INTERIM MONTH REPORT FOR MARCH 1 – MARCH 11, 2005

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 March 1 through March 11, 2005.

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 March 11, 2005. 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 has been designed and 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). Perchlorate and hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) have been detected in influent samples. Perchlorate was detected in mid-fluent samples collected after the first and second pairs of Granular Activated Carbon (GAC) vessels. RDX has not been detected in mid-fluent samples. Perchlorate and RDX have not been detected in samples collected from the effluent. The GAC media was exchanged in the first and second pair of treatment vessels on March 9, 2005. As of March 11, 2005, approximately 25 million gallons of water have been treated and reinjected at the Pew Road ETR System.

The Frank Perkins Road ETR continues operation at a flow rate of 220 gpm. Perchlorate, RDX, and octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) have been detected in influent samples. Perchlorate was detected in mid-fluent samples collected after the first pair of GAC vessels in each of the three treatment containers. The GAC vessels are followed by ion exchange (IX) vessels, which are designed for treatment of perchlorate. Perchlorate and RDX have not been detected in mid-fluent samples collected after the IX vessels or in effluent samples. As of March 11, 2005, approximately 50 million gallons of water had been treated and re-injected at the Frank Perkins Road ETR System.

Demo Area 1 Soil RRA

The Demo Area 1 Soil RRA consists of the removal of all geophysical anomalies within the perimeter road (7.4 acres) and the removal and thermal treatment of contaminated soil from in and around the Demo 1 kettle hole. To date, the total amount of soil excavated at Demo Area 1 is 16,641 cubic yards, with an additional 190 cubic yards excavated at Demo Area 1 burn pits.

Continued investigation of EM-61 targets, geophysical targets, and anomalies in Quads 60, 62 and 73. Approximately 40 cubic yards was excavated from a burn pit.

Impact Area Soil RRA

The Impact Area Soil RRA consists of the removal and treatment of contaminated soil and targets at Targets 23 and 42. Remaining target areas will be addressed in a supplemental plan. Soil will be removed from Targets 23 and 42, in area of approximately 15,700 square feet, to a depth of approximately 2 feet, for a total volume of removed soil of approximately 1,160 cubic yards of soil. To date, 590 cubic yards have been removed from Target 23 and 796 cubic yards have been removed from Target 42 and transferred to the Demo Area 1 staging area for treatment in the Thermal Treatment Unit.

Snow, ice and rain limited site access and site work was not conducted in early March.

J-2 Range Soil RRA

The J-2 Range Soil RRA consists of the removal and treatment of soil in six general areas within the J-2 Range that contain selected explosives and perchlorate. Soil will be removed from the Twin Berms Area, Berm 2, Berm 5, Fixed Firing Points 3 and 4 (FFP-3 and 4) and adjacent Range Road Burn Area (RRBA), Disposal Area 1, and Disposal Area 2. To date, a total of 6,236 cubic yards of soil has been excavated and transported to Demo Area 1 staging area for treatment in the Thermal Treatment Unit.

Snow, ice and rain limited site access and site work was not conducted in early March.

2. SUMMARY OF ACTIONS TAKEN

Drilling progress as of March 11, 2005 is summarized in Table 1.

	Table 1. Drilling progress as of March 11, 2005										
Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Depth to Water Table (ft bgs)	Completed Well Screens (ft bgs)							
MW-356	J-3 Range (J3P-44)	296	103								
MW-367	J-2 Range (J2P-53)	315	88								
bgs = below	ground surface										

Completed drilling at MW-367 (J2P-53). Well development continued for recently installed wells.

Samples collected during the reporting period are summarized in Table 2. Groundwater profile samples were collected from MW-367. Groundwater samples were collected from Bourne water supply and monitoring wells, recently installed wells, and as part of the December round of the 2004 LTGM. Groundwater sampling was completed for the January quarterly round of the 2005 LTGM. Process water samples were collected from the Pew Road and Frank Perkins Road ETR systems. Pre- and post-BIP samples were collected at the J-1 Range and Demo Area 1. A soil sample was collected from a Burn Pit located at Demo Area 1. Soil samples collected in February which were not previously reported are included in Table 2. These include soil samples collected at Target Control Pits as part of the Twin Berm excavation in the J-2 Range and post-excavation soil samples collected at gun position GP-6.

The following are the notes from the March 10, 2005 Technical Team meeting of the Impact Area Groundwater Study Program office at Camp Edwards:

Punchlist Items

There were no Punchlist items from the 2/3/05 Technical Team meeting.

Field Work Update- Weather Impacts

John MacPherson (USACE) provided an update on the status of fieldwork and weather impacts at MMR. UXO surface clearance is proceeding at Demo 1 above the bowl. Work within the bowl is on hold due to snow cover. Some BIPs at well pads at Demo 1 will be performed today. Former A and former K range soil sampling is on hold.

Darrin Smith (USACE) provided an update on soil RRAs in the SE Ranges. In the J-3 Range, an additional soil lift will be performed tomorrow at grid C-6 (weather permitting). UXO clearance will resume at Polygon 2 in the J-2 Range the week of March 21, 2005. UXO surface clearance for the J2 Geophysical Investigation is scheduled to begin the week of March 21, 2005. Jane Dolan (USEPA) requested a meeting with Dave Hill (IAGWSP) to resolve issues associated with geophysical investigation and monitoring well locations. A meeting was set up for March 16, 2005 at 10:00. L Range soil sampling is scheduled for April 2005.

Jim Doucakis (USACE) provided an update on drill rig status and groundwater sampling. The sonic rig at MW-367 (J2P-53/7E) has reached a depth of 225 feet to date. The barber rig will proceed to J1P-26, J2E-13, and J1P-28, when UXO clearance can be accomplished. LTGM sampling is proceeding. For December 2004 LTGM, 345 of 458 wells have been sampled, and for the January 2005 quarterly sampling, 29 of 31 wells have been sampled.

Jane Dolan (USEPA) requested that split samples for EPA be collected at MW-362, MW-355, and MW-358. EPA has provided bottles and would like samples shipped to the Chelmsford laboratory. Dave Margolis will check on the status of this request. Desiree Moyer (USEPA) asked Paul Nixon to provide results for propellant samples collected at Gun Position (GP) 6.

Western Boundary Monitoring Program

Bill Gallagher (IAGWSP) provided an update on the proposed changes to the Western Boundary Groundwater Monitoring Program. A map of the area (showing monitoring well locations) and a summary of perchlorate results were distributed. The four water supply wells have been sampled for perchlorate weekly since January 30, 2002. There have been no exceedances of 1 ppb for perchlorate in that time frame. There have been no detects since April 12, 2004, when two wells showed trace concentrations of perchlorate (0.22 J and 0.18 J ppb). This sample round was analyzed using the lower MDL MADEP method. In the area upgradient from the Western Boundary production wells, only two locations (MW-216 and MW-233) have historically shown concentrations greater than 1 ppb. Based on this information, Mr. Gallagher advised that the production and monitoring well sampling frequency be reduced and incorporated into the LTGM optimization plan (sampled 1-3 times per year, depending on location) and water supply wells be sampled four times per year. Len Pinaud (MADEP) suggested that this plan be discussed and concurrence obtained from the Bourne Water District (BWD) prior to implementation. Lynne Jennings (USEPA) and Carol Keating (USEPA) suggested that IAGWSP provide an official letter outlining the revised sampling frequency plan. MADEP and USEPA do not disagree with the revised sampling approach, but strongly recommend obtaining concurrence from the BWD and providing a letter documenting the changes for the record. Bill Gallagher and Ben Gregson (IAGWSP) agreed to discuss with BWD and submit a letter with the intended changes.

Mr. Gallagher also discussed the status of the Western Boundary RI report, and expressed an interest in proceeding with the document based on the risk assessment approach outlined in the HERA Work Plan (currently under review by USEPA and MADEP). The RI report will address

soil and water samples. Lynne Jennings stated that review of the groundwater portion of the HERA report is close to completion, with some comments pending regarding assumptions cited in the document. The soil portion of the HERA report may involve more agency comment and discussions. Bill Gallagher and Ben Gregson indicated that the groundwater concentrations and the particle backtrack data do not indicate that a definable concentrated point source is present. Carol Keating (USEPA) agreed that the RI report should proceed and its generation will be helpful as a means of consolidating groundwater and soil data in a comprehensive document. Ms. Keating also expressed an interest in re-scheduling a site visit, which was previously cancelled due to inclement weather. Mr. Gallagher will coordinate with John Rice (AMEC) to determine schedule for submittal of the RI report and provide this information next week.

<u>CIA – Soil and Groundwater, EPA Letter</u>

Ben Gregson discussed the USEPA comments (in the March 7, 2005 letter) on the CIA screening report. Specifically, USEPA comment #9 appears to suggest that the report scope include significantly more information than originally anticipated by IAGWSP. Bill Gallagher stated that addressing this comment would entail a significant level of modeling effort, and approach the complexity of a full scale Feasibility Study. Ms. Jennings stated that the concern is that the CIA is far from a selected remedy and that some of the nine alternatives (presented at the meeting on February 9, 2005) are unclear. Chris Abate (AMEC) stated that the CIA plume is more challenging to address than Demo 1 due to the complexity of the plume and aquifer and, therefore, involves a relatively complex modeling approach. Ms. Jennings suggested that an organized, agency-integrated approach be used to develop the alternatives. This approach would involve meetings among the agencies to agree on selected alternatives and to identify potential data gaps, followed by performing basic modeling runs in an iterative manner so that reevaluation can be performed to work toward a detailed analysis and approach. suggested that a meeting be set up to discuss this issue further (possible dates include March 23, or 24, 2005). Ms. Jennings also asked if maps of all contaminants are available. Mr. Gallagher stated that this information is available in the CIA GW Report.

Demo 1 Supplemental Evaluation for Remedy Selection

Paul Nixon (IAGWSP) introduced the Demo 1 Supplemental Evaluations for Remedy Selection Plan at the Demo 1 Groundwater Operable Unit. Mr. Nixon provided a brief project history and explained that the supplemental evaluations included a comparison between the five and six extraction well systems, including time of operation, extent of migration, cost, and sensitivity analysis. Mr. Nixon provided copies of the power point presentation material, and introduced Chris Abate (AMEC), who conducted the remainder of the presentation. The presentation included details regarding the model and plume revisions that have been applied to the selected systems under evaluation. Model revisions included change in extraction well pumping rates, decrease in porosity, reduction in time of operation of RRA system, and change in pond depths based on bathymetry survey. Plume revisions included incorporation of data through August 2004 sampling, perchlorate contours extended and widened in Pew Road vicinity, and increase in percentage of perchlorate mass downgradient of Pew Road. Animations showing the chronology of plume migration and treatment were displayed. In summary, using the revisions to the model and plume, implementation of the six well, compared to the five well system, has the following attributes: 1) downgradient migration reduced by approximately 200 feet; 2) reduction in time to achieve 1.0 ppb perchlorate in downgradient area by two years; 3) reduction in time to achieve 0.35 ppb perchlorate in downgradient area by four years; 4) concentration of influent not expected to exceed 0.4 ppb, and will only exceed 0.35 ppb for four years; and 5) additional cost to achieve 1 ppb goal is 3.2 million dollars, and to achieve 0.35 ppb goal is 3.5 million dollars.

A sensitivity analysis was also performed to estimate the impacts of a hypothetical occurrence of higher than expected contaminant concentrations. For this model, a 5x factor was applied to all

perchlorate concentrations. Even under this enhanced contaminant concentration scenario, migration in excess of 1 ppb would not occur beyond North Pond.

This supplemental evaluation information will be added as an attachment to the Draft Final Feasibility Study, and included in the Remedy Selection Plan.

Forestdale/Peters Pond – Review of Historic Aerial Photos

Ben Gregson (IAGWSP) led a discussion on historic aerial photos from the Forestdale and Peters Pond area. Aerial photos from 1947, 1955, 1966, 1977, 1986, 1991, and 2002 were displayed. The photos are being examined to determine if apparent evidence of training activities occurred in the Peters Pond vicinity.

Program Schedule

Ben Gregson indicated that discussion of the revised program schedule will discussed at the RPM meeting.

3. SUMMARY OF DATA RECEIVED

Table 3 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 reporting period of February 25, 2005 through March 11, 2005.

Table 4 summarizes first-time validated detections of explosives below the MCL/HA for drinking water or of perchlorate below a 4 ppb concentration received from February 25, 2005 through March 11, 2005. There were no wells with first-time validated detections meeting these criteria during the reporting period.

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 February 25, 2005 through March 11, 2005, 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 February 25, 2005 through March 11, 2005, no wells had first-time validated detections of perchlorate above or below the concentration of 4 ppb.

Rush data are summarized in Table 5. 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 5 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 5. 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 5, 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.

Table 5 includes detections from the following areas:

J-2 Range

 A groundwater sample from RS003P had a detection of perchlorate. The result was similar to previous sampling rounds.

Demo Area 1

- Process water samples collected from the Frank Perkins Road ETR system influent (FPR-INF) and mid-fluent (FPR-MID-1) had detections of perchlorate. Process water samples collected from the influent (FPR-INF) also had detections of RDX and HMX, which were confirmed by PDA spectra.
- Process water samples collected from the Pew Road ETR system influent (PR-INF) and midfluent (PR-MID-1) had detections of perchlorate.

4. DELIVERABLES SUBMITTED

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5. SCHEDULED ACTIONS

Scheduled actions through the end of March include complete drilling at MW-367 (J2P-53) and commence drilling at J1P-26 and J2P-54. Groundwater sampling of Bourne water supply and monitoring wells, recently installed wells, and as part of the December round of the 2004 LTGM Program will continue. UXO clearance, excavation and soil sampling at the trenches at the Former A Range and soil sampling at the Former K Range are on hold until further notice due to snow cover.

SAMPLE_ID	GIS_LOCID	AOC	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
ECC022305J101 (post)	SSJ1P26002		03/10/2005	CRATER GRID	0	0.2		
ECC022305J102 (post)	SSJ1P26003		03/10/2005	CRATER GRID	0	0.2		
ECC022305J103 (post)	SSJ1P26004		03/10/2005	CRATER GRID	0	0.2		
ECC022305J104 (post)	SSJ1P26005		03/10/2005	CRATER GRID	0	0.2		
ECC030405D101 (post)	SSD1D5022		03/10/2005	CRATER GRID	0	0.2		
4036000-01G-A	4036000-01G	WESTERN BOU	03/07/2005	GROUNDWATER	38	69.8	6	12
4036000-04G-A	4036000-04G	WESTERN BOU	03/07/2005	GROUNDWATER	54.6	64.6	6	12
4036000-06G-A	4036000-06G	WESTERN BOU	03/07/2005	GROUNDWATER	108	128	6	12
58MW0009C-A	58MW0009C	CS-19	03/11/2005	GROUNDWATER	168.21	173.21	41	47
90MW0006-A	90MW0006	L RANGE	03/03/2005	GROUNDWATER	129	134	52.85	57.85
90MW0009-A	90MW0009	L RANGE	03/02/2005	GROUNDWATER	119	124	54.33	59.33
90MW0017-A	90MW0017	L RANGE	03/02/2005	GROUNDWATER	149	154	68.62	73.62
90MW0038-A	90MW0038	L RANGE	03/07/2005	GROUNDWATER	94.75	99.62	29	34
90MW0054-A	90MW0054	J-3 RANGE	03/04/2005	GROUNDWATER	107	112	91.83	96.83
90MW0061-A	90MW0061	L RANGE	03/07/2005	GROUNDWATER	150	155	58.65	63.65
90MW0061-D	90MW0061	L RANGE	03/07/2005	GROUNDWATER	150	155	58.65	63.65
97-2G-A	97-2G	WESTERN BOU	03/03/2005	GROUNDWATER	126.8	126.8	73.7	73.7
ASPWELL-A	ASPWELL	OTHER	03/10/2005	GROUNDWATER	0	0		
ASPWELL-D	ASPWELL	OTHER	03/10/2005	GROUNDWATER	0	0		
SDW261160-A	SDW261160	OTHER	03/04/2005	GROUNDWATER	150	160	10	20
W02-04M1A	02-04	WESTERN BOU	03/11/2005	GROUNDWATER	123	133	73.97	83.97
W02-04M2A	02-04	WESTERN BOU	03/11/2005	GROUNDWATER	98	108	48.93	58.93
W02-05M1A	02-05	WESTERN BOU	03/11/2005	GROUNDWATER	110	120	81.44	91.44
W104M2A	MW-104	CIA	03/09/2005	GROUNDWATER	135	145	17	27
W111M2A	MW-111	CIA	03/07/2005	GROUNDWATER	182	192	50	60
W111M3A	MW-111	CIA	03/08/2005	GROUNDWATER	165	175	33	43
W111M3D	MW-111	CIA	03/08/2005	GROUNDWATER	165	175	33	43
W130SSA	MW-130	J-2 RANGE	03/10/2005	GROUNDWATER	103	113	0	10
W132SSA	MW-132	J-3 RANGE	03/09/2005	GROUNDWATER	37	47	0	10
W132SSD	MW-132	J-3 RANGE	03/09/2005	GROUNDWATER	37	47	0	10
W138M2A	MW-138	CIA	03/08/2005	GROUNDWATER	151	161	30	40
W163SSA	MW-163	J-3 RANGE	03/10/2005	GROUNDWATER	38	48	0	10
W166M3A	MW-166	J-1 RANGE	03/10/2005	GROUNDWATER	125	135	19	29
W168M2A	MW-168	J-1 RANGE	03/09/2005	GROUNDWATER	198	208	116	126
W168M3A	MW-168	J-1 RANGE	03/11/2005	GROUNDWATER	103	113	21	31
W168M3A-QA	MW-168	J-1 RANGE	03/11/2005	GROUNDWATER	103	113	21	31

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

SAMPLE_ID	GIS_LOCID	AOC	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W171M1A	MW-171	J-3 RANGE	03/03/2005	GROUNDWATER	141	146	143	148
W171M2A	MW-171	J-3 RANGE	03/03/2005	GROUNDWATER	81	86	83	88
W171M3A	MW-171	J-3 RANGE	03/03/2005	GROUNDWATER	29	34	31	36
W191M1A	MW-191	J-1 RANGE	03/08/2005	GROUNDWATER	137	142	25.2	30.2
W191SSA	MW-191	J-1 RANGE	03/08/2005	GROUNDWATER	106	116	0	10
W191SSA-QA	MW-191	J-1 RANGE	03/08/2005	GROUNDWATER	106	116	0	10
W232M1A	MW-232	J-3 RANGE	03/09/2005	GROUNDWATER	77.5	82.5	34.94	39.94
W232M2A	MW-232	J-3 RANGE	03/09/2005	GROUNDWATER	61	66	18.41	23.41
W234M1A	MW-234	J-2 RANGE	03/10/2005	GROUNDWATER	130	140	25.3	35.3
W234M2A	MW-234	J-2 RANGE	03/10/2005	GROUNDWATER	110	120	1.6	11.6
W237M1A	MW-237	J-3 RANGE	03/10/2005	GROUNDWATER	80	90	28.5	38.5
W251M1A	MW-251	J-3 RANGE	03/04/2005	GROUNDWATER	128	133	123	128
W251M2A	MW-251	J-3 RANGE	03/04/2005	GROUNDWATER	98	103	93	98
W251M3A	MW-251	J-3 RANGE	03/04/2005	GROUNDWATER	83	88	78	83
W263M1A	MW-263	J-2 RANGE	03/04/2005	GROUNDWATER	190	200	83.63	93.63
W263M2A	MW-263	J-2 RANGE	03/04/2005	GROUNDWATER	115	125	8.66	18.66
W39M2A	MW-39	CIA	03/08/2005	GROUNDWATER	175	185	39	49
W43M1A	MW-43	CIA	03/07/2005	GROUNDWATER	223	233	90	100
W43M2A	MW-43	CIA	03/08/2005	GROUNDWATER	200	210	67	77
W43M2D	MW-43	CIA	03/08/2005	GROUNDWATER	200	210	67	77
W58SSA	MW-58	J-1 RANGE	03/10/2005	GROUNDWATER	100	110	0	10
XXM971-A	97-1	WESTERN BOU	03/03/2005	GROUNDWATER	83	93	62	72
XXM972-A	97-2	WESTERN BOU	03/11/2005	GROUNDWATER	75	85	53	63
XXM973-A	97-3	WESTERN BOU	03/11/2005	GROUNDWATER	75	85	36	46
XXM975-A	97-5	WESTERN BOU	03/03/2005	GROUNDWATER	84	94	76	86
FPR-EFF-22A	FPR-EFF		03/02/2005	PROCESS WATER	0	0		
FPR-EFF-A-22A	FPR-EFF		03/02/2005	PROCESS WATER	0	0		
FPR-EFF-A-22B	FPR-EFF		03/02/2005	PROCESS WATER	0	0		
FPR-EFF-B-22A	FPR-EFF		03/02/2005	PROCESS WATER	0	0		
FPR-EFF-B-22B	FPR-EFF		03/02/2005	PROCESS WATER	0	0		
FPR-EFF-C-22A	FPR-EFF		03/02/2005	PROCESS WATER	0	0		
FPR-EFF-C-22B	FPR-EFF		03/02/2005	PROCESS WATER	0	0		
FPR-INF-22A	FPR-INF		03/02/2005	PROCESS WATER	0	0		
FPR-INF-A-22B	FPR-INF		03/02/2005	PROCESS WATER	0	0		
FPR-INF-B-22B	FPR-INF		03/02/2005	PROCESS WATER	0	0		
FPR-INF-C-22B	FPR-INF		03/02/2005	PROCESS WATER	0	0		

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SAMPLE_ID	GIS_LOCID	AOC	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
FPR-MID-1A-22A	FPR-MID-1		03/02/2005	PROCESS WATER	0	0		
FPR-MID-1B-22A	FPR-MID-1		03/02/2005	PROCESS WATER	0	0		
FPR-MID-1C-22A	FPR-MID-1		03/02/2005	PROCESS WATER	0	0		
FPR-MID-2A-22A	FPR-MID-2		03/02/2005	PROCESS WATER	0	0		
FPR-MID-2B-22A	FPR-MID-2		03/02/2005	PROCESS WATER	0	0		
FPR-MID-2C-22A	FPR-MID-2		03/02/2005	PROCESS WATER	0	0		
PR-EFF-24A	PR-EFF		03/08/2005	PROCESS WATER	0	0		
PR-INF-24A	PR-INF		03/08/2005	PROCESS WATER	0	0		
PR-MID-1-24A	PR-MID-1		03/08/2005	PROCESS WATER	0	0		
PR-MID-2-24A	PR-MID-2		03/08/2005	PROCESS WATER	0	0		
MW-367-01	MW-367		03/04/2005	PROFILE	100	105	12.5	17.5
MW-367-03	MW-367		03/07/2005	PROFILE	110	115	22.5	27.5
MW-367-03FD	MW-367		03/07/2005	PROFILE	110	115	22.5	27.5
MW-367-04	MW-367		03/07/2005	PROFILE	120	125	32.5	37.5
MW-367-05	MW-367		03/07/2005	PROFILE	130	135	42.5	47.5
MW-367-06	MW-367		03/07/2005	PROFILE	140	145	52.5	57.5
MW-367-07	MW-367		03/07/2005	PROFILE	150	155	62.5	67.5
MW-367-08	MW-367		03/07/2005	PROFILE	160	165	72.5	77.5
MW-367-09	MW-367		03/07/2005	PROFILE	170	175	82.5	87.5
MW-367-11	MW-367		03/08/2005	PROFILE	180	185	92.5	97.5
MW-367-12	MW-367		03/08/2005	PROFILE	190	195	102.5	107.5
MW-367-13	MW-367		03/08/2005	PROFILE	200	205	112.5	117.5
MW-367-13FD	MW-367		03/08/2005	PROFILE	200	205	112.5	117.5
MW-367-14	MW-367		03/08/2005	PROFILE	210	215	122.5	127.5
MW-367-15	MW-367		03/08/2005	PROFILE	220	225	132.5	137.5
MW-367-17	MW-367		03/09/2005	PROFILE	230	235	142.5	147.5
MW-367-18	MW-367		03/09/2005	PROFILE	240	245	152.5	157.5
MW-367-19	MW-367		03/09/2005	PROFILE	250	255	162.5	167.5
MW-367-21	MW-367		03/10/2005	PROFILE	260	265	172.5	177.5
MW-367-22	MW-367		03/10/2005	PROFILE	270	275	182.5	187.5
MW-367-23	MW-367		03/11/2005	PROFILE	280	285	192.5	197.5
MW-367-24	MW-367		03/11/2005	PROFILE	290	295	202.5	207.5
MW-367-25	MW-367		03/11/2005	PROFILE	300	305	212.5	217.5
MW-367-25FD	MW-367		03/11/2005	PROFILE	300	305	212.5	217.5
MW-367-26	MW-367		03/11/2005	PROFILE	310	315	222.5	227.5
ECC022305J101 (pre)	SSJ1P26002		03/10/2005	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

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

SAMPLE_ID	GIS_LOCID	AOC	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
ECC022305J102 (pre)	SSJ1P26003		03/10/2005	SOIL GRAB	0	0.2		
ECC022305J103 (pre)	SSJ1P26004		03/10/2005	SOIL GRAB	0	0.2		
ECC022305J104 (pre)	SSJ1P26005		03/10/2005	SOIL GRAB	0	0.2		
ECC030405D101 (pre)	SSD1D5022		03/10/2005	SOIL GRAB	0	0.2		
J2RRA17	SSJ2TB002		02/22/2005	SOIL GRID	0	0.5		
J2RRA18	SSJ2TB003		02/22/2005	SOIL GRID	0	0.5		
Q42-BP-005	SSD1042		03/07/2005	SOIL GRID	0	0.2		
SS58E	SS58E-02		02/17/2005	SOIL GRID	0	0.5		
SS58K	SS58K-02		02/17/2005	SOIL GRID	0	0.5		
SS58L	SS58L-02		02/17/2005	SOIL GRID	0	0.5		
SS58M	SS58M-02		02/17/2005	SOIL GRID	0	0.5		
SS58M	SS58M-02 FD		02/17/2005	SOIL GRID	0	0.5		

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 3 VALIDATED DETECTS EXCEEDING MCLs OR HEALTH ADVISORY LIMITS INTERIM MONTHLY DATA RECEIVED 02/25/05-03/11/05

WELL/LOCID	SAMPLE_ID	SAMPLED	AOC	METHOD	ANALYTE	CONC.	FLAG	UNITS	BWTS	BWTE	DW_LIMIT	>DW_LIN
MW-100	W100M1A	01/11/2005	CIA	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	2.1		UG/L	45	55	2	X
MW-166	W166M1A	01/05/2005	J-1 RANGE	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-T	4.7		UG/L	112	117	2	X

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TABLE 4 VALIDATED DETECTS BELOW MCLs OR HEALTH ADVISORY LIMITS NOT PREVIOUSLY DETECTED INTERIM MONTHLY DATA RECEIVED 02/25/05-03/11/05

WELL/LOCID	SAMPLE_ID	SAMPLED	AOC	METHOD	ANALYTE	CONC.	FLAG	UNITS	BWTS	BWTE	DW_LIMIT	>DW_LIMIT
	•		_									

There were no wells with first-time validated detections of explosives below the MCL/HA for drinking water or of perchlorate below a 4 ppb concentration received from February 25, 2005 through March 11, 2005.

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

TABLE 5 DETECTED COMPOUNDS-UNVALIDATED INTERIM MONTHLY FOR 03/01/05 - 03/11/05

SAMPLE ID	LOCID OR WELL	SAMPLED	SAMP TYPE	AOC	SBD	SED	BWTS	BWTE	METHOD	ANALYTE	PDA
RS003P-A	RS003P	02/22/2005	GROUNDWATER	J-2 RANGE	90	90			E314.0	PERCHLORATE	
FPR-INF-22A	FPR-INF	03/02/2005	PROCESS WATER		0	0			8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TET	YES
FPR-INF-22A	FPR-INF	03/02/2005	PROCESS WATER		0	0			8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
FPR-INF-22A	FPR-INF	03/02/2005	PROCESS WATER		0	0			E314.0	PERCHLORATE	
FPR-MID-1A-22A	FPR-MID-1	03/02/2005	PROCESS WATER		0	0			E314.0	PERCHLORATE	
FPR-MID-1B-22A	FPR-MID-1	03/02/2005	PROCESS WATER		0	0			E314.0	PERCHLORATE	
FPR-MID-1C-22A	FPR-MID-1	03/02/2005	PROCESS WATER		0	0			E314.0	PERCHLORATE	
PR-INF-23AA	PR-INF	02/24/2005	PROCESS WATER		0	0			E314.0	PERCHLORATE	
PR-MID-1-23AA	PR-MID-1	02/24/2005	PROCESS WATER		0	0			E314.0	PERCHLORATE	

DATA REPORTED REFLECT CURRENT DATABASE FOR SAMPLES RECEIVED IN SPECIFIED TIMEFRAME. NOT ALL RESULTS ARE COMPLETE.

SBD = SAMPLE COLLECTION BEGIN DEPTH IN FEET BELOW GROUND SURFACE

SED = SAMPLE COLLECTION END DEPTH IN FEET BELOW GROUND SURFACE

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

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

PDA/YES = Photo Diode Array, Detect Confirmed

PDA/NO = Photo Diode Array, Detect Not Confirmed

AOC = Area of Concern

CIA = Central Impact Area

+ = Interference in sample