

**Former ASARCO-Encycle Demolition
Particulate Monitoring Summary
Week Ending 11-12-11**

Date: 11/7/2011 Technician: Carl Jones

Prevailing Wind

Direction	Time	Unit 2-Upwind Reading	Unit 1-Downwind Reading	Action Level	Stop Work
SSE	6:00 AM	30 min Avg 0	30 min Avg 0	0.035	0.045
SSE	6:30 AM	30 min Avg 0.086	30 min Avg 0.085	0.121	0.131
SSE	7:00 AM	30 min Avg 0.014	30 min Avg 0.006	0.049	0.059
SSE	7:30 AM	30 min Avg 0.015	30 min Avg 0.015	0.050	0.060
SSE	8:00 AM	30 min Avg 0.006	30 min Avg 0.007	0.041	0.051
SSE	8:30 AM	30 min Avg 0	30 min Avg 0.002	0.035	0.045
SSE	9:00 AM	30 min Avg 0	30 min Avg 0.011	0.035	0.045
SSE	9:30 AM	30 min Avg 0.006	30 min Avg 0.009	0.041	0.051
SSE	10:00 AM	30 min Avg 0.001	30 min Avg 0.002	0.036	0.046
SSE	10:30 AM	30 min Avg 0.009	30 min Avg 0.003	0.044	0.054
SSE	11:00 AM	30 min Avg 0	30 min Avg 0	0.035	0.045
SSE	11:30 AM	30 min Avg 0.003	30 min Avg 0.004	0.038	0.048
SSE	12:00 PM	30 min Avg 0.006	30 min Avg 0.016	0.041	0.051
SSE	12:30 PM	30 min Avg 0.004	30 min Avg 0	0.039	0.049
SSE	1:00 PM	30 min Avg 0.002	30 min Avg 0.007	0.037	0.047
SSE	1:30 PM	30 min Avg 0.005	30 min Avg 0.002	0.040	0.050
SSE	2:00 PM	30 min Avg 0.01	30 min Avg 0.019	0.045	0.055
SSE	2:30 PM	30 min Avg 0.015	30 min Avg 0.004	0.050	0.060
SSE	3:00 PM	30 min Avg 0.003	30 min Avg 0.008	0.038	0.048
SSE	3:30 PM	30 min Avg 0.006	30 min Avg 0.014	0.041	0.051
SSE	4:00 PM	30 min Avg 0.013	30 min Avg 0.005	0.048	0.058
SSE	4:30 PM	30 min Avg 0.005	30 min Avg 0.008	0.040	0.050
SSE	5:00 PM	30 min Avg 0.022	30 min Avg 0.014	0.057	0.067
SSE	5:30 PM	30 min Avg 0.009	30 min Avg 0.007	0.044	0.054

E-BAM locations (Upwind) S-east of building 47 (Downwind) NW- west of building 14

Action Levels for wind without a northerly component

Action level = upwind concentration + 0.035 mg/m³

Stop Work Level = upwind concentration + 0.045 mg/m³

Note time/duration of work stoppage: The E-BAM units were still on daylight savings time so the 6:00 reading actually showed 7:00 on the units.

Action Levels for wind with a northerly component (Implement Oct. 28 thru Nov. 11)

Action level = upwind concentration + 0.009 mg/m³

Stop Work Level = upwind concentration + 0.011 mg/m³

**Former ASARCO-Encycle Demolition
Particulate Monitoring Summary
Week Ending 11-12-11**

Date: 11/8/2011 Technician: Carl Jones

Prevailing Wind Direction	Time	Unit 2-Upwind Reading	Unit 1-Downwind Reading	Action Level	Stop Work		
SSE	6:00 AM	30 min Avg	0	30 min Avg	0	0.035	0.045
SSE	6:30 AM	30 min Avg	0	30 min Avg	0.025	0.035	0.045
SSE	7:00 AM	30 min Avg	0.038	30 min Avg	0.041	0.073	0.083
SSE	7:30 AM	30 min Avg	0.059	30 min Avg	0.029	0.068	0.070
SSE	8:00 AM	30 min Avg	0.03	30 min Avg	0.036	0.039	0.041
SSE	8:30 AM	30 min Avg	0.013	30 min Avg	0.007	0.022	0.024
S	9:00 AM	30 min Avg	0	30 min Avg	0.001	0.035	0.045
S	9:30 AM	30 min Avg	0	30 min Avg	0.002	0.035	0.045
S	10:00 AM	30 min Avg	0	30 min Avg	0	0.035	0.045
S	10:30 AM	30 min Avg	0	30 min Avg	0	0.035	0.045
S	11:00 AM	30 min Avg	0.015	30 min Avg	0.016	0.050	0.060
S	11:30 AM	30 min Avg	0	30 min Avg	0.006	0.035	0.045
S	12:00 PM	30 min Avg	0.007	30 min Avg	0.011	0.042	0.052
S	12:30 PM	30 min Avg	0.008	30 min Avg	0.01	0.043	0.053
S	1:00 PM	30 min Avg	0.011	30 min Avg	0.016	0.046	0.056
S	1:30 PM	30 min Avg	0.011	30 min Avg	0.006	0.046	0.056
SSE	2:00 PM	30 min Avg	0.008	30 min Avg	0.013	0.043	0.053
SSE	2:30 PM	30 min Avg	0.003	30 min Avg	0.006	0.038	0.048
SSE	3:00 PM	30 min Avg	0.012	30 min Avg	0.008	0.047	0.057
SSE	3:30 PM	30 min Avg	0.006	30 min Avg	0.013	0.041	0.051
SSE	4:00 PM	30 min Avg	0.007	30 min Avg	0.017	0.042	0.052
SSE	4:30 PM	30 min Avg	0.015	30 min Avg	0.01	0.050	0.060
SSE	5:00 PM	30 min Avg	0.011	30 min Avg	0.01	0.046	0.056
SSE	5:30 PM	30 min Avg	0.014	30 min Avg	0.008	0.049	0.059

E-BAM locations (Upwind) S- east of building 47 (Downwind) NW- west of building 14

Action Levels for wind without a northerly component

Action level = upwind concentration + 0.035 mg/m3

Stop Work Level = upwind concentration + 0.045 mg/m3

Note time/duration of work stoppage:

Action Levels for wind with a northerly component (Implement Oct. 28 thru Nov. 11)

Action level = upwind concentration + 0.009 mg/m3

Stop Work Level = upwind concentration + 0.011 mg/m3

Note time/duration of work stoppage:

Notes:

All readings in mg/m3

Blue text readings are pre-work levels that were collected during the E-Bam instrument warm-up period and are not Revised action levels in bold only when measured wind direction has northerly component.

**Former ASARCO-Encycle Demolition
Particulate Monitoring Summary
Week Ending 11-12-11**

Date: 11/9/2011 Technician: Carl Jones

Prevailing Wind

Direction	Time	Unit 2-Upwind Reading	Unit 1-Downwind Reading	Action Level	Stop Work
N	6:00 AM	30 min Avg	0.007	0.017	0.016
N	6:30 AM	30 min Avg	0.008	0.011	0.017
N	7:00 AM	30 min Avg	0	0.003	0.009
N	7:30 AM	30 min Avg	0.005	0.003	0.014
N	8:00 AM	30 min Avg	0.001	0.007	0.010
N	8:30 AM	30 min Avg	0	0.006	0.009
N	9:00 AM	30 min Avg	0.008	0.008	0.017
	9:30 AM	30 min Avg			
	10:00 AM	30 min Avg			
	10:30 AM	30 min Avg			
	11:00 AM	30 min Avg			
	11:30 AM	30 min Avg			
	12:00 PM	30 min Avg			
	12:30 PM	30 min Avg			
	1:00 PM	30 min Avg			
	1:30 PM	30 min Avg			
	2:00 PM	30 min Avg			
	2:30 PM	30 min Avg			
	3:00 PM	30 min Avg			
	3:30 PM	30 min Avg			
	4:00 PM	30 min Avg			
	4:30 PM	30 min Avg			
	5:00 PM	30 min Avg			
	5:30 PM	30 min Avg			

E-BAM locations (Upwind) NW- west of building 14 (Downwind) S- east of building 47

Action Levels for wind without a northerly component

Action level = upwind concentration + 0.035 mg/m³

Stop Work Level = upwind concentration + 0.045 mg/m³

Note time/duration of work stoppage:

Action Levels for wind with a northerly component (Implement Oct. 28 thru Nov. 11)

Action level = upwind concentration + 0.009 mg/m³

Stop Work Level = upwind concentration + 0.011 mg/m³

Note time/duration of work stoppage: Work did not begin today due to the forecast of high northerly winds. Readings were taken without anyone on site.

Notes:

All readings in mg/m³

Blue text readings are pre-work levels that were collected during the E-Bam instrument warm-up period and are not

Revised action levels in bold only when measured wind direction has northerly component.

**Former ASARCO-Encycle Demolition
Particulate Monitoring Summary
Week Ending 11-12-11**

Date: 11/10/2011 Technician: Carl Jones

Prevailing Wind

Direction	Time	Unit 2-Upwind Reading	Unit 1-Downwind Reading	Action Level	Stop Work	
NNW	6:00 AM	30 min Avg	0.036	30 min Avg	0.045	0.047
NNW	6:30 AM	30 min Avg	0.016	30 min Avg	0.025	0.027
NNW	7:00 AM	30 min Avg	0	30 min Avg	0.041	0.011
NNW	7:30 AM	30 min Avg	0.006	30 min Avg	0.009	0.015
NNW	8:00 AM	30 min Avg	0	30 min Avg	0.011	0.009
NNW	8:30 AM	30 min Avg	0	30 min Avg	0.007	0.009
N	9:00 AM	30 min Avg	0	30 min Avg	0.012	0.009
N	9:30 AM	30 min Avg	0.004	30 min Avg	0	0.013
N	10:00 AM	30 min Avg	0	30 min Avg	0.013	0.009
N	10:30 AM	30 min Avg	0	30 min Avg	0	0.009
N	11:00 AM	30 min Avg	0.005	30 min Avg	0.007	0.014
	11:30 AM	30 min Avg		30 min Avg		
	12:00 PM	30 min Avg		30 min Avg		
	12:30 PM	30 min Avg		30 min Avg		
	1:00 PM	30 min Avg		30 min Avg		
	1:30 PM	30 min Avg		30 min Avg		
	2:00 PM	30 min Avg		30 min Avg		
	2:30 PM	30 min Avg		30 min Avg		
	3:00 PM	30 min Avg		30 min Avg		
	3:30 PM	30 min Avg		30 min Avg		
	4:00 PM	30 min Avg		30 min Avg		
	4:30 PM	30 min Avg		30 min Avg		
	5:00 PM	30 min Avg		30 min Avg		
	5:30 PM	30 min Avg		30 min Avg		

E-BAM locations (Upwind) NW-west of building 14 (Downwind) S- east of building 47

Action Levels for wind without a northerly component

Action level = upwind concentration + 0.035 mg/m³

Stop Work Level = upwind concentration + 0.045 mg/m³

Note time/duration of work stoppage: The downwind generator would not start, so the unit 1 E-BAM did not start until 6:35. No work except for dust suppression started until 8:00, after the warm up period.

Action Levels for wind with a northerly component (Implement Oct. 28 thru Nov. 11)

Action level = upwind concentration + 0.009 mg/m³

Stop Work Level = upwind concentration + 0.011 mg/m³

The 9:00 reading was at a stop work level so all work except for dust suppression stopped for 30 minutes. The 9:30 reading was low enough for work to begin. The 10:00 reading was the second stop work, so all work stopped for the day. The next two readings were taken after work had stopped.

Notes:

All readings in mg/m³

Blue text readings are pre-work levels that were collected during the E-Bam instrument warm-up period and are Revised action levels in bold only when measured wind direction has northerly component.

**Former ASARCO-Encycle Demolition
Particulate Monitoring Summary
Week Ending 11-12-11**

Date: 11/11/2011 Technician: Carl Jones

Prevailing Wind

Direction	Time	Unit 2-Upwind Reading	Unit 1-Downwind Reading	Action Level	Stop Work		
SSW	6:00 AM	30 min Avg	0.016	30 min Avg	0.021	0.051	0.061
SSW	6:30 AM	30 min Avg	0.048	30 min Avg	0.031	0.083	0.093
SSW	7:00 AM	30 min Avg	0.015	30 min Avg	0.013	0.050	0.060
SSW	7:30 AM	30 min Avg	0.002	30 min Avg	0.012	0.037	0.047
SW	8:00 AM	30 min Avg	0	30 min Avg	0	0.035	0.045
SW	8:30 AM	30 min Avg	0	30 min Avg	0.001	0.035	0.045
S	9:00 AM	30 min Avg	0.006	30 min Avg	0.014	0.041	0.051
NNW	9:30 AM	30 min Avg	0.016	30 min Avg	0.024	0.025	0.027
NNW	10:00 AM	30 min Avg	0.012	30 min Avg	0.014	0.021	0.023
NNW	10:30 AM	30 min Avg	0.011	30 min Avg	0.02	0.020	0.022
ESE	11:00 AM	30 min Avg	0.008	30 min Avg	0	0.043	0.053
E	11:30 AM	30 min Avg	0.005	30 min Avg	0.003	0.040	0.050
ESE	12:00 PM	30 min Avg	0.001	30 min Avg	0.002	0.036	0.046
E	12:30 PM	30 min Avg	0	30 min Avg	0.004	0.035	0.045
ESE	1:00 PM	30 min Avg	0.016	30 min Avg	0.002	0.051	0.061
ESE	1:30 PM	30 min Avg	0.003	30 min Avg	0.002	0.038	0.048
SE	2:00 PM	30 min Avg	0.003	30 min Avg	0.004	0.038	0.048
ESE	2:30 PM	30 min Avg	0.008	30 min Avg	0.005	0.043	0.053
ESE	3:00 PM	30 min Avg	0	30 min Avg	0.007	0.035	0.045
SE	3:30 PM	30 min Avg	0.014	30 min Avg	0.002	0.049	0.059
SE	4:00 PM	30 min Avg	0	30 min Avg	0.005	0.035	0.045
SE	4:30 PM	30 min Avg	0.006	30 min Avg	0.009	0.041	0.051
SE	5:00 PM	30 min Avg	0.001	30 min Avg	0.005	0.036	0.046
SE	5:30 PM	30 min Avg	0.009	30 min Avg	0	0.044	0.054

E-BAM locations (Upwind) NE corner (Downwind) SW- south of building 3

Action Levels for wind without a northerly component

Action level = upwind concentration + 0.035 mg/m3

Stop Work Level = upwind concentration + 0.045 mg/m3

Note time/duration of work stoppage:

Action Levels for wind with a northerly component (Implement Oct. 28 thru Nov. 11)

Action level = upwind concentration + 0.009 mg/m3

Stop Work Level = upwind concentration + 0.011 mg/m3

The abatement crew working on the stack stopped work between 9:30 and 10:40 due to a shifting light wind out of the north. The 10:30 reading was at an action level, so more dust suppression was added to the work areas.

Notes:

All readings in mg/m3

Blue text readings are pre-work levels that were collected during the E-Bam instrument warm-up period and are not considered accurate.

Revised action levels in bold only when measured wind direction has northerly component.

**Former ASARCO-Encycle Demolition
Particulate Monitoring Summary
Week Ending 11-12-11**

Date: 11/12/2011 Technician: Carl Jones

Prevailing Wind

Direction	Time	Unit 2-Upwind Reading	Unit 1-Downwind Reading	Action Level	Stop Work		
SSE	6:00 AM	30 min Avg	0	30 min Avg	0	0.035	0.045
SSE	6:30 AM	30 min Avg	0.086	30 min Avg	0.083	0.121	0.131
SSE	7:00 AM	30 min Avg	0.011	30 min Avg	0	0.046	0.056
SSE	7:30 AM	30 min Avg	0.011	30 min Avg	0.011	0.046	0.056
SSE	8:00 AM	30 min Avg	0.006	30 min Avg	0.018	0.041	0.051
SSE	8:30 AM	30 min Avg	0	30 min Avg	0.006	0.035	0.045
S	9:00 AM	30 min Avg	0	30 min Avg	0.003	0.035	0.045
S	9:30 AM	30 min Avg	0	30 min Avg	0.006	0.035	0.045
S	10:00 AM	30 min Avg	0	30 min Avg	0.008	0.035	0.045
S	10:30 AM	30 min Avg	0.002	30 min Avg	0.005	0.037	0.047
S	11:00 AM	30 min Avg	0.009	30 min Avg	0.003	0.044	0.054
S	11:30 AM	30 min Avg	0.013	30 min Avg	0.021	0.048	0.058
S	12:00 PM	30 min Avg	0	30 min Avg	0	0.035	0.045
S	12:30 PM	30 min Avg	0	30 min Avg	0.017	0.035	0.045
SSE	1:00 PM	30 min Avg	0.003	30 min Avg	0	0.038	0.048
SSE	1:30 PM	30 min Avg	0.01	30 min Avg	0.01	0.045	0.055
SSE	2:00 PM	30 min Avg	0.007	30 min Avg	0.006	0.042	0.052
	2:30 PM	30 min Avg		30 min Avg			
	3:00 PM	30 min Avg		30 min Avg			
	3:30 PM	30 min Avg		30 min Avg			
	4:00 PM	30 min Avg		30 min Avg			
	4:30 PM	30 min Avg		30 min Avg			
	5:00 PM	30 min Avg		30 min Avg			
	5:30 PM	30 min Avg		30 min Avg			

E-BAM locations (Upwind) S-east of building 47 (Downwind) NW- west of building 14

Action Levels for wind without a northerly component

Action level = upwind concentration + 0.035 mg/m³

Stop Work Level = upwind concentration + 0.045 mg/m³

Note time/duration of work stoppage: All work ended at 1:40 for the weekend.

Notes:

All readings in mg/m³

Blue text readings are pre-work levels that were collected during the E-Bam instrument warm-up period and are not Revised action levels in bold only when measured wind direction has northerly component.