71-55-6	1,1,1-Trichloroethane	10	not detected
107-06-2	1,2-Dichloroethane	20	not detected
71-43-2	Benzene	5	not detected
56-23-5	Carbon Tetrachloride	500	not detected
79-01-6	Trichloroethene	10	not detected
106-93-4	1,2-Dibromoethane	1	not detected
127-18-4	Tetrachloroethene	10	not detected

FIXED GAS ANALYSIS

Permanent Gases By GC/TCD

Component	Sample Concentration Percent by Volume
Hydrogen	0.00
Oxygen	18.60
Nitrogen	72.30
Methane	0.00
Carbon Monoxide	0.00
Carbon Dioxide	4.07
Total	95.0

170-C Granada San Luis Obispo, CA 93401 (805) 541-3666 FAX: (805) 541-4550

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	6-5-90
Site:	CO-LG-05-02	Date Anal:	6-7-90
Lab #:	00624	Analyst:	Vivian Longacre
Can #:	69		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	500	not detected
75-09-2	Dichloromethane	60	160
67-66-3	Chloroform	2	not detected
71-55-6	1,1,1-Trichloroethane	10	not detected
107-06-2	1,2-Dichloroethane	20	not detected
71-43-2	Benzene	5	not detected
56-23-5	Carbon Tetrachloride	500	not detected
79-01-6	Trichloroethene	10	not detected
106-93-4	1,2-Dibromoethane	1	not detected
127-18-4	Tetrachloroethene	10	not detected

FIXED GAS ANALYSIS

Permanent Gases By GC/TCD

Component	Sample Concentration Percent by Volume
Hydrogen	0.00
Oxygen	21.44
Nitrogen	72.05
Methane	0.00
Carbon Monoxide	0.00
Carbon Dioxide	1.07
Total	94.6

ATTACHMENT A - REPORT SHEET

EPA Method TO-14 GC/MS Analysis

Client:	AeroVironment	Sample Date:	6-5-90
Site:	CO-LG-00-02	Date Anal:	6-8-90
Lab #:	00625	Analyst:	Vivian Longacre
Can #:	72		

CAS Number	Compound	MDL ppbv	Concentration ppbv
75-01-4	Vinyl Chloride	500	not detected
75-09-2	Dichloromethane	60	720
67-66-3	Chloroform	2	not detected
71-55-6	1,1,1-Trichloroethane	10	not detected
107-06-2	1,2-Dichloroethane	20	not detected
71-43-2	Benzene	5	not detected
56-23-5	Carbon Tetrachloride	500	not detected
79-01-6	Trichloroethene	10	not detected
106-93-4	1,2-Dibromoethane	1	not detected
127-18-4	Tetrachloroethene	10	not detected

FIXED GAS ANALYSIS

Permanent Gases By GC/TCD

Component	Sample Concentration Percent by Volume
Hydrogen	0.00
Oxygen	0.00
Nitrogen	0.00
Methane	0.00
Carbon Monoxide	0.00
Carbon Dioxide	0.00
Total	not analyzed

Total Organic Compound

Client: AeroVironment	Ref#: CO-MG-01-02
Analyst: Vivian Longacre	Lab #: 00558
	Can #: 114
	Date Sampled: 5-24-90
	Date Analyzed: 5-26-90

Methane ppmv	Non-Methane ppmv	Total Organic Carbon ppmv
< 1	1.7	1.7

Total Organic Compound

Client: AeroVironment	Ref#: CO-MG-02-02
Analyst: Vivian Longacre	Lab #: 00559
	Can #: 61
	Date Sampled: 5-24-90
	Date Analyzed: 5-26-90

Methane ppmv	Non-Methane ppmv	Total Organic Carbon ppmv
< 1	3.5	3.5

Total Organic Compound

Client: AeroVironment	Ref#: CO-MG-03-02
Analyst: Vivian Longacre	Lab #: 00560
	Can #: 91
	Date Sampled: 5-24-90
	Date Analyzed: 5-26-90

Methane ppmv	Non-Methane ppmv	Total Organic Carbon ppmv
< 1	1.6	1.6

Total Organic Compound

Client: AeroVironment	Ref#: CO-MG-04-02
Analyst: Vivian Longacre	Lab #: 00565
	Can #: 69
	Date Sampled: 5-24-90
	Date Analyzed: 5-26-90

Methane ppmv	Non-Methane ppmv	Total Organic Carbon ppmv
< 1	13	13

Total Organic Compound

Client: AeroVironment	Ref#: CO-MG-05-02
Analyst: Vivian Longacre	Lab #: 00566
	Can #: 89
	Date Sampled: 5-24-90
	Date Analyzed: 5-26-90

Methane ppmv	Non-Methane ppmv	Total Organic Carbon ppmv
< 1	4.9	4.9

Total Organic Compound

Client: AeroVironment	Ref#: CO-MG-06-02
Analyst: Vivian Longacre	Lab #: 00567
	Can #: 24
	Date Sampled: 5-24-90
	Date Analyzed: 5-26-90

Methane ppmv	Non-Methane ppmv	Total Organic Carbon ppmv
1.5	5.7	7.2

Sheet ____ of ____

Chain of Custody Record

No. 409

AeroVironment Inc.
825 Myrtle Avenue
Monrovia, CA 91016
(818) 357-9983

Environmental Analytical Services
170 / C Granada
San Luis Obispo, CA 93401
(805) 541-3666

Project Name: EL TORO AIR SMAT

Date: 5-22-90

Sampling Location: COMMUNICATIONS STATIONS

Time: 1100

Sampling Team: DW / NC

Lab Identification Number	AeroVironment Sample Reference Number	Canister/Bag Number	Final Pressure Final Condition[1] Lab	Field	Analysis Required	Sample Collection (Month/Day/Time)	Sample Expiration (Month/Day/Time)
	CO-1A-D1-01	A008		5 PSI	A1-AIR	5-23-90 / 0400	5/28/90 0400
	CO-1A-D1-08	E051		7 PSI	A1-AIR	5-23-90 / 0400	5-28-90 0400
	CO-1A-D1-09	AV071		6½ PSI	A1-AIR	5-23-90 / 0830	5-28-90 0830
	CO-1A-01-03	E055		6 PSI	A1-AIR	5-23-90 / 0825	5-28-90 0825
	CO-1A-C1-04	E043		6 PSI	A1-AIR	5-23-90 / 0825	5-28-90 0825

Comments: _____

Relinquished by: D. W. [signature] Received by: _____ Date / Time: _____

Relinquished by: _____ Received by: _____ Date / Time: _____

Method of Shipment: FED-EX

Laboratory Sample Custodian: _____ Date: _____

Time: _____

Comments: _____

[1] F = 1/2 full to full, O = overfull (bulging), L = 1/4 to 1/2 E = ≪ 1/4 full but some sample, N = no sample

Chain of Custody Record

№ 368

AeroVironment Inc.
825 Myrtle Avenue
Monrovia, CA 91016
(818) 357-9983

Environmental Analytical Services
170 / C Granada
San Luis Obispo, CA 93401
(805) 541-3666

Project Name: EL TORO AIR SWAT

Date: 5-24-90

Sampling Location: COMMUNICATION

Time: 1000

Sampling Team: DV / NC

Lab Identification Number	AeroVironment Sample Reference Number	~~Canister~~/Bag Number	Final Pressure Lab	Final Pressure Field	Analysis Required	Sample Collection (Month/Day/Time)	Sample Expiration (Month/Day/Time)
	CO-1A-D2-01	AV029		3 PSI	A1-AIR	5-24-90 / 0500	5-29-90 / 0500
	CO-1A-D2-08	AV130		6½ PSI	A1-AIR	5-24-90 / 0500	5-29-90 / 0500
	CO-1A-D2-09	AV104		5½ PSI	A1-AIR	5-24-90 / 0820	5-29-90 / 0820
	CO-1A-D2-03	E045		4½ PSI	A1-AIR	5-24-90 / 0815	5-29-90 / 0815

Comments:

Relinquished by: [signature] Received by: Date / Time:

Relinquished by: Received by: Date / Time:

Method of Shipment: FED-EX

Laboratory Sample Custodian: Date:

Time:

Comments:

[1] F = 1/2 full to full, O = overfull (bulging), L = 1/4 to 1/2 full, E = ≪ 1/4 full but some sample, N = no sample

Chain of Custody Record

413

AeroVironment Inc.
825 Myrtle Avenue
Monrovia, CA 91016
(818) 357-9983

Environmental Analytical Services
170 / C Granada
San Luis Obispo, CA 93401
(805) 541-3666

Project Name: EL TORO AIR SWAT Date: 5-24-90

Sampling Location: COMMUNICATIONS STATION Time: 1000

Sampling Team: DV / NC

Lab Identification Number	AeroVironment Sample Reference Number	~~Canister/Bag~~ Number	Final Pressure Final Lab	Final Pressure Condition[1] Field	Analysis Required	Sample Collection (Month/Day/Time)	Sample Expiration (Month/Day/Time)
	CO-1A-C2-01	AV131		6 PSI	A1 - AIR	5-24-90/0815	5-29-90/0815
	CO-MG-01-02	AV114		7½ PSI	TOC	5-24-90/1200	5-29-90/1200
	CO-MG-02-02	AV061		7½ PSI	TOC	5-24-90/1230	5-29-90/1230
	CO-MG-03-02	AV091		7½ PSI	TOC	5-24-90/1300	5-29-90/1300

Comments:

Relinquished by: D. Z. Dan Received by: Date / Time:

Relinquished by: Received by: Date / Time:

Method of Shipment:

Laboratory Sample Custodian: Date:

Time:

Comments:

[1] F = 1/2 full to full, O = overfull (bulging), L = 1/4 to 1/2 E = ≪ 1/4 full but some sample, N = no sample

Sheet 5 of 31

Chain of Custody Record

N 414

AeroVironment Inc.
825 Myrtle Avenue
Monrovia, CA 91016
(818) 357-9983

Environmental Analytical Services
170 / C Granada
San Luis Obispo, CA 93401
(805) 541-3666

Project Name: EL TORO AIR SWAT Date: 5-24-90

Sampling Location: COMMUNICATIONS Time: 1300

Sampling Team: DV

Lab Identification Number	AeroVironment Sample Reference Number	Canister/Bag Number	Final Pressure, Final Condition[1] Lab	Field	Analysis Required	Sample Collection (Month/Day/Time)	Sample Expiration (Month/Day/Time)
	CO-MB-04-02	AV069		7½ PSI	TOC	5-24-90 / 1330	5-29-90 / 1330
	CO-MB-05-02	AV089		7½ PSI	TOC	5-24-90 / 1400	5-29-90 / 1400
	CO-MB-06-02	AV024		7½ PSI	TOC	5-24-90 / 1430	5-29-90 / 1430

Comments:

Relinquished by: D. F. Quinn Received by: Date / Time:

Relinquished by: Received by: Date / Time:

Method of Shipment: FED-EX

Laboratory Sample Custodian: Date:

Time:

Comments:

[1] F = 1/2 full to full, O = overfull (bulging), L = 1/4 to 1/2 full, E = ≪ 1/4 full but some sample, N = no sample

Chain of Custody Record

N 410

AeroVironment Inc.
825 Myrtle Avenue
Monrovia, CA 91016
(818) 357-9983

Environmental Analytical Services
170 / C Granada
San Luis Obispo, CA 93401
(805) 541-3666

Project Name: EL TORO AIR SWAT Date: 5-25-90

Sampling Location: COMMUNICATIONS STATION Time: 1200

Sampling Team: DV / NC

Lab Identification Number	AeroVironment Sample Reference Number	~~Canister/Bag~~ Number	Final Pressure Final Condition[1] Lab	Field	Analysis Required	Sample Collection (Month/Day/Time)	Sample Expiration (Month/Day/Time)
	CO-1A-03-01	E026		4 PSI	A1-AIR	5-25-90 / 0500	5-30-90 / 0500
	CO-1A-03-08	AV125		8 PSI	A1-AIR	5-25-90 / 0500	5-30-90 / 0500
	CO-1A-03-09	AV057		5 PSI	A1-AIR	5-25-90 / 0900	5-30-90 / 0900
	CO-1A-03-03	AV129		5 PSI	A1-AIR	5-25-90 / 0850	5-30-90 / 0850

Comments:

Relinquished by: D. Dean Received by: Date / Time:

Relinquished by: Received by: Date / Time:

Method of Shipment: FED. EX

Laboratory Sample Custodian: Date:

Time:

Comments:

[1] F = 1/2 full to full, O = overfull (bulging), L = 1/4 to 1/2 full, E = < 1/4 full but some sample, N = no sample

Chain of Custody Record

K 416

AeroVironment Inc.
825 Myrtle Avenue
Monrovia, CA 91016
(818) 357-9983

Environmental Analytical Services
170 / C Granada
San Luis Obispo, CA 93401
(805) 541-3666

Project Name: EL TORO AIR SWAT Date: 5-25-90

Sampling Location: COMMUNICATIONS STATION Time: 1000

Sampling Team: DV/NC

Lab Identification Number	AeroVironment Sample Reference Number	Canister/Bag Number	Final Pressure Final Condition[1] Lab	Field	Analysis Required	Sample Collection (Month/Day/Time)	Sample Expiration (Month/Day/Time)
	CO-LG-01-02	AV 049		7½ PSI	AI-GAS, PG	5-25-90/0320	5-30-90/0320
	CO-LG-02-02	AV 122		9 PSI	AI-GAS, PG	5-25-90/1410	5-30-90/1410

Comments:

Relinquished by: Michael Gallo Received by: Date / Time:

Relinquished by: Received by: Date / Time:

Method of Shipment: FED-EX

Laboratory Sample Custodian: Date:

Time:

Comments:

[1] F = 1/2 full to full, O = overfull (bulging), L = 1/4 to 1/2 full, E = ≪ 1/4 full but some sample, N = no sample

Sheet ___ of ___

Chain of Custody Record

N 417

AeroVironment Inc.
825 Myrtle Avenue
Monrovia, CA 91016
(818) 357-9983

Environmental Analytical Services
170 / C Granada
San Luis Obispo, CA 93401
(805) 541-3666

Project Name: EL TORO AIR SWAT Date: 6-1-95

Sampling Location: COMMUNICATIONS Time: 1200

Sampling Team: DV/BM

Lab Identification Number	AeroVironment Sample Reference Number	Canister/Bag Number	Final Pressure Lab	Final Pressure Field	Analysis Required	Sample Collection (Month/Day/Time)	Sample Expiration (Month/Day/Time)
	CO-15-01-03	66		FULL	TOC	6/90/1015	6/5/90/1015

Comments: _____

Relinquished by: _____ Received by: _____ Date / Time: _____

Relinquished by: _____ Received by: _____ Date / Time: _____

Method of Shipment: FED-EX

Laboratory Sample Custodian: _____ Date: _____

Time: _____

Comments: _____

[1] F = 1/2 full to full, O = overfull (bulging), L = 1/4 to 1/2 full, ≤ 1/4 full but some sample, N = no sample

Sheet 1 of 2

Chain of Custody Record

L 495

AeroVironment Inc.
825 Myrtle Avenue
Monrovia, CA 91016
(818) 357-9983

Environmental Analytical Services
170 / C Granada
San Luis Obispo, CA 93401
(805) 541-3666

Project Name: EL TORO AIR SWAT Date: 6-5-90

Sampling Location: COMMUNICATIONS Time: 1100

Sampling Team: DV/NC

Lab Identification Number	AeroVironment Sample Reference Number	Canister/~~Bag~~ Number	Final Pressure Lab	Final Pressure Field	Analysis Required	Sample Collection (Month/Day/Time)	Sample Expiration (Month/Day/Time)
	CO-LG-03-02	AV076		7½ PSI	AI-GAS, PG	6-4-90 / 1630	6-9-90 / 1630
	CO-LG-04-02	AV061		7½ PSI	AI-GAS, PG	6-5-90 / 0830	6-10-90 / 0830
	CO-LG-05-02	AV069		7½ PSI	AI-GAS, PG	6-5-90 / 1030	6-10-90 / 1030

Comments: CLEAN ONLY: F062
E042
AV077

Relinquished by: D. L. Jones Received by: _____ Date / Time: _____

Relinquished by: _____ Received by: _____ Date / Time: _____

Method of Shipment: FED-EX

Laboratory Sample Custodian: _____ Date: _____

Time: _____

Comments: _____

[1] F = 1/2 full to full, O = overfull (bulging), L = 1/4 to 1/2 full, E = ≪ 1/4 full but some sample, N = no sample

Sheet ____ of ____

Chain of Custody Record

412

AeroVironment Inc.
825 Myrtle Avenue
Monrovia, CA 91016
(818) 357-9983

Environmental Analytical Services
170 / C Granada
San Luis Obispo, CA 93401
(805) 541-3666

Project Name: LA TOPO - AIR SWAT Date: 6 5 90

Sampling Location: COMM / DRIVE Time: 1300

Sampling Team: DV/NC

Lab Identification Number	AeroVironment Sample Reference Number	Canister/~~Bag~~ Number	Final Pressure Lab	Final Condition[1] Field	Analysis Required	Sample Collection (Month/Day/Time)	Sample Expiration (Month/Day/Time)
	OR-M6-01-02	AV096		7½ PSI	TOC	6-5-90 / 1215	6-10-90 / 1215
	CO-16-00-02	AV076		7½ PSI	AI-GAS	6-5-90 / 1245	6-10-90 / 1245

Comments: CLEAN ONLY: AV103
AV089

Relinquished by: D. Z. Date / Time:

Received by: Date / Time:

Relinquished by: Received by: Date / Time:

Method of Shipment: FED-EX

Laboratory Sample Custodian: Date:

Time:

Comments:

[1] F = 1/2 full to full, O = overfull (bulging), L = 1/4 to 1/2, E = < 1/4 full but some sample, N = no sample

Sheet ____ of ____

Chain of Custody Record

N 448

AeroVironment Inc.
825 Myrtle Avenue
Monrovia, CA 91016
(818) 357-9983

Environmental Analytical Services
170 / C Granada
San Luis Obispo, CA 93401
(805) 541-3666

Project Name: El Toro Air SWATs Date: 6/22/90

Sampling Location: Communication & Magazine Road Time: 1500

Sampling Team: AGC & NC

Lab Identification Number	AeroVironment Sample Reference Number	Canister/Bag Number	Final Pressure Final Condition[1] Lab	Field	Analysis Required	Sample Collection (Month/Day/Time)	Sample Expiration (Month/Day/Time)
	CO-LG-R1-02	AV103		7.5	Algas, PG	6/22 1100	6/27 1100
	CO-LG-R2-02	AV086		7.5	Algas, PG	6/22 1140	6/27 1140
	MR-LG-R1-02	AV127		7.5	Algas, PG	6/22 1945	6/27 1945
	MR-LG-R2-02	AV024		7.5	Algas, PG	6/22 0700	6/27 0700

Comments: _____

Relinquished by: _____ Received by: _____ Date / Time: _____

Relinquished by: _____ Received by: _____ Date / Time: _____

Method of Shipment: _____

Laboratory Sample Custodian: _____ Date: _____

Time: _____

Comments: _____

[1] F = 1/2 full to full, O = overfull (bulging), L = 1/4 to 1/2 full, E = ≪ 1/4 full but some sample, N = no sample

Appendix E

SCREENING QUESTIONNAIRE

Other 4 Sites

UNITED STATES MARINE CORPS
MARINE CORPS AIR STATION
EL TORO (SANTA ANA) CALIFORNIA 92709

IN REPLY REFER TO
6280
1JG.30E3
13 NOV 1986

South Coast Air Quality Management District
9150 Flair Drive
El Monte, CA 91731

Dear Sir:

As requested by your letters of 16 October 1986, we are submitting the questionnaires for the inactive solid waste disposal sites located at the Marine Corps Air Station El Toro and the Marine Corps Air Station Tustin.

Sincerely,

S. R. HOLM, JR., CAPT, CEC, USN
Director, Facilities Mgmt. Dept.
By direction of Commanding General

Encl:
(1) Questionnaire for Inactive Landfills at MCAS El Toro
(2) Questionnaire for Inactive Landfills at MCAS Tustin

STATE OF CALIFORNIA

AIR RESOURCES BOARD

SCREENING QUESTIONNAIRE FOR INACTIVE SOLID WASTE DISPOSAL SITES
Health and Safety Code Section 41805.5

SITE OWNERSHIP

Site name MARINE CORPS AIR STATION EL TORO

Site location ORANGE COUNTY

Site address MARINE CORPS AIR STATION, EL TORO
SANTA ANA, CA 92709

Nearest Cross Streets TRABUCO AND SAND CANYON

Current site owner FEDERAL GOVERNMENT

Street address N/A

Mailing address MCAS EL TORO
FACILITIES MANAGEMENT DEPT, CODE 1JG
SANTA ANA, CA 92709

Contact Person BEVERLY VAN CLEEF Telephone Number (714) 651-2821

Previous site owners N/A

Provide the name and mailing address of all the previous site owners with the most recent owner first. (Attach additional pages if necessary.)

Owner N/A	Owner
Mailing Address	Mailing Address
Dates	Dates
Owner	Owner
Mailing Address	Mailing Address
Dates	Dates

Company performing site maintenance

Mailing address N/A

Contact person Telephone number

SITE HISTORY See Attachment A

Date site started receiving waste: Date Site stopped receiving waste:

Percent of site filled by:

January 1, 1960 January 1, 1970

January 1, 1980 January 1, 1984

Was the waste received by this site ever burned on a routine basis? YES NO

If yes, provide the following:

Date site started burning on a routine basis:

Date site stopped burning on a routine basis:

Has landfill gas migration ever been detected off site? YES NO

If yes, describe the event(s) in detail including date(s). (Attach additional pages if necessary.)

Have landfill gas odors ever been detected off site? YES (NO)

If yes, describe the event(s) in detail including date(s). (Attach additional sheets if necessary.)

Has any landfill gas, ambient air, or gas migration testing ever been conducted at the site? YES (NO)

If yes, summarize the testing and the results including date(s). (Attach additional sheets if necessary.)

Has this site ever been subject to any enforcement action by any Federal, state, or local agency as a result of underground gas migration or gaseous emissions to the atmosphere?

YES (NO)

If yes, summarize the enforcement action(s) and reason(s) including date(s). (Attach additional sheets if necessary.)

SITE DESCRIPTION See Attachment B

Type of fill (Circle appropriate line)

Canyon — Pit

Area (Trench) — Other-Describe

Provide estimate for:

Total Site Acreage — Waste Disposal Area Acreage

Volume of Waste (cubic yards) — Quantity of Waste (tons)

Minimum Depth of Waste (feet) — Maximum Depth of Waste (feet)

Average Depth of Waste (feet)

Average Thickness Of Existing Top Cover (feet)

Does This Site Have A Liner? YES NO

If Yes, Describe:

Type of Cover Material

Provide a map to scale showing the boundaries of the total site and the waste disposal area.

See Attachment C

Identify all existing land uses on this site. (Circle appropriate item(s)).

Single family residential — Hotel

Multi family residential — Park

Commercial — Undeveloped — Communication Station Landfill Perimeter Road landfill and Magazine Road landfill

Industrial — Other (specify) — Flight Simulator Bldg located on "original landfill site."

Hospital

School

For any undeveloped areas of this site, what land uses are currently proposed? (Circle appropriate item(s).)

Single family residential	Hotel
Multi family residential	Park
Commercial	
Industrial	Other (specify)
Hospital	NONE
School	

WASTE DESCRIPTION

Estimate of Solid Waste Received (Total of entries for residential, commercial, industrial, demolition, and other should add up to 100%.)

33 % Residential 33% % Commercial

34 % Industrial 33% 33 % Demolition

% Other

Describe material under "other" and give its percentage.

Material	Percentage

Were liquids ever accepted at this site? (YES) NO

If yes, describe all liquids received, their corresponding volumes and the disposal methods employed such as injection, evaporation ponds, containers, codisposal, etc. (Attach additional sheets if necessary.)

Liquid	Gallons	Disposal method
SOLVENTS	UNKNOWN	UNKNOWN
PAINTS	"	"
OILY WASTES	"	"
KITCHEN WASTE	"	"

Were hazardous wastes in greater than household amounts ever accepted at this site?

YES NO

If yes, describe all hazardous wastes received and the corresponding volumes. (Attach additional sheets if necessary.)

Hazardous Waste	Volume

Waste types and quantities are unknown.

SURROUNDING LAND USE See Attachment D

Give the distance in miles (to the nearest 0.01 mile) to the nearest:

Occupied building	Describe the Building and Use
Residential Area	School
Hospital	Park
Shopping Center	Business
Public Thoroughfare	

Provide an aerial photograph or topographic map showing the surrounding area within two miles of the solid waste disposal site's perimeter. The photograph or map must identify all land uses in the area and highlight areas of high population such as housing, schools, restaurants, and shopping centers. For areas that are currently undeveloped, the proposed land uses must be shown.

See Attachment E

What is the population within two (2) miles of the perimeter of the site? Indicate the source of the information and the date of the data. (Possible sources include the county planning agency and the 1980 Federal Decennial Census)

Population Unknown Source -Date

ADDITIONAL INFORMATION

Attach a copy of any waste discharge permits under which the site operated.

Please provide any comments or additional information which you feel will assist in evaluating your site.

PERSON COMPLETING THIS FORM

Signature Beverly Van Cleef 11/12/86

Printed Name Beverly Van Cleef Title Environmental Engineer

Company Name MCAS EL TORO Date 11/10/86

Address FACILITIES MANAGEMENT DEPT, CODE 1JG Phone (714) 651-2821

City, State, ZIP SANTA ANA, CA. 92709

OPTIONAL QUESTIONS

LANDFILL GAS COLLECTION SYSTEM

Is a landfill gas collection system installed? YES (NO)

If yes, provide the following information:

Date system installation completed Date system started operating

Is the system currently operating? YES NO

If no, explain why.

Percent of time system is on line

Name of company operating the system

Mailing address

Contact Person

Title Telephone number

APCD or AQMD application and permit numbers:

Application number

Permit number

System Design (Circle applicable items)
Vertical wells Horizontal Collection Trenches

Perimeter migration control system Interior migration control system

Gas recovery system, interior collection only

Gas collection system capacity in CFM

Disposition of collected landfill gas (Circle applicable items.)
Vented to Atmosphere Flared
Sold as Fuel Used as Fuel on Site

ATTACHMENT A

SITE HISTORY

1. MAGAZINE ROAD LANDFILL Site 2

DATE SITE STARTED RECEIVING WASTE LATE 1940'S

DATE SITES STOPPED RECEIVING WASTE 1960

PERCENT OF SITE FILLED BY:
JANUARY 1, 1960: 0 JANUARY 1, 1970: UNKNOWN
JANUARY 1, 1920: 100% JANUARY 1, 1924: --

WAS THE WASTE RECEIVED BY THIS SITE EVER BURNED ON A ROUTINE BASIS? NO

IF YES, PROVIDE THE FOLLOWING. N/A

DATE SITE STARTED BURNING ON A ROUTINE BASIS: N/A

DATE SITE STOPPED BURNING ON A ROUTINE BASIS. N/A

HAS LANDFILL GAS MIGRATION EVER BEEN DETECTED OFF SITE? NO.

2. ORIGINAL LANDFILL
DATE SITE STARTED RECEIVING WASTE. 1943 Site 3

DATE SITES STOPPED RECEIVING WASTE: 1955

PERCENT OF SITE FILLED BY:
JANUARY 1, 1960. 100% JANUARY 1, 1970 --
JANUARY 1, 1930: -- JANUARY 1, 1954: --

WAS THE WASTE RECEIVED BY THIS SITE EVER BURNED ON A ROUTINE BASIS? YES

IF YES, PROVIDE THE FOLLOWING:

DATE SITE STARTED BURNING ON A ROUTINE BASIS: 1943

DATE SITE STOPPED BURNING ON A ROUTINE BASIS: 1955

HAS LANDFILL GAS MIGRATION EVER BEEN DETECTED OFF SITE? NO

3. PERIMETER ROAD LANDFILL
DATE SITE STARTED RECEIVING WASTE: 1955 Site 5

DATE SITES STOPPED RECEIVING WASTE: LATE 1960'S

PERCENT OF SITE FILLED BY:
JANUARY 1, 1960: 100% JANUARY 1, 1970: --
JANUARY 1, 1920: -- JANUARY 1, 1924: --

WAS THE WASTE RECEIVED BY THIS SITE EVER BURNED ON A ROUTINE BASIS? YES

IF YES, PROVIDE THE FOLLOWING

DATE SITE STARTED BURNING ON A ROUTINE BASIS: 1955

DATE SITE STOPPED BURNING ON A ROUTINE BASIS: LATE 1960'S

HAS LANDFILL GAS MIGRATION EVER BEEN DETECTED OFF SITE? NO

4. COMMUNICATION STATION LANDFILL
DATE SITE STARTED RECEIVING WASTE: 1951 Site 17

DATE SITES STOPPED RECEIVING WASTE: 1983

PERCENT OF SITE FILLED BY:

JANUARY 1, 1960: 0	JANUARY 1, 1970: 0
JANUARY 1, 1980: 0	JANUARY 1, 1984: 100%

WAS THE WASTE RECEIVED BY THIS SITE EVER BURNED ON A ROUTINE BASIS? NO

IF YES, PROVIDE THE FOLLOWING N/A

DATE SITE STARTED BURNING ON A ROUTINE BASIS: N/A

DATE SITE STOPPED BURNING ON A ROUTINE BASIS: N/A

HAS LANDFILL GAS MIGRATION EVER BEEN DETECTED OFF SITE? NO

ATTACHMENT 3

1. MAGAZINE ROAD LANDFILL 5.4 2
TYPE OF FILL: PIT

TOTAL ACREAGE OF BASE: 5000

WASTE DISPOSAL AREA ACREAGE: 22

VOLUME OF WASTE: UNKNOWN

QUANTITY OF WASTE: UNKNOWN

MINIMUM DEPTH OF WASTE UNKNOWN

MAXIMUM DEPTH OF WASTE: UNKNOWN

AVERAGE DEPTH OF WASTE: UNKNOWN

AVERAGE THICKNESS OF EXISTING TOP COVER: UNKNOWN

DOES THIS SITE HAVE A LINER? NO.

IF YES, DESCRIBE: --

TYPE OF COVER MATERIAL: DIRT

2. ORIGINAL LANDFILL 5.4 3

TYPE OF FILL: TRENCHES AND PITS

TOTAL ACREAGE OF BASE: 5,000

WASTE DISPOSAL AREA ACREAGE: 70

VOLUME OF WASTE: ESTIMATED BETWEEN 163,000 AND 243,000 CUBIC YARDS.

QUANTITIY OF WASTE: UNKNOWN

MINIMUM DEPTH OF WASTE: UNKNOWN

MAXIMUM DEPTH OF WASTE: UNKNOWN

AVERAGE DEPTH OF WASTE: UNKNOWN

AVERAGE THICKNESS OF EXISTING TOP COVER: UNKNOWN

DOES THIS SITE HAVE A LINER: NO

IF YES, DESCRIBE: --

TYPE OF COVER MATERIAL: DIRT

3 PERIMETER ROAD LANDFILL Site 5

TYPE OF FILL: TRENCH

TOTAL ACREAGE OF BASE: 5,000

WASTE DISPOSAL AREA ACREAGE: UNKNOWN. ESTIMATED TO BE 1200'X 60'

VOLUME OF WASTE: ESTIMATED BETWEEN 50,000 TO 60,000 CUBIC YARDS

QUANTITIY OF WASTE: UNKNOWN

MINIMUM DEPTH OF WASTE: UNKNOWN

MAXIMUM DEPTH OF WASTE: ESTIMATED TO BE 35 FT.

AVERAGE DEPTH OF WASTE: UNKNOWN

AVERAGE THICKNESS OF EXISTING TOP COVER: UNKNOWN

DOES THIS SITE HAVE A LINER? NO

IF YES, DESCRIBE: --

TYPE OF COVER MATERIAL: DIRT

4 COMMUNICATION STATION LANDFILL Site 12

TYPE OF FILL: WASTES WERE DISPOSED OF ABOVEGROUND BUT WERE LATER COVERED BY SOIL CUT FROM A NEARBY HILL THAT WAS BEING LEVELED TO MEET CLEARANCE CRITERIA FOR THE RUNWAY.

TOTAL ACREAGE OF BASE: 5,000

WASTE DISPOSAL AREA ACREAGE: 26

VOLUME OF WASTE: UNKNOWN

QUANTITIY OF WASTE: UNKNOWN

MINIMUM DEPTH OF WASTE: UNKNOWN

MAXIMUM DEPTH OF WASTE: UNKNOWN

AVERAGE DEPTH OF WASTE: UNKNOWN

AVERAGE THICKNESS OF EXISTING TOP COVER: UNKNOWN

DOES THIS SITE HAVE A LINER: NO

IF YES, DESCRIBE: --

TYPE OF COVER MATERIAL: DIRT

ATTACHMENT D

1. MAGAZINE ROAD LANDFILL Site 2

GIVE THE DISTANCE IN MILES TO THE NEAREST

OCCUPIED BUILDING 0.33
DESCRIBE THE BUILDING AND USE MAGAZINE EQUIPMENT SHED USED BY ORDNANCE PERSONNEL
RESIDENTIAL AREA: 0.71
HOSPITAL: 2.71
SHOPPING CENTER: 2.70
PUBLIC THOROUGHFARE 0.84
SCHOOL: 1.42
PARK: 2.57
BUSINESS 1.42

2. ORIGINAL LANDFILL Site 3

GIVE THE DISTANCE IN MILES TO THE NEAREST:

OCCUPIED BUILDING: 0
DESCRIBE THE BUILDING AND USE: FLIGHT SIMULATOR BUILDING
RESIDENTIAL AREA: 0.14
HOSPITAL: 1.56
SHOPPING CENTER: 1.50
PUBLIC THOROUGHFARE: 0.07
SCHOOL: 0.35
PARK: 1.77
BUSINESS: 0.64

3. PERIMETER ROAD LANDFILL Site 5

GIVE THE DISTANCE IN MILES TO THE NEAREST:

OCCUPIED BUILDING: 2.13
DESCRIBE THE BUILDING AND USE: FEDERAL AVIATION ADMINISTRATION, RADAR BUILDING.
RESIDENTIAL AREA: 0.95
HOSPITAL: 2.21
SHOPPING CENTER: 2.29
PUBLIC THOROUGHFARE: 0.01
SCHOOL: 1.21
PARK: 2.73
BUSINESS: 1.42

4. COMMUNICATION STATION LANDFILL Site 17

GIVE THE DISTANCE IN MILES TO THE NEAREST:

OCCUPIED BUILDING: 0.14
DESCRIBE THE BUILDING AND USE: REMOTE RECEIVER BUILDING
RESIDENTIAL AREA: 0.39
HOSPITAL: 2.35
SHOPPING CENTER: 2.34
PUBLIC THOROUGHFARE: 0.56
SCHOOL: 1.14
PARK: 2.29
BUSINESS: 1.07

MWR
5A.4

6280
1JG

30 NOV 1987

South Coast Air Quality Management District
9150 Flair Drive
El Monte, CA 91731

Dear Sirs:

Section 41805(B) of the Health and Safety Code provides for solid waste air quality testing at inactive landfills by January 2, 1988. Although federal facilities may not be subject to this requirement, we intend, in keeping with our continued concern for environmental protection, and in the interest of cooperation with the District, to conduct such testing at the Marine Corps Air Stations at El Toro and Tustin. However, it is necessary that we request a six month extension to complete the testing.

The air quality assessment testing has already been incorporated into our Installation Restoration Program (IRP) for both bases. However, the consulting firm performing the investigation for the IRP, James M. Montgomery Consulting Engineers, Inc., cannot begin testing until its contract has been modified and funds are appropriated for the additional work. Such contract modifications and appropriations take from two to three months to accomplish, and performance will take at least ninety days. Accordingly, the six month extension of time is needed.

Our contractor will submit a proposed plan of action to SCAQMD as soon as possible, probably in the early part of January. The testing should be complete by mid-year.

Please advise if there is any difficulty with this performance schedule. If you have any questions, please contact Ensign Michael Reber, Environmental Director, at (714) 651-2821.

Sincerely,

S. R. HOLM, JR., CAPT, CEC, USN
Director, Facilities Mgmt. Dept.
By direction of Commanding General

Blind copy to:
STA OFL STA DAY [redacted] FM FILE FM LOG 1AQ

Commanding Officer
(Code 114B)
Western Division

South Coast
AIR QUALITY MANAGEMENT DISTRICT
9150 FLAIR DRIVE, EL MONTE, CA 91731 (818) 572-6200

January 11, 1988

Ensign Michael Rehor
Environmental Director
Marine Corps Air Station El Toro
Facilities Management Department, Code 1JG
Santa Ana, CA 92709-5001

Dear Ensign Rehor:

Thank you for your letter dated November 30, 1987, describing the status of the Solid Waste Air Quality Assessment Test (SWAQAT) Report for the Marine Corps Air Station disposal sites at El Toro and Tustin, California. In this letter you also requested a 6 month extension to the report deadline required by Section 41805.5 of the California Health & Safety Code.

As you know, Section 41805.5 of the State Health and Safety Code requires that all solid waste assessment test reports for inactive disposal sites must be submitted to the district on or before January 1, 1988. The District has the responsibility of enforcing Section 41805.5 and intends to issue a Notice of Violation to any inactive site which fails to submit their SWAQAT Report by the required date. Once issued, the Notice of Violation may be processed either criminally or civilly depending on the specific case. For most cases, the District plans to impose compliance schedules through the resolution of the Notices of Violation by the Mutual Letter Settlement program.

We have discussed with our Legal Division the possibility of a site requesting a variance from the District Hearing Board to obtain additional time to submit their SWAQAT Report. They advised us that the Hearing Board does not have the authority to grant variances for Section 41805.5 of the State Health and Safety Code.

1JG
1JG 10
1JG 20
1JG 30
1JG 40

The testing guidelines issued by the California Air Resources Board indicates a district may place a disposal site on a compliance schedule which includes a date by which a report must be filed. However, the District feels the imposition of a compliance schedule must be accomplished through an enforcement action and therefore has established the above described process.

1JG S

As a result, your request for a 6 month extension cannot be approved.

If you have any questions, please call Mrs. Stacey Ebiner, Senior Air Quality Engineer, at (818) 572-6318 or Mr. Hugh Heney, Supervising Air Quality Inspector, at (818) 572-6195.

Very truly yours,

William J. Dennison
Director of Engineering

Mohsen Nazemi
Supv. A. Q. Engineer

SMKE

UNITED STATES MARINE CORPS
MARINE CORPS AIR STATION
EL TORO (SANTA ANA), CALIFORNIA 92709-5001

IN REPLY REFER TO
6280
1JG
29 MAR 1988

RECEIVED
MAR 30 1988
AERO VIRONMENT

South Coast Air Quality Management District
9150 Flair Drive
El Monte, CA 91731

Dear Sirs:

The Marine Corps Air Stations at El Toro and Tustin are currently working on the solid waste air quality assessment testing at inactive landfills as provided by Section 41805(B) of the California Health and Safety Code. In keeping with our continued cooperation with the District, we wish to provide an update on the status of the testing.

The air quality assessment testing has been incorporated into our Installation Restoration Program (IRP) for both stations. James M. Montgomery, Consulting Engineers, Inc., the firm performing the IRP investigation, has contracted AeroVironment, Inc. to develop the proposals and perform testing on the landfills.

A meeting was held on March 22, 1988 between representatives from the Marine Corps, James M. Montgomery, AeroVironment and Mrs. Stacey Ebiner, Senior Air Quality Engineer on your staff. At this meeting, various technical questions on the testing were answered by Ms. Ebiner. With this information, AeroVironment has begun developing the proposals for the assessment testing.

The proposed plan of action should be submitted in the early part of May. After the proposals are reviewed and approved, we will initiate the appropriate actions in order to accomplish the testing.

If you have any questions, please contact Ensign Michael Rehor, Environmental Director, at (714) 651-2821.

J. R. APPLEGATE, LCDR, CEC, USNR
Deputy Director, Facilities Mgmt. Dept.
By direction of Commanding General

Copy to:
James M. Montgomery, Consulting Engineers, Inc.
AeroVironment, Inc.

STRATA *Technologies Inc.*

"Strategic Assessment and Toxics Abatement"

8 April 1988
Please Reference: 50050

Ms. Stacey M. K. Ebiner
Senior Air Quality Engineer
South Coast
Air Quality Management District
9150 E. Flair Drive
El Monte, CA 91731

Dear Ms. Ebiner:

It was a pleasure meeting you at our meeting concerning the Air SWAT proposals for the El Toro Marine Corps Air Station. I have summarized the items we discussed and the key points that Strata Technologies is using to prepare the Air SWAT proposals.

- o The disposal history and location of the five abandoned landfills has been researched as part of the MCAS environmental investigation programs. Based on the suspected porportion of municipal waste to other wastes, the proposals will be prepared using the guidelines for active, non-hazardous sites.

- o One site may be classified as a Category II landfill. The other four will be classified as Category I sites.

The proposals are being prepared according to the guidelines and as we discussed. If you have any questions please feel free to contact me at (818) 357-9023.

Sincerely,

Stacy Loydahl

Stacy Loydahl
Associate Project Manager

cc. Ken Reich - James M. Montgomery

An AeroVironment Company
825 Myrtle Avenue • Monrovia, California 91016 • Telephone 818/357-9023 • Telex 467 121, AEROVIR-CI

UNITED STATES MARINE CORPS
MARINE CORPS AIR STATION
EL TORO (SANTA ANA), CALIFORNIA 92709-5001

IN REPLY REFER TO:
6280
1JG.

16 MAY 1988

South Coast Air Quality Management District
Engineering Division
9150 Flair Drive
El Monte, CA 91731

Attn: Stacy Ebiner

Dear Ms. Ebiner:

As required by Section 41805(B) of the California Health and Safety Code, the Solid Waste Air Quality Assessment Test (SWAQAT) Plans for the four inactive landfills at Marine Corps Air Station (MCAS) El Toro are submitted for your review.

We plan to proceed diligently with the actual testing, once the SWAQAT Plans are approved. Therefore, we would appreciate if you could review our plans in a timely manner.

Please note that the SWAQAT Plan for the inactive landfill at MCAS Tustin will be submitted within the next two weeks. If you have any questions, please contact Ensign Michael Rehor, Environmental Director, at (714) 651-2821.

Sincerely,

S. R. HOLM, JR., CAPT, CEC, USN
Director, Facilities Mgmt. Dept.
By direction of Commanding General

Encl:
1. SWAQAT Plan for the Perimeter Road Disposal Site (3 copies)
2. SWAQAT Plan for the Communications Station Landfill (3 copies)
3. SWAQAT Plan for the Original Landfill (3 copies)
4. SWAQAT Plan for the Magazine Road Landfill (3 copies)

Copy to:
James M. Montgomery Consulting Engineers, Inc. (w/o encl.)
AeroVironment, Inc. (w/o encl.)

RECEIVED
MAY 16 1988
STRATA

STRATA *Technologies Inc.*

"Strategic Assessment and Toxics Abatement"

20 July 1988
Please reference: 50050

Mr. Bijan Ataian
SCAQMD
9150 E. Flair Drive
El Monte, CA 91731

Dear Mr. Ataian:

The purpose of this letter is to revise a statement in five Air SWAT Work Plans recently submitted to SCAQMD. The Work Plans are:

U.S. Marine Corps Air Station - El Toro
Communications Station Landfill
Perimeter Road Disposal Site
Magazine Road Landfill
Original Landfill

U.S. Marine Corps Air Station - Tustin
Moffett Trenches

We will collect ambient air drainage samples (less than 24-hour samples) at the above five sites for at least 4 hours. I hope this clarifies our submittals and resolves any questions you may have. Please contact me if you require further information.

Sincerely,

Stacy D. Lovdahl
Project Manager

cc. Kenneth D. Reich - James Montgomery
Michael Rehor - USMCAS

An AeroVironment Company
825 Myrtle Avenue • Monrovia, California 91016 • Telephone 818/357-9023 • Telex 467 121, AEROVIR-CI

STRATA *Technologies Inc.*

Strategic Assessment and Toxics Abatement

9 August 1988
Please reference: 50050

Mr. Bijan Ataian
SCAQMD
9150 E. Flair Drive
El Monte, CA 91731

Dear Mr. Ataian:

The following information is provided in response to our telephone conversation yesterday. The Air SWAT Work Plans recently submitted to SCAQMD for the U.S. Marine Corps Air Station - El Toro Communications Station Landfill and the Magazine Road Landfill are revised to include the following information. This information is in addition to section 4 in both Plans.

Two sets of air samples will be collected each day, one set for 24 hours and one set during nightime drainage conditions. During drainage conditions the samplers will be turned on after drainage conditions start (as early as 10:00 pm) and turned off four hours later before they end (by 5:00 to 7:00 am).

I hope this clarifies our submittals and resolves any questions you may have. Please contact me if you require further information.

Sincerely,

Stacy D. Lovdahl

Stacy D. Lovdahl
Project Manager

cc. Kenneth D. Reich - James Montgomery
Michael Rehor - USMCAS

An AeroVironment Company
825 Myrtle Avenue • Monrovia, California 91016 • Telephone 818/357-9023 • Telex 467 121. AEROVIR-CI

STRATA *Technologies Inc.*

"Strategic Assessment and Toxics Abatement"

7 September 1988
Please reference: 50050

Mr. Bijan Ataian
SCAQMD
9150 E. Flair Drive
El Monte, CA 91731

Dear Mr. Ataian:

The following information is provided in response to our telephone conversation today. The Air SWAT Work Plans recently submitted to SCAQMD for the U.S. Marine Corps Air Station - El Toro Perimeter Road Landfill is revised to include the following information. This information is in addition to section 4.

Two sets of air samples will be collected each day, one set for 24 hours and one set during nightime drainage conditions. During drainage conditions the samplers will be turned on after drainage conditions start (as early as 10:00 pm) and turned off four hours later before they end (by 5:00 to 7:00 am).

I hope this clarifies our submittal and resolves any questions you may have. I understand from our conversation that the Air SWAT Work Plans for Communications Station, Original Road and Magazine Road landfills at MCAS El Toro Station and the Moffett Trenches landfill at the Tustin Station are approved and that the Perimeter Road Plan will be approved on receipt of this submittal. Please contact me if you require further information.

Sincerely,

Stacy D Lovdahl

Stacy D Lovdahl
Project Manager

cc. **Kenneth D. Reich - James Montgomery**
Michael Rehor - USMCAS

An AeroVironment Company
825 Myrtle Avenue • Monrovia, California 91016 • Telephone 818/357-9023 • Telex 467 121, AEROVIR-CI