WEEKLY PROGRESS UPDATE
FOR MAY 19 – MAY 23, 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 May 19 through May 23, 2003.

1. SUMMARY OF ACTIONS TAKEN

Drilling progress as of May 23 is summarized in Table 1.

Table 1. Drilling progress as of May 23, 2003

Boring Number	Purpose of Boring/Well	Total Depth (ft bgs)	Saturated Depth (ft bwt)	Completed Well Screens (ft bgs)
MW-269	Bourne Area (BP-4)	362	184	186-196; 207-217
MW-270	Northwest Corner (NWP-1)	139	115	
Well 271	Demo Area 1 Injection Well (IW-D1-1)	210	104	

bgs = below ground surface
bwt = below water table

Completed well installation of MW-269 (BP-4), completed drilling of MW-270 (NWP-1), and commenced drilling of Well 271 (IW-D1-1). 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-270 and MW-271. Profile samples were collected as splits from well 90MW0107. Groundwater samples were collected from Bourne water supply and monitoring wells, recently installed wells, a residential well, well 4036011, and as part of the April Long-Term Groundwater Monitoring Plan. Supplemental soil sampling was conducted at BIP craters. Samples were collected from the soil cuttings of MW-262 and MW-263 boreholes. The following are notes from the May 22, 2003 Technical Team meeting of the Impact Area Groundwater Study Program office at Camp Edwards:

Participants

Ben Gregson (IAGWSPO)
Bill Gallagher (IAGWSPO)
Desiree Moyer (EPA)
Jim Murphy (EPA)
Dave Williams (MDPH)
John MacPherson (ACE)
Kim Harriz (AMEC)
Larry Pannell (Jacobs-phone)
MAJ Bill Meyer (IAGWSPO)
Dave Hill (IAGWSPO)
Jane Dolan (EPA)
Len Pinaud (MADEP)
Gina Kaso (ACE)
Darrin Smith (ACE)
Herb Colby (AMEC-phone)
Kevin Hood (UConn)
Pam Richardson (IAGWSPO)
Meghan Cassidy (EPA)
Todd Borci (EPA)
Mark Panni (MADEP)
Dave Margolis (ACE)
Ed Wise (ACE)
Dick Skryness (ECC-phone)

Punchlist Items

#1 Provide update on sampling PZ211 (Corps). The Corps will talk to the property owners' contractor to see if he knows where the well is located on the property. Todd Borci requested the IAGWSPO review other wells in the vicinity that could be substituted for this well as a monitoring point.

#5 Provide date for Snake Pond surface water sampling results (Corps). Explosive results were non detect. Table of perchlorate/explosives results to be forwarded.

#7 Provide Project Note for modifications to NW Corner Characterization Approach (Corps). Email summarizing completed and proposed actions was distributed 5/21. The Army/Guard proposed that the Project Note be drafted after agreement was reached on the proposal. Discussed further during the NW Corner Update.

MSP3 and Southeast Ranges Update

Gina Kaso (ACE) provided an update on the MSP3 task and SE Ranges fieldwork.

J-3 Range Hillside site. Inert 3-inch Stokes Mortar was BIPed. Todd Borci requested the IAGWSPO read Section 3 of the Hillside Workplan and make sure the map for the Barrage Rocket site has all the correct information.

J-3 Range Barrage Rocket Site. Schonstedt survey completed. Four 4.5-inch Barrage Rockets were BIPed; 3 were HE and 1 was inert. The skeet mine (BLU-108) was BIPed and found to be inert. Concurrence was received on the IAGWSPO waiver request, allowing work to continue at the site.

Deep Bottom Pond. Excavation of anomalies north of the Pond was completed with no significant findings. Small hand excavations were executed to partially expose the four anomalies within the 100 ft buffer zone. These items were not ordnance or burn pits. Findings included:

Area 1: E011 and E016 – remnants of metallic pin flag.
E006 – railroad tie with spikes.
Area 2: E007 – railroad tie with spikes.
Area 3: E005 – steel cable
E009 – corrugated pipe
Area 4: E003 – corrugated pipe
E008 – corrugated pipe

All items, except the pin flags, were left in place. The excavations were backfilled.

ROA/Drilling Schedule

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

Currently drilling is being conducted at the following locations:

Rig 1 – drilling Injection Well 1 at Demo 1.
Rig 3 - TD at 139 feet bgs at NWP-1. Profile results available the end of the day Friday, 5/23 or Tuesday, 5/27.
Rig 4 – drilling at BP-3.

- John MacPherson (ACE) indicated that he has made daily attempts to contact Jim Weaver (NStar) to obtain at least a verbal approval to drill in the easement. The Corps intention is also to try to obtain a global approval to drill along the easement in an area between NWP-2 and GP-16, if possible. To date, Mr. Weaver had not responded to Mr. MacPherson's request other than to indicate the paper work for the approval to drill NWP-4 would be processed by mid June (in time to meet the original drilling schedule proposed). Because NWP-1 will be finished early (possibly by 5/27), the IAGWSPO will need a verbal approval to drill at NWP-4 from NStar by tomorrow (so UXO clearance can commence and to avoid incurring standby time). Len Pinaud (MADEP) to contact Jim Weaver to request the expedition of the Corps request.

- Karen Wilson (IAGWSPO) and Dr. Susan Goodfellow (E&RC) are scheduled to accompany Rob Foti (ACE) to the J-3 Range piezometer sites to evaluate ROAs and need for SHPO approval.
- The list of wells for the J-Range synoptic water level round is being compiled. To be sent to Jane Dolan (EPA) for review next week.

Northwest Corner of Camp Edwards

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

- Results from sampling of two additional Northwest Corner area-monitoring wells were received. There were no PDA-confirmed explosive detects in CMW-1 and no detections of perchlorate in CMW-1 or 95-15. A table of these results was distributed.
- Drilling of NWP-1 was completed with bedrock encountered at 139 feet bgs. Water level of 27 feet bgs.
- A particle backtrack was generated from RSNW03 (residential private water supply well). A figure of the Northwest Corner depicting the particle backtrack was distributed. The location of the well was approximated from the well location shown on an inspection map filed with the Town of Bourne's building department. The particle track was started at the well location at 140 ft bgs (the depth of one of the other Foretop Road residential wells). NWP-4 is located approximately 100 feet or less south of the intersection of the particle backtrack with Canal View Road. All parties agreed this location was sufficiently close to the particle backtrack and agreed to keep the location of NWP-4 as originally proposed.
- Evaluation of property owners has been completed. An updated table was distributed. Letters were sent to all remaining residential property owners in the NW Corner area on 5/19. One response (by phone) was received from a property owner who does not have a well. Table to be revised in accordance with discussions between agencies and Pam Richardson (IAGWSPO) directly after the Tech meeting. Map showing properties to be revised to remove property owners name and to have a number that is a unique reference to each property listed in the table.
- A letter with the sampling results for RSNW03 has been forwarded to the property owners. A copy to be forwarded to MADEP/EPA.
- Residential wells (RSNW04 and RSNW05) on two Sandwich Road Properties were sampled for perchlorate and explosives. Perchlorate/explosives were non detect in RSNW04. Explosives were non detect for RSNW05. Very high conductivity (10X the conductivity noted in RSNW04) was recorded for RSNW05, which affected the perchlorate analysis, making it inconclusive. The high conductivity is not attributable to a water softener. This well has been resampled for analysis of common anions, metals and hardness (if needed), and perchlorate. The common anions analysis is being completed to determine the source of the high conductivity so that a sample preparation method can be used to counter it. If necessary, the lab can dilute the sample and reanalyze for perchlorate. However, this would raise the reporting limit to 2 ppb and the MDL to 0.7 ppb. The lab did spike the existing sample with 1 ppb of perchlorate and saw a peak with 102% recovery.
- Residual water from 2nd round samples collected at RSNW03 were analyzed by a second lab (Severn Trent). The results were 1.7/1.8 ppb, which is comparable to the Ceimic results of 1.6/1.7 ppb for the same samples.
- Discussion ensued on the Army/Guard's list of proposed modifications to the Northwest Corner Characterization Approach that had been documented in Mr. Gallagher's 5/21 email. A copy of the email message was distributed to the Tech team. Action #1 indicated NWP-4 would be moved, if feasible, to be centered on the particle track from RSNW03. All parties agreed this was not necessary, since the well was within 100 feet of the particle track. Action's 2-6 related to sampling of residential and other private wells in the Northwest Corner that had already been completed by the IAGWSPO. EPA requested that a

frequency of sampling be proposed for the 95-15 series wells (and potentially other adjacent monitoring wells) based on results from NWP-1. Ben Gregson (IAGWSPO) agreed that additional sampling of these monitoring wells would be considered based on the results of NWP-1. The NWP-1 data will be reviewed; if backtracks from this well intersect an upgradient well screen; this upgradient well(s) will be sampled again prior to the installation of NWP-2 and NWP-3. Action #7 was a proposal to sample the Foretop Road residential wells on a monthly basis with the concurrence of the property owners. Meghan Cassidy (EPA) indicated a frequency that would be required by EPA was contingent upon the Army/Guard's response to the MADEP's NOR. If the property owners were not to be provided any bottled water or a hookup to the BWD, a minimum monitoring frequency of every two weeks would be required, since this well was an exposure point. Kevin Hood (UConn) relayed that based on his discussions with area water companies, a weekly monitoring frequency was considered appropriate, particularly until a baseline concentration of perchlorate was established for the well. MADEP indicated they were still considering Actions 2-7, and were not ready to agree with any of these Actions. MADEP indicated they would reserve comment until receiving the Army/Guard's response to the NOR which was due on 5/27. MADEP and EPA requested that the information be provided in the form of a Project Note with schedule. Mr. Borci requested that sufficient detail be provided in the Project Note including the logic of the action and follow on actions based on positive or negative results.

- Meghan Cassidy (EPA) requested the Army/Guard resample RSNW03 for perchlorate by the end of next week.
- Ben Gregson (IAGWSPO) distributed Page 8 of the 2002 Public Water Supply Annual Statistical Report for the Schooner Pass Condominiums. The report showed that 4.67 million gallons of the water (98.5%) out of a total of 4.74 million gallons used by the complex in 2002 was supplied by well 4036011. The remaining 1.5% was supplied by the BWD.

Bourne Update

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

- Weekly and monthly sampling of production and monitoring wells continues with no new significant results.
- BP-3 (MW-271) setting up today.
- UXO clearance was completed at WS4P-3 on 5/19.
- The Army/NGB and Leo Yuskus (Haley and Ward) have agreed that wording in specific sections of the Bourne Response Plan MOR will reflect that the BWD does not necessarily agree with the Army/Guard's statements. The MOR is projected to be finalized next week.
- AFCEE is coordinating with NStar to obtain access to the NStar easement to install monitoring wells on the BWD's behalf.

Revision to Tech Meeting Schedule

In accordance with an agreement reached in the 5/15 RPM meeting, the IAGWSPO Tech meetings will be held in accordance with the following schedule for the remainder of 2003:

May:	5/29/03	June:	6/12/03 6/26/03	July:	7/10/03 7/24/03	August:	8/14/03 8/28/03
Sept:	9/11/03 9/25/03	Oct:	10/16/03 10/30/03	Nov:	11/20/03	Dec:	12/11/03

The IART Dry runs will be held the first Tech meeting of each month with the exception of the month December, when there will be no IART Dry Run.

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:

Central Impact Area

- Groundwater samples from MW-1S and M2 had detections of HMX and RDX that were confirmed by PDA spectra. The results were similar to the previous sampling rounds.

- Groundwater samples from MW-1M2 had a detection of perchlorate. The result was similar to the previous sampling rounds.

Southeast Ranges

- Groundwater samples from MW-265M2 had a detection of RDX that was confirmed by PDA spectra. This is the first sampling event at this well and the result was consistent with the profile results.

Northwest Corner

- Profile samples from MW-270 (NWP-1) had detections of perchlorate. Perchlorate was detected in twelve intervals between 2 and 111 feet below the water table. Well screens were set at the depth (-2 to 8 ft bwt) of the shallowest perchlorate detection, at the depth (50 to 55 ft bwt) of the highest perchlorate detections, and at the depth (108 to 113 ft bwt) of the deepest perchlorate detections.

DELIVERABLES SUBMITTED

MSP Phase I Final Report	05/21/2003
Weekly Progress Update for May 12 – May 16, 2003	05/22/2003

3. SCHEDULED ACTIONS

Scheduled actions for the week of May 26 include commence well installation at MW-270 (NWP-1), complete drilling of injection well IW-D1-1 in Demo Area 1, and commence drilling of BP-3 and WS4P-3. Groundwater sampling at Bourne water supply and monitoring wells, recently installed wells, and as part of the April Long-Term Groundwater Monitoring Plan 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. Efforts to resolve EPA and DEP comments on the Draft RRA/RAM Plan for the Groundwater Operable Unit are ongoing. Responses to EPA and MADEP comments on the Soil RRA/RAM Plan are being developed. Drilling of injection well IW-D1-1 at Frank Perkins Road will be completed the week of May 26.

TABLE 2
SAMPLING PROGRESS
05/18/2003 - 05/24/2003

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
HD02250202SS	02250202	05/20/2003	CRATER GRID	0	0.16		
HD02250202SS	02250202	05/20/2003	CRATER GRID	0	0.16		
HD02250202SS	02250202	05/20/2003	CRATER GRID	0	0.16		
HD02250202SS	02250202	05/20/2003	CRATER GRID	0	0.16		
HD02250202SS	02250202	05/20/2003	CRATER GRID	0	0.16		
HD02250202SS	02250202	05/20/2003	CRATER GRID	0	0.16		
HD02250202SS	02250202	05/20/2003	CRATER GRID	0	0.16		
HD02250202SS	02250202	05/20/2003	CRATER GRID	0	0.16		
HDB32.36RKT2	B32.36RKT2	05/21/2003	CRATER GRID	0	0.16		
HDB32.36RKT2	B32.36RKT2	05/21/2003	CRATER GRID	0	0.16		
HDB32.36RKT2	B32.36RKT2	05/21/2003	CRATER GRID	0	0.16		
HDB32.36RKT2	B32.36RKT2	05/21/2003	CRATER GRID	0	0.16		
HDB32.36RKT2	B32.36RKT2	05/21/2003	CRATER GRID	0	0.16		
HDB32.36RKT2	B32.36RKT2	05/21/2003	CRATER GRID	0	0.16		
HDB32.36RKT2	B32.36RKT2	05/21/2003	CRATER GRID	0	0.16		
HDB32.36RKT2	B32.36RKT2	05/21/2003	CRATER GRID	0	0.16		
HDTT01230202S	TT01230202	05/19/2003	CRATER GRID	0	0.16		
HDTT01230202S	TT01230202	05/19/2003	CRATER GRID	0	0.16		
HDTT01230202S	TT01230202	05/19/2003	CRATER GRID	0	0.16		
HDTT01230202S	TT01230202	05/19/2003	CRATER GRID	0	0.16		
HDTT01230202S	TT01230202	05/19/2003	CRATER GRID	0	0.16		
HDTT01230202S	TT01230202	05/19/2003	CRATER GRID	0	0.16		
HDTT01230202S	TT01230202	05/19/2003	CRATER GRID	0	0.16		
HDTT01230202S	TT01230202	05/19/2003	CRATER GRID	0	0.16		
HDTT01250203S	TT01250203	05/19/2003	CRATER GRID	0	0.16		
HDTT01250203S	TT01250203	05/19/2003	CRATER GRID	0	0.16		
HDTT01250203S	TT01250203	05/19/2003	CRATER GRID	0	0.16		
HDTT01250203S	TT01250203	05/19/2003	CRATER GRID	0	0.16		
HDTT01250203S	TT01250203	05/19/2003	CRATER GRID	0	0.16		
HDTT01250203S	TT01250203	05/19/2003	CRATER GRID	0	0.16		
HDTT01250203S	TT01250203	05/19/2003	CRATER GRID	0	0.16		
HDTT01250203S	TT01250203	05/19/2003	CRATER GRID	0	0.16		
HDTT01250203S	TT01250203	05/19/2003	CRATER GRID	0	0.16		
HDTT01250204S	TT01250204	05/20/2003	CRATER GRID	0	0.16		

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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HDTT01250204S	TT01250204	05/20/2003	CRATER GRID	0	0.16		
HDTT01250204S	TT01250204	05/20/2003	CRATER GRID	0	0.16		
HDTT01250204S	TT01250204	05/20/2003	CRATER GRID	0	0.16		
HDTT01250204S	TT01250204	05/20/2003	CRATER GRID	0	0.16		
HDTT01250204S	TT01250204	05/20/2003	CRATER GRID	0	0.16		
HDTT01250204S	TT01250204	05/20/2003	CRATER GRID	0	0.16		
HDTT01250204S	TT01250204	05/20/2003	CRATER GRID	0	0.16		
HDTT01250204S	TT01250204	05/20/2003	CRATER GRID	0	0.16		
HDTT01280201S	TT01280201	05/21/2003	CRATER GRID	0	0.16		
HDTT01280201S	TT01280201	05/21/2003	CRATER GRID	0	0.16		
HDTT01280201S	TT01280201	05/21/2003	CRATER GRID	0	0.16		
HDTT01280201S	TT01280201	05/21/2003	CRATER GRID	0	0.16		
HDTT01280201S	TT01280201	05/21/2003	CRATER GRID	0	0.16		
HDTT01280201S	TT01280201	05/21/2003	CRATER GRID	0	0.16		
HDTT01280201S	TT01280201	05/21/2003	CRATER GRID	0	0.16		
HDTT01280201S	TT01280201	05/21/2003	CRATER GRID	0	0.16		
HDTT07080204S	TT07080204	05/19/2003	CRATER GRID	0	0.16		
HDTT07080204S	TT07080204	05/19/2003	CRATER GRID	0	0.16		
HDTT07080208S	TT07080208	05/19/2003	CRATER GRID	0	0.16		
HDTT07080208S	TT07080208	05/19/2003	CRATER GRID	0	0.16		
HDTT07080208S	TT07080208	05/19/2003	CRATER GRID	0	0.16		
HDTT07080208S	TT07080208	05/19/2003	CRATER GRID	0	0.16		
HDTT822003SS	TT822003	05/20/2003	CRATER GRID	0	0.16		
HDTT822003SS	TT822003	05/20/2003	CRATER GRID	0	0.16		
HDTT822003SS	TT822003	05/20/2003	CRATER GRID	0	0.16		
HDTT822003SS	TT822003	05/20/2003	CRATER GRID	0	0.16		
HDTT822003SS	TT822003	05/20/2003	CRATER GRID	0	0.16		
HDTT822003SS	TT822003	05/20/2003	CRATER GRID	0	0.16		
HDTT822003SS	TT822003	05/20/2003	CRATER GRID	0	0.16		
HDTT822003SS	TT822003	05/20/2003	CRATER GRID	0	0.16		
HDTT822003SS	TT822003	05/20/2003	CRATER GRID	0	0.16		
G270DBE	FIELDQC	05/19/2003	FIELDQC	0	0		
G270DLE	FIELDQC	05/21/2003	FIELDQC	0	0		
G271DBE	FIELDQC	05/22/2003	FIELDQC	0	0		

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OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
G271DJE	FIELDQC	05/23/2003	FIELDQC	0	0		
G90MW0107AE	FIELDQC	05/19/2003	FIELDQC	0	0		
G90MW0107KE	FIELDQC	05/20/2003	FIELDQC	0	0		
HD02250202SS	FIELDQC	05/20/2003	FIELDQC	0	0		
HDB32.36RKT2	FIELDQC	05/21/2003	FIELDQC	0	0		
HDTT01230202S	FIELDQC	05/19/2003	FIELDQC	0	0		
TW1-88B-E	FIELDQC	05/20/2003	FIELDQC	0	0		
W264M1T	FIELDQC	05/22/2003	FIELDQC	0	0		
W264M2T	FIELDQC	05/23/2003	FIELDQC	0	0		
4036000-01G-A	4036000-01G	05/20/2003	GROUNDWATER	38	69.8	6	12
4036000-03G-A	4036000-03G	05/20/2003	GROUNDWATER	50	60	6	12
4036000-04G-A	4036000-04G	05/20/2003	GROUNDWATER	54.6	64.6	6	12
4036000-06G-A	4036000-06G	05/20/2003	GROUNDWATER	108	128	6	12
4036011-A	4036011	05/23/2003	GROUNDWATER	0	0		
RSNW05-A	RSNW05	05/21/2003	GROUNDWATER	0	0		
RSNW05-D	RSNW05	05/21/2003	GROUNDWATER	0	0		
TW1-88B-A	1-88	05/20/2003	GROUNDWATER	105.5	105.5	69.6	69.6
W02-02M1A	02-02	05/21/2003	GROUNDWATER	114.5	124.5	63.5	73.5
W02-02M2A	02-02	05/20/2003	GROUNDWATER	94.5	104.5	42.65	52.65
W02-02SSA	02-02	05/19/2003	GROUNDWATER	49.5	59.5	0	10
W02-03M1A	02-03	05/23/2003	GROUNDWATER	130	140	86.1	96.1
W02-03M2A	02-03	05/23/2003	GROUNDWATER	92	102	48.15	58.15
W02-03M3A	02-03	05/23/2003	GROUNDWATER	75	85	31.05	41.05
W02-12M1A	02-12	05/20/2003	GROUNDWATER	109	119	58.35	68.35
W02-12M2A	02-12	05/20/2003	GROUNDWATER	94	104	43.21	53.21
W02-12M3A	02-12	05/21/2003	GROUNDWATER	79	89	28.22	38.22
W02-13M1A	02-13	05/20/2003	GROUNDWATER	98	108	58.33	68.33
W02-13M2A	02-13	05/20/2003	GROUNDWATER	83	93	44.2	54.2
W02-13M2D	02-13	05/20/2003	GROUNDWATER	83	93	44.2	54.2
W02-13M3A	02-13	05/20/2003	GROUNDWATER	68	78	28.3	38.3
W02-15M1A	02-15	05/23/2003	GROUNDWATER	125	135	75.63	85.63
W02-15M2A	02-15	05/23/2003	GROUNDWATER	101	111	51.5	61.5
W02-15M2D	02-15	05/23/2003	GROUNDWATER	101	111	51.5	61.5
W02-15M3A	02-15	05/23/2003	GROUNDWATER	81	91	31.4	41.4

Profiling methods include: Volatiles and Explosives
Groundwater methods include: Volatiles, Semivolatiles, Explosives, Pesticides, Herbicides, Metals, and Wet Chemistry
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OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
W10MMA	MW-10	05/23/2003	GROUNDWATER	280	285	133	138
W10MMD	MW-10	05/23/2003	GROUNDWATER	280	285	133	138
W182M1A	MW-182	05/21/2003	GROUNDWATER	295	305	124	134
W182M2A	MW-182	05/21/2003	GROUNDWATER	273	283	102.89	112.89
W184M1A	MW-184	05/21/2003	GROUNDWATER	186	196	58.2	68.2
W184M1D	MW-184	05/21/2003	GROUNDWATER	186	196	58.2	68.2
W184M2A	MW-184	05/21/2003	GROUNDWATER	126	136	0	10
W208M1A	MW-208	05/22/2003	GROUNDWATER	195	205	56.18	66.18
W208M2A	MW-208	05/22/2003	GROUNDWATER	158	168	18.41	28.41
W213M1A	MW-213	05/23/2003	GROUNDWATER	133	143	85.01	95.01
W213M2A	MW-213	05/23/2003	GROUNDWATER	89	99	41.15	51.15
W213M3A	MW-213	05/23/2003	GROUNDWATER	77	82	29.38	34.38
W219M4A	MW-219	05/23/2003	GROUNDWATER	225	235	45.7	55.7
W219M4D	MW-219	05/23/2003	GROUNDWATER	225	235	45.7	55.7
W263M1A	MW-263	05/22/2003	GROUNDWATER	190	200	83.63	93.63
W263M2A	MW-263	05/22/2003	GROUNDWATER	115	125	8.66	8.66
W263M2A	MW-263	05/22/2003	GROUNDWATER	115	125	8.66	8.66
W264M1A	MW-264	05/22/2003	GROUNDWATER	192	202	160.94	160.94
W264M2A	MW-264	05/22/2003	GROUNDWATER	136	146	105	115
W266M1A	MW-266	05/22/2003	GROUNDWATER	307	317	160.26	170.26
W266M2A	MW-266	05/23/2003	GROUNDWATER	239	249	92.26	92.26
W91M1A	MW-91	05/19/2003	GROUNDWATER	170	180	45	55
W91M1A-QA	MW-91	05/19/2003	GROUNDWATER	170	180	45	55
W91SSA	MW-91	05/21/2003	GROUNDWATER	124	134	0	10
W91SSA-QA	MW-91	05/21/2003	GROUNDWATER	124	134	0	10
WS-4-A	WS-4	05/22/2003	GROUNDWATER	200	220	140	160
DW052103-NV	GAC WATER	05/21/2003	IDW	0	0		
DW052302-NV	GAC WATER	05/23/2003	IDW	0	0		
SC26201	SOIL CUTTING	05/21/2003	OTHER	0	0		
SC26301	SOIL CUTTING	05/21/2003	OTHER	0	0		
G270DAA	MW-270	05/19/2003	PROFILE	30	30	2.3	2.3
G270DBA	MW-270	05/20/2003	PROFILE	40	40	12.3	12.3
G270DCA	MW-270	05/20/2003	PROFILE	50	50	22.3	22.3
G270DDA	MW-270	05/20/2003	PROFILE	60	60	32.3	32.3

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
05/18/2003 - 05/24/2003

OGDEN_ID	GIS_LOCID	LOGDATE	SAMP_TYPE	SBD	SED	BWTS	BWTE
G270DEA	MW-270	05/20/2003	PROFILE	70	70	42.3	42.3
G270DFA	MW-270	05/20/2003	PROFILE	80	80	52.3	52.3
G270DGA	MW-270	05/20/2003	PROFILE	90	90	62.3	62.3
G270DHA	MW-270	05/21/2003	PROFILE	100	100	72.3	72.3
G270DIA	MW-270	05/21/2003	PROFILE	110	110	82.3	82.3
G270DJA	MW-270	05/21/2003	PROFILE	120	120	92.3	92.3
G270DKA	MW-270	05/21/2003	PROFILE	130	130	102.3	102.3
G270DLA	MW-270	05/21/2003	PROFILE	139	139	111.3	111.3
G271DAA	MW-271	05/21/2003	PROFILE	120	120	14	14
G271DBA	MW-271	05/22/2003	PROFILE	130	130	24	24
G271DCA	MW-271	05/22/2003	PROFILE	140	140	34	34
G271DDA	MW-271	05/22/2003	PROFILE	150	150	44	44
G271DEA	MW-271	05/22/2003	PROFILE	160	160	54	54
G271DFA	MW-271	05/22/2003	PROFILE	170	170	64	64
G271DGA	MW-271	05/22/2003	PROFILE	180	180	74	74
G271DHA	MW-271	05/23/2003	PROFILE	190	190	84	84
G271DIA	MW-271	05/23/2003	PROFILE	200	200	94	94
G271DJA	MW-271	05/23/2003	PROFILE	210	210	104	104
G90MW0107AA	90MW0107	05/19/2003	PROFILE	89	89	6.5	6.5
G90MW0107BA	90MW0107	05/19/2003	PROFILE	99	99	16.5	16.5
G90MW0107CA	90MW0107	05/19/2003	PROFILE	109	109	26.5	26.5
G90MW0107CD	90MW0107	05/19/2003	PROFILE	109	109	26.5	26.5
G90MW0107DA	90MW0107	05/19/2003	PROFILE	119	119	36.5	36.5
G90MW0107EA	90MW0107	05/19/2003	PROFILE	129	129	46.5	46.5
G90MW0107FA	90MW0107	05/19/2003	PROFILE	139	139	56.5	56.5
G90MW0107GA	90MW0107	05/19/2003	PROFILE	149	149	66.5	66.5
G90MW0107HA	90MW0107	05/19/2003	PROFILE	159	159	76.5	76.5
G90MW0107IA	90MW0107	05/19/2003	PROFILE	169	169	86.5	86.5
G90MW0107JA	90MW0107	05/19/2003	PROFILE	179	179	96.5	96.5
G90MW0107KA	90MW0107	05/20/2003	PROFILE	189	189	106.5	106.5

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 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 04/25/03 - 05/24/03

OGDEN_ID	LOCID OR WELL	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
W01M2A	MW-1	05/13/2003	GROUNDWATER	160	165	44	49	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TET	YES
W01M2A	MW-1	05/13/2003	GROUNDWATER	160	165	44	49	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
W01M2A	MW-1	05/13/2003	GROUNDWATER	160	165	44	49	E314.0	PERCHLORATE	
W01SSA	MW-1	05/14/2003	GROUNDWATER	114	124	0	10	8330N	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TET	YES
W01SSA	MW-1	05/14/2003	GROUNDWATER	114	124	0	10	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
W265M2A	MW-265	05/15/2003	GROUNDWATER	225	235	97.6	107.6	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	YES
G270DAA	MW-270	05/19/2003	PROFILE	30	30	2.3	2.3	8330N	HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE	NO
G270DAA	MW-270	05/19/2003	PROFILE	30	30	2.3	2.3	8330N	TETRYL	NO
G270DAA	MW-270	05/19/2003	PROFILE	30	30	2.3	2.3	8330N	2,4,6-TRINITROTOLUENE	NO
G270DAA	MW-270	05/19/2003	PROFILE	30	30	2.3	2.3	8330N	2,6-DINITROTOLUENE	NO
G270DAA	MW-270	05/19/2003	PROFILE	30	30	2.3	2.3	8330N	PICRIC ACID	NO
G270DAA	MW-270	05/19/2003	PROFILE	30	30	2.3	2.3	8330N	2-NITROTOLUENE	NO
G270DAA	MW-270	05/19/2003	PROFILE	30	30	2.3	2.3	8330N	3-NITROTOLUENE	NO
G270DAA	MW-270	05/19/2003	PROFILE	30	30	2.3	2.3	E314.0	PERCHLORATE	
G270DBA	MW-270	05/20/2003	PROFILE	40	40	12.3	12.3	8330N	1,3,5-TRINITROBENZENE	NO
G270DBA	MW-270	05/20/2003	PROFILE	40	40	12.3	12.3	8330N	1,3-DINITROBENZENE	NO
G270DBA	MW-270	05/20/2003	PROFILE	40	40	12.3	12.3	8330N	PICRIC ACID	NO
G270DBA	MW-270	05/20/2003	PROFILE	40	40	12.3	12.3	8330N	2-NITROTOLUENE	NO
G270DBA	MW-270	05/20/2003	PROFILE	40	40	12.3	12.3	8330N	3-NITROTOLUENE	NO
G270DBA	MW-270	05/20/2003	PROFILE	40	40	12.3	12.3	8330N	NITROGLYCERIN	NO
G270DBA	MW-270	05/20/2003	PROFILE	40	40	12.3	12.3	E314.0	PERCHLORATE	
G270DCA	MW-270	05/20/2003	PROFILE	50	50	22.3	22.3	8330N	PICRIC ACID	NO

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

TABLE 3
DETECTED COMPOUNDS-UNVALIDATED
SAMPLES COLLECTED 04/25/03 - 05/24/03

OGDEN_ID	LOCID OR WELL	SAMPLED	SAMP_TYPE	SBD	SED	BWTS	BWTE	METHOD	OGDEN_ANALYTE	PDA
G270DCA	MW-270	05/20/2003	PROFILE	50	50	22.3	22.3	E314.0	PERCHLORATE	
G270DDA	MW-270	05/20/2003	PROFILE	60	60	32.3	32.3	8330N	PICRIC ACID	NO
G270DDA	MW-270	05/20/2003	PROFILE	60	60	32.3	32.3	E314.0	PERCHLORATE	
G270DEA	MW-270	05/20/2003	PROFILE	70	70	42.3	42.3	8330N	PICRIC ACID	NO
G270DEA	MW-270	05/20/2003	PROFILE	70	70	42.3	42.3	E314.0	PERCHLORATE	
G270DFA	MW-270	05/20/2003	PROFILE	80	80	52.3	52.3	8330N	PICRIC ACID	NO
G270DFA	MW-270	05/20/2003	PROFILE	80	80	52.3	52.3	8330N	NITROGLYCERIN	NO
G270DFA	MW-270	05/20/2003	PROFILE	80	80	52.3	52.3	E314.0	PERCHLORATE	
G270DGA	MW-270	05/20/2003	PROFILE	90	90	62.3	62.3	8330N	PICRIC ACID	NO
G270DGA	MW-270	05/20/2003	PROFILE	90	90	62.3	62.3	E314.0	PERCHLORATE	
G270DHA	MW-270	05/21/2003	PROFILE	100	100	72.3	72.3	8330N	NITROGLYCERIN	NO
G270DHA	MW-270	05/21/2003	PROFILE	100	100	72.3	72.3	8330N	PICRIC ACID	NO
G270DHA	MW-270	05/21/2003	PROFILE	100	100	72.3	72.3	8330N	1,3-DINITROBENZENE	NO
G270DHA	MW-270	05/21/2003	PROFILE	100	100	72.3	72.3	E314.0	PERCHLORATE	
G270DIA	MW-270	05/21/2003	PROFILE	110	110	82.3	82.3	8330N	PICRIC ACID	NO
G270DIA	MW-270	05/21/2003	PROFILE	110	110	82.3	82.3	E314.0	PERCHLORATE	
G270DJA	MW-270	05/21/2003	PROFILE	120	120	92.3	92.3	8330N	PICRIC ACID	NO
G270DJA	MW-270	05/21/2003	PROFILE	120	120	92.3	92.3	8330N	NITROGLYCERIN	NO
G270DJA	MW-270	05/21/2003	PROFILE	120	120	92.3	92.3	E314.0	PERCHLORATE	
G270DKA	MW-270	05/21/2003	PROFILE	130	130	102.3	102.3	8330N	PICRIC ACID	NO
G270DKA	MW-270	05/21/2003	PROFILE	130	130	102.3	102.3	E314.0	PERCHLORATE	
G270DLA	MW-270	05/21/2003	PROFILE	139	139	111.3	111.3	E314.0	PERCHLORATE	

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