WEEKLY PROGRESS UPDATE
FOR JULY 7 – JULY 11, 2003

EPA REGION I ADMINISTRATIVE ORDERS SDWA 1-97-1019, 1-2000-0014, & BOURNE-BWSC 4-15031

MASSACHUSETTS MILITARY RESERVATION
TRAINING RANGE AND IMPACT AREA

The following summary of progress is for the period from July 7 through July 11, 2003.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of July 11 is summarized in Table 1.

Table 1. Drilling progress as of July 11, 2003

Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-276b	Bourne Area (BP-3) redrill	200	19	
MW-279	Northwest Corner (NWP-3)	224	155	66-76; 83-88; 96-106
MW-280	Bourne Area (WS4P-3)	110		

bgs = below ground surface
bwt = below water table

Completed well installation of MW-279 (NWP-3), continued drilling of MW-276b (BP-3), and commenced drilling of MW-280 (WS4-P3). Well development continued for newly installed wells.

Samples collected during the reporting period are summarized in Table 2. Groundwater profile samples were collected from MW-276b. Groundwater samples were collected from Bourne water supply and monitoring wells, a commercial irrigation well, residential wells, recently installed wells, from Opening Pond drive points, and as part of the April Long-Term Groundwater Monitoring Plan. Soil samples were collected from along Canal View Road. Water samples were collected from the GAC treatment system. Surface water samples were collected near a public beach, a private beach, and near the spit at Snake Pond.

The following are the notes from the July 10, 2003 Technical Team meeting of the Impact Area Groundwater Study Program office at Camp Edwards:

Participants

Tina Dolen (IAGWSPO)	Bill Gallagher (IAGWSPO)	Meghan Cassidy (EPA)
Desiree Moyer (EPA)	Todd Borci (EPA)	Jane Dolan (EPA)
Bob Lim (EPA)	Len Pinaud (MADEP)	Mark Panni (MADEP)
Dave Williams (MDPH)	Gina Kaso (ACE)	Heather Sullivan (ACE-phone)
Rob Foti (ACE)	John McPherson (ACE)	Ed Wise (ACE)
Dave Margolis (ACE)	Katarzyna Chelkowska (ACE)	Darrin Smith (ACE)
Kim Harriz (AMEC)	Dick Skryness (ECC-phone)	Leo Yuskus (Haley & Ward)
Larry Pannell (Jacobs-phone)	Kevin Hood (Univ. of Conn.)	

Punchlist Items

#1 Provide update for sampling PZ211 (ACE). The USGS used GPS to identify the location of the piezometer. The coordinates pinpoint a location beneath a woodpile. The Army Corps is attempting to arrange access to the location with the property owner. Todd Borci (EPA) requested the Army Corps show progress in sampling the well within 2 weeks or begin scoping the installation of a well in a more accessible location.

#4 Provide Comments on Corrective Action Report for J-2 Range gravel incident (EPA/MADEP). EPA provided comments earlier in the week.

ASR Monthly Update

Ed Wise (ACE) provided an update on ASR activities completed in June 2003 distributing a one-page summary sheet.

- Currently, Tetra Tech is updating the summary witness tables with follow up actions. Drafts of the tables should be available by the 7/24 Tech meeting.
- Working with agencies on selecting order of interviews.
- Todd Borci (EPA) requested the Corps summarize the process to be followed to update the ASR.
- Tetra tech contract ends on October 1, 2003.

ROA Status/Drilling Schedule

Heather Sullivan (ACE) provided an update on the ROA status and drilling schedule, distributing a 2-page ROA status table and 1-page drilling schedule.

- ROAs for piezometers, LP-11, LP-12, CBP-6, and CBP-7 have been approved.
- ROA for J2P-18 was submitted to Karen Wilson (IAGWSPO).
- Currently working on the ROAs for NWP-6, J3P-32/33.
- To Desiree Moyer's (EPA) question about the status of ROAs for NWP-5 and NWP-7, Ms. Sullivan explained the Army Corps process would be followed for these locations. Ms. Sullivan to check with the Army Corps cultural resources person regarding the ROA process. Guard/Army Corps agreed to stake the proposed Northwest Corner well locations and coordinate this effort with Desiree Moyer.
- Drill Rig 5 has been demobbed due to continuing interference problems with profile samples, a replacement rig is expected in late July or early August. Mark Panni (MADEP) requested Maher Drilling be given a deadline to provide another drill rig.
- Jane Dolan (EPA) requested that proposed well locations, as discussed in the J-1 Range scoping meeting, be provided for the J-1 Range by next week. Ms. Sullivan to check and send map via email. Added as Punchlist item.

Fieldwork Update

Rob Foti (ACE) provided an update on the IAGWSP fieldwork.

- J-3 Hillside – crews have finished grubbing, geophysical surveys commenced today.
- J-3 Barrage – 21 geophysical survey transects completed. An Anomaly map will be generated next week. Mr. Foti to check to see if the magnetic anomaly and surface debris map was sent to EPA.
- Grubbing was completed at the J-1 Range piezometer locations. UXO avoidance flagging commenced.
- UXO clearance at the J1P-19 location was suspended due to range firing. There is 450 ft of total access roadway to the well pad of which all has been grubbed and 250 ft has been cleared. Jane Dolan requested an estimate be provided as to how much additional time would be needed to complete UXO clearance of the access road and pad.
- MAJ Myer (IAGWSPO) has requested a meeting with Camp Edwards headquarters in an effort to foster a cooperative approach on scheduling range firing. Range Control has been coordinating with the IAGWSPO, as well as possible, but these efforts have been hindered by last minute requests for firing, which Range Control is required to accommodate.
- The Demo 1 anomaly removal commenced on 7/08. The work is being implemented on a grid-by-grid basis. Todd Borci requested information on the progress be provided broken down by grid. John MacPherson (ACE) requested a brief after meeting with the agencies to relay information on the initial findings and some ideas about moving forward.

Northwest Corner of Camp Edwards

Bill Gallagher (IAGWSPO) provided an update on the Northwest Corner investigation.

- MW-227 sampling was completed today. MW-278 development was completed and will be sampled next week. MW-279 well installation was completed and development started.
- Validated data for MW-270 was distributed after the last Tech meeting.
- The Upper Cape Regional Tech School personnel have removed the disabled pump from their well. The IAGWSPO has agreed to sample the well for perchlorate and explosives. The well will be inspected with a down-hole camera in an effort to determine the screen length.
- As part of the revised Project Note, the IAGWSPO has agreed to complete soil sampling for perchlorate at GP-19 and along Canal View Road. Locations for the sampling will be selected in conference with the agencies. Len Pinaud (MADEP) had requested the IAGWSPO look into information on the amount of soil reworking at GP-19. An appeal for any information on regrading efforts has been made to base personnel.
- Information on diurnal water level changes in MW-270 and the Bourne Bridge wells and tidal data in the Cape Cod Canal has been gathered and is being analyzed. A synoptic water level round will be completed next week.
- A map showing particle tracks from MW-277, MW-278 and MW-279 was distributed. Five cross sections were also distributed. Desiree Moyer (EPA) had suggested earlier that wells on Cross sections E and F be combined because of the closeness of the wells. Kim Harriz (AMEC) indicated the combining of the wells would probably be inappropriate for a cross section, but better represented on a fence diagram that would take a little more effort to construct.
- The residential wells RSNW01, RSNW03 and RSNW06 were sampled today. The IAGWSPO is still seeking permission to sample RSNW02 on a monthly basis, but have not received any response to their written request to the property owner. The IAGWSPO has also been unsuccessful in attempts to make contact by phone.
- Well 4036011 was last sampled on 5/23/03 and is scheduled to be resampled on 8/22/03.
- A site walk at GP-19 and Canal View Road was scheduled for Wednesday, 7/16.

- The Revised Draft Project Note on the Northwest Corner Characterization Approach that incorporates EPA and MADEP comments was distributed.

Bourne Update

Bill Gallagher (IAGWSPO) provided an update on the Bourne investigation.

- Last week there was a validated detection of perchlorate (0.37 J ppb) in the sample collected from Bourne Water Supply Well #01G on 6/24/03 and analyzed at STL-Savannah Lab. This sample was reanalyzed by both STL and Ceimic Labs, where it was reported as ND for perchlorate at a MDL of 0.35 by both labs. A second sample was collected on 7/01/03 and analyzed by both labs with a ND result. The weekly sampling event was moved up to Monday at the request of the BWD. Samples were collected on 7/07/03 and analyzed by both labs with a ND result. A table showing the results was distributed.
- The BWD requested the weekly sampling continue to be completed on Mondays to enable the BWD to respond to any detection before the weekend demand. The BWD has also asked to switch to a 24-hr TAT for the analysis and an automatic reanalysis if there are any detections in the supply wells. The Army/Guard is considering this request. Todd Borci requested that EPA and MADEP be notified of the Army/Guard's response to the BWD's request. Drilling of BWD's monitoring wells has been scheduled to start on 7/16.
- Leo Yuskus (Haley & Ward) indicated the production well was taken off-line immediately upon the notification of the detection and was placed back online on 7/03 in the afternoon after receiving notification of the non detect data.
- The BWD is reassessing its policy to shut down the production wells if perchlorate is detected, so that the decisions are not being made on a single sample result for a well. The decision will be up to the water district manager. If perchlorate at 0.5 ppb or above is detected, the well will be shut down. The MADEP Division of Water Supply is reviewing sampling and reporting protocols for perchlorate.
- Mr. Yuskus reported that the BWD is not entirely satisfied with the Bourne Response Plan MOR distributed on 6/16, but would like to see the work proceed and therefore will send a letter to the Army/Guard to that effect.
- Mr. Yuskus also stated WS-4 is being run 2 days every other week and sampled. To date no perchlorate or explosives have been detected. A table showing the results was distributed.
- 02-03M1 had a detect of 0.35 J ppb in the most recent sample. The last detect in this well was on 8/24/02.
- To Mr. Gallagher's inquiry, Meghan Cassidy (EPA) indicated EPA was waiting on the results from BP-3 to make a final decision on whether to drill a well at the BP-6 location.

Documents and Schedules

Ed Wise (ACE) reviewed document and schedule issues, distributing a one-page Document Status table and 6-page Revised Combined Schedule.

- Katarzyna Chelkowska (ACE) stated a list was being made to indicate MSP3 documents that will be impacted by termination of Tetra Tech's contract on 10/01.
- Jane Dolan asked about the L Range Soil and J-2 Range Groundwater MORs. Heather Sullivan indicated the L Range MOR would be distributed shortly pending Dave Hill's (IAGWSPO) approval and the J-2 Range MOR is still being revised.
- Heather Sullivan indicated the L, J-2, J-3, and J-1 Ranges revised Soil Workplans were still on schedule to be submitted this month.
- The Revised Demo 1 Area Groundwater RRA Plan was sent out this week.
- Desiree Moyer indicated the Central Impact Area EcoRisk MOR was approved yesterday, 7/09.

- Todd Borci requested the Central Impact Area focused investigation be added to the schedule and that the Guard/Corps compare the scheduling issues sheet to the revised combined schedule and update the schedule with all items listed on the issues sheet.
- Meghan Cassidy (EPA) noted the CRM for the Demo 1 Area SAP could be scheduled once responses to all EPA comments were received. Heather Sullivan to provide a date when responses will be provided for the remaining comments.

Miscellaneous

- Ben Gregson (IAGWSPO) explained that the IAGWSPO had agreed to provide OE support for BIPs, send OE to the CDC and allow for staging of a reasonable volume of OE scrap in support of AFCEE's work at CS-19. The OE scrap was required to be placed on and covered with plastic and labeled as having been generated by AFCEE. The material would be staged at a spot on Wheelock Road near the IAGWSPO decon pad. The IAGWSPO agreed to address the appropriate disposal of AFCEE's scrap in conjunction with the disposal of IAGWSP scrap.
- Todd Borci requested a draft Demo 2 plume map be provided at the next Tech meeting.

2. SUMMARY OF DATA RECEIVED

Rush data are summarized in Table 3. These data are for analyses that are performed on a fast turn around time, typically 1-5 days. Explosive analyses for monitoring wells, and 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 3 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 3. 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 3, 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 3 includes the following detections:

Table 3 includes detections from the following areas:

Bourne Area

- Groundwater samples from 02-12M1 had a detection of perchlorate. This is the first detection of perchlorate in this well.

DELIVERABLES SUBMITTED

Demo Area 1 RRA Plan	07/03/2003
MSP3 NBC Area Draft Geophysical Survey and Investigation Report	07/08/2003
Monthly Progress Report for June 2003	07/10/2003
Weekly Progress Update for June 30 – July 4, 2003	07/11/2003

3. SCHEDULED ACTIONS

Scheduled actions for the week of July 14 include complete drilling of MW-276b (BP-3) and MW-280 (WS4P-3). Groundwater sampling at Bourne water supply and monitoring wells will continue.

4. SUMMARY OF ACTIVITIES FOR DEMO AREA 1

Pumping and treating groundwater near the toe of the Demo Area 1 plume and at Frank Perkins Road has been selected as an Interim Action to address the Demo Area 1 Groundwater Operable Unit. A Revised RRA Plan was submitted to EPA and DEP this week. Responses to EPA and MADEP comments on the Soil Interim Action are being developed. The geophysical anomaly excavation and removal commenced this week.

TABLE 2
SAMPLING PROGRESS
07/06/2003 - 07/12/2003

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
CWNW01-E	FIELDQC	07/10/2003	FIELDQC	0	0		
G276DBE	FIELDQC	07/10/2003	FIELDQC	0	0		
G276DBE	FIELDQC	07/11/2003	FIELDQC	0	0		
G276DBT	FIELDQC	07/10/2003	FIELDQC	0	0		
HD199B1AAE	FIELDQC	07/07/2003	FIELDQC	0	0		
RIG5C-E	FIELDQC	07/11/2003	FIELDQC	0	0		
RIG5H-E	FIELDQC	07/11/2003	FIELDQC	0	0		
RIG5H-T	FIELDQC	07/11/2003	FIELDQC	0	0		
W166M3T	FIELDQC	07/07/2003	FIELDQC	0	0		
W187DDT	FIELDQC	07/08/2003	FIELDQC	0	0		
WS-4AS-E	FIELDQC	07/07/2003	FIELDQC	0	0		
4036000-01G-A	4036000-01G	07/07/2003	GROUNDWATER	38	69.8	6	12
4036000-06G-A	4036000-06G	07/07/2003	GROUNDWATER	108	128	6	12
58MW0011E-A	58MW0011E	07/10/2003	GROUNDWATER	145	150	15.7	20.7
58MW0016C-A	58MW0016C	07/10/2003	GROUNDWATER	116.7	126.33	0	10
ASPWELL-A	ASPWELL	07/11/2003	GROUNDWATER	0	0		
CWNW01-A	CWNW01	07/10/2003	GROUNDWATER		140		
PHOP01-A	DP OP01	07/10/2003	GROUNDWATER	44	46		
PHOP02-A	DP OP02	07/10/2003	GROUNDWATER	68	70		
RSNW01-A	RSNW01	07/10/2003	GROUNDWATER				
RSNW03-A	RSNW03	07/10/2003	GROUNDWATER				
RSNW06-A	RSNW06	07/10/2003	GROUNDWATER				
W02-04M1A	02-04	07/09/2003	GROUNDWATER	123	133	73.97	83.97
W02-04M2A	02-04	07/09/2003	GROUNDWATER	98	108	48.93	58.93
W02-04M3A	02-04	07/09/2003	GROUNDWATER	83	93	34.01	44.01
W02-07M1A	02-07	07/07/2003	GROUNDWATER	135	145	101.14	111.14
W02-07M2A	02-07	07/07/2003	GROUNDWATER	107	117	72.86	82.86
W02-07M3A	02-07	07/08/2003	GROUNDWATER	47	57	13	23
W02-13M1A	02-13	07/08/2003	GROUNDWATER	98	108	58.33	68.33
W02-13M2A	02-13	07/08/2003	GROUNDWATER	83	93	44.2	54.2
W02-13M3A	02-13	07/08/2003	GROUNDWATER	68	78	28.3	38.3
W02M1A	MW-02	07/10/2003	GROUNDWATER	212	217	75	80
W02M1A-QA	MW-02	07/10/2003	GROUNDWATER	212	217	75	80
W07M1A	MW-07	07/07/2003	GROUNDWATER	240	245	135	140

Profiling methods include: Volatiles and Explosives
Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, 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

TABLE 2
SAMPLING PROGRESS
07/06/2003 - 07/12/2003

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W07SSA	MW-07	07/08/2003	GROUNDWATER	103	113	0	10
W179M1A	MW-179	07/10/2003	GROUNDWATER	187	197	46.1	56.1
W187DDA	MW-187	07/07/2003	GROUNDWATER	306	316	199.5	209.5
W187M1A	MW-187	07/07/2003	GROUNDWATER	160	170	51.3	61.3
W187M1D	MW-187	07/07/2003	GROUNDWATER	160	170	51.3	61.3
W237M1A	MW-237	07/08/2003	GROUNDWATER	80	90	28.5	38.5
W237SSA	MW-237	07/08/2003	GROUNDWATER	49	59	0	10
W277M1A	MW-277	07/09/2003	GROUNDWATER	130	140	26.3	36.3
W277M1D	MW-277	07/09/2003	GROUNDWATER	130	140	26.3	36.3
W277SSA	MW-277	07/10/2003	GROUNDWATER	102	112	0	10
W80DDA	MW-80	07/09/2003	GROUNDWATER	158	168	114	124
W80M1A	MW-80	07/09/2003	GROUNDWATER	130	140	86	96
W80M2A	MW-80	07/08/2003	GROUNDWATER	100	110	56	66
W80M3A	MW-80	07/11/2003	GROUNDWATER	70	80	26	36
W80M3D	MW-80	07/11/2003	GROUNDWATER	70	80	26	36
W80SSA	MW-80	07/08/2003	GROUNDWATER	43	53	0	10
WS-4-A	WS-4	07/07/2003	GROUNDWATER	200	220	140	160
WS-4AS-A	WS-4A	07/07/2003	GROUNDWATER	155	165	85.5	95.5
DW070903-NV	GAC WATER	07/09/2003	IDW				
DW071003-NV	GAC WATER	07/10/2003	IDW				
G276DAA	MW-276	07/09/2003	PROFILE	190	190	6.65	6.65
G276DBA	MW-276	07/10/2003	PROFILE	200	200	16.65	16.65
HD199F1AAA	199F	07/07/2003	SOIL GRID	0	0		
HD199G1AAA	199G	07/07/2003	SOIL GRID	0	0		
HD199H1AAA	199H	07/07/2003	SOIL GRID	0	0		
HD199I1AAA	199I	07/07/2003	SOIL GRID	0	0		
LKSNK0005AAA	LKSNK0005	07/08/2003	SURFACE WATER				
LKSNK0006AAA	LKSNK0006	07/08/2003	SURFACE WATER				
LKSNK0007AAA	LKSNK0007	07/08/2003	SURFACE WATER				

Profiling methods include: Volatiles and Explosives
Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, and Wet Chemistry
Other Sample Types methods are variable
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BWTS = Depth below water table, start depth, measured in feet
BWTE = Depth below water table, end depth, measured in feet

TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 06/13/03 - 07/12/03

OGDEN_ID	LOCID OR WELL	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
W02-12M1A	02-12	07/01/2003	GROUNDWATER	109	119	58.35	68.35	E314.0	PERCHLORATE	

DATA REPORTED REFLECT CURRENT DATABASE FOR SAMPLES COLLECTED 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
*** = Interference in sample**
+ = PDAs are not good matches