



DEPARTMENT OF THE NAVY

CRANE DIVISION
NAVAL SURFACE WARFARE CENTER
300 HIGHWAY 361
CRANE INDIANA 47522-5001

IN REPLY REFER TO:

5090/S4.7.3
Ser 095/3256

18 JUL 2003

U.S. Environmental Protection Agency, Region V
Waste, Pesticides, & Toxics Division
Waste Management Branch
Corrective Action Section
Attn: Mr. Peter Ramanauskas (DW-8J)
77 West Jackson Blvd.
Chicago, IL 60604

Dear Mr. Ramanauskas:

Crane Division, Naval Surface Warfare Center (NAVSURFWARCENDIV Crane) submits for review and incorporation the response to comments and replacement pages for the Mine Fill B (MFB) Revision 1 Interim Measures Report (IMR) dated April 2003. Two copies of the response to comments and replacement pages are included as enclosure (1). Enclosure (2) is the required certification statement.

NSWC Crane point of contact is Ms. Christine D. Freeman, Code 09511, telephone 812-854-4423.

Sincerely,

A handwritten signature in cursive script that reads "James M. Hunsicker".

JAMES M. HUNSICKER
Director Environmental Protection
Department
By Direction
Of The Commander

Encl:

- (1) Response to Comments/Replacement pages- MFB Revision 1 IMR
- (2) Certification Statement

Copy to:

Administrative Record
IDEM (D. Griffin)
SOUTHNAVFACENCOM (ES32)
TOLTEST Odon (w/o encls)

**RESPONSE TO EPA COMMENTS DATED MAY 9, 2003 ON THE
INTERIM MEASURES REPORT
MINE FILL B
NAVAL SURFACE WARFARE CENTER
CRANE, INDIANA**

Comment 1:

For Response to Comment 7b: We would allow up to 54 hours for transferal of soil into vials to be frozen for longer periods. Qualify all VOCs data for samples that were collected in EnCore samplers that exceeded this time frame as 'low bias.' Were any MS/MSD VOCs samples held this long? What were those recoveries? Future Crane QAPPs should specify a less than 48-hour hold time on the Encore at 2 degrees C, or rely on latest 2002 update to SW-846 - method 5035A.

Reply 1:

Tables E-3 and H-3 to the IMR have been revised and are attached. All samples that were collected outside the 54-hour hold time have been flagged. Percent recoveries for MS/MSD samples are also now included in these tables.

Comment 2:

For Response to Comment 15: We did not see the Tables that are referenced in their response. Are these the same tables that follow Response to Comment 16?

Response 2:

The RPD tables for windrow duplicates are attached. Five pages are for windrows 102 through 151, and six pages are for windrows 152 through 216.

**RESPONSE TO EPA COMMENTS DATED MAY 9, 2003 ON THE
MINE FILL B INTERIM MEASURES REPORT NSWC CRANE, INDIANA**
Windrow Day Last Field Duplicate Relative Percent Difference (RPD) Calculations, Windrows 102 to 151*

	BIOM10214053	BIOM10214053FD	
	Results	Results	%RPD
HMX	2.89	1.84	44
RDX	11.9	18.2	42
TNB	0	0	----
NB	0	0.114	200
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----
2,6-DNT	0	0	----

	BIOS10315091	BIOS10315091FD	
	Results	Results	%RPD
	1.63	0.749	74
	3.34	0.712	130
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM10419052	BIOM10419052FD	
	Results	Results	%RPD
	0.308	0.448	37
	0.428	0	200
	0	0	----
	0	0	----
	0.302	0.152	66
	0	0	----
	0	0	----
	0	0	----

	BIOM10419113	BIOM10419113FD	
	Results	Results	%RPD
HMX	8.89	4.6	64
RDX	31.7	4	155
TNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----
2,6-DNT	0	0	----

BION105 NO DUPLICATES COLLECTED		
Results	Results	%RPD

	BIOM10609052	BIOM10609052FD	
	Results	Results	%RPD
	0	1.14	200
	0.593	0.437	30
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM10609113	BIOM10609113FD	
	Results	Results	%RPD
HMX	2.08	4.68	77
RDX	3.1	25.6	157
TNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----
2,6-DNT	0	0	----

	BIOS10707091	BIOS10707091FD	
	Results	Results	%RPD
	1	0.763	27
	1	0.856	16
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS10807091	BIOS10807091FD	
	Results	Results	%RPD
	1920	723	91
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM10911052	BIOM10911052FD	
	Results	Results	%RPD
HMX	0	0	----
RDX	0	0	----
TNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----
2,6-DNT	0	0	----

	BIOS11010031	BIOS11010031FD	
	Results	Results	%RPD
	0	0	----
	1110	0	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM11109053	BIOM11109053FD	
	Results	Results	%RPD
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM11109113	BIOM11109113FD	
	Results	Results	%RPD
HMX	0	0	----
RDX	0	0	----
TNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----
2,6-DNT	0	0	----

	BIOS11215091	BIOS11215091FD	
	Results	Results	%RPD
	0	0	----
	3390	3320	2
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM11309052	BIOM11309052FD	
	Results	Results	%RPD
	6920	6120	12
	7250	4630	44
	0	0	----
	0	0	----
	0	264	200
	629	499	23
	0	0	----
	0	0	----

**RESPONSE TO EPA COMMENTS DATED MAY 9, 2003 ON THE
MINE FILL B INTERIM MEASURES REPORT NSWC CRANE, INDIANA**
Windrow Day Last Field Duplicate Relative Percent Difference (RPD) Calculations, Windrows 102 to 151*

	BIOM11309113	BIOM09113FD	
	Results	Results	%RPD
HMX	0	0	----
RDX	1220	4070	108
TNB	0	0	----
NB	0	0	----
TNT	19000	3160	143
4-ADNT	452	297	41
2-ADNT	0	0	----
2,6-DNT	0	0	----

	BIOS11410052	BIOS11410052FD	
	Results	Results	%RPD
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS11410113	BIOS11410113FD	
	Results	Results	%RPD
	0	0	----
	2890	3030	5
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM11508091	BIOM11508091FD	
	Results	Results	%RPD
HMX	0	0	----
RDX	1150	2310	67
TNB	0	0	----
NB	0	0	----
TNT	451	679	40
4-ADNT	0	0	----
2-ADNT	0	0	----
2,6-DNT	0	0	----

	BIOM11606091	BIOM11606091FD	
	Results	Results	%RPD
	0	0	----
	1150	0	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS11707052	BIOS11707052FD	
	Results	Results	%RPD
	1.1	1.4	24
	3.2	5.3	49
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS11707113	BIOS11707113FD	
	Results	Results	%RPD
HMX	1.4	1.5	7
RDX	6.2	1	144
TNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----
2,6-DNT	0	0	----

	BIOS11810052	BIOS11810052FD	
	Results	Results	%RPD
	0	0	----
	0	0	----
	0	383	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS11810113	BIOS11810113FD	
	Results	Results	%RPD
	2910	3460	17
	7670	11300	38
	0	0	----
	0	0	----
	621	0	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM11909091	BIOM11909091FD	
	Results	Results	%RPD
HMX	0	0	----
RDX	0	0	----
TNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----
2,6-DNT	0	0	----

	BIOM12007091	BIOM12007091FD	
	Results	Results	%RPD
	1790	1970	10
	2520	6430	87
	0	0	----
	0	0	----
	0	524	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS12114091	BIOS12114091FD	
	Results	Results	%RPD
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS12207052	BIOS12207052FD	
	Results	Results	%RPD
HMX	0	0	----
RDX	0	1900	200
TNB	0	0	----
NB	0	0	----
TNT	385	9750	185
4-ADNT	447	0	200
2-ADNT	0	0	----
2,6-DNT	0	0	----

	BIOS12207113	BIOS12207113FD	
	Results	Results	%RPD
	2200	0	200
	7200	2860	86
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM12309052	BIOM12309052FD	
	Results	Results	%RPD
	5400	0	200
	24100	1290	180
	0	0	----
	0	0	----
	164	0	200
	694	0	200
	0	0	----
	0	0	----

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Windrow Day Last Field Duplicate Relative Percent Difference (RPD) Calculations, Windrows 102 to 151*

	BIOM12309113	BIOM12309113FD	
	Results	Results	%RPD
HMX	6390	0	200
RDX	37500	9450	119
TNB	0	0	-----
NB	0	0	-----
TNT	3470	0	200
4-ADNT	1180	0	200
2-ADNT	0	0	-----
2,6-DNT	0	0	-----

	BIOM12411091	BIOM12411091FD	
	Results	Results	%RPD
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----

	BIOS12509052	BIOS12509052FD	
	Results	Results	%RPD
	0	4940	200
	0	12800	200
	0	0	-----
	0	0	-----
	406	4060	164
	0	632	200
	0	0	-----
	0	0	-----

	BIOS12509113	BIOS12509113FD	
	Results	Results	%RPD
HMX	6090	1230	133
RDX	9600	4330	76
TNB	0	0	-----
NB	0	0	-----
TNT	127	862	149
4-ADNT	0	0	-----
2-ADNT	0	0	-----
2,6-DNT	0	0	-----

	BIOM12607091	BIOM12607091FD	
	Results	Results	%RPD
	0	0	-----
	0	1460	200
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----

	BIOS12707052	BIOS127052FD	
	Results	Results	%RPD
	2440	9970	121
	10000	62400	145
	0	2060	200
	0	0	-----
	1180	11800	164
	674	1890	95
	0	989	200
	0	0	-----

	BIOS12707113	BIOS12707113FD	
	Results	Results	%RPD
HMX	0	0	-----
RDX	1020	1310	25
TNB	0	0	-----
NB	0	0	-----
TNT	0	268	200
4-ADNT	0	0	-----
2-ADNT	0	0	-----
2,6-DNT	0	0	-----

	BIOM12809091	BIOM12809091FD	
	Results	Results	%RPD
	1610	2020	23
	6600	2530	89
	0	0	-----
	0	0	-----
	296	128	79
	211	302	35
	0	0	-----
	0	0	-----

	BIOS12911052	BIOS12911052FD	
	Results	Results	%RPD
	1550	1130	31
	2450	8140	107
	0	0	-----
	0	0	-----
	1620	11300	150
	0	0	-----
	0	0	-----
	0	0	-----

	BIOS12911113	BIOS12911113FD	
	Results	Results	%RPD
HMX	0	0	-----
RDX	706	0	200
TNB	0	0	-----
NB	0	0	-----
TNT	497	0	200
4-ADNT	0	0	-----
2-ADNT	0	0	-----
2,6-DNT	0	0	-----

	BIOM13010091	BIOM13010091FD	
	Results	Results	%RPD
	1820	2100	14
	2340	2950	23
	0	0	-----
	0	0	-----
	0	671	200
	741	494	40
	0	0	-----
	0	0	-----

	BIOS13109052	BIOS13109052FD	
	Results	Results	%RPD
	0	4580	200
	1270	9730	154
	0	0	-----
	0	0	-----
	0	1380	200
	0	633	200
	0	272	200
	0	0	-----

	BIOS13109113	BIOS13109113FD	
	Results	Results	%RPD
HMX	0	5980	200
RDX	0	16000	200
TNB	0	0	-----
NB	0	0	-----
TNT	0	25000	200
4-ADNT	0	1280	200
2-ADNT	0	426	200
2,6-DNT	0	0	-----

	BIOM13210052	BIOM13210052FD	
	Results	Results	%RPD
	0	0	-----
	1980	0	200
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----

	BIOM13210113	BIOM13210113FD	
	Results	Results	%RPD
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----

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Windrow Day Last Field Duplicate Relative Percent Difference (RPD) Calculations, Windrows 102 to 151*

	BIOS13308091	BIOS13308091FD	
	Results	Results	%RPD
HMX	0	1110	200
RDX	1480	2590	55
TNB	0	0	-----
NB	0	0	-----
TNT	2020	198	164
4-ADNT	350	0	200
2-ADNT	182	0	200
2,6-DNT	0	0	-----

	BIOM13412091	BIOM13412091FD	
	Results	Results	%RPD
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----

	BIOS13509052	BIOS13509052FD	
	Results	Results	%RPD
	5750	4270	30
	2630	1610	48
	0	0	-----
	0	0	-----
	463	0	200
	931	580	46
	0	0	-----
	406	0	200

	BIOS13509113	BIOS13509113FD	
	Results	Results	%RPD
HMX	5020	4460	12
RDX	19500	13000	40
TNB	0	0	-----
NB	0	0	-----
TNT	1020	7420	152
4-ADNT	682	406	51
2-ADNT	0	0	-----
2,6-DNT	0	0	-----

	BIOS13619052	BIOS13619052FD	
	Results	Results	%RPD
	2240	0	200
	9880	3330	99
	0	0	-----
	0	0	-----
	24800	0	200
	399	113	112
	328	170	63
	0	0	-----

	BIOS13619113	BIOS13619113FD	
	Results	Results	%RPD
	0	0	-----
	2750	1610	52
	0	0	-----
	0	0	-----
	0	0	-----
	316	558	55
	0	232	200
	0	0	-----

	BIOM13711052	BIOM13711052FD	
	Results	Results	%RPD
HMX	0	1590	200
RDX	0	2820	200
TNB	0	0	-----
NB	0	0	-----
TNT	0	2720	200
4-ADNT	0	0	-----
2-ADNT	0	0	-----
2,6-DNT	0	0	-----

	BIOM13711113	BIOM13711113FD	
	Results	Results	%RPD
	2040	1410	37
	6050	5800	4
	0	0	-----
	0	0	-----
	669	486	32
	421	480	13
	0	0	-----
	0	0	-----

	BIOM13811091	BIOM13811091FD	
	Results	Results	%RPD
	0	1320	200
	793	8940	167
	0	0	-----
	0	0	-----
	0	263	200
	0	0	-----
	0	0	-----
	0	0	-----

	BIOS13911091	BIOS13911091FD	
	Results	Results	%RPD
HMX	0	0	-----
RDX	1350	1520	12
TNB	0	0	-----
NB	0	0	-----
TNT	0	1850	200
4-ADNT	0	0	-----
2-ADNT	0	0	-----
2,6-DNT	0	0	-----

	BIOM14017052	BIOM14017052FD	
	Results	Results	%RPD
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----

	BIOM14017113	BIOM14017113FD	
	Results	Results	%RPD
	373	0	200
	2100	0	200
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----

	BIOM14111091	BIOM14111091FD	
	Results	Results	%RPD
HMX	0	0	-----
RDX	0	0	-----
TNB	0	0	-----
NB	0	0	-----
TNT	0	0	-----
4-ADNT	0	0	-----
2-ADNT	0	0	-----
2,6-DNT	0	0	-----

	BIOS14214091	BIOS14214091FD	
	Results	Results	%RPD
	163	0	200
	0	210	200
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----
	0	0	-----

	BIOS14313052	BIOS14313052FD	
	Results	Results	%RPD
	3390	4040	17
	8220	7510	9
	0	0	-----
	0	0	-----
	242	864	112
	0	0	-----
	0	0	-----
	0	0	-----

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	BIOS14313113	BIOS14313113FD	
	Results	Results	%RPD
HMX	6170	6530	6
RDX	9430	10000	6
TNB	0	0	----
NB	0	0	----
TNT	523	3700	150
4-ADNT	0	480	200
2-ADNT	0	0	----
2,6-DNT	0	0	----

	BIOM14511113	BIOM14511113FD	
	Results	Results	%RPD
HMX	0	46	200
RDX	396	309	25
TNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----
2,6-DNT	0	0	----

	BIOM14410091	BIOM14410091FD	
	Results	Results	%RPD
	407	675	50
	1200	1940	47
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS14618091	BIOS14618091FD	
	Results	Results	%RPD
	15700	0	200
	76700	285	199
	528	0	200
	0	0	----
	720	127	140
	659	0	200
	288	0	200
	0	0	----

	BIOM14511052	BIOM14511052FD	
	Results	Results	%RPD
	501	686	31
	2430	1190	69
	0	0	----
	0	0	----
	0	1250	200
	0	0	----
	0	0	----
	0	0	----

	BIOS14710052	BIOS14710052FD	
	Results	Results	%RPD
	1240	529	80
	652	289	77
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS14710113	BIOS14710113FD	
	Results	Results	%RPD
HMX	3080	420	152
RDX	10900	1780	144
TNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----
2,6-DNT	0	0	----

	BIOM14814052	BIOM14814052FD	
	Results	Results	%RPD
	408	436	7
	312	2120	149
	118	0	200
	0	0	----
	248	0	200
	0	0	----
	0	0	----
	0	0	----

	BIOM14814113	BIOM14814113FD	
	Results	Results	%RPD
	0	745	200
	0	1400	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM14914091	BIOM14914091FD	
	Results	Results	%RPD
HMX	0	116	200
RDX	0	0	----
TNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	149	200
2-ADNT	0	102	200
2,6-DNT	0	0	----

	BIOS15010052	BIOS15010052FD	
	Results	Results	%RPD
	1570	1160	30
	4020	1410	96
	0	0	----
	0	0	----
	598	46.1	171
	234	0	200
	149	0	200
	0	0	----

	BIOS15010113	BIOS15010113FD	
	Results	Results	%RPD
	2580	1190	74
	4480	779	141
	168	0	200
	0	0	----
	7600	0	200
	1540	0	200
	1000	0	200
	0	0	----

	BIOS1511253	BIOS1511253FD	
	Results	Results	%RPD
HMX	494	619	22
RDX	551	781	35
TNB	0	0	----
NB	0	0	----
TNT	90.2	27100	199
4-ADNT	0	0	----
2-ADNT	0	0	----
2,6-DNT	0	0	----

	BIOS15112113	BIOS15112113FD	
	Results	Results	%RPD
	2510	0	200
	4870	385	171
	0	0	----
	0	0	----
	246	0	200
	1840	0	200
	2010	0	200
	0	0	----

* Results and FD Results for DNB, TETRYL, 2,4-DNT, 2-NT, 4-NT, 3-NT, or PETN were zero (0).

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	BIOM15212052	BIOM15212052FD	
	Results	Results	%RPD
HMX	466	1260	92
RDX	736	697	5
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	58.3	194	108
4ADNT	0	0	----
2ADNT	0	0	----

	BIOM15212113	BIOM15212113FD	
	Results	Results	%RPD
	1150	1800	44
	326	1540	130
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM15315052	BIOM15315052FD	
	Results	Results	%RPD
	2691.9	2736.6	2
	3124.7	6454.1	70
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	221.5	200
	0	164.3	200

	BIOM15315113	BIOM15315113FD	
	Results	Results	%RPD
HMX	1913	2045	7
RDX	1754	1745	1
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4ADNT	0	0	----
2ADNT	0	0	----

	BIOS15415091	BIOS15415091FD	
	Results	Results	%RPD
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS15512052	BIOS15512052FD	
	Results	Results	%RPD
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	12600	200
	0	0	----
	0	0	----

	BIOM15609031	BIOM15609031FD	
	Results	Results	%RPD
HMX	596.2	487.5	20
RDX	410.8	1344.2	106
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4ADNT	0	0	----
2ADNT	0	0	----

	BIOM15609092	BIOM15609092FD	
	Results	Results	%RPD
	1464	846	54
	510	830	48
	0	0	----
	0	0	----
	0	0	----
	206	0	200
	116	0	200
	0	0	----

	BIOM15709053	BIOM15709053FD	
	Results	Results	%RPD
	381.4	1083.1	96
	485.9	381.3	24
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM15709113	BIOM15711309113FD	
	Results	Results	%RPD
HMX	4299	1940	76
RDX	1835	6710	114
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	216	200
4-ADNT	0	108	200
2-ADNT	0	0	----

	BIOS15811091	BIOS15811091FD	
	Results	Results	%RPD
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS15909052	BIOS15909052FD	
	Results	Results	%RPD
	0	51.7	200
	701	0	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	231	200
	0	0	----
	0	0	----

	BIOS15909113	BIOS15909113FD	
	Results	Results	%RPD
HMX	2340	2470	5
RDX	7590	5130	39
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	159	1580	163
4-ADNT	245	275	12
2-ADNT	0	0	----

	BIOM16011052	BIOM16011052FD	
	Results	Results	%RPD
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM16011091	BIOM16011091FD	
	Results	Results	%RPD
	0	0	----
	0	346	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

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	BIOM16110032	BIOM16110032FD	
	Results	Results	%RPD
HMX	1210	2520	70
RDX	4100	1870	75
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	365	273	29
2-ADNT	0	0	----

	BIOM16110072	BIOM16110072FD	
	Results	Results	%RPD
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	349	200
	0	273	200

	BIOS16210072	BIOS16210072FD	
	Results	Results	%RPD
	2060	1270	47
	4880	3880	23
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	280	195	36
	0	0	----

	BIOS16210112	BIOS16210112FD	
	Results	Results	%RPD
HMX	672	0	200
RDX	0	533	200
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOS16308031	BIOS16308031FD	
	Results	Results	%RPD
	385	124	103
	2340	1880	22
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS16308091	BIOS16308091FD	
	Results	Results	%RPD
	0	259	200
	1020	3900	117
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM16410053	BIOM16410053FD	
	Results	Results	%RPD
HMX	4040	3340	19
RDX	6980	3520	66
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOM16410093	BIOM16410093FD	
	Results	Results	%RPD
	1790	633	96
	8170	2700	101
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM16509031	BIOM16509031FD	
	Results	Results	%RPD
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM16509053	BIOM16509053FD	
	Results	Results	%RPD
HMX	0	0	----
RDX	0	1340	200
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOS16608031	BIOS16608031FD	
	Results	Results	%RPD
	0	164	200
	1020	801	24
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS16608092	BIOS16608092FD	
	Results	Results	%RPD
	0	526	200
	0	357	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS16710052	BIOS16710052FD	
	Results	Results	%RPD
HMX	90.3	53.7	51
RDX	0	0	----
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOS16710113	BIOS16710113FD	
	Results	Results	%RPD
	940	176	137
	333	0	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM16808091	BIOM16809091FD	
	Results	Results	%RPD
	93.6	0	200
	266	0	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

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	BIOM16907052	BIOM16907052FD	
	Results	Results	%RPD
HMX	863	257	108
RDX	8430	2060	121
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOM16907113	BIOM16907113FD	
	Results	Results	%RPD
	500	288	54
	2330	844	94
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS17012091	BIOS17012091FD	
	Results	Results	%RPD
	0	0	----
	0	757	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS17110052	BIOS17110052FD	
	Results	Results	%RPD
HMX	0	0	----
RDX	0	1720	200
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOS17110113	BIOS17110113FD	
	Results	Results	%RPD
	209	741	112
	0	6720	200
	0	0	----
	0	0	----
	0	0	----
	0	588	200
	0	0	----
	0	0	----
	0	0	----

	BIOM17212091	BIOM17212091FD	
	Results	Results	%RPD
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM17310052	BIOM173052FD	
	Results	Results	%RPD
HMX	695	248	95
RDX	200	227	13
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOM17310113	BIOM17310113FD	
	Results	Results	%RPD
	578	399	37
	478	77.6	144
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS17410091	BIOS17410091FD	
	Results	Results	%RPD
	1250	565	75
	350	128	93
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS1751212052	BIOS17512052FD	
	Results	Results	%RPD
HMX	261	196	28
RDX	408	75.2	138
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOS17512113	BIOS17512113FD	
	Results	Results	%RPD
	2040	2960	37
	559	2090	116
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM17612091	BIOM17612091FD	
	Results	Results	%RPD
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM17715052	BIOM17715052FD	
	Results	Results	%RPD
HMX	0	0	----
RDX	0	1940	200
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOM17715113	BIOM17715113FD	
	Results	Results	%RPD
	2690	1980	30
	591	817	32
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS17810091	BIOS17810091FD	
	Results	Results	%RPD
	216	497	79
	11200	1530	152
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	152	200
	0	0	----

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	BIOS17916052	BIOS17916052FD	
	Results	Results	%RPD
HMX	558	226	85
RDX	4290	0	200
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOS17916113	BIOS17916113FD	
	Results	Results	%RPD
	217	478	75
	1260	119	165
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM18017091	BIOM18017091FD	
	Results	Results	%RPD
	200	0	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM18115052	BIOM18115052FD	
	Results	Results	%RPD
HMX	3760	2480	41
RDX	29300	5370	138
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOM18115113	BIOM18115113FD	
	Results	Results	%RPD
	1420	1030	32
	522	1450	94
	0	0	----
	0	0	----
	0	0	----
	953	0	200
	0	0	----
	0	0	----

	BIOS18214091	BIOS18214091FD	
	Results	Results	%RPD
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS18312052	BIOS18312052FD	
	Results	Results	%RPD
HMX	0	0	----
RDX	1360	2670	65
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	270	200
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOS18312113	BIOS18312113FD	
	Results	Results	%RPD
	11300	7800	37
	28400	26000	9
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM18413091	BIOM18413091FD	
	Results	Results	%RPD
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM18516052	BIOM18516052FD	
	Results	Results	%RPD
HMX	4960	5230	5
RDX	6710	17800	90
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOM18516113	BIOM18516113FD	
	Results	Results	%RPD
	334	0	200
	999	0	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS18615091	BIOS18615091FD	
	Results	Results	%RPD
	0	753	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS18719052	BIOS18719052FD	
	Results	Results	%RPD
HMX	0	0	----
RDX	0	0	----
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOS18719113	BIOS18719113FD	
	Results	Results	%RPD
	1960	2210	12
	1660	3290	66
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM18821091	BIOM18821091FD	
	Results	Results	%RPD
	353	0	200
	849	0	200
	0	0	----
	0	0	----
	0	0	----
	0	115	200
	0	0	----
	0	0	----
	0	0	----

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	BIOM18918052	BIOM18918052FD	
	Results	Results	%RPD
HMX	2700	1810	39
RDX	1700	2560	40
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOM18918113	BIOM18918113FD	
	Results	Results	%RPD
	4240	0	200
	2840	0	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS19016091	BIOS19016091FD	
	Results	Results	%RPD
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS19117052	BIOS19117052FD	
	Results	Results	%RPD
HMX	160		27
RDX	0	1120	200
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	311	0	200
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOS19117113	BIOS19117113FD	
	Results	Results	%RPD
	1340	3530	90
	2080	18700	160
	0	0	----
	0	0	----
	0	0	----
	0	2770	200
	0	0	----
	0	0	----
	0	0	----

	BIOM19331072	BIOM19331072FD	
	Results	Results	%RPD
	1110	1950	55
	3020	2110	35
	0	0	----
	0	0	----
	0	17.8	200
	1670	799	71
	0	0	----
	0	0	----

	BIOM19419073	BIOM19419073FD	
	Results	Results	%RPD
HMX	0	0	----
RDX	0	0	----
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOS19522051	BIOS19522051FD	
	Results	Results	%RPD
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS19522112	BIOS19522112FD	
	Results	Results	%RPD
	484	0	200
	0	121	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOS19624033	BIOS19624033FD	
	Results	Results	%RPD
HMX	3430	6460	61
RDX	14200	24400	53
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	38.7	90.2	80
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOS19624111	BIOS19624111FD	
	Results	Results	%RPD
	0	298	200
	0	430	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BION19720093	BION19720093FD	
	Results	Results	%RPD
	166	314	62
	0	132	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM19821072	BIOM19821072FD	
	Results	Results	%RPD
HMX	145	423	98
RDX	177	553	103
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOM19969031	BIOM19969031FD	
	Results	Results	%RPD
	996	0	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM19969092	BIOM19969092FD	
	Results	Results	%RPD
	538	215	86
	3530	1710	69
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

**RESPONSE TO EPA COMMENTS DATED MAY 9, 2003 ON THE
MINE FILL B INTERIM MEASURES REPORT
NSWC CRANE, INDIANA**

Windrow Day Last Field Duplicate Relative Percent Difference (RPD) Calculations, Windrows 152 to 216*

	BION20018033	BION20018033FD	
	Results	Results	%RPD
HMX	68200	23300	98
RDX	318000	106000	100
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	1680	0	200
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOS20147031	BIOS20147031FD	
	Results	Results	%RPD
	198	240	19
	1130	578	65
	0	0	----
	0	0	----
	0	0	----
	164	0	200
	0	0	----
	0	0	----

	BIOS20147092	BIOS20147092FD	
	Results	Results	%RPD
	5710	12600	75
	11200	18400	49
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM20921091	BIOM20921091FD	
	Results	Results	%RPD
HMX	234	144	48
RDX	730	671	8
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	52.9	205	118
4-ADNT	0	0	----
2-ADNT	0	0	----

	BIOM21020052	BIOM21020052FD	
	Results	Results	%RPD
	4210	3100	30
	7180	1180	144
	51.3	0	200
	0	0	----
	0	0	----
	2710	196	173
	0	98.8	200
	0	70	200

	BIOM21020113	BIOM21020113FD	
	Results	Results	%RPD
	494	1060	73
	286	1040	114
	0	0	----
	0	0	----
	0	0	----
	92	81	13
	0	0	----
	0	0	----

	BIOS21118091	BIOS21118091FD	
	Results	Results	%RPD
HMX	95	718	153
RDX	162	16000	196
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	113	3320	187
4-ADNT	0	254	200
2-ADNT	0	266	200

	BIOS21237091	BIOS21237091FD	
	Results	Results	%RPD
	0	0	----
	0	1640	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM21318052	BIOM21318052FD	
	Results	Results	%RPD
	1110	2130	63
	162	1510	161
	0	0	----
	0	60.9	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM21318113	BIOM21318113FD	
	Results	Results	%RPD
HMX	3670	2890	24
RDX	1320	578	78
TNB	0	0	----
DNB	69	73	6
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	196	0	200

	BION21423091	BION21423091FD	
	Results	Results	%RPD
	211	0	200
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM21523052	BIOM21523052FD	
	Results	Results	%RPD
	388	597	42
	2970	597	133
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BIOM21523113	BIOM21523113FD	
	Results	Results	%RPD
HMX	2750	1770	43
RDX	9850	706	173
TNB	0	0	----
DNB	0	0	----
NB	0	0	----
TNT	0	0	----
4-ADNT	0	0	----
2-ADNT	0	0	----

	BION21617052	BION21617052FD	
	Results	Results	%RPD
	362	111	106
	453	40.8	167
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

	BION21617113	BION21617113FD	
	Results	Results	%RPD
	202	321	46
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----
	0	0	----

* Results and FD Results for TETRYL, 2,6-DNT, 2,4-DNT, 2-NT, 4-NT, 3-NT, or PETN were zero (0).

TABLE E-3
MINE FILL B INITIAL CHARACTERIZATION SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (mg/kg)

ANALYTE				ACETONE	MEK	METH. CHL.	MIBK	TOLUENE	XYLENES	Qualifiers	MS %R						
IM Industrial Cleanup Goal (Human Health)				8,800	27,000	18	2,800	880	320		ACETONE	MEK	METH. CHL.	MIBK	TOLUENE	XYLENES	
IM Residential Cleanup Goal (Human Health)				2,000	7,100	7.8	770	790	320		m,p-xylenes	o-xylene					
MFBICS #	Sample Date	Grid #	Depth (in.)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg								
MFBICS002	5/18/1998	1	12	0.01 U	0.005 U	0.005 U	0.01 U	0.005 U	0.005 U								
MFBICS004	5/18/1998	1	12	0.008 U	0.009 U	0.009 U	0.008 U	0.009 U	0.009 U								
MFBICS005	5/18/1998	1	12	0.014 U	0.006 U	0.006 U	0.010,000	0.006 U	0.006 U								
MFBICS006	5/18/1998	1	12	0.053	0.005 U	0.005 U	0.01 U	0.005 U	0.005 U								
MFBICS007	5/18/1998	1	12	0.011 U	0.006 U	0.006 U	0.011 U	0.006 U	0.006 U								
MFBICS008	5/18/1998	1	12	0.064	0.006 U	0.006 U	0.013 U	0.006 U	0.006 U								
MFBICS011	5/18/1998	2	12	0.012 U	0.006 U	0.006 U	0.012 U	0.006 U	0.006 U								
MFBICS014	5/18/1998	3	12	0.011 U	0.006 U	0.006 U	0.011 U	0.006 U	0.006 U								
MFBICS017	5/19/1998	4	12	0.012 U	0.006 U	0.006 U	0.012 U	0.006 U	0.006 U								
MFBICS021	5/19/1998	5	12	0.013 U	0.006 U	0.006 U	0.013 U	0.006 U	0.006 U								
MFBICS024	5/19/1998	6	12	0.012 U	0.006 U	0.006 U	0.012 U	0.006 U	0.006 U								
MFBICS027	5/19/1998	7	12	0.012 U	0.006 U	0.009	0.012 U	0.006 U	0.006 U								
MFBICS031	5/19/1998	8	12	0.021	0.007 U	0.007 U	0.013 U	0.007 U	0.007 U								
MFBICS034	5/19/1998	9	12	0.012 U	0.006 U	0.006 U	0.012 U	0.006 U	0.006 U								
MFBICS037	5/19/1998	10	12	0.014 U	0.007 U	0.007 U	0.014 U	0.007 U	0.007 U								
MFBICS041	5/20/1998	11	12	0.012 U	0.006 U	0.006 U	0.012 U	0.006 U	0.006 U								
MFBICS043	5/20/1998	11	12	0.012 U	0.006 U	0.006 U	0.012 U	0.006 U	0.006 U								
MFBICS045	5/20/1998	12	12	0.012 U	0.006 U	0.006 U	0.012 U	0.006 U	0.006 U								
MFBICS048	5/20/1998	13	12	0.012 U	0.006 U	0.006 U	0.012 U	0.006 U	0.006 U								
MFBICS052	5/20/1998	14	12	0.012 U	0.006 U	0.009	0.012 U	0.006 U	0.006 U								
MFBICS055	5/20/1998	15	12	0.013 U	0.006 U	0.005 J	0.013 U	0.006 U	0.006 U								
MFBICS058	5/21/1998	16	12	0.012 U	0.006 U	0.018	0.012 U	0.006 U	0.006 U								
MFBICS061	5/21/1998	17	12	0.012 U	0.006 U	0.018	0.012 U	0.006 U	0.006 U								
MFBICS064	5/21/1998	18	12	0.012 U	0.006 U	0.019	0.012 U	0.006 U	0.006 U								
MFBICS067	5/21/1998	19	12	0.012 U	0.006 U	0.017	0.012 U	0.006 U	0.006 U								
MFBICS070	6/10/1998	20	12	0.065 J	0.005 U	0.008 U	0.011 U	0.005 U	0.005 U								
MFBICS073	6/10/1998	21	12	0.026 J	0.005 U	0.01 U	0.011 U	0.005 U	0.005 U								
MFBICS076	6/10/1998	22	12	0.007 U	0.011 U	0.022 U	0.022 U	0.011 U	0.011 U								
MFBICS079	6/15/1998	23	12	0.007 U	0.007 U	0.007 U	0.014 U	0.007 U	0.007 U								
MFBICS082	6/15/1998	24	12	0.017 U	0.008 U	0.008 U	0.017 U	0.008 U	0.008 U								
MFBICS085	6/23/1998	94	12	0.016	0.006 U	0.006 U	0.013 U	0.006 U	0.006 U								
MFBICS088	6/23/1998	95	12	0.005 J	0.006 U	0.006 U	0.013 U	0.006 U	0.006 U								
MFBICS091	7/20/1998	96	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS094	7/21/1998	97	12	0.012 U	0.006 U	0.006 U	0.012 U	0.006 U	0.006 U								
MFBICS097	7/21/1998	98	12	0.013 U	0.006 U	0.006 U	0.013 U	0.006 U	0.006 U								
MFBICS100	7/21/1998	99	12	0.010,000	0.007 U	0.007 U	0.010,000	0.007 U	0.007 U								
MFBICS103	7/21/1998	100	12	0.012 U	0.006 U	0.006 U	0.012 U	0.006 U	0.006 U								
MFBICS106	7/23/1998	101	12	0.009 U	0.005 U	0.005 U	0.01 U	0.005 U	0.005 U								
MFBICS109	8/5/1998	38	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS112	8/6/1998	29	12	0.008	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS115	8/6/1998	30	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS118	11/16/1998	26	12	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U								
MFBICS121	11/16/1998	25	12	0.006	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U								
MFBICS124	11/16/1998	41	12	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U								
MFBICS127	11/16/1998	40	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS130	11/16/1998	50	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS133	11/16/1998	49	12	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U								
MFBICS136	11/18/1998	48	12	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U								
MFBICS139	11/18/1998	47	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS142	11/18/1998	46	12	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U								
MFBICS145	11/18/1998	45	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS148	11/23/1998	44	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS151	11/23/1998	43	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS154	11/23/1998	42	12	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U								
MFBICS157	11/23/1998	39	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS160	11/24/1998	57	12	0.005 U	0.005 U	0.009	0.005 U	0.005 U	0.005 U								
MFBICS163	11/24/1998	56	12	0.005 U	0.005 U	0.002 J	0.005 U	0.005 U	0.005 U								
MFBICS166	11/24/1998	58	12	0.004 U	0.004 U	0.002 J	0.004 U	0.004 U	0.004 U								
MFBICS169	11/24/1998	59	12	0.006 U	0.006 U	0.003 J	0.006 U	0.006 U	0.006 U								
MFBICS172	12/1/1998	60	12	0.012 U	0.006 U	0.014	0.006 U	0.006 U	0.079								
MFBICS175	12/1/1998	61	12	0.010,000	0.006 U	0.006 U	0.006 U	0.006 U	0.03								
MFBICS178	12/1/1998	51	12	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	0.014								
MFBICS181	12/2/1998	52	12	0.009 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS184	12/8/1998	53	12	0.018	0.005 J	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS187	12/9/1998	54	12	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U								
MFBICS190	12/9/1998	55	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS193	12/9/1998	88	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS196	12/10/1998	89	12	0.026	0.005 U	0.003 U	0.005 U	0.005 U	0.005 U								
MFBICS198	12/10/1998	89	24	0.028	0.005 U	0.002 U	0.005 U	0.005 U	0.005 U								

TABLE E-3
MINE FILL B INITIAL CHARACTERIZATION SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (mg/kg)

ANALYTE				ACETONE		MEK		METH. CHL.		MSD %R		TOLUENE		XYLENES			
IM Industrial Cleanup Goal (Human Health)				SD %R	RPD%	SD %R	RPD%	MSD %R	RPD%	SD %R	RPD%	SD %R	RPD%	m,p-xylenes		o-xylene	
IM Residential Cleanup Goal (Human Health)														MSD %R	RPD%	SD %R	RPD%
MFBICS #	Sample Date	Grid #	Depth (in.)														
MFBICS002	5/18/1998	1	12														
MFBICS004	5/18/1998	1	12														
MFBICS005	5/18/1998	1	12														
MFBICS006	5/18/1998	1	12														
MFBICS007	5/18/1998	1	12														
MFBICS008	5/18/1998	1	12														
MFBICS011	5/18/1998	2	12														
MFBICS014	5/18/1998	3	12														
MFBICS017	5/19/1998	4	12														
MFBICS021	5/19/1998	5	12														
MFBICS024	5/19/1998	6	12														
MFBICS027	5/19/1998	7	12														
MFBICS031	5/19/1998	8	12														
MFBICS034	5/19/1998	9	12														
MFBICS037	5/19/1998	10	12														
MFBICS041	5/20/1998	11	12														
MFBICS043	5/20/1998	11	12														
MFBICS045	5/20/1998	12	12														
MFBICS048	5/20/1998	13	12														
MFBICS052	5/20/1998	14	12														
MFBICS055	5/20/1998	15	12														
MFBICS058	5/21/1998	16	12														
MFBICS061	5/21/1998	17	12														
MFBICS064	5/21/1998	18	12														
MFBICS067	5/21/1998	19	12														
MFBICS070	6/10/1998	20	12														
MFBICS073	6/10/1998	21	12														
MFBICS076	6/10/1998	22	12														
MFBICS079	6/15/1998	23	12														
MFBICS082	6/15/1998	24	12														
MFBICS085	6/23/1998	94	12														
MFBICS088	6/23/1998	95	12														
MFBICS091	7/20/1998	96	12														
MFBICS094	7/21/1998	97	12														
MFBICS097	7/21/1998	98	12														
MFBICS100	7/21/1998	99	12														
MFBICS103	7/21/1998	100	12														
MFBICS106	7/23/1998	101	12														
MFBICS109	8/5/1998	38	12														
MFBICS112	8/6/1998	29	12														
MFBICS115	8/6/1998	30	12														
MFBICS118	11/16/1998	26	12														
MFBICS121	11/16/1998	25	12														
MFBICS124	11/16/1998	41	12														
MFBICS127	11/16/1998	40	12														
MFBICS130	11/16/1998	50	12														
MFBICS133	11/16/1998	49	12														
MFBICS136	11/18/1998	48	12														
MFBICS139	11/18/1998	47	12														
MFBICS142	11/18/1998	46	12														
MFBICS145	11/18/1998	45	12														
MFBICS148	11/23/1998	44	12														
MFBICS151	11/23/1998	43	12														
MFBICS154	11/23/1998	42	12														
MFBICS157	11/23/1998	39	12														
MFBICS160	11/24/1998	57	12														
MFBICS163	11/24/1998	56	12														
MFBICS166	11/24/1998	58	12														
MFBICS169	11/24/1998	59	12														
MFBICS172	12/1/1998	60	12														
MFBICS175	12/1/1998	61	12														
MFBICS178	12/1/1998	51	12														
MFBICS181	12/2/1998	52	12														
MFBICS184	12/8/1998	53	12														
MFBICS187	12/9/1998	54	12														
MFBICS190	12/9/1998	55	12														
MFBICS193	12/9/1998	88	12														
MFBICS196	12/10/1998	89	12														
MFBICS198	12/10/1998	89	24														

TABLE E-3
MINE FILL B INITIAL CHARACTERIZATION SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (mg/kg)

ANALYTE				ACETONE	MEK	METH. CHL.	MIBK	TOLUENE	XYLENES	Qualifiers	MS %R					XYLENES	
IM Industrial Cleanup Goal (Human Health)				8,800	27,000	18	2,800	880	320		ACETONE	MEK	METH. CHL.	MIBK	TOLUENE	m,p-xylenes	o-xylene
IM Residential Cleanup Goal (Human Health)				2,000	7,100	7.8	770	790	320		ACETONE	MEK	METH. CHL.	MIBK	TOLUENE	m,p-xylenes	o-xylene
MFBICS #	Sample Date	Grid #	Depth (in.)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg								
MFBICS200	12/10/1998	93	12	0.022	0.005 U	0.003 U	0.005 U	0.005 U	0.005 U								
MFBICS203	12/10/1998	68	12	0.02	0.005 U	0.003 U	0.005 U	0.005 U	0.005 U								
MFBICS206	12/14/1998	69	12	0.004 U	0.004 U	0.002 J	0.004 U	0.004 U	0.004 U								
MFBICS209	12/14/1998	66	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS212	12/14/1998	67	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS215	12/16/1998	92	12	0.009	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS218	12/16/1998	91	12	0.007	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U								
MFBICS221	12/16/1998	90	12	0.008 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U								
MFBICS224	12/17/1998	85	12	0.008	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U								
MFBICS226	12/17/1998	64	12	0.004	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS228	12/17/1998	81	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS231	12/17/1998	82	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS234	12/28/1998	139	12	0.009 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U								
MFBICS237	12/29/1998	82	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS240	12/29/1998	63	12	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U								
MFBICS243	1/20/1999	124	12	0.005 J	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U								
MFBICS246	1/26/1999	123	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS249	1/26/1999	140	12	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U								
MFBICS251	1/26/1999	122	12	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U								
MFBICS254	1/26/1999	128	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS257	1/27/1999	127	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS260	1/27/1999	125	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS263	1/27/1999	126	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS266	1/27/1999	141	12	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U								
MFBICS269	1/28/1999	142	12	0.011	0.005 U	0.006 U	0.005 U	0.005 U	0.005 U								
MFBICS272	1/28/1999	144	12	0.01	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS275	1/28/1999	143	12	0.008	0.005 U	0.007 U	0.005 U	0.005 U	0.005 U								
MFBICS278	1/28/1999	145	12	0.005 U	0.005 U	0.006 U	0.005 U	0.005 U	0.005 U								
MFBICS281	1/28/1999	146	12	0.012	0.005 U	0.006 U	0.005 U	0.005 U	0.005 U								
MFBICS284	2/3/1999	102	12	0.008	0.005 U	0.006 U	0.005 U	0.005 U	0.005 U								
MFBICS287	2/3/1999	113	12	0.007	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS290	2/3/1999	112	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS292	2/3/1999	107	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS295	2/3/1999	120	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS298	2/3/1999	121	12	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U								
MFBICS301	2/9/1999	138	12	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U								
MFBICS304	2/9/1999	129	12	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U	0.008 U								
MFBICS307	2/17/1999	130	12	0.008	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS310	2/17/1999	131	12	0.018	0.005 U	0.005 U	0.005 U	0.005 U	0.006								
MFBICS313	2/17/1999	132	12	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U								
MFBICS316	2/25/1999	137	12	0.026 U	0.005 U	0.02 U	0.005 U	0.005 U	0.005 U								
MFBICS318	2/25/1999	133	12	0.009 U	0.006 U	0.035	0.006 U	0.006 U	0.006 U								
MFBICS321	3/1/1999	134	12	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U								
MFBICS323	3/1/1999	135	12	0.000.000	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS325	3/1/1999	136	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS327	3/2/1999	103	12	0.053	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U								
MFBICS330	3/2/1999	149	12	0.019	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U								
MFBICS333	3/4/1999	150	12	0.019	0.004 U	0.006 U	0.004 U	0.004 U	0.004 U								
MFBICS336	3/4/1999	148	12	0.009	0.005 U	0.006 U	0.005 U	0.005 U	0.005 U								
MFBICS339	3/4/1999	115	12	0.005 U	0.005 U	0.000.000.00	0.005 U	0.005 U	0.005 U								
MFBICS343	3/24/1999	151	12	0.016 U	0.006 U	0.002 J	0.006 U	0.006 U	0.006 U								
MFBICS345	6/7/1999	152	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	J*	99% (55-152)	59% (20-180)	266% (16-200)	70% (45-151)	145% (71-119)	144% (71-128)	146% (76-120)
MFBICS348	6/7/1999	74	12	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	J*	99% (55-152)	59% (20-180)	266% (16-200)	70% (45-151)	145% (71-119)	144% (71-128)	146% (76-120)
MFBICS351	6/9/1999	153	12	0.014	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NO							
MFBICS354	6/9/1999	154	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NO							
MFBICS357	6/10/1999	72	12	0.01	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	J*	98% (55-152)	80% (20-180)	81% (16-200)	84% (45-151)	77% (71-119)	80% (71-128)	83% (76-120)
MFBICS360	6/10/1999	75	12	0.014	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	J*	98% (55-152)	80% (20-180)	81% (16-200)	84% (45-151)	77% (71-119)	80% (71-128)	83% (76-120)
MFBICS363	6/10/1999	76	12	0.023	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	J*	98% (55-152)	80% (20-180)	81% (16-200)	84% (45-151)	77% (71-119)	80% (71-128)	83% (76-120)
MFBICS366	6/10/1999	77	12	0.01	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	J*	98% (55-152)	80% (20-180)	81% (16-200)	84% (45-151)	77% (71-119)	80% (71-128)	83% (76-120)
MFBICS369	6/10/1999	79	12	0.016	0.009 U	0.009 U	0.009 U	0.009 U	0.009 U	J*	98% (55-152)	80% (20-180)	81% (16-200)	84% (45-151)	77% (71-119)	80% (71-128)	83% (76-120)
MFBICS372	6/17/1999	155	12	0.005 U	0.005 U	0.006 B	0.005 U	0.005 U	0.005 U	J*	61% (55-152)	146% (20-180)	77% (16-200)	125% (45-151)	111% (71-119)	118% (71-128)	118% (76-120)
MFBICS375	6/17/1999	156	12	0.005 U	0.005 U	0.008 B	0.005 U	0.005 U	0.005 U	J*	61% (55-152)	146% (20-180)	77% (16-200)	125% (45-151)	111% (71-119)	118% (71-128)	118% (76-120)
MFBICS378	6/18/1999	157	12	0.005 U	0.005 U	0.01 B	0.005 U	0.005 U	0.005 U	J*	44% (55-152)	111% (20-180)	58% (16-200)	99% (45-151)	83% (71-128)	82% (71-128)	82% (76-120)
MFBICS381	6/18/1999	158	12	0.006 U	0.006 U	0.012 B	0.006 U	0.006 U	0.006 U	J*	44% (55-152)	111% (20-180)	58% (16-200)	99% (45-151)	83% (71-128)	82% (71-128)	82% (76-120)
MFBICS384	6/18/1999	159	12	0.006 U	0.006 U	0.014 B	0.006 U	0.006 U	0.006 U	J*	44% (55-152)	111% (20-180)	58% (16-200)	99% (45-151)	83% (71-128)	82% (71-128)	82% (76-120)
MFBICS387	6/18/1999	160	12	0.007 U	0.007 U	0.021 B	0.007 U	0.007 U	0.007 U	J*	44% (55-152)	111% (20-180)	58% (16-200)	99% (45-151)	83% (71-128)	82% (71-128)	82% (76-120)
MFBICS390	6/18/1999	161	12	0.03	0.006 U	0.017 B	0.006 U	0.006 U	0.006 U	J*	44% (55-152)	111% (20-180)	58% (16-200)	99% (45-151)	83% (71-128)	82% (71-128)	82% (76-120)
MFBICS392	6/18/1999	162	12	0.005 U	0.005 U	0.012 B	0.005 U	0.005 U	0.005 U	J*	44% (55-152)	111% (20-180)	58% (16-200)	99% (45-151)	83% (71-128)	82% (71-128)	82% (76-120)
MFBICS395	6/22/1999	163	12	0.006 U	0.006 U	0.003 JB	0.006 U	0.006 U	0.006 U	J*	19% (55-152)	87% (20-180)	52% (16-200)	68% (45-151)	67% (71-119)	78% (71-128)	79% (76-120)

TABLE E-3
MINE FILL B INITIAL CHARACTERIZATION SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (mg/kg)

ANALYTE				MSD %R													
IM Industrial Cleanup Goal (Human Health)				ACETONE		MEK		METH. CHL.		MIBK		TOLUENE		XYLENES			
IM Residential Cleanup Goal (Human Health)				SD %R	RPD%	SD %R	RPD%	MSD %R	RPD%	SD %R	RPD%	SD %R	RPD%	m,p-xylenes		o-xylene	
MF BICS #	Sample Date	Grid #	Depth (in.)											MSD %R	RPD%	SD %R	RPD%
MF BICS200	12/10/1998	93	12														
MF BICS203	12/10/1998	68	12														
MF BICS206	12/14/1998	69	12														
MF BICS209	12/14/1998	66	12														
MF BICS212	12/14/1998	67	12														
MF BICS215	12/16/1998	92	12														
MF BICS218	12/16/1998	91	12														
MF BICS221	12/16/1998	90	12														
MF BICS224	12/17/1998	85	12														
MF BICS226	12/17/1998	84	12														
MF BICS228	12/17/1998	81	12														
MF BICS231	12/17/1998	82	12														
MF BICS234	12/28/1998	139	12														
MF BICS237	12/29/1998	62	12														
MF BICS240	12/29/1998	63	12														
MF BICS243	1/20/1999	124	12														
MF BICS246	1/26/1999	123	12														
MF BICS249	1/26/1999	140	12														
MF BICS251	1/26/1999	122	12														
MF BICS254	1/26/1999	128	12														
MF BICS257	1/27/1999	127	12														
MF BICS260	1/27/1999	125	12														
MF BICS263	1/27/1999	126	12														
MF BICS266	1/27/1999	141	12														
MF BICS269	1/28/1999	142	12														
MF BICS272	1/28/1999	144	12														
MF BICS275	1/28/1999	143	12														
MF BICS278	1/28/1999	145	12														
MF BICS281	1/28/1999	146	12														
MF BICS284	2/3/1999	102	12														
MF BICS287	2/3/1999	113	12														
MF BICS290	2/3/1999	112	12														
MF BICS292	2/3/1999	107	12														
MF BICS295	2/3/1999	120	12														
MF BICS298	2/3/1999	121	12														
MF BICS301	2/9/1999	138	12														
MF BICS304	2/9/1999	129	12														
MF BICS307	2/17/1999	130	12														
MF BICS310	2/17/1999	131	12														
MF BICS313	2/17/1999	132	12														
MF BICS316	2/25/1999	137	12														
MF BICS318	2/25/1999	133	12														
MF BICS321	3/1/1999	134	12														
MF BICS323	3/1/1999	135	12														
MF BICS325	3/1/1999	136	12														
MF BICS327	3/2/1999	103	12														
MF BICS330	3/2/1999	149	12														
MF BICS333	3/4/1999	150	12														
MF BICS336	3/4/1999	148	12														
MF BICS339	3/4/1999	115	12														
MF BICS343	3/24/1999	151	12														
MF BICS345	6/7/1999	152	12	94%	5% (0-27)	53%	11% (0-41)	194%	31% (0-24)	39%	57% (0-20)	19%	154% (0-20)	8%	179% (0-20)	13%	167% (0-20)
MF BICS348	6/7/1999	74	12	94%	5% (0-27)	53%	11% (0-41)	194%	31% (0-24)	39%	57% (0-20)	19%	154% (0-20)	8%	179% (0-20)	13%	167% (0-20)
MF BICS351	6/9/1999	153	12														
MF BICS354	6/9/1999	154	12														
MF BICS357	6/10/1999	72	12	113%	14% (0-20)	122%	42% (0-41)	93%	14% (0-24)	125%	39% (0-20)	84%	9% (0-20)	82%	2% (0-20)	86%	4% (0-20)
MF BICS360	6/10/1999	75	12	113%	14% (0-20)	122%	42% (0-41)	93%	14% (0-24)	125%	39% (0-20)	84%	9% (0-20)	82%	2% (0-20)	86%	4% (0-20)
MF BICS363	6/10/1999	76	12	113%	14% (0-20)	122%	42% (0-41)	93%	14% (0-24)	125%	39% (0-20)	84%	9% (0-20)	82%	2% (0-20)	86%	4% (0-20)
MF BICS366	6/10/1999	77	12	113%	14% (0-20)	122%	42% (0-41)	93%	14% (0-24)	125%	39% (0-20)	84%	9% (0-20)	82%	2% (0-20)	86%	4% (0-20)
MF BICS369	6/10/1999	79	12	113%	14% (0-20)	122%	42% (0-41)	93%	14% (0-24)	125%	39% (0-20)	84%	9% (0-20)	82%	2% (0-20)	86%	4% (0-20)
MF BICS372	6/17/1999	155	12	58%	5% (0-27)	112%	28% (0-41)	66%	15% (0-24)	106%	16% (0-20)	93%	18% (0-20)	100%	17% (0-20)	103%	14% (0-20)
MF BICS375	6/17/1999	156	12	58%	5% (0-27)	112%	28% (0-41)	66%	15% (0-24)	106%	16% (0-20)	93%	18% (0-20)	100%	17% (0-20)	103%	14% (0-20)
MF BICS378	6/18/1999	157	12	37%	17% (0-27)	105%	6% (0-41)	64%	10% (0-24)	99%	0% (0-20)	90%	8% (0-20)	94%	14% (0-20)	95%	15% (0-20)
MF BICS381	6/18/1999	158	12	37%	17% (0-27)	105%	6% (0-41)	64%	10% (0-24)	99%	0% (0-20)	90%	8% (0-20)	94%	14% (0-20)	95%	15% (0-20)
MF BICS384	6/18/1999	159	12	37%	17% (0-27)	105%	6% (0-41)	64%	10% (0-24)	99%	0% (0-20)	90%	8% (0-20)	94%	14% (0-20)	95%	15% (0-20)
MF BICS387	6/18/1999	160	12	37%	17% (0-27)	105%	6% (0-41)	64%	10% (0-24)	99%	0% (0-20)	90%	8% (0-20)	94%	14% (0-20)	95%	15% (0-20)
MF BICS390	6/18/1999	161	12	37%	17% (0-27)	105%	6% (0-41)	64%	10% (0-24)	99%	0% (0-20)	90%	8% (0-20)	94%	14% (0-20)	95%	15% (0-20)
MF BICS392	6/18/1999	162	12	37%	17% (0-27)	105%	6% (0-41)	64%	10% (0-24)	99%	0% (0-20)	90%	8% (0-20)	94%	14% (0-20)	95%	15% (0-20)
MF BICS395	6/22/1999	163	12	39%	69% (0-27)	91%	4% (0-41)	58%	11% (0-24)	72%	6% (0-20)	69%	3% (0-20)	77%	1% (0-20)	79%	0% (0-20)

TABLE E-3
MINE FILL B INITIAL CHARACTERIZATION SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (mg/kg)

ANALYTE				ACETONE	MEK	METH. CHL.	MIBK	TOLUENE	XYLENES	Qualifiers	MS %R						
IM Industrial Cleanup Goal (Human Health)				8,800	27,000	18	2,800	880	320		ACETONE	MEK	METH. CHL.	MIBK	TOLUENE	XYLENES	
IM Residential Cleanup Goal (Human Health)				2,000	7,100	7.8	770	790	320		m,p-xylene	o-xylene					
MFBCS #	Sample Date	Grid #	Depth (in.)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg								
MFBCS398	6/22/1999	164	12	0.005 U	0.005 U	0.002 JB	0.005 U	0.005 U	0.005 U	J*	19% (55-152)	87% (20-180)	52% (16-200)	68% (45-151)	67% (71-119)	78% (71-128)	79% (76-120)
MFBCS401	6/23/1999	165	12	0.005 U	0.005 U	0.003 JB	0.005 U	0.005 U	0.005 U	J*	35% (55-152)	97% (20-180)	52% (16-200)	89% (45-151)	63% (71-119)	71% (71-128)	73% (76-120)
MFBCS404	6/23/1999	166	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	J*	35% (55-152)	97% (20-180)	52% (16-200)	89% (45-151)	63% (71-119)	71% (71-128)	73% (76-120)
MFBCS407	6/23/1999	167	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	J*	35% (55-152)	97% (20-180)	52% (16-200)	89% (45-151)	63% (71-119)	71% (71-128)	73% (76-120)
MFBCS410	6/30/1999	70	12	0.005 U	0.005 U	0.017 B	0.005 U	0.005 U	0.005 U	NO							
MFBCS413	6/30/1999	147	12	0.0051	0.005 U	0.01 B	0.005 U	0.005 U	0.005 U	NO							
MFBCS416	6/30/1999	168	12	0.014	0.005 U	0.01 B	0.005 U	0.005 U	0.005 U	NO							
MFBCS419	6/30/1999	169	12	0.005 U	0.005 U	0.01 B	0.005 U	0.005 U	0.005 U	NO							
MFBCS422	7/6/1999	170	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	J*	212% (55-152)	136% (20-180)	98% (16-200)	170% (45-151)	92% (71-119)	96% (71-128)	97% (76-120)
MFBCS425	7/6/1999	171	12	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	J*	212% (55-152)	136% (20-180)	98% (16-200)	170% (45-151)	92% (71-119)	96% (71-128)	97% (76-120)
MFBCS428	7/6/1999	172	12	0.005 U	0.005 U	0.002 JB	0.005 U	0.005 U	0.005 U	J*	212% (55-152)	136% (20-180)	98% (16-200)	170% (45-151)	92% (71-119)	96% (71-128)	97% (76-120)
MFBCS431	7/7/1999	173	12	0.006 U	0.006 U	0.001 JB	0.006 U	0.006 U	0.006 U	J*	66% (55-152)	102% (20-180)	42% (16-200)	83% (45-151)	72% (71-119)	102% (71-128)	88% (76-120)
MFBCS434	7/7/1999	174	12	0.085	0.005 U	0.002 JB	0.005 U	0.005 U	0.005 U	J*	66% (55-152)	102% (20-180)	42% (16-200)	83% (45-151)	72% (71-119)	102% (71-128)	88% (76-120)
MFBCS437	7/8/1999	176	12	0.005 U	0.005 U	0.002 JB	0.005 U	0.005 U	0.005 U	J*	52% (55-152)	98% (20-180)	42% (16-200)	51% (45-151)	55% (71-119)	56% (71-128)	55% (76-120)
MFBCS440	7/8/1999	177	12	0.004 U	0.004 U	0.002 JB	0.004 U	0.004 U	0.004 U	J*	52% (55-152)	98% (20-180)	42% (16-200)	51% (45-151)	55% (71-119)	56% (71-128)	55% (76-120)
MFBCS443	7/8/1999	175	12	0.004 U	0.004 U	0.002 JB	0.004 U	0.004 U	0.004 U	J*	52% (55-152)	98% (20-180)	42% (16-200)	51% (45-151)	55% (71-119)	56% (71-128)	55% (76-120)
MFBCS446	7/9/1999	178	12	0.005 U	0.005 U	0.002 JB	0.005 U	0.005 U	0.005 U	J*	48% (55-152)	92% (20-180)	70% (16-200)	73% (45-151)	67% (71-119)	71% (71-128)	73% (76-120)
MFBCS449	7/9/1999	179	12	0.005 U	0.005 U	0.01 JB	0.005 U	0.005 U	0.005 U	J*	48% (55-152)	92% (20-180)	70% (16-200)	73% (45-151)	67% (71-119)	71% (71-128)	73% (76-120)
MFBCS452	7/9/1999	180	12	0.005 U	0.005 U	0.004 JB	0.005 U	0.005 U	0.005 U	J*	48% (55-152)	92% (20-180)	70% (16-200)	73% (45-151)	67% (71-119)	71% (71-128)	73% (76-120)
MFBCS455	7/9/1999	181	12	0.005 U	0.005 U	0.01 JB	0.005 U	0.005 U	0.005 U	J*	48% (55-152)	92% (20-180)	70% (16-200)	73% (45-151)	67% (71-119)	71% (71-128)	73% (76-120)
MFBCS458	7/13/1999	31	12	0.006 U	0.006 U	0.011 B	0.006 U	0.006 U	0.006 U	NO							
MFBCS461	7/13/1999	33	12	0.005 U	0.005 U	0.011 B	0.005 U	0.005 U	0.005 U	NO							
MFBCS464	7/13/1999	27	12	0.005 U	0.005 U	0.011 B	0.005 U	0.005 U	0.005 U	NO							
MFBCS467	7/14/1999	182	12	0.009 U	0.009 U	0.002 JB	0.009 U	0.009 U	0.009 U	NO							
MFBCS470	7/14/1999	183	12	0.005 U	0.005 U	0.006 B	0.005 U	0.005 U	0.005 U	NO							
MFBCS473	7/14/1999	105	12	0.006 U	0.006 U	0.006 B	0.006 U	0.006 U	0.006 U	NO							
MFBCS476	7/15/1999	184	12	0.005 U	0.005 U	0.01 JB	0.005 U	0.005 U	0.005 U	NO							
MFBCS479	7/15/1999	185	12	0.005 U	0.005 U	0.004 JB	0.005 U	0.005 U	0.005 U	NO							
MFBCS482	8/10/1999	186	12	0.024 U	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	NO							
MFBCS485	8/16/1999	187	12	0.013 J	0.011 U	0.0057 U	0.0057 U	0.0057 U	0.0057 U	J*	121.77%(10-180)	recovery results not provided			89.61%(80-120)	96.38%(80-120)	96.68%(80-120)
MFBCS488	8/16/1999	188	12	0.01 J	0.011 U	0.0055 U	0.0055 U	0.0055 U	0.0055 U	J*	121.77%(10-180)	recovery results not provided			89.61%(80-120)	96.38%(80-120)	96.68%(80-120)
MFBCS491	8/16/1999	189	12	0.01 J	0.011 U	0.0055 U	0.0055 U	0.0055 U	0.0055 U	J*	121.77%(10-180)	recovery results not provided			89.61%(80-120)	96.38%(80-120)	96.68%(80-120)
MFBCS494	8/18/1999	190	12	0.022 U	0.011 U	0.0054 U	0.0054 U	0.0054 U	0.0054 U	J*	89.92%(10-180)	recovery results not provided			93.82%(80-120)	96.54%(80-120)	96.17%(80-120)
MFBCS497	8/18/1999	191	12	0.011 J	0.011 U	0.0055 U	0.0055 U	0.0055 U	0.0055 U	J*	89.92%(10-180)	recovery results not provided			93.82%(80-120)	96.54%(80-120)	96.17%(80-120)
MFBCS500	8/18/1999	192	12	0.014 J	0.011 U	0.0057 U	0.0057 U	0.0057 U	0.0057 U	J*	89.92%(10-180)	recovery results not provided			93.82%(80-120)	96.54%(80-120)	96.17%(80-120)
MFBCS503	8/18/1999	193	12	0.066 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*	89.92%(10-180)	recovery results not provided			93.82%(80-120)	96.54%(80-120)	96.17%(80-120)
MFBCS506	8/18/1999	118	12	0.13 B	0.011 U	0.0054 U	0.0054 U	0.0054 U	0.0054 U	J*	89.92%(10-180)	recovery results not provided			93.82%(80-120)	96.54%(80-120)	96.17%(80-120)
MFBCS509	8/26/1999	194	12	0.0191 JB	0.0114 U	0.0057 U	0.0057 U	0.0057 U	0.0057 U	J*	111.61%(10-180)	recovery results not provided			98.36%(80-120)	100.18%(80-120)	99.58%(80-120)
MFBCS512	9/8/1999	196	12	0.0134 JB	0.00892 J	0.0058 U	0.0058 U	0.0058 U	0.0058 U	NO							
MFBCS515	9/8/1999	198	12	0.0052 JB	0.011 U	0.00549 U	0.00549 U	0.00549 U	0.00549 U	NO							
MFBCS518	9/8/1999	197	12	0.0033 JB	0.011 U	0.00552 U	0.00552 U	0.00552 U	0.00552 U	NO							
MFBCS521	9/8/1999	199	12	0.0091 JB	0.0112 U	0.00559 U	0.00559 U	0.00559 U	0.00559 U	NO							
MFBCS524	9/8/1999	200	12	0.0138 JB	0.0116 U	0.00581 U	0.00581 U	0.00581 U	0.00581 U	NO							
MFBCS527	9/9/1999	201	12	0.0207 JB	0.00726 JB	0.00608 U	0.00608 U	0.00608 U	0.00608 U	NO							
MFBCS530	9/9/1999	202	12	0.0167 JB	0.0121 U	0.00605 U	0.00605 U	0.00605 U	0.00605 U	NO							
MFBCS533	9/9/1999	203	12	0.0126 JB	0.0111 U	0.00555 U	0.00555 U	0.00555 U	0.00555 U	NO							
MFBCS536	9/14/1999	204	12	0.0286	0.0115 U	0.00577 U	0.00577 U	0.00577 U	0.00577 U	NO							
MFBCS539	9/14/1999	195	12	0.148	0.0259	0.00571 U	0.00571 U	0.00571 U	0.00571 U	NO							
MFBCS542	9/15/1999	205	12	0.0325	0.0215	0.00528 U	0.00528 U	0.00528 U	0.00528 U	NO							
MFBCS545	9/15/1999	206	12	0.0242	0.0105 J	0.00575 U	0.00575 U	0.00575 U	0.00575 U	NO							
MFBCS547	9/22/1999	207	12	0.023 JB	0.0062 J	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*	102.59%(10-180)	recovery results not provided			98.42%(80-120)	101.25%(80-120)	99.04%(80-120)
MFBCS550	9/22/1999	208	12	0.023 U	0.011 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	J*	102.59%(10-180)	recovery results not provided			98.42%(80-120)	101.25%(80-120)	99.04%(80-120)
MFBCS553	9/22/1999	209	12	0.041 B	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*	102.59%(10-180)	recovery results not provided			98.42%(80-120)	101.25%(80-120)	99.04%(80-120)
MFBCS556	9/22/1999	210	12	0.031 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*	102.59%(10-180)	recovery results not provided			98.42%(80-120)	101.25%(80-120)	99.04%(80-120)
MFBCS559	9/22/1999	211	12	0.055 B	0.014	0.0057 U	0.0057 U	0.0057 U	0.0057 U	J*	102.59%(10-180)	recovery results not provided			98.42%(80-120)	101.25%(80-120)	99.04%(80-120)
MFBCS562	9/22/1999	212	12	0.022 U	0.012	0.0054 U	0.0054 U	0.0054 U	0.0054 U	J*	102.59%(10-180)	recovery results not provided			98.42%(80-120)	101.25%(80-120)	99.04%(80-120)
MFBCS564	9/22/1999	213	12	0.022 JB	0.0064 J	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*	102.59%(10-180)	recovery results not provided			98.42%(80-120)	101.25%(80-120)	99.04%(80-120)
MFBCS567	9/22/1999	214	12	0.086 B	0.0099 J	0.0054 U	0.0054 U	0.0054 U</									

TABLE E-3
MINE FILL B INITIAL CHARACTERIZATION SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (mg/kg)

ANALYTE				MSD %R													
IM Industrial Cleanup Goal (Human Health)				ACETONE		MEK		METH. CHL.		MIBK		TOLUENE		XYLENES			
IM Residential Cleanup Goal (Human Health)				SD %R	RPD%	SD %R	RPD%	MSD %R	RPD%	SD %R	RPD%	SD %R	RPD%	m,p-xylenes		o-xylene	
MFB ICS #	Sample Date	Grid #	Depth (in.)										MSD %R	RPD%	SD %R	RPD%	
MFBICS399	6/22/1999	184	12	39%	69% (0-27)	91%	4% (0-41)	58%	11% (0-24)	72%	6% (0-20)	69%	3% (0-20)	77%	1% (0-20)	79%	0% (0-20)
MFBICS401	6/23/1999	165	12	37%	6% (0-27)	100%	3% (0-41)	56%	7% (0-24)	92%	3% (0-20)	66%	5% (0-20)	73%	3% (0-20)	75%	3% (0-320)
MFBICS404	6/23/1999	166	12	37%	6% (0-27)	100%	3% (0-41)	56%	7% (0-24)	92%	3% (0-20)	66%	5% (0-20)	73%	3% (0-20)	75%	3% (0-320)
MFBICS407	6/23/1999	167	12	37%	6% (0-27)	100%	3% (0-41)	56%	7% (0-24)	92%	3% (0-20)	66%	5% (0-20)	73%	3% (0-20)	75%	3% (0-320)
MFBICS410	6/30/1999	70	12														
MFBICS413	6/30/1999	147	12														
MFBICS416	6/30/1999	168	12														
MFBICS419	6/30/1999	169	12														
MFBICS422	7/6/1999	170	12	206%	3% (0-27)	139%	2% (0-41)	97%	1% (0-24)	183%	7% (0-20)	95%	3% (0-20)	92%	4% (0-20)	97%	0% (0-20)
MFBICS425	7/6/1999	171	12	206%	3% (0-27)	139%	2% (0-41)	97%	1% (0-24)	183%	7% (0-20)	95%	3% (0-20)	92%	4% (0-20)	97%	0% (0-20)
MFBICS428	7/6/1999	172	12	206%	3% (0-27)	139%	2% (0-41)	97%	1% (0-24)	183%	7% (0-20)	95%	3% (0-20)	92%	4% (0-20)	97%	0% (0-20)
MFBICS431	7/7/1999	173	12	259%	119% (0-27)	74%	32% (0-41)	56%	29% (0-24)	72%	14% (0-20)	57%	23% (0-20)	78%	27% (0-20)	64%	32% (0-20)
MFBICS434	7/7/1999	174	12	259%	119% (0-27)	74%	32% (0-41)	56%	29% (0-24)	72%	14% (0-20)	57%	23% (0-20)	78%	27% (0-20)	64%	32% (0-20)
MFBICS437	7/8/1999	176	12	19%	93% (0-27)	60%	48% (0-41)	38%	10% (0-24)	24%	72% (0-20)	54%	2% (0-20)	50%	11% (0-20)	52%	6% (0-20)
MFBICS440	7/8/1999	177	12	19%	93% (0-27)	60%	48% (0-41)	38%	10% (0-24)	24%	72% (0-20)	54%	2% (0-20)	50%	11% (0-20)	52%	6% (0-20)
MFBICS443	7/8/1999	175	12	19%	93% (0-27)	60%	48% (0-41)	38%	10% (0-24)	24%	72% (0-20)	54%	2% (0-20)	50%	11% (0-20)	52%	6% (0-20)
MFBICS446	7/9/1999	178	12	54%	12% (0-27)	96%	4% (0-41)	75%	7% (0-24)	84%	14% (0-20)	75%	11% (0-20)	85%	18% (0-20)	86%	16% (0-20)
MFBICS449	7/9/1999	179	12	54%	12% (0-27)	96%	4% (0-41)	75%	7% (0-24)	84%	14% (0-20)	75%	11% (0-20)	85%	18% (0-20)	86%	16% (0-20)
MFBICS452	7/9/1999	180	12	54%	12% (0-27)	96%	4% (0-41)	75%	7% (0-24)	84%	14% (0-20)	75%	11% (0-20)	85%	18% (0-20)	86%	16% (0-20)
MFBICS455	7/9/1999	181	12	54%	12% (0-27)	96%	4% (0-41)	75%	7% (0-24)	84%	14% (0-20)	75%	11% (0-20)	85%	18% (0-20)	86%	16% (0-20)
MFBICS458	7/13/1999	31	12														
MFBICS461	7/13/1999	33	12														
MFBICS464	7/13/1999	27	12														
MFBICS467	7/14/1999	182	12														
MFBICS470	7/14/1999	183	12														
MFBICS473	7/14/1999	105	12														
MFBICS476	7/15/1999	184	12														
MFBICS479	7/15/1999	185	12														
MFBICS482	8/10/1999	186	12														
MFBICS485	8/16/1999	187	12	98%							91%		98%		97%		
MFBICS488	8/16/1999	188	12	98%							91%		98%		97%		
MFBICS491	8/16/1999	189	12	98%							91%		98%		97%		
MFBICS494	8/18/1999	190	12	80%							93%		100%		98%		
MFBICS497	8/18/1999	191	12	80%							93%		100%		98%		
MFBICS500	8/18/1999	192	12	80%							93%		100%		98%		
MFBICS503	8/18/1999	193	12	80%							93%		100%		98%		
MFBICS506	8/18/1999	118	12	80%							93%		100%		98%		
MFBICS509	8/26/1999	194	12	101%							104%		107%		108%		
MFBICS512	9/8/1999	196	12														
MFBICS515	9/8/1999	198	12														
MFBICS518	9/8/1999	197	12														
MFBICS521	9/8/1999	199	12														
MFBICS524	9/8/1999	200	12														
MFBICS527	9/9/1999	201	12														
MFBICS530	9/9/1999	202	12														
MFBICS533	9/9/1999	203	12														
MFBICS536	9/14/1999	204	12														
MFBICS539	9/14/1999	195	12														
MFBICS542	9/15/1999	205	12														
MFBICS545	9/15/1999	206	12														
MFBICS547	9/22/1999	207	12	117%							97%		102%		101%		
MFBICS550	9/22/1999	208	12	117%							97%		102%		101%		
MFBICS553	9/22/1999	209	12	117%							97%		102%		101%		
MFBICS556	9/22/1999	210	12	117%							97%		102%		101%		
MFBICS559	9/22/1999	211	12	117%							97%		102%		101%		
MFBICS562	9/22/1999	212	12	117%							97%		102%		101%		
MFBICS564	9/22/1999	213	12	117%							97%		102%		101%		
MFBICS567	9/22/1999	214	12	117%							97%		102%		101%		
MFBICS570	9/22/1999	215	12	117%							97%		102%		101%		
MFBICS573	9/22/1999	216	12	117%							97%		102%		101%		
MFBICS576	9/24/1999	217	12	182%							97%		101%		100%		
MFBICS578	9/24/1999	218	12	182%							97%		101%		100%		
MFBICS581	9/27/1999	219	12	156%							97%		102%		98%		
MFBICS584	9/27/1999	220	12	156%							97%		102%		98%		
MFBICS587	9/27/1999	221	12	156%							97%		102%		98%		
MFBICS590	9/27/1999	222	12	156%							97%		102%		98%		
MFBICS593	9/27/1999	223	12	156%							97%		102%		98%		
MFBICS596	9/27/1999	224	12	156%							97%		102%		98%		
MFBICS599	9/27/1999	225	12	156%							97%		102%		98%		

TABLE E-3
MINE FILL B INITIAL CHARACTERIZATION SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (mg/kg)

ANALYTE		ACETONE	MEK	METH. CHL.	MIBK	TOLUENE	XYLENES	Qualifiers	MS %R						
IM Industrial Cleanup Goal (Human Health)		8,800	27,000	18	2,800	880	320		ACETONE	MEK	METH. CHL.	MIBK	TOLUENE	XYLENES	
IM Residential Cleanup Goal (Human Health)		2,000	7,100	78	770	790	320							m,p-xylenes	o-xylene
MFB ICS #	sample Date	Grid #	Depth (in.)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg						
MFBCS602	9/28/1999	226	12	0.027 B	0.011 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	J*	142.76%(80-120)	recovery results not provided	96.72%(80-120)	101.36%(80-120)	98.65%(80-120)
MFBCS605	9/28/1999	227	12	0.024 B	0.012 U	0.0058 U	0.0058 U	0.0014 J	0.0058 U	J*	142.76%(80-120)		96.72%(80-120)	101.36%(80-120)	98.65%(80-120)
MFBCS608	9/28/1999	228	12	0.031 B	0.011 U	0.0055 U	0.0055 U	0.0055 U	0.0055 U	J*	142.76%(80-120)		96.72%(80-120)	101.36%(80-120)	98.65%(80-120)
MFBCS611	9/28/1999	229	12	0.009 JB	0.011 U	0.0054 U	0.0054 U	0.0054 U	0.0054 U	J*	142.76%(80-120)		96.72%(80-120)	101.36%(80-120)	98.65%(80-120)
MFBCS614	9/28/1999	230	12	0.041 B	0.011 U	0.0055 U	0.0055 U	0.0055 U	0.0055 U	J*	142.76%(80-120)		96.72%(80-120)	101.36%(80-120)	98.65%(80-120)
MFBCS617	9/28/1999	231	12	0.056 B	0.011 U	0.0054 U	0.0054 U	0.0014 J	0.0054 U	J*	142.76%(80-120)		96.72%(80-120)	101.36%(80-120)	98.65%(80-120)
MFBCS619	9/30/1999	232	12	0.17 B	0.013 U	0.0063 U	0.0063 U	0.0095	0.0059 J	J*	314.1%(80-120)	recovery results not provided	102.15%(80-120)	100.49%(80-120)	98.14%(80-120)
MFBCS622	9/30/1999	233	12	0.022 U	0.011 U	0.0055 U	0.0055 U	0.0041 J	0.0033 J	J*	314.1%(80-120)		102.15%(80-120)	100.49%(80-120)	98.14%(80-120)
MFBCS624	9/30/1999	234	12	0.024 U	0.012 U	0.0061 U	0.0061 U	0.0065	0.0041 J	J*	314.1%(80-120)		102.15%(80-120)	100.49%(80-120)	98.14%(80-120)
MFBCS626	9/30/1999	235	12	0.11 B	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*	314.1%(80-120)		102.15%(80-120)	100.49%(80-120)	98.14%(80-120)
MFBCS629	9/30/1999	236	12	0.093 B	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*	314.1%(80-120)		102.15%(80-120)	100.49%(80-120)	98.14%(80-120)
MFBCS632	10/1/1999	238	12	0.063 B	0.011 U	0.0057 U	0.0057 U	0.0057 U	0.0057 U	J*	recovery results not provided				
MFBCS635	10/1/1999	239	12	0.014 JB	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*	recovery results not provided				
MFBCS638	10/1/1999	237	12	0.11 B	0.011 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	J*	recovery results not provided				
MFBCS641	10/18/1999	240	12	0.104 B	0.0119 U	0.00596 U	0.00596 U	0.00707	0.00476 J	J*	126.34%(80-120)	recovery results not provided	108.89%(80-120)	99.89%(80-120)	98.59%(80-120)
MFBCS644	10/18/1999	241	12	1.23 U	0.616 U	0.308 U	0.308 U	0.308 U	0.308 U	J*	126.34%(80-120)		108.89%(80-120)	99.89%(80-120)	98.59%(80-120)
MFBCS647	10/12/1999	242	12	0.097 B	0.012 U	0.0058 U	0.0058 U	0.0011 J	0.0058 U	J*	271.39%(80-120)	recovery results not provided	113.6%(80-120)	108.8%(80-120)	06.95%(80-120)
MFBCS650	10/12/1999	243	12	0.082 B	0.011 U	0.0057 U	0.0057 U	0.0042 J	0.0032 J	J*	271.39%(80-120)		113.6%(80-120)	108.8%(80-120)	06.95%(80-120)
MFBCS653	10/12/1999	244	12	0.022 U	0.011 U	0.0056 U	0.0056 U	0.0033 J	0.0022 J	J*	271.39%(80-120)		113.6%(80-120)	108.8%(80-120)	06.95%(80-120)
MFBCS656	10/12/1999	245	12	0.099 B	0.011 U	0.0057 U	0.0057 U	0.0014 J	0.0057 U	J*	271.39%(80-120)		113.6%(80-120)	108.8%(80-120)	06.95%(80-120)
MFBCS659	10/12/1999	246	12	0.038 B	0.012 U	0.0061 U	0.0061 U	0.0044 J	0.0021 J	J*	271.39%(80-120)		113.6%(80-120)	108.8%(80-120)	06.95%(80-120)
MFBCS662	10/12/1999	247	12	0.1 B	0.012 U	0.0062 U	0.0062 U	0.0011 J	0.0062 U	J*	271.39%(80-120)		113.6%(80-120)	108.8%(80-120)	06.95%(80-120)
MFBCS665	10/12/1999	248	12	0.065 B	0.013 U	0.0066 U	0.0066 U	0.0066 U	0.0066 U	J*	271.39%(80-120)		113.6%(80-120)	108.8%(80-120)	06.95%(80-120)
MFBCS667	10/18/1999	249	12	.00958 JB	0.0121 U	0.00607 U	0.00607 U	0.00607 U	0.00607 U	J*	126.34%(80-120)		108.89%(80-120)	99.89%(80-120)	98.59%(80-120)
MFBCS670	10/18/1999	250	12	0.0171 JB	0.0118 U	0.00591 U	0.00591 U	0.00591 U	0.00591 U	J*	126.34%(80-120)		108.89%(80-120)	99.89%(80-120)	98.59%(80-120)
MFBCS673	10/19/1999	251	12	0.095	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*	121.5%(80-120)	recovery results not provided	90.44%(80-120)	94.88%(80-120)	92.73%(80-120)
MFBCS676	10/19/1999	252	12	0.08	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*	121.5%(80-120)		90.44%(80-120)	94.88%(80-120)	92.73%(80-120)
MFBCS679	10/19/1999	253	12	0.018 J	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*	121.5%(80-120)		90.44%(80-120)	94.88%(80-120)	92.73%(80-120)
MFBCS682	10/19/1999	254	12	0.03	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*	121.5%(80-120)		90.44%(80-120)	94.88%(80-120)	92.73%(80-120)
MFBCS685	10/19/1999	255	12	0.042	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*	121.5%(80-120)		90.44%(80-120)	94.88%(80-120)	92.73%(80-120)
MFBCS688	10/20/1999	256	12	0.021 J	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*	121.5%(80-120)		90.44%(80-120)	94.88%(80-120)	92.73%(80-120)
MFBCS691	10/20/1999	257	12	0.056	0.011 U	0.0057 U	0.0057 U	0.0057 U	0.0057 U	J*	121.5%(80-120)		90.44%(80-120)	94.88%(80-120)	92.73%(80-120)
MFBCS694	10/21/1999	258	12	0.058	0.012 U	0.0058 U	0.0058 U	0.0076	0.0019 J	J*	163.77%(80-120)	recovery results not provided	93.97%(80-120)	92.04%(80-120)	91.34%(80-120)
MFBCS697	10/21/1999	259	12	0.025	0.011 U	0.0057 U	0.0057 U	0.0047 J	0.0053 J	J*	163.77%(80-120)		93.97%(80-120)	92.04%(80-120)	91.34%(80-120)
MFBCS700	10/21/1999	260	12	0.021 J	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*	163.77%(80-120)		93.97%(80-120)	92.04%(80-120)	91.34%(80-120)
MFBCS703	10/21/1999	261	12	0.033	0.011 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	J*	163.77%(80-120)		93.97%(80-120)	92.04%(80-120)	91.34%(80-120)
MFBCS706	10/21/1999	262	12	0.037	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*	163.77%(80-120)		93.97%(80-120)	92.04%(80-120)	91.34%(80-120)
MFBCS709	10/26/1999	263	12	0.056	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	NO					
MFBCS712	10/26/1999	264	12	0.13 B	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*	231.56%(80-120)	recovery results not provided	88.82%(80-120)	91.83%(80-120)	90.32%(80-120)
MFBCS715	11/3/1999	265	12	0.06 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	NO					
MFBCS718	11/3/1999	266	12	0.039 B	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	NO					
MFBCS721	11/3/1999	267	12	0.028 B	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	NO					
MFBCS724	11/3/1999	268	12	0.054 B	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*					
MFBCS727	11/4/1999	269	12	0.027 B	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	NO					
MFBCS730	11/4/1999	270	12	0.035 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	NO					
MFBCS733	11/4/1999	271	12	0.044 B	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	NO					
MFBCS736	11/4/1999	272	12	0.035 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	NO					
MFBCS742	1/26/2000	273	12	0.081 B	0.013 U	0.0067 U	0.0067 U	0.0067 U	0.0067 U	NO					
MFBCS745	1/26/2000	274	12	0.032 B	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	NO					
MFBCS748	3/29/2000	276	12	0.043 B	0.011 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	J*					
MFBCS751	10/31/2000	277	12	0.007	0.006 U	0.004 BJ	0.006 U	0.006 U	0.006 U	NO					
MFBCS754	10/31/2000	278	12	0.006 U	0.006 U	0.003 BJ	0.006 U	0.006 U	0.006 U	NO					
MFBCS756	11/2/2000	279	12	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	J*					
MFBCS757	10/31/2000	279	18	0.02	0.005 U	0.002 J	0.005 U	0.005 U	0.077	NO					
MFBCS760	11/1/2000	280	12	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	NO					
MFBCS763	11/1/2000	281	12	0.032	0.006 U	0.002 J	0.006 U	0.03	0.006 U	NO					

**TABLE E-3
MINE FILL B INITIAL CHARACTERIZATION SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (mg/kg)**

ANALYTE				MSD %R													
IM Industrial Cleanup Goal (Human Health)				ACETONE		MEK		METH. CHL.		MBK		TOLUENE		XYLENES			
IM Residential Cleanup Goal (Human Health)				SD %R	RPD%	SD %R	RPD%	MSD %R	RPD%	SD %R	RPD%	SD %R	RPD%	m,p-xylenes		o-xylene	
MFBI CS #	Sample Date	Grid #	Depth (in.)										MSD %R	RPD%	SD %R	RPD%	
MFBI CS602	9/28/1999	226	12	151%									99%		104%	102%	
MFBI CS605	9/28/1999	227	12	151%									99%		104%	102%	
MFBI CS608	9/28/1999	228	12	151%									99%		104%	102%	
MFBI CS611	9/28/1999	229	12	151%									99%		104%	102%	
MFBI CS614	9/28/1999	230	12	151%									99%		104%	102%	
MFBI CS617	9/28/1999	231	12	151%									99%		104%	102%	
MFBI CS619	9/30/1999	232	12	not calculated									109%		105%	103%	
MFBI CS622	9/30/1999	233	12	not calculated									109%		105%	103%	
MFBI CS624	9/30/1999	234	12	not calculated									109%		105%	103%	
MFBI CS626	9/30/1999	235	12	not calculated									109%		105%	103%	
MFBI CS629	9/30/1999	236	12	not calculated									109%		105%	103%	
MFBI CS632	10/1/1999	238	12														
MFBI CS635	10/1/1999	239	12														
MFBI CS638	10/1/1999	237	12														
MFBI CS641	10/18/1999	240	12	not calculated									111%		101%	100%	
MFBI CS644	10/18/1999	241	12	not calculated									111%		101%	100%	
MFBI CS647	10/12/1999	242	12	294%									106%		103%	101%	
MFBI CS650	10/12/1999	243	12	294%									106%		103%	101%	
MFBI CS653	10/12/1999	244	12	294%									106%		103%	101%	
MFBI CS656	10/12/1999	245	12	294%									106%		103%	101%	
MFBI CS659	10/12/1999	246	12	294%									106%		103%	101%	
MFBI CS662	10/12/1999	247	12	294%									106%		103%	101%	
MFBI CS665	10/12/1999	248	12	294%									106%		103%	101%	
MFBI CS667	10/18/1999	249	12	not calculated									111%		101%	100%	
MFBI CS670	10/18/1999	250	12	not calculated									111%		101%	100%	
MFBI CS673	10/19/1999	251	12	134%									92%		93%	93%	
MFBI CS676	10/19/1999	252	12	134%									92%		93%	93%	
MFBI CS679	10/19/1999	253	12	134%									92%		93%	93%	
MFBI CS682	10/19/1999	254	12	134%									92%		93%	93%	
MFBI CS685	10/19/1999	255	12	134%									92%		93%	93%	
MFBI CS688	10/20/1999	256	12	134%									92%		93%	93%	
MFBI CS691	10/20/1999	257	12	134%									92%		93%	93%	
MFBI CS694	10/21/1999	258	12	164%									95%		94%	91%	
MFBI CS697	10/21/1999	259	12	164%									95%		94%	91%	
MFBI CS700	10/21/1999	260	12	164%									95%		94%	91%	
MFBI CS703	10/21/1999	261	12	164%									95%		94%	91%	
MFBI CS706	10/21/1999	262	12	164%									95%		94%	91%	
MFBI CS709	10/26/1999	263	12														
MFBI CS712	10/26/1999	264	12	216%									89%		95%	93%	
MFBI CS715	11/3/1999	265	12														
MFBI CS718	11/3/1999	266	12														
MFBI CS721	11/3/1999	267	12														
MFBI CS724	11/3/1999	268	12														
MFBI CS727	11/4/1999	269	12														
MFBI CS730	11/4/1999	270	12														
MFBI CS733	11/4/1999	271	12														
MFBI CS736	11/4/1999	272	12														
MFBI CS742	1/26/2000	273	12														
MFBI CS745	1/26/2000	274	12														
MFBI CS748	3/29/2000	275	12														
MFBI CS751	10/31/2000	277	12														
MFBI CS754	10/31/2000	278	12														
MFBI CS756	11/2/2000	279	12														
MFBI CS757	10/31/2000	279	18														
MFBI CS760	11/1/2000	280	12														
MFBI CS763	11/1/2000	281	12														

NOTE: "J" the sample was analyzed outside the EPA extended 54-hour hold time and are considered to be reported with a "low bias".



T H-3
MINE FILL B POST-EXCAVATION SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (mg/kg)

ANALYTE				Acetone	MEK	Meth.Chl.	MIBK	Toluene	Xylenes	Qualifiers	MS %R						
IM Industrial Cleanup Goal				8800	27000	18	2800	880	320		ACETONE	MEK	METH. CHL.	MIBK	TOLUENE	XYLENES	
IM Residential Cleanup Goal				2000	7100	7.8	770	790	320							m,p-xylenes	o-xylene
MFB PES#	Sample Date	Grid #	Depth (in.)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg								
002	8/23/1999	76	6	0.02 J,B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							94%
004	8/23/1999	75	6	0.085 B	0.017 B	0.0057 U	0.0057 U	0.0057 U	0.0057 U	J*							94%
006	8/23/1999	77	6	0.052 B	0.012 B	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*							94%
008	8/23/1999	84	6	0.013 J,B	0.011 U	0.0054 U	0.0054 U	0.0054 U	0.0054 U	J*							94%
010	8/23/1999	78	6	0.049 B	0.0087 J,B	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							94%
012	8/23/1999	79	6	0.055 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							94%
014	9/2/1999	63	6	0.0218 U	0.0109 U	0.00545 U	0.00545 U	0.00545 U	0.00545 U	J*							107%
016	9/2/1999	64	6	0.0213 U	0.0107 U	0.00533 U	0.00533 U	0.00533 U	0.00533 U	J*							107%
018	9/2/1999	65	6	0.0199 J	0.0122 U	0.00609 U	0.00609 U	0.00609 U	0.00609 U	J*							107%
020	9/2/1999	83	6	0.0248 U	0.0124 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*							107%
022	9/3/1999	58	6	0.0514	0.012 U	0.00598 U	0.00598 U	0.00598 U	0.00598 U	J*							100%
024	9/3/1999	59	6	0.0228 J	0.0116 U	0.00579 U	0.00579 U	0.00579 U	0.00579 U	J*							100%
026	9/3/1999	60	6	0.0309	0.0116 U	0.00581 U	0.00581 U	0.00581 U	0.00581 U	J*							100%
028	9/3/1999	61	6	0.0241 U	0.012 U	0.00602 U	0.00602 U	0.00602 U	0.00602 U	J*							100%
030	9/3/1999	79	6	0.0233 J	0.0122 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*							100%
032	9/3/1999	80	6	0.0219 J	0.0123 U	0.00614 U	0.00614 U	0.00614 U	0.00614 U	J*							100%
034	9/20/1999	200	6	0.014 J,B	0.012 B	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*							101%
036	9/20/1999	199	6	0.011 J,B	0.011 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	J*							101%
038	9/20/1999	167	6	0.0071 J,B	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*							101%
040	9/20/1999	164	6	0.011 J,B	0.0061 JB	0.0056 U	0.0056 U	0.0056 U	0.0056 U	J*							101%
042	9/20/1999	186	6	0.032 B	0.012 B	0.0056 U	0.0056 U	0.0056 U	0.0056 U	J*							101%
044	9/20/1999	143	6	0.012 JB	0.0077 JB	0.0056 U	0.0056 U	0.0056 U	0.0056 U	J*							101%
046	9/20/1999	187	6	0.016 JB	0.0099 JB	0.0065 U	0.0065 U	0.0065 U	0.0065 U	J*							101%
048	9/21/1999	189	6	0.0095 JB	0.011 U	0.0057 U	0.0057 U	0.0057 U	0.0057 U	J*							101%
050	9/21/1999	166	6	15 B	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*							101%
052	9/21/1999	165	6	0.021 JB	0.011 JB	0.006 U	0.006 U	0.006 U	0.006 U	NO							101%
054	9/21/1999	188	6	0.017 JB	0.014 B	0.0058 U	0.0058 U	0.0058 U	0.0058 U	NO							101%
056	9/21/1999	163	6	0.039 B	0.015 B	0.0054 U	0.0054 U	0.0054 U	0.0054 U	NO							101%
058	9/21/1999	190	6	0.044 B	0.0087 JB	0.0056 U	0.0056 U	0.0056 U	0.0056 U	NO							101%
060	9/21/1999	191	6	0.024 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							101%
062	9/21/1999	172	6	0.0094 JB	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							101%
064	9/21/1999	93	6	0.025 U	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*							101%
066	9/21/1999	142	6	0.014 JB	0.011 U	0.0054 U	0.0054 U	0.0054 U	0.0054 U	J*							101%
068	9/21/1999	192	6	0.03 B	0.011 U	0.0055 U	0.0055 U	0.0055 U	0.0055 U	J*							101%
070	9/21/1999	193	6	0.016 JB	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*							101%
072	9/21/1999	170	6	0.024 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							101%
074	9/21/1999	171	6	0.021 U	0.011 U	0.0054 U	0.0054 U	0.0054 U	0.0054 U	J*							101%
076	9/24/1999	80	6	0.02 JB	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*	not analyzed						
078	9/24/1999	83	6	0.043 B	0.012 U	0.0058 U	0.0058 U	0.0054 J	0.0058 U	J*							
080	9/24/1999	79	6	0.032 B	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*							
082	9/24/1999	81	6	0.022 JB	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*							
084	9/24/1999	82	6	0.015 JB	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*							
086	10/4/1999	28	6	0.013 JB	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*							98%
088	10/4/1999	27	6	0.035 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							98%
090	10/4/1999	26	6	0.048 B	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*							98%
092	10/5/1999	168	6	0.018 JB	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							98%
094	10/5/1999	204	6	0.058 B	0.013 U	0.0063 U	0.0063 U	0.0063 U	0.0063 U	J*							98%
096	10/14/1999	207	6	0.022 JB	0.012 U	0.006 U	0.006 U	0.0021 J	0.006 U	J*							123%
098	10/14/1999	205	6	0.01 JB	0.011 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	J*							123%
100	10/14/1999	192	6	0.024 B	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*							123%
102	10/14/1999	193	6	0.028 B	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*							123%
104	10/15/1999	171	6	0.014 JB	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*							105%
106	10/15/1999	154	6	0.024 U	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*							105%
108	10/15/1999	146	6	0.061 B	0.013 U	0.0064 U	0.0064 U	0.0064 U	0.0064 U	J*							105%
110	10/15/1999	56	6	0.039 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							105%
112	10/15/1999	66	6	0.018 JB	0.012 U	0.0062 U	0.0062 U	0.011	0.0064	J*							105%
114	10/15/1999	67	6	0.018 JB	0.013 U	0.0064 U	0.0064 U	0.0064 U	0.0064 U	J*							105%
116	10/15/1999	145	6	0.031 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							105%
118	10/15/1999	153	6	0.0245 U	0.0122 U	0.00612 U	0.00612 U	0.00612 U	0.00612 U	J*	not analyzed						
120	10/15/1999	57	6	0.0475 B	0.0123 U	0.00616 U	0.00616 U	0.00616 U	0.00616 U	J*							

T H-3
MINE FILL B POST-EXCAVATION SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (mg/kg)

ANALYTE				MSD %R													
IM Industrial Cleanup Goal				ACETONE		MEK		METH. CHL.		MIBK		TOLUENE		XYLENES			
IM Residential Cleanup Goal				MSD %R	RPD%	MSD %R	RPD%	MSD %R	RPD%	MSD %R	RPD%	MSD %R	RPD%	m,p-xylenes		o-xylene	
MFB PES#	Sample Date	Grid #	Depth (in.)										MSD %R	RPD%	MSD %R	RPD%	
002	8/23/1999	76	6										93%	1.6			
004	8/23/1999	75	6										93%	1.6			
006	8/23/1999	77	6										93%	1.6			
008	8/23/1999	84	6										93%	1.6			
010	8/23/1999	78	6										93%	1.6			
012	8/23/1999	79	6										93%	1.6			
014	9/2/1999	63	6										100%	7.3			
016	9/2/1999	64	6										100%	7.3			
018	9/2/1999	65	6										100%	7.3			
020	9/2/1999	83	6										100%	7.3			
022	9/3/1999	58	6										99%	0.99			
024	9/3/1999	59	6										99%	0.99			
026	9/3/1999	60	6										99%	0.99			
028	9/3/1999	61	6										99%	0.99			
030	9/3/1999	79	6										99%	0.99			
032	9/3/1999	80	6										99%	0.99			
034	9/20/1999	200	6										98%	2.3			
036	9/20/1999	199	6										98%	2.3			
038	9/20/1999	167	6										98%	2.3			
040	9/20/1999	164	6										98%	2.3			
042	9/20/1999	186	6										98%	2.3			
044	9/20/1999	143	6										98%	2.3			
046	9/20/1999	187	6										98%	2.3			
048	9/21/1999	189	6										101%	0.18			
050	9/21/1999	166	6										101%	0.18			
052	9/21/1999	165	6										101%	0.18			
054	9/21/1999	188	6										101%	0.18			
056	9/21/1999	163	6										101%	0.18			
058	9/21/1999	190	6										101%	0.18			
060	9/21/1999	191	6										101%	0.18			
062	9/21/1999	172	6										101%	0.18			
064	9/21/1999	93	6										101%	0.18			
066	9/21/1999	142	6										101%	0.18			
068	9/21/1999	192	6										101%	0.18			
070	9/21/1999	193	6										101%	0.18			
072	9/21/1999	170	6										101%	0.18			
074	9/21/1999	171	6										101%	0.18			
076	9/24/1999	80	6														
078	9/24/1999	83	6														
080	9/24/1999	79	6														
082	9/24/1999	81	6														
084	9/24/1999	82	6														
086	10/4/1999	28	6										100%	1.8			
088	10/4/1999	27	6										100%	1.8			
090	10/4/1999	26	6										100%	1.8			
092	10/5/1999	168	6										100%	1.8			
094	10/5/1999	204	6										100%	1.8			
096	10/14/1999	207	6										103%	1.7			
098	10/14/1999	205	6										103%	1.7			
100	10/14/1999	192	6										103%	1.7			
102	10/14/1999	193	6										103%	1.7			
104	10/15/1999	171	6										107%	2.3			
106	10/15/1999	154	6										107%	2.3			
108	10/15/1999	146	6										107%	2.3			
110	10/15/1999	56	6										107%	2.3			
112	10/15/1999	66	6										107%	2.3			
114	10/15/1999	67	6										107%	2.3			
116	10/15/1999	145	6										107%	2.3			
118	10/15/1999	153	6										107%	2.3			
120	10/15/1999	57	6														

MINE FILL B POST-EXCAVATION SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (mg/kg)

ANALYTE				Acetone	MEK	Meth.Chl.	MIBK	Toluene	Xylenes	Qualifiers	MS %R						
IM Industrial Cleanup Goal				8800	27000	18	2800	880	320		ACETONE	MEK	METH. CHL.	MIBK	TOLUENE	XYLENES	
IM Residential Cleanup Goal				2000	7100	7.8	770	790	320		m,p-xylenes	o-xylene					
MFB PES#	Sample Date	Grid #	Depth (in.)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg								
122	10/16/1999	82	6	0.028 B	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*						90%	
124	10/16/1999	210	6	0.12	0.013 U	0.0067 U	0.0067 U	0.0049 J	0.0062 J	J*						90%	
126	10/16/1999	139	6	0.044 B	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*						90%	
128	10/16/1999	211	6	0.023 JB	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*						90%	
130	10/19/1999	237	6	0.017 JB	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*						90%	
132	10/19/1999	236	6	0.016 JB	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*						90%	
134	10/22/1999	54	6	0.09	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*						90%	
136	10/22/1999	55	6	0.028	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*						90%	
138	10/26/1999	141	6	0.074	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	NO							
140	10/26/1999	251	6	0.076	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	NO							
142	10/26/1999	249	6	0.056	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	NO							
144	10/28/1999	186/194	sidewall	0.031 B	0.012 U	0.0021 J	0.0061 U	0.0024 J	0.0041 J	J*						93%	
146	10/28/1999	187/196	sidewall	0.021 JB	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*						93%	
148	10/28/1999	249/250	sidewall	0.013 JB	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*						93%	
150	10/28/1999	236/250	sidewall	0.04 B	0.011 U	0.0057 U	0.0057 U	0.0057 U	0.0057 U	J*						93%	
152	10/28/1999	251/235	sidewall	0.023 U	0.011 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	J*						93%	
154	10/29/1999	187/197	sidewall	0.022 J	0.013 U	0.0019 J	0.0063 U	0.0014 J	0.0063 U								
156	10/29/1999	188/197	sidewall	0.062	0.013 U	0.0063 U	0.0063 U	0.001 J	1.3								
158	10/29/1999	188/198	sidewall	0.019 J	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U								
160	11/1/1999	199/198	sidewall	0.1 B	0.011 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	J*						90%	
162	11/1/1999	205/198	sidewall	0.026	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*						90%	
164	11/1/1999	207/208	sidewall	0.023 U	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*						90%	
166	11/1/1999	211/235	sidewall	0.037	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*						90%	
168	11/1/1999	210/235	sidewall	0.095 B	0.013 U	0.0064 U	0.0064 U	0.0064 U	0.0064 U	J*						90%	
170	11/1/1999	210/247	sidewall	0.072	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*						90%	
172	11/1/1999	210/169	sidewall	0.059	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*						90%	
174	11/1/1999	168/169	sidewall	0.078	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*						90%	
176	11/2/1999	141/169	sidewall	0.03 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*						90%	
178	11/2/1999	141/147	sidewall	0.077 B	0.012 U	0.0014 J	0.0059 U	0.0059 U	0.0059 U	J*						90%	
180	11/2/1999	54/147	sidewall	0.04 B	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*						90%	
182	11/2/1999	54/53	sidewall	0.037 B	0.013 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	J*						90%	
184	11/2/1999	32	6	0.021 JB	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*						90%	
186	11/2/1999	31	6	0.032 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*						90%	
188	11/8/1999	30	6	0.03 B	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*						89%	
190	11/8/1999	29	6	0.059 B	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*						89%	
192	11/8/1999	38	6	0.015 JB	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*						89%	
194	11/8/1999	28	6	0.034 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*						89%	
196	11/8/1999	37	6	0.04 B	0.016 U	0.008 U	0.008 U	0.008 U	0.008 U	J*						89%	
198	11/8/1999	36	6	0.091 B	0.015 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	J*						89%	
200	11/8/1999	35	6	0.13 B	0.016 U	0.008 U	0.008 U	0.008 U	0.008 U	J*						89%	
202	11/8/1999	25	6	0.043 B	0.011 U	0.0057 U	0.0057 U	0.0057 U	0.0057 U	J*						89%	
204	11/8/1999	28/27	sidewall	0.052 B	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*						89%	
206	11/8/1999	37/202	sidewall	0.051 B	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*						89%	
208	11/8/1999	36/202	sidewall	0.038 B	0.014 U	0.0069 U	0.0069 U	0.0069 U	0.0069 U	J*						89%	
210	11/8/1999	36/27	sidewall	laboratory failed to report VOC data for this sample												89%	
213	11/9/1999	207/209	sidewall	0.028 U	0.014 U	0.0069 U	0.0069 U	0.0069 U	0.0069 U	J*						90%	
215	11/9/1999	262	6	0.025 U	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*						90%	
217	11/9/1999	251/264	sidewall	0.029 U	0.015 U	0.0073 U	0.0073 U	0.0073 U	0.0073 U	J*						90%	
219	11/9/1999	35/203	sidewall	0.096	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*						90%	
221	11/9/1999	35/26	sidewall	0.024 U	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*						90%	
223	11/9/1999	35/214	sidewall	0.024 U	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*						90%	
225	11/9/1999	32/33	sidewall	0.085	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*						90%	
227	11/9/1999	32/240	sidewall	0.1	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*						90%	
229	11/9/1999	31/241	sidewall	0.14	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*						90%	
231	11/9/1999	38/140	sidewall	0.085	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*						90%	
233	11/9/1999	38/39	sidewall	0.098	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*						90%	
235	11/9/1999	29/39	sidewall	0.18	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*						90%	
237	1/8/2000	107	6	0.035	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*						87%	
239	1/19/2000	231	6	0.0074 JB	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	NO							
241	1/19/2000	181	6	0.0065 JB	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	NO							
243	1/19/2000	220	6	0.014 JB	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	NO							
245	1/19/2000	121	6	0.014 JB	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	NO							

MINE FILL B POST-EXCAVATION SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (mg/kg)

ANALYTE				MSD %R													
IM Industrial Cleanup Goal				ACETONE		MEK		METH. CHL.		MIBK		TOLUENE		XYLENES			
IM Residential Cleanup Goal				MSD %R	RPD%	MSD %R	RPD%	MSD %R	RPD%	MSD %R	RPD%	MSD %R	RPD%	m,p-xylenes		o-xylene	
MFB PES#	Sample Date	Grid #	Depth (in.)										MSD %R	RPD%	MSD %R	RPD%	
122	10/16/1999	82	6										90%	0.74			
124	10/16/1999	210	6										90%	0.74			
126	10/16/1999	139	6										90%	0.74			
128	10/16/1999	211	6										90%	0.74			
130	10/19/1999	237	6										90%	0.74			
132	10/19/1999	236	6										90%	0.74			
134	10/22/1999	54	6										92%	2			
136	10/22/1999	55	6										92%	2			
138	10/26/1999	141	6														
140	10/26/1999	251	6														
142	10/26/1999	249	6														
144	10/28/1999	186/194	sidewall										94%	0.82			
146	10/28/1999	187/196	sidewall										94%	0.82			
148	10/28/1999	249/250	sidewall										94%	0.82			
150	10/28/1999	236/250	sidewall										94%	0.82			
152	10/28/1999	251/235	sidewall										94%	0.82			
154	10/29/1999	187/197	sidewall														
156	10/29/1999	188/197	sidewall														
158	10/29/1999	188/198	sidewall														
160	11/1/1999	199/198	sidewall										89%	1			
162	11/1/1999	205/198	sidewall										89%	1			
164	11/1/1999	207/208	sidewall										89%	1			
166	11/1/1999	211/235	sidewall										89%	1			
168	11/1/1999	210/235	sidewall										89%	1			
170	11/1/1999	210/247	sidewall										89%	1			
172	11/1/1999	210/169	sidewall										89%	1			
174	11/1/1999	168/169	sidewall										89%	1			
176	11/2/1999	141/169	sidewall										89%	1			
178	11/2/1999	141/147	sidewall										89%	1			
180	11/2/1999	54/147	sidewall										89%	1			
182	11/2/1999	54/53	sidewall										89%	1			
184	11/2/1999	32	6										89%	1			
186	11/2/1999	31	6										89%	1			
188	11/8/1999	30	6										89%	0.36			
190	11/8/1999	29	6										89%	0.36			
192	11/8/1999	38	6										89%	0.36			
194	11/8/1999	28	6										89%	0.36			
196	11/8/1999	37	6										89%	0.36			
198	11/8/1999	36	6										89%	0.36			
200	11/8/1999	35	6										89%	0.36			
202	11/8/1999	25	6										89%	0.36			
204	11/8/1999	28/27	sidewall										89%	0.36			
206	11/8/1999	37/201	sidewall										89%	0.36			
208	11/8/1999	36/202	sidewall										89%	0.36			
210	11/8/1999	36/27	sidewall										89%	0.36			
213	11/9/1999	207/209	sidewall										90%	0.2			
215	11/9/1999	262	6										90%	0.2			
217	11/9/1999	251/264	sidewall										90%	0.2			
219	11/9/1999	35/203	sidewall										90%	0.2			
221	11/9/1999	35/26	sidewall										90%	0.2			
223	11/9/1999	35/214	sidewall										90%	0.2			
225	11/9/1999	32/33	sidewall										90%	0.2			
227	11/9/1999	32/240	sidewall										90%	0.2			
229	11/9/1999	31/241	sidewall										90%	0.2			
231	11/9/1999	38/140	sidewall										90%	0.2			
233	11/9/1999	38/39	sidewall										90%	0.2			
235	11/9/1999	29/39	sidewall										90%	0.2			
237	1/8/2000	107	6										88%	1.2			
239	1/19/2000	231	6														
241	1/19/2000	181	6														
243	1/19/2000	220	6														
245	1/19/2000	121	6														

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MINE FILL B POST-EXCAVATION SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (mg/kg)

ANALYTE				Acetone	MEK	Meth.Chl.	MIBK	Toluene	Xylenes	Qualifiers	MS %R						
IM Industrial Cleanup Goal				8800	27000	18	2800	880	320		ACETONE	MEK	METH. CHL.	MIBK	TOLUENE	XYLENES	
IM Residential Cleanup Goal				2000	7100	7.8	770	790	320							m,p-xylenes	o-xylene
MFB PES#	Sample Date	Grid #	Depth (in.)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg								
247	1/25/2000	177	6	0.018 JB	0.013 U	0.0064 U	0.0064 U	0.0064 U	0.0064 U	J*							89%
249	1/25/2000	181/231	sidewall	0.026 B	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*							89%
251	1/25/2000	181/220	sidewall	0.045 B	0.014 U	0.0072 U	0.0072 U	0.0018 J	0.0017 J	J*							89%
253	1/25/2000	181/121	sidewall	0.023 B	0.011 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	J*							89%
255	1/26/2000	220/221	sidewall	0.026 B	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	NO							
257	1/26/2000	121/221	sidewall	0.021 JB	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	NO							
259	1/26/2000	177/176	sidewall	0.019 JB	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	NO							
261	1/27/2000	177/219	sidewall	0.015 JB	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*							88%
263	2/17/2000	177/219	sidewall	0.0072 JB	0.014 U	0.0069 U	0.0069 U	0.0069 U	0.0069 U	J*							131%
265	2/17/2000	120	6	0.025 U	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*							131%
267	2/17/2000	102	6	0.025 U	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*							131%
269	2/17/2000	113	6	0.0078 JB	0.013 U	0.0066 U	0.0066 U	0.0066 U	0.0066 U	J*							131%
271	3/1/2000	225	6	0.014 J	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*							96%
273	3/1/2000	225/224	sidewall	0.018 J	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*							96%
275	3/1/2000	225/242	sidewall	0.013 J	0.013 U	0.0063 U	0.0063 U	0.0063 U	0.0063 U	J*							96%
277	3/1/2000	226	6	0.012 J	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*							96%
279	3/1/2000	226/243	sidewall	0.012 J	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*							96%
281	3/1/2000	105	6	0.057	0.056	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							96%
283	3/1/2000	118	6	0.012 J	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*							96%
285	3/1/2000	118/223	sidewall	0.0078 J	0.011 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	J*							96%
287	3/1/2000	118/216	sidewall	0.011 J	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*							96%
289	3/2/2000	215	6	0.02 J	0.013 U	0.0063 U	0.0063 U	0.0063 U	0.0063 U	J*							96%
291	3/2/2000	215/216	sidewall	0.02 J	0.013 U	0.0063 U	0.0063 U	0.0063 U	0.0063 U	J*							96%
293	3/2/2000	246	6	0.019 J	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*							96%
295	3/2/2000	246/253	sidewall	0.015 J	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*							96%
297	3/2/2000	246/252	sidewall	0.022 J	0.011 U	0.0057 U	0.0057 U	0.0057 U	0.0057 U	J*							96%
299	3/2/2000	118/224	sidewall	0.037	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							96%
301	3/7/2000	231/road	sidewall	0.12 B	0.013 U	0.0066 U	0.0066 U	0.0016 J	0.0056 U	J*							101%
303	3/7/2000	231/273	sidewall	0.024 U	0.012 U	0.0059 U	0.0059 U	0.0027 J	0.0059 U	J*							101%
305	3/7/2000	220/273	sidewall	0.035 B	0.011 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	J*							101%
307	3/7/2000	120/238	sidewall	0.011 JB	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*							101%
309	3/7/2000	120/176	sidewall	0.0085 JB	0.012 U	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*							101%
311	3/7/2000	113/112	sidewall	0.051 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							101%
313	3/7/2000	113/179	sidewall	0.042 B	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*							101%
315	3/7/2000	113/180	sidewall	0.079 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							101%
317	3/8/2000	103	6	0.022 JB	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*							101%
319	3/8/2000	115	6	0.038 B	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*							101%
321	3/8/2000	115/182	sidewall	0.012 JB	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							101%
323	3/8/2000	115/183	sidewall	0.027 B	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*							101%
325	3/8/2000	115/229	sidewall	0.017 JB	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							101%
327	3/8/2000	228	0-6	0.011 JB	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							101%
329	3/8/2000	228/229	sidewall	0.024 U	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*							101%
331	3/8/2000	228/245	sidewall	0.094 B	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*							101%
333	3/8/2000	227	6	0.025 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							101%
335	3/8/2000	244	6	0.15 B	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*							101%
337	3/8/2000	244/243	sidewall	0.064 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							101%
339	3/10/2000	256	6	0.0087 J	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*	NOT ANALYZED						
341	3/10/2000	256/257	sidewall	0.037	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*							
343	3/10/2000	256/271	sidewall	0.01 J	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*							
345	3/10/2000	256/269	sidewall	0.011 J	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*							
348	5/18/2000	276	6	0.02 JB	0.0095 J	0.0062 U	0.0062 U	0.0062 U	0.0062 U	J*	NOT ANALYZED						
350	6/1/2000	128	6	0.14 B	0.0064 J	0.0058 U	0.0058 U	0.0058 U	0.0058 U	NO							
352	6/1/2000	128/127	sidewall	0.034 B	0.0084 J	0.0061 U	0.0061 U	0.0061 U	0.0061 U	NO							
354	6/1/2000	138	6	0.16 B	0.012	0.0058 U	0.0058 U	0.0058 U	0.0058 U	NO							
356	6/1/2000	138/127	sidewall	0.092 B	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	NO							
358	6/1/2000	138/239	sidewall	0.3 B	0.013 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	J*							
360	6/1/2000	138/173	sidewall	0.042 B	0.01 J	0.006 U	0.006 U	0.0021 J	0.006 U	J*							
362	6/1/2000	137	6	0.02 JB	0.011 U	0.0056 U	0.0056 U	0.0056 U	0.0056 U	J*							
364	6/1/2000	137/258	sidewall	0.034 B	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*							
366	6/1/2000	137/260	sidewall	0.019 JB	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*							
368	6/1/2000	137/239	sidewall	0.14 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*							
370	6/1/2000	137/127	sidewall	0.026 B	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*							

MINE FILL B POST-EXCAVATION SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (mg/kg)

ANALYTE				MSD %R													
IM Industrial Cleanup Goal				ACETONE		MEK		METH. CHL.		MIBK		TOLUENE		XYLENES			
IM Residential Cleanup Goal				MSD %R	RPD%	MSD %R	RPD%	MSD %R	RPD%	MSD %R	RPD%	MSD %R	RPD%	m,p-xylenes		o-xylene	
MFB PES#	Sample Date	Grid #	Depth (in.)											MSD %R	RPD%	MSD %R	RPD%
247	1/25/2000	177	6											85%	5.1		
249	1/25/2000	181/231	sidewall											85%	5.1		
251	1/25/2000	181/220	sidewall											85%	5.1		
253	1/25/2000	181/121	sidewall											85%	5.1		
255	1/26/2000	220/221	sidewall														
257	1/26/2000	121/221	sidewall														
259	1/26/2000	177/176	sidewall														
261	1/27/2000	177/219	sidewall											87%	0.68		
263	2/17/2000	177/219	sidewall											108%	18		
265	2/17/2000	120	6											108%	18		
267	2/17/2000	102	6											108%	18		
269	2/17/2000	113	6											108%	18		
271	3/1/2000	225	6											94%	1.9		
273	3/1/2000	225/224	sidewall											94%	1.9		
275	3/1/2000	225/242	sidewall											94%	1.9		
277	3/1/2000	226	6											94%	1.9		
279	3/1/2000	226/243	sidewall											94%	1.9		
281	3/1/2000	105	6											94%	1.9		
283	3/1/2000	118	6											94%	1.9		
285	3/1/2000	118/223	sidewall											94%	1.9		
287	3/1/2000	118/216	sidewall											94%	1.9		
289	3/2/2000	215	6											94%	1.9		
291	3/2/2000	215/216	sidewall											94%	1.9		
293	3/2/2000	246	6											94%	1.9		
295	3/2/2000	246/253	sidewall											94%	1.9		
297	3/2/2000	246/252	sidewall											94%	1.9		
299	3/2/2000	118/224	sidewall											94%	1.9		
301	3/7/2000	231/road	sidewall											95%	6.4		
303	3/7/2000	231/273	sidewall											95%	6.4		
305	3/7/2000	220/273	sidewall											95%	6.4		
307	3/7/2000	120/238	sidewall											95%	6.4		
309	3/7/2000	120/176	sidewall											95%	6.4		
311	3/7/2000	113/112	sidewall											95%	6.4		
313	3/7/2000	113/179	sidewall											95%	6.4		
315	3/7/2000	113/180	sidewall											95%	6.4		
317	3/8/2000	103	6											95%	6.4		
319	3/8/2000	115	6											95%	6.4		
321	3/8/2000	115/182	sidewall											95%	6.4		
323	3/8/2000	115/183	sidewall											95%	6.4		
325	3/8/2000	115/229	sidewall											95%	6.4		
327	3/8/2000	228	0-6											95%	6.4		
329	3/8/2000	228/229	sidewall											95%	6.4		
331	3/8/2000	228/245	sidewall											95%	6.4		
333	3/8/2000	227	6											95%	6.4		
335	3/8/2000	244	6											95%	6.4		
337	3/8/2000	244/243	sidewall											95%	6.4		
339	3/10/2000	256	6														
341	3/10/2000	256/257	sidewall														
343	3/10/2000	256/271	sidewall														
345	3/10/2000	256/269	sidewall														
348	5/18/2000	276	6														
350	6/1/2000	128	6														
352	6/1/2000	128/127	sidewall														
354	6/1/2000	138	6														
356	6/1/2000	138/127	sidewall														
358	6/1/2000	138/239	sidewall														
360	6/1/2000	138/173	sidewall														
362	6/1/2000	137	6														
364	6/1/2000	137/258	sidewall														
366	6/1/2000	137/260	sidewall														
368	6/1/2000	137/239	sidewall														
370	6/1/2000	137/127	sidewall														

MINE FILL B POST-EXCAVATION SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (mg/kg)

ANALYTE				Acetone	MEK	Meth.Chl.	MIBK	Toluene	Xylenes	Qualifiers	MS %R						
IM Industrial Cleanup Goal				8800	27000	18	2800	880	320		ACETONE	MEK	METH. CHL.	MIBK	TOLUENE	XYLENES	
IM Residential Cleanup Goal				2000	7100	7.8	770	790	320							m,p-xylenes	o-xylene
MFB PES#	Sample Date	Grid #	Depth (in.)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg								
372	6/2/2000	122	6	0.012 JB	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	J*					84%		
374	6/2/2000	123	6	0.01 JB	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	NO					84%		
376	6/2/2000	124	6	0.15 B	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	NO					84%		
378	6/2/2000	131	6	0.13 B	0.011 J	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*					84%		
380	6/2/2000	131/175	sidewall	0.024 B	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	J*					84%		
382	6/2/2000	131/174	sidewall	0.058 B	0.0088 J	0.006 U	0.006 U	0.006 U	0.006 U	J*					84%		
384	6/2/2000	131/130	sidewall	0.028 B	0.006 J	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*					84%		
386	6/2/2000	122/129	sidewall	0.11 B	0.02	0.006 U	0.006 U	0.006 U	0.006 U	J*					84%		
388	7/18/2000	217	6	0.19 B	0.011 J	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*					96%		
390	7/18/2000	217/233	sidewall	0.063 B	0.0063 J	0.0058 U	0.0058 U	0.0014 J	0.0058 U	J*					96%		
392	7/18/2000	217/133	sidewall	0.083 B	0.014	0.006 U	0.006 U	0.006 U	0.006 U	J*					96%		
394	7/18/2000	185	6	0.017 JB	0.011 U	0.0057 U	0.0057 U	0.0057 U	0.0057 U	J*					96%		
396	7/18/2000	185/184	sidewall	0.042 B	0.0063 J	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*					96%		
398	7/18/2000	134	6	0.029 B	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	J*					96%		
400	7/18/2000	134/184	sidewall	0.06 B	0.007 J	0.0068 U	0.0068 U	0.0068 U	0.0068 U	J*					96%		
402	7/18/2000	134/135	sidewall	0.087 B	0.012 J	0.0063 U	0.0063 U	0.0063 U	0.0063 U	J*					96%		
404	7/18/2000	134/133	sidewall	0.037 B	0.015 U	0.0076 U	0.0076 U	0.0076 U	0.0076 U	J*					96%		
406	7/18/2000	126	6	0.064 B	0.008 J	0.0063 U	0.0063 U	0.0063 U	0.0063 U	J*					96%		
408	7/18/2000	136	6	0.048 B	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	J*					96%		
410	7/18/2000	136/135	sidewall	0.096 B	0.014 J	0.0082 U	0.0082 U	0.0082 U	0.0082 U	J*					96%		
412	7/18/2000	178	6	0.12 B	0.016 U	0.0079 U	0.0079 U	0.0079 U	0.0079 U	J*					96%		
414	8/28/2000	89	6	0.018 JB	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	NO							
416	8/28/2000	144	6	0.009 JB	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	NO							
418	8/28/2000	68	6	0.011 JB	0.012 U	0.006 U	0.006 U	0.006 U	0.006 U	NO							
420	8/28/2000	88	6	0.014 JB	0.012 U	0.0059 U	0.0059 U	0.0059 U	0.0059 U	NO							
422	8/28/2000	69	6	0.012 JB	0.012 U	0.0058 U	0.0058 U	0.0058 U	0.0058 U	NO							
424	8/28/2000	69	sidewall	0.32 B	0.059 U	0.029 U	0.029 U	0.029 U	0.029 U	J*							
426	8/28/2000	71	6	0.019 JB	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	NO							
428	8/28/2000	70	6	0.014 JB	0.012 U	0.0061 U	0.0061 U	0.0061 U	0.0061 U	NO							
430	8/28/2000	70	sidewall	0.26 B	0.058 U	0.029 U	0.029 U	0.029 U	0.029 U	J*							
432	8/29/2001	74	6	0.01 JB	0.012 U	0.012 U	0.012 U	0.0062 U	0.0062 U	NO							
434	8/29/2001	73	6	0.012 B	0.012 U	0.012 U	0.012 U	0.006 U	0.006 U	NO							
436	8/29/2001	72	6	0.012 U	0.012 U	0.012 U	0.012 U	0.0059 U	0.0059 U	NO							
438	8/29/2001	159	6	0.0059 JB	0.011 U	0.011 U	0.011 U	0.0057 U	0.0057 U	NO							
440	8/29/2001	160	6	0.0065 JB	0.011 U	0.011 U	0.011 U	0.0057 U	0.0057 U	NO							
442	9/17/2001	90	6	0.037	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	NO							
444	9/17/2001	148	6	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NO							
446	9/17/2001	152	6	0.02	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NO							
448	9/17/2001	158	6	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NO							
450	9/17/2001	157	6	0.016	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	NO							
452	9/17/2001	156	6	0.069	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	NO							
454	9/26/2001	85	6	0.006	0.005 U	0.013 B	0.005 U	0.005 U	0.005 U	J*							
456	9/26/2001	86	6	0.043	0.005 U	0.012 B	0.005 U	0.005 U	0.005 U	J*							
458	9/26/2001	87	6	0.005 U	0.005 U	0.01 B	0.005 U	0.005 U	0.005 U	J*							
460	9/26/2001	92	6	0.005 U	0.005 U	0.008 B	0.005 U	0.005 U	0.005 U	J*							
462	9/26/2001	91	6	0.006 U	0.006 U	0.012 B	0.006 U	0.006 U	0.006 U	J*							
464	9/26/2001	150	6	0.6DL U	0.005 U	0.011 B	0.005 U	0.005 U	0.005 U	J*							
466	9/26/2001	149	6	0.006	0.005 U	0.012 B	0.005 U	0.005 U	0.005 U	J*							
468	9/26/2001	151	6	0.005	0.005 U	0.011 B	0.005 U	0.005 U	0.005 U	J*							
470	9/26/2001	155	6	0.007	0.005 U	0.01 B	0.005 U	0.005 U	0.005 U	J*							
472	9/26/2001	162	6	0.005	0.005 U	0.009 B	0.005 U	0.005 U	0.81DL U	J*							
474	9/26/2001	161	6	0.006 U	0.006 U	0.011 B	0.006 U	0.006 U	0.012	J*							
475	9/26/2001	162	sidewall	0.005	0.005 U	0.01 B	0.005 U	0.005 U	0.001 J	J*							
476	9/26/2001	155	sidewall	0.004 U	0.004 U	0.013 B	0.004 U	0.001 J	0.004 U	J*							
477	9/26/2001	151	sidewall	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	J*							
478	9/26/2001	150	sidewall	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	J*							
479	9/26/2001	92	sidewall	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	J*							
480	9/26/2001	74	sidewall	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	J*							

MINE FILL B POST-EXCAVATION SAMPLE RESULTS
VOLATILE ORGANIC COMPOUNDS (mg/kg)

ANALYTE				MSD %R													
IM Industrial Cleanup Goal				ACETONE		MEK		METH. CHL.		MIBK		TOLUENE		XYLENES			
IM Residential Cleanup Goal				MSD %R	RPD%	MSD %R	RPD%	MSD %R	RPD%	MSD %R	RPD%	MSD %R	RPD%	m,p-xylenes		o-xylene	
MFB PES#	Sample Date	Grid #	Depth (in.)											MSD %R	RPD%	MSD %R	RPD%
372	6/2/2000	122	6											86%	2.1		
374	6/2/2000	123	6											86%	2.1		
376	6/2/2000	124	6											86%	2.1		
378	6/2/2000	131	6											86%	2.1		
380	6/2/2000	131/175	sidewall											86%	2.1		
382	6/2/2000	131/174	sidewall											86%	2.1		
384	6/2/2000	131/130	sidewall											86%	2.1		
386	6/2/2000	122/129	sidewall											86%	2.1		
388	7/18/2000	217	6											109%	13		
390	7/18/2000	217/233	sidewall											109%	13		
392	7/18/2000	217/133	sidewall											109%	13		
394	7/18/2000	185	6											109%	13		
396	7/18/2000	185/184	sidewall											109%	13		
398	7/18/2000	134	6											109%	13		
400	7/18/2000	134/184	sidewall											109%	13		
402	7/18/2000	134/135	sidewall											109%	13		
404	7/18/2000	134/133	sidewall											109%	13		
406	7/18/2000	126	6											109%	13		
408	7/18/2000	136	6											109%	13		
410	7/18/2000	136/135	sidewall											109%	13		
412	7/18/2000	178	6											109%	13		
414	8/28/2000	89	6														
416	8/28/2000	144	6														
418	8/28/2000	68	6														
420	8/28/2000	88	6														
422	8/28/2000	69	6														
424	8/28/2000	69	sidewall														
426	8/28/2000	71	6														
428	8/28/2000	70	6														
430	8/28/2000	70	sidewall														
432	8/29/2001	74	6														
434	8/29/2001	73	6														
436	8/29/2001	72	6														
438	8/29/2001	159	6														
440	8/29/2001	160	6														
442	9/17/2001	90	6														
444	9/17/2001	148	6														
446	9/17/2001	152	6														
448	9/17/2001	158	6														
450	9/17/2001	157	6														
452	9/17/2001	156	6														
454	9/26/2001	85	6														
456	9/26/2001	86	6														
458	9/26/2001	87	6														
460	9/26/2001	92	6														
462	9/26/2001	91	6														
464	9/26/2001	150	6														
466	9/26/2001	149	6														
468	9/26/2001	151	6														
470	9/26/2001	155	6														
472	9/26/2001	162	6														
474	9/26/2001	161	6														
475	9/26/2001	162	sidewall														
476	9/26/2001	155	sidewall														
477	9/26/2001	151	sidewall														
478	9/26/2001	150	sidewall														
479	9/26/2001	92	sidewall														
480	9/26/2001	74	sidewall														

NOTE: "J" the sample was analyzed outside the EPA extended 54-hour hold time and are considered to be reported with a "low bias".

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.


SIGNATURE

DIRECTOR, ENVIRONMENTAL PROTECTION DEPARTMENT
BY DIRECTION OF THE COMMANDER
TITLE

7/10/03
DATE