WEEKLY PROGRESS UPDATE
FOR AUGUST 25 – AUGUST 29, 2003

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 August 25 through August 29, 2003.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of August 29 is summarized in Table 1.

Table 1. Drilling progress as of August 29, 2003

Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-283	Northwest Corner (NWP-5)	140	127	
MW-284	Northwest Corner (NWP-7)	147	123	45-55; 115-125
bgs = below ground surface bwt = below water table				

Completed well installation of MW-284 (NWP-7) and continued drilling of MW-283 (NWP-5). 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-283. Groundwater samples were collected from Bourne water supply and monitoring wells, recently installed wells, and as part of the August round of the Draft 2003 Long-Term Groundwater Monitoring Plan. Investigation-derived waste (IDW) samples were collected from the Granular Activated Carbon (GAC) treatment system.

The following are the notes from the August 28, 2003 Technical Team meeting of the Impact Area Groundwater Study Program office at Camp Edwards:

Participants

Mike Dette (AEC)
Bill Gallagher (IAGWSPO)
LTC Bill FitzPatrick (E&RC)
Jane Dolan (EPA)
Mark Panni (MADEP)
Katarzyna Chelkowska (ACE)
Nick Iaiennaro (ACE)
Kim Harriz (AMEC)
Ben Gregson (IAGWSPO)
Paul Nixon (IAGWSPO)
Todd Borci (EPA)
Jim Murphy (EPA)
Dave Williams (MDPH)
Dave Margolis (ACE)
Darrin Smith (ACE)
Herb Colby (AMEC-phone)
Tina Dolen (IAGWSPO)
Karen Wilson (IAGWSPO)
Bob Lim (EPA)
Len Pinaud (MADEP)
Heather Sullivan (ACE-phone)
Rob Foti (ACE)
Marc Grant (AMEC-phone)
Mike Goydas (Jacobs-phone)

Punchlist Items

#1 Provide update for sampling PZ211 (ACE). Log removal in the vicinity of the piezometer is scheduled to commence the week of 9/2.

#5 Provide dates for submittals of Rev. J-1, J-2 and J-3 Ranges Supplemental Soil Workplans. J-1 Plan has been sent out. J-2 Plan sent today, if not yesterday (8/27). A letter was recently sent out addressing way forward for J-3 Plan.
#6 Provide date for submittals of J-2 Range RRA Work Plan. Plan to be submitted on or about 9/19. Tasks proposed in this workplan will be included in the 2003 funding.

Fieldwork Update

Rob Foti (ACE) provided an update on the IAGWSP fieldwork.
Southeast Ranges
J1P-19 Location: Road and pad construction will be completed by 9/02.
J2P-20. Drilling completed, rig moving to LP-12.
Elevation survey of wells in the SE Ranges continues, approximately 55% complete.
J-3 Range Hillside site. 12 anomalies excavated. Table of findings is being produced.
Findings include eighteen, 3-inch Stokes Mortars, 1 sand-filled, others with unknown filling sent to CDC bunker; seven, 3-inch practice rockets.
Three 60mm Mortars were found as part of road clearance to the J-3 Hillside area, one with exposed filler (TNT) was placed in the CDC bunker. Soil samples will be collected from the area beneath the mortar on Friday, 8/29. The two remaining 60mm Mortars and two rockets will also be BIPed on 8/29.
Fieldwork in the Northwest Corner covered under Northwest Corner update.

Demo Area 1 Anomaly Removal

Nick Iaiennaro (ACE) provided a summary of progress on the Demo 1 Anomaly Removal.

- One third of the grids are completed with a total of 8,000 anomalies removed. This is approximately 1000 anomalies per grid, with the majority being scrap and frag (total 751 lbs). Projected completion date for the removal is 10/28.
- 190 additional items have been identified for the CDC storage unit, mostly small arms related. Although most of the items seem to have been from kick-out of the demolition area, some correspond to firing from a northeast to east direction. There is evidence that white phosphorous mortars were fired in the vicinity of Demo 1. At Todd Borci's request, this information to be provided to the Phase 2b investigation team.

CDC Update

Nick Iaiennaro (ACE) provided an update on the CDC.

- 8760 items of 12,048 items were destroyed in the CDC. 3288 items remain (this includes 2995 20mm projectiles from the J Ranges).
- The CDC's most recent period of operation was from July 30-August 21. Over this time period, the CDC was operated for 13 days. The CDC was demobbed to a project in Maryland on 8/25 and is scheduled to return in November.
- It is projected that the remaining items can be disposed in the CDC in 4 – 4.5 operating days.

Northwest Corner of Camp Edwards

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

- Drilling and well installation was completed at MW-284 (NWP-7). Perchlorate was detected at the 16-36 ft bwt interval, max 2.7 ppb. RDX was detected and PDA-confirmed with interference in intervals from 76-116 ft bwt at a max concentration of 1.2 ppb. Well screens were set at the midpoint of these two areas. Todd Borci requested that development of this well be expedited.
- NWP-5 (MW-283) had been drilled to 100 ft this morning. Total depth should be reached by today or early tomorrow.

- The drilling location for NWP-6 was placed back on the NStar easement due to concerns about conducting an archeological survey at the alternative location off the easement. Jeff Weaver (NStar) is scheduled to take a look at this location tomorrow 8/29, pursuant to NStar providing approval to drill the location.
- As requested by the agencies, an investigation of the neighboring property in the vicinity of the well shows that it is owned by Commonwealth Pioneers of VA – it is not state-owned land.
- Explosive analysis chromatographs for MW-277, MW-278, and MW-279 have been reviewed. It was reported previously that no RDX peaks below the reporting limit were observed in the chromatographs from MW-277 and MW-278; similarly no peaks were observed in the chromatographs for MW-279.
- Soil sampling locations along Canal View Road were selected and approved by EPA last week.
- 8/22 sampling results for RSNW03 show a perchlorate detection of 1.57 ppb, which is consistent with the past sampling results.
- A draft perchlorate plume map was distributed for agency review. Todd Borci requested that well CWNW01 be added to the map. Additional agency comments to be provided by the next Tech meeting.
- Attempt at further contact with property owners of RSNW02 on Foretop Road regarding sampling their well on a monthly basis has not been successful.
- The IAGWSPO attempts to further contact the maintenance supervisor at Schooner Pass Condominiums has also been unsuccessful. Len Pinaud (MADEP) indicated he had spoken with the supervisor and access to sample well 4026011 on a monthly basis was not granted. In addition, the supervisor did not have any well construction information nor was this information available in the MADEP files. Paul Nixon (IAHWSPO) suggested that the Guard review the Environmental Impact Report for the Canal side Commons that may have information on this well.
- Perchlorate analysis results received today from the 8/22 sampling event show an unvalidated detection of perchlorate at 0.4 ppb in 4036011, which would be the first detection of perchlorate in this well. The Guard intends to notify the property owner and request a confirmation resampling event.
- Todd Borci requested the Guard begin planning the installation of a well off base between the Schooner Pass Condominium and the Regional Tech School properties.
- The Project Note for the Northwest Corner was finalized at the 8/14 Tech meeting.

ROA Status/Drilling Schedule

Heather Sullivan (ACE) provided an update on the ROA status and drilling schedule, distributing a 1-page drilling schedule; and 3-page ROA status table.

- ROA approvals were received for J1P-21 and J3P-32.
- ROAs have been submitted to Natural Heritage's review for J1P-22, J3P-33 and LP-7.
- ROAs for the target control pit investigation at J-2 Range and the L Range GPR survey are being drafted.
- To Jane Dolan's inquiry, Dave Margolis (ACE) indicated the J-1 Range GPR survey was being scheduled and may be able to be coordinated with same contractor as the L Range GPR survey.
- All parties agreed to review all workplans in general and the SE Ranges workplans in particular pursuant to developing a more extensive well drilling schedule at the next Tech meeting. This topic to be added to the agenda for the next Tech meeting.

J2P-20 (MW-289) and the Base Water Supply Wells

- Len Pinaud (MADEP) indicated Jeff Rose (MADEP Water Supply) requested monitoring wells be drilled along Wood Road upgradient of WS-2, as soon as possible to get a better handle on the current distance of the J-2 Range perchlorate plume from the supply well.
- Jane Dolan (EPA) requested the Army/Guard immediately begin scoping wells to delineate the nature and extent of the perchlorate detection at J2P-20 (MW-289), to avoid the incremental addition of wells and associated delays, such as was characteristic of plume delineation at Demo Area 1.
- Mike Goydas (Jacobs) explained that this plume, due to its location at the top of the mound, was likely much different hydrogeologically than the Demo 1 plume which was on the flank of the mound, particularly in terms of hydraulic gradient, dispersion as a component of flow, flow rate, etc. The revised modeling just completed this morning showed that the particle tracks are oriented more north than originally modeled. The shallow zone of contamination at the well backtracks to the MW-130 and the J-2 Range Disposal Area 2, while the deeper zones backtrack to the top of the mound. Mr. Goydas emphasized it would be important to get a handle on the width of the plume (install J2P-18, a well to the southeast) rather than immediately installing downgradient (northeast) wells.
- Mike Dette (AEC) requested the Corps and contractors investigate the feasibility of switching installation of LP-12 (the next well in the drilling order) with J2P-18 so that data could be available for the next Tech meeting for discussion and potential expeditious selection of more informed downgradient well locations. Mr. Dette also indicated the Guard would be willing to scope an additional 6 downgradient monitoring wells to assess the perchlorate plume in this area.
- Todd Borci requested the Guard provide an overview of the most recent groundwater sampling events/data from the Guard and Co-op monitoring wells in the vicinity of WS-2 and sampling of the Base Water Supply Wells, themselves.
- Heather Sullivan indicated EPA was correct in that Guard wells associated with the Base Water Supply wells were part of the August 2003 Comprehensive Sampling event and had not been sampled since August 2002 because the Guard's proposed changes to sampling of these wells had not been reviewed or approved by EPA. The requested change was that herbicides be dropped from the analyte list. Todd Borci gave verbal approval of this change so that sampling could commence for these wells. Ms. Sullivan indicated these wells would be worked into the sampling schedule. Ms. Sullivan also noted that MW-55S (a formerly dry well) was recently sampled as part of the site-wide perchlorate characterization, but the results had not been received yet.
- EPA requested that the new model and recent synoptic sampling results be presented to the agencies during the next Tech meeting.

Documents and Schedules

Heather Sullivan (ACE) reviewed general document and scheduling issues. Katrazyna Chelkowska (ACE) reviewed outstanding items related to the MSP3 project.

- Demo Area 1 documents are still the Army/NGB's highest priority.
- Expecting agency comments on the Demo 1 Groundwater Report Addendum and Groundwater RRA Plan.
- The Thermal Treatment Technology Plan will be coming out at the end of next week.
- Soil RRA Workplan CRM tentatively scheduled for 9/04 at 9 am.
- Discussion of EPA AirMag Report comments with Jane Dolan to be scheduled for Tuesday (9/3) or Wednesday (9/4) of next week.
- SCAR MOR was approved on 8/13.
- MSP3 J-1 Polygon Report MOR was approved on 7/24, however approval of recalculated Dioxin TEQs was just received last week. Therefore, allowing for 4-week revision period, the

final report is due at the end of September. The J-3 MSP3 Polygon Report will be finalized by the end of next week.
- The revised HUTA2 Report will be submitted next week. The resolution meeting should be scheduled at the end of September.
- The Guard intends to resubmit the revised HUTAI Report next week, and requests the agencies disregard the previous submittal.
- A letter was sent out explaining confusion regarding the EPA's 6/27 Conditional Approval of the Gun and Mortar MSP Workplan. August 21 is accepted as the official receipt date for the approval. This work is planned to be implemented beginning in October.
- Darrin Smith indicated a revised Draft Combined Schedule was sent out to the agencies. The Army Corps was looking for feedback on revisions made to the format of the schedule. EPA comments are expected next week.

Miscellaneous
- Jane Dolan (EPA) requested that the date for sampling (explosives/perchlorate analysis) of a private well near the J-1 Range be added to the PunchList items.
- Jane Dolan requested an update on the status of data evaluation for developing a perchlorate plume between the J-3 and L Ranges and an RDX plume downgradient of L Range.
- Bill Gallagher distributed cross-sections and a plan view map for the CIA groundwater plumes.
- Todd Borci's questioned the Army/Guard regarding a rumor that funding was lost for the Demo 1 groundwater remedy. Mr. Borci specifically asked whether the agency would receive a formal notification concerning this change of events and why this requirement was not taken into account during the 2-year planning period for the remedy. Mike Dette indicated the agencies would be informed of the change in funding, but had no specific explanation for why Military Construction (Mil-Con) requirements had not been considered already. Ben Gregson explained that he had inquired about the Mil-Con requirements last year but had been given erroneous information that they were applicable only in the CERCLA program not for a project being conducted pursuant to the SDWA. Mike Dette briefly explained the situation the Army/Guard was facing regarding the Mil-Con requirements and its applicability to the implementation of groundwater treatment at Demo 1. Mil-Con requirements were evoked because the Frank Perkins treatment facility was a structure with a cost in excess of $500K. For projects conducted under CERCLA/IRP program, MMR had a waiver for these requirements, but no such waiver was applicable for projects being conducted pursuant to the Safe Drinking Water Act. These requirements are not applicable to the proposed Pew Road treatment system because it is a portable demonstration unit. The Army/Guard is evaluating three options for the Frank Perkins treatment unit 1) Can this project get into the Mil-Con program and if so in what year? Requires congressional approval. 2) Can an existing MIL-Con project be reprogrammed to include this component? This possibility also would require congressional approval. 3) Can the treatment facility be constructed under the CERCLA program, allowing for the waiver of the Mil-Con requirements and access of funds from the Environmental Restoration Account? Mr. Borci requested further information on the "CERCLA waiver", challenging the Army's assertion that it was not applicable to the project because it was being regulated under the SDWA.

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. 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 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 02-05M1, M2, M3 and 97-2 had detections of perchlorate. The results were similar to the previous sampling rounds.

Northwest Corner

- Groundwater samples from residential well RSNW03 and duplicate had detections of perchlorate. The results were similar to the previous sampling rounds.

- Groundwater samples from water supply well 4036011 had a detection of perchlorate. This is the first detection of perchlorate in this well.

DELIVERABLES SUBMITTED

Weekly Progress Update for August 18 – August 22, 2003	08/28/2003
Revised Draft J-2 Range Supplemental Soil Workplan	08/28/2003

3. SCHEDULED ACTIONS

Scheduled actions for the week of September 1 include complete drilling at NWP-5 and commence drilling at CBP-6 and J1P-19. Groundwater sampling at Bourne water supply and monitoring wells, recently installed wells, and as part of the August round of the Draft 2003 Long-Term Groundwater Monitoring Plan will continue.

4. SUMMARY OF ACTIVITIES FOR DEMO AREA 1

The Army/NGB is awaiting EPA and DEP comments on the Draft Groundwater Report Addendum for the Demo 1 Groundwater Operable Unit. Modeling activities in support of the Feasibility Study (FS) are currently underway. A Revised Groundwater RRA Plan, which was submitted on July 7, 2003, is under review by EPA and DEP. Geophysical anomaly excavation and removal within the Demo 1 depression continues. The Response to Comments Letter (RCL) was submitted for the Draft Soil RRA Plan and the Comment Resolution Meeting (CRM) is scheduled for next week.

TABLE 2
SAMPLING PROGRESS
08/24/2003 - 08/30/2003

SAMPLE_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
4036000-01G-A	4036000-01G	08/25/2003	GROUNDWATER	38	69.8	6	12
4036000-03G-A	4036000-03G	08/26/2003	GROUNDWATER	50	60	6	12
4036000-04G-A	4036000-04G	08/26/2003	GROUNDWATER	54.6	64.6	6	12
4036000-06G-A	4036000-06G	08/25/2003	GROUNDWATER	108	128	6	12
TW1-88B-A	1-88	08/26/2003	GROUNDWATER	105.5	105.5	69.6	69.6
TW1-88B-D	1-88	08/26/2003	GROUNDWATER	105.5	105.5	69.6	69.6
W02-12M1A	02-12	08/25/2003	GROUNDWATER	109	119	58.35	68.35
W02-12M2A	02-12	08/25/2003	GROUNDWATER	94	104	43.21	53.21
W02-12M3A	02-12	08/25/2003	GROUNDWATER	79	89	28.22	38.22
W02-13M1A	02-13	08/26/2003	GROUNDWATER	98	108	58.33	68.33
W02-13M2A	02-13	08/26/2003	GROUNDWATER	83	93	44.2	54.2
W02-13M3A	02-13	08/26/2003	GROUNDWATER	68	78	28.3	38.3
W127SSA	MW-127	08/27/2003	GROUNDWATER	99	109	0	10
W130M1A	MW-130	08/27/2003	GROUNDWATER	160	170	57	67
W142M1A	MW-142	08/29/2003	GROUNDWATER	225	235	185	195
W142M2A	MW-142	08/29/2003	GROUNDWATER	140	150	100	110
W143M1A	MW-143	08/28/2003	GROUNDWATER	144	154	114	124
W143M2A	MW-143	08/28/2003	GROUNDWATER	117	122	87	92
W143M3A	MW-143	08/28/2003	GROUNDWATER	107	112	77	82
W143M3D	MW-143	08/28/2003	GROUNDWATER	107	112	77	82
W160SSA	MW-160	08/27/2003	GROUNDWATER	137.5	147.5	5	15
W161SSA	MW-161	08/27/2003	GROUNDWATER	145.5	155.5	6	16
W195SSA	MW-195	08/28/2003	GROUNDWATER	34	39	0	5
W213M1A	MW-213	08/27/2003	GROUNDWATER	133	143	85.01	95.01
W213M2A	MW-213	08/27/2003	GROUNDWATER	89	99	41.15	51.15
W213M3A	MW-213	08/27/2003	GROUNDWATER	77	82	29.38	34.38
W244SSA	MW-244	08/28/2003	GROUNDWATER	118	128	0	10
W249M3A	MW-249	08/26/2003	GROUNDWATER	154	164	12.9	22.9
W263M1A	MW-263	08/25/2003	GROUNDWATER	190	200	83.63	93.63
W263M2A	MW-263	08/25/2003	GROUNDWATER	115	125	8.66	18.66
W276M1A	MW-276	08/27/2003	GROUNDWATER	295	305	114	124
W276M2A	MW-276	08/27/2003	GROUNDWATER	234	244	52.88	62.88
W276M3A	MW-276	08/27/2003	GROUNDWATER	185	195	0	10
W82DDA	MW-82	08/25/2003	GROUNDWATER	125	135	97	107
W82M1A	MW-82	08/25/2003	GROUNDWATER	104	114	76	86
W82M2A	MW-82	08/25/2003	GROUNDWATER	78	88	50	60
W82M3A	MW-82	08/25/2003	GROUNDWATER	54	64	26	36
W82M3D	MW-82	08/25/2003	GROUNDWATER	54	64	26	36
W82SSA	MW-82	08/25/2003	GROUNDWATER	25	35	0	10
DW082503-NV	GAC WATER	08/25/2003	IDW	0	0		

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
08/24/2003 - 08/30/2003

SAMPLE_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
G283DAA	MW-283	08/27/2003	PROFILE	20	20	9.7	9.7
G283DBA	MW-283	08/27/2003	PROFILE	30	30	19.7	19.7
G283DCA	MW-283	08/27/2003	PROFILE	40	40	29.7	29.7
G283DCD	MW-283	08/27/2003	PROFILE	40	40	29.7	29.7
G283DDA	MW-283	08/27/2003	PROFILE	50	50	39.7	39.7
G283DEA	MW-283	08/27/2003	PROFILE	60	60	49.7	49.7
G283DFA	MW-283	08/27/2003	PROFILE	70	70	59.7	59.7
G283DGA	MW-283	08/27/2003	PROFILE	80	80	69.7	69.7
G283DHA	MW-283	08/27/2003	PROFILE	90	90	79.7	79.7
G283DIA	MW-283	08/28/2003	PROFILE	100	100	89.7	89.7
G283DJA	MW-283	08/28/2003	PROFILE	110	110	99.7	99.7
G283DJD	MW-283	08/28/2003	PROFILE	110	110	99.7	99.7
G283DKA	MW-283	08/28/2003	PROFILE	120	120	109.7	109.7
G283DLA	MW-283	08/28/2003	PROFILE	130	130	119.7	119.7

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TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 08/01/03 - 08/30/03

SAMPLE_ID	LOCID OR WELL	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	ANALYTE	PDA
4036011-A	4036011	08/22/2003	GROUNDWATER	0	0			E314.0	PERCHLORATE	
RSNW03-A	RSNW03	08/22/2003	GROUNDWATER					E314.0	PERCHLORATE	
RSNW03-D	RSNW03	08/22/2003	GROUNDWATER					E314.0	PERCHLORATE	
W02-05M1A	02-05	08/19/2003	GROUNDWATER	110	120	81.44	91.44	E314.0	PERCHLORATE	
W02-05M2A	02-05	08/19/2003	GROUNDWATER	92	102	63.41	73.41	E314.0	PERCHLORATE	
W02-05M3A	02-05	08/19/2003	GROUNDWATER	70	80	41.37	51.37	E314.0	PERCHLORATE	
XXM972-A	97-2	08/21/2003	GROUNDWATER	75	85	53	63	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