

**INTERIM MONTH REPORT
FOR FEBRUARY 1 – FEBRUARY 10, 2006**

EPA REGION I ADMINISTRATIVE ORDERS SDWA 1-97-1019 and 1-2000-0014

**MASSACHUSETTS MILITARY RESERVATION
TRAINING RANGE AND IMPACT AREA**

The following summary of progress is for the period from February 1 through February 10, 2006.

1. SUMMARY OF REMEDIATION ACTIONS

The following is a description of remediation actions taken as part of or in preparation for Rapid Response Action (RRA) Plans for various Areas of Concern at Camp Edwards through February 10, 2006. A Rapid Response Action is an interim action that may be conducted prior to risk assessments or remedial investigations to address a known, ongoing threat of contamination to groundwater and/or soil.

Demo Area 1 Groundwater RRA

The Demo Area 1 Groundwater RRA consists of the removal and treatment of contaminated groundwater to control further migration of explosives and perchlorate. Extraction, treatment, and recharge systems (ETR) at Frank Perkins Road and Pew Road include single extraction wells, ex-situ treatment processes to remove explosives and perchlorate from the groundwater, and injection wells to return treated water to the aquifer.

The Pew Road ETR continues operation at a flow rate of 100 gallons per minute (gpm). As of February 10, 2006, approximately 72 million gallons of water have been treated and re-injected at the Pew Road ETR System.

The Frank Perkins Road ETR continues operation at a flow rate of 220 gpm. As of February 10, 2006, approximately 154 million gallons of water had been treated and re-injected at the Frank Perkins Road ETR System.

Drilling for extraction well EW-D1-502 along Pocasset-Forestdale Road and re-injection well IW-D1-4 on Pew Road was completed.

J-2 Range Groundwater RRA

The J-2 Range Groundwater RRA consists of removal and treatment of contaminated groundwater to control further migration of explosives and perchlorate. ETR systems include single extraction wells, ex-situ treatment processes to remove explosives and perchlorate from the groundwater, and infiltration basins to return treated water to the aquifer.

Completed installation of extraction well J-2 EW0001. Intrusive anomaly removal within the footprint of the J-2 ETR system resumed. Four BIPs were conducted along Wood Road near the intersection of Barlow Road. Pre- and post-BIP samples were collected in accordance with sampling protocol.

J-3 Range Groundwater RRA

The J-3 Range Groundwater RRA consists of removal and treatment of contaminated groundwater to control further migration of explosives and perchlorate. ETR systems include single extraction wells, ex-situ treatment processes to remove explosives and perchlorate from the groundwater and use of the existing Fuel Spill-12 (FS-12) infiltration gallery to return treated water to the aquifer.

Work was not conducted as part of the J-2 Range Groundwater RRA during the reporting period of February 1 to 10, 2006

2. SUMMARY OF ACTIONS TAKEN

Drilling of monitoring wells and drivepoints was not conducted during the reporting period of February 1 to 10, 2006. Therefore, Table 1, a summary of drilling progress, is not included in this Interim Month Report.

Samples collected and reported during the reporting period of February 1 to 10, 2006 are summarized in Table 2. Groundwater samples were collected as part of the December round of the 2005 Long-Term Groundwater Monitoring (LTGM) Plan.

The following bullets summarize the Blown-in-Place (BIP) items conducted as part of site investigation activities for the reporting period of February 1 to 10, 2006:

- J-1 Range:
February 2, 2006: Four (4) 105 mm, high explosive anti-tank M456 (at Grid J-15)
- J-3 Range North of Demolition Area:
February 9, 2006: One (1) 81 mm Projectile (at Grid E-6)

Pre- and post-BIP samples, summarized in Table 2, were collected in accordance with the sampling protocol.

Anomaly investigation as part of the J-1 Range Supplemental Geophysical Anomaly Investigation was conducted. Table 3 showing a grid sheet summary for excavations and munitions recovered for the J-1 Range Geophysical Investigation will be included in the February Monthly Progress Report.

Anomaly investigation as part of the J-2 Range Supplemental Geophysical Anomaly Investigation was not conducted during the reporting period of February 1 to 10, 2006. Table 4 showing a grid sheet summary for excavations and munitions recovered for the J-2 Range Geophysical Investigation will be included in the February Monthly Progress Report.

Anomaly investigation as part of the J-3 Range North of the Demolition Area Investigation was conducted at grids E-4, E-5, E-6 and D-5.

There have been no munitions and explosives of concern (MEC) items destroyed in the controlled detonation chamber (CDC) during the reporting period of February 1 to 10, 2006.

The Technical Team of the Impact Area Groundwater Study Program office at Camp Edwards did not meet during the reporting period of February 1 to 10, 2006.

3. SUMMARY OF DATA RECEIVED

Table 5 summarizes the detections that exceeded an EPA Maximum Contaminant Level (MCL) or Health Advisory (HA) for drinking water for explosives, or exceeded a 4 ppb concentration for perchlorate received for the period of January 27 through February 10, 2006.

Table 6 summarizes first-time validated detections of explosives below the MCL/HA for drinking water or of perchlorate below a 4 ppb concentration received from January 27 through February 10, 2006.

First time validated detections of explosives and perchlorate in groundwater compared to the MCL/HAs are summarized below:

Explosives in Groundwater Compared to MCL/HAs

For validated data received from January 27 through February 10, 2006, no wells had first-time validated detections of explosives above or below the MCL/HAs.

Perchlorate in Groundwater Compared to MCL/HAs

For validated data received from January 27 through February 10, 2006, no wells had first-time validated detections of perchlorate above the concentration of 4 ppb. Three wells, 58MW0010B, 58MW0016A (CS-19), and MW-94M1 (Impact Area) had first-time validated detections of perchlorate below the concentration of 4 ppb.

Rush data received from February 1 through February 10, 2006 are summarized in Table 7. These data are for analyses that are performed on a fast turn around time, typically 1-10 days. Perchlorate and explosive analyses for monitoring wells, and perchlorate, explosive and volatile organic compound (VOC) analyses for groundwater profile samples, are conducted in this timeframe, as well as any analyses pursuant to a special request. The rush data are not validated, but are provided as an indication of the most recent preliminary results. Table 7 summarizes only detects, and does not show samples with non-detects.

The status of the explosive detections with respect to confirmation using Photo Diode Array (PDA) spectra is indicated in Table 7. PDA is a procedure that has been implemented for the explosive analysis, to reduce the likelihood of false positive identifications. Where the PDA status is "YES" in Table 7, the detected compound is verified as properly identified. Where the status is "NO", the identification of an explosive has been determined to be a false positive. Where the status is blank, PDA has not yet been used to evaluate the detection, or PDA is not applicable because the analyte is a VOC or perchlorate. Most explosive detections verified by PDA are confirmed to be present upon completion of validation.

During the reporting period February 1 to 10, 2006, no rush data with detections were received, therefore Table 7 is not included in this report.

4. DELIVERABLES SUBMITTED

Monthly Progress Report # 106 for January 2006
Final Thermal Treatment Unit Completion Report

02/09/2006
02/10/2006

5. SCHEDULED ACTIONS

Scheduled actions through the end of February include groundwater sampling of recently installed wells and completion of the December round of the 2005 LTGM. Well development will continue for recently installed wells. Activities conducted as part of the Demo 1 groundwater RRA, the J-2 groundwater RRA, the J-2 Range Supplemental Geophysical Anomaly Investigation, and the J-3 Range North of the Demolition Area Investigation will continue. Soil samples will be collected from HUTA II/SCAR locations and wipe samples will be collected from ordnance related scrap items at the Former A Range.

**TABLE 2
SAMPLING PROGRESS
INTERIM MONTHLY 02/01/2006-02/10/2006**

SAMPLE_ID	GIS_LOCID	AOC	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
ECC012606J1SUP01 (post)	SSJ1J15001	J-1 RANGE	02/01/2006	CRATER GRID	0	0.2		
ECC020106J3NDA01 (post)	SSJ3E60001	J-3 RANGE	02/09/2006	CRATER GRID	0	0.2		
90LWA0007-A	90LWA0007	L RANGE	02/06/2006	GROUNDWATER	92	102	0	10
90MP0059A-A	90MP0059	J-3 RANGE	02/01/2006	GROUNDWATER	145.89	148.39	139	142
90MP0059B-A	90MP0059	J-3 RANGE	02/09/2006	GROUNDWATER	116.39	118.89	110	113
90MP0059C-A	90MP0059	J-3 RANGE	02/09/2006	GROUNDWATER	91.89	94.39	85	88
90MP0059C-D	90MP0059	J-3 RANGE	02/09/2006	GROUNDWATER	91.89	94.39	85	88
90MW0070-A	90MW0070	L RANGE	02/10/2006	GROUNDWATER	132.5	137.5	78	83
90MW0071-A	90MW0071	L RANGE	02/10/2006	GROUNDWATER	150	155	82	87
90PZ0201-A	90PZ0201	J-3 RANGE	02/07/2006	GROUNDWATER	78.2	107.1	65.3	94.2
90PZ0204-A	90PZ0204	J-3 RANGE	02/07/2006	GROUNDWATER	80	85	72.1	77.1
90PZ0208-A	90PZ0208	J-3 RANGE	02/07/2006	GROUNDWATER	90	95	72.8	77.8
90PZ0208-D	90PZ0208	J-3 RANGE	02/07/2006	GROUNDWATER	90	95	72.8	77.8
90PZ0211A-A	90PZ0211	J-3 RANGE	02/09/2006	GROUNDWATER	83	83	76.85	76.85
90PZ0211B-A	90PZ0211	J-3 RANGE	02/08/2006	GROUNDWATER	93	93	86.85	86.85
90PZ0211C-A	90PZ0211	J-3 RANGE	02/08/2006	GROUNDWATER	103	103	96.85	96.85
95-6A-A	95-6A	NW CORNER	02/06/2006	GROUNDWATER	167.5	177.5	142.5	152.5
95-6B-A	95-6B	NW CORNER	02/06/2006	GROUNDWATER	119	129	94	104
SMR-2-A	SMR-2	J-2 RANGE	02/01/2006	GROUNDWATER	121	131	19	29
W116SSA	MW-116	J-2 RANGE	02/03/2006	GROUNDWATER	102	112	0	10
W126M1A	MW-126	J-1 RANGE	02/02/2006	GROUNDWATER	118	128	19	29
W130SSA	MW-130	J-2 RANGE	02/01/2006	GROUNDWATER	103	113	0	10
W130SSD	MW-130	J-2 RANGE	02/01/2006	GROUNDWATER	103	113	0	10
W157DDA	MW-157	J-3 RANGE	02/09/2006	GROUNDWATER	209	219	199	209
W157M1A	MW-157	J-3 RANGE	02/09/2006	GROUNDWATER	154	164	144	154
W157M2A	MW-157	J-3 RANGE	02/09/2006	GROUNDWATER	110	120	100	110
W157M3A	MW-157	J-3 RANGE	02/09/2006	GROUNDWATER	70	80	53.94	63.94
W183M2A	MW-183	CIA	02/06/2006	GROUNDWATER	270	280	87.9	97.9
W18M1A	MW-18	J-2 RANGE	02/02/2006	GROUNDWATER	171	176	128	133
W18M2A	MW-18	J-2 RANGE	02/02/2006	GROUNDWATER	107	112	64	69
W229M1A	MW-229	J-2 RANGE	02/03/2006	GROUNDWATER	286	296	173.27	183.27
W244M1A	MW-244	J-1 RANGE	02/03/2006	GROUNDWATER	270	280	150.73	160.73
W244M1D	MW-244	J-1 RANGE	02/03/2006	GROUNDWATER	270	280	150.73	160.73
W249M1A	MW-249	CIA	02/07/2006	GROUNDWATER	243	253	101.95	111.95
W249M2A	MW-249	FORMER A	02/07/2006	GROUNDWATER	174	184	32.9	42.9
W249M2A-QA	MW-249	FORMER A	02/07/2006	GROUNDWATER	174	184	32.9	42.9
W249M3A	MW-249	FORMER A	02/07/2006	GROUNDWATER	154	164	12.9	22.9
W249M3A-QA	MW-249	FORMER A	02/07/2006	GROUNDWATER	154	164	12.9	22.9

Profiling methods may include: Volatiles, Explosives, and Perchlorate

Groundwater methods include: Volatiles, Semivolatiles, Explosives,

Pesticides, Herbicides, Metals, Perchlorate and Wet Chemistry

Other Sample Types methods are variable

SBD = Sample Begin Depth, measured in feet bgs

SED = Sample End Depth, measured in feet bgs

BWTS = Depth below water table, start depth, measured in feet

BWTE = Depth below water table, end depth, measured in feet

AOC = Area of Concern

CIA = Central Impact Area

**TABLE 2
SAMPLING PROGRESS
INTERIM MONTHLY 02/01/2006-02/10/2006**

SAMPLE_ID	GIS_LOCID	AOC	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W254M2A	MW-254	J-2 RANGE	02/02/2006	GROUNDWATER	190	200	125.73	135.73
W263M1A	MW-263	J-2 RANGE	02/01/2006	GROUNDWATER	190	200	83.63	93.63
W263M2A	MW-263	J-2 RANGE	02/01/2006	GROUNDWATER	115	125	8.66	18.66
W289M1A	MW-289	J-2 RANGE	02/03/2006	GROUNDWATER	305	315	203	213
W289M1A-QA	MW-289	J-2 RANGE	02/03/2006	GROUNDWATER	305	315	203	213
W289M2A	MW-289	J-2 RANGE	02/03/2006	GROUNDWATER	162	172	59.7	69.7
W289M2A-QA	MW-289	J-2 RANGE	02/03/2006	GROUNDWATER	162	172	59.7	69.7
W289SSA	MW-289	J-2 RANGE	02/03/2006	GROUNDWATER	105	115	2.7	12.7
W289SSA-QA	MW-289	J-2 RANGE	02/03/2006	GROUNDWATER	105	115	2.7	12.7
W292M1A	MW-292	J-2 RANGE	02/01/2006	GROUNDWATER	282	292	187	197
W292M2A	MW-292	J-2 RANGE	02/01/2006	GROUNDWATER	155	165	59.4	69.4
W302M2A	MW-302	J-2 RANGE	02/03/2006	GROUNDWATER	195	205	85	95
W306M2A	MW-306	J-1 RANGE	02/02/2006	GROUNDWATER	165	175	61	71
W313M1A	MW-313	J-2 RANGE	02/02/2006	GROUNDWATER	255	265	133.42	143.42
W313M2A	MW-313	J-2 RANGE	02/03/2006	GROUNDWATER	215	225	93	103
W313M3A	MW-313	J-2 RANGE	02/03/2006	GROUNDWATER	194	204	73	83
W319M1A	MW-319	J-2 RANGE	02/01/2006	GROUNDWATER	200	210	107.25	117.25
W319M2A	MW-319	J-2 RANGE	02/01/2006	GROUNDWATER	165	175	72	82
W319SSA	MW-319	J-2 RANGE	02/01/2006	GROUNDWATER	93	103	0	10
W327M3A	MW-327	J-2 RANGE	02/03/2006	GROUNDWATER	220	230	107	117
W329M1A	MW-329	J-3 RANGE	02/09/2006	GROUNDWATER	180	190	154.66	164.66
W329M1D	MW-329	J-3 RANGE	02/09/2006	GROUNDWATER	180	190	154.66	164.66
W330M2A	MW-330	J-2 RANGE	02/03/2006	GROUNDWATER	238	248	109	119
W337M1A	MW-337	J-2 RANGE	02/03/2006	GROUNDWATER	244	254	116.8	126.8
W348M1A	MW-348	J-2 RANGE	02/02/2006	GROUNDWATER	289	299	171.46	181.46
W348M2A	MW-348	J-2 RANGE	02/02/2006	GROUNDWATER	208	218	89.54	99.54
W350M1A	MW-350	NW CORNER	02/02/2006	GROUNDWATER	221	231	135.43	145.43
W350M2A	MW-350	NW CORNER	02/02/2006	GROUNDWATER	126	136	40.96	50.96
W351M2A	MW-351	J-2 RANGE	02/01/2006	GROUNDWATER	235	245	132.67	142.67
W354M1A	MW-354	J-2 RANGE	02/09/2006	GROUNDWATER	280	290	166.02	176.02
W354M2A	MW-354	J-2 RANGE	02/09/2006	GROUNDWATER	235	245	126.3	136.3
W45M2A	MW-45	L RANGE	02/06/2006	GROUNDWATER	110	120	18	28
W45SSA	MW-45	L RANGE; FS-12	02/06/2006	GROUNDWATER	89	99	0	10
W57M2A	MW-57	J-2 RANGE	02/02/2006	GROUNDWATER	148	158	62	72
W57M3A	MW-57	J-2 RANGE	02/02/2006	GROUNDWATER	117	127	31	41
W80DDA	MW-80	WESTERN BOU	02/07/2006	GROUNDWATER	158	168	114	124
W80DDA-QA	MW-80	WESTERN BOU	02/07/2006	GROUNDWATER	158	168	114	124
W80M1A	MW-80	WESTERN BOU	02/07/2006	GROUNDWATER	130	140	86	96

Profiling methods may include: Volatiles, Explosives, and Perchlorate

Groundwater methods include: Volatiles, Semivolatiles, Explosives,

Pesticides, Herbicides, Metals, Perchlorate and Wet Chemistry

Other Sample Types methods are variable

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**TABLE 2
SAMPLING PROGRESS
INTERIM MONTHLY 02/01/2006-02/10/2006**

SAMPLE_ID	GIS_LOCID	AOC	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W80M1A-QA	MW-80	WESTERN BOU	02/07/2006	GROUNDWATER	130	140	86	96
W80M2A	MW-80	WESTERN BOU	02/08/2006	GROUNDWATER	100	110	56	66
W80M2A-QA	MW-80	WESTERN BOU	02/08/2006	GROUNDWATER	100	110	56	66
W80M3A	MW-80	WESTERN BOU	02/07/2006	GROUNDWATER	70	80	26	36
W80M3A-QA	MW-80	WESTERN BOU	02/07/2006	GROUNDWATER	70	80	26	36
W80M3D	MW-80	WESTERN BOU	02/07/2006	GROUNDWATER	70	80	26	36
W80SSA	MW-80	WESTERN BOU	02/08/2006	GROUNDWATER	43	53	0	10
W80SSA-QA	MW-80	WESTERN BOU	02/08/2006	GROUNDWATER	43	53	0	10
ECC012606J1SUP01 (pre)	SSJ1J15001	J-1 RANGE	02/01/2006	SOIL GRAB	0	0.2		
ECC020106J3NDA01 (pre)	SSJ3E60001	J-3 RANGE	02/08/2006	SOIL GRAB	0	0.2		

Profiling methods may include: Volatiles, Explosives, and Perchlorate
Groundwater methods include: Volatiles, Semivolatiles, Explosives,
Pesticides, Herbicides, Metals, Perchlorate and Wet Chemistry
Other Sample Types methods are variable
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**TABLE 5
VALIDATED DETECTS EXCEEDING MCLs OR
HEALTH ADVISORY LIMITS
INTERIM MONTHLY
DATA RECEIVED 01/27/2006-02/10/2006**

WELL/LOCID	SAMPLE ID	SAMPLED	AOC	METHOD	ANALYTE	CONC.	FLAG	UNITS	BWTS	BWTE	DW LIMIT	>DW LIMIT
58MW0001	58MW0001-A	09/24/2005	CS-19	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	2.9		UG/L	0	5	2	X
58MW0009E	58MW0009E-A	11/01/2005	CS-19	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	14		UG/L	6.5	11.5	2	X
MW-130	W130SSA	11/05/2005	J-2 RANGE	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	2.3	J	UG/L	0	10	2	X
MW-184	W184M1A	11/01/2005	CIA	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	15		UG/L	58.2	68.2	2	X
MW-209	W209M1A	11/08/2005	CIA	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	6.1		UG/L	121	131	2	X
MW-223	W223M2A	10/24/2005	CIA	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	3.8		UG/L	93.31	103.31	2	X
MW-234	W234M1A	11/07/2005	J-2 RANGE	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	2.7		UG/L	25.3	35.3	2	X
MW-87	W87M1A	10/28/2005	CIA	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	2		UG/L	62	72	2	X
MW-88	W88M2A	09/20/2005	CIA	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	3.2	J	UG/L	72	82	2	X
MW-91	W91M1A	11/10/2005	CIA	8330NX	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	5		UG/L	45	55	2	X
MW-286	W286M2A	09/29/2005	J-1 RANGE	E314.0	PERCHLORATE	7.6		UG/L	81.42	91.42	4	X
MW-305	W305M1A	11/04/2005	J-2 RANGE	E314.0	PERCHLORATE	24.9		UG/L	99.82	109.82	4	X
MW-310	W310M1A	11/07/2005	J-2 RANGE	E314.0	PERCHLORATE	9.4		UG/L	86	96	4	X
MW-370	MW-370M2-	11/07/2005	J-1 RANGE	E314.0	PERCHLORATE	10		UG/L	93.54	103.54	4	X

BWTS = DEPTH BELOW WATER TABLE, START DEPTH, MEASURED IN FEET
 BWTE = DEPTH BELOW WATER TABLE, END DEPTH, MEASURED IN FEET
 DW LIMIT = EITHER THE MCL OR LOWEST HEALTH ADVISORY CONCENTRATION (CHILD, ADULT OR LIFETIME)
 >DW LIMIT = EQUALS OR EXCEEDS EITHER THE MCL OR LOWEST HEALTH ADVISORY CONCENTRATION (CHILD, ADULT, OR LIFETIME)
 J = ESTIMATED DETECT
 AOC = Area of Concern
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**TABLE 6
 VALIDATED DETECTS BELOW MCLs OR HEALTH ADVISORY
 LIMITS NOT PREVIOUSLY DETECTED
 INTERIM MONTHLY
 DATA RECEIVED 01/27/2006-02/10/2006**

WELL/LOCID	SAMPLE ID	SAMPLED	AOC	METHOD	ANALYTE	CONC.	FLAG	UNITS	BWTS	BWTE	DW LIMIT	>DW LIMIT
58MW0010B	58MW0010B-A	11/02/2005	CS-19	E314.0	PERCHLORATE	0.39	J	UG/L	90.15	95.15	4	
58MW0016A	58MW0016A-A	11/02/2005	CS-19	E314.0	PERCHLORATE	0.38	J	UG/L	54.22	63.22	4	
WL94M1	W94M1A	11/01/2005	CIA	E314.0	PERCHLORATE	0.35	J	UG/L	36	46	4	

BWTS = DEPTH BELOW WATER TABLE, START DEPTH, MEASURED IN FEET

BWTE = DEPTH BELOW WATER TABLE, END DEPTH, MEASURED IN FEET

DW LIMIT = EITHER THE MCL OR LOWEST HEALTH ADVISORY CONCENTRATION (CHILD, ADULT OR LIFETIME)

>DW LIMIT = EQUALS OR EXCEEDS EITHER THE MCL OR LOWEST HEALTH ADVISORY CONCENTRATION (CHILD, ADULT, OR LIFETIME)

J = ESTIMATED DETECT

AOC = Area of Concern

CIA = Central Impact Area