

APPENDIX A

DATA CONVERSION SHEETS

PM-10 Metals Results from EPA Method 12M (Hi-Vol Sampler)



Client: Parsons/Ft. Ord Prescribed Burn Job Number: 56286 080105

Date: 10/24/2003

Average Daily Temperature: 298.150 K

Average Daily Pressure: 760.000 mmHg

Name or Location	HiVol Sampler ID#	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Reading	Stop Reading	Average Rate (in H <sub>2</sub> O)	Lookup Value (Po/Pa)	Flow Rate - from Table (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116277	10/24/2003	10/24/2003	05:56	15:36	580	18.95	34.00	26.48	0.9350	1.131	655.98	Aluminum	2000	3.0
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116277	10/24/2003	10/24/2003	05:56	15:36	580	18.95	34.00	26.48	0.9350	1.131	655.98	Antimony	550	0.84
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116277	10/24/2003	10/24/2003	05:56	15:36	580	18.95	34.00	26.48	0.9350	1.131	655.98	Barium	350	0.53
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116277	10/24/2003	10/24/2003	05:56	15:36	580	18.95	34.00	26.48	0.9350	1.131	655.98	Beryllium	ND (25)	ND (0.038)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116277	10/24/2003	10/24/2003	05:56	15:36	580	18.95	34.00	26.48	0.9350	1.131	655.98	Cadmium	ND (25)	ND (0.038)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116277	10/24/2003	10/24/2003	05:56	15:36	580	18.95	34.00	26.48	0.9350	1.131	655.98	Chromium	ND (25)	ND (0.038)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116277	10/24/2003	10/24/2003	05:56	15:36	580	18.95	34.00	26.48	0.9350	1.131	655.98	Cobalt	ND (25)	ND (0.038)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116277	10/24/2003	10/24/2003	05:56	15:36	580	18.95	34.00	26.48	0.9350	1.131	655.98	Copper	130	0.20
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116277	10/24/2003	10/24/2003	05:56	15:36	580	18.95	34.00	26.48	0.9350	1.131	655.98	Lead	2100	3.2
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116277	10/24/2003	10/24/2003	05:56	15:36	580	18.95	34.00	26.48	0.9350	1.131	655.98	Manganese	1200	1.8
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116277	10/24/2003	10/24/2003	05:56	15:36	580	18.95	34.00	26.48	0.9350	1.131	655.98	Molybdenum	ND (25)	ND (0.038)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116277	10/24/2003	10/24/2003	05:56	15:36	580	18.95	34.00	26.48	0.9350	1.131	655.98	Nickel	ND (25)	ND (0.038)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116277	10/24/2003	10/24/2003	05:56	15:36	580	18.95	34.00	26.48	0.9350	1.131	655.98	Zinc	1400	2.1
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116277	10/24/2003	10/24/2003	05:56	15:36	580	18.95	34.00	26.48	0.9350	1.131	655.98	Mercury	0.5	0.00076
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116283	10/24/2003	10/24/2003	05:25	15:13	588	16.30	17.20	16.75	0.9589	1.161	682.67	Aluminum	530	0.78
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116283	10/24/2003	10/24/2003	05:25	15:13	588	16.30	17.20	16.75	0.9589	1.161	682.67	Antimony	ND (25)	ND (0.037)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116283	10/24/2003	10/24/2003	05:25	15:13	588	16.30	17.20	16.75	0.9589	1.161	682.67	Barium	ND (100)	ND (1.46)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116283	10/24/2003	10/24/2003	05:25	15:13	588	16.30	17.20	16.75	0.9589	1.161	682.67	Beryllium	ND (25)	ND (0.037)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116283	10/24/2003	10/24/2003	05:25	15:13	588	16.30	17.20	16.75	0.9589	1.161	682.67	Cadmium	ND (25)	ND (0.037)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116283	10/24/2003	10/24/2003	05:25	15:13	588	16.30	17.20	16.75	0.9589	1.161	682.67	Chromium	ND (25)	ND (0.037)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116283	10/24/2003	10/24/2003	05:25	15:13	588	16.30	17.20	16.75	0.9589	1.161	682.67	Cobalt	ND (25)	ND (0.037)

PM-10 Metals Results from EPA Method 12M (Hi-Vol Sampler)

Name or Location	HiVol Sampler ID#	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Reading	Stop Reading	Average Rate (in H <sub>2</sub> O)	Lookup Value (Po/Pa)	Flow Rate - from Table (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116283	10/24/2003	10/24/2003	05:25	15:13	588	16.30	17.20	16.75	0.9589	1.161	682.67	Copper	ND (25)	ND (0.037)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116283	10/24/2003	10/24/2003	05:25	15:13	588	16.30	17.20	16.75	0.9589	1.161	682.67	Lead	ND (25)	ND (0.037)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116283	10/24/2003	10/24/2003	05:25	15:13	588	16.30	17.20	16.75	0.9589	1.161	682.67	Manganese	ND (25)	ND (0.037)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116283	10/24/2003	10/24/2003	05:25	15:13	588	16.30	17.20	16.75	0.9589	1.161	682.67	Molybdenum	ND (25)	ND (0.037)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116283	10/24/2003	10/24/2003	05:25	15:13	588	16.30	17.20	16.75	0.9589	1.161	682.67	Nickel	ND (25)	ND (0.037)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116283	10/24/2003	10/24/2003	05:25	15:13	588	16.30	17.20	16.75	0.9589	1.161	682.67	Zinc	25	0.037
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116283	10/24/2003	10/24/2003	05:25	15:13	588	16.30	17.20	16.75	0.9589	1.161	682.67	Mercury	ND (0.5)	ND (0.0007)
BA-2	#5	PM <sub>10</sub>	BA2CQ0116284	10/24/2003	10/24/2003	05:25	15:13	588	17.30	18.50	17.90	0.9560	1.155	679.14	Aluminum	510	0.75
BA-2	#5	PM <sub>10</sub>	BA2CQ0116284	10/24/2003	10/24/2003	05:25	15:13	588	17.30	18.50	17.90	0.9560	1.155	679.14	Antimony	ND (25)	ND (0.037)
BA-2	#5	PM <sub>10</sub>	BA2CQ0116284	10/24/2003	10/24/2003	05:25	15:13	588	17.30	18.50	17.90	0.9560	1.155	679.14	Barium	ND (100)	ND (0.147)
BA-2	#5	PM <sub>10</sub>	BA2CQ0116284	10/24/2003	10/24/2003	05:25	15:13	588	17.30	18.50	17.90	0.9560	1.155	679.14	Beryllium	ND (25)	ND (0.037)
BA-2	#5	PM <sub>10</sub>	BA2CQ0116284	10/24/2003	10/24/2003	05:25	15:13	588	17.30	18.50	17.90	0.9560	1.155	679.14	Cadmium	ND (25)	ND (0.037)
BA-2	#5	PM <sub>10</sub>	BA2CQ0116284	10/24/2003	10/24/2003	05:25	15:13	588	17.30	18.50	17.90	0.9560	1.155	679.14	Chromium	ND (25)	ND (0.037)
BA-2	#5	PM <sub>10</sub>	BA2CQ0116284	10/24/2003	10/24/2003	05:25	15:13	588	17.30	18.50	17.90	0.9560	1.155	679.14	Cobalt	ND (25)	ND (0.037)
BA-2	#5	PM <sub>10</sub>	BA2CQ0116284	10/24/2003	10/24/2003	05:25	15:13	588	17.30	18.50	17.90	0.9560	1.155	679.14	Copper	ND (25)	ND (0.037)
BA-2	#5	PM <sub>10</sub>	BA2CQ0116284	10/24/2003	10/24/2003	05:25	15:13	588	17.30	18.50	17.90	0.9560	1.155	679.14	Lead	ND (25)	ND (0.037)
BA-2	#5	PM <sub>10</sub>	BA2CQ0116284	10/24/2003	10/24/2003	05:25	15:13	588	17.30	18.50	17.90	0.9560	1.155	679.14	Manganese	ND (25)	ND (0.037)
BA-2	#5	PM <sub>10</sub>	BA2CQ0116284	10/24/2003	10/24/2003	05:25	15:13	588	17.30	18.50	17.90	0.9560	1.155	679.14	Molybdenum	ND (25)	ND (0.037)
BA-2	#5	PM <sub>10</sub>	BA2CQ0116284	10/24/2003	10/24/2003	05:25	15:13	588	17.30	18.50	17.90	0.9560	1.155	679.14	Nickel	ND (25)	ND (0.037)
BA-2	#5	PM <sub>10</sub>	BA2CQ0116284	10/24/2003	10/24/2003	05:25	15:13	588	17.30	18.50	17.90	0.9560	1.155	679.14	Zinc	29	0.043
BA-2	#5	PM <sub>10</sub>	BA2CQ0116284	10/24/2003	10/24/2003	05:25	15:13	588	17.30	18.50	17.90	0.9560	1.155	679.14	Mercury	ND (0.5)	ND (0.0007)

Note: All times have been converted to pacific standard time.

Po/Pa = [Actual Pressure - (manometer final + manometer initial) / 2 \* 1.866453(mmHg/(in-H<sub>2</sub>O))] / Actual Pressure

Concentration (ug/m<sup>3</sup>) = Results per filter (ug/sample) / Volume (m<sup>3</sup>)

Calculated By: *Bruce Edward Atwood*

Reviewed By: *[Signature]*

PM-10 Metals Results from EPA Method 12M (Hi-Vol Sampler)



Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286 080105

Date: 10/25/2003

Average Daily Temperature:

298.150 K

Average Daily Pressure:

760.000 mmHg

Name or Location	HiVol Sampler ID#	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Reading	Stop Reading	Average Rate (in L <sub>2</sub> O)	Lookup Value (PorPa)	Flow Rate - from Table (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116278	10/25/2003	10/25/2003	07:09	16:07	538	19.40	20.45	19.93	0.9511	1.151	619.24	Aluminum	1000	1.6
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116278	10/25/2003	10/25/2003	07:09	16:07	538	19.40	20.45	19.93	0.9511	1.151	619.24	Antimony	ND (25)	ND (0.04)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116278	10/25/2003	10/25/2003	07:09	16:07	538	19.40	20.45	19.93	0.9511	1.151	619.24	Barium	ND (100)	ND (0.161)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116278	10/25/2003	10/25/2003	07:09	16:07	538	19.40	20.45	19.93	0.9511	1.151	619.24	Beryllium	ND (25)	ND (0.04)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116278	10/25/2003	10/25/2003	07:09	16:07	538	19.40	20.45	19.93	0.9511	1.151	619.24	Cadmium	ND (25)	ND (0.04)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116278	10/25/2003	10/25/2003	07:09	16:07	538	19.40	20.45	19.93	0.9511	1.151	619.24	Chromium	ND (25)	ND (0.04)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116278	10/25/2003	10/25/2003	07:09	16:07	538	19.40	20.45	19.93	0.9511	1.151	619.24	Cobalt	ND (25)	ND (0.04)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116278	10/25/2003	10/25/2003	07:09	16:07	538	19.40	20.45	19.93	0.9511	1.151	619.24	Copper	ND (25)	ND (0.04)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116278	10/25/2003	10/25/2003	07:09	16:07	538	19.40	20.45	19.93	0.9511	1.151	619.24	Lead	ND (25)	ND (0.04)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116278	10/25/2003	10/25/2003	07:09	16:07	538	19.40	20.45	19.93	0.9511	1.151	619.24	Manganese	190	0.31
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116278	10/25/2003	10/25/2003	07:09	16:07	538	19.40	20.45	19.93	0.9511	1.151	619.24	Molybdenum	ND (25)	ND (0.04)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116278	10/25/2003	10/25/2003	07:09	16:07	538	19.40	20.45	19.93	0.9511	1.151	619.24	Nickel	ND (25)	ND (0.04)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116278	10/25/2003	10/25/2003	07:09	16:07	538	19.40	20.45	19.93	0.9511	1.151	619.24	Zinc	58	0.094
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0116278	10/25/2003	10/25/2003	07:09	16:07	538	19.40	20.45	19.93	0.9511	1.151	619.24	Mercury	ND (0.5)	ND (0.0008)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116285	10/25/2003	10/25/2003	06:46	15:44	538	16.35	18.15	17.25	0.9576	1.160	624.08	Aluminum	1000	1.6
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116285	10/25/2003	10/25/2003	06:46	15:44	538	16.35	18.15	17.25	0.9576	1.160	624.08	Antimony	ND (25)	ND (0.04)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116285	10/25/2003	10/25/2003	06:46	15:44	538	16.35	18.15	17.25	0.9576	1.160	624.08	Barium	ND (100)	ND (0.16)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116285	10/25/2003	10/25/2003	06:46	15:44	538	16.35	18.15	17.25	0.9576	1.160	624.08	Beryllium	ND (25)	ND (0.04)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116285	10/25/2003	10/25/2003	06:46	15:44	538	16.35	18.15	17.25	0.9576	1.160	624.08	Cadmium	ND (25)	ND (0.04)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116285	10/25/2003	10/25/2003	06:46	15:44	538	16.35	18.15	17.25	0.9576	1.160	624.08	Chromium	ND (25)	ND (0.04)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116285	10/25/2003	10/25/2003	06:46	15:44	538	16.35	18.15	17.25	0.9576	1.160	624.08	Cobalt	ND (25)	ND (0.04)



PM-10 Metals Results from EPA Method 12M (Hi-Vol Sampler)

Name or Location	HiVol Sampler ID#	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Reading	Stop Reading	Average Rate (in H <sub>2</sub> O)	Lookup Value (PoPa)	Flow Rate - from Table (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-2	#8 P3616	PM <sub>10</sub>	BA2PQ0116285	10/25/2003	10/25/2003	06:46	15:44	538	16.35	18.15	17.25	0.9576	1.160	624.08	Copper	ND (25)	ND (0.04)
BA-2	#8 P3616	PM <sub>10</sub>	BA2PQ0116285	10/25/2003	10/25/2003	06:46	15:44	538	16.35	18.15	17.25	0.9576	1.160	624.08	Lead	ND (25)	ND (0.04)
BA-2	#8 P3616	PM <sub>10</sub>	BA2PQ0116285	10/25/2003	10/25/2003	06:46	15:44	538	16.35	18.15	17.25	0.9576	1.160	624.08	Manganese	50	0.080
BA-2	#8 P3616	PM <sub>10</sub>	BA2PQ0116285	10/25/2003	10/25/2003	06:46	15:44	538	16.35	18.15	17.25	0.9576	1.160	624.08	Molybdenum	ND (25)	ND (0.04)
BA-2	#8 P3616	PM <sub>10</sub>	BA2PQ0116285	10/25/2003	10/25/2003	06:46	15:44	538	16.35	18.15	17.25	0.9576	1.160	624.08	Nickel	ND (25)	ND (0.04)
BA-2	#8 P3616	PM <sub>10</sub>	BA2PQ0116285	10/25/2003	10/25/2003	06:46	15:44	538	16.35	18.15	17.25	0.9576	1.160	624.08	Zinc	37	0.059
BA-2	#8 P3616	PM <sub>10</sub>	BA2PQ0116285	10/25/2003	10/25/2003	06:46	15:44	538	16.35	18.15	17.25	0.9576	1.160	624.08	Mercury	ND (0.5)	ND (0.0008)
BA-2	#5 3634	PM <sub>10</sub>	BA2CQ0116286	10/25/2003	10/25/2003	06:46	15:44	538	19.25	20.15	19.70	0.9516	1.149	618.16	Aluminum	1100	1.8
BA-2	#5 3634	PM <sub>10</sub>	BA2CQ0116286	10/25/2003	10/25/2003	06:46	15:44	538	19.25	20.15	19.70	0.9516	1.149	618.16	Antimony	ND (25)	ND (0.04)
BA-2	#5 3634	PM <sub>10</sub>	BA2CQ0116286	10/25/2003	10/25/2003	06:46	15:44	538	19.25	20.15	19.70	0.9516	1.149	618.16	Barium	ND (100)	ND (0.162)
BA-2	#5 3634	PM <sub>10</sub>	BA2CQ0116286	10/25/2003	10/25/2003	06:46	15:44	538	19.25	20.15	19.70	0.9516	1.149	618.16	Beryllium	ND (25)	ND (0.04)
BA-2	#5 3634	PM <sub>10</sub>	BA2CQ0116286	10/25/2003	10/25/2003	06:46	15:44	538	19.25	20.15	19.70	0.9516	1.149	618.16	Cadmium	ND (25)	ND (0.04)
BA-2	#5 3634	PM <sub>10</sub>	BA2CQ0116286	10/25/2003	10/25/2003	06:46	15:44	538	19.25	20.15	19.70	0.9516	1.149	618.16	Chromium	ND (25)	ND (0.04)
BA-2	#5 3634	PM <sub>10</sub>	BA2CQ0116286	10/25/2003	10/25/2003	06:46	15:44	538	19.25	20.15	19.70	0.9516	1.149	618.16	Cobalt	ND (25)	ND (0.04)
BA-2	#5 3634	PM <sub>10</sub>	BA2CQ0116286	10/25/2003	10/25/2003	06:46	15:44	538	19.25	20.15	19.70	0.9516	1.149	618.16	Copper	ND (25)	ND (0.04)
BA-2	#5 3634	PM <sub>10</sub>	BA2CQ0116286	10/25/2003	10/25/2003	06:46	15:44	538	19.25	20.15	19.70	0.9516	1.149	618.16	Lead	ND (25)	ND (0.04)
BA-2	#5 3634	PM <sub>10</sub>	BA2CQ0116286	10/25/2003	10/25/2003	06:46	15:44	538	19.25	20.15	19.70	0.9516	1.149	618.16	Manganese	50	0.081
BA-2	#5 3634	PM <sub>10</sub>	BA2CQ0116286	10/25/2003	10/25/2003	06:46	15:44	538	19.25	20.15	19.70	0.9516	1.149	618.16	Molybdenum	ND (25)	ND (0.04)
BA-2	#5 3634	PM <sub>10</sub>	BA2CQ0116286	10/25/2003	10/25/2003	06:46	15:44	538	19.25	20.15	19.70	0.9516	1.149	618.16	Nickel	ND (25)	ND (0.04)
BA-2	#5 3634	PM <sub>10</sub>	BA2CQ0116286	10/25/2003	10/25/2003	06:46	15:44	538	19.25	20.15	19.70	0.9516	1.149	618.16	Zinc	40	0.065
BA-2	#5 3634	PM <sub>10</sub>	BA2CQ0116286	10/25/2003	10/25/2003	06:46	15:44	538	19.25	20.15	19.70	0.9516	1.149	618.16	Mercury	ND (0.5)	ND (0.0008)

Note: All times have been converted to pacific standard time.

PoPa = [Actual Pressure - (manometer final + manometer initial) / 2 \* 1.866453(mmHg/inH<sub>2</sub>O)] / Actual Pressure

Concentration (ug/m<sup>3</sup>) = Results per filter (ug/sample) / Volume (m<sup>3</sup>)

Calculated By: *Bruce Edward Kestland*

Reviewed By: *[Signature]*

PM-10 Metals Results from EPA Method 12M (Hi-Vol Sampler)



Client: Parsons/Ft. Ord Prescribed Burn Job Number: 65286 080105

Date: 11/12/2003

Average Daily Temperature: 298.150 K  
Average Daily Pressure: 760.000 mmHg

Name or Location	HiVol Sampler ID#	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Reading	Stop Reading	Average Rate (in H <sub>2</sub> O)	Lookup Value (Po/Pa)	Flow Rate - from Table (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0142651	11/12/2003	11/12/2003	08:03	16:35	512	20.60	21.20	20.90	0.9487	1.149	588.29	Aluminum	ND (300)	ND (0.51)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0142651	11/12/2003	11/12/2003	08:03	16:35	512	20.60	21.20	20.90	0.9487	1.149	588.29	Antimony	ND (25)	ND (0.042)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0142651	11/12/2003	11/12/2003	08:03	16:35	512	20.60	21.20	20.90	0.9487	1.149	588.29	Barium	ND (100)	ND (0.17)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0142651	11/12/2003	11/12/2003	08:03	16:35	512	20.60	21.20	20.90	0.9487	1.149	588.29	Beryllium	ND (25)	ND (0.042)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0142651	11/12/2003	11/12/2003	08:03	16:35	512	20.60	21.20	20.90	0.9487	1.149	588.29	Cadmium	ND (25)	ND (0.042)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0142651	11/12/2003	11/12/2003	08:03	16:35	512	20.60	21.20	20.90	0.9487	1.149	588.29	Chromium	ND (25)	ND (0.042)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0142651	11/12/2003	11/12/2003	08:03	16:35	512	20.60	21.20	20.90	0.9487	1.149	588.29	Cobalt	ND (25)	ND (0.042)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0142651	11/12/2003	11/12/2003	08:03	16:35	512	20.60	21.20	20.90	0.9487	1.149	588.29	Copper	ND (25)	ND (0.042)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0142651	11/12/2003	11/12/2003	08:03	16:35	512	20.60	21.20	20.90	0.9487	1.149	588.29	Lead	ND (25)	ND (0.042)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0142651	11/12/2003	11/12/2003	08:03	16:35	512	20.60	21.20	20.90	0.9487	1.149	588.29	Manganese	ND (25)	ND (0.042)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0142651	11/12/2003	11/12/2003	08:03	16:35	512	20.60	21.20	20.90	0.9487	1.149	588.29	Molybdenum	ND (25)	ND (0.042)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0142651	11/12/2003	11/12/2003	08:03	16:35	512	20.60	21.20	20.90	0.9487	1.149	588.29	Nickel	ND (25)	ND (0.042)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0142651	11/12/2003	11/12/2003	08:03	16:35	512	20.60	21.20	20.90	0.9487	1.149	588.29	Zinc	ND (25)	ND (0.042)
BA-1	3615 #3	PM <sub>10</sub>	BA1PQ0142651	11/12/2003	11/12/2003	08:03	16:35	512	20.60	21.20	20.90	0.9487	1.149	588.29	Mercury	ND (0.5)	ND (0.0008)
BA-2	P3616 #6	PM <sub>10</sub>	BA2PQ0116280	11/12/2003	11/12/2003	07:38	16:09	511	15.60	16.35	15.98	0.9608	1.164	594.80	Aluminum	ND (300)	ND (0.504)
BA-2	P3616 #6	PM <sub>10</sub>	BA2PQ0116280	11/12/2003	11/12/2003	07:38	16:09	511	15.60	16.35	15.98	0.9608	1.164	594.80	Antimony	ND (25)	ND (0.042)
BA-2	P3616 #6	PM <sub>10</sub>	BA2PQ0116280	11/12/2003	11/12/2003	07:38	16:09	511	15.60	16.35	15.98	0.9608	1.164	594.80	Barium	ND (100)	ND (0.168)
BA-2	P3616 #6	PM <sub>10</sub>	BA2PQ0116280	11/12/2003	11/12/2003	07:38	16:09	511	15.60	16.35	15.98	0.9608	1.164	594.80	Beryllium	ND (25)	ND (0.042)
BA-2	P3616 #6	PM <sub>10</sub>	BA2PQ0116280	11/12/2003	11/12/2003	07:38	16:09	511	15.60	16.35	15.98	0.9608	1.164	594.80	Cadmium	ND (25)	ND (0.042)
BA-2	P3616 #6	PM <sub>10</sub>	BA2PQ0116280	11/12/2003	11/12/2003	07:38	16:09	511	15.60	16.35	15.98	0.9608	1.164	594.80	Chromium	ND (25)	ND (0.042)
BA-2	P3616 #6	PM <sub>10</sub>	BA2PQ0116280	11/12/2003	11/12/2003	07:38	16:09	511	15.60	16.35	15.98	0.9608	1.164	594.80	Cobalt	ND (25)	ND (0.042)

PM-10 Metals Results from EPA Method 12M (Hi-Vol Sampler)

Name or Location	HiVol Sampler ID#	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Reading	Stop Reading	Average Rate (in H <sub>2</sub> O)	Lookup Value (Po/Pa)	Flow Rate - from Table (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116280	11/12/2003	11/12/2003	07:38	16:09	511	15.60	16.35	15.98	0.9608	1.164	594.80	Copper	ND (25)	ND (0.042)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116280	11/12/2003	11/12/2003	07:38	16:09	511	15.60	16.35	15.98	0.9608	1.164	594.80	Lead	ND (25)	ND (0.042)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116280	11/12/2003	11/12/2003	07:38	16:09	511	15.60	16.35	15.98	0.9608	1.164	594.80	Manganese	ND (25)	ND (0.042)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116280	11/12/2003	11/12/2003	07:38	16:09	511	15.60	16.35	15.98	0.9608	1.164	594.80	Molybdenum	ND (25)	ND (0.042)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116280	11/12/2003	11/12/2003	07:38	16:09	511	15.60	16.35	15.98	0.9608	1.164	594.80	Nickel	ND (25)	ND (0.042)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116280	11/12/2003	11/12/2003	07:38	16:09	511	15.60	16.35	15.98	0.9608	1.164	594.80	Zinc	ND (25)	ND (0.042)
BA-2	P3616 #8	PM <sub>10</sub>	BA2PQ0116280	11/12/2003	11/12/2003	07:38	16:09	511	15.60	16.35	15.98	0.9608	1.164	594.80	Mercury	ND (0.5)	ND (0.0009)
BA-Z Co-located	#5 3634	PM <sub>10</sub>	BA2CC0142652	11/12/2003	11/12/2003	07:38	16:09	511	20.80	21.55	21.18	0.9480	1.145	585.10	Aluminum	ND (300)	ND (0.513)
BA-Z Co-located	#5 3634	PM <sub>10</sub>	BA2CC0142652	11/12/2003	11/12/2003	07:38	16:09	511	20.80	21.55	21.18	0.9480	1.145	585.10	Antimony	ND (25)	ND (0.043)
BA-Z Co-located	#5 3634	PM <sub>10</sub>	BA2CC0142652	11/12/2003	11/12/2003	07:38	16:09	511	20.80	21.55	21.18	0.9480	1.145	585.10	Barium	ND (100)	ND (0.171)
BA-Z Co-located	#5 3634	PM <sub>10</sub>	BA2CC0142652	11/12/2003	11/12/2003	07:38	16:09	511	20.80	21.55	21.18	0.9480	1.145	585.10	Beryllium	ND (25)	ND (0.043)
BA-Z Co-located	#5 3634	PM <sub>10</sub>	BA2CC0142652	11/12/2003	11/12/2003	07:38	16:09	511	20.80	21.55	21.18	0.9480	1.145	585.10	Cadmium	ND (25)	ND (0.043)
BA-Z Co-located	#5 3634	PM <sub>10</sub>	BA2CC0142652	11/12/2003	11/12/2003	07:38	16:09	511	20.80	21.55	21.18	0.9480	1.145	585.10	Chromium	ND (25)	ND (0.043)
BA-Z Co-located	#5 3634	PM <sub>10</sub>	BA2CC0142652	11/12/2003	11/12/2003	07:38	16:09	511	20.80	21.55	21.18	0.9480	1.145	585.10	Cobalt	ND (25)	ND (0.043)
BA-Z Co-located	#5 3634	PM <sub>10</sub>	BA2CC0142652	11/12/2003	11/12/2003	07:38	16:09	511	20.80	21.55	21.18	0.9480	1.145	585.10	Copper	ND (25)	ND (0.043)
BA-Z Co-located	#5 3634	PM <sub>10</sub>	BA2CC0142652	11/12/2003	11/12/2003	07:38	16:09	511	20.80	21.55	21.18	0.9480	1.145	585.10	Lead	ND (25)	ND (0.043)
BA-Z Co-located	#5 3634	PM <sub>10</sub>	BA2CC0142652	11/12/2003	11/12/2003	07:38	16:09	511	20.80	21.55	21.18	0.9480	1.145	585.10	Manganese	ND (25)	ND (0.043)
BA-Z Co-located	#5 3634	PM <sub>10</sub>	BA2CC0142652	11/12/2003	11/12/2003	07:38	16:09	511	20.80	21.55	21.18	0.9480	1.145	585.10	Molybdenum	ND (25)	ND (0.043)
BA-Z Co-located	#5 3634	PM <sub>10</sub>	BA2CC0142652	11/12/2003	11/12/2003	07:38	16:09	511	20.80	21.55	21.18	0.9480	1.145	585.10	Nickel	ND (25)	ND (0.043)
BA-Z Co-located	#5 3634	PM <sub>10</sub>	BA2CC0142652	11/12/2003	11/12/2003	07:38	16:09	511	20.80	21.55	21.18	0.9480	1.145	585.10	Zinc	ND (25)	ND (0.043)
BA-Z Co-located	#5 3634	PM <sub>10</sub>	BA2CC0142652	11/12/2003	11/12/2003	07:38	16:09	511	20.80	21.55	21.18	0.9480	1.145	585.10	Mercury	ND (0.5)	ND (0.0009)

Note: All times have been converted to pacific standard time.

Po/Pa = [Actual Pressure - (manometer final + manometer initial) / 2 \* 1.866453(mmHg/(mH<sub>2</sub>O))] / Actual Pressure

Concentration (ug/m<sup>3</sup>) = Results per filter (ug/sample) / Volume (m<sup>3</sup>)

Calculated By: *Bruce Edward Keistead*

Reviewed By: *[Signature]*



Metals Results from NIOSH Methods 7300M and 6009M (Mini-Vol Sampler)



Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286.080105

Date: 10/24/2003

Calibration Set Number: MNF 1162

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
OB-1	158	Metals	OB1PTF470100	10/24/2003	10/24/2003	07:59	16:17	498	5.02	4.96	4.99	2,485.02	Aluminum	ND (2.5)	ND (1.01)
OB-1	158	Metals	OB1PTF470100	10/24/2003	10/24/2003	07:59	16:17	498	5.02	4.96	4.99	2,485.02	Antimony	ND (2.5)	ND (1.01)
OB-1	158	Metals	OB1PTF470100	10/24/2003	10/24/2003	07:59	16:17	498	5.02	4.96	4.99	2,485.02	Barium	ND (2.5)	ND (1.01)
OB-1	158	Metals	OB1PTF470100	10/24/2003	10/24/2003	07:59	16:17	498	5.02	4.96	4.99	2,485.02	Beryllium	ND (1.5)	ND (0.60)
OB-1	158	Metals	OB1PTF470100	10/24/2003	10/24/2003	07:59	16:17	498	5.02	4.96	4.99	2,485.02	Cadmium	ND (1.5)	ND (0.60)
OB-1	158	Metals	OB1PTF470100	10/24/2003	10/24/2003	07:59	16:17	498	5.02	4.96	4.99	2,485.02	Chromium	ND (2.5)	ND (1.01)
OB-1	158	Metals	OB1PTF470100	10/24/2003	10/24/2003	07:59	16:17	498	5.02	4.96	4.99	2,485.02	Cobalt	ND (1.5)	ND (0.60)
OB-1	158	Metals	OB1PTF470100	10/24/2003	10/24/2003	07:59	16:17	498	5.02	4.96	4.99	2,485.02	Copper	ND (2.5)	ND (1.01)
OB-1	158	Metals	OB1PTF470100	10/24/2003	10/24/2003	07:59	16:17	498	5.02	4.96	4.99	2,485.02	Lead	ND (2.5)	ND (1.01)
OB-1	158	Metals	OB1PTF470100	10/24/2003	10/24/2003	07:59	16:17	498	5.02	4.96	4.99	2,485.02	Manganese	ND (2.5)	ND (1.01)
OB-1	158	Metals	OB1PTF470100	10/24/2003	10/24/2003	07:59	16:17	498	5.02	4.96	4.99	2,485.02	Molybdenum	ND (2.5)	ND (1.01)
OB-1	158	Metals	OB1PTF470100	10/24/2003	10/24/2003	07:59	16:17	498	5.02	4.96	4.99	2,485.02	Nickel	ND (2.5)	ND (1.01)
OB-1	158	Metals	OB1PTF470100	10/24/2003	10/24/2003	07:59	16:17	498	5.02	4.96	4.99	2,485.02	Zinc	ND (2.5)	ND (1.01)
OB-1	158	Metals	OB1PTF470100	10/24/2003	10/24/2003	07:59	16:17	498	5.02	4.96	4.99	2,485.02	Mercury	ND (0.1)	ND (0.02)
OB-2	159	Metals	OB2PTF470102	10/24/2003	10/24/2003	08:01	08:13	12	4.98	4.96	4.97	59.64	Aluminum	ND (2.5)	ND (41.92)
OB-2	159	Metals	OB2PTF470102	10/24/2003	10/24/2003	08:01	08:13	12	4.98	4.96	4.97	59.64	Antimony	ND (2.5)	ND (41.92)
OB-2	159	Metals	OB2PTF470102	10/24/2003	10/24/2003	08:01	08:13	12	4.98	4.96	4.97	59.64	Barium	ND (2.5)	ND (41.92)
OB-2	159	Metals	OB2PTF470102	10/24/2003	10/24/2003	08:01	08:13	12	4.98	4.96	4.97	59.64	Beryllium	ND (1.5)	ND (25.15)
OB-2	159	Metals	OB2PTF470102	10/24/2003	10/24/2003	08:01	08:13	12	4.98	4.96	4.97	59.64	Cadmium	ND (1.5)	ND (25.15)
OB-2	159	Metals	OB2PTF470102	10/24/2003	10/24/2003	08:01	08:13	12	4.98	4.96	4.97	59.64	Chromium	ND (2.5)	ND (41.92)
OB-2	159	Metals	OB2PTF470102	10/24/2003	10/24/2003	08:01	08:13	12	4.98	4.96	4.97	59.64	Cobalt	ND (1.5)	ND (25.15)



**Metals Results from NIOSH Methods 7300M and 6009M (Mini-Vol Sampler)**

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l / min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
OB-2	159	Metals	OB2PTF470102	10/24/2003	10/24/2003	08:01	08:13	12	4.98	4.96	4.97	59.64	Copper	ND (2.5)	ND (41.92)
OB-2	159	Metals	OB2PTF470102	10/24/2003	10/24/2003	08:01	08:13	12	4.98	4.96	4.97	59.64	Lead	ND (2.5)	ND (41.92)
OB-2	159	Metals	OB2PTF470102	10/24/2003	10/24/2003	08:01	08:13	12	4.98	4.96	4.97	59.64	Manganese	ND (2.5)	ND (41.92)
OB-2	159	Metals	OB2PTF470102	10/24/2003	10/24/2003	08:01	08:13	12	4.98	4.96	4.97	59.64	Molybdenum	ND (2.5)	ND (41.92)
OB-2	159	Metals	OB2PTF470102	10/24/2003	10/24/2003	08:01	08:13	12	4.98	4.96	4.97	59.64	Nickel	ND (2.5)	ND (41.92)
OB-2	159	Metals	OB2PTF470102	10/24/2003	10/24/2003	08:01	08:13	12	4.98	4.96	4.97	59.64	Zinc	ND (2.5)	ND (41.92)
OB-2	159	Metals	OB2PTF470102	10/24/2003	10/24/2003	08:01	08:13	12	4.98	4.96	4.97	59.64	Mercury	ND (0.1)	ND (0.84)
OB-3	2520	Metals	OB3PTF470105	10/24/2003	10/24/2003	08:02	16:30	508	5.12	5.05	5.09	2,583.18	Aluminum	ND (2.5)	ND (0.97)
OB-3	2520	Metals	OB3PTF470105	10/24/2003	10/24/2003	08:02	16:30	508	5.12	5.05	5.09	2,583.18	Antimony	ND (2.5)	ND (0.97)
OB-3	2520	Metals	OB3PTF470105	10/24/2003	10/24/2003	08:02	16:30	508	5.12	5.05	5.09	2,583.18	Barium	ND (2.5)	ND (0.97)
OB-3	2520	Metals	OB3PTF470105	10/24/2003	10/24/2003	08:02	16:30	508	5.12	5.05	5.09	2,583.18	Beryllium	ND (1.5)	ND (0.58)
OB-3	2520	Metals	OB3PTF470105	10/24/2003	10/24/2003	08:02	16:30	508	5.12	5.05	5.09	2,583.18	Cadmium	ND (1.5)	ND (0.58)
OB-3	2520	Metals	OB3PTF470105	10/24/2003	10/24/2003	08:02	16:30	508	5.12	5.05	5.09	2,583.18	Chromium	ND (2.5)	ND (0.97)
OB-3	2520	Metals	OB3PTF470105	10/24/2003	10/24/2003	08:02	16:30	508	5.12	5.05	5.09	2,583.18	Cobalt	ND (1.5)	ND (0.58)
OB-3	2520	Metals	OB3PTF470105	10/24/2003	10/24/2003	08:02	16:30	508	5.12	5.05	5.09	2,583.18	Copper	ND (2.5)	ND (0.97)
OB-3	2520	Metals	OB3PTF470105	10/24/2003	10/24/2003	08:02	16:30	508	5.12	5.05	5.09	2,583.18	Lead	ND (2.5)	ND (0.97)
OB-3	2520	Metals	OB3PTF470105	10/24/2003	10/24/2003	08:02	16:30	508	5.12	5.05	5.09	2,583.18	Manganese	ND (2.5)	ND (0.97)
OB-3	2520	Metals	OB3PTF470105	10/24/2003	10/24/2003	08:02	16:30	508	5.12	5.05	5.09	2,583.18	Molybdenum	ND (2.5)	ND (0.97)
OB-3	2520	Metals	OB3PTF470105	10/24/2003	10/24/2003	08:02	16:30	508	5.12	5.05	5.09	2,583.18	Nickel	ND (2.5)	ND (0.97)
OB-3	2520	Metals	OB3PTF470105	10/24/2003	10/24/2003	08:02	16:30	508	5.12	5.05	5.09	2,583.18	Zinc	ND (2.5)	ND (0.97)
OB-3	2520	Metals	OB3PTF470105	10/24/2003	10/24/2003	08:02	16:30	508	5.12	5.05	5.09	2,583.18	Mercury	ND (0.1)	ND (0.02)
OB-3, Co-located	2516	Metals	OB3CTF470106	10/24/2003	10/24/2003	08:03	16:31	508	4.97	4.94	4.96	2,517.14	Aluminum	ND (2.5)	ND (0.99)
OB-3, Co-located	2516	Metals	OB3CTF470106	10/24/2003	10/24/2003	08:03	16:31	508	4.97	4.94	4.96	2,517.14	Antimony	ND (2.5)	ND (0.99)
OB-3, Co-located	2516	Metals	OB3CTF470106	10/24/2003	10/24/2003	08:03	16:31	508	4.97	4.94	4.96	2,517.14	Barium	ND (2.5)	ND (0.99)

**Metals Results from NIOSH Methods 7300M and 6009M (Mini-Vol Sampler)**

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
OB-3, Co-located	2516	Metals	OB3CTF470106	10/24/2003	10/24/2003	08:03	16:31	508	4.97	4.94	4.96	2,517.14	Beryllium	ND (1.5)	ND (0.60)
OB-3, Co-located	2516	Metals	OB3CTF470106	10/24/2003	10/24/2003	08:03	16:31	508	4.97	4.94	4.96	2,517.14	Cadmium	ND (1.5)	ND (0.60)
OB-3, Co-located	2516	Metals	OB3CTF470106	10/24/2003	10/24/2003	08:03	16:31	508	4.97	4.94	4.96	2,517.14	Chromium	ND (2.5)	ND (0.99)
OB-3, Co-located	2516	Metals	OB3CTF470106	10/24/2003	10/24/2003	08:03	16:31	508	4.97	4.94	4.96	2,517.14	Cobalt	ND (1.5)	ND (0.60)
OB-3, Co-located	2516	Metals	OB3CTF470106	10/24/2003	10/24/2003	08:03	16:31	508	4.97	4.94	4.96	2,517.14	Copper	ND (2.5)	ND (0.99)
OB-3, Co-located	2516	Metals	OB3CTF470106	10/24/2003	10/24/2003	08:03	16:31	508	4.97	4.94	4.96	2,517.14	Lead	ND (2.5)	ND (0.99)
OB-3, Co-located	2516	Metals	OB3CTF470106	10/24/2003	10/24/2003	08:03	16:31	508	4.97	4.94	4.96	2,517.14	Manganese	ND (2.5)	ND (0.99)
OB-3, Co-located	2516	Metals	OB3CTF470106	10/24/2003	10/24/2003	08:03	16:31	508	4.97	4.94	4.96	2,517.14	Molybdenum	ND (2.5)	ND (0.99)
OB-3, Co-located	2516	Metals	OB3CTF470106	10/24/2003	10/24/2003	08:03	16:31	508	4.97	4.94	4.96	2,517.14	Nickel	ND (2.5)	ND (0.99)
OB-3, Co-located	2516	Metals	OB3CTF470106	10/24/2003	10/24/2003	08:03	16:31	508	4.97	4.94	4.96	2,517.14	Zinc	ND (2.5)	ND (0.99)
OB-3, Co-located	2516	Metals	OB3CTF470106	10/24/2003	10/24/2003	08:03	16:31	508	4.97	4.94	4.96	2,517.14	Mercury	ND (0.1)	ND (0.02)
PS-1	2519	Metals	PS1PTF470067	10/24/2003	10/24/2003	07:48	16:18	510	5.00	4.94	4.97	2,534.70	Aluminum	ND (2.5)	ND (0.99)
PS-1	2519	Metals	PS1PTF470067	10/24/2003	10/24/2003	07:48	16:18	510	5.00	4.94	4.97	2,534.70	Antimony	ND (2.5)	ND (0.99)
PS-1	2519	Metals	PS1PTF470067	10/24/2003	10/24/2003	07:48	16:18	510	5.00	4.94	4.97	2,534.70	Barium	ND (2.5)	ND (0.99)
PS-1	2519	Metals	PS1PTF470067	10/24/2003	10/24/2003	07:48	16:18	510	5.00	4.94	4.97	2,534.70	Beryllium	ND (1.5)	ND (0.59)
PS-1	2519	Metals	PS1PTF470067	10/24/2003	10/24/2003	07:48	16:18	510	5.00	4.94	4.97	2,534.70	Cadmium	ND (1.5)	ND (0.59)
PS-1	2519	Metals	PS1PTF470067	10/24/2003	10/24/2003	07:48	16:18	510	5.00	4.94	4.97	2,534.70	Chromium	ND (2.5)	ND (0.99)
PS-1	2519	Metals	PS1PTF470067	10/24/2003	10/24/2003	07:48	16:18	510	5.00	4.94	4.97	2,534.70	Cobalt	ND (1.5)	ND (0.59)
PS-1	2519	Metals	PS1PTF470067	10/24/2003	10/24/2003	07:48	16:18	510	5.00	4.94	4.97	2,534.70	Copper	ND (2.5)	ND (0.99)
PS-1	2519	Metals	PS1PTF470067	10/24/2003	10/24/2003	07:48	16:18	510	5.00	4.94	4.97	2,534.70	Lead	ND (2.5)	ND (0.99)
PS-1	2519	Metals	PS1PTF470067	10/24/2003	10/24/2003	07:48	16:18	510	5.00	4.94	4.97	2,534.70	Manganese	ND (2.5)	ND (0.99)
PS-1	2519	Metals	PS1PTF470067	10/24/2003	10/24/2003	07:48	16:18	510	5.00	4.94	4.97	2,534.70	Molybdenum	ND (2.5)	ND (0.99)
PS-1	2519	Metals	PS1PTF470067	10/24/2003	10/24/2003	07:48	16:18	510	5.00	4.94	4.97	2,534.70	Nickel	ND (2.5)	ND (0.99)
PS-1	2519	Metals	PS1PTF470067	10/24/2003	10/24/2003	07:48	16:18	510	5.00	4.94	4.97	2,534.70	Zinc	ND (2.5)	ND (0.99)
PS-1	2519	Metals	PS1PTF470067	10/24/2003	10/24/2003	07:48	16:18	510	5.00	4.94	4.97	2,534.70	Mercury	ND (0.1)	ND (0.02)

Metals Results from NIOSH Methods 7300M and 6009M (Mini-Vol Sampler)

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
PS-3	160	Metals	PS3PTF470072	10/24/2003	10/24/2003	08:12	15:50	458	5.00	4.99	5.00	2,287.71	Aluminum	2.8	1.22
PS-3	160	Metals	PS3PTF470072	10/24/2003	10/24/2003	08:12	15:50	458	5.00	4.99	5.00	2,287.71	Antimony	ND (2.5)	ND (1.09)
PS-3	160	Metals	PS3PTF470072	10/24/2003	10/24/2003	08:12	15:50	458	5.00	4.99	5.00	2,287.71	Barium	ND (2.5)	ND (1.09)
PS-3	160	Metals	PS3PTF470072	10/24/2003	10/24/2003	08:12	15:50	458	5.00	4.99	5.00	2,287.71	Beryllium	ND (1.5)	ND (0.66)
PS-3	160	Metals	PS3PTF470072	10/24/2003	10/24/2003	08:12	15:50	458	5.00	4.99	5.00	2,287.71	Cadmium	ND (1.5)	ND (0.66)
PS-3	160	Metals	PS3PTF470072	10/24/2003	10/24/2003	08:12	15:50	458	5.00	4.99	5.00	2,287.71	Chromium	ND (2.5)	ND (1.09)
PS-3	160	Metals	PS3PTF470072	10/24/2003	10/24/2003	08:12	15:50	458	5.00	4.99	5.00	2,287.71	Cobalt	ND (1.5)	ND (0.66)
PS-3	160	Metals	PS3PTF470072	10/24/2003	10/24/2003	08:12	15:50	458	5.00	4.99	5.00	2,287.71	Copper	ND (2.5)	ND (1.09)
PS-3	160	Metals	PS3PTF470072	10/24/2003	10/24/2003	08:12	15:50	458	5.00	4.99	5.00	2,287.71	Lead	ND (2.5)	ND (1.09)
PS-3	160	Metals	PS3PTF470072	10/24/2003	10/24/2003	08:12	15:50	458	5.00	4.99	5.00	2,287.71	Manganese	ND (2.5)	ND (1.09)
PS-3	160	Metals	PS3PTF470072	10/24/2003	10/24/2003	08:12	15:50	458	5.00	4.99	5.00	2,287.71	Molybdenum	ND (2.5)	ND (1.09)
PS-3	160	Metals	PS3PTF470072	10/24/2003	10/24/2003	08:12	15:50	458	5.00	4.99	5.00	2,287.71	Nickel	ND (2.5)	ND (1.09)
PS-3	160	Metals	PS3PTF470072	10/24/2003	10/24/2003	08:12	15:50	458	5.00	4.99	5.00	2,287.71	Zinc	ND (2.5)	ND (1.09)
PS-3	160	Metals	PS3PTF470072	10/24/2003	10/24/2003	08:12	15:50	458	5.00	4.99	5.00	2,287.71	Mercury	ND (0.1)	ND (0.02)
PS-9	990	Metals	PS9PTF470070	10/24/2003	10/24/2003	09:05	16:57	472	5.00	4.97	4.99	2,352.92	Aluminum	ND (2.5)	ND (1.06)
PS-9	990	Metals	PS9PTF470070	10/24/2003	10/24/2003	09:05	16:57	472	5.00	4.97	4.99	2,352.92	Antimony	ND (2.5)	ND (1.06)
PS-9	990	Metals	PS9PTF470070	10/24/2003	10/24/2003	09:05	16:57	472	5.00	4.97	4.99	2,352.92	Barium	ND (2.5)	ND (1.06)
PS-9	990	Metals	PS9PTF470070	10/24/2003	10/24/2003	09:05	16:57	472	5.00	4.97	4.99	2,352.92	Beryllium	ND (1.5)	ND (0.64)
PS-9	990	Metals	PS9PTF470070	10/24/2003	10/24/2003	09:05	16:57	472	5.00	4.97	4.99	2,352.92	Cadmium	ND (1.5)	ND (0.64)
PS-9	990	Metals	PS9PTF470070	10/24/2003	10/24/2003	09:05	16:57	472	5.00	4.97	4.99	2,352.92	Chromium	ND (2.5)	ND (1.06)
PS-9	990	Metals	PS9PTF470070	10/24/2003	10/24/2003	09:05	16:57	472	5.00	4.97	4.99	2,352.92	Cobalt	ND (1.5)	ND (0.64)
PS-9	990	Metals	PS9PTF470070	10/24/2003	10/24/2003	09:05	16:57	472	5.00	4.97	4.99	2,352.92	Copper	ND (2.5)	ND (1.06)
PS-9	990	Metals	PS9PTF470070	10/24/2003	10/24/2003	09:05	16:57	472	5.00	4.97	4.99	2,352.92	Lead	ND (2.5)	ND (1.06)
PS-9	990	Metals	PS9PTF470070	10/24/2003	10/24/2003	09:05	16:57	472	5.00	4.97	4.99	2,352.92	Manganese	ND (2.5)	ND (1.06)



Metals Results from NIOSH Methods 7300M and 6009M (Mini-Vol Sampler)

Name of Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
PS-9	990	Metals	PS9PTF470070	10/24/2003	10/24/2003	09:05	16:57	472	5.00	4.97	4.99	2,352.92	Molybdenum	ND (2.5)	ND (1.06)
PS-9	990	Metals	PS9PTF470070	10/24/2003	10/24/2003	09:05	16:57	472	5.00	4.97	4.99	2,352.92	Nickel	ND (2.5)	ND (1.06)
PS-9	990	Metals	PS9PTF470070	10/24/2003	10/24/2003	09:05	16:57	472	5.00	4.97	4.99	2,352.92	Zinc	ND (2.5)	ND (1.06)
PS-9	990	Metals	PS9PTF470070	10/24/2003	10/24/2003	09:05	16:57	472	5.00	4.97	4.99	2,352.92	Mercury	ND (0.1)	ND (0.02)
MS-1	1995	Metals	MS1PTF470068	10/24/2003	10/24/2003	10:05	15:12	307	5.02	4.97	5.00	1,533.47	Aluminum	ND (2.5)	ND (1.63)
MS-1	1995	Metals	MS1PTF470068	10/24/2003	10/24/2003	10:05	15:12	307	5.02	4.97	5.00	1,533.47	Antimony	ND (2.5)	ND (1.63)
MS-1	1995	Metals	MS1PTF470068	10/24/2003	10/24/2003	10:05	15:12	307	5.02	4.97	5.00	1,533.47	Barium	ND (2.5)	ND (1.63)
MS-1	1995	Metals	MS1PTF470068	10/24/2003	10/24/2003	10:05	15:12	307	5.02	4.97	5.00	1,533.47	Beryllium	ND (1.5)	ND (0.98)
MS-1	1995	Metals	MS1PTF470068	10/24/2003	10/24/2003	10:05	15:12	307	5.02	4.97	5.00	1,533.47	Cadmium	ND (1.5)	ND (0.98)
MS-1	1995	Metals	MS1PTF470068	10/24/2003	10/24/2003	10:05	15:12	307	5.02	4.97	5.00	1,533.47	Chromium	ND (2.5)	ND (1.63)
MS-1	1995	Metals	MS1PTF470068	10/24/2003	10/24/2003	10:05	15:12	307	5.02	4.97	5.00	1,533.47	Cobalt	ND (1.5)	ND (0.98)
MS-1	1995	Metals	MS1PTF470068	10/24/2003	10/24/2003	10:05	15:12	307	5.02	4.97	5.00	1,533.47	Copper	ND (2.5)	ND (1.63)
MS-1	1995	Metals	MS1PTF470068	10/24/2003	10/24/2003	10:05	15:12	307	5.02	4.97	5.00	1,533.47	Lead	ND (2.5)	ND (1.63)
MS-1	1995	Metals	MS1PTF470068	10/24/2003	10/24/2003	10:05	15:12	307	5.02	4.97	5.00	1,533.47	Manganese	ND (2.5)	ND (1.63)
MS-1	1995	Metals	MS1PTF470068	10/24/2003	10/24/2003	10:05	15:12	307	5.02	4.97	5.00	1,533.47	Molybdenum	ND (2.5)	ND (1.63)
MS-1	1995	Metals	MS1PTF470068	10/24/2003	10/24/2003	10:05	15:12	307	5.02	4.97	5.00	1,533.47	Nickel	ND (2.5)	ND (1.63)
MS-1	1995	Metals	MS1PTF470068	10/24/2003	10/24/2003	10:05	15:12	307	5.02	4.97	5.00	1,533.47	Zinc	ND (2.5)	ND (1.63)
MS-1	1995	Metals	MS1PTF470068	10/24/2003	10/24/2003	10:05	15:12	307	5.02	4.97	5.00	1,533.47	Mercury	ND (0.1)	ND (0.03)

Note: All times have been converted to pacific standard time.

Volume (liters) = Average Rate (l/min) \* Total Time (minutes)  
 Concentration (ug/m<sup>3</sup>) = Results per Filter (ug / Volume (liters)) \* 1000 (liter/m<sup>3</sup>)

Calculated By: *Bruce Edward Astand*

Reviewed By: *[Signature]*



Metals Results from MIOASH Methods 7300M and 6009M (Mini-Vol Sampler)



Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286 080105

Date: 10/25/2003

Calibration Set Number: MNF 1162

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
OB-1	158	Metals	OB1PTF470081	10/25/2003	10/25/2003	07:12	16:13	541	5.02	4.96	4.99	2,699.59	Aluminum	3.4	1.26
OB-1	158	Metals	OB1PTF470081	10/25/2003	10/25/2003	07:12	16:13	541	5.02	4.96	4.99	2,699.59	Antimony	ND (2.5)	ND (0.93)
OB-1	158	Metals	OB1PTF470081	10/25/2003	10/25/2003	07:12	16:13	541	5.02	4.96	4.99	2,699.59	Barium	ND (2.5)	ND (0.93)
OB-1	158	Metals	OB1PTF470081	10/25/2003	10/25/2003	07:12	16:13	541	5.02	4.96	4.99	2,699.59	Beryllium	ND (1.5)	ND (0.56)
OB-1	158	Metals	OB1PTF470081	10/25/2003	10/25/2003	07:12	16:13	541	5.02	4.96	4.99	2,699.59	Cadmium	ND (1.5)	ND (0.56)
OB-1	158	Metals	OB1PTF470081	10/25/2003	10/25/2003	07:12	16:13	541	5.02	4.96	4.99	2,699.59	Chromium	ND (2.5)	ND (0.93)
OB-1	158	Metals	OB1PTF470081	10/25/2003	10/25/2003	07:12	16:13	541	5.02	4.96	4.99	2,699.59	Cobalt	ND (1.5)	ND (0.56)
OB-1	158	Metals	OB1PTF470081	10/25/2003	10/25/2003	07:12	16:13	541	5.02	4.96	4.99	2,699.59	Copper	ND (2.5)	ND (0.93)
OB-1	158	Metals	OB1PTF470081	10/25/2003	10/25/2003	07:12	16:13	541	5.02	4.96	4.99	2,699.59	Lead	ND (2.5)	ND (0.93)
OB-1	158	Metals	OB1PTF470081	10/25/2003	10/25/2003	07:12	16:13	541	5.02	4.96	4.99	2,699.59	Manganese	ND (2.5)	ND (0.93)
OB-1	158	Metals	OB1PTF470081	10/25/2003	10/25/2003	07:12	16:13	541	5.02	4.96	4.99	2,699.59	Molybdenum	ND (2.5)	ND (0.93)
OB-1	158	Metals	OB1PTF470081	10/25/2003	10/25/2003	07:12	16:13	541	5.02	4.96	4.99	2,699.59	Nickel	ND (2.5)	ND (0.93)
OB-1	158	Metals	OB1PTF470081	10/25/2003	10/25/2003	07:12	16:13	541	5.02	4.96	4.99	2,699.59	Zinc	ND (2.5)	ND (0.93)
OB-1	158	Metals	OB1PTF470081	10/25/2003	10/25/2003	07:12	16:13	541	5.02	4.96	4.99	2,699.59	Mercury	ND (0.05)	ND (0.02)
OB-2	159	Metals	OB2PTF470083	10/25/2003	10/25/2003	07:05	16:20	555	4.98	4.96	4.97	2,758.35	Aluminum	3.9	1.41
OB-2	159	Metals	OB2PTF470083	10/25/2003	10/25/2003	07:05	16:20	555	4.98	4.96	4.97	2,758.35	Antimony	ND (2.5)	ND (0.91)
OB-2	159	Metals	OB2PTF470083	10/25/2003	10/25/2003	07:05	16:20	555	4.98	4.96	4.97	2,758.35	Barium	ND (2.5)	ND (0.91)
OB-2	159	Metals	OB2PTF470083	10/25/2003	10/25/2003	07:05	16:20	555	4.98	4.96	4.97	2,758.35	Beryllium	ND (1.5)	ND (0.54)
OB-2	159	Metals	OB2PTF470083	10/25/2003	10/25/2003	07:05	16:20	555	4.98	4.96	4.97	2,758.35	Cadmium	ND (1.5)	ND (0.54)
OB-2	159	Metals	OB2PTF470083	10/25/2003	10/25/2003	07:05	16:20	555	4.98	4.96	4.97	2,758.35	Chromium	ND (2.5)	ND (0.91)

**Metals Results from MIOASH Methods 7300M and 6009M (Mini-Vol Sampler)**

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l / min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
OB-2	159	Metals	OB2PTF470083	10/25/2003	10/25/2003	07:05	16:20	555	4.98	4.96	4.97	2,758.35	Cobalt	ND (1.5)	ND (0.54)
OB-2	159	Metals	OB2PTF470083	10/25/2003	10/25/2003	07:05	16:20	555	4.98	4.96	4.97	2,758.35	Copper	ND (2.5)	ND (0.91)
OB-2	159	Metals	OB2PTF470083	10/25/2003	10/25/2003	07:05	16:20	555	4.98	4.96	4.97	2,758.35	Lead	ND (2.5)	ND (0.91)
OB-2	159	Metals	OB2PTF470083	10/25/2003	10/25/2003	07:05	16:20	555	4.98	4.96	4.97	2,758.35	Manganese	ND (2.5)	ND (0.91)
OB-2	159	Metals	OB2PTF470083	10/25/2003	10/25/2003	07:05	16:20	555	4.98	4.96	4.97	2,758.35	Molybdenum	ND (2.5)	ND (0.91)
OB-2	159	Metals	OB2PTF470083	10/25/2003	10/25/2003	07:05	16:20	555	4.98	4.96	4.97	2,758.35	Nickel	ND (2.5)	ND (0.91)
OB-2	159	Metals	OB2PTF470083	10/25/2003	10/25/2003	07:05	16:20	555	4.98	4.96	4.97	2,758.35	Zinc	ND (2.5)	ND (0.91)
OB-2	159	Metals	OB2PTF470083	10/25/2003	10/25/2003	07:05	16:20	555	4.98	4.96	4.97	2,758.35	Mercury	ND (0.05)	ND (0.02)
OB-3	2520	Metals	OB3PTF470085	10/25/2003	10/25/2003	08:06	16:52	526	5.12	5.05	5.09	2,674.71	Aluminum	3.3	1.23
OB-3	2520	Metals	OB3PTF470085	10/25/2003	10/25/2003	08:06	16:52	526	5.12	5.05	5.09	2,674.71	Antimony	ND (2.5)	ND (0.93)
OB-3	2520	Metals	OB3PTF470085	10/25/2003	10/25/2003	08:06	16:52	526	5.12	5.05	5.09	2,674.71	Barium	ND (2.5)	ND (0.93)
OB-3	2520	Metals	OB3PTF470085	10/25/2003	10/25/2003	08:06	16:52	526	5.12	5.05	5.09	2,674.71	Beryllium	ND (1.5)	ND (0.56)
OB-3	2520	Metals	OB3PTF470085	10/25/2003	10/25/2003	08:06	16:52	526	5.12	5.05	5.09	2,674.71	Cadmium	ND (1.5)	ND (0.56)
OB-3	2520	Metals	OB3PTF470085	10/25/2003	10/25/2003	08:06	16:52	526	5.12	5.05	5.09	2,674.71	Chromium	ND (2.5)	ND (0.93)
OB-3	2520	Metals	OB3PTF470085	10/25/2003	10/25/2003	08:06	16:52	526	5.12	5.05	5.09	2,674.71	Cobalt	ND (1.5)	ND (0.56)
OB-3	2520	Metals	OB3PTF470085	10/25/2003	10/25/2003	08:06	16:52	526	5.12	5.05	5.09	2,674.71	Copper	ND (2.5)	ND (0.93)
OB-3	2520	Metals	OB3PTF470085	10/25/2003	10/25/2003	08:06	16:52	526	5.12	5.05	5.09	2,674.71	Lead	ND (2.5)	ND (0.93)
OB-3	2520	Metals	OB3PTF470085	10/25/2003	10/25/2003	08:06	16:52	526	5.12	5.05	5.09	2,674.71	Manganese	ND (2.5)	ND (0.93)
OB-3	2520	Metals	OB3PTF470085	10/25/2003	10/25/2003	08:06	16:52	526	5.12	5.05	5.09	2,674.71	Molybdenum	ND (2.5)	ND (0.93)
OB-3	2520	Metals	OB3PTF470085	10/25/2003	10/25/2003	08:06	16:52	526	5.12	5.05	5.09	2,674.71	Nickel	ND (2.5)	ND (0.93)
OB-3	2520	Metals	OB3PTF470085	10/25/2003	10/25/2003	08:06	16:52	526	5.12	5.05	5.09	2,674.71	Zinc	ND (2.5)	ND (0.93)
OB-3	2520	Metals	OB3PTF470085	10/25/2003	10/25/2003	08:06	16:52	526	5.12	5.05	5.09	2,674.71	Mercury	ND (0.05)	ND (0.02)
OB-3 Co-located	2516	Metals	OB3CTF470086	10/25/2003	10/25/2003	08:24	16:51	507	4.97	4.94	4.96	2,512.19	Aluminum	3.2	1.27
OB-3 Co-located	2516	Metals	OB3CTF470086	10/25/2003	10/25/2003	08:24	16:51	507	4.97	4.94	4.96	2,512.19	Antimony	ND (2.5)	ND (1.00)

**Metals Results from MIOASH Methods 7300M and 6009M (Mini-Vol Sampler)**

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l / min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
OB-3 Co-located	2516	Metals	OB3CTF470086	10/25/2003	10/25/2003	08:24	16:51	507	4.97	4.94	4.96	2,512.19	Barium	ND (2.5)	ND (1.00)
OB-3 Co-located	2516	Metals	OB3CTF470086	10/25/2003	10/25/2003	08:24	16:51	507	4.97	4.94	4.96	2,512.19	Beryllium	ND (1.5)	ND (0.60)
OB-3 Co-located	2516	Metals	OB3CTF470086	10/25/2003	10/25/2003	08:24	16:51	507	4.97	4.94	4.96	2,512.19	Cadmium	ND (1.5)	ND (0.60)
OB-3 Co-located	2516	Metals	OB3CTF470086	10/25/2003	10/25/2003	08:24	16:51	507	4.97	4.94	4.96	2,512.19	Chromium	ND (2.5)	ND (1.00)
OB-3 Co-located	2516	Metals	OB3CTF470086	10/25/2003	10/25/2003	08:24	16:51	507	4.97	4.94	4.96	2,512.19	Cobalt	ND (1.5)	ND (0.60)
OB-3 Co-located	2516	Metals	OB3CTF470086	10/25/2003	10/25/2003	08:24	16:51	507	4.97	4.94	4.96	2,512.19	Copper	ND (2.5)	ND (1.00)
OB-3 Co-located	2516	Metals	OB3CTF470086	10/25/2003	10/25/2003	08:24	16:51	507	4.97	4.94	4.96	2,512.19	Lead	ND (2.5)	ND (1.00)
OB-3 Co-located	2516	Metals	OB3CTF470086	10/25/2003	10/25/2003	08:24	16:51	507	4.97	4.94	4.96	2,512.19	Manganese	ND (2.5)	ND (1.00)
OB-3 Co-located	2516	Metals	OB3CTF470086	10/25/2003	10/25/2003	08:24	16:51	507	4.97	4.94	4.96	2,512.19	Molybdenum	ND (2.5)	ND (1.00)
OB-3 Co-located	2516	Metals	OB3CTF470086	10/25/2003	10/25/2003	08:24	16:51	507	4.97	4.94	4.96	2,512.19	Nickel	ND (2.5)	ND (1.00)
OB-3 Co-located	2516	Metals	OB3CTF470086	10/25/2003	10/25/2003	08:24	16:51	507	4.97	4.94	4.96	2,512.19	Zinc	ND (2.5)	ND (1.00)
OB-3 Co-located	2516	Metals	OB3CTF470086	10/25/2003	10/25/2003	08:24	16:51	507	4.97	4.94	4.96	2,512.19	Mercury	ND (0.05)	ND (0.02)
PS-1	2519	Metals	PS1PTF470031	10/25/2003	10/25/2003	07:52	16:46	534	5.00	4.94	4.97	2,653.98	Aluminum	3.1	1.17
PS-1	2519	Metals	PS1PTF470031	10/25/2003	10/25/2003	07:52	16:46	534	5.00	4.94	4.97	2,653.98	Antimony	ND (2.5)	ND (0.94)
PS-1	2519	Metals	PS1PTF470031	10/25/2003	10/25/2003	07:52	16:46	534	5.00	4.94	4.97	2,653.98	Barium	ND (2.5)	ND (0.94)
PS-1	2519	Metals	PS1PTF470031	10/25/2003	10/25/2003	07:52	16:46	534	5.00	4.94	4.97	2,653.98	Beryllium	ND (1.5)	ND (0.57)
PS-1	2519	Metals	PS1PTF470031	10/25/2003	10/25/2003	07:52	16:46	534	5.00	4.94	4.97	2,653.98	Cadmium	ND (1.5)	ND (0.57)
PS-1	2519	Metals	PS1PTF470031	10/25/2003	10/25/2003	07:52	16:46	534	5.00	4.94	4.97	2,653.98	Chromium	ND (2.5)	ND (0.94)
PS-1	2519	Metals	PS1PTF470031	10/25/2003	10/25/2003	07:52	16:46	534	5.00	4.94	4.97	2,653.98	Cobalt	ND (1.5)	ND (0.57)
PS-1	2519	Metals	PS1PTF470031	10/25/2003	10/25/2003	07:52	16:46	534	5.00	4.94	4.97	2,653.98	Copper	ND (2.5)	ND (0.94)
PS-1	2519	Metals	PS1PTF470031	10/25/2003	10/25/2003	07:52	16:46	534	5.00	4.94	4.97	2,653.98	Lead	ND (2.5)	ND (0.94)
PS-1	2519	Metals	PS1PTF470031	10/25/2003	10/25/2003	07:52	16:46	534	5.00	4.94	4.97	2,653.98	Manganese	ND (2.5)	ND (0.94)
PS-1	2519	Metals	PS1PTF470031	10/25/2003	10/25/2003	07:52	16:46	534	5.00	4.94	4.97	2,653.98	Molybdenum	ND (2.5)	ND (0.94)
PS-1	2519	Metals	PS1PTF470031	10/25/2003	10/25/2003	07:52	16:46	534	5.00	4.94	4.97	2,653.98	Nickel	ND (2.5)	ND (0.94)
PS-1	2519	Metals	PS1PTF470031	10/25/2003	10/25/2003	07:52	16:46	534	5.00	4.94	4.97	2,653.98	Zinc	ND (2.5)	ND (0.94)



**Metals Results from MIOASH Methods 7300M and 6009M (Mini-Vol Sampler)**

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l / min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
PS-1	2519	Metals	PS1PTF470031	10/25/2003	10/25/2003	07:52	16:46	534	5.00	4.94	4.97	2,653.98	Mercury	ND (0.05)	ND (0.02)
PS-3	160	Metals	PS3PTF470032	10/25/2003	10/25/2003	07:02	16:10	548	5.00	4.99	5.00	2,737.26	Aluminum	3.6	1.32
PS-3	160	Metals	PS3PTF470032	10/25/2003	10/25/2003	07:02	16:10	548	5.00	4.99	5.00	2,737.26	Antimony	ND (2.5)	ND (0.91)
PS-3	160	Metals	PS3PTF470032	10/25/2003	10/25/2003	07:02	16:10	548	5.00	4.99	5.00	2,737.26	Barium	ND (2.5)	ND (0.91)
PS-3	160	Metals	PS3PTF470032	10/25/2003	10/25/2003	07:02	16:10	548	5.00	4.99	5.00	2,737.26	Beryllium	ND (1.5)	ND (0.55)
PS-3	160	Metals	PS3PTF470032	10/25/2003	10/25/2003	07:02	16:10	548	5.00	4.99	5.00	2,737.26	Cadmium	ND (1.5)	ND (0.55)
PS-3	160	Metals	PS3PTF470032	10/25/2003	10/25/2003	07:02	16:10	548	5.00	4.99	5.00	2,737.26	Chromium	ND (2.5)	ND (0.91)
PS-3	160	Metals	PS3PTF470032	10/25/2003	10/25/2003	07:02	16:10	548	5.00	4.99	5.00	2,737.26	Cobalt	ND (1.5)	ND (0.55)
PS-3	160	Metals	PS3PTF470032	10/25/2003	10/25/2003	07:02	16:10	548	5.00	4.99	5.00	2,737.26	Copper	ND (2.5)	ND (0.91)
PS-3	160	Metals	PS3PTF470032	10/25/2003	10/25/2003	07:02	16:10	548	5.00	4.99	5.00	2,737.26	Lead	ND (2.5)	ND (0.91)
PS-3	160	Metals	PS3PTF470032	10/25/2003	10/25/2003	07:02	16:10	548	5.00	4.99	5.00	2,737.26	Manganese	ND (2.5)	ND (0.91)
PS-3	160	Metals	PS3PTF470032	10/25/2003	10/25/2003	07:02	16:10	548	5.00	4.99	5.00	2,737.26	Molybdenum	ND (2.5)	ND (0.91)
PS-3	160	Metals	PS3PTF470032	10/25/2003	10/25/2003	07:02	16:10	548	5.00	4.99	5.00	2,737.26	Nickel	ND (2.5)	ND (0.91)
PS-3	160	Metals	PS3PTF470032	10/25/2003	10/25/2003	07:02	16:10	548	5.00	4.99	5.00	2,737.26	Zinc	ND (2.5)	ND (0.91)
PS-3	160	Metals	PS3PTF470032	10/25/2003	10/25/2003	07:02	16:10	548	5.00	4.99	5.00	2,737.26	Mercury	ND (0.05)	ND (0.02)
PS-9	990	Metals	PS9PTF470034	10/25/2003	10/25/2003	08:44	17:30	526	5.00	4.97	4.99	2,622.11	Aluminum	2.8	1.07
PS-9	990	Metals	PS9PTF470034	10/25/2003	10/25/2003	08:44	17:30	526	5.00	4.97	4.99	2,622.11	Antimony	ND (2.5)	ND (0.95)
PS-9	990	Metals	PS9PTF470034	10/25/2003	10/25/2003	08:44	17:30	526	5.00	4.97	4.99	2,622.11	Barium	ND (2.5)	ND (0.95)
PS-9	990	Metals	PS9PTF470034	10/25/2003	10/25/2003	08:44	17:30	526	5.00	4.97	4.99	2,622.11	Beryllium	ND (1.5)	ND (0.57)
PS-9	990	Metals	PS9PTF470034	10/25/2003	10/25/2003	08:44	17:30	526	5.00	4.97	4.99	2,622.11	Cadmium	ND (1.5)	ND (0.57)
PS-9	990	Metals	PS9PTF470034	10/25/2003	10/25/2003	08:44	17:30	526	5.00	4.97	4.99	2,622.11	Chromium	ND (2.5)	ND (0.95)
PS-9	990	Metals	PS9PTF470034	10/25/2003	10/25/2003	08:44	17:30	526	5.00	4.97	4.99	2,622.11	Cobalt	ND (1.5)	ND (0.57)
PS-9	990	Metals	PS9PTF470034	10/25/2003	10/25/2003	08:44	17:30	526	5.00	4.97	4.99	2,622.11	Copper	ND (2.5)	ND (0.95)
PS-9	990	Metals	PS9PTF470034	10/25/2003	10/25/2003	08:44	17:30	526	5.00	4.97	4.99	2,622.11	Lead	ND (2.5)	ND (0.95)



**Metals Results from MIOASH Methods 7300M and 6009M (Mini-Vol Sampler)**

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
PS-9	990	Metals	PS9PTF470034	10/25/2003	10/25/2003	08:44	17:30	526	5.00	4.97	4.99	2,622.11	Manganese	ND (2.5)	ND (0.95)
PS-9	990	Metals	PS9PTF470034	10/25/2003	10/25/2003	08:44	17:30	526	5.00	4.97	4.99	2,622.11	Molybdenum	ND (2.5)	ND (0.95)
PS-9	990	Metals	PS9PTF470034	10/25/2003	10/25/2003	08:44	17:30	526	5.00	4.97	4.99	2,622.11	Nickel	ND (2.5)	ND (0.95)
PS-9	990	Metals	PS9PTF470034	10/25/2003	10/25/2003	08:44	17:30	526	5.00	4.97	4.99	2,622.11	Zinc	ND (2.5)	ND (0.95)
PS-9	990	Metals	PS9PTF470034	10/25/2003	10/25/2003	08:44	17:30	526	5.00	4.97	4.99	2,622.11	Mercury	ND (0.05)	ND (0.02)
PS-3 Duplicate	2167	Metals	PS32F470040	10/25/2003	10/25/2003	08:35	16:16	461	4.93	4.99	4.96	2,286.56	Aluminum	3.3	1.44
PS-3 Duplicate	2167	Metals	PS32F470040	10/25/2003	10/25/2003	08:35	16:16	461	4.93	4.99	4.96	2,286.56	Antimony	ND (2.5)	ND (1.09)
PS-3 Duplicate	2167	Metals	PS32F470040	10/25/2003	10/25/2003	08:35	16:16	461	4.93	4.99	4.96	2,286.56	Barium	ND (2.5)	ND (1.09)
PS-3 Duplicate	2167	Metals	PS32F470040	10/25/2003	10/25/2003	08:35	16:16	461	4.93	4.99	4.96	2,286.56	Beryllium	ND (1.5)	ND (0.66)
PS-3 Duplicate	2167	Metals	PS32F470040	10/25/2003	10/25/2003	08:35	16:16	461	4.93	4.99	4.96	2,286.56	Cadmium	ND (1.5)	ND (0.66)
PS-3 Duplicate	2167	Metals	PS32F470040	10/25/2003	10/25/2003	08:35	16:16	461	4.93	4.99	4.96	2,286.56	Chromium	ND (2.5)	ND (1.09)
PS-3 Duplicate	2167	Metals	PS32F470040	10/25/2003	10/25/2003	08:35	16:16	461	4.93	4.99	4.96	2,286.56	Cobalt	ND (1.5)	ND (0.66)
PS-3 Duplicate	2167	Metals	PS32F470040	10/25/2003	10/25/2003	08:35	16:16	461	4.93	4.99	4.96	2,286.56	Copper	ND (2.5)	ND (1.09)
PS-3 Duplicate	2167	Metals	PS32F470040	10/25/2003	10/25/2003	08:35	16:16	461	4.93	4.99	4.96	2,286.56	Lead	ND (2.5)	ND (1.09)
PS-3 Duplicate	2167	Metals	PS32F470040	10/25/2003	10/25/2003	08:35	16:16	461	4.93	4.99	4.96	2,286.56	Manganese	ND (2.5)	ND (1.09)
PS-3 Duplicate	2167	Metals	PS32F470040	10/25/2003	10/25/2003	08:35	16:16	461	4.93	4.99	4.96	2,286.56	Molybdenum	ND (2.5)	ND (1.09)
PS-3 Duplicate	2167	Metals	PS32F470040	10/25/2003	10/25/2003	08:35	16:16	461	4.93	4.99	4.96	2,286.56	Nickel	ND (2.5)	ND (1.09)
PS-3 Duplicate	2167	Metals	PS32F470040	10/25/2003	10/25/2003	08:35	16:16	461	4.93	4.99	4.96	2,286.56	Zinc	ND (2.5)	ND (1.09)
PS-3 Duplicate	2167	Metals	PS32F470040	10/25/2003	10/25/2003	08:35	16:16	461	4.93	4.99	4.96	2,286.56	Mercury	ND (0.05)	ND (0.02)

Note: All times have been converted to pacific standard time.  
 Volume (liters) = Average Rate (l/min) \* Total Time (minutes)  
 Concentration (ug/m<sup>3</sup>) = Results per Filter(ug) / Volume (liters) \* 1000 (liter/m<sup>3</sup>)  
 Calculated By: *David Edward Heston*

Reviewed By: *[Signature]*

Metals Results from NIOSH Methods 7300M and 6009M (Mini-Vol Sampler)



Client: Parsons/Ft. Ord Prescribed Burn Job Number: 56286.080105 Date: 11/12/2003  
 Calibration Set Number: MNF 1162

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
OB-1	2516	Metals	OB1PTF470051	11/12/2003	11/12/2003	07:14	16:10	536	4.97	4.94	4.96	2,655.88	Aluminum	2.8	1.05
OB-1	2516	Metals	OB1PTF470051	11/12/2003	11/12/2003	07:14	16:10	536	4.97	4.94	4.96	2,655.88	Antimony	ND (2.5)	ND (0.94)
OB-1	2516	Metals	OB1PTF470051	11/12/2003	11/12/2003	07:14	16:10	536	4.97	4.94	4.96	2,655.88	Barium	ND (2.5)	ND (0.94)
OB-1	2516	Metals	OB1PTF470051	11/12/2003	11/12/2003	07:14	16:10	536	4.97	4.94	4.96	2,655.88	Beryllium	ND (1.5)	ND (0.56)
OB-1	2516	Metals	OB1PTF470051	11/12/2003	11/12/2003	07:14	16:10	536	4.97	4.94	4.96	2,655.88	Cadmium	ND (1.5)	ND (0.56)
OB-1	2516	Metals	OB1PTF470051	11/12/2003	11/12/2003	07:14	16:10	536	4.97	4.94	4.96	2,655.88	Chromium	ND (2.5)	ND (0.94)
OB-1	2516	Metals	OB1PTF470051	11/12/2003	11/12/2003	07:14	16:10	536	4.97	4.94	4.96	2,655.88	Cobalt	ND (1.5)	ND (0.56)
OB-1	2516	Metals	OB1PTF470051	11/12/2003	11/12/2003	07:14	16:10	536	4.97	4.94	4.96	2,655.88	Copper	ND (2.5)	ND (0.94)
OB-1	2516	Metals	OB1PTF470051	11/12/2003	11/12/2003	07:14	16:10	536	4.97	4.94	4.96	2,655.88	Lead	ND (2.5)	ND (0.94)
OB-1	2516	Metals	OB1PTF470051	11/12/2003	11/12/2003	07:14	16:10	536	4.97	4.94	4.96	2,655.88	Manganese	ND (2.5)	ND (0.94)
OB-1	2516	Metals	OB1PTF470051	11/12/2003	11/12/2003	07:14	16:10	536	4.97	4.94	4.96	2,655.88	Molybdenum	ND (2.5)	ND (0.94)
OB-1	2516	Metals	OB1PTF470051	11/12/2003	11/12/2003	07:14	16:10	536	4.97	4.94	4.96	2,655.88	Nickel	ND (2.5)	ND (0.94)
OB-1	2516	Metals	OB1PTF470051	11/12/2003	11/12/2003	07:14	16:10	536	4.97	4.94	4.96	2,655.88	Zinc	ND (2.5)	ND (0.94)
OB-1	2516	Metals	OB1PTF470051	11/12/2003	11/12/2003	07:14	16:10	536	4.97	4.94	4.96	2,655.88	Mercury	ND (0.05)	ND (0.02)
OB-2	1995	Metals	OB2PTF470052	11/12/2003	11/12/2003	07:56	16:30	514	5.02	4.97	5.00	2,567.43	Aluminum	ND (2.5)	ND (0.97)
OB-2	1995	Metals	OB2PTF470052	11/12/2003	11/12/2003	07:56	16:30	514	5.02	4.97	5.00	2,567.43	Antimony	ND (2.5)	ND (0.97)
OB-2	1995	Metals	OB2PTF470052	11/12/2003	11/12/2003	07:56	16:30	514	5.02	4.97	5.00	2,567.43	Barium	ND (2.5)	ND (0.97)

**Metals Results from NIOSH Methods 7300M and 6009M (Mini-Vol Sampler)**

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
OB-2	1995	Metals	OB2PTF470052	11/12/2003	11/12/2003	07:56	16:30	514	5.02	4.97	5.00	2,567.43	Beryllium	ND (1.5)	ND (0.58)
OB-2	1995	Metals	OB2PTF470052	11/12/2003	11/12/2003	07:56	16:30	514	5.02	4.97	5.00	2,567.43	Cadmium	ND (1.5)	ND (0.58)
OB-2	1995	Metals	OB2PTF470052	11/12/2003	11/12/2003	07:56	16:30	514	5.02	4.97	5.00	2,567.43	Chromium	ND (2.5)	ND (0.97)
OB-2	1995	Metals	OB2PTF470052	11/12/2003	11/12/2003	07:56	16:30	514	5.02	4.97	5.00	2,567.43	Cobalt	ND (1.5)	ND (0.58)
OB-2	1995	Metals	OB2PTF470052	11/12/2003	11/12/2003	07:56	16:30	514	5.02	4.97	5.00	2,567.43	Copper	ND (2.5)	ND (0.97)
OB-2	1995	Metals	OB2PTF470052	11/12/2003	11/12/2003	07:56	16:30	514	5.02	4.97	5.00	2,567.43	Lead	ND (2.5)	ND (0.97)
OB-2	1995	Metals	OB2PTF470052	11/12/2003	11/12/2003	07:56	16:30	514	5.02	4.97	5.00	2,567.43	Manganese	ND (2.5)	ND (0.97)
OB-2	1995	Metals	OB2PTF470052	11/12/2003	11/12/2003	07:56	16:30	514	5.02	4.97	5.00	2,567.43	Molybdenum	ND (2.5)	ND (0.97)
OB-2	1995	Metals	OB2PTF470052	11/12/2003	11/12/2003	07:56	16:30	514	5.02	4.97	5.00	2,567.43	Nickel	ND (2.5)	ND (0.97)
OB-2	1995	Metals	OB2PTF470052	11/12/2003	11/12/2003	07:56	16:30	514	5.02	4.97	5.00	2,567.43	Zinc	ND (2.5)	ND (0.97)
OB-2	1995	Metals	OB2PTF470052	11/12/2003	11/12/2003	07:56	16:30	514	5.02	4.97	5.00	2,567.43	Mercury	ND (0.05)	ND (0.02)
OB-3	2520	Metals	OB3PTF470053	11/12/2003	11/12/2003	08:59	16:43	464	5.12	5.05	5.09	2,359.44	Aluminum	ND (2.5)	ND (1.06)
OB-3	2520	Metals	OB3PTF470053	11/12/2003	11/12/2003	08:59	16:43	464	5.12	5.05	5.09	2,359.44	Antimony	ND (2.5)	ND (1.06)
OB-3	2520	Metals	OB3PTF470053	11/12/2003	11/12/2003	08:59	16:43	464	5.12	5.05	5.09	2,359.44	Barium	ND (2.5)	ND (1.06)
OB-3	2520	Metals	OB3PTF470053	11/12/2003	11/12/2003	08:59	16:43	464	5.12	5.05	5.09	2,359.44	Beryllium	ND (1.5)	ND (0.64)
OB-3	2520	Metals	OB3PTF470053	11/12/2003	11/12/2003	08:59	16:43	464	5.12	5.05	5.09	2,359.44	Cadmium	ND (1.5)	ND (0.64)
OB-3	2520	Metals	OB3PTF470053	11/12/2003	11/12/2003	08:59	16:43	464	5.12	5.05	5.09	2,359.44	Chromium	ND (2.5)	ND (1.06)
OB-3	2520	Metals	OB3PTF470053	11/12/2003	11/12/2003	08:59	16:43	464	5.12	5.05	5.09	2,359.44	Cobalt	ND (1.5)	ND (0.64)
OB-3	2520	Metals	OB3PTF470053	11/12/2003	11/12/2003	08:59	16:43	464	5.12	5.05	5.09	2,359.44	Copper	ND (2.5)	ND (1.06)
OB-3	2520	Metals	OB3PTF470053	11/12/2003	11/12/2003	08:59	16:43	464	5.12	5.05	5.09	2,359.44	Lead	ND (2.5)	ND (1.06)
OB-3	2520	Metals	OB3PTF470053	11/12/2003	11/12/2003	08:59	16:43	464	5.12	5.05	5.09	2,359.44	Manganese	ND (2.5)	ND (1.06)
OB-3	2520	Metals	OB3PTF470053	11/12/2003	11/12/2003	08:59	16:43	464	5.12	5.05	5.09	2,359.44	Molybdenum	ND (2.5)	ND (1.06)



**Metals Results from NIOSH Methods 7300M and 6009M (Mini-Vol Sampler)**

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
OB-3	2520	Metals	OB3PTF470053	11/12/2003	11/12/2003	08:59	16:43	464	5.12	5.05	5.09	2,359.44	Nickel	ND (2.5)	ND (1.06)
OB-3	2520	Metals	OB3PTF470053	11/12/2003	11/12/2003	08:59	16:43	464	5.12	5.05	5.09	2,359.44	Zinc	ND (2.5)	ND (1.06)
OB-3	2520	Metals	OB3PTF470053	11/12/2003	11/12/2003	08:59	16:43	464	5.12	5.05	5.09	2,359.44	Mercury	ND (0.05)	ND (0.02)
OB-3 Co-located	159	Metals	OB3CTF470054	11/12/2003	11/12/2003	09:01	16:47	466	4.98	4.96	4.97	2,316.02	Aluminum	ND (2.5)	ND (1.08)
OB-3 Co-located	159	Metals	OB3CTF470054	11/12/2003	11/12/2003	09:01	16:47	466	4.98	4.96	4.97	2,316.02	Antimony	ND (2.5)	ND (1.08)
OB-3 Co-located	159	Metals	OB3CTF470054	11/12/2003	11/12/2003	09:01	16:47	466	4.98	4.96	4.97	2,316.02	Barium	ND (2.5)	ND (1.08)
OB-3 Co-located	159	Metals	OB3CTF470054	11/12/2003	11/12/2003	09:01	16:47	466	4.98	4.96	4.97	2,316.02	Beryllium	ND (1.5)	ND (0.65)
OB-3 Co-located	159	Metals	OB3CTF470054	11/12/2003	11/12/2003	09:01	16:47	466	4.98	4.96	4.97	2,316.02	Cadmium	ND (1.5)	ND (0.65)
OB-3 Co-located	159	Metals	OB3CTF470054	11/12/2003	11/12/2003	09:01	16:47	466	4.98	4.96	4.97	2,316.02	Chromium	ND (2.5)	ND (1.08)
OB-3 Co-located	159	Metals	OB3CTF470054	11/12/2003	11/12/2003	09:01	16:47	466	4.98	4.96	4.97	2,316.02	Cobalt	ND (1.5)	ND (0.65)
OB-3 Co-located	159	Metals	OB3CTF470054	11/12/2003	11/12/2003	09:01	16:47	466	4.98	4.96	4.97	2,316.02	Copper	ND (2.5)	ND (1.08)
OB-3 Co-located	159	Metals	OB3CTF470054	11/12/2003	11/12/2003	09:01	16:47	466	4.98	4.96	4.97	2,316.02	Lead	ND (2.5)	ND (1.08)
OB-3 Co-located	159	Metals	OB3CTF470054	11/12/2003	11/12/2003	09:01	16:47	466	4.98	4.96	4.97	2,316.02	Manganese	ND (2.5)	ND (1.08)
OB-3 Co-located	159	Metals	OB3CTF470054	11/12/2003	11/12/2003	09:01	16:47	466	4.98	4.96	4.97	2,316.02	Molybdenum	ND (2.5)	ND (1.08)
OB-3 Co-located	159	Metals	OB3CTF470054	11/12/2003	11/12/2003	09:01	16:47	466	4.98	4.96	4.97	2,316.02	Nickel	ND (2.5)	ND (1.08)
OB-3 Co-located	159	Metals	OB3CTF470054	11/12/2003	11/12/2003	09:01	16:47	466	4.98	4.96	4.97	2,316.02	Zinc	ND (2.5)	ND (1.08)
OB-3 Co-located	159	Metals	OB3CTF470054	11/12/2003	11/12/2003	09:01	16:47	466	4.98	4.96	4.97	2,316.02	Mercury	ND (0.05)	ND (0.02)
PS-1	2167	Metals	PS1PTF470055	11/12/2003	11/12/2003	08:29	17:42	553	4.93	4.99	4.96	2,742.88	Aluminum	ND (2.5)	ND (0.91)
PS-1	2167	Metals	PS1PTF470055	11/12/2003	11/12/2003	08:29	17:42	553	4.93	4.99	4.96	2,742.88	Antimony	ND (2.5)	ND (0.91)
PS-1	2167	Metals	PS1PTF470055	11/12/2003	11/12/2003	08:29	17:42	553	4.93	4.99	4.96	2,742.88	Barium	ND (2.5)	ND (0.91)
PS-1	2167	Metals	PS1PTF470055	11/12/2003	11/12/2003	08:29	17:42	553	4.93	4.99	4.96	2,742.88	Beryllium	ND (1.5)	ND (0.55)




**Metals Results from NIOSH Methods 7300M and 6009M (Mini-Vol Sampler)**

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l / min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
PS-1	2167	Metals	PS1PTF470055	11/12/2003	11/12/2003	08:29	17:42	553	4.93	4.99	4.96	2,742.88	Cadmium	ND (1.5)	ND (0.55)
PS-1	2167	Metals	PS1PTF470055	11/12/2003	11/12/2003	08:29	17:42	553	4.93	4.99	4.96	2,742.88	Chromium	ND (2.5)	ND (0.91)
PS-1	2167	Metals	PS1PTF470055	11/12/2003	11/12/2003	08:29	17:42	553	4.93	4.99	4.96	2,742.88	Cobalt	ND (1.5)	ND (0.55)
PS-1	2167	Metals	PS1PTF470055	11/12/2003	11/12/2003	08:29	17:42	553	4.93	4.99	4.96	2,742.88	Copper	ND (2.5)	ND (0.91)
PS-1	2167	Metals	PS1PTF470055	11/12/2003	11/12/2003	08:29	17:42	553	4.93	4.99	4.96	2,742.88	Lead	ND (2.5)	ND (0.91)
PS-1	2167	Metals	PS1PTF470055	11/12/2003	11/12/2003	08:29	17:42	553	4.93	4.99	4.96	2,742.88	Manganese	ND (2.5)	ND (0.91)
PS-1	2167	Metals	PS1PTF470055	11/12/2003	11/12/2003	08:29	17:42	553	4.93	4.99	4.96	2,742.88	Molybdenum	ND (2.5)	ND (0.91)
PS-1	2167	Metals	PS1PTF470055	11/12/2003	11/12/2003	08:29	17:42	553	4.93	4.99	4.96	2,742.88	Nickel	ND (2.5)	ND (0.91)
PS-1	2167	Metals	PS1PTF470055	11/12/2003	11/12/2003	08:29	17:42	553	4.93	4.99	4.96	2,742.88	Zinc	ND (2.5)	ND (0.91)
PS-1	2167	Metals	PS1PTF470055	11/12/2003	11/12/2003	08:29	17:42	553	4.93	4.99	4.96	2,742.88	Mercury	ND (0.05)	ND (0.02)
PS-3	990	Metals	PS3PTF470056	11/12/2003	11/12/2003	07:31	16:34	543	5.00	4.97	4.99	2,706.86	Aluminum	10	3.69
PS-3	990	Metals	PS3PTF470056	11/12/2003	11/12/2003	07:31	16:34	543	5.00	4.97	4.99	2,706.86	Antimony	ND (2.5)	ND (0.92)
PS-3	990	Metals	PS3PTF470056	11/12/2003	11/12/2003	07:31	16:34	543	5.00	4.97	4.99	2,706.86	Barium	ND (2.5)	ND (0.92)
PS-3	990	Metals	PS3PTF470056	11/12/2003	11/12/2003	07:31	16:34	543	5.00	4.97	4.99	2,706.86	Beryllium	ND (1.5)	ND (0.55)
PS-3	990	Metals	PS3PTF470056	11/12/2003	11/12/2003	07:31	16:34	543	5.00	4.97	4.99	2,706.86	Cadmium	ND (1.5)	ND (0.55)
PS-3	990	Metals	PS3PTF470056	11/12/2003	11/12/2003	07:31	16:34	543	5.00	4.97	4.99	2,706.86	Chromium	ND (2.5)	ND (0.92)
PS-3	990	Metals	PS3PTF470056	11/12/2003	11/12/2003	07:31	16:34	543	5.00	4.97	4.99	2,706.86	Cobalt	ND (1.5)	ND (0.55)
PS-3	990	Metals	PS3PTF470056	11/12/2003	11/12/2003	07:31	16:34	543	5.00	4.97	4.99	2,706.86	Copper	ND (2.5)	ND (0.92)
PS-3	990	Metals	PS3PTF470056	11/12/2003	11/12/2003	07:31	16:34	543	5.00	4.97	4.99	2,706.86	Lead	ND (2.5)	ND (0.92)
PS-3	990	Metals	PS3PTF470056	11/12/2003	11/12/2003	07:31	16:34	543	5.00	4.97	4.99	2,706.86	Manganese	ND (2.5)	ND (0.92)
PS-3	990	Metals	PS3PTF470056	11/12/2003	11/12/2003	07:31	16:34	543	5.00	4.97	4.99	2,706.86	Molybdenum	ND (2.5)	ND (0.92)
PS-3	990	Metals	PS3PTF470056	11/12/2003	11/12/2003	07:31	16:34	543	5.00	4.97	4.99	2,706.86	Nickel	ND (2.5)	ND (0.92)

**Metals Results from NIOSH Methods 7300M and 6009M (Mini-Vol Sampler)**

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
PS-3	990	Metals	PS3PTF470056	11/12/2003	11/12/2003	07:31	16:34	543	5.00	4.97	4.99	2,706.86	Zinc	ND (2.5)	ND (0.92)
PS-3	990	Metals	PS3PTF470056	11/12/2003	11/12/2003	07:31	16:34	543	5.00	4.97	4.99	2,706.86	Mercury	ND (0.05)	ND (0.02)
PS-9	158	Metals	PS9PTF470057	11/12/2003	11/12/2003	08:49	17:26	517	5.02	4.96	4.99	2,579.83	Aluminum	ND (2.5)	ND (0.97)
PS-9	158	Metals	PS9PTF470057	11/12/2003	11/12/2003	08:49	17:26	517	5.02	4.96	4.99	2,579.83	Antimony	ND (2.5)	ND (0.97)
PS-9	158	Metals	PS9PTF470057	11/12/2003	11/12/2003	08:49	17:26	517	5.02	4.96	4.99	2,579.83	Barium	ND (2.5)	ND (0.97)
PS-9	158	Metals	PS9PTF470057	11/12/2003	11/12/2003	08:49	17:26	517	5.02	4.96	4.99	2,579.83	Beryllium	ND (1.5)	ND (0.58)
PS-9	158	Metals	PS9PTF470057	11/12/2003	11/12/2003	08:49	17:26	517	5.02	4.96	4.99	2,579.83	Cadmium	ND (1.5)	ND (0.58)
PS-9	158	Metals	PS9PTF470057	11/12/2003	11/12/2003	08:49	17:26	517	5.02	4.96	4.99	2,579.83	Chromium	ND (2.5)	ND (0.97)
PS-9	158	Metals	PS9PTF470057	11/12/2003	11/12/2003	08:49	17:26	517	5.02	4.96	4.99	2,579.83	Cobalt	ND (1.5)	ND (0.58)
PS-9	158	Metals	PS9PTF470057	11/12/2003	11/12/2003	08:49	17:26	517	5.02	4.96	4.99	2,579.83	Copper	ND (2.5)	ND (0.97)
PS-9	158	Metals	PS9PTF470057	11/12/2003	11/12/2003	08:49	17:26	517	5.02	4.96	4.99	2,579.83	Lead	ND (2.5)	ND (0.97)
PS-9	158	Metals	PS9PTF470057	11/12/2003	11/12/2003	08:49	17:26	517	5.02	4.96	4.99	2,579.83	Manganese	ND (2.5)	ND (0.97)
PS-9	158	Metals	PS9PTF470057	11/12/2003	11/12/2003	08:49	17:26	517	5.02	4.96	4.99	2,579.83	Molybdenum	ND (2.5)	ND (0.97)
PS-9	158	Metals	PS9PTF470057	11/12/2003	11/12/2003	08:49	17:26	517	5.02	4.96	4.99	2,579.83	Nickel	ND (2.5)	ND (0.97)
PS-9	158	Metals	PS9PTF470057	11/12/2003	11/12/2003	08:49	17:26	517	5.02	4.96	4.99	2,579.83	Zinc	ND (2.5)	ND (0.97)
PS-9	158	Metals	PS9PTF470057	11/12/2003	11/12/2003	08:49	17:26	517	5.02	4.96	4.99	2,579.83	Mercury	ND (0.05)	ND (0.02)

Note: All times have been converted to pacific standard time.  
 Volume (liters) = Average Rate (l/min) \* Total Time (minutes)  
 Concentration (ug/m<sup>3</sup>) = Results per Filter (ug) / Volume (liters) \* 1000 (liter/m<sup>3</sup>)  
 Calculated By: *Bruce Edward Kistand*

Reviewed By: 



Total Suspended Particulates

Client: Parsons/EL Ord Prescribed Burn

Job Number: 56286.080105

Date: 10/24/2003  
 Average Daily Temperature: 298.150 K  
 Average Daily Pressure: 760.000 mmHg

Name or Location	TSP Sampler ID#	Slope	Intercept	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate (in H <sub>2</sub> O)	Stop Rate (in H <sub>2</sub> O)	Average Rate (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Results per Filter (mg/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	10438 #9	1.5905	-0.065	TSP	BA1PQ0116288	10/24/2003	10/24/2003	05:56	15:36	580	6.00	3.20	1.37326	796.48	2121	2663
BA-1 (Co-located)	10343 #2	1.4881	-0.17	TSP	BA1CQ0116289	10/24/2003	10/24/2003	05:56	15:36	580	9.15	1.40	1.52816	886.33	2289	2583
BA-2	10458 #6	1.3484	-0.06	TSP	BA2PQ0116287	10/24/2003	10/24/2003	05:25	15:13	588	4.10	3.70	1.50859	887.05	76	86

Note: All times have been converted to pacific standard time.  
 Slope and intercept are derived from "HIVOL Sampler Calibration Worksheet"  
 Correction Factor = (Ambient Pressure) \* (Standard Temperature) / (Ambient Temperature) \* (Standard Pressure)  
 Rate = [(Gauge Reading \* CF)<sup>1/2</sup> - intercept] \* 1/slope  
 Average Rate (m<sup>3</sup>/min) = (Initial Rate + Final Rate) / 2  
 Volume (m<sup>3</sup>) = Average Rate (m<sup>3</sup>/min) \* Total Time (minutes)  
 Concentration (ug/m<sup>3</sup>) = Results per Filter (mg) / Volume (m<sup>3</sup>) \* 1.0 E+03(ug/mg)

Calculated By: Bruce Edward Feirstand

Reviewed By: [Signature]



Total Suspended Particulates

Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286 080105

Date: 10/25/2003

Average Daily Temperature:

298.150 K

Average Daily Pressure:

760.000 mmHg

Name or Location	TSP Sampler ID#	Slope	Intercept	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate (in H <sub>2</sub> O)	Stop Rate (in H <sub>2</sub> O)	Average Rate (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Results per Filter (mg/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	10438 #9	1.5905	-0.065	TSP	BA1PQ0116290	10/25/2003	10/25/2003	07:09	16:07	538	6.00	5.95	1.57772	848.81	212	250
BA-1 (Co-located)	10343 #2	1.4881	-0.17	TSP	BA1CQ0116291	10/25/2003	10/25/2003	07:09	16:07	538	9.15	8.45	2.10731	1,133.73	291	257
BA-2	10458 #6	1.3484	-0.06	TSP	BA2PQ0116292	10/25/2003	10/25/2003	06:46	15:44	538	4.10	3.70	1.50859	811.62	330	407

Note: All times have been converted to pacific standard time. Slope and intercept are derived from "HIVOL Sampler Calibration Worksheet"

Correction Factor = (Ambient Pressure) \* (Standard Temperature) / ((Ambient Temperature) \* (Standard Pressure))

Rate = [(Gauge Reading \* CF)<sup>1/2</sup> - intercept] \* 1/slope

Average Rate (m<sup>3</sup>/min) = (Initial Rate + Final Rate) / 2

Volume (m<sup>3</sup>) = Average Rate (m<sup>3</sup>/min) \* Total Time (minutes)

Concentration (ug/m<sup>3</sup>) = Results per Filter (mg) / Volume (m<sup>3</sup>) \* 1.0 E+03(ug/mg)

Calculated By: Bruce Edward Husband

Reviewed By:





**Total Suspended Particulates**

Client: Parsons/EI\_Ord Prescribed Burn

Job Number: 56286.080105

Date: 11/12/2003

Average Daily Temperature: 298.150 K

Average Daily Pressure: 760.000 mmHg

Name or Location	TSP Sampler ID#	Slope	Intercept	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate (in H <sub>2</sub> O)	Stop Rate (in H <sub>2</sub> O)	Average Rate (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Results per Filter (mg/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	10438 #9	1.5905	-0.065	TSP	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	10	12.4
BA-1 (Co-located)	10343 #2	1.4881	-0.17	TSP	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	16	14.3
BA-2	10458 #6	1.3484	-0.06	TSP	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	14	14.3

Note: All times have been converted to pacific standard time.  
 Slope and intercept are derived from "HIVOL Sampler Calibration Worksheet"  
 Correction Factor = (Ambient Pressure)<sup>Y</sup>(Standard Temperature)<sup>Z</sup>(Ambient Temperature)<sup>X</sup>(Standard Pressure)  
 Rate = [(Gauge Reading \* CF)<sup>1/2</sup> - intercept] \* 1/slope  
 Average Rate (m<sup>3</sup>/min) = (Initial Rate + Final Rate)/2  
 Volume (m<sup>3</sup>) = Average Rate (m<sup>3</sup>/min) \* Total Time (minutes)  
 Concentration (ug/m<sup>3</sup>) = Results per Filter (mg) / Volume (m<sup>3</sup>) \* 1.0 E+03(ug/mg)

Calculated By: *Bruce Edward Keystand*

Reviewed By: *[Signature]*



PM-10 Results from Hi-Vol Sampler

Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286 080105

Date: 10/24/2003

Average Daily Temperature:

298.150 K  
760.000 mmHg

Average Daily Pressure:

Name or Location	HiVol Sampler ID#	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Reading	Stop Reading	Average Rate (in H <sub>2</sub> O)	Lookup Value (Po/Pa)	Flow Rate - from Table (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Results per Filter (mg/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	3615	PM <sub>10</sub>	BA1PQ0116277	10/24/2003	10/24/2003	05:56	15:36	580	18.95	34.00	26.48	0.9350	1.131	655.98	1480	2256
BA-2	P3616	PM <sub>10</sub>	BA2PQ0116283	10/24/2003	10/24/2003	05:25	15:13	588	16.30	17.20	16.75	0.9589	1.161	682.67	39	57
BA-2 Co-located	3634	PM <sub>10</sub>	BA2CQ0116284	10/24/2003	10/24/2003	05:25	15:13	588	17.30	18.50	17.90	0.9560	1.155	679.14	35	52

Note: All times have been converted to pacific standard time.

Po/Pa = [Actual Pressure - (manometer final + manometer initial) / 2 \* 1.866453(mmHg/(m<sup>3</sup>H<sub>2</sub>O))] / Actual Pressure

Concentration (ug/m<sup>3</sup>) = 1000(ug/mg) \* Results per filter (mg/sample) / Volume (m<sup>3</sup>)

Calculated By: Bruce Edward Heistand

Reviewed By: [Signature]



PM-10 Results from Hi-Vol Sampler

Client: Parsons/Ft. Ord Prescribed Burn Job Number: 56286 080105

Date: 11/12/2003  
 Average Daily Temperature: 298.150 K  
 Average Daily Pressure: 760.000 mmHg

Name or Location	HiVol Sampler ID#	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Reading	Stop Reading	Average Rate (in H <sub>2</sub> O)	Lookup Value (Po/Pa)	Flow Rate - from Table (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Results per Filter (mg/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	#3 3615	PM <sub>10</sub>	BA1PQ0142651	11/12/2003	11/12/2003	08:03	16:35	512	20.60	21.20	20.90	0.9487	1.149	588.29	4	6.8
BA-2	#8 P3616	PM <sub>10</sub>	BA2PQ0116280	11/12/2003	11/12/2003	07:38	16:09	511	15.60	16.35	15.98	0.9608	1.164	594.80	5	8.4
BA-2 Co-located	#5 3634	PM <sub>10</sub>	BA2CQ0142652	11/12/2003	11/12/2003	07:38	16:09	511	20.80	21.55	21.18	0.9480	1.145	585.10	4	6.8

Note: All times have been converted to pacific standard time.

Po/Pa = [Actual Pressure - (manometer final + manometer initial) / 2 \* 1.866453(mmHg/(inH<sub>2</sub>O))] / Actual Pressure

Concentration (ug/m<sup>3</sup>) = 1000(ug/mg) \* Results per filter (mg/sample) / Volume (m<sup>3</sup>)

Calculated By: *Bruce Edward Kistand*

Reviewed By: \_\_\_\_\_



PM-10 Results from Hi-Vol Sampler

Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286 080105

Date: 10/25/2003

Average Daily Temperature:

28.6 K

Average Daily Pressure:

760.0 mmHg

Name or Location	HiVol Sampler ID#	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Reading	Stop Reading	Average Rate (in H <sub>2</sub> O)	Lookup Value (Po/Pa)	Flow Rate - from Table (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Results per Filter (mg/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	#3 3615	PM <sub>10</sub>	BA1PQ0116278	10/25/2003	10/25/2003	07:09	16:07	538	19.40	20.45	19.93	0.9511	1.151	619.24	77	124
BA-2	#8 P3616	PM <sub>10</sub>	BA2PQ0116285	10/25/2003	10/25/2003	06:46	15:44	538	16.35	18.15	17.25	0.9576	1.160	624.08	146	234
BA-2 Co-located	#5 3634	PM <sub>10</sub>	BA2CQ0116286	10/25/2003	10/25/2003	06:46	15:44	538	19.25	20.15	19.70	0.9516	1.149	618.16	154	249

Note: All times have been converted to pacific standard time.

Po/Pa = [Actual Pressure - (manometer final + manometer initial) / 2 \* 1.866453(mmHg/inH<sub>2</sub>O)] / Actual Pressure

Concentration (ug/m<sup>3</sup>) = 1000(ug/mg) \* Results per filter (mg/sample) / Volume (m<sup>3</sup>)

Calculated By: Bruce Edward Keistand

Reviewed By: [Signature]





PM-10 Results from Hi-Vol Sampler

Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286 080105

Date: 11/12/2003

Average Daily Temperature:

20.5 (1.0)  
76.0 (0.00)

K  
mmHg

Average Daily Pressure:

Name or Location	HiVol Sampler ID#	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Reading	Stop Reading	Average Rate (in H <sub>2</sub> O)	Lookup Value (Po/Pa)	Flow Rate - from Table (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Results per Filter (mg/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	#3 3615	PM <sub>10</sub>	BA1PQ0142651	11/12/2003	11/12/2003	08:03	16:35	512	20.60	21.20	20.90	0.9487	1.149	588.29	4	6.8
BA-2	#8 P3616	PM <sub>10</sub>	BA2PQ0116280	11/12/2003	11/12/2003	07:38	16:09	511	15.60	16.35	15.98	0.9608	1.164	594.80	5	8.4
BA-2 Co-located	#5 3634	PM <sub>10</sub>	BA2CQ0142652	11/12/2003	11/12/2003	07:38	16:09	511	20.80	21.55	21.18	0.9480	1.145	585.10	4	6.8

Note: All times have been converted to pacific standard time.

Po/Pa = [Actual Pressure - (manometer final + manometer initial) / 2 \* 1.866453(mmHg/inH<sub>2</sub>O)] / Actual Pressure

Concentration (ug/m<sup>3</sup>) = 1000(ug/mg) \* Results per filter (mg/sample) / Volume (m<sup>3</sup>)

Calculated By: Bruce Edward Kestrand

Reviewed By: [Signature]

Total Dioxin/Furan Toxicity Equivalent Results from EPA Method 23



Job Number: 56286 080105

Date: 10/24/2003

Average Daily Temperature: 298.150 K  
Average Daily Pressure: 760.000 mmHg

Name or Location	PUF Sampler ID#	Slope	Intercept	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate (in H <sub>2</sub> O)	Stop Rate (in H <sub>2</sub> O)	Average Rate (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (pg/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	15702-A	0.0295	0.032	Dioxins	BA1PPUFF10	10/24/2003	10/24/2003	05:56	15:36	580	67.50	4.00	0.17206	99.80	Total TCDD	1520	1.52E-05
BA-1	15702-A			Dioxins	BA1PPUFF10	10/24/2003	10/24/2003	05:56	15:36	580	67.50	4.00	0.17206	99.80	Total PeCDD	1630	1.63E-05
BA-1	15702-A			Dioxins	BA1PPUFF10	10/24/2003	10/24/2003	05:56	15:36	580	67.50	4.00	0.17206	99.80	Total HxCDD	3190	3.20E-05
BA-1	15702-A			Dioxins	BA1PPUFF10	10/24/2003	10/24/2003	05:56	15:36	580	67.50	4.00	0.17206	99.80	Total HpCDD	4270	4.28E-05
BA-1	15702-A			Furans	BA1PPUFF10	10/24/2003	10/24/2003	05:56	15:36	580	67.50	4.00	0.17206	99.80	Total TCDF	1330	1.33E-05
BA-1	15702-A			Furans	BA1PPUFF10	10/24/2003	10/24/2003	05:56	15:36	580	67.50	4.00	0.17206	99.80	Total PeCDF	320	3.21E-06
BA-1	15702-A			Furans	BA1PPUFF10	10/24/2003	10/24/2003	05:56	15:36	580	67.50	4.00	0.17206	99.80	Total HxCDF	277	2.78E-06
BA-1	15702-A			Furans	BA1PPUFF10	10/24/2003	10/24/2003	05:56	15:36	580	67.50	4.00	0.17206	99.80	Total HpCDF	196	1.96E-06
BA-1	15702-A			TEQ	BA1PPUFF10	10/24/2003	10/24/2003	05:56	15:36	580	67.50	4.00	0.17206	99.80	Total TEQ	570	5.71E-06
BA-2	6725-12	0.0312	-0.27	Dioxins	BA2PPUFF5	10/24/2003	10/24/2003	05:25	15:13	588	37.00	38.00	0.20492	120.49	Total TCDD	ND(6.11)	ND(5.07E-8)
BA-2	6725-12			Dioxins	BA2PPUFF5	10/24/2003	10/24/2003	05:25	15:13	588	37.00	38.00	0.20492	120.49	Total PeCDD	ND(12.4)	ND(1.03E-7)
BA-2	6725-12			Dioxins	BA2PPUFF5	10/24/2003	10/24/2003	05:25	15:13	588	37.00	38.00	0.20492	120.49	Total HxCDD	ND(19.2)	ND(1.59E-7)
BA-2	6725-12			Dioxins	BA2PPUFF5	10/24/2003	10/24/2003	05:25	15:13	588	37.00	38.00	0.20492	120.49	Total HpCDD	ND(8.14)	ND(6.76E-8)
BA-2	6725-12			Furans	BA2PPUFF5	10/24/2003	10/24/2003	05:25	15:13	588	37.00	38.00	0.20492	120.49	Total TCDF	ND(4.36)	ND(3.62E-8)
BA-2	6725-12			Furans	BA2PPUFF5	10/24/2003	10/24/2003	05:25	15:13	588	37.00	38.00	0.20492	120.49	Total PeCDF	ND(7.13)	ND(5.92E-8)
BA-2	6725-12			Furans	BA2PPUFF5	10/24/2003	10/24/2003	05:25	15:13	588	37.00	38.00	0.20492	120.49	Total HxCDF	ND(3.85)	ND(3.20E-8)
BA-2	6725-12			Furans	BA2PPUFF5	10/24/2003	10/24/2003	05:25	15:13	588	37.00	38.00	0.20492	120.49	Total HpCDF	ND(7.83)	ND(6.50E-8)
BA-2	6725-12			TEQ	BA2PPUFF5	10/24/2003	10/24/2003	05:25	15:13	588	37.00	38.00	0.20492	120.49	Total TEQ	ND	ND
BA-2 (Co-located)	4850	0.0296	0.067	Dioxins	BA2CPUFF7	10/24/2003	10/24/2003	05:25	15:13	588	50.50	47.00	0.23358	137.35	Total TCDD	ND(8.76)	ND(6.38E-8)
BA-2 (Co-located)	4850			Dioxins	BA2CPUFF7	10/24/2003	10/24/2003	05:25	15:13	588	50.50	47.00	0.23358	137.35	Total PeCDD	ND(20.0)	ND(1.46E-7)

Total Dioxin/Furan Toxicity Equivalent Results from EPA Method 23

Name or Location	PUF Sampler ID#	Slope	Intercept	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate (in H <sub>2</sub> O)	Stop Rate (in H <sub>2</sub> O)	Average Rate (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (pg/Sample)	Concentration (ug/m <sup>3</sup> )
BA-2 (Co-located)	4850			Dioxins	BA2CPUFF7	10/24/2003	10/24/2003	05:25	15:13	588	50.50	47.00	0.23358	137.35	Total HxCDD	210	1.53E-06
BA-2 (Co-located)	4850			Dioxins	BA2CPUFF7	10/24/2003	10/24/2003	05:25	15:13	588	50.50	47.00	0.23358	137.35	Total HpCDD	475	3.46E-06
BA-2 (Co-located)	4850			Furans	BA2CPUFF7	10/24/2003	10/24/2003	05:25	15:13	588	50.50	47.00	0.23358	137.35	Total TCDF	ND(7.00)	ND(6.10E-8)
BA-2 (Co-located)	4850			Furans	BA2CPUFF7	10/24/2003	10/24/2003	05:25	15:13	588	50.50	47.00	0.23358	137.35	Total PeCDF	ND(16.6)	ND(1.21E-7)
BA-2 (Co-located)	4850			Furans	BA2CPUFF7	10/24/2003	10/24/2003	05:25	15:13	588	50.50	47.00	0.23358	137.35	Total HxCDF	ND(15.4)	ND(1.12E-7)
BA-2 (Co-located)	4850			Furans	BA2CPUFF7	10/24/2003	10/24/2003	05:25	15:13	588	50.50	47.00	0.23358	137.35	Total HpCDF	ND(14.0)	ND(1.02E-7)
BA-2 (Co-located)	4850			TEQ	BA2CPUFF7	10/24/2003	10/24/2003	05:25	15:13	588	50.50	47.00	0.23358	137.35	Total TEQ	5.85	4.26E-08
MS-1	15702-B	0.0295	0.032	Dioxins	MS1PPUFF2	10/24/2003	10/24/2003	11:41	15:05	204	36.00	36.00	0.20230	41.27	Total TCDD	ND(5.40)	ND(1.31E-7)
MS-1	15702-B			Dioxins	MS1PPUFF2	10/24/2003	10/24/2003	11:41	15:05	204	36.00	36.00	0.20230	41.27	Total PeCDD	ND(11.1)	ND(2.69E-7)
MS-1	15702-B			Dioxins	MS1PPUFF2	10/24/2003	10/24/2003	11:41	15:05	204	36.00	36.00	0.20230	41.27	Total HxCDD	ND(11.7)	ND(2.83E-7)
MS-1	15702-B			Dioxins	MS1PPUFF2	10/24/2003	10/24/2003	11:41	15:05	204	36.00	36.00	0.20230	41.27	Total HpCDD	ND(11.3)	ND(2.74E-7)
MS-1	15702-B			Furans	MS1PPUFF2	10/24/2003	10/24/2003	11:41	15:05	204	36.00	36.00	0.20230	41.27	Total TCDF	ND(4.11)	ND(9.96E-8)
MS-1	15702-B			Furans	MS1PPUFF2	10/24/2003	10/24/2003	11:41	15:05	204	36.00	36.00	0.20230	41.27	Total PeCDF	ND(7.32)	ND(1.77E-7)
MS-1	15702-B			Furans	MS1PPUFF2	10/24/2003	10/24/2003	11:41	15:05	204	36.00	36.00	0.20230	41.27	Total HxCDF	ND(6.04)	ND(1.46E-7)
MS-1	15702-B			Furans	MS1PPUFF2	10/24/2003	10/24/2003	11:41	15:05	204	36.00	36.00	0.20230	41.27	Total HpCDF	ND(5.52)	ND(1.34E-7)
MS-1	15702-B			TEQ	MS1PPUFF2	10/24/2003	10/24/2003	11:41	15:05	204	36.00	36.00	0.20230	41.27	Total TEQ	ND	ND

Note: All times have been converted to pacific standard time.  
 Slope and intercept are derived from "PUF Sampler Calibration Worksheet"  
 Correction Factor = (Ambient Pressure)<sup>1/2</sup> / (Standard Temperature)<sup>1/2</sup> \* (Standard Pressure)<sup>1/2</sup>  
 Rate = [(Gauge Reading \* CF)<sup>1/2</sup> - intercept] \* 1/slope  
 Average Rate (m<sup>3</sup>/min) = (Initial Rate + Final Rate)/2  
 Volume (m<sup>3</sup>) = Average Rate (m<sup>3</sup>/min) \* Total Time (minutes)  
 Concentration (ug/m<sup>3</sup>) = Results per Filter (pg) / Volume (m<sup>3</sup>) \* 1.0 E-6(ug/pg)

Calculated By: *Bruce Edward Hayward*

Reviewed By: *Bruce Edward Hayward*

Total Dioxin/Furan Toxicity Equivalent Results from EPA Method 23



Client: Parsons/Fl. Ord Prescribed Burn

Job Number: 56286 080105

Date: 10/25/2003

Average Daily Temperature: 298.150 K  
Average Daily Pressure: 760.000 mmHg

Name or Location	PUF Sampler ID#	Slope	Intercept	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate (in H <sub>2</sub> O)	Stop Rate (in H <sub>2</sub> O)	Average Rate (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (pg/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	15702-A	0.0295	0.032	Dioxins	BA1PPUFF8	10/25/2003	10/25/2003	07:09	16:07	538	70.00	64.00	0.27631	148.66	Total TCDD	51.3	3.45E-07
BA-1	15702-A			Dioxins	BA1PPUFF8	10/25/2003	10/25/2003	07:09	16:07	538	70.00	64.00	0.27631	148.66	Total PeCDD	19.0	1.28E-07
BA-1	15702-A			Dioxins	BA1PPUFF8	10/25/2003	10/25/2003	07:09	16:07	538	70.00	64.00	0.27631	148.66	Total HxCDD	109.0	7.33E-07
BA-1	15702-A			Dioxins	BA1PPUFF8	10/25/2003	10/25/2003	07:09	16:07	538	70.00	64.00	0.27631	148.66	Total HpCDD	279.0	1.88E-06
BA-1	15702-A			Furans	BA1PPUFF8	10/25/2003	10/25/2003	07:09	16:07	538	70.00	64.00	0.27631	148.66	Total TCDF	34.6	2.33E-07
BA-1	15702-A			Furans	BA1PPUFF8	10/25/2003	10/25/2003	07:09	16:07	538	70.00	64.00	0.27631	148.66	Total PeCDF	ND(14.3)	ND(9.62E-8)
BA-1	15702-A			Furans	BA1PPUFF8	10/25/2003	10/25/2003	07:09	16:07	538	70.00	64.00	0.27631	148.66	Total HxCDF	ND(8.53)	ND(5.74E-8)
BA-1	15702-A			Furans	BA1PPUFF8	10/25/2003	10/25/2003	07:09	16:07	538	70.00	64.00	0.27631	148.66	Total HpCDF	ND(9.47)	ND(6.37E-8)
BA-1	15702-A			TEQ	BA1PPUFF8	10/25/2003	10/25/2003	07:09	16:07	538	70.00	64.00	0.27631	148.66	Total TEQ	18.6	1.25E-07
BA-2	6725-12	0.0312	-0.27	Dioxins	BA2PPUFF4	10/25/2003	10/25/2003	06:46	15:44	538	74.50	69.00	0.28009	150.69	Total TCDD	552	3.66E-06
BA-2	6725-12			Dioxins	BA2PPUFF4	10/25/2003	10/25/2003	06:46	15:44	538	74.50	69.00	0.28009	150.69	Total PeCDD	1280	8.49E-06
BA-2	6725-12			Dioxins	BA2PPUFF4	10/25/2003	10/25/2003	06:46	15:44	538	74.50	69.00	0.28009	150.69	Total HxCDD	4110	2.73E-05
BA-2	6725-12			Dioxins	BA2PPUFF4	10/25/2003	10/25/2003	06:46	15:44	538	74.50	69.00	0.28009	150.69	Total HpCDD	7180	4.76E-05
BA-2	6725-12			Furans	BA2PPUFF4	10/25/2003	10/25/2003	06:46	15:44	538	74.50	69.00	0.28009	150.69	Total TCDF	126	8.36E-07
BA-2	6725-12			Furans	BA2PPUFF4	10/25/2003	10/25/2003	06:46	15:44	538	74.50	69.00	0.28009	150.69	Total PeCDF	83	5.51E-07
BA-2	6725-12			Furans	BA2PPUFF4	10/25/2003	10/25/2003	06:46	15:44	538	74.50	69.00	0.28009	150.69	Total HxCDF	181	1.20E-06
BA-2	6725-12			Furans	BA2PPUFF4	10/25/2003	10/25/2003	06:46	15:44	538	74.50	69.00	0.28009	150.69	Total HpCDF	150	9.95E-07
BA-2	6725-12			TEQ	BA2PPUFF4	10/25/2003	10/25/2003	06:46	15:44	538	74.50	69.00	0.28009	150.69	Total TEQ	237	1.57E-06
BA-2 (Co-located)	4850	0.0296	0.067	Dioxins	BA2CPUFF9	10/25/2003	10/25/2003	06:46	15:44	538	70.00	62.50	0.27261	146.66	Total TCDD	522	3.56E-06
BA-2 (Co-located)	4850			Dioxins	BA2CPUFF9	10/25/2003	10/25/2003	06:46	15:44	538	70.00	62.50	0.27261	146.66	Total PeCDD	1440	9.82E-06
BA-2 (Co-located)	4850			Dioxins	BA2CPUFF9	10/25/2003	10/25/2003	06:46	15:44	538	70.00	62.50	0.27261	146.66	Total HxCDD	3550	2.42E-05
BA-2 (Co-located)	4850			Dioxins	BA2CPUFF9	10/25/2003	10/25/2003	06:46	15:44	538	70.00	62.50	0.27261	146.66	Total HpCDD	6530	4.45E-05



Total Dioxin/Furan Toxicity Equivalent Results from EPA Method 23

Name or Location	PUF Sampler ID#	Slope	Intercept	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate (in H <sub>2</sub> O)	Stop Rate (in H <sub>2</sub> O)	Average Rate (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (pg/Sample)	Concentration (ug/m <sup>3</sup> )
BA-2 (Co-located)	4850			Furans	BA2CPUFF9	10/25/2003	10/25/2003	06:46	15:44	538	70.00	62.50	0.27261	146.66	Total TCDF	133	9.07E-07
BA-2 (Co-located)	4850			Furans	BA2CPUFF9	10/25/2003	10/25/2003	06:46	15:44	538	70.00	62.50	0.27261	146.66	Total PeCDF	29.4	2.00E-07
BA-2 (Co-located)	4850			Furans	BA2CPUFF9	10/25/2003	10/25/2003	06:46	15:44	538	70.00	62.50	0.27261	146.66	Total HxCDF	158	1.08E-06
BA-2 (Co-located)	4850			Furans	BA2CPUFF9	10/25/2003	10/25/2003	06:46	15:44	538	70.00	62.50	0.27261	146.66	Total HpCDF	136	9.27E-07
BA-2 (Co-located)	4850			TEQ	BA2CPUFF9	10/25/2003	10/25/2003	06:46	15:44	538	70.00	62.50	0.27261	146.66	Total TEQ	198	1.35E-06

Note: All times have been converted to pacific standard time.

Slope and intercept are derived from "PUF Sampler Calibration Worksheet"

Correction Factor = (Ambient Pressure)/(Standard Temperature)/(Ambient Temperature)/(Standard Pressure)

Rate = [(Gauge Reading \* CF)<sup>1/2</sup> - intercept] \* 1/slope

Average Rate (m<sup>3</sup>/min) = (Initial Rate + Final Rate)/2

Volume (m<sup>3</sup>) = Average Rate (m<sup>3</sup>/min) \* Total Time (minutes)

Concentration (ug/m<sup>3</sup>) = Results per Filter (pg) / Volume (m<sup>3</sup>) \* 1.0 E-6(ug/pg)

Calculated By: *Bruce Edward Heistand*

Reviewed By: *[Signature]*

TSP Metals from EPA Method 12M



Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286 080105

Date: 11/12/2003

Average Daily Temperature:

298.150 K

Average Daily Pressure:

760.000 mmHg

Name or Location	TSP Sampler ID#	Slope	Intercept	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate (in H <sub>2</sub> O)	Stop Rate (in H <sub>2</sub> O)	Average Rate (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	10438 #9	1.5905	-0.065	Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Aluminum	ND (300)	ND (0.37)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Antimony	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Barium	ND (100)	ND (0.12)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Beryllium	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Cadmium	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Chromium	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Cobalt	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Copper	34	0.04
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Lead	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Manganese	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Molybdenum	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Nickel	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Zinc	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Mercury	ND (.5)	ND (0.0006)
BA-1 (Co-located)	10343 #2	1.4881	-0.17	Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Aluminum	ND (300)	ND (0.27)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Antimony	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Barium	ND (100)	ND (0.089)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Beryllium	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Cadmium	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Chromium	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Cobalt	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Copper	71	0.063

TSP Metals from EPA Method 12M

Name or Location	TSP Sampler ID#	Slope	Intercept	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate (in H <sub>2</sub> O)	Stop Rate (in H <sub>2</sub> O)	Average Rate (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Lead	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Manganese	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Molybdenum	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Nickel	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Zinc	31	0.028
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Mercury	ND (.5)	ND (0.0004)
BA-2	10458 #6	1.3484	-0.06	Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Aluminum	ND (300)	ND (0.31)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Antimony	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Barium	ND (100)	ND (0.10)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Beryllium	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Cadmium	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Chromium	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Cobalt	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Copper	70	0.072
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Lead	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Manganese	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Molybdenum	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Nickel	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Zinc	31	0.032
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Mercury	ND (.5)	ND (0.0005)

Note: All times have been converted to pacific standard time.  
 Slope and intercept are derived from "HIVOL Sampler Calibration Worksheet"  
 Correction Factor = (Ambient Pressure)<sup>1/2</sup> / (Standard Temperature)<sup>1/2</sup> \* (Standard Pressure)<sup>1/2</sup> / (Standard Temperature)<sup>1/2</sup> \* (Standard Pressure)<sup>1/2</sup>  
 Rate = [(Gauge Reading \* CF)<sup>1/2</sup> - intercept] \* 1/slope  
 Average Rate (m<sup>3</sup>/min) = (Initial Rate + Final Rate) / 2  
 Volume (m<sup>3</sup>) = Average Rate (m<sup>3</sup>/min) \* Total Time (minutes)  
 Concentration (ug/m<sup>3</sup>) = Results per Filter (ug) / Volume (m<sup>3</sup>)

Calculated By: *Patricia Edward Hayward*

Reviewed By: *[Signature]*

TSP Metals Results from EPA Method 12M



Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286.080105

Date: 10/24/2003

Average Daily Temperature:

286.150 K

Average Daily Pressure:

760.000 mmHg

Name or Location	TSP Sampler ID#	Slope	Intercept	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate (in H <sub>2</sub> O)	Stop Rate (in H <sub>2</sub> O)	Average Rate (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	10438 #9	1.5905	-0.065	Metals	BA1PQ0116288	10/24/2003	10/24/2003	05:56	15:36	580	6.00	3.20	1.37326	796.49	Aluminum	8800	8.5
BA-1	10438 #9			Metals	BA1PQ0116288	10/24/2003	10/24/2003	05:56	15:36	580	6.00	3.20	1.37326	796.49	Antimony	590	0.74
BA-1	10438 #9			Metals	BA1PQ0116288	10/24/2003	10/24/2003	05:56	15:36	580	6.00	3.20	1.37326	796.49	Barium	990	1.2
BA-1	10438 #9			Metals	BA1PQ0116288	10/24/2003	10/24/2003	05:56	15:36	580	6.00	3.20	1.37326	796.49	Beryllium	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0116288	10/24/2003	10/24/2003	05:56	15:36	580	6.00	3.20	1.37326	796.49	Cadmium	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0116288	10/24/2003	10/24/2003	05:56	15:36	580	6.00	3.20	1.37326	796.49	Chromium	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0116288	10/24/2003	10/24/2003	05:56	15:36	580	6.00	3.20	1.37326	796.49	Cobalt	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0116288	10/24/2003	10/24/2003	05:56	15:36	580	6.00	3.20	1.37326	796.49	Copper	190	0.24
BA-1	10438 #9			Metals	BA1PQ0116288	10/24/2003	10/24/2003	05:56	15:36	580	6.00	3.20	1.37326	796.49	Lead	2100	2.6
BA-1	10438 #9			Metals	BA1PQ0116288	10/24/2003	10/24/2003	05:56	15:36	580	6.00	3.20	1.37326	796.49	Manganese	3700	4.6
BA-1	10438 #9			Metals	BA1PQ0116288	10/24/2003	10/24/2003	05:56	15:36	580	6.00	3.20	1.37326	796.49	Molybdenum	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0116288	10/24/2003	10/24/2003	05:56	15:36	580	6.00	3.20	1.37326	796.49	Nickel	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0116288	10/24/2003	10/24/2003	05:56	15:36	580	6.00	3.20	1.37326	796.49	Zinc	1700	2.1
BA-1	10438 #9			Metals	BA1PQ0116288	10/24/2003	10/24/2003	05:56	15:36	580	6.00	3.20	1.37326	796.49	Mercury	0.6	0.0008
BA-1 (Co-located)	10343 #2	1.4881	-0.17	Metals	BA1CC0116289	10/24/2003	10/24/2003	05:56	15:36	580	9.15	1.40	1.52816	886.33	Aluminum	7600	8.6
BA-1 (Co-located)	10343 #2			Metals	BA1CC0116289	10/24/2003	10/24/2003	05:56	15:36	580	9.15	1.40	1.52816	886.33	Antimony	480	0.54
BA-1 (Co-located)	10343 #2			Metals	BA1CC0116289	10/24/2003	10/24/2003	05:56	15:36	580	9.15	1.40	1.52816	886.33	Barium	1100	1.2
BA-1 (Co-located)	10343 #2			Metals	BA1CC0116289	10/24/2003	10/24/2003	05:56	15:36	580	9.15	1.40	1.52816	886.33	Beryllium	ND (25)	ND (0.028)
BA-1 (Co-located)	10343 #2			Metals	BA1CC0116289	10/24/2003	10/24/2003	05:56	15:36	580	9.15	1.40	1.52816	886.33	Cadmium	ND (25)	ND (0.028)
BA-1 (Co-located)	10343 #2			Metals	BA1CC0116289	10/24/2003	10/24/2003	05:56	15:36	580	9.15	1.40	1.52816	886.33	Chromium	ND (25)	ND (0.028)
BA-1 (Co-located)	10343 #2			Metals	BA1CC0116289	10/24/2003	10/24/2003	05:56	15:36	580	9.15	1.40	1.52816	886.33	Cobalt	ND (25)	ND (0.028)
BA-1 (Co-located)	10343 #2			Metals	BA1CC0116289	10/24/2003	10/24/2003	05:56	15:36	580	9.15	1.40	1.52816	886.33	Copper	230	0.26



TSP Metals Results from EPA Method 12M

Name or Location	TSP Sampler ID#	Slope	Intercept	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate (in H <sub>2</sub> O)	Stop Rate (in H <sub>2</sub> O)	Average Rate (m <sup>2</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116289	10/24/2003	10/24/2003	05:56	15:36	580	9.15	1.40	1.52816	886.33	Lead	1800	2.0
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116289	10/24/2003	10/24/2003	05:56	15:36	580	9.15	1.40	1.52816	886.33	Manganese	4100	4.6
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116289	10/24/2003	10/24/2003	05:56	15:36	580	9.15	1.40	1.52816	886.33	Molybdenum	ND (25)	ND (0.028)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116289	10/24/2003	10/24/2003	05:56	15:36	580	9.15	1.40	1.52816	886.33	Nickel	ND (25)	ND (0.028)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116289	10/24/2003	10/24/2003	05:56	15:36	580	9.15	1.40	1.52816	886.33	Zinc	1600	1.8
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116289	10/24/2003	10/24/2003	05:56	15:36	580	9.15	1.40	1.52816	886.33	Mercury	0.7	0.0008
BA-2	10458 #6	1.3484	-0.06	Metals	BA2PQ0116287	10/24/2003	10/24/2003	05:25	15:13	588	4.10	3.70	1.50859	887.05	Aluminum	1300	1.5
BA-2	10458 #6			Metals	BA2PQ0116287	10/24/2003	10/24/2003	05:25	15:13	588	4.10	3.70	1.50859	887.05	Antimony	ND (25)	ND (0.028)
BA-2	10458 #6			Metals	BA2PQ0116287	10/24/2003	10/24/2003	05:25	15:13	588	4.10	3.70	1.50859	887.05	Barium	ND (100)	ND (0.11)
BA-2	10458 #6			Metals	BA2PQ0116287	10/24/2003	10/24/2003	05:25	15:13	588	4.10	3.70	1.50859	887.05	Beryllium	ND (25)	ND (0.028)
BA-2	10458 #6			Metals	BA2PQ0116287	10/24/2003	10/24/2003	05:25	15:13	588	4.10	3.70	1.50859	887.05	Cadmium	ND (25)	ND (0.028)
BA-2	10458 #6			Metals	BA2PQ0116287	10/24/2003	10/24/2003	05:25	15:13	588	4.10	3.70	1.50859	887.05	Chromium	ND (25)	ND (0.028)
BA-2	10458 #6			Metals	BA2PQ0116287	10/24/2003	10/24/2003	05:25	15:13	588	4.10	3.70	1.50859	887.05	Cobalt	ND (25)	ND (0.028)
BA-2	10458 #6			Metals	BA2PQ0116287	10/24/2003	10/24/2003	05:25	15:13	588	4.10	3.70	1.50859	887.05	Copper	33	0.037
BA-2	10458 #6			Metals	BA2PQ0116287	10/24/2003	10/24/2003	05:25	15:13	588	4.10	3.70	1.50859	887.05	Lead	ND (25)	ND (0.028)
BA-2	10458 #6			Metals	BA2PQ0116287	10/24/2003	10/24/2003	05:25	15:13	588	4.10	3.70	1.50859	887.05	Manganese	50	0.056
BA-2	10458 #6			Metals	BA2PQ0116287	10/24/2003	10/24/2003	05:25	15:13	588	4.10	3.70	1.50859	887.05	Molybdenum	ND (25)	ND (0.028)
BA-2	10458 #6			Metals	BA2PQ0116287	10/24/2003	10/24/2003	05:25	15:13	588	4.10	3.70	1.50859	887.05	Nickel	ND (25)	ND (0.028)
BA-2	10458 #6			Metals	BA2PQ0116287	10/24/2003	10/24/2003	05:25	15:13	588	4.10	3.70	1.50859	887.05	Zinc	61	0.069
BA-2	10458 #6			Metals	BA2PQ0116287	10/24/2003	10/24/2003	05:25	15:13	588	4.10	3.70	1.50859	887.05	Mercury	ND (.5)	ND (0.0006)

Note: All times have been converted to pacific standard time.  
 Slope and intercept are derived from "HIVOL Sampler Calibration Worksheet"  
 Correction Factor = (Ambient Pressure)<sup>1/2</sup> \* (Standard Temperature) / (Ambient Temperature) \* (Standard Pressure)  
 Rate = [(Gauge Reading \* CF)<sup>1/2</sup> - intercept] \* 1/slope  
 Average Rate (m<sup>2</sup>/min) = (Initial Rate + Final Rate) / 2  
 Volume (m<sup>3</sup>) = Average Rate (m<sup>2</sup>/min) \* Total Time (minutes)  
 Concentration (ug/m<sup>3</sup>) = Results per Filter (ug) / Volume (m<sup>3</sup>)

Calculated By: *Drew Edward Hestand*

Reviewed By: *Bruce W...*

TSP Metals Results from EPA Method 12M



Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286.080105

Date: 10/25/2003

Average Daily Temperature: 298.150 K  
 Average Daily Pressure: 760.000 mmHg

Name or Location	TSP Sampler ID#	Slope	Intercept	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate (in H <sub>2</sub> O)	Stop Rate (in H <sub>2</sub> O)	Average Rate (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	10438 #9	1.5905	-0.065	Metals	BA1PQ0116290	10/25/2003	10/25/2003	07:09	16:07	538	6.00	5.95	1.57772	848.81	Aluminum	3200	3.77
BA-1	10438 #9			Metals	BA1PQ0116290	10/25/2003	10/25/2003	07:09	16:07	538	6.00	5.95	1.57772	848.81	Antimony	ND (25)	ND (0.029)
BA-1	10438 #9			Metals	BA1PQ0116290	10/25/2003	10/25/2003	07:09	16:07	538	6.00	5.95	1.57772	848.81	Barium	200	0.24
BA-1	10438 #9			Metals	BA1PQ0116290	10/25/2003	10/25/2003	07:09	16:07	538	6.00	5.95	1.57772	848.81	Beryllium	ND (25)	ND (0.029)
BA-1	10438 #9			Metals	BA1PQ0116290	10/25/2003	10/25/2003	07:09	16:07	538	6.00	5.95	1.57772	848.81	Cadmium	ND (25)	ND (0.029)
BA-1	10438 #9			Metals	BA1PQ0116290	10/25/2003	10/25/2003	07:09	16:07	538	6.00	5.95	1.57772	848.81	Chromium	ND (25)	ND (0.029)
BA-1	10438 #9			Metals	BA1PQ0116290	10/25/2003	10/25/2003	07:09	16:07	538	6.00	5.95	1.57772	848.81	Cobalt	ND (25)	ND (0.029)
BA-1	10438 #9			Metals	BA1PQ0116290	10/25/2003	10/25/2003	07:09	16:07	538	6.00	5.95	1.57772	848.81	Copper	48	0.057
BA-1	10438 #9			Metals	BA1PQ0116290	10/25/2003	10/25/2003	07:09	16:07	538	6.00	5.95	1.57772	848.81	Lead	ND (25)	ND (0.029)
BA-1	10438 #9			Metals	BA1PQ0116290	10/25/2003	10/25/2003	07:09	16:07	538	6.00	5.95	1.57772	848.81	Manganese	420	0.49
BA-1	10438 #9			Metals	BA1PQ0116290	10/25/2003	10/25/2003	07:09	16:07	538	6.00	5.95	1.57772	848.81	Molybdenum	ND (25)	ND (0.029)
BA-1	10438 #9			Metals	BA1PQ0116290	10/25/2003	10/25/2003	07:09	16:07	538	6.00	5.95	1.57772	848.81	Nickel	ND (25)	ND (0.029)
BA-1	10438 #9			Metals	BA1PQ0116290	10/25/2003	10/25/2003	07:09	16:07	538	6.00	5.95	1.57772	848.81	Zinc	93	0.11
BA-1	10438 #9			Metals	BA1PQ0116290	10/25/2003	10/25/2003	07:09	16:07	538	6.00	5.95	1.57772	848.81	Mercury	ND (5)	ND (0.0006)
BA-1 (Co-located)	10343 #2	1.4881	-0.17	Metals	BA1CC00116291	10/25/2003	10/25/2003	07:09	16:07	538	9.15	8.45	2.10731	1,133.73	Aluminum	4600	4.06
BA-1 (Co-located)	10343 #2			Metals	BA1CC00116291	10/25/2003	10/25/2003	07:09	16:07	538	9.15	8.45	2.10731	1,133.73	Antimony	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CC00116291	10/25/2003	10/25/2003	07:09	16:07	538	9.15	8.45	2.10731	1,133.73	Barium	270	0.24
BA-1 (Co-located)	10343 #2			Metals	BA1CC00116291	10/25/2003	10/25/2003	07:09	16:07	538	9.15	8.45	2.10731	1,133.73	Beryllium	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CC00116291	10/25/2003	10/25/2003	07:09	16:07	538	9.15	8.45	2.10731	1,133.73	Cadmium	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CC00116291	10/25/2003	10/25/2003	07:09	16:07	538	9.15	8.45	2.10731	1,133.73	Chromium	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CC00116291	10/25/2003	10/25/2003	07:09	16:07	538	9.15	8.45	2.10731	1,133.73	Cobalt	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CC00116291	10/25/2003	10/25/2003	07:09	16:07	538	9.15	8.45	2.10731	1,133.73	Copper	73	0.064

TSP Metals Results from EPA Method 12M

Name or Location	TSP Sampler ID#	Slope	Intercept	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate (in H <sub>2</sub> O)	Stop Rate (in H <sub>2</sub> O)	Average Rate (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116291	10/25/2003	10/25/2003	07:09	16:07	538	9.15	8.45	2.10731	1,133.73	Lead	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116291	10/25/2003	10/25/2003	07:09	16:07	538	9.15	8.45	2.10731	1,133.73	Manganese	590	0.52
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116291	10/25/2003	10/25/2003	07:09	16:07	538	9.15	8.45	2.10731	1,133.73	Molybdenum	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116291	10/25/2003	10/25/2003	07:09	16:07	538	9.15	8.45	2.10731	1,133.73	Nickel	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116291	10/25/2003	10/25/2003	07:09	16:07	538	9.15	8.45	2.10731	1,133.73	Zinc	130	0.11
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116291	10/25/2003	10/25/2003	07:09	16:07	538	9.15	8.45	2.10731	1,133.73	Mercury	ND (5)	ND (0.0004)
BA-2	10458 #6	1.3484	-0.06	Metals	BA2PQ0116292	10/25/2003	10/25/2003	06:46	15:44	538	4.10	3.70	1.50859	811.62	Aluminum	3600	4.44
BA-2	10458 #6			Metals	BA2PQ0116292	10/25/2003	10/25/2003	06:46	15:44	538	4.10	3.70	1.50859	811.62	Antimony	ND (25)	ND (0.031)
BA-2	10458 #6			Metals	BA2PQ0116292	10/25/2003	10/25/2003	06:46	15:44	538	4.10	3.70	1.50859	811.62	Barium	ND (100)	ND (0.123)
BA-2	10458 #6			Metals	BA2PQ0116292	10/25/2003	10/25/2003	06:46	15:44	538	4.10	3.70	1.50859	811.62	Beryllium	ND (25)	ND (0.031)
BA-2	10458 #6			Metals	BA2PQ0116292	10/25/2003	10/25/2003	06:46	15:44	538	4.10	3.70	1.50859	811.62	Cadmium	ND (25)	ND (0.031)
BA-2	10458 #6			Metals	BA2PQ0116292	10/25/2003	10/25/2003	06:46	15:44	538	4.10	3.70	1.50859	811.62	Chromium	ND (25)	ND (0.031)
BA-2	10458 #6			Metals	BA2PQ0116292	10/25/2003	10/25/2003	06:46	15:44	538	4.10	3.70	1.50859	811.62	Cobalt	ND (25)	ND (0.031)
BA-2	10458 #6			Metals	BA2PQ0116292	10/25/2003	10/25/2003	06:46	15:44	538	4.10	3.70	1.50859	811.62	Copper	58	0.071
BA-2	10458 #6			Metals	BA2PQ0116292	10/25/2003	10/25/2003	06:46	15:44	538	4.10	3.70	1.50859	811.62	Lead	ND (25)	ND (0.031)
BA-2	10458 #6			Metals	BA2PQ0116292	10/25/2003	10/25/2003	06:46	15:44	538	4.10	3.70	1.50859	811.62	Manganese	170	0.21
BA-2	10458 #6			Metals	BA2PQ0116292	10/25/2003	10/25/2003	06:46	15:44	538	4.10	3.70	1.50859	811.62	Molybdenum	ND (25)	ND (0.031)
BA-2	10458 #6			Metals	BA2PQ0116292	10/25/2003	10/25/2003	06:46	15:44	538	4.10	3.70	1.50859	811.62	Nickel	ND (25)	ND (0.031)
BA-2	10458 #6			Metals	BA2PQ0116292	10/25/2003	10/25/2003	06:46	15:44	538	4.10	3.70	1.50859	811.62	Zinc	76	0.094
BA-2	10458 #6			Metals	BA2PQ0116292	10/25/2003	10/25/2003	06:46	15:44	538	4.10	3.70	1.50859	811.62	Mercury	ND (5)	ND (0.0006)

Note: All times have been converted to pacific standard time.  
 Slope and intercept are derived from "HIVOL Sampler Calibration Worksheet"  
 Correction Factor = (Ambient Pressure)<sup>1/2</sup> / (Standard Temperature)<sup>1/2</sup> \* (Ambient Temperature) / (Standard Pressure)  
 Rate = [(Gauge Reading \* CF)<sup>1/2</sup> - intercept] \* 1/slope  
 Average Rate (m<sup>3</sup>/min) = (Initial Rate + Final Rate) / 2  
 Volume (m<sup>3</sup>) = Average Rate (m<sup>3</sup>/min) \* Total Time (minutes)  
 Concentration (ug/m<sup>3</sup>) = Results per Filter (ug) / Volume (m<sup>3</sup>)

Calculated By: *Rene Edwards*

Reviewed By: *Rene Edwards*



TSP Metals from EPA Method 12M



Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286.080105

Date: 11/12/2003

Average Daily Temperature:

298.150 K

Average Daily Pressure:

760.000 mmHg

Name or Location	TSP Sampler ID#	Slope	Intercept	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate (in H <sub>2</sub> O)	Stop Rate (in H <sub>2</sub> O)	Average Rate (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	10438 #9	1.5905	-0.065	Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Aluminum	ND (300)	ND (0.37)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Antimony	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Barium	ND (100)	ND (0.12)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Beryllium	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Cadmium	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Chromium	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Cobalt	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Copper	34	0.04
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Lead	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Manganese	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Molybdenum	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Nickel	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Zinc	ND (25)	ND (0.031)
BA-1	10438 #9			Metals	BA1PQ0142653	11/12/2003	11/12/2003	08:01	16:35	514	6.10	5.65	1.56453	804.17	Mercury	ND (5)	ND (0.0006)
BA-1 (Co-located)	10343 #2	1.4881	-0.17	Metals	BA1CO0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Aluminum	ND (300)	ND (0.27)
BA-1 (Co-located)	10343 #2			Metals	BA1CO0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Antimony	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CO0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Barium	ND (100)	ND (0.089)
BA-1 (Co-located)	10343 #2			Metals	BA1CO0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Beryllium	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CO0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Cadmium	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CO0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Chromium	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CO0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Cobalt	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CO0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Copper	71	0.063



TSP Metals from EPA Method 12M

Name or Location	TSP Sampler ID#	Slope	Intercept	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate (in H <sub>2</sub> O)	Stop Rate (in H <sub>2</sub> O)	Average Rate (m <sup>3</sup> /min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Lead	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Manganese	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Molybdenum	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Nickel	ND (25)	ND (0.022)
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Zinc	31	0.028
BA-1 (Co-located)	10343 #2			Metals	BA1CQ0116295	11/12/2003	11/12/2003	08:02	16:35	513	9.75	9.20	2.18252	1,119.63	Mercury	ND (.5)	ND (0.0004)
BA-2	10458 #6	1.3484	-0.06	Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Aluminum	ND (300)	ND (0.31)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Antimony	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Barium	ND (100)	ND (0.10)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Beryllium	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Cadmium	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Chromium	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Cobalt	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Copper	70	0.072
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Lead	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Manganese	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Molybdenum	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Nickel	ND (25)	ND (0.026)
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Zinc	31	0.032
BA-2	10458 #6			Metals	BA2PQ0116296	11/12/2003	11/12/2003	07:39	16:09	510	6.45	6.30	1.91696	977.65	Mercury	ND (.5)	ND (0.0005)

Note: All times have been converted to pacific standard time.  
 Slope and intercept are derived from "HIVOL Sampler Calibration Worksheet"  
 Correction Factor = (Ambient Pressure)<sup>2</sup> / (Standard Temperature)<sup>2</sup> \* (Ambient Temperature) / (Standard Pressure)  
 Rate = [(Gauge Reading \* CF)<sup>1/2</sup> - Intercept] \* 1/slope  
 Average Rate (m<sup>3</sup>/min) = (Initial Rate + Final Rate) / 2  
 Volume (m<sup>3</sup>) = Average Rate (m<sup>3</sup>/min) \* Total Time (minutes)  
 Concentration (ug/m<sup>3</sup>) = Results per Filter (ug) / Volume (m<sup>3</sup>)

Calculated By: *Bruce Edward Hestand*

Reviewed By: *[Signature]*

Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)



Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286 080105

Date: 10/23/03

Average Daily Temperature: 298.150 K

Average Daily Pressure: 760.000 mmHg

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate from District (l/min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
Gonzales	P2000772	PM-10	10/23/2003	10/24/2003	6:00	4:47	1367	5.0	6.8	Aluminum	7.4	1.08
Gonzales	P2000772	PM-10	10/23/2003	10/24/2003	6:00	4:47	1367	5.0	6.8	Antimony	ND (2.5)	ND (0.37)
Gonzales	P2000772	PM-10	10/23/2003	10/24/2003	6:00	4:47	1367	5.0	6.8	Barium	ND (2.5)	ND (0.37)
Gonzales	P2000772	PM-10	10/23/2003	10/24/2003	6:00	4:47	1367	5.0	6.8	Beryllium	ND (1.5)	ND (0.22)
Gonzales	P2000772	PM-10	10/23/2003	10/24/2003	6:00	4:47	1367	5.0	6.8	Cadmium	ND (1.5)	ND (0.22)
Gonzales	P2000772	PM-10	10/23/2003	10/24/2003	6:00	4:47	1367	5.0	6.8	Chromium	ND (2.5)	ND (0.37)
Gonzales	P2000772	PM-10	10/23/2003	10/24/2003	6:00	4:47	1367	5.0	6.8	Cobalt	ND (1.5)	ND (0.22)
Gonzales	P2000772	PM-10	10/23/2003	10/24/2003	6:00	4:47	1367	5.0	6.8	Copper	ND (2.5)	ND (0.37)
Gonzales	P2000772	PM-10	10/23/2003	10/24/2003	6:00	4:47	1367	5.0	6.8	Lead	ND (2.5)	ND (0.37)
Gonzales	P2000772	PM-10	10/23/2003	10/24/2003	6:00	4:47	1367	5.0	6.8	Manganese	ND (2.5)	ND (0.37)
Gonzales	P2000772	PM-10	10/23/2003	10/24/2003	6:00	4:47	1367	5.0	6.8	Molybdenum	ND (2.5)	ND (0.37)
Gonzales	P2000772	PM-10	10/23/2003	10/24/2003	6:00	4:47	1367	5.0	6.8	Nickel	ND (2.5)	ND (0.37)
Gonzales	P2000772	PM-10	10/23/2003	10/24/2003	6:00	4:47	1367	5.0	6.8	Zinc	ND (2.5)	ND (0.37)
Gonzales	P2000772	PM-10	10/23/2003	10/24/2003	6:00	4:47	1367	5.0	6.8	Mercury	ND (0.05)	ND (0.007)

Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate from District (l/min)	Volume (m³)	Species	Results per Filter (ug/Sample)	Concentration (ug/m³)
Monterey	P2000771	PM-10	10/23/2003	10/24/2003	7:00	6:25	1405	5.05	7.1	Aluminum	4.3	0.606
Monterey	P2000771	PM-10	10/23/2003	10/24/2003	7:00	6:25	1405	5.05	7.1	Antimony	ND (2.5)	ND (0.35)
Monterey	P2000771	PM-10	10/23/2003	10/24/2003	7:00	6:25	1405	5.05	7.1	Barium	ND (2.5)	ND (0.35)
Monterey	P2000771	PM-10	10/23/2003	10/24/2003	7:00	6:25	1405	5.05	7.1	Beryllium	ND (1.5)	ND (0.21)
Monterey	P2000771	PM-10	10/23/2003	10/24/2003	7:00	6:25	1405	5.05	7.1	Cadmium	ND (1.5)	ND (0.21)
Monterey	P2000771	PM-10	10/23/2003	10/24/2003	7:00	6:25	1405	5.05	7.1	Chromium	ND (2.5)	ND (0.35)
Monterey	P2000771	PM-10	10/23/2003	10/24/2003	7:00	6:25	1405	5.05	7.1	Cobalt	ND (1.5)	ND (0.21)
Monterey	P2000771	PM-10	10/23/2003	10/24/2003	7:00	6:25	1405	5.05	7.1	Copper	ND (2.5)	ND (0.35)
Monterey	P2000771	PM-10	10/23/2003	10/24/2003	7:00	6:25	1405	5.05	7.1	Lead	ND (2.5)	ND (0.35)
Monterey	P2000771	PM-10	10/23/2003	10/24/2003	7:00	6:25	1405	5.05	7.1	Manganese	ND (2.5)	ND (0.35)
Monterey	P2000771	PM-10	10/23/2003	10/24/2003	7:00	6:25	1405	5.05	7.1	Molybdenum	ND (2.5)	ND (0.35)
Monterey	P2000771	PM-10	10/23/2003	10/24/2003	7:00	6:25	1405	5.05	7.1	Nickel	ND (2.5)	ND (0.35)
Monterey	P2000771	PM-10	10/23/2003	10/24/2003	7:00	6:25	1405	5.05	7.1	Zinc	ND (2.5)	ND (0.35)
Monterey	P2000771	PM-10	10/23/2003	10/24/2003	7:00	6:25	1405	5.05	7.1	Mercury	ND (0.05)	ND (0.007)
Fitch	P2000764	PM-10	10/23/2003	10/24/2003	07:00	06:05	1385	5.0	6.9	Aluminum	4.4	0.64
Fitch	P2000764	PM-10	10/23/2003	10/24/2003	07:00	06:05	1385	5.0	6.9	Antimony	ND (2.5)	ND (0.36)
Fitch	P2000764	PM-10	10/23/2003	10/24/2003	07:00	06:05	1385	5.0	6.9	Barium	ND (2.5)	ND (0.36)
Fitch	P2000764	PM-10	10/23/2003	10/24/2003	07:00	06:05	1385	5.0	6.9	Beryllium	ND (1.5)	ND (0.22)
Fitch	P2000764	PM-10	10/23/2003	10/24/2003	07:00	06:05	1385	5.0	6.9	Cadmium	ND (1.5)	ND (0.22)



**Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)**

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate from District (l/min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
Fitch	P2000764	PM-10	10/23/2003	10/24/2003	07:00	06:05	1385	5.0	6.9	Chromium	ND (2.5)	ND (0.36)
Fitch	P2000764	PM-10	10/23/2003	10/24/2003	07:00	06:05	1385	5.0	6.9	Cobalt	ND (1.5)	ND (0.22)
Fitch	P2000764	PM-10	10/23/2003	10/24/2003	07:00	06:05	1385	5.0	6.9	Copper	ND (2.5)	ND (0.36)
Fitch	P2000764	PM-10	10/23/2003	10/24/2003	07:00	06:05	1385	5.0	6.9	Lead	ND (2.5)	ND (0.36)
Fitch	P2000764	PM-10	10/23/2003	10/24/2003	07:00	06:05	1385	5.0	6.9	Manganese	ND (2.5)	ND (0.36)
Fitch	P2000764	PM-10	10/23/2003	10/24/2003	07:00	06:05	1385	5.0	6.9	Molybdenum	ND (2.5)	ND (0.36)
Fitch	P2000764	PM-10	10/23/2003	10/24/2003	07:00	06:05	1385	5.0	6.9	Nickel	ND (2.5)	ND (0.36)
Fitch	P2000764	PM-10	10/23/2003	10/24/2003	07:00	06:05	1385	5.0	6.9	Zinc	ND (2.5)	ND (0.36)
Fitch	P2000764	PM-10	10/23/2003	10/24/2003	07:00	06:05	1385	5.0	6.9	Mercury	ND (0.05)	ND (0.007)
Spreckles	P2000768	PM-10	10/23/2003	10/24/2003	07:00	06:00	1380	5.0	6.9	Aluminum	7.7	1.12
Spreckles	P2000768	PM-10	10/23/2003	10/24/2003	07:00	06:00	1380	5.0	6.9	Antimony	ND (2.5)	ND (0.36)
Spreckles	P2000768	PM-10	10/23/2003	10/24/2003	07:00	06:00	1380	5.0	6.9	Barium	ND (2.5)	ND (0.36)
Spreckles	P2000768	PM-10	10/23/2003	10/24/2003	07:00	06:00	1380	5.0	6.9	Beryllium	ND (1.5)	ND (0.22)
Spreckles	P2000768	PM-10	10/23/2003	10/24/2003	07:00	06:00	1380	5.0	6.9	Cadmium	ND (1.5)	ND (0.22)
Spreckles	P2000768	PM-10	10/23/2003	10/24/2003	07:00	06:00	1380	5.0	6.9	Chromium	ND (2.5)	ND (0.36)
Spreckles	P2000768	PM-10	10/23/2003	10/24/2003	07:00	06:00	1380	5.0	6.9	Cobalt	ND (1.5)	ND (0.22)
Spreckles	P2000768	PM-10	10/23/2003	10/24/2003	07:00	06:00	1380	5.0	6.9	Copper	ND (2.5)	ND (0.36)
Spreckles	P2000768	PM-10	10/23/2003	10/24/2003	07:00	06:00	1380	5.0	6.9	Lead	ND (2.5)	ND (0.36)
Spreckles	P2000768	PM-10	10/23/2003	10/24/2003	07:00	06:00	1380	5.0	6.9	Manganese	ND (2.5)	ND (0.36)



**Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)**

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate (l/min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
Spreckles	P2000768	PM-10	10/23/2003	10/24/2003	07:00	06:00	1380	5.0	6.9	Molybdenum	ND (2.5)	ND (0.36)
Spreckles	P2000768	PM-10	10/23/2003	10/24/2003	07:00	06:00	1380	5.0	6.9	Nickel	ND (2.5)	ND (0.36)
Spreckles	P2000768	PM-10	10/23/2003	10/24/2003	07:00	06:00	1380	5.0	6.9	Zinc	ND (2.5)	ND (0.36)
Spreckles	P2000768	PM-10	10/23/2003	10/24/2003	07:00	06:00	1380	5.0	6.9	Mercury	ND (0.05)	ND (0.007)
SRFD	P2000766	PM-10	10/23/2003	10/24/2003	07:00	06:18	1398	5.0	7.0	Aluminum	6.0	0.858
SRFD	P2000766	PM-10	10/23/2003	10/24/2003	07:00	06:18	1398	5.0	7.0	Antimony	ND (2.5)	ND (0.36)
SRFD	P2000766	PM-10	10/23/2003	10/24/2003	07:00	06:18	1398	5.0	7.0	Barium	ND (2.5)	ND (0.36)
SRFD	P2000766	PM-10	10/23/2003	10/24/2003	07:00	06:18	1398	5.0	7.0	Beryllium	ND (1.5)	ND (0.21)
SRFD	P2000766	PM-10	10/23/2003	10/24/2003	07:00	06:18	1398	5.0	7.0	Cadmium	ND (1.5)	ND (0.21)
SRFD	P2000766	PM-10	10/23/2003	10/24/2003	07:00	06:18	1398	5.0	7.0	Chromium	ND (2.5)	ND (0.36)
SRFD	P2000766	PM-10	10/23/2003	10/24/2003	07:00	06:18	1398	5.0	7.0	Cobalt	ND (1.5)	ND (0.21)
SRFD	P2000766	PM-10	10/23/2003	10/24/2003	07:00	06:18	1398	5.0	7.0	Copper	ND (2.5)	ND (0.36)
SRFD	P2000766	PM-10	10/23/2003	10/24/2003	07:00	06:18	1398	5.0	7.0	Lead	ND (2.5)	ND (0.36)
SRFD	P2000766	PM-10	10/23/2003	10/24/2003	07:00	06:18	1398	5.0	7.0	Manganese	ND (2.5)	ND (0.36)
SRFD	P2000766	PM-10	10/23/2003	10/24/2003	07:00	06:18	1398	5.0	7.0	Molybdenum	ND (2.5)	ND (0.36)
SRFD	P2000766	PM-10	10/23/2003	10/24/2003	07:00	06:18	1398	5.0	7.0	Nickel	ND (2.5)	ND (0.36)
SRFD	P2000766	PM-10	10/23/2003	10/24/2003	07:00	06:18	1398	5.0	7.0	Zinc	ND (2.5)	ND (0.36)
SRFD	P2000766	PM-10	10/23/2003	10/24/2003	07:00	06:18	1398	5.0	7.0	Mercury	ND (0.05)	ND (0.007)

**Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)**

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate from District (l/min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
Ingham	P2000763	PM-10	10/23/2003	10/24/2003	07:00	06:24	1404	5.0	7.0	Aluminum	4.0	0.57
Ingham	P2000763	PM-10	10/23/2003	10/24/2003	07:00	06:24	1404	5.0	7.0	Antimony	ND (2.5)	ND (0.36)
Ingham	P2000763	PM-10	10/23/2003	10/24/2003	07:00	06:24	1404	5.0	7.0	Barium	ND (2.5)	ND (0.36)
Ingham	P2000763	PM-10	10/23/2003	10/24/2003	07:00	06:24	1404	5.0	7.0	Beryllium	ND (1.5)	ND (0.21)
Ingham	P2000763	PM-10	10/23/2003	10/24/2003	07:00	06:24	1404	5.0	7.0	Cadmium	ND (1.5)	ND (0.21)
Ingham	P2000763	PM-10	10/23/2003	10/24/2003	07:00	06:24	1404	5.0	7.0	Chromium	ND (2.5)	ND (0.36)
Ingham	P2000763	PM-10	10/23/2003	10/24/2003	07:00	06:24	1404	5.0	7.0	Cobalt	ND (1.5)	ND (0.21)
Ingham	P2000763	PM-10	10/23/2003	10/24/2003	07:00	06:24	1404	5.0	7.0	Copper	ND (2.5)	ND (0.36)
Ingham	P2000763	PM-10	10/23/2003	10/24/2003	07:00	06:24	1404	5.0	7.0	Lead	ND (2.5)	ND (0.36)
Ingham	P2000763	PM-10	10/23/2003	10/24/2003	07:00	06:24	1404	5.0	7.0	Manganese	ND (2.5)	ND (0.36)
Ingham	P2000763	PM-10	10/23/2003	10/24/2003	07:00	06:24	1404	5.0	7.0	Molybdenum	ND (2.5)	ND (0.36)
Ingham	P2000763	PM-10	10/23/2003	10/24/2003	07:00	06:24	1404	5.0	7.0	Nickel	ND (2.5)	ND (0.36)
Ingham	P2000763	PM-10	10/23/2003	10/24/2003	07:00	06:24	1404	5.0	7.0	Zinc	ND (2.5)	ND (0.36)
Ingham	P2000763	PM-10	10/23/2003	10/24/2003	07:00	06:24	1404	5.0	7.0	Mercury	ND (0.05)	ND (0.007)

Note: All times have been converted to pacific standard time.

$$Po/Pa = [\text{Actual Pressure} - (\text{manometer final} + \text{manometer initial}) / 2 * 1.866453(\text{mmHg/inH}_2\text{O})] / \text{Actual Pressure}$$

$$\text{Concentration (ug/m}^3\text{)} = \text{Results per filter (ug/sample)} / \text{Volume (m}^3\text{)}$$

Calculated By: *Bruce Edward Husband*  
 Reviewed By: *[Signature]*

Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)



Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286 080105

Date: 10/24/2003

Average Daily Temperature: 298.150 K  
 Average Daily Pressure: 760.000 mmHg

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate from District (l/min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
Monterey	P2000755	PM-10	10/24/2003	10/25/2003	17:15	8:35	920	5.0	4.6	Aluminum	7.2	1.6
Monterey	P2000754	PM-10	10/24/2003	10/25/2003	17:15	8:35	920	5.0	4.6	Antimony	ND (2.5)	ND (0.54)
Monterey	P2000754	PM-10	10/24/2003	10/25/2003	17:15	8:35	920	5.0	4.6	Barium	ND (2.5)	ND (0.54)
Monterey	P2000754	PM-10	10/24/2003	10/25/2003	17:15	8:35	920	5.0	4.6	Beryllium	ND (1.5)	ND (0.33)
Monterey	P2000754	PM-10	10/24/2003	10/25/2003	17:15	8:35	920	5.0	4.6	Cadmium	ND (1.5)	ND (0.33)
Monterey	P2000754	PM-10	10/24/2003	10/25/2003	17:15	8:35	920	5.0	4.6	Chromium	ND (2.5)	ND (0.54)
Monterey	P2000754	PM-10	10/24/2003	10/25/2003	17:15	8:35	920	5.0	4.6	Cobalt	ND (1.5)	ND (0.33)
Monterey	P2000754	PM-10	10/24/2003	10/25/2003	17:15	8:35	920	5.0	4.6	Copper	ND (2.5)	ND (0.54)
Monterey	P2000754	PM-10	10/24/2003	10/25/2003	17:15	8:35	920	5.0	4.6	Lead	ND (2.5)	ND (0.54)
Monterey	P2000754	PM-10	10/24/2003	10/25/2003	17:15	8:35	920	5.0	4.6	Manganese	ND (2.5)	ND (0.54)
Monterey	P2000754	PM-10	10/24/2003	10/25/2003	17:15	8:35	920	5.0	4.6	Molybdenum	ND (2.5)	ND (0.54)
Monterey	P2000754	PM-10	10/24/2003	10/25/2003	17:15	8:35	920	5.0	4.6	Nickel	ND (2.5)	ND (0.54)
Monterey	P2000754	PM-10	10/24/2003	10/25/2003	17:15	8:35	920	5.0	4.6	Zinc	ND (2.5)	ND (0.54)
Monterey	P2000754	PM-10	10/24/2003	10/25/2003	17:15	8:35	920	5.0	4.6	Mercury	ND (0.05)	ND (0.011)
Fitch	P2000342	PM-10	10/24/2003	10/25/2003	16:07	06:00	833	5.0	4.2	Aluminum	4.7	1.1
Fitch	P2000342	PM-10	10/24/2003	10/25/2003	16:07	06:00	833	5.0	4.2	Antimony	ND (2.5)	ND (0.60)

**Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)**

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate from District (l/min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
Fitch	P2000342	PM-10	10/24/2003	10/25/2003	16:07	06:00	833	5.0	4.2	Barium	ND (2.5)	ND (0.60)
Fitch	P2000342	PM-10	10/24/2003	10/25/2003	16:07	06:00	833	5.0	4.2	Beryllium	ND (1.5)	ND (0.36)
Fitch	P2000342	PM-10	10/24/2003	10/25/2003	16:07	06:00	833	5.0	4.2	Cadmium	ND (1.5)	ND (0.36)
Fitch	P2000342	PM-10	10/24/2003	10/25/2003	16:07	06:00	833	5.0	4.2	Chromium	ND (2.5)	ND (0.60)
Fitch	P2000342	PM-10	10/24/2003	10/25/2003	16:07	06:00	833	5.0	4.2	Cobalt	ND (1.5)	ND (0.36)
Fitch	P2000342	PM-10	10/24/2003	10/25/2003	16:07	06:00	833	5.0	4.2	Copper	ND (2.5)	ND (0.60)
Fitch	P2000342	PM-10	10/24/2003	10/25/2003	16:07	06:00	833	5.0	4.2	Lead	ND (2.5)	ND (0.60)
Fitch	P2000342	PM-10	10/24/2003	10/25/2003	16:07	06:00	833	5.0	4.2	Manganese	ND (2.5)	ND (0.60)
Fitch	P2000342	PM-10	10/24/2003	10/25/2003	16:07	06:00	833	5.0	4.2	Molybdenum	ND (2.5)	ND (0.60)
Fitch	P2000342	PM-10	10/24/2003	10/25/2003	16:07	06:00	833	5.0	4.2	Nickel	ND (2.5)	ND (0.60)
Fitch	P2000342	PM-10	10/24/2003	10/25/2003	16:07	06:00	833	5.0	4.2	Zinc	ND (2.5)	ND (0.60)
Fitch	P2000342	PM-10	10/24/2003	10/25/2003	16:07	06:00	833	5.0	4.2	Mercury	ND (0.05)	ND (0.012)
Spreckles	P2000335	PM-10	10/24/2003	10/25/2003	16:00	06:00	840	5.0	4.2	Aluminum	6	1.4
Spreckles	P2000335	PM-10	10/24/2003	10/25/2003	16:00	06:00	840	5.0	4.2	Antimony	ND (2.5)	ND (0.60)
Spreckles	P2000335	PM-10	10/24/2003	10/25/2003	16:00	06:00	840	5.0	4.2	Barium	ND (2.5)	ND (0.60)
Spreckles	P2000335	PM-10	10/24/2003	10/25/2003	16:00	06:00	840	5.0	4.2	Beryllium	ND (1.5)	ND (0.36)
Spreckles	P2000335	PM-10	10/24/2003	10/25/2003	16:00	06:00	840	5.0	4.2	Cadmium	ND (1.5)	ND (0.36)
Spreckles	P2000335	PM-10	10/24/2003	10/25/2003	16:00	06:00	840	5.0	4.2	Chromium	ND (2.5)	ND (0.60)
Spreckles	P2000335	PM-10	10/24/2003	10/25/2003	16:00	06:00	840	5.0	4.2	Cobalt	ND (1.5)	ND (0.36)
Spreckles	P2000335	PM-10	10/24/2003	10/25/2003	16:00	06:00	840	5.0	4.2	Copper	ND (2.5)	ND (0.60)



**Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)**

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate from District (l/min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
Spreckles	P2000335	PM-10	10/24/2003	10/25/2003	16:00	06:00	840	5.0	4.2	Lead	ND (2.5)	ND (0.60)
Spreckles	P2000335	PM-10	10/24/2003	10/25/2003	16:00	06:00	840	5.0	4.2	Manganese	ND (2.5)	ND (0.60)
Spreckles	P2000335	PM-10	10/24/2003	10/25/2003	16:00	06:00	840	5.0	4.2	Molybdenum	ND (2.5)	ND (0.60)
Spreckles	P2000335	PM-10	10/24/2003	10/25/2003	16:00	06:00	840	5.0	4.2	Nickel	ND (2.5)	ND (0.60)
Spreckles	P2000335	PM-10	10/24/2003	10/25/2003	16:00	06:00	840	5.0	4.2	Zinc	ND (2.5)	ND (0.60)
Spreckles	P2000335	PM-10	10/24/2003	10/25/2003	16:00	06:00	840	5.0	4.2	Mercury	ND (0.05)	ND (0.012)
SRFD	P2000348	PM-10	10/24/2003	10/25/2003	16:18	06:00	822	5.0	4.1	Aluminum	5	1.2
SRFD	P2000348	PM-10	10/24/2003	10/25/2003	16:18	06:00	822	5.0	4.1	Antimony	ND (2.5)	ND (0.61)
SRFD	P2000348	PM-10	10/24/2003	10/25/2003	16:18	06:00	822	5.0	4.1	Barium	ND (2.5)	ND (0.61)
SRFD	P2000348	PM-10	10/24/2003	10/25/2003	16:18	06:00	822	5.0	4.1	Beryllium	ND (1.5)	ND (0.36)
SRFD	P2000348	PM-10	10/24/2003	10/25/2003	16:18	06:00	822	5.0	4.1	Cadmium	ND (1.5)	ND (0.36)
SRFD	P2000348	PM-10	10/24/2003	10/25/2003	16:18	06:00	822	5.0	4.1	Chromium	ND (2.5)	ND (0.61)
SRFD	P2000348	PM-10	10/24/2003	10/25/2003	16:18	06:00	822	5.0	4.1	Cobalt	ND (1.5)	ND (0.36)
SRFD	P2000348	PM-10	10/24/2003	10/25/2003	16:18	06:00	822	5.0	4.1	Copper	ND (2.5)	ND (0.61)
SRFD	P2000348	PM-10	10/24/2003	10/25/2003	16:18	06:00	822	5.0	4.1	Lead	ND (2.5)	ND (0.61)
SRFD	P2000348	PM-10	10/24/2003	10/25/2003	16:18	06:00	822	5.0	4.1	Manganese	ND (2.5)	ND (0.61)
SRFD	P2000348	PM-10	10/24/2003	10/25/2003	16:18	06:00	822	5.0	4.1	Molybdenum	ND (2.5)	ND (0.61)
SRFD	P2000348	PM-10	10/24/2003	10/25/2003	16:18	06:00	822	5.0	4.1	Nickel	ND (2.5)	ND (0.61)
SRFD	P2000348	PM-10	10/24/2003	10/25/2003	16:18	06:00	822	5.0	4.1	Zinc	ND (2.5)	ND (0.61)
SRFD	P2000348	PM-10	10/24/2003	10/25/2003	16:18	06:00	822	5.0	4.1	Mercury	ND (0.05)	ND (0.012)

Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate from District (l/min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
Ingham	P2000329	PM-10	10/24/2003	10/25/2003	15:57	06:31	874	5.0	4.4	Aluminum	4.4	1.0
Ingham	P2000329	PM-10	10/24/2003	10/25/2003	15:57	06:31	874	5.0	4.4	Antimony	ND (2.5)	ND (0.57)
Ingham	P2000329	PM-10	10/24/2003	10/25/2003	15:57	06:31	874	5.0	4.4	Barium	ND (2.5)	ND (0.57)
Ingham	P2000329	PM-10	10/24/2003	10/25/2003	15:57	06:31	874	5.0	4.4	Beryllium	ND (1.5)	ND (0.34)
Ingham	P2000329	PM-10	10/24/2003	10/25/2003	15:57	06:31	874	5.0	4.4	Cadmium	ND (1.5)	ND (0.34)
Ingham	P2000329	PM-10	10/24/2003	10/25/2003	15:57	06:31	874	5.0	4.4	Chromium	ND (2.5)	ND (0.57)
Ingham	P2000329	PM-10	10/24/2003	10/25/2003	15:57	06:31	874	5.0	4.4	Cobalt	ND (1.5)	ND (0.34)
Ingham	P2000329	PM-10	10/24/2003	10/25/2003	15:57	06:31	874	5.0	4.4	Copper	ND (2.5)	ND (0.57)
Ingham	P2000329	PM-10	10/24/2003	10/25/2003	15:57	06:31	874	5.0	4.4	Lead	ND (2.5)	ND (0.57)
Ingham	P2000329	PM-10	10/24/2003	10/25/2003	15:57	06:31	874	5.0	4.4	Manganese	ND (2.5)	ND (0.57)
Ingham	P2000329	PM-10	10/24/2003	10/25/2003	15:57	06:31	874	5.0	4.4	Molybdenum	ND (2.5)	ND (0.57)
Ingham	P2000329	PM-10	10/24/2003	10/25/2003	15:57	06:31	874	5.0	4.4	Nickel	ND (2.5)	ND (0.57)
Ingham	P2000329	PM-10	10/24/2003	10/25/2003	15:57	06:31	874	5.0	4.4	Zinc	ND (2.5)	ND (0.57)
Ingham	P2000329	PM-10	10/24/2003	10/25/2003	15:57	06:31	874	5.0	4.4	Mercury	ND (0.05)	ND (0.011)

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Note: All times have been converted to pacific standard time.

$$Po/Pa = [\text{Actual Pressure} - (\text{manometer final} + \text{manometer initial}) / 2 * 1.866453(\text{mmHg}/\text{inH}_2\text{O})] / \text{Actual Pressure}$$

$$\text{Concentration (ug/m}^3\text{)} = \text{Results per filter (ug/sample)} / \text{Volume (m}^3\text{)}$$

Calculated By: *Bruce Edward Heister*

Reviewed By: *[Signature]*

Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)



Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286 080105

Date: 10/24/2003

Average Daily Temperature:

298.150 K

Average Daily Pressure:

760.000 mmHg

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate from District (l/min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
Gonzales	P2000758	PM-10	10/24/2003	10/25/2003	4:55	4:55	1440	5.0	7.2	Aluminum	11	1.5
Gonzales	P2000758	PM-10	10/24/2003	10/25/2003	4:55	4:55	1440	5.0	7.2	Antimony	ND (2.5)	ND (0.35)
Gonzales	P2000758	PM-10	10/24/2003	10/25/2003	4:55	4:55	1440	5.0	7.2	Barium	ND (2.5)	ND (0.35)
Gonzales	P2000758	PM-10	10/24/2003	10/25/2003	4:55	4:55	1440	5.0	7.2	Beryllium	ND (1.5)	ND (0.21)
Gonzales	P2000758	PM-10	10/24/2003	10/25/2003	4:55	4:55	1440	5.0	7.2	Cadmium	ND (1.5)	ND (0.21)
Gonzales	P2000758	PM-10	10/24/2003	10/25/2003	4:55	4:55	1440	5.0	7.2	Chromium	ND (2.5)	ND (0.35)
Gonzales	P2000758	PM-10	10/24/2003	10/25/2003	4:55	4:55	1440	5.0	7.2	Cobalt	ND (1.5)	ND (0.21)
Gonzales	P2000758	PM-10	10/24/2003	10/25/2003	4:55	4:55	1440	5.0	7.2	Copper	ND (2.5)	ND (0.35)
Gonzales	P2000758	PM-10	10/24/2003	10/25/2003	4:55	4:55	1440	5.0	7.2	Lead	ND (2.5)	ND (0.35)
Gonzales	P2000758	PM-10	10/24/2003	10/25/2003	4:55	4:55	1440	5.0	7.2	Manganese	ND (2.5)	ND (0.35)
Gonzales	P2000758	PM-10	10/24/2003	10/25/2003	4:55	4:55	1440	5.0	7.2	Molybdenum	ND (2.5)	ND (0.35)
Gonzales	P2000758	PM-10	10/24/2003	10/25/2003	4:55	4:55	1440	5.0	7.2	Nickel	ND (2.5)	ND (0.35)
Gonzales	P2000758	PM-10	10/24/2003	10/25/2003	4:55	4:55	1440	5.0	7.2	Zinc	ND (2.5)	ND (0.35)
Gonzales	P2000758	PM-10	10/24/2003	10/25/2003	4:55	4:55	1440	5.0	7.2	Mercury	ND (0.05)	ND (0.007)
Monterey	P2000754	PM-10	10/24/2003	10/24/2003	7:00	17:12	612	5.0	3.1	Aluminum	5.4	1.8
Monterey	P2000754	PM-10	10/24/2003	10/24/2003	7:00	17:12	612	5.0	3.1	Antimony	ND (2.5)	ND (0.82)
Monterey	P2000754	PM-10	10/24/2003	10/24/2003	7:00	17:12	612	5.0	3.1	Barium	ND (2.5)	ND (0.82)
Monterey	P2000754	PM-10	10/24/2003	10/24/2003	7:00	17:12	612	5.0	3.1	Beryllium	ND (1.5)	ND (0.49)
Monterey	P2000754	PM-10	10/24/2003	10/24/2003	7:00	17:12	612	5.0	3.1	Cadmium	ND (1.5)	ND (0.49)

Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate from District (l/min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
Monterey	P2000754	PM-10	10/24/2003	10/24/2003	7:00	17:12	612	5.0	3.1	Chromium	ND (2.5)	ND (0.82)
Monterey	P2000754	PM-10	10/24/2003	10/24/2003	7:00	17:12	612	5.0	3.1	Cobalt	ND (1.5)	ND (0.49)
Monterey	P2000754	PM-10	10/24/2003	10/24/2003	7:00	17:12	612	5.0	3.1	Copper	ND (2.5)	ND (0.82)
Monterey	P2000754	PM-10	10/24/2003	10/24/2003	7:00	17:12	612	5.0	3.1	Lead	ND (2.5)	ND (0.82)
Monterey	P2000754	PM-10	10/24/2003	10/24/2003	7:00	17:12	612	5.0	3.1	Manganese	ND (2.5)	ND (0.82)
Monterey	P2000754	PM-10	10/24/2003	10/24/2003	7:00	17:12	612	5.0	3.1	Molybdenum	ND (2.5)	ND (0.82)
Monterey	P2000754	PM-10	10/24/2003	10/24/2003	7:00	17:12	612	5.0	3.1	Nickel	ND (2.5)	ND (0.82)
Monterey	P2000754	PM-10	10/24/2003	10/24/2003	7:00	17:12	612	5.0	3.1	Zinc	ND (2.5)	ND (0.82)
Monterey	P2000754	PM-10	10/24/2003	10/24/2003	7:00	17:12	612	5.0	3.1	Mercury	ND (0.05)	ND (0.016)
Fitch	P2000339	PM-10	10/24/2003	10/24/2003	06:07	16:07	600	5.0	3.0	Aluminum	29	9.7
Fitch	P2000339	PM-10	10/24/2003	10/24/2003	06:07	16:07	600	5.0	3.0	Antimony	ND (2.5)	ND (0.83)
Fitch	P2000339	PM-10	10/24/2003	10/24/2003	06:07	16:07	600	5.0	3.0	Barium	ND (2.5)	ND (0.83)
Fitch	P2000339	PM-10	10/24/2003	10/24/2003	06:07	16:07	600	5.0	3.0	Beryllium	ND (1.5)	ND (0.50)
Fitch	P2000339	PM-10	10/24/2003	10/24/2003	06:07	16:07	600	5.0	3.0	Cadmium	ND (1.5)	ND (0.50)
Fitch	P2000339	PM-10	10/24/2003	10/24/2003	06:07	16:07	600	5.0	3.0	Chromium	ND (2.5)	ND (0.83)
Fitch	P2000339	PM-10	10/24/2003	10/24/2003	06:07	16:07	600	5.0	3.0	Cobalt	ND (1.5)	ND (0.50)
Fitch	P2000339	PM-10	10/24/2003	10/24/2003	06:07	16:07	600	5.0	3.0	Copper	ND (2.5)	ND (0.83)
Fitch	P2000339	PM-10	10/24/2003	10/24/2003	06:07	16:07	600	5.0	3.0	Lead	ND (2.5)	ND (0.83)
Fitch	P2000339	PM-10	10/24/2003	10/24/2003	06:07	16:07	600	5.0	3.0	Manganese	ND (2.5)	ND (0.83)
Fitch	P2000339	PM-10	10/24/2003	10/24/2003	06:07	16:07	600	5.0	3.0	Molybdenum	ND (2.5)	ND (0.83)
Fitch	P2000339	PM-10	10/24/2003	10/24/2003	06:07	16:07	600	5.0	3.0	Nickel	ND (2.5)	ND (0.83)
Fitch	P2000339	PM-10	10/24/2003	10/24/2003	06:07	16:07	600	5.0	3.0	Zinc	ND (2.5)	ND (0.83)
Fitch	P2000339	PM-10	10/24/2003	10/24/2003	06:07	16:07	600	5.0	3.0	Mercury	ND (0.05)	ND (0.017)
Spreckles	P2000333	PM-10	10/24/2003	10/24/2003	07:30	15:54	504	5.0	2.5	Aluminum	6.4	2.5



Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate from District (l/min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
Spreckles	P2000333	PM-10	10/24/2003	10/24/2003	07:30	15:54	504	5.0	2.5	Antimony	ND (2.5)	ND (0.99)
Spreckles	P2000333	PM-10	10/24/2003	10/24/2003	07:30	15:54	504	5.0	2.5	Barium	ND (2.5)	ND (0.99)
Spreckles	P2000333	PM-10	10/24/2003	10/24/2003	07:30	15:54	504	5.0	2.5	Beryllium	ND (1.5)	ND (0.60)
Spreckles	P2000333	PM-10	10/24/2003	10/24/2003	07:30	15:54	504	5.0	2.5	Cadmium	ND (1.5)	ND (0.60)
Spreckles	P2000333	PM-10	10/24/2003	10/24/2003	07:30	15:54	504	5.0	2.5	Chromium	ND (2.5)	ND (0.99)
Spreckles	P2000333	PM-10	10/24/2003	10/24/2003	07:30	15:54	504	5.0	2.5	Cobalt	ND (1.5)	ND (0.60)
Spreckles	P2000333	PM-10	10/24/2003	10/24/2003	07:30	15:54	504	5.0	2.5	Copper	ND (2.5)	ND (0.99)
Spreckles	P2000333	PM-10	10/24/2003	10/24/2003	07:30	15:54	504	5.0	2.5	Lead	ND (2.5)	ND (0.99)
Spreckles	P2000333	PM-10	10/24/2003	10/24/2003	07:30	15:54	504	5.0	2.5	Manganese	ND (2.5)	ND (0.99)
Spreckles	P2000333	PM-10	10/24/2003	10/24/2003	07:30	15:54	504	5.0	2.5	Molybdenum	ND (2.5)	ND (0.99)
Spreckles	P2000333	PM-10	10/24/2003	10/24/2003	07:30	15:54	504	5.0	2.5	Nickel	ND (2.5)	ND (0.99)
Spreckles	P2000333	PM-10	10/24/2003	10/24/2003	07:30	15:54	504	5.0	2.5	Zinc	ND (2.5)	ND (0.99)
Spreckles	P2000333	PM-10	10/24/2003	10/24/2003	07:30	15:54	504	5.0	2.5	Mercury	ND (0.05)	ND (0.020)
SRFD	P2000346	PM-10	10/24/2003	10/24/2003	06:45	16:15	570	5.0	2.9	Aluminum	6.9	2.4
SRFD	P2000346	PM-10	10/24/2003	10/24/2003	06:45	16:15	570	5.0	2.9	Antimony	ND (2.5)	ND (0.88)
SRFD	P2000346	PM-10	10/24/2003	10/24/2003	06:45	16:15	570	5.0	2.9	Barium	ND (2.5)	ND (0.88)
SRFD	P2000346	PM-10	10/24/2003	10/24/2003	06:45	16:15	570	5.0	2.9	Beryllium	ND (1.5)	ND (0.53)
SRFD	P2000346	PM-10	10/24/2003	10/24/2003	06:45	16:15	570	5.0	2.9	Cadmium	ND (1.5)	ND (0.53)
SRFD	P2000346	PM-10	10/24/2003	10/24/2003	06:45	16:15	570	5.0	2.9	Chromium	ND (2.5)	ND (0.88)
SRFD	P2000346	PM-10	10/24/2003	10/24/2003	06:45	16:15	570	5.0	2.9	Cobalt	ND (1.5)	ND (0.53)
SRFD	P2000346	PM-10	10/24/2003	10/24/2003	06:45	16:15	570	5.0	2.9	Copper	ND (2.5)	ND (0.88)
SRFD	P2000346	PM-10	10/24/2003	10/24/2003	06:45	16:15	570	5.0	2.9	Lead	ND (2.5)	ND (0.88)
SRFD	P2000346	PM-10	10/24/2003	10/24/2003	06:45	16:15	570	5.0	2.9	Manganese	ND (2.5)	ND (0.88)
SRFD	P2000346	PM-10	10/24/2003	10/24/2003	06:45	16:15	570	5.0	2.9	Molybdenum	ND (2.5)	ND (0.88)

**Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)**

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate from District (l/min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
SRFD	P2000346	PM-10	10/24/2003	10/24/2003	06:45	16:15	570	5.0	2.9	Nickel	ND (2.5)	ND (0.88)
SRFD	P2000346	PM-10	10/24/2003	10/24/2003	06:45	16:15	570	5.0	2.9	Zinc	ND (2.5)	ND (0.88)
SRFD	P2000346	PM-10	10/24/2003	10/24/2003	06:45	16:15	570	5.0	2.9	Mercury	ND (0.05)	ND (0.018)
Ingham	P2000326	PM-10	10/24/2003	10/24/2003	06:30	15:54	564	5.0	2.8	Aluminum	4.9	1.7
Ingham	P2000326	PM-10	10/24/2003	10/24/2003	06:30	15:54	564	5.0	2.8	Antimony	ND (2.5)	ND (0.89)
Ingham	P2000326	PM-10	10/24/2003	10/24/2003	06:30	15:54	564	5.0	2.8	Barium	ND (2.5)	ND (0.89)
Ingham	P2000326	PM-10	10/24/2003	10/24/2003	06:30	15:54	564	5.0	2.8	Beryllium	ND (1.5)	ND (0.53)
Ingham	P2000326	PM-10	10/24/2003	10/24/2003	06:30	15:54	564	5.0	2.8	Cadmium	ND (1.5)	ND (0.53)
Ingham	P2000326	PM-10	10/24/2003	10/24/2003	06:30	15:54	564	5.0	2.8	Chromium	ND (2.5)	ND (0.89)
Ingham	P2000326	PM-10	10/24/2003	10/24/2003	06:30	15:54	564	5.0	2.8	Cobalt	ND (1.5)	ND (0.53)
Ingham	P2000326	PM-10	10/24/2003	10/24/2003	06:30	15:54	564	5.0	2.8	Copper	ND (2.5)	ND (0.89)
Ingham	P2000326	PM-10	10/24/2003	10/24/2003	06:30	15:54	564	5.0	2.8	Lead	ND (2.5)	ND (0.89)
Ingham	P2000326	PM-10	10/24/2003	10/24/2003	06:30	15:54	564	5.0	2.8	Manganese	ND (2.5)	ND (0.89)
Ingham	P2000326	PM-10	10/24/2003	10/24/2003	06:30	15:54	564	5.0	2.8	Molybdenum	ND (2.5)	ND (0.89)
Ingham	P2000326	PM-10	10/24/2003	10/24/2003	06:30	15:54	564	5.0	2.8	Nickel	ND (2.5)	ND (0.89)
Ingham	P2000326	PM-10	10/24/2003	10/24/2003	06:30	15:54	564	5.0	2.8	Zinc	ND (2.5)	ND (0.89)
Ingham	P2000326	PM-10	10/24/2003	10/24/2003	06:30	15:54	564	5.0	2.8	Mercury	ND (0.05)	ND (0.018)

Note: All times have been converted to pacific standard time.

Pa/Pa = [Actual Pressure - (manometer final + manometer initial) / 2 \* 1.866453(mmHg/(inH<sub>2</sub>O))] / Actual Pressure

Concentration (ug/m<sup>3</sup>) = Results per filter (ug/sample) / Volume (m<sup>3</sup>)

Calculated By: *Bruce Edward Richard*  
 Reviewed By: *Bruce Edward Richard*

Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)



Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286 080105

Date: 10/25/2003

Average Daily Temperature: 298.150 K

Average Daily Pressure: 760.000 mmHg

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate from District (l/min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
Gonzales	P2000761	PM-10	10/25/2003	10/26/2003	5:00	5:00	1440	5.0	7.2	Aluminum	11	1.5
Gonzales	P2000761	PM-10	10/25/2003	10/26/2003	5:00	5:00	1440	5.0	7.2	Antimony	ND (2.5)	ND (0.35)
Gonzales	P2000761	PM-10	10/25/2003	10/26/2003	5:00	5:00	1440	5.0	7.2	Barium	ND (2.5)	ND (0.35)
Gonzales	P2000761	PM-10	10/25/2003	10/26/2003	5:00	5:00	1440	5.0	7.2	Beryllium	ND (1.5)	ND (0.21)
Gonzales	P2000761	PM-10	10/25/2003	10/26/2003	5:00	5:00	1440	5.0	7.2	Cadmium	ND (1.5)	ND (0.21)
Gonzales	P2000761	PM-10	10/25/2003	10/26/2003	5:00	5:00	1440	5.0	7.2	Chromium	ND (2.5)	ND (0.35)
Gonzales	P2000761	PM-10	10/25/2003	10/26/2003	5:00	5:00	1440	5.0	7.2	Cobalt	ND (1.5)	ND (0.21)
Gonzales	P2000761	PM-10	10/25/2003	10/26/2003	5:00	5:00	1440	5.0	7.2	Copper	ND (2.5)	ND (0.35)
Gonzales	P2000761	PM-10	10/25/2003	10/26/2003	5:00	5:00	1440	5.0	7.2	Lead	ND (2.5)	ND (0.35)
Gonzales	P2000761	PM-10	10/25/2003	10/26/2003	5:00	5:00	1440	5.0	7.2	Manganese	ND (2.5)	ND (0.35)
Gonzales	P2000761	PM-10	10/25/2003	10/26/2003	5:00	5:00	1440	5.0	7.2	Molybdenum	ND (2.5)	ND (0.35)
Gonzales	P2000761	PM-10	10/25/2003	10/26/2003	5:00	5:00	1440	5.0	7.2	Nickel	ND (2.5)	ND (0.35)
Gonzales	P2000761	PM-10	10/25/2003	10/26/2003	5:00	5:00	1440	5.0	7.2	Zinc	ND (2.5)	ND (0.35)
Gonzales	P2000761	PM-10	10/25/2003	10/26/2003	5:00	5:00	1440	5.0	7.2	Mercury	ND (0.05)	ND (0.007)
Fitch	P2000344	PM-10	10/25/2003	10/26/2003	06:05	06:05	1440	5.0	7.2	Aluminum	8.6	1.2
Fitch	P2000344	PM-10	10/25/2003	10/26/2003	06:05	06:05	1440	5.0	7.2	Antimony	ND (2.5)	ND (0.35)

**Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)**

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate from District (l/min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
Fitch	P2000344	PM-10	10/25/2003	10/26/2003	06:05	06:05	1440	5.0	7.2	Barium	ND (2.5)	ND (0.35)
Fitch	P2000344	PM-10	10/25/2003	10/26/2003	06:05	06:05	1440	5.0	7.2	Beryllium	ND (1.5)	ND (0.21)
Fitch	P2000344	PM-10	10/25/2003	10/26/2003	06:05	06:05	1440	5.0	7.2	Cadmium	ND (1.5)	ND (0.21)
Fitch	P2000344	PM-10	10/25/2003	10/26/2003	06:05	06:05	1440	5.0	7.2	Chromium	ND (2.5)	ND (0.35)
Fitch	P2000344	PM-10	10/25/2003	10/26/2003	06:05	06:05	1440	5.0	7.2	Cobalt	ND (1.5)	ND (0.21)
Fitch	P2000344	PM-10	10/25/2003	10/26/2003	06:05	06:05	1440	5.0	7.2	Copper	ND (2.5)	ND (0.35)
Fitch	P2000344	PM-10	10/25/2003	10/26/2003	06:05	06:05	1440	5.0	7.2	Lead	ND (2.5)	ND (0.35)
Fitch	P2000344	PM-10	10/25/2003	10/26/2003	06:05	06:05	1440	5.0	7.2	Manganese	ND (2.5)	ND (0.35)
Fitch	P2000344	PM-10	10/25/2003	10/26/2003	06:05	06:05	1440	5.0	7.2	Molybdenum	ND (2.5)	ND (0.35)
Fitch	P2000344	PM-10	10/25/2003	10/26/2003	06:05	06:05	1440	5.0	7.2	Nickel	ND (2.5)	ND (0.35)
Fitch	P2000344	PM-10	10/25/2003	10/26/2003	06:05	06:05	1440	5.0	7.2	Zinc	ND (2.5)	ND (0.35)
Fitch	P2000344	PM-10	10/25/2003	10/26/2003	06:05	06:05	1440	5.0	7.2	Mercury	ND (0.05)	ND (0.007)
Spreckles	P2000337	PM-10	10/25/2003	10/26/2003	07:00	07:00	1440	5.0	7.2	Aluminum	11	1.5
Spreckles	P2000337	PM-10	10/25/2003	10/26/2003	07:00	07:00	1440	5.0	7.2	Antimony	ND (2.5)	ND (0.35)
Spreckles	P2000337	PM-10	10/25/2003	10/26/2003	07:00	07:00	1440	5.0	7.2	Barium	ND (2.5)	ND (0.35)
Spreckles	P2000337	PM-10	10/25/2003	10/26/2003	07:00	07:00	1440	5.0	7.2	Beryllium	ND (1.5)	ND (0.21)
Spreckles	P2000337	PM-10	10/25/2003	10/26/2003	07:00	07:00	1440	5.0	7.2	Cadmium	ND (1.5)	ND (0.21)
Spreckles	P2000337	PM-10	10/25/2003	10/26/2003	07:00	07:00	1440	5.0	7.2	Chromium	ND (2.5)	ND (0.35)
Spreckles	P2000337	PM-10	10/25/2003	10/26/2003	07:00	07:00	1440	5.0	7.2	Cobalt	ND (1.5)	ND (0.21)
Spreckles	P2000337	PM-10	10/25/2003	10/26/2003	07:00	07:00	1440	5.0	7.2	Copper	ND (2.5)	ND (0.35)
Spreckles	P2000337	PM-10	10/25/2003	10/26/2003	07:00	07:00	1440	5.0	7.2	Lead	ND (2.5)	ND (0.35)



**Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)**

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate from District (l/min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
Spreckles	P2000337	PM-10	10/25/2003	10/26/2003	07:00	07:00	1440	5.0	7.2	Manganese	ND (2.5)	ND (0.35)
Spreckles	P2000337	PM-10	10/25/2003	10/26/2003	07:00	07:00	1440	5.0	7.2	Molybdenum	ND (2.5)	ND (0.35)
Spreckles	P2000337	PM-10	10/25/2003	10/26/2003	07:00	07:00	1440	5.0	7.2	Nickel	ND (2.5)	ND (0.35)
Spreckles	P2000337	PM-10	10/25/2003	10/26/2003	07:00	07:00	1440	5.0	7.2	Zinc	ND (2.5)	ND (0.35)
Spreckles	P2000337	PM-10	10/25/2003	10/26/2003	07:00	07:00	1440	5.0	7.2	Mercury	ND (0.05)	ND (0.007)
SRFD	P2000751	PM-10	10/25/2003	10/26/2003	06:10	06:10	1440	4.9	7.1	Aluminum	9.2	1.3
SRFD	P2000751	PM-10	10/25/2003	10/26/2003	06:10	06:10	1440	4.9	7.1	Antimony	ND (2.5)	ND (0.35)
SRFD	P2000751	PM-10	10/25/2003	10/26/2003	06:10	06:10	1440	4.9	7.1	Barium	ND (2.5)	ND (0.35)
SRFD	P2000751	PM-10	10/25/2003	10/26/2003	06:10	06:10	1440	4.9	7.1	Beryllium	ND (1.5)	ND (0.21)
SRFD	P2000751	PM-10	10/25/2003	10/26/2003	06:10	06:10	1440	4.9	7.1	Cadmium	ND (1.5)	ND (0.21)
SRFD	P2000751	PM-10	10/25/2003	10/26/2003	06:10	06:10	1440	4.9	7.1	Chromium	ND (2.5)	ND (0.35)
SRFD	P2000751	PM-10	10/25/2003	10/26/2003	06:10	06:10	1440	4.9	7.1	Cobalt	ND (1.5)	ND (0.21)
SRFD	P2000751	PM-10	10/25/2003	10/26/2003	06:10	06:10	1440	4.9	7.1	Copper	ND (2.5)	ND (0.35)
SRFD	P2000751	PM-10	10/25/2003	10/26/2003	06:10	06:10	1440	4.9	7.1	Lead	ND (2.5)	ND (0.35)
SRFD	P2000751	PM-10	10/25/2003	10/26/2003	06:10	06:10	1440	4.9	7.1	Manganese	ND (2.5)	ND (0.35)
SRFD	P2000751	PM-10	10/25/2003	10/26/2003	06:10	06:10	1440	4.9	7.1	Molybdenum	ND (2.5)	ND (0.35)
SRFD	P2000751	PM-10	10/25/2003	10/26/2003	06:10	06:10	1440	4.9	7.1	Nickel	ND (2.5)	ND (0.35)
SRFD	P2000751	PM-10	10/25/2003	10/26/2003	06:10	06:10	1440	4.9	7.1	Zinc	ND (2.5)	ND (0.35)
SRFD	P2000751	PM-10	10/25/2003	10/26/2003	06:10	06:10	1440	4.9	7.1	Mercury	ND (0.05)	ND (0.007)
Ingham	P2000331	PM-10	10/25/2003	10/26/2003	06:45	06:45	1440	5.0	7.2	Aluminum	7.1	0.99

**Metals Results from NIOSH Methods 7300M and 6009M (Air District Samples)**

Name or Location	Filter ID	Sample Type or Analyte	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Average Flow Rate from District (l/min)	Volume (m <sup>3</sup> )	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
Ingham	P2000331	PM-10	10/25/2003	10/26/2003	06:45	06:45	1440	5.0	7.2	Antimony	ND (2.5)	ND (0.35)
Ingham	P2000331	PM-10	10/25/2003	10/26/2003	06:45	06:45	1440	5.0	7.2	Barium	ND (2.5)	ND (0.35)
Ingham	P2000331	PM-10	10/25/2003	10/26/2003	06:45	06:45	1440	5.0	7.2	Beryllium	ND (1.5)	ND (0.21)
Ingham	P2000331	PM-10	10/25/2003	10/26/2003	06:45	06:45	1440	5.0	7.2	Cadmium	ND (1.5)	ND (0.21)
Ingham	P2000331	PM-10	10/25/2003	10/26/2003	06:45	06:45	1440	5.0	7.2	Chromium	ND (2.5)	ND (0.35)
Ingham	P2000331	PM-10	10/25/2003	10/26/2003	06:45	06:45	1440	5.0	7.2	Cobalt	ND (1.5)	ND (0.21)
Ingham	P2000331	PM-10	10/25/2003	10/26/2003	06:45	06:45	1440	5.0	7.2	Copper	ND (2.5)	ND (0.35)
Ingham	P2000331	PM-10	10/25/2003	10/26/2003	06:45	06:45	1440	5.0	7.2	Lead	ND (2.5)	ND (0.35)
Ingham	P2000331	PM-10	10/25/2003	10/26/2003	06:45	06:45	1440	5.0	7.2	Manganese	ND (2.5)	ND (0.35)
Ingham	P2000331	PM-10	10/25/2003	10/26/2003	06:45	06:45	1440	5.0	7.2	Molybdenum	ND (2.5)	ND (0.35)
Ingham	P2000331	PM-10	10/25/2003	10/26/2003	06:45	06:45	1440	5.0	7.2	Nickel	ND (2.5)	ND (0.35)
Ingham	P2000331	PM-10	10/25/2003	10/26/2003	06:45	06:45	1440	5.0	7.2	Zinc	ND (2.5)	ND (0.35)
Ingham	P2000331	PM-10	10/25/2003	10/26/2003	06:45	06:45	1440	5.0	7.2	Mercury	ND (0.05)	ND (0.007)

Note: All times have been converted to pacific standard time.

Po/Pa = [Actual Pressure - (manometer final + manometer initial) / 2 \* 1.866453(mmHg/inH<sub>2</sub>O)] / Actual Pressure

Concentration (ug/m<sup>3</sup>) = Results per filter (ug/sample) / Volume (m<sup>3</sup>)

Calculated By: *Bruce Edward Kestland*

Reviewed By: *Bruce Edward Kestland*

Aldehyde Results from Method TO-11



Client: Parsons/Fl. Ord Prescribed Burn

Job Number: 56286.080105

Date: 10/24/2003

Name or Location	Pump ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	10315	Aldehydes	BA1P2763-6	10/24/2003	10/24/2003	05:50	15:31	581	2.75	2.75	2.75	1,597.75	Formaldehyde	140	87.62
BA-1	10315	Aldehydes	BA1P2763-6	10/24/2003	10/24/2003	05:50	15:31	581	2.75	2.75	2.75	1,597.75	Acetaldehyde	370	231.58
BA-2	905-150	Aldehydes	BA2P2763-5	10/24/2003	10/24/2003	05:17	15:03	586	2.50	2.50	2.50	1,465.00	Formaldehyde	8.0	5.46
BA-2	905-150	Aldehydes	BA2P2763-5	10/24/2003	10/24/2003	05:17	15:03	586	2.50	2.50	2.50	1,465.00	Acetaldehyde	8.2	5.60
OB-1	10316	Aldehydes	OB1P2763-3	10/24/2003	10/24/2003	08:00	16:01	481	1.65	1.60	1.63	781.63	Formaldehyde	2.8	3.58
OB-1	10316	Aldehydes	OB1P2763-3	10/24/2003	10/24/2003	08:00	16:01	481	1.65	1.60	1.63	781.63	Acetaldehyde	2.1	2.69
OB-1, Co-located	10308	Aldehydes	OB1C2763-4	10/24/2003	10/24/2003	08:03	16:01	478	1.65	1.50	1.58	752.85	Formaldehyde	2.9	3.85
OB-1, Co-located	10308	Aldehydes	OB1C2763-4	10/24/2003	10/24/2003	08:03	16:01	478	1.65	1.50	1.58	752.85	Acetaldehyde	1.8	2.39
OB-2	905-153	Aldehydes	OB2P2763-2	10/24/2003	10/24/2003	08:40	16:49	489	2.15	2.26	2.21	1,079.22	Formaldehyde	22.	20.39
OB-2	905-153	Aldehydes	OB2P2763-2	10/24/2003	10/24/2003	08:40	16:49	489	2.15	2.26	2.21	1,079.22	Acetaldehyde	32.	29.65
OB-3	006-249	Aldehydes	OB3P2763-1	10/24/2003	10/24/2003	08:04	16:24	500	2.07	2.15	2.11	1,055.25	Formaldehyde	5.2	4.93
OB-3	006-249	Aldehydes	OB3P2763-1	10/24/2003	10/24/2003	08:04	16:24	500	2.07	2.15	2.11	1,055.25	Acetaldehyde	4.6	4.36
PS-1	006-243	Aldehydes	PS1P2734-6	10/24/2003	10/24/2003	08:02	16:05	483	2.00	2.25	2.13	1,026.38	Formaldehyde	2.9	2.83
PS-1	006-243	Aldehydes	PS1P2734-6	10/24/2003	10/24/2003	08:02	16:05	483	2.00	2.25	2.13	1,026.38	Acetaldehyde	2.4	2.34
PS-2	06-257	Aldehydes	PS2P2734-7	10/24/2003	10/24/2003	07:57	15:42	465	1.97	2.03	2.00	929.77	Formaldehyde	3.1	3.33

Aldehyde Results from Method TO-11

Name or Location	Pump ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
PS-2	06-257	TO-11 Aldehydes	PS2P2734-7	10/24/2003	10/24/2003	07:57	15:42	465	1.97	2.03	2.00	929.77	Acetaldehyde	2.1	2.26
PS-3	905-149	TO-11 Aldehydes	PS3P2734-8	10/24/2003	10/24/2003	08:03	15:46	463	2.07	2.12	2.10	970.22	Formaldehyde	7.4	7.63
PS-3	905-149	TO-11 Aldehydes	PS3P2734-8	10/24/2003	10/24/2003	08:03	15:46	463	2.07	2.12	2.10	970.22	Acetaldehyde	7.2	7.42
PS-4	006-244	TO-11 Aldehydes	PS4P2734-9	10/24/2003	10/24/2003	08:00	16:01	481	2.09	2.05	2.07	994.47	Formaldehyde	4.3	4.32
PS-4	006-244	TO-11 Aldehydes	PS4P2734-9	10/24/2003	10/24/2003	08:00	16:01	481	2.09	2.05	2.07	994.47	Acetaldehyde	3.	3.02
PS-5	905-152	TO-11 Aldehydes	PS5P2734-5	10/24/2003	10/24/2003	08:08	16:10	482	2.11	1.97	2.04	983.52	Formaldehyde	5.3	5.39
PS-5	905-152	TO-11 Aldehydes	PS5P2734-5	10/24/2003	10/24/2003	08:08	16:10	482	2.11	1.97	2.04	983.52	Acetaldehyde	4.8	4.88
PS-6	006-242	TO-11 Aldehydes	PS6P2734-4	10/24/2003	10/24/2003	08:00	17:02	542	2.02	2.02	2.02	1,095.38	Formaldehyde	3.2	2.92
PS-6	006-242	TO-11 Aldehydes	PS6P2734-4	10/24/2003	10/24/2003	08:00	17:02	542	2.02	2.02	2.02	1,095.38	Acetaldehyde	2.8	2.56
PS-7	10313	TO-11 Aldehydes	PS7P2734-3	10/24/2003	10/24/2003	08:03	16:10	487	2.09	2.00	2.04	993.72	Formaldehyde	7.	7.04
PS-7	10313	TO-11 Aldehydes	PS7P2734-3	10/24/2003	10/24/2003	08:03	16:10	487	2.09	2.00	2.04	993.72	Acetaldehyde	7.2	7.25
PS-9	905-148	TO-11 Aldehydes	PS9P2734-2	10/24/2003	10/24/2003	09:22	16:54	452	2.03	2.02	2.02	914.62	Formaldehyde	1.8	1.97
PS-9	905-148	TO-11 Aldehydes	PS9P2734-2	10/24/2003	10/24/2003	09:22	16:54	452	2.03	2.02	2.02	914.62	Acetaldehyde	1.3	1.42
MS-1	006-255	TO-11 Aldehydes	MS1P2734-10	10/24/2003	10/24/2003	10:17	15:10	293	1.86	1.84	1.85	542.34	Formaldehyde	4.1	7.56
MS-1	006-255	TO-11 Aldehydes	MS1P2734-10	10/24/2003	10/24/2003	10:17	15:10	293	1.86	1.84	1.85	542.34	Acetaldehyde	4.1	7.56

Note: All times have been converted to pacific standard time.

Volume (liters) = Average Rate (l/min) \* Total Time (minutes)  
 Concentration (ug/m<sup>3</sup>) = Results per Filter (ug) / Volume (liters) \* 1000 (liter/m<sup>3</sup>)

Calculated By: *Diane Edward Stewart*

Reviewed By: *[Signature]*



Aldehyde Results from Method TO-11



Client: Parsons/Ft. Ord Prescribed Burn Job Number: 56286 080105 Date: 10/25/2003

Name or Location	Pump ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	10315	TO-11 Aldehydes	BA1P2763-9	10/25/2003	10/25/2003	07:04	16:09	545	2.00	2.00	2.00	1,090.00	Formaldehyde	9.4	8.62
BA-1	10315	TO-11 Aldehydes	BA1P2763-9	10/25/2003	10/25/2003	07:04	16:09	545	2.00	2.00	2.00	1,090.00	Acetaldehyde	11.	10.09
BA-2	905-150	TO-11 Aldehydes	BA2P2763-10	10/25/2003	10/25/2003	06:34	15:48	554	2.00	2.00	2.00	1,108.00	Formaldehyde	29.	26.17
BA-2	905-150	TO-11 Aldehydes	BA2P2763-10	10/25/2003	10/25/2003	06:34	15:48	554	2.00	2.00	2.00	1,108.00	Acetaldehyde	40.	36.10
OB-1	10316	TO-11 Aldehydes	OB1P2763-12	10/25/2003	10/25/2003	07:03	16:08	545	1.65	1.65	1.65	900.34	Formaldehyde	3.4	3.78
OB-1	10316	TO-11 Aldehydes	OB1P2763-12	10/25/2003	10/25/2003	07:03	16:08	545	1.65	1.65	1.65	900.34	Acetaldehyde	3.3	3.67
OB-1, Co-located	10308	TO-11 Aldehydes	OB1C2763-13	10/25/2003	10/25/2003	07:07	16:05	538	1.65	1.65	1.65	888.78	Formaldehyde	3.2	3.60
OB-1, Co-located	10308	TO-11 Aldehydes	OB1C2763-13	10/25/2003	10/25/2003	07:07	16:05	538	1.65	1.65	1.65	888.78	Acetaldehyde	3.2	3.60
OB-2	905-153	TO-11 Aldehydes	OB2P2763-14	10/25/2003	10/25/2003	07:23	16:12	529	2.21	2.23	2.22	1,175.44	Formaldehyde	7.9	6.72
OB-2	905-153	TO-11 Aldehydes	OB2P2763-14	10/25/2003	10/25/2003	07:23	16:12	529	2.21	2.23	2.22	1,175.44	Acetaldehyde	9.7	8.25
OB-3	006-249	TO-11 Aldehydes	OB3P2763-15	10/25/2003	10/25/2003	08:31	16:44	493	2.02	1.97	2.00	983.78	Formaldehyde	4.9	4.98
OB-3	006-249	TO-11 Aldehydes	OB3P2763-15	10/25/2003	10/25/2003	08:31	16:44	493	2.02	1.97	2.00	983.78	Acetaldehyde	4.6	4.68
PS-1	006-243	TO-11 Aldehydes	PS1P2763-16	10/25/2003	10/25/2003	08:07	16:39	512	2.34	1.92	2.13	1,090.82	Formaldehyde	3.1	2.84
PS-1	006-243	TO-11 Aldehydes	PS1P2763-16	10/25/2003	10/25/2003	08:07	16:39	512	2.34	1.92	2.13	1,090.82	Acetaldehyde	2.6	2.38

Aldehyde Results from Method TO-11

Name or Location	Pump ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
PS-2	06-257	TO-11 Aldehydes	PS2P2763-17	10/25/2003	10/25/2003	07:02	16:22	560	1.99	1.98	1.98	1,110.76	Formaldehyde	5.1	4.59
PS-2	06-257	TO-11 Aldehydes	PS2P2763-17	10/25/2003	10/25/2003	07:02	16:22	560	1.99	1.98	1.98	1,110.76	Acetaldehyde	4.4	3.96
PS-3	905-149	TO-11 Aldehydes	PS3P2763-18	10/25/2003	10/25/2003	07:29	16:05	516	2.17	2.36	2.27	1,168.74	Formaldehyde	8.9	7.62
PS-3	905-149	TO-11 Aldehydes	PS3P2763-18	10/25/2003	10/25/2003	07:29	16:05	516	2.17	2.36	2.27	1,168.74	Acetaldehyde	9.9	8.47
PS-4	006-244	TO-11 Aldehydes	PS4P2763-19	10/25/2003	10/25/2003	07:11	16:01	530	2.09	2.26	2.17	1,151.69	Formaldehyde	7.2	6.25
PS-4	006-244	TO-11 Aldehydes	PS4P2763-19	10/25/2003	10/25/2003	07:11	16:01	530	2.09	2.26	2.17	1,151.69	Acetaldehyde	6.6	5.73
PS-5	905-152	TO-11 Aldehydes	PS5P2763-20	10/25/2003	10/25/2003	07:26	15:00	454	2.11	1.97	2.04	926.39	Formaldehyde	3.4	3.67
PS-5	905-152	TO-11 Aldehydes	PS5P2763-20	10/25/2003	10/25/2003	07:26	15:00	454	2.11	1.97	2.04	926.39	Acetaldehyde	3.4	3.67
PS-6	006-242	TO-11 Aldehydes	PS6P2763-21	10/25/2003	10/25/2003	07:24	16:08	524	2.02	1.85	1.94	1,013.94	Formaldehyde	3.8	3.75
PS-6	006-242	TO-11 Aldehydes	PS6P2763-21	10/25/2003	10/25/2003	07:24	16:08	524	2.02	1.85	1.94	1,013.94	Acetaldehyde	3.4	3.35
PS-7	10313	TO-11 Aldehydes	PS7P2763-22	10/25/2003	10/25/2003	07:37	16:05	508	2.09	2.18	2.13	1,082.55	Formaldehyde	8.2	7.57
PS-7	10313	TO-11 Aldehydes	PS7P2763-22	10/25/2003	10/25/2003	07:37	16:05	508	2.09	2.18	2.13	1,082.55	Acetaldehyde	8.5	7.85
PS-9	905-148	TO-11 Aldehydes	PS9P2763-23	10/25/2003	10/25/2003	08:35	17:27	532	2.03	2.04	2.04	1,083.95	Formaldehyde	4.3	3.97
PS-9	905-148	TO-11 Aldehydes	PS9P2763-23	10/25/2003	10/25/2003	08:35	17:27	532	2.03	2.04	2.04	1,083.95	Acetaldehyde	2.8	2.58

Note: All times have been converted to pacific standard time.

Volume (liters) = Average Rate (l/min) \* Total Time (minutes)  
 Concentration (ug/m<sup>3</sup>) = Results per Filter (ug) / Volume (liters) \* 1000 (liter/m<sup>3</sup>)

Calculated By: *Bruce Edward Hestand*

Reviewed By: *[Signature]*

Aldehyde Results from Method TO-11



Client: Parsons/EI, Ord Prescribed Burn Job Number: 56286 080105 Date: 11/12/2003

Name or Location	Pump ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
BA-1	10316	Aldehydes	BA1P2763-29	11/12/2003	11/12/2003	07:59	16:32	513	2.09	2.09	2.09	1,069.61	Formaldehyde	1.5	1.40
BA-1	10316	Aldehydes	BA1P2763-29	11/12/2003	11/12/2003	07:59	16:32	513	2.09	2.09	2.09	1,069.61	Acetaldehyde	1.3	1.22
BA-2	905-150	Aldehydes	BA2P2763-28	11/12/2003	11/12/2003	07:34	16:05	511	2.09	2.31	2.20	1,122.67	Formaldehyde	2.4	2.14
BA-2	905-150	Aldehydes	BA2P2763-28	11/12/2003	11/12/2003	07:34	16:05	511	2.09	2.31	2.20	1,122.67	Acetaldehyde	1.6	1.43
OB-1	905-153	Aldehydes	OB1P2763-26	11/12/2003	11/12/2003	07:33	16:26	533	2.11	2.20	2.15	1,148.35	Formaldehyde	1.7	1.48
OB-1	905-153	Aldehydes	OB1P2763-26	11/12/2003	11/12/2003	07:33	16:26	533	2.11	2.20	2.15	1,148.35	Acetaldehyde	1.5	1.31
OB-1, Co-located	10308	Aldehydes	OB1C2763-27	11/12/2003	11/12/2003	07:37	16:24	527	2.11	2.20	2.15	1,135.42	Formaldehyde	1.8	1.59
OB-1, Co-located	10308	Aldehydes	OB1C2763-27	11/12/2003	11/12/2003	07:37	16:24	527	2.11	2.20	2.15	1,135.42	Acetaldehyde	1.4	1.23
OB-2	10315	Aldehydes	OB2P2763-30	11/12/2003	11/12/2003	08:48	16:27	459	2.09	2.04	2.06	946.92	Formaldehyde	1.3	1.37
OB-2	10315	Aldehydes	OB2P2763-30	11/12/2003	11/12/2003	08:48	16:27	459	2.09	2.04	2.06	946.92	Acetaldehyde	1.0	1.06
OB-3	10313	Aldehydes	OB2P2763-37	11/12/2003	11/12/2003	08:53	16:51	478	2.09	2.09	2.09	999.02	Formaldehyde	1.9	1.90
OB-3	10313	Aldehydes	OB2P2763-37	11/12/2003	11/12/2003	08:53	16:51	478	2.09	2.09	2.09	999.02	Acetaldehyde	1.4	1.40
PS-1	006-249	Aldehydes	PS1P2763-38	11/12/2003	11/12/2003	08:43	17:38	535	2.09	2.09	2.09	1,118.15	Formaldehyde	1.6	1.43
PS-1	006-249	Aldehydes	PS1P2763-38	11/12/2003	11/12/2003	08:43	17:38	535	2.09	2.09	2.09	1,118.15	Acetaldehyde	1.4	1.25

**Aldehyde Results from Method TO-11**

Name or Location	Pump ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Species	Results per Filter (ug/Sample)	Concentration (ug/m <sup>3</sup> )
PS-3	905-148	TO-11 Aldehydes	PS3P2763-39	11/12/2003	11/12/2003	07:55	16:26	511	1.96	2.00	1.98	1,011.78	Formaldehyde	1.8	1.78
PS-3	905-148	TO-11 Aldehydes	PS3P2763-39	11/12/2003	11/12/2003	07:55	16:26	511	1.96	2.00	1.98	1,011.78	Acetaldehyde	1.6	1.58
PS-9	006-254	TO-11 Aldehydes	PS9P2763-36	11/12/2003	11/12/2003	08:55	17:22	507	2.02	2.11	2.06	1,046.45	Formaldehyde	2.7	2.58
PS-9	006-254	TO-11 Aldehydes	PS9P2763-36	11/12/2003	11/12/2003	08:55	17:22	507	2.02	2.11	2.06	1,046.45	Acetaldehyde	2.0	1.91

Note: All times have been converted to pacific standard time.

Volume (liters) = Average Rate (l/min) \* Total Time (minutes)  
 Concentration (ug/m3) = Results per Filter (ug) / Volume (liters) \* 1000 (liter/m3)

Calculated By: *Bruce Edward Hestand*

Reviewed By: *[Signature]*





Acrolein Results from Method TO-14A

Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286 080105

Date: 10/24/2003

Name or Location	Sample Type or Analyte	Summa ID#	Controller ID#	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Vacuum (" Hg)	Stop Vacuum (" Hg)	Δ Vacuum (" Hg)	Concentration (ug/m <sup>3</sup> )
BA-1	(Mod.)TO-14A Acrolein	31152	31152	BA1P31152	10/24/2003	10/24/2003	05:51	15:40	589	-26.5	-8.0	17.3	56.0
BA-2	(Mod.)TO-14A Acrolein	14871	14871	BA2P14871	10/24/2003	10/24/2003	05:19	15:08	589	-27.0	-7.5	17.3	ND(2.1)
OB-1	(Mod.)TO-14A Acrolein	34419	34419	OB1P34419	10/24/2003	10/24/2003	07:56	16:14	498	-27.0	-10.0	18.5	5.0
OB-1, Co-located	(Mod.)TO-14A Acrolein	33886	33886	OB1C33886	10/24/2003	10/24/2003	07:57	16:14	497	-27.5	-10.5	19.00	3.1
OB-2	(Mod.)TO-14A Acrolein	34721	34721	OB2P34721	10/24/2003	10/24/2003	07:59	16:15	496	-29.0	-10.5	19.75	11.0
OB-3	(Mod.)TO-14A Acrolein	31134	31134	OB3P31134	10/24/2003	10/24/2003	08:00	16:28	508	-29.0	-9.0	19.00	2.9
PS-1	(Mod.)TO-14A Acrolein	4219	4219	PS1P4219	10/24/2003	10/24/2003	06:38	06:54	16	-29.5	-9.5	19.50	
PS-1 (Restart)	(Mod.)TO-14A Acrolein	4219	4219	PS1P4219	10/24/2003	10/24/2003	08:01	16:11	490	-26.5	-9.5	18.00	ND(2.3)
PS-2	(Mod.)TO-14A Acrolein	9945	9945	PS2P9945	10/24/2003	10/24/2003	07:57	15:39	462	-28.5	-10.5	19.50	2.5
PS-3	(Mod.)TO-14A Acrolein	13861	13861	PS3P13861	10/24/2003	10/24/2003	08:00	15:41	461	-30.0	-11.0	20.50	4.1
PS-4	(Mod.)TO-14A Acrolein	1238	1238	PS4P1238	10/24/2003	10/24/2003	08:05	16:05	480	-30.0	-11.0	20.50	ND(2.5)
PS-5	(Mod.)TO-14A Acrolein	34373	34373	PS5P34373	10/24/2003	10/24/2003	08:03	16:05	482	-30.0	-9.0	19.50	3.7
PS-6	(Mod.)TO-14A Acrolein	12944	12944	PS6P12944	10/24/2003	10/24/2003	08:02	16:00	478	-30.0	-9.0	19.50	ND(2.2)
PS-7	(Mod.)TO-14A Acrolein	34726	34726	PS7P34726	10/24/2003	10/24/2003	07:59	16:00	481	-30.0	-10.5	20.25	11.0
PS-9	(Mod.)TO-14A Acrolein	33875	33875	PS9P33875	10/24/2003	10/24/2003	09:02	16:50	468	-28.0	-9.5	18.75	ND(2.3)
MS-1	(Mod.)TO-14A Acrolein	34502	34502	MS1P34502	10/24/2003	10/24/2003	10:07	15:06	299	-27.5	-15.5	21.50	6.6

Note: All times have been converted to pacific standard time. Final concentrations are in micrograms per cubic meter (ug/m<sup>3</sup>)

Calculated by: *Bruce Edward Heston*

Reviewed by: *[Signature]*



Acrolein Results from Method TO-14A

Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286 080105

Date: 10/25/2003

Name or Location	Sample Type or Analyte	Summa ID#	Controller ID#	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Vacuum (" Hg)	Stop Vacuum (" Hg)	Δ Vacuum (" Hg)	Concentration (ug/m <sup>3</sup> )
BA-1	(Mod.)TO-14A Acrolein	33885	33885	BA1P33885	10/25/2003	10/25/2003	07:11	16:12	541	-30.0	-9.5	19.8	8.1
BA-2	(Mod.)TO-14A Acrolein	33575	33575	BA2P33575	10/25/2003	10/25/2003	06:48	15:50	542	-30.0	-9.0	19.5	6.0
OB-1	(Mod.)TO-14A Acrolein	4188	4188	OB1P4188	10/25/2003	10/25/2003	06:54	16:02	548	-30.0	-9.5	19.8	ND(2.3)
OB-1, Co-located	(Mod.)TO-14A Acrolein	9936	9936	OB1C9936	10/25/2003	10/25/2003	06:55	16:03	548	-29.0	-9.0	19.00	ND(2.2)
OB-2	(Mod.)TO-14A Acrolein	14110	14110	OB2P14110	10/25/2003	10/25/2003	07:00	16:00	540	-30.0	-9.0	19.50	3.9
OB-3	(Mod.)TO-14A Acrolein	34458	34458	OB3P34458	10/25/2003	10/25/2003	08:34	16:47	493	-30.0	-10.5	20.25	4.3
PS-1	(Mod.)TO-14A Acrolein	25315	25315	PS1P25315	10/25/2003	10/25/2003	08:54	16:42	468	-30.0	-8.5	19.25	ND(2.2)
PS-2	(Mod.)TO-14A Acrolein	34735	34735	PS2P34735	10/25/2003	10/25/2003	06:56	16:19	563	-30.0	-8.0	19.00	11.0
PS-3	(Mod.)TO-14A Acrolein	12942	12942	PS3P12942	10/25/2003	10/25/2003	07:06	15:56	530	-30.0	-10.0	20.00	3.0
PS-4	(Mod.)TO-14A Acrolein	6997	6997	PS4P6997	10/25/2003	10/25/2003	07:06	16:00	534	-30.0	-9.5	19.75	ND(2.3)
PS-5	(Mod.)TO-14A Acrolein	12952	12952	PS5P12952	10/25/2003	10/25/2003	07:22	16:05	523	-30.0	-9.5	19.75	3.5
PS-6	(Mod.)TO-14A Acrolein	33532	33532	PS6P33532	10/25/2003	10/25/2003	07:20	16:00	520	-30.0	-9.0	19.50	2.5
PS-7	(Mod.)TO-14A Acrolein	4257	4257	PS7P4257	10/25/2003	10/25/2003	07:33	16:00	507	-30.0	-10.0	20.00	ND(2.3)
PS-9	(Mod.)TO-14A Acrolein	4289	4289	PS9P4289	10/25/2003	10/25/2003	08:29	17:24	535	-30.0	-8.5	19.25	77.0

Note: All times have been converted to pacific standard time.

Final concentrations are in micrograms per cubic meter (ug/m<sup>3</sup>)

Calculated by: Bruce Edward Hestwood

YL60350D-Acrolein.xls  
3/18/2004

Reviewed by:

MACTEC Engineering and Consulting, Inc.



Acrolein Results from Method TO-14A

Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286.080105

Date: 11-12-2003

Name or Location	Sample Type or Analyte	Summa ID#	Controller ID#	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Vacuum (" Hg)	Stop Vacuum (" Hg)	Δ Vacuum (" Hg)	Concentration (ug/m <sup>3</sup> )
BA-1	(Mod.)TO-14A Acrolein	4252	4252	BA1P4252	11/12/2003	11/12/2003	07:58	16:36	518	-30.0	-9.0	19.5	ND(2.2)
BA-2	(Mod.)TO-14A Acrolein	34428	34428	BA2P34428	11/12/2003	11/12/2003	07:27	16:12	525	-30.0	-8.5	19.3	5.9
OB-1	(Mod.)TO-14A Acrolein	9544	9544	OB1P9544	11/12/2003	11/12/2003	07:24	16:20	536	-30.0	-7.0	18.5	2.2
OB-1, Co-located	(Mod.)TO-14A Acrolein	6628	6628	OB1C6628	11/12/2003	11/12/2003	07:25	16:21	536	-30.0	-8.5	19.25	ND(2.2)
OB-2	(Mod.)TO-14A Acrolein	10783	10783	OB2P10783	11/12/2003	11/12/2003	07:35	16:15	520	-27.0	-7.0	17.00	2.3
OB-3	(Mod.)TO-14A Acrolein	03788	03788	OB3P03788	11/12/2003	11/12/2003	08:49	16:53	484	-30.0	-10.0	20.00	ND(2.3)
PS-1	(Mod.)TO-14A Acrolein	33928	33928	PS1P33928	11/12/2003	11/12/2003	08:26	17:34	548	-30.0	-8.0	19.00	2.4
PS-3	(Mod.)TO-14A Acrolein	31438	31438	PS3P31438	11/12/2003	11/12/2003	07:28	16:30	542	-30.0	-8.0	19.00	ND(2.1)
PS-9	(Mod.)TO-14A Acrolein	34363	34363	PS9P34363	11/12/2003	11/12/2003	08:43	17:19	516	-30.0	-9.0	19.50	2.9

Note: All times have been converted to pacific standard time.

Final concentrations are in micrograms per cubic meter (ug/m<sup>3</sup>)

Calculated by: *Bruce Edward Westwood*

Reviewed by: *[Signature]*



PM-10 Results from Mini-Vol Sampler

Client: Parsons/Ft. Ord Prescribed Burn Job Number: 56286.080105 Date: 10/24/2003  
 Calibration Set Number: MNF 1162

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Results per Filter (mg/Sample)	Concentration (ug/m <sup>3</sup> )
OB-1	158	PM <sub>10</sub>	OB1PTF470100	10/24/2003	10/24/2003	07:59	16:17	498	5.02	4.96	4.99	2,485.02	ND (0.05)	ND (20)
OB-1	158	PM <sub>10</sub>	OB1PTF470101	10/24/2003	10/24/2003	16:19	16:28	09	5.02	4.96	4.99	44.91	ND (0.05)	ND (1,113)
OB-2	159	PM <sub>10</sub>	OB2PTF470102	10/24/2003	10/24/2003	08:01	08:13	12	5.00	5.00	5.00	60.00	ND (0.05)	ND (833)
OB-2	159	PM <sub>10</sub>	OB2PTF470103	10/24/2003	10/25/2003	16:40	06:53	853	5.00	5.10	5.05	4,307.65	0.36	83.57
OB-3	2520	PM <sub>10</sub>	OB3PTF470105	10/24/2003	10/24/2003	08:02	16:30	508	5.12	5.05	5.09	2,583.18	0.13	50.33
OB-3, Co-located	2516	PM <sub>10</sub>	OB3CTF470106	10/24/2003	10/24/2003	08:03	16:32	509	4.97	4.94	4.96	2,522.10	0.13	51.54
OB-3	2520	PM <sub>10</sub>	OB3PTF470107	10/24/2003	10/25/2003	16:41	08:55	974	5.12	5.05	5.09	4,952.79	2.03	409.87
OB-3, Co-located	2516	PM <sub>10</sub>	OB3CTF470108	10/24/2003	10/25/2003	16:41	08:55	974	4.97	4.94	4.96	4,826.17	1.97	408.19
PS-1	2519	PM <sub>10</sub>	PS1PTF470067	10/24/2003	10/24/2003	06:34	16:18	584	5.00	4.94	4.97	2,902.48	0.10	34.45
PS-1	2519	PM <sub>10</sub>	PS1PTF470104	10/24/2003	10/25/2003	16:20	07:38	918	5.00	4.94	4.97	4,562.46	0.21	46.03
PS-3	160	PM <sub>10</sub>	PS3PTF470072	10/24/2003	10/24/2003	08:12	15:50	458	5.00	4.99	5.00	2,287.71	0.16	69.94
PS-3	160	PM <sub>10</sub>	PS3PTF470073	10/24/2003	10/25/2003	16:02	06:46	884	5.00	4.99	5.00	4,415.58	1.49	337.44
PS-9	990	PM <sub>10</sub>	PS9PTF470070	10/24/2003	10/24/2003	09:05	16:57	472	5.00	4.97	4.99	2,352.92	0.05	21.25
PS-9	990	PM <sub>10</sub>	PS9PTF470071	10/24/2003	10/25/2003	17:00	08:20	920	5.10	4.97	5.04	4,632.20	0.44	94.99
MS-1	1995	PM <sub>10</sub>	MS1PTF470068	10/24/2003	10/24/2003	10:05	15:12	307	5.02	4.97	5.00	1,533.47	ND (0.05)	ND (33)

Note: All times have been converted to pacific standard time.  
 Volume (liters) = Average Rate (l/min) \* Total Time (minutes)  
 Concentration (ug/m<sup>3</sup>) = Results per Filter (mg) / Volume (liters) \* 1000 (liter/m<sup>3</sup>) \* 1000 (ug/mg)

Calculated By: *Bruce Edward Stewart*

Reviewed By: *[Signature]*





PM-10 Results from Mini-Vol Sampler

Client: Parsons/Ft. Ord Prescribed Burn

Job Number: 56286\_080105

Date: 10/25/2003

Calibration Set Number: MNF 1162

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Results per Filter (mg/Sample)	Concentration (ug/m <sup>3</sup> )
OB-1	158	PM <sub>10</sub>	OB1PTF470081	10/25/2003	10/25/2003	07:12	16:13	541	5.02	4.96	4.99	2,699.59	0.16	59.27
OB-1	158	PM <sub>10</sub>	OB1PTF470082	10/25/2003	10/26/2003	16:15	07:31	916	5.02	4.96	4.99	4,570.84	0.36	78.76
OB-2	159	PM <sub>10</sub>	OB2PTF470083	10/25/2003	10/25/2003	07:05	16:20	555	4.98	4.96	4.97	2,758.35	0.26	94.26
OB-2	159	PM <sub>10</sub>	OB2PTF470084	10/25/2003	10/26/2003	16:23	07:52	929	4.98	4.96	4.97	4,617.13	0.22	47.65
OB-3	2520	PM <sub>10</sub>	OB3PTF470085	10/25/2003	10/25/2003	08:06	16:52	526	5.12	5.05	5.09	2,674.71	0.18	67.30
OB-3 Co-located	2516	PM <sub>10</sub>	OB3CTF470086	10/25/2003	10/25/2003	08:24	16:51	507	4.97	4.94	4.96	2,512.19	0.13	51.75
OB-3	2520	PM <sub>10</sub>	OB3PTF470087	10/25/2003	10/26/2003	16:59	07:47	888	5.12	5.05	5.09	4,515.48	1.63	360.98
OB-3 Co-located	2516	PM <sub>10</sub>	OB3CTF470088	10/25/2003	10/26/2003	17:00	07:46	886	4.97	4.94	4.96	4,390.13	1.57	357.62
PS-1	2519	PM <sub>10</sub>	PS1PTF470031	10/25/2003	10/25/2003	07:52	16:46	534	5.00	4.94	4.97	2,653.98	0.17	64.05
PS-1	2519	PM <sub>10</sub>	PS1PTF470089	10/25/2003	10/26/2003	16:53	07:33	880	5.00	4.94	4.97	4,373.60	0.14	32.01
PS-3	160	PM <sub>10</sub>	PS3PTF470032	10/25/2003	10/25/2003	07:02	16:10	548	5.00	4.99	5.00	2,737.26	0.34	124.21
PS-3	160	PM <sub>10</sub>	PS3PTF470033	10/25/2003	10/26/2003	16:14	08:23	969	5.00	4.99	5.00	4,840.16	0.48	99.17
PS-9	990	PM <sub>10</sub>	PS9PTF470034	10/25/2003	10/25/2003	08:44	17:30	526	5.00	4.97	4.99	2,622.11	0.23	87.72
PS-9	990	PM <sub>10</sub>	PS9PTF470035	10/25/2003	10/26/2003	17:35	07:33	838	5.00	4.97	4.99	4,177.43	0.30	71.81
PS-3 Duplicate	2167	PM <sub>10</sub>	PS32F470040	10/25/2003	10/25/2003	08:35	16:16	461	4.93	4.99	4.96	2,286.56	0.26	113.71
PS-3 Duplicate	2167	PM <sub>10</sub>	PS32TF470020	10/25/2003	10/26/2003	16:23	08:25	962	4.93	4.99	4.96	4,771.52	0.44	92.21

Note: All times have been converted to pacific standard time.

Volume (liters) = Average Rate (l/min) \* Total Time (minutes)

Concentration (ug/m<sup>3</sup>) = Results per Filter (mg) / Volume (liters) \* 1000 (liter/m<sup>3</sup>) \* 1000 (ug/mg)

Calculated By: Bruce Edward Hayward

Reviewed By: [Signature]



PM-10 Results from Mini-Vol Sampler

Client: Parsons/Ft. Ord Prescribed Burn Job Number: 56286 080105 Date: 11/12/2003  
 Calibration Set Number: MNF 1162

Name or Location	MiniVol ID# or Description	Sample Type or Analyte	Sample #	Start Date	Stop Date	Start Time PST	Stop Time PST	Total Time (minutes)	Start Rate	Stop Rate	Average Rate (l/min)	Volume (liters)	Results per Filter (mg/Sample)	Concentration (ug/m <sup>3</sup> )
OB-1	2516	PM <sub>10</sub>	OB1PTF470051	11/12/2003	11/12/2003	07:14	16:10	536	4.97	4.94	4.96	2,655.88	0.06	22.59
OB-1	2516	PM <sub>10</sub>	OB1PTF470058	11/12/2003	11/13/2003	16:12	07:03	891	4.97	4.94	4.96	4,414.91	0.07	15.86
OB-2	1995	PM <sub>10</sub>	OB2PTF470052	11/12/2003	11/12/2003	07:56	16:30	514	5.02	4.97	5.00	2,567.43	ND (0.05)	ND (19)
OB-2	1995	PM <sub>10</sub>	OB2PTF470059	11/12/2003	11/13/2003	16:33	07:15	882	5.02	4.97	5.00	4,405.59	0.09	20.43
OB-3	2520	PM <sub>10</sub>	OB3PTF470053	11/12/2003	11/12/2003	08:59	16:43	464	5.12	5.05	5.09	2,359.44	ND (0.05)	ND (21)
OB-3 Co-located	159	PM <sub>10</sub>	OB3CTF470054	11/12/2003	11/12/2003	09:01	16:47	466	4.98	4.96	4.97	2,316.02	0.05	21.59
OB-3	2520	PM <sub>10</sub>	OB3PTF470060	11/12/2003	11/13/2003	16:45	07:53	908	5.12	5.05	5.09	4,617.18	0.14	30.32
OB-3 Co-located	159	PM <sub>10</sub>	OB3CTF470061	11/12/2003	11/13/2003	16:48	07:54	906	4.98	4.96	4.97	4,502.82	0.09	19.99
PS-1	2167	PM <sub>10</sub>	PS1PTF470055	11/12/2003	11/12/2003	08:29	17:42	553	4.93	4.99	4.96	2,742.88	0.07	25.52
PS-1	2167	PM <sub>10</sub>	PS1PTF470062	11/12/2003	11/13/2003	18:24	07:05	761	4.93	4.99	4.96	3,774.56	0.12	31.79
PS-3	990	PM <sub>10</sub>	PS3PTF470056	11/12/2003	11/12/2003	07:31	16:34	543	5.00	4.97	4.99	2,706.86	ND (0.05)	ND (18)
PS-3	990	PM <sub>10</sub>	PS3PTF470063	11/12/2003	11/13/2003	16:37	07:29	892	5.00	4.97	4.99	4,446.62	0.12	26.99
PS-9	158	PM <sub>10</sub>	PS9PTF470057	11/12/2003	11/12/2003	08:49	17:26	517	5.02	4.96	4.99	2,579.83	0.08	31.01
PS-9	158	PM <sub>10</sub>	PS9PTF470064	11/12/2003	11/13/2003	17:30	06:40	790	5.02	4.96	4.99	3,942.10	0.13	32.98

Note: All times have been converted to pacific standard time.

Volume (liters) = Average Rate (l/min) \* Total Time (minutes)  
 Concentration (ug/m<sup>3</sup>) = Results per Filter (mg) / Volume (liters) \* 1000 (liter/m<sup>3</sup>) \* 1000 (ug/mg)

Calculated By: *Dave Edwards*

Reviewed By: *[Signature]*