

**Explosives in Groundwater Compared to Maximum Contaminant Level/Health Advisories Validated Data as of 05/27/05**

FIGURE

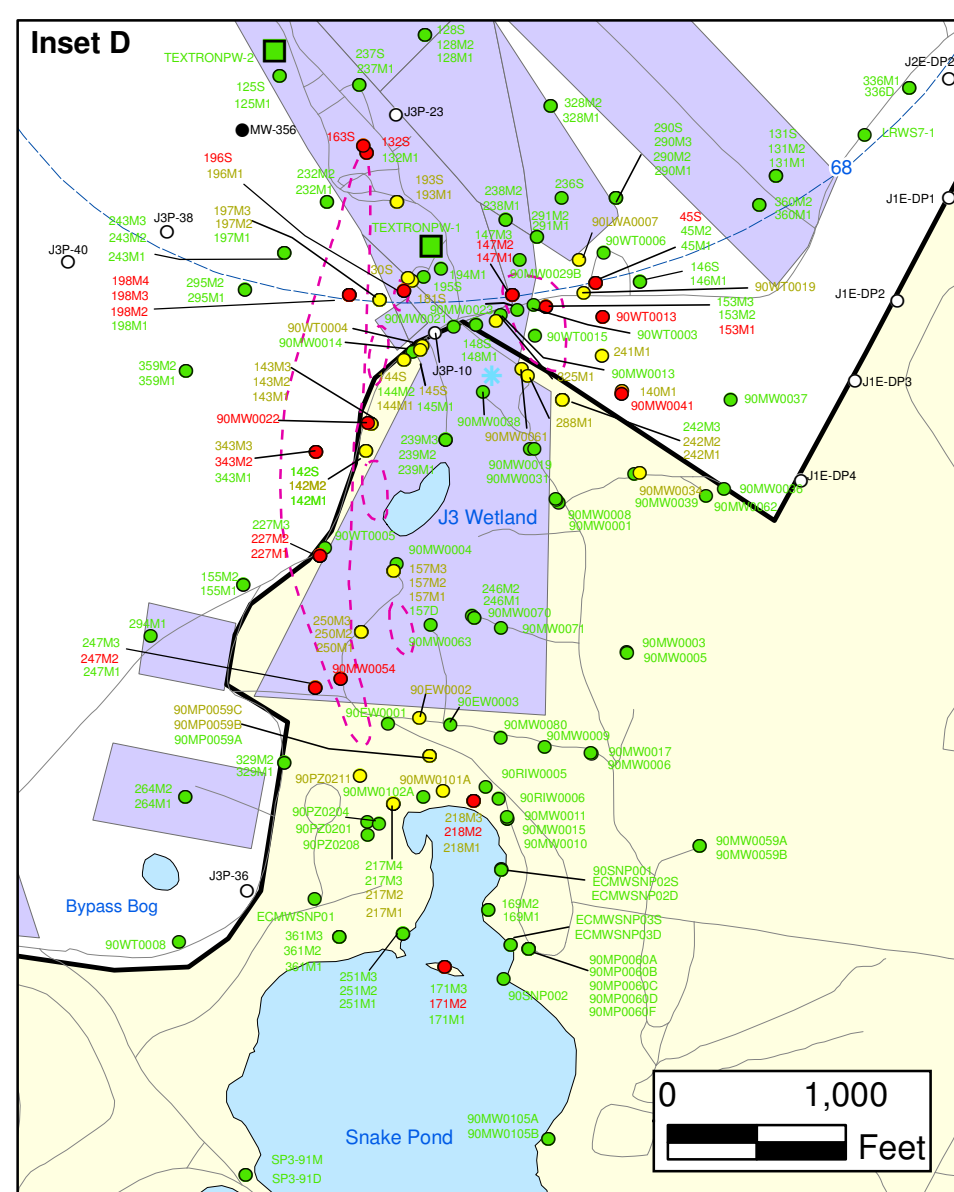
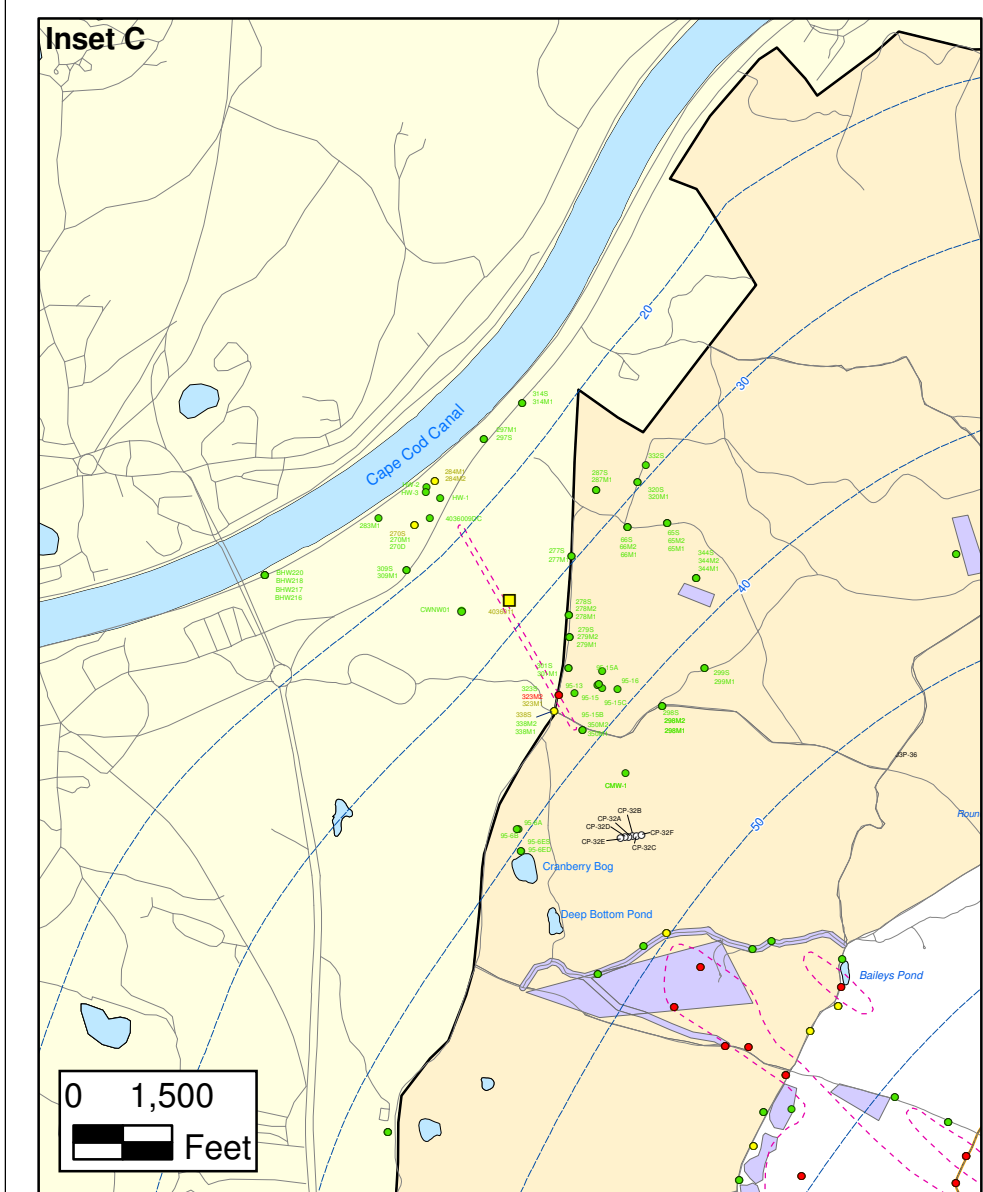
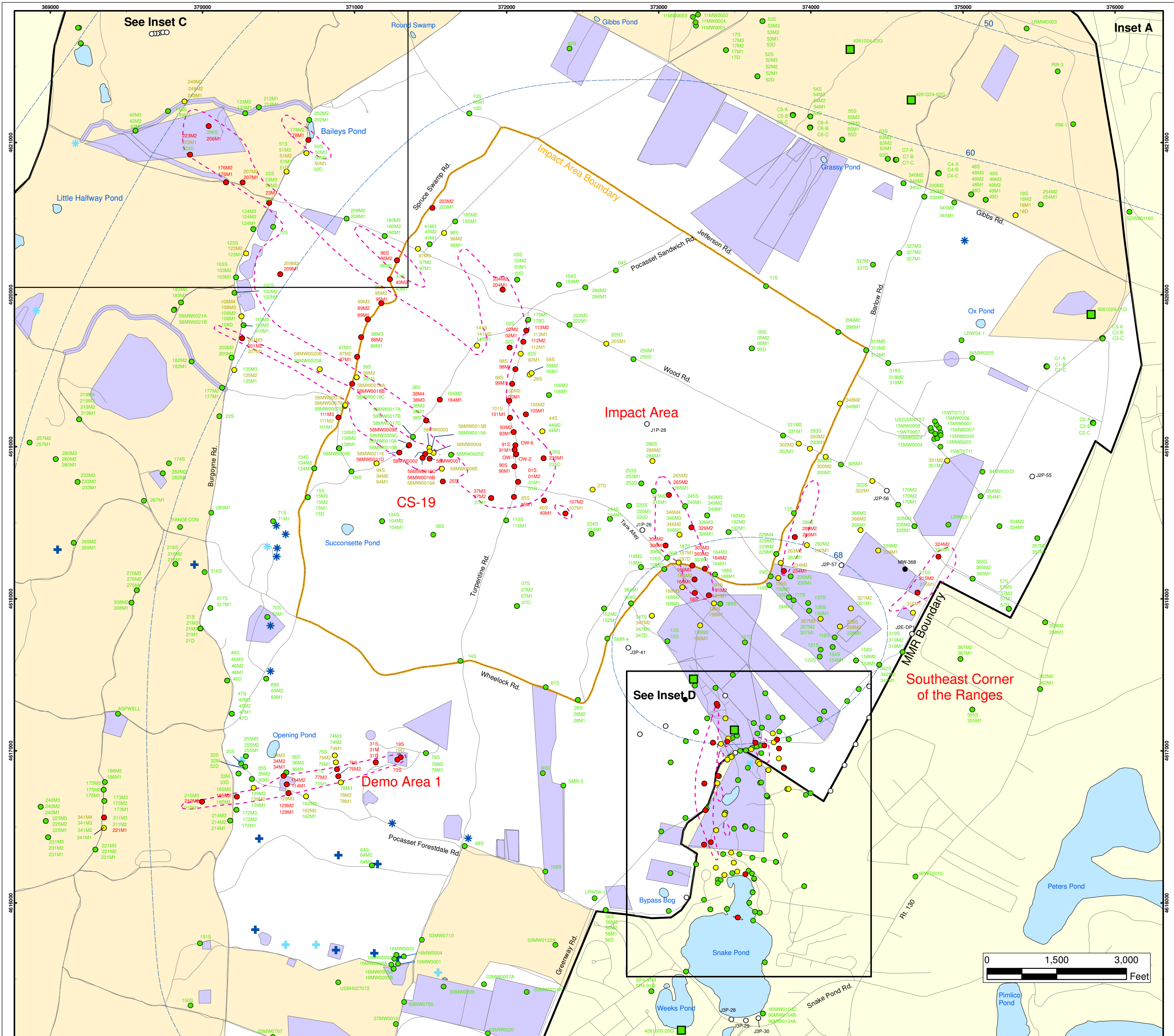
1

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J:\GIS\June2005\Monthly\1\_Exp\Exp\_overall.pdf  
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 June 3, 2005 DWN: DNB JBB ABF CHKD: MD

Impact Area  
 Groundwater Study Program





### Explosives in Groundwater Compared to Maximum Contaminant Level/Health Advisories

**Validated Data as of 05/27/05**

- Validated Detection Greater than or Equal to Maximum Contaminant Level/Health Advisories
- Validated Detection Less than Maximum Contaminant Level/Health Advisories
- Validated Non-Detect
- No Data Available
- Proposed Monitoring Well
- Military Training Areas
- Military Ranges
- + Current Gun Position
- \* Current Mortar Position
- + Old Gun Position
- \* Old Mortar Position
- Validated Non-Detect Water Supply Well
- Validated Detection Less than Maximum Contaminant Level/Health Advisories Water Supply Well
- Water Table Contour (Feet NGVD), AMEC, September 2003
- Area of RDX Detections Greater than 2.0 ppb

Central Impact Area 7/15/03  
 SE Ranges (Jacobs Eng.) 10/21/04

Demo 1 12/21/04  
 NWC 1/27/05

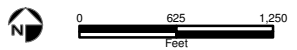
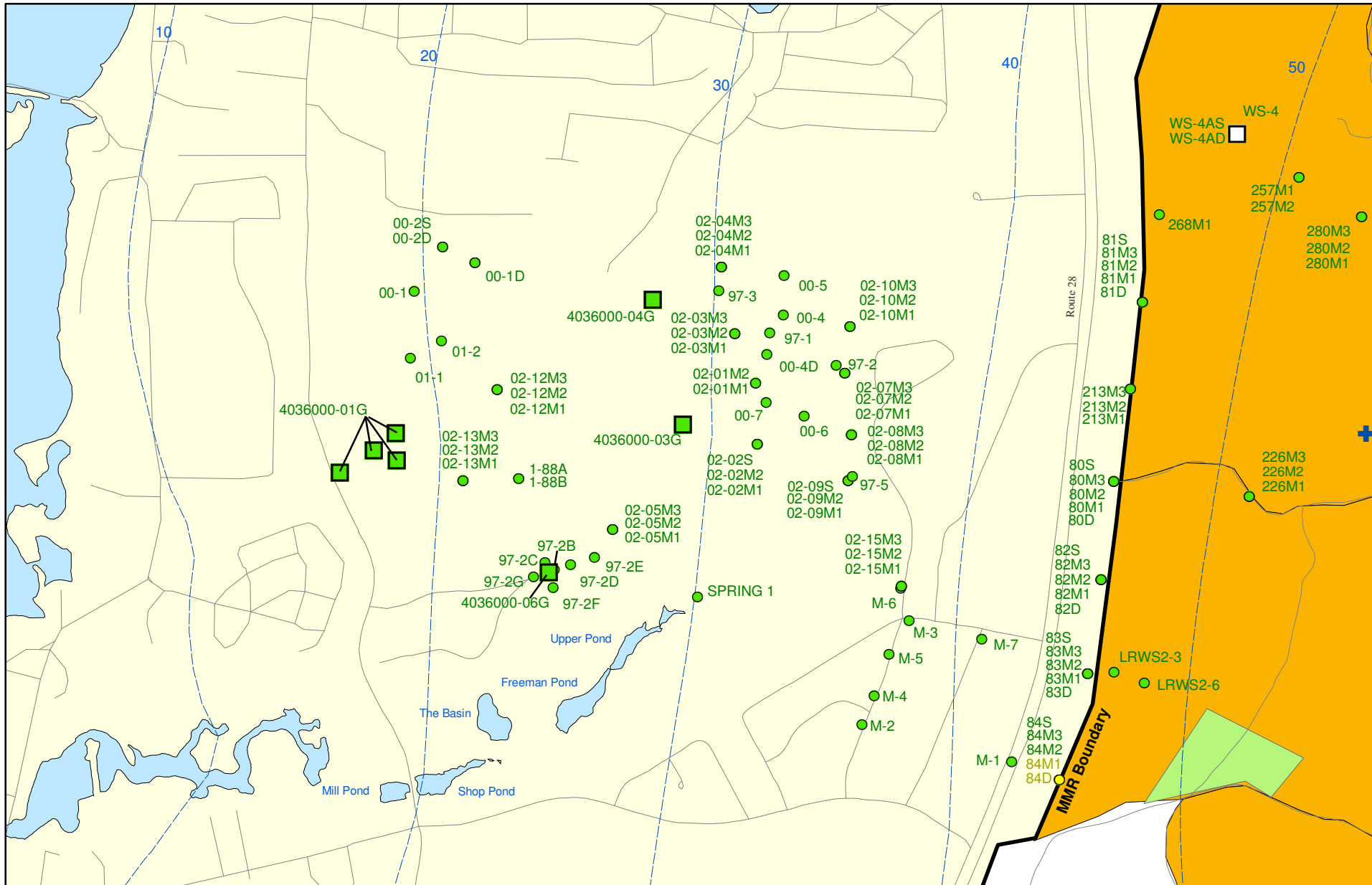
**Impact Area  
Groundwater Study Program**

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Sources & Notes  
Base map data from US Geological Survey  
7 1/2 minute Topographic Maps  
Source: Office of Geographic and  
Environmental Information (MassGIS)  
Commonwealth of Massachusetts  
Executive Office of Environmental Affairs

FIGURE  
1

Inset Map



Sources & Notes:  
 Base map data from US Geological Survey  
 7 1/2 minute Topographic maps.  
 Source: Office of Geographic and  
 Environmental Information (MassGIS)  
 Commonwealth of Massachusetts  
 Executive Office of Environmental Affairs

- Validated Detection Less than Maximum Contaminant Level/Health Advisories
- Validated Non-Detect
- + Current Gun Position
- Validated Non-Detect Water Supply Well
- Proposed Water Supply Well
- Combat Training Areas
- Military Training Areas
- Water Table Contour (Feet NGVD)  
AMEC, September 2003

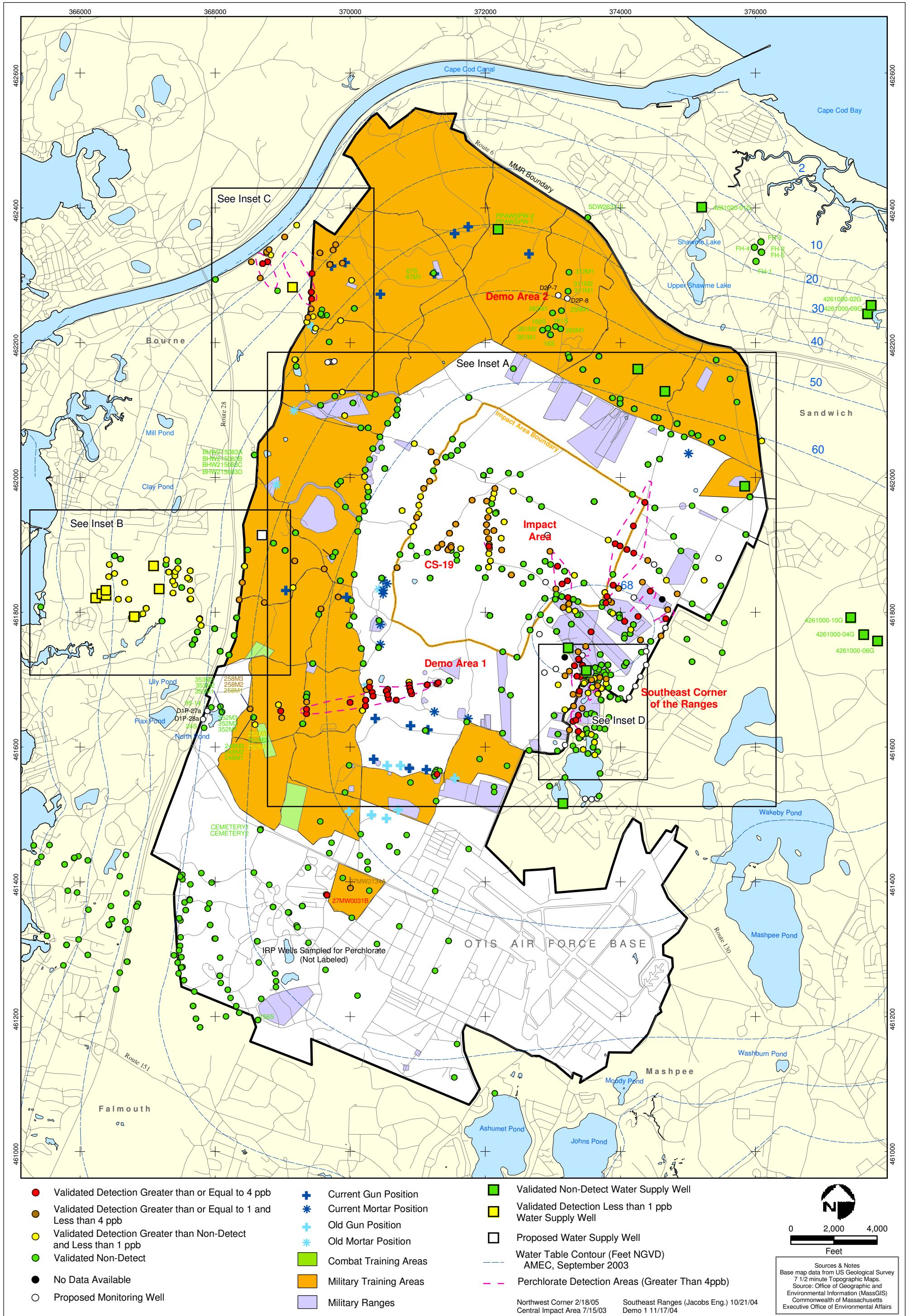
**Explosives in Groundwater Compared to  
 Maximum Contaminant Level/Health Advisories  
 Validated Data as of 05/27/05**



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FIGURE  
**Inset Map B** 1





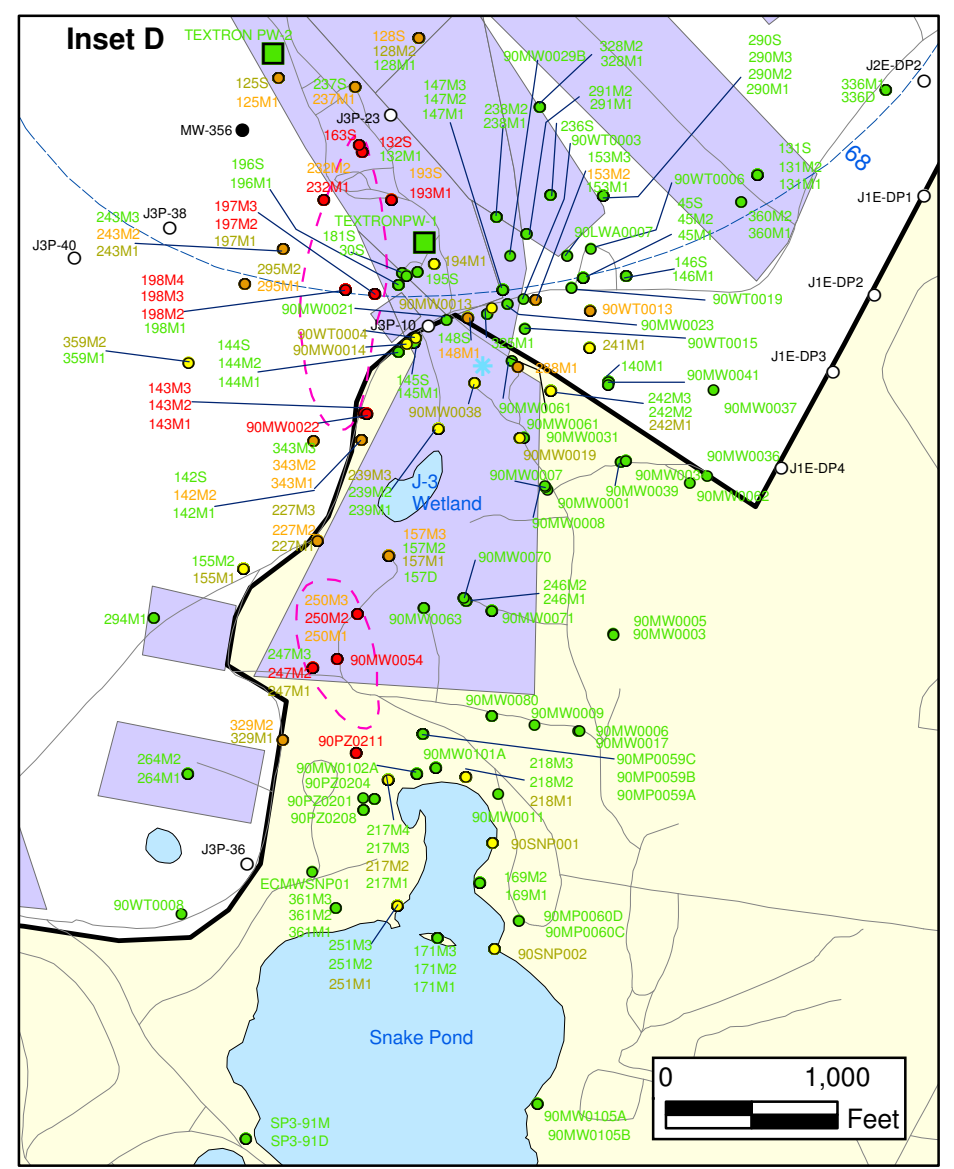
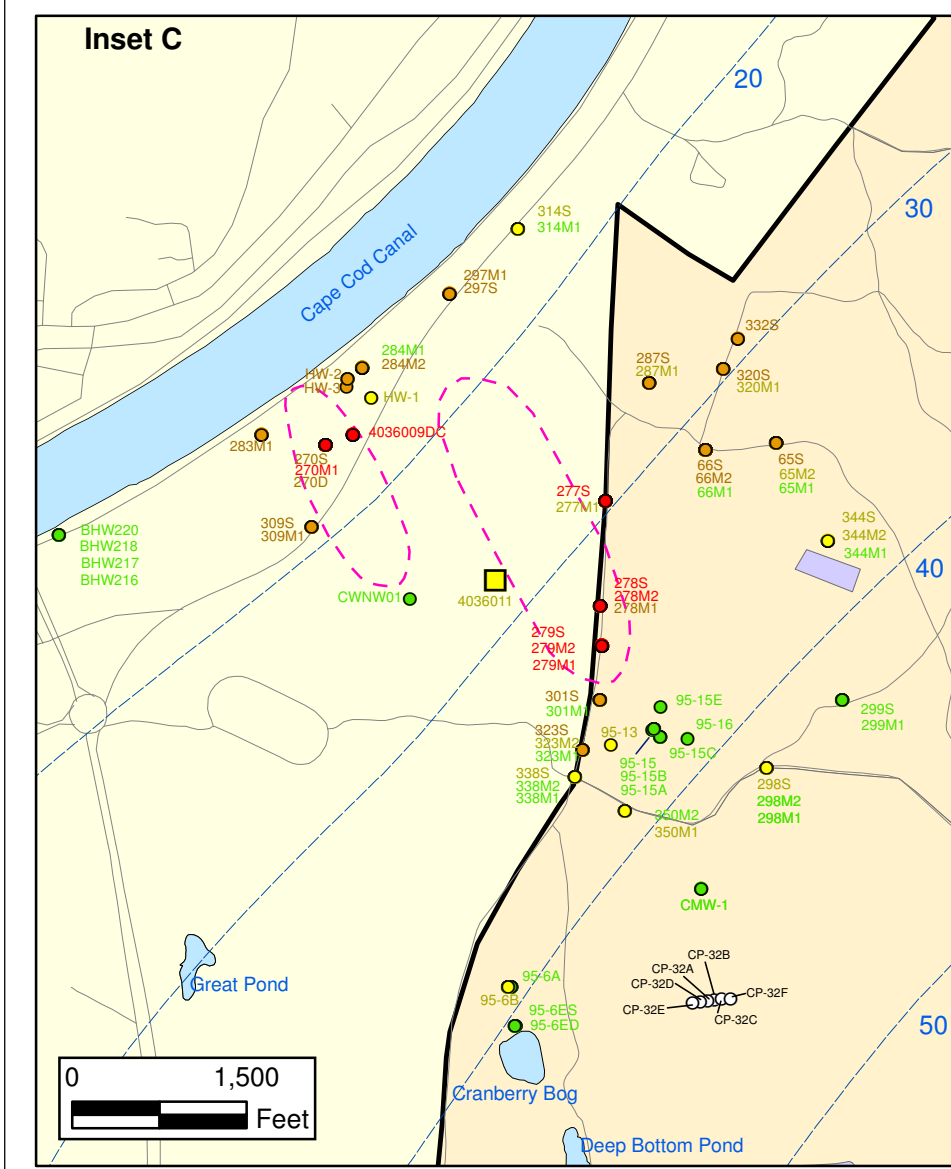
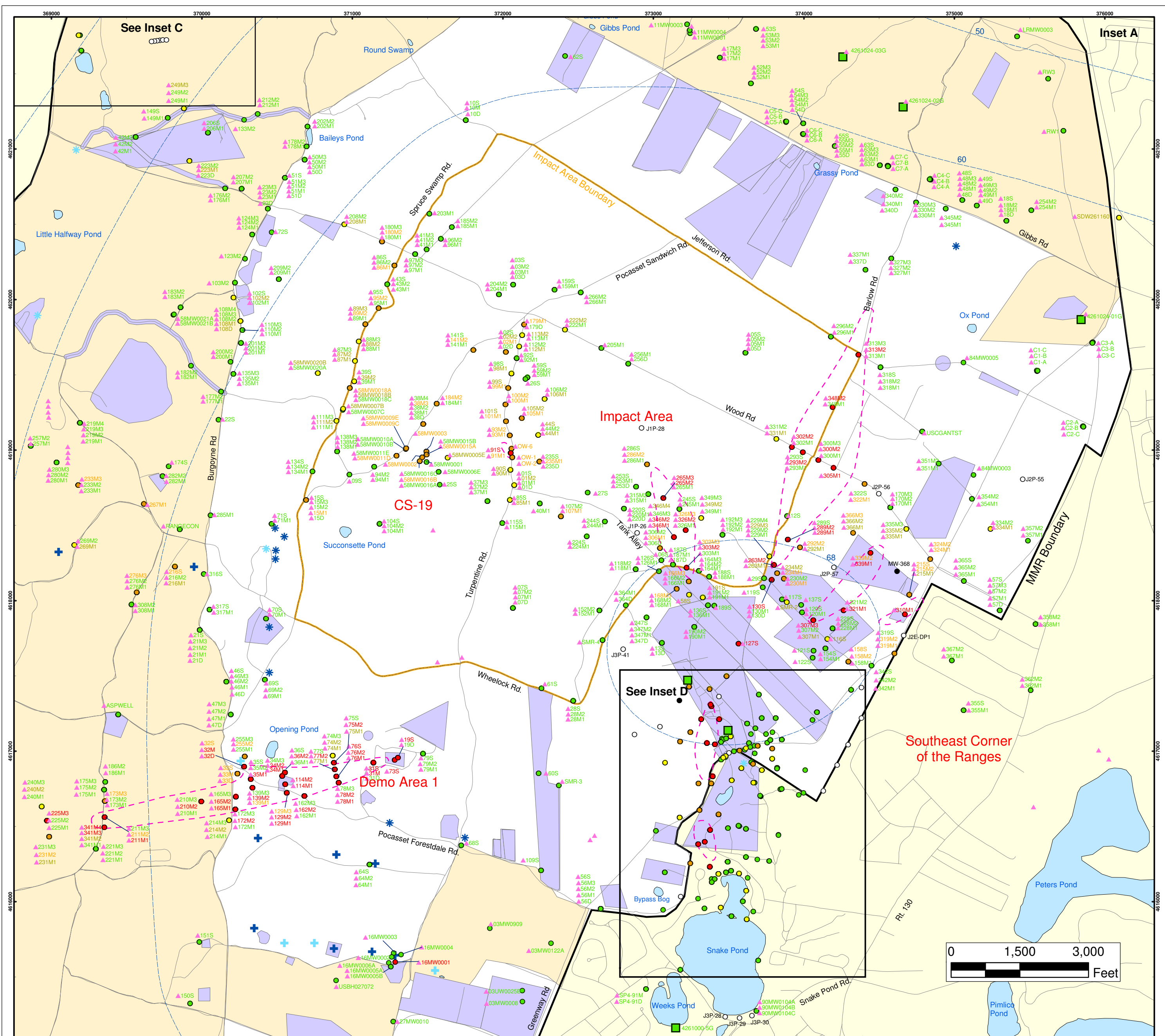
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**Perchlorate in Groundwater  
 Compared to a 4 ppb Concentration  
 Validated Data as of 05/27/05**

FIGURE

8





### Perchlorate in Groundwater Compared to a 4 PPB Concentration Validated Data as of 05/27/05

- Validated Detection Greater than or Equal to 4 ppb
- Validated Detection Greater than or Equal to 1 and Less than 4 ppb
- Validated Detection Less than 1 ppb
- Validated Non-Detect
- No Data Available
- Proposed Monitoring Well
- Military Training Areas
- Military Ranges
- + Current Gun Position
- \* Current Mortar Position
- + Old Gun Position
- \* Old Mortar Position
- Validated Non-Detect Water Supply Well
- Validated Detection Less Than 1 ppb Water Supply Well
- Water Table Contour (Feet NGVD), AMEC, September 2003
- Perchlorate Detection Areas Greater than 4ppb\*

\*Southeast Ranges 10/21/04; Central Impact Area 7/15/03; Demo 1 11/17/04; North West Corner 2/18/05

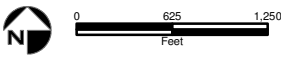
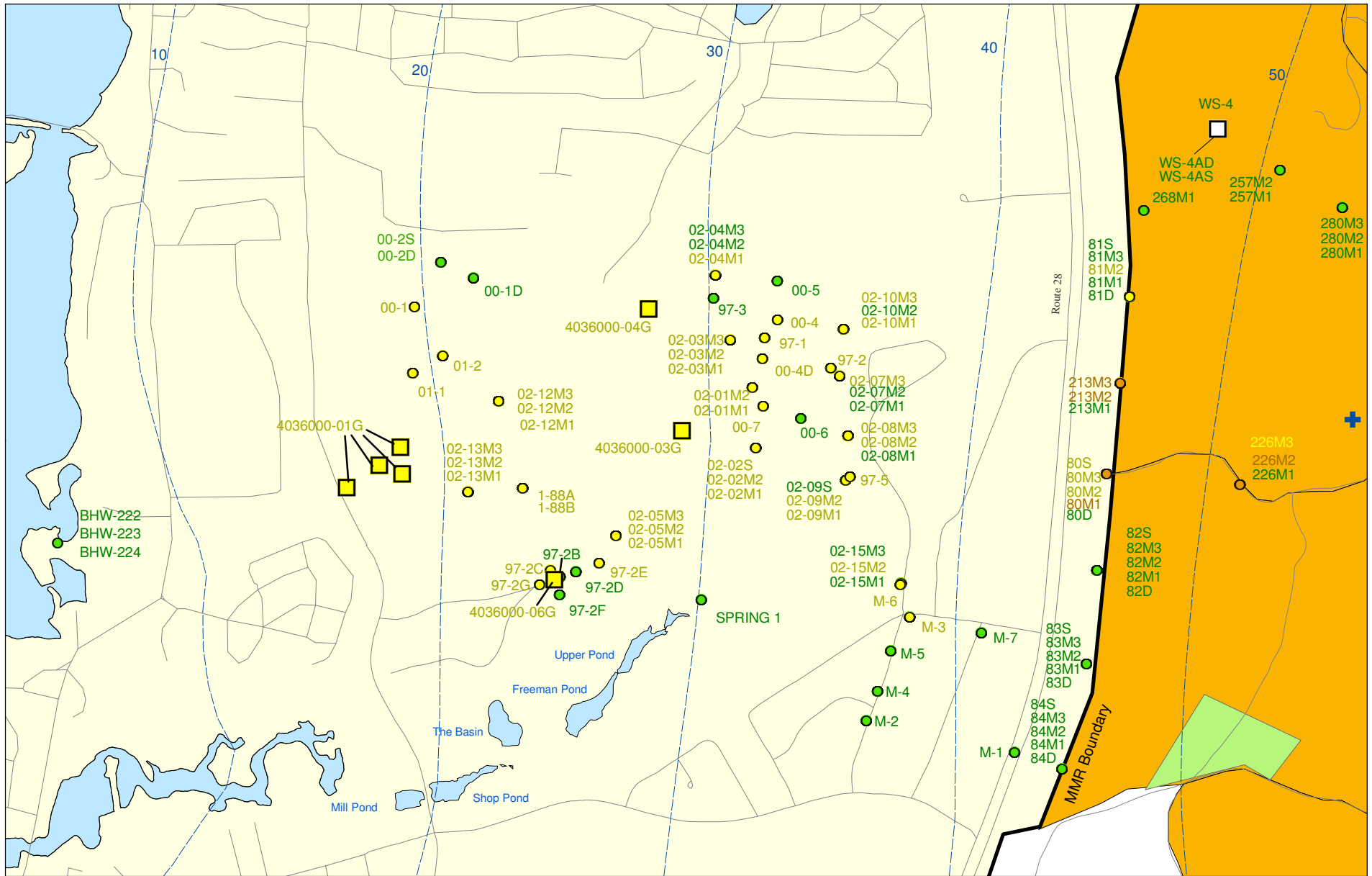
**Impact Area  
Groundwater  
Study Program**

Source: Notes  
Base map data from US Geological Survey  
7 1/2 minute Topographic Maps  
Source: Office of Geographic and  
Environmental Information (MassGIS)  
Commonwealth of Massachusetts  
Executive Office of Environmental Affairs

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Westford, Massachusetts

**FIGURE  
8**

**Inset Map**



Sources & Notes:  
 Base map data from US Geological Survey  
 7 1/2 minute Topographic maps.  
 Source: Office of Geographic and  
 Environmental Information (MassGIS)  
 Commonwealth of Massachusetts  
 Executive Office of Environmental Affairs

- Validated Detection Greater than or Equal to 1 and Less than 4 ppb
- Validated Detection Greater than Non-Detect and Less than 1 ppb
- Validated Non-Detect
- ⊕ Current Gun Position

- Validated Detection Less than 1 ppb Water Supply Well
- Proposed Water Supply Well
- Combat Training Areas
- Military Training Areas
- - - Water Table Contour (Feet NGVD)  
AMEC, September 2003

**Perchlorate in Groundwater  
 Compared to a 4 ppb Concentration  
 Validated Data as of 05/27/05**



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**Inset Map B** **8**



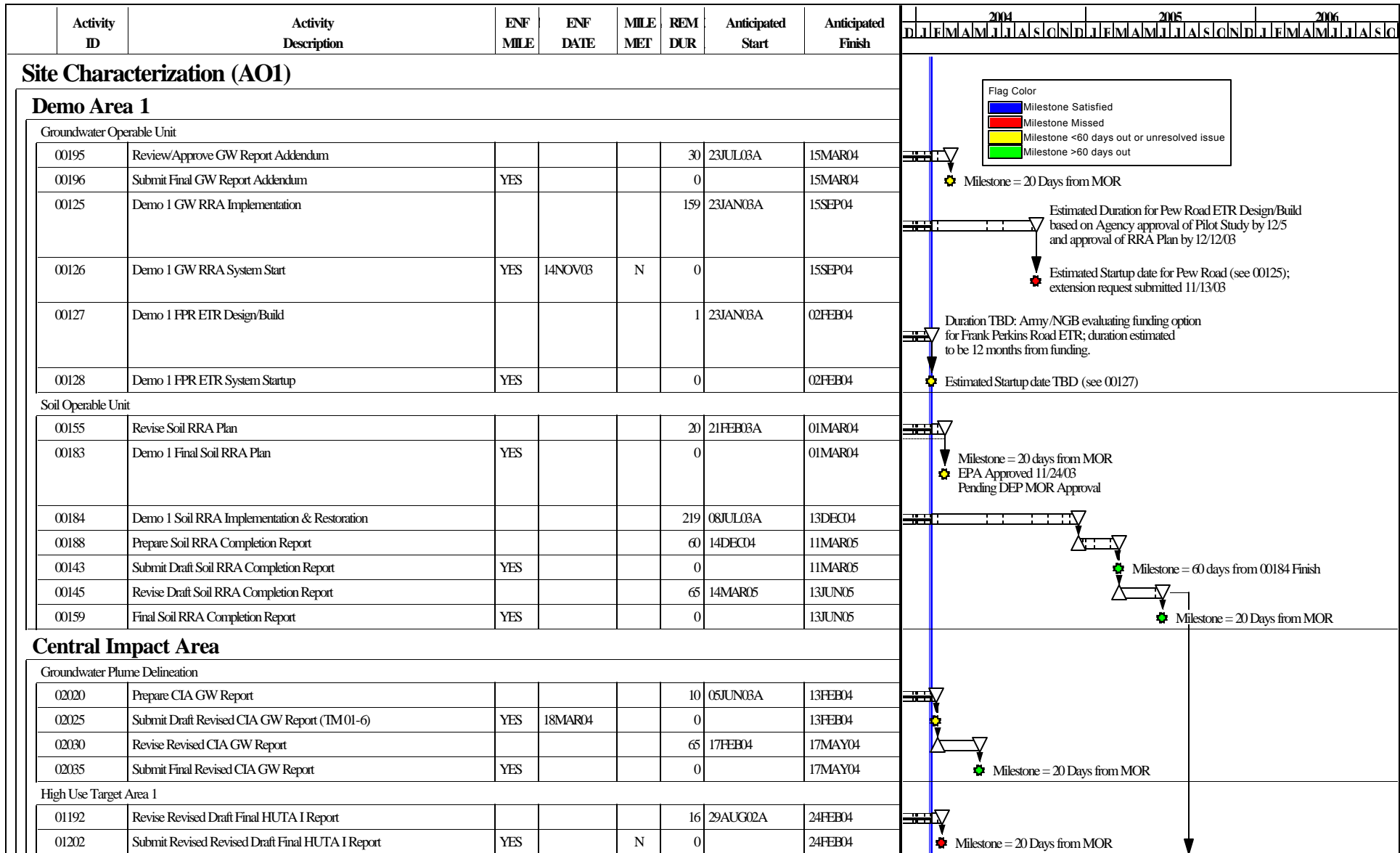


Figure 9

Start Date 29FEB00  
 Finish Date 31JUL09  
 Data Date 01FEB04  
 Run Date 09FEB04 14:21



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Sheet 1 of 13

Combined Schedule for the  
 Impact Area GW Study Program  
 as of 01FEB04

Date	Revision	Checked	Approved

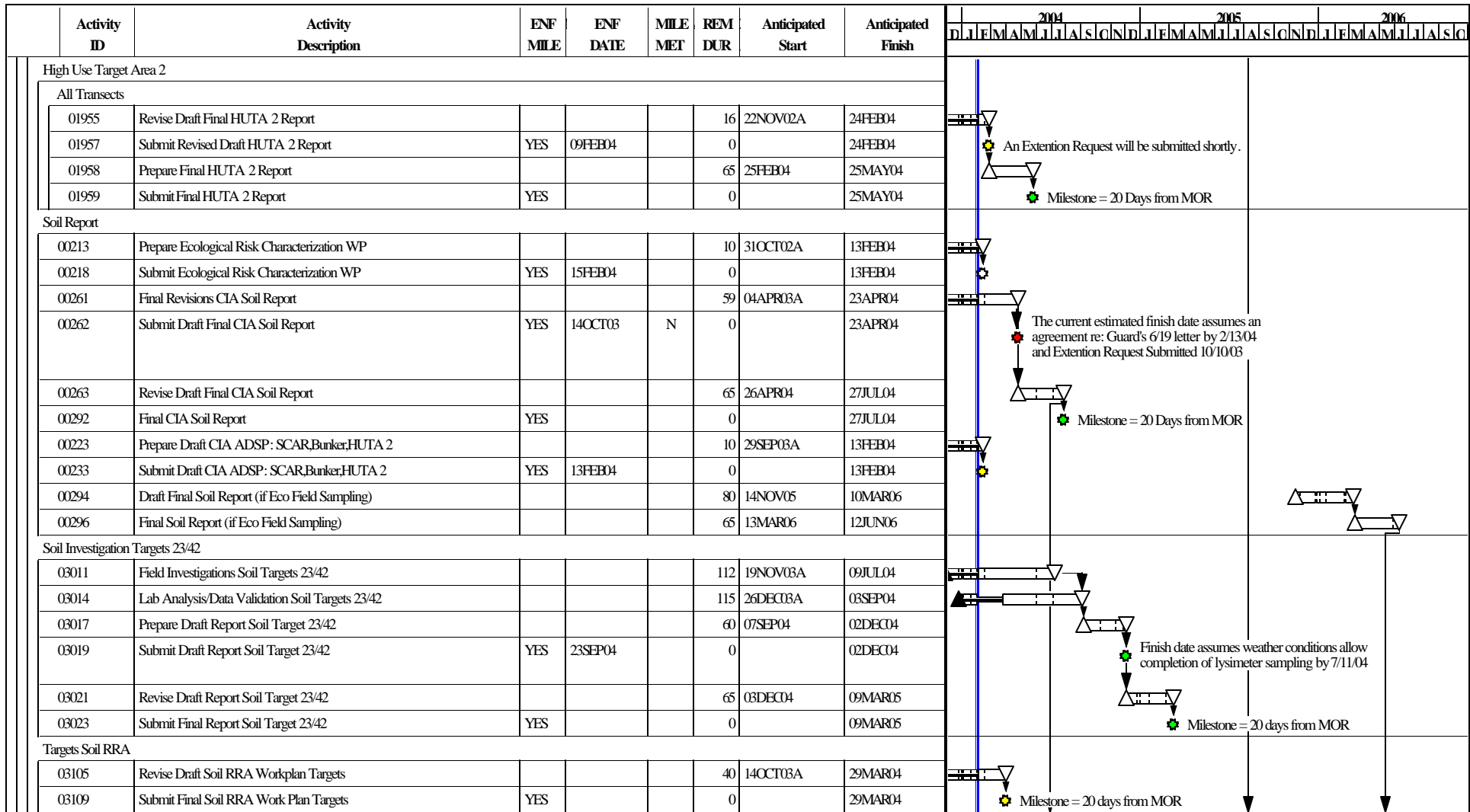


Figure 9

Start Date 29FEB00  
 Finish Date 31JUL09  
 Data Date 01FEB04  
 Run Date 09FEB04 14:21



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Combined Schedule for the  
 Impact Area GW Study Program  
 as of 01FEB04

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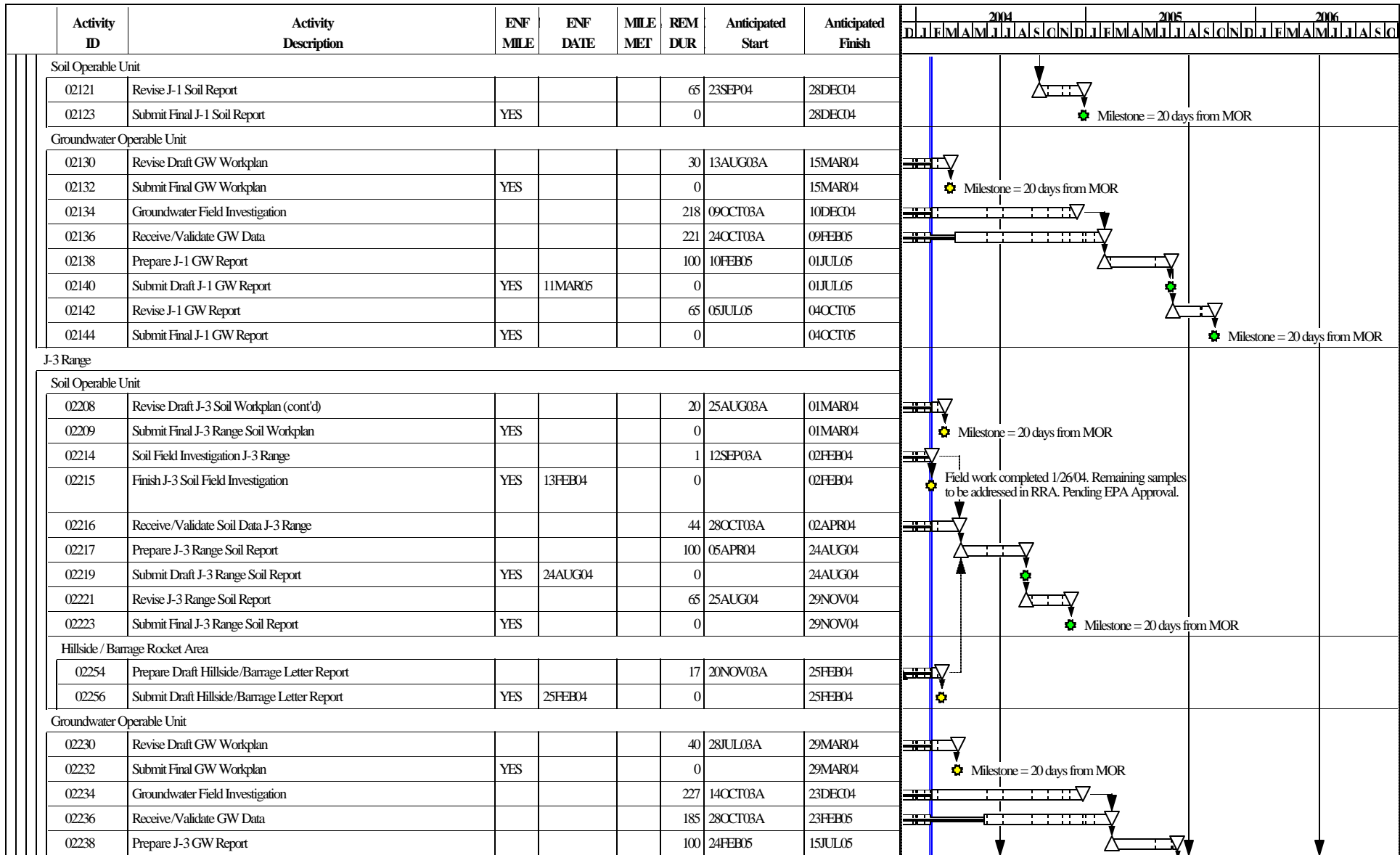


Figure 9

Start Date 29FEB00  
 Finish Date 31JUL09  
 Data Date 01FEB04  
 Run Date 09FEB04 14:21



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Combined Schedule for the  
 Impact Area GW Study Program  
 as of 01FEB04

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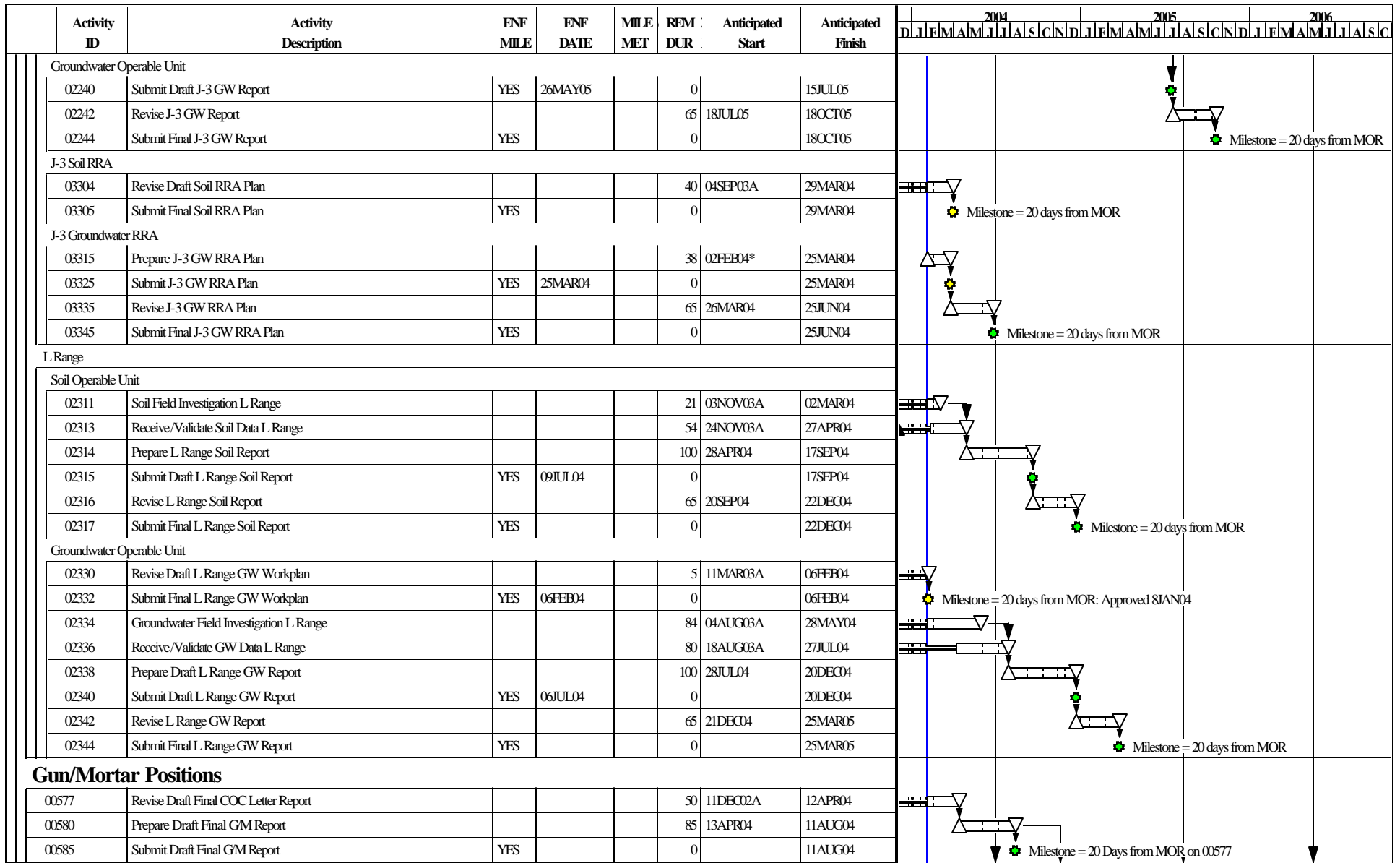


Figure 9

Start Date 29FEB00  
 Finish Date 31JUL09  
 Data Date 01FEB04  
 Run Date 09FEB04 14:21



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Combined Schedule for the  
 Impact Area GW Study Program  
 as of 01FEB04

Date	Revision	Checked	Approved

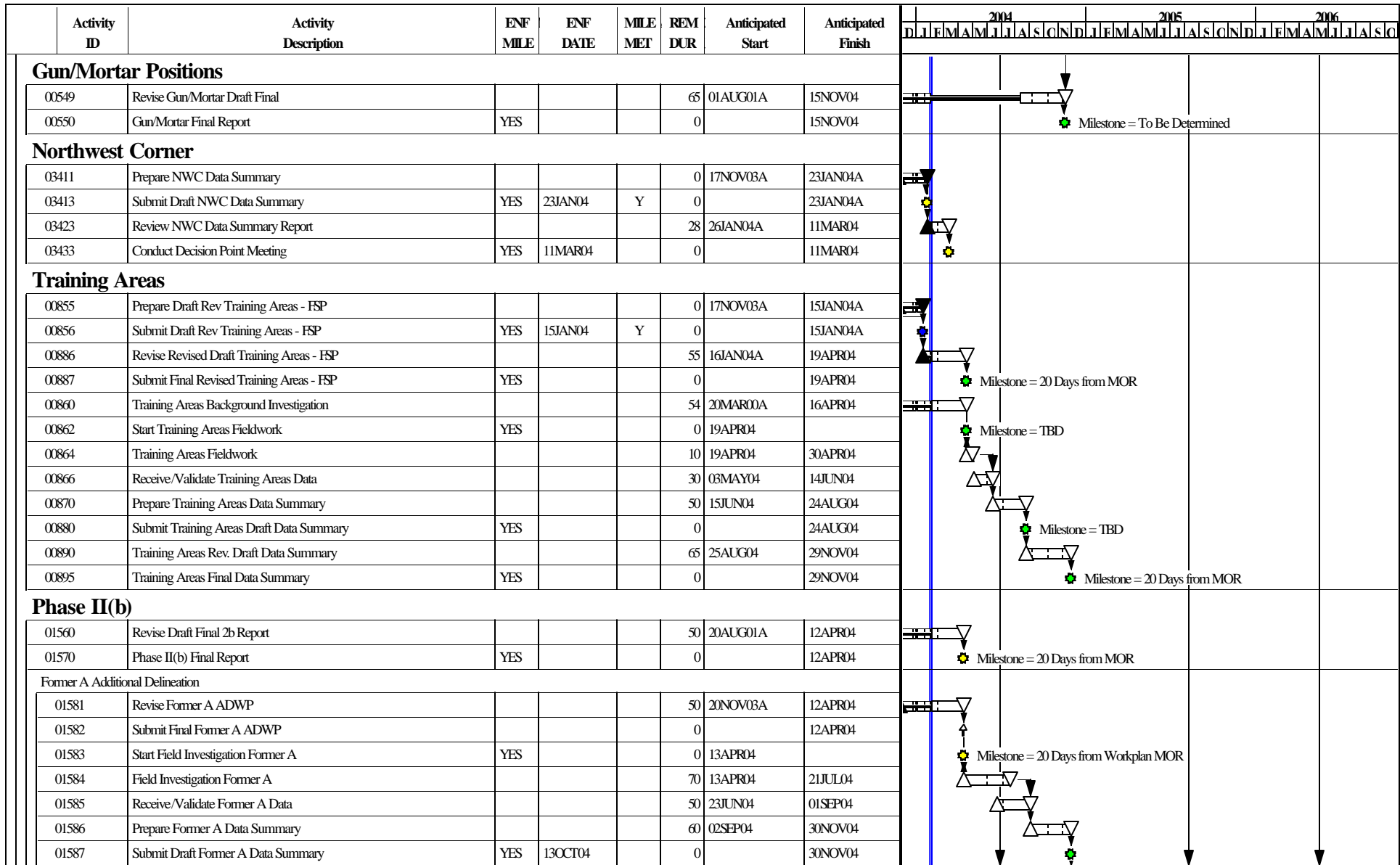


Figure 9

Start Date 29FEB00  
 Finish Date 31JUL09  
 Data Date 01FEB04  
 Run Date 09FEB04 14:21



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Combined Schedule for the  
 Impact Area GW Study Program  
 as of 01FEB04

Date	Revision	Checked	Approved



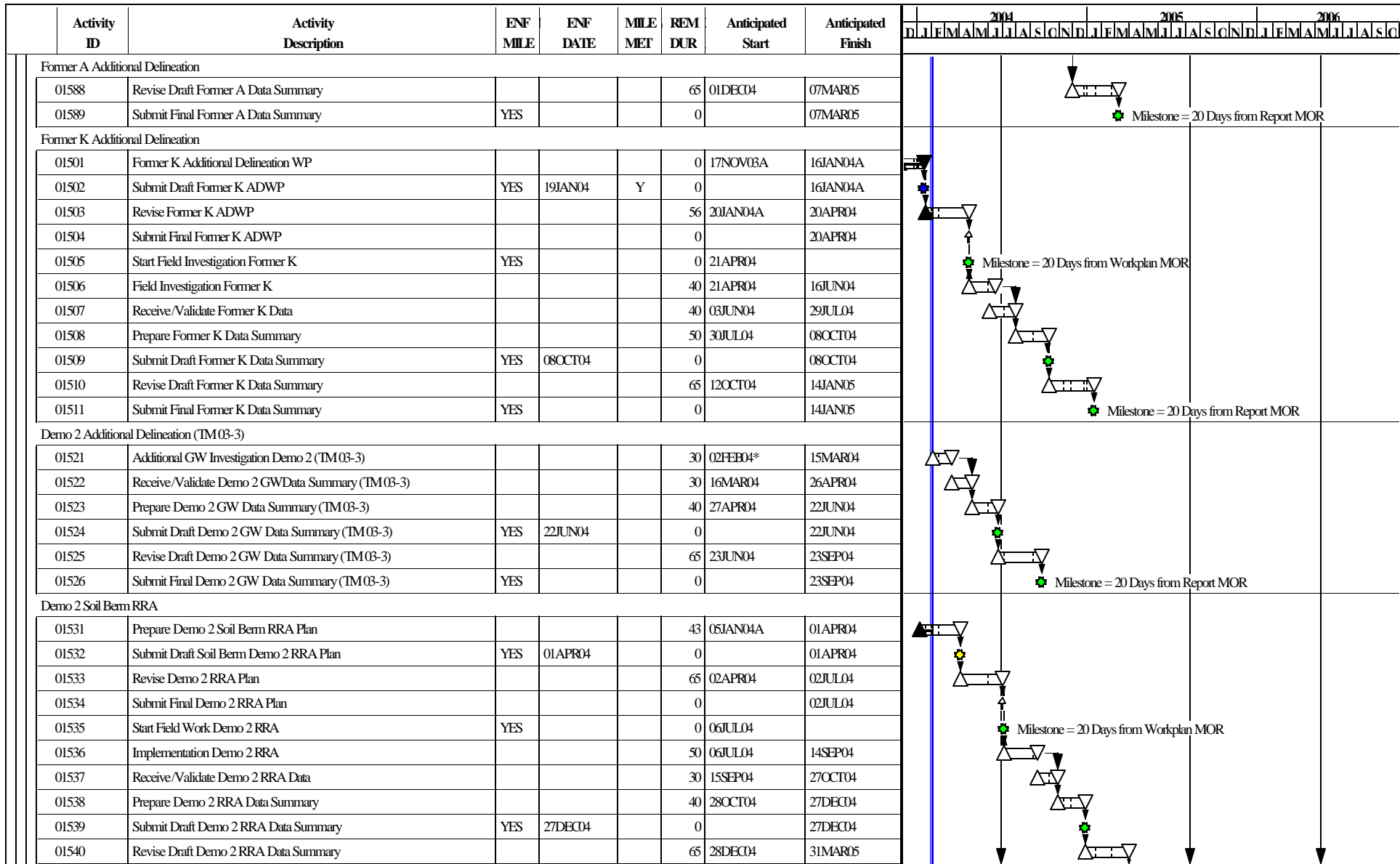


Figure 9

Start Date 29FEB00  
 Finish Date 31JUL09  
 Data Date 01FEB04  
 Run Date 09FEB04 14:21

Early Bar  
 Progress Bar

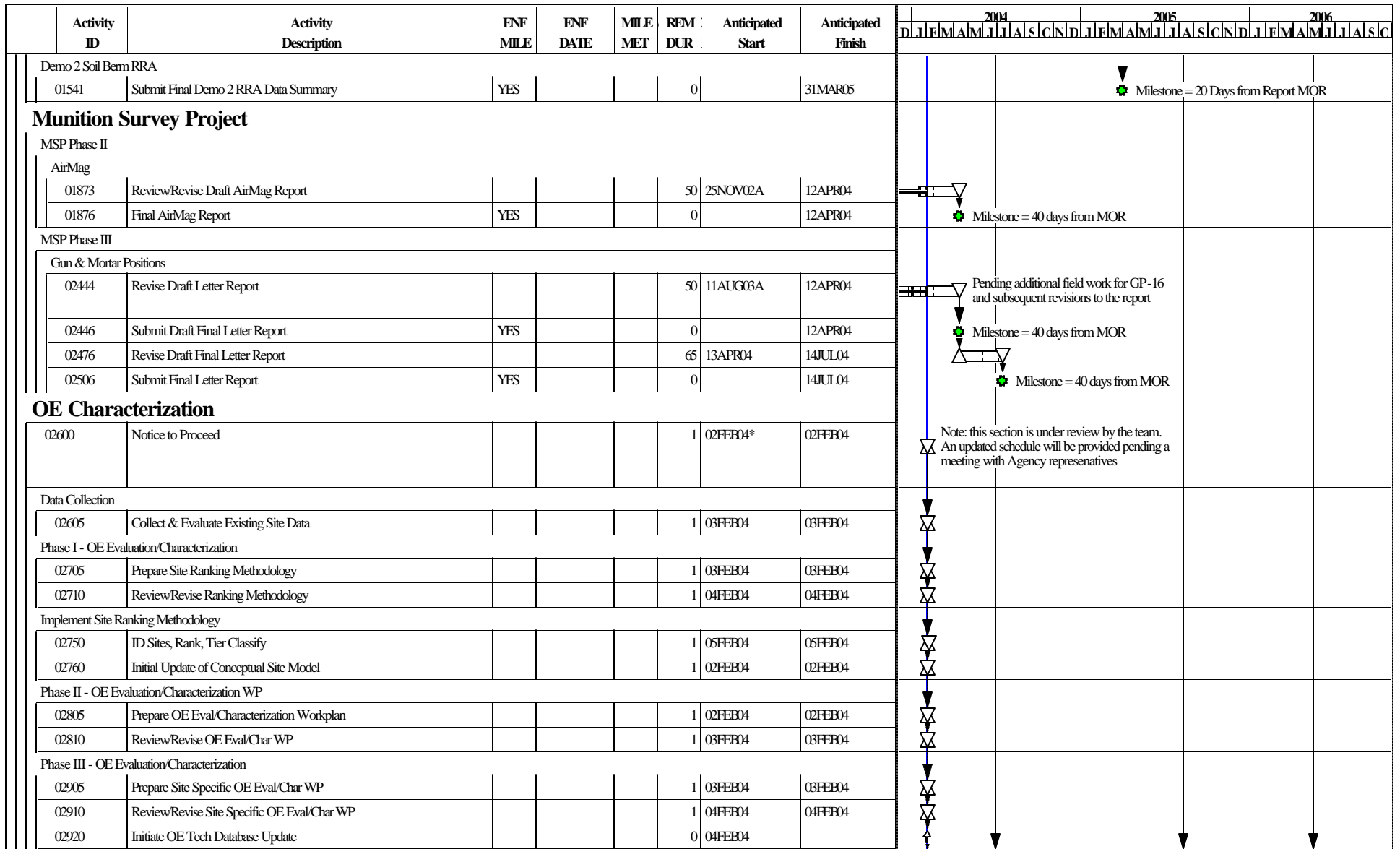
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**UB09** **Sheet 7 of 13**

**Combined Schedule for the  
 Impact Area GW Study Program  
 as of 01FEB04**

Date	Revision	Checked	Approved



Note: this section is under review by the team. An updated schedule will be provided pending a meeting with Agency representatives

Figure 9

Start Date 29FEB00  
 Finish Date 31JUL09  
 Data Date 01FEB04  
 Run Date 09FEB04 14:21



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Combined Schedule for the  
 Impact Area GW Study Program  
 as of 01FEB04

Date	Revision	Checked	Approved



Activity ID	Activity Description	ENF MILE	ENF DATE	MILE MET	REM DUR	Anticipated Start	Anticipated Finish	2004												2005												2006											
								D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
Phase III - OE Evaluation/Characterization																																											
02930	Initiate Evaluation of Priority Sites				0	05FEB04																																					
02940	Initiate Draft Site Specific OE Report				0	20JUL04																																					
<b>Western Boundary</b>																																											
03463	Field Investigation (Soil & Groundwater)				54	03FEB03A	16APR04																																				
03473	Prepare Western Boundary Draft Report				110	19APR04	22SEP04																																				
03483	Submit Western Boundary Draft Report	YES	01SEP04		0		22SEP04																																				
<b>Program Wide Activities</b>																																											
Military Munitions Management Plan																																											
03513	Prepare Revised Draft Munitions Managment Plan				0	28OCT03A	23DEC03A																																				
03523	Submit Revised Draft Munitions Managment Plan	YES	01MAR04	Y	0		23DEC03A																																				
OE and Range Residue Materials Disposition																																											
03552	Revise Draft OE and RR Material Disposition Plan				50	04NOV03A	12APR04																																				
03553	Submit Final OE and RR Material Disposition Plan	YES			0		12APR04	Milestone = 20 days from MOR																																			
IDM Material Disposition																																											
03583	Prepare Revised Draft IDM Materials Disp. Plan				14	24DEC03A	20FEB04																																				
03593	Submit Revised Draft IDM Materials Disp. Plan				0		20FEB04																																				
03603	Prepare Final IDM Materials Disp. Plan				65	23FEB04	21MAY04	Draft submitted 11/3/03 was disapproved 12/23/03 EPA REQUESTED RESUBMITTAL ON 2/20/04																																			
03613	Submit Final IDM Materials Disp. Plan	YES			0		21MAY04	Milestone = 20 days from MOR																																			
Blow In Place (BIP) Summary Reports																																											
03633	Submit 7/02-9/02 Draft Report				0		12DEC03A																																				
03643	Submit 1/03-3/03 Draft Report				0		12MAR04*																																				
03653	Submit 4/03-6/03 Draft Report				0		09APR04*																																				
03663	Submit 7/03-9/03 Draft Report				0		07MAY04*																																				
03673	Submit 10/03-12/03 Draft Report				0		11JUN04*																																				
03683	Submit 10/02-12/02 Draft Report				0		17FEB04*																																				
<b>Groundwater Monitoring Programs</b>																																											
08310	Review/Revise Site-Wide Perchlorate Report				42	20DEC02A	31MAR04																																				
08315	Final Site-Wide Perchlorate Report	YES	13JAN04		0		31MAR04	Milestone = 20 days from MOR: Approved 12DEC03A Extension to 31Mar04 was Requested																																			
LTGM Sampling for 2004																																											
08350	Prepare/Submit PEP Frequency Summary				15	20JAN04A	23FEB04																																				

Figure 9

Start Date 29FEB00  
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Combined Schedule for the  
 Impact Area GW Study Program  
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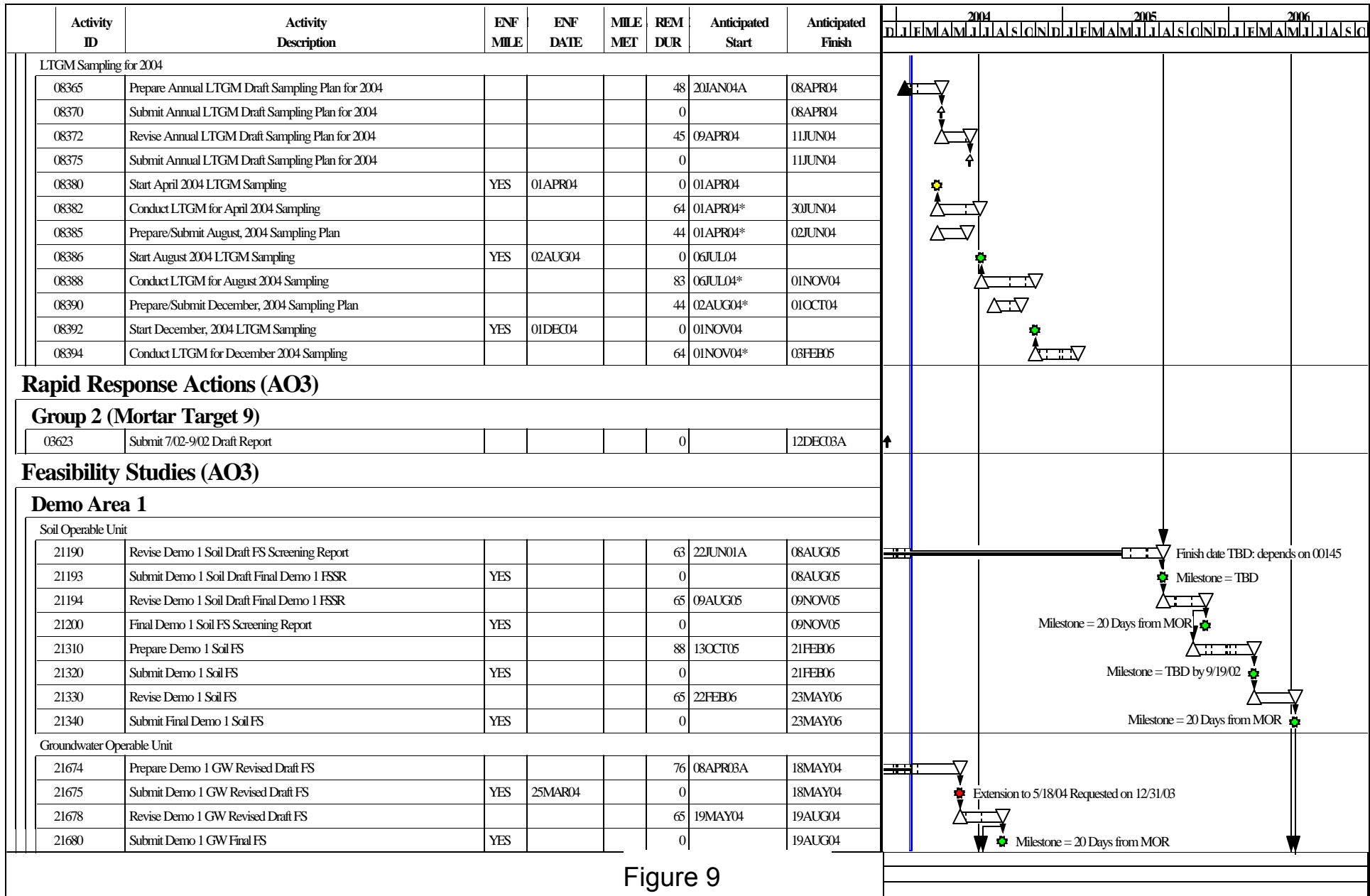


Figure 9

Start Date	29FEB00		<b>UB09</b>	<b>Sheet 10 of 13</b>	Date	Revision	Checked	Approved
Finish Date	31JUL09							
Data Date	01FEB04							
Run Date	09FEB04 14:21							
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**Combined Schedule for the  
Impact Area GW Study Program  
as of 01FEB04**



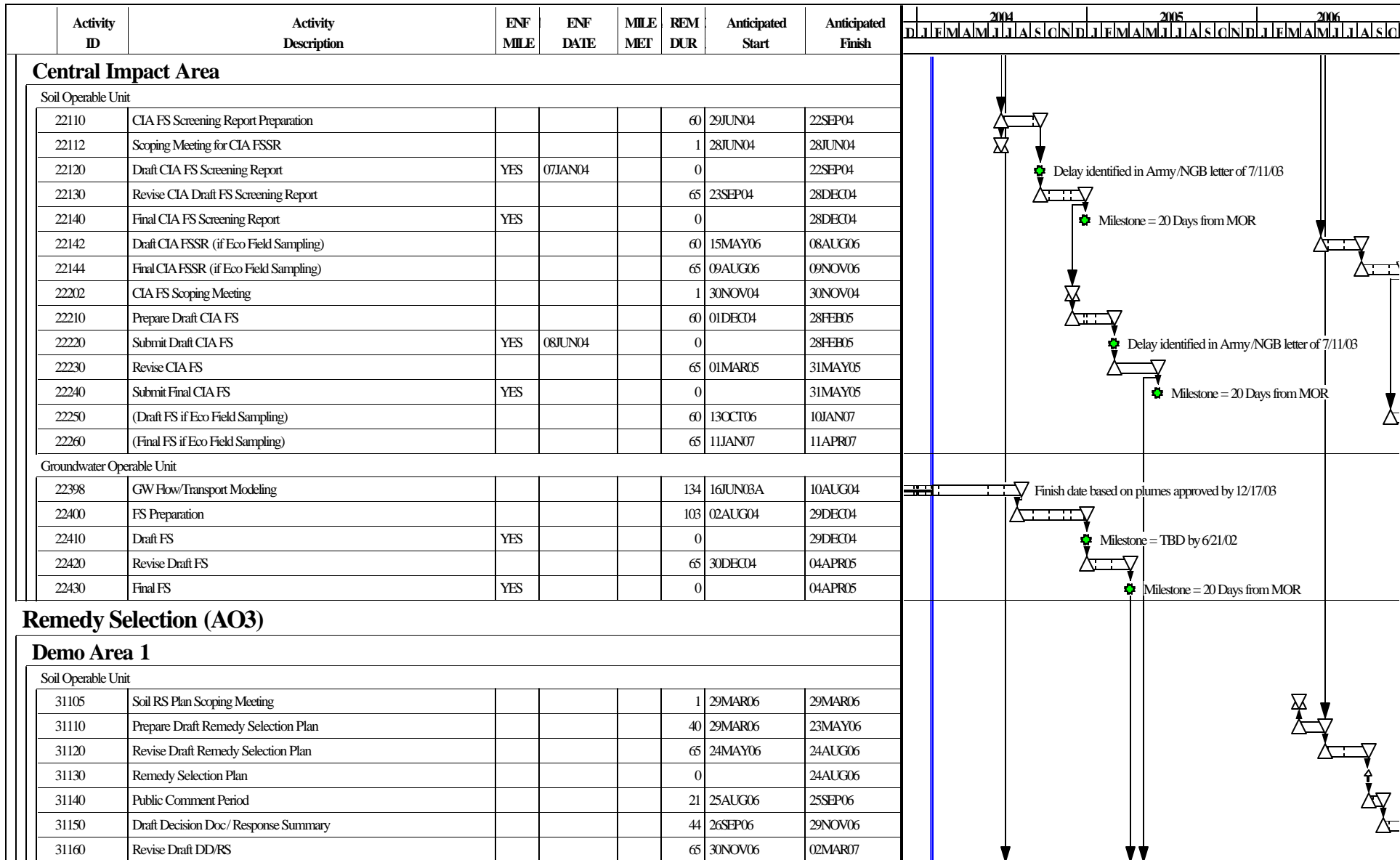


Figure 9

Start Date 29FEB00  
 Finish Date 31JUL09  
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 Run Date 09FEB04 14:21



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Combined Schedule for the  
 Impact Area GW Study Program  
 as of 01FEB04

Date	Revision	Checked	Approved

Activity ID	Activity Description	ENF MILE	ENF DATE	MILE MET	REM DUR	Anticipated Start	Anticipated Finish	2004 2005 2006 D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D											
Soil Operable Unit																			
31170	Final Decision Doc/ Response Summary				0		02MAR07												
Groundwater Operable Unit																			
31505	GW RS Plan Scoping Meeting				1	09JUL04	09JUL04												
31510	Prepare Draft Remedy Selection Plan				50	09JUL04	17SEP04												
31515	Submit Demo 1 GW Draft RS Plan	YES	26JUL04		0		17SEP04												
31520	Revise Demo 1 GW Draft Remedy Selection Plan				65	20SEP04	22DEC04												
31530	Demo 1 GW Remedy Selection Plan				0		22DEC04												
31540	Demo 1 GW Public Comment Period				22	23DEC04	26JAN05												
31550	Demo 1 GW Draft Decision Doc/ Response Summary				60	27JAN05	21APR05												
31560	Revise Demo 1 GW Draft DD/RS				65	22APR05	25JUL05												
31570	Final Demo 1 GW Decision Doc/ Response Summary				0		25JUL05												
<b>Central Impact Area</b>																			
Soil Operable Unit																			
32105	Soil RS Plan Scoping Meeting				1	03MAY05	03MAY05												
32110	Prepare Draft Remedy Selection Plan				60	03MAY05	27JUL05												
32120	Revise Draft Remedy Selection Plan				65	28JUL05	28OCT05												
32130	Remedy Selection Plan				0		28OCT05												
32140	Public Comment Period				21	31OCT05	30NOV05												
32150	Draft Decision Doc/ Response Summary				64	01DEC05	06MAR06												
32160	Revise Draft DD/RS				65	07MAR06	06JUN06												
32170	Final Decision Doc/ Response Summary				0		06JUN06												
32172	Draft DD/RS (if Eco Field Sampling)				210	12DEC06	04OCT07												
32174	Final DD/RS (if Eco Field Sampling)				65	05OCT07	08JAN08												
Groundwater Operable Unit																			
32505	GW RS Plan Scoping Meeting				1	07JAN05	07JAN05												
32510	Prepare Draft Remedy Selection Plan				60	07JAN05	04APR05												
32520	Revise Draft Remedy Selection Plan				65	05APR05	06JUL05												
32530	Remedy Selection Plan				0		06JUL05												
32540	Public Comment Period				21	07JUL05	04AUG05												
32550	Draft Decision Doc/ Response Summary				64	05AUG05	04NOV05												
32560	Revise Draft DD/RS				65	07NOV05	10FEB06												

Figure 9

Start Date 29FEB00  
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Combined Schedule for the  
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