

Data Validation Report
Remedial Investigation at RVAAP-66 Facility Wide Groundwater
Semi-Annual & Quarterly Sampling Event for December 2017

Former Ravenna Army Ammunition Plant
Portage and Trumbull Counties, Ohio

Contract Number: W9133L-14-D-0008
Task Order Number: 0003

Laboratory SDG 280-104281-1

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CONTRACTOR STATEMENT OF INDEPENDENT TECHNICAL REVIEW

TEC-WESTON Joint Venture has completed this Data Validation Report. Data validation was performed by the Validation Chemist and Secondary QC Review was performed by a Senior Chemist. Signatures indicate the report is approved for release.



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1/30/2018

Date

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INTRODUCTION

This report summarizes the results of the **EPA Stage 2B** data validation performed on groundwater samples and quality control (QC) sample data for the Remedial Investigation for RVAAP-66, Former Ravenna Army Ammunition Plant, Portage and Trumbull Counties, Ohio. Results are reported in laboratory sample delivery group (SDG) **280-104281-1**.

TestAmerica, Inc., Denver, Colorado/Sacramento, California performed the analyses listed in the table below:

Parameters	Analytical Method	Laboratory Location
Volatile Organic Compounds (VOCs)	8260B	Denver, CO
Semivolatile Organic Compounds (SVOCs)	8270D	Denver, CO
Polycyclic Aromatic Hydrocarbons (PAHs)	8270D SIM	Denver, CO
Organochlorine Pesticides	8081B	Denver, CO
Polychlorinated Biphenyls (PCBs)	8082A	Denver, CO
Explosives	8330B	Denver, CO
Nitroguanidine	8330 Modified	Sacramento, CA
Metals	6010C/6020A/7470A	Denver, CO
Perchlorate	6860	Denver, CO
Alkalinity	2320B	Denver, CO
Total Cyanide	9012B	Denver, CO
Nitrocellulose	WS-WC-0050	Sacramento, CA
Sulfide	9034	Denver, CO
Chloride, Sulfate	9056A	Denver, CO

The data were reviewed using guidance and quality control criteria documented in the *Draft Remedial Investigation Work Plan for Groundwater and Environmental Services for RVAAP-66 Facility-Wide Groundwater, Appendix A: Sampling Analysis Plan, A.2: Uniform Federal Policy Quality Assurance Project Plan (UFP-QAPP) Former Ravenna Army Ammunition Plant, Portage and Trumbull Counties, Ohio Attachment A Data Validation Evaluation Sheets (January 2016)* which are based on the *Department of Defense Quality Systems Manual (DoD QSM), Version 5.0; USEPA National Functional Guidelines for Organic Data Review (EPA 2014); and USEPA National Functional Guidelines for Inorganic Data Review (EPA 2014)*, the analytical methods, and professional judgment.

During data validation, qualifiers are assigned to assist in proper data interpretation. If values are estimated, data may be used for site evaluation purposes but reasons for data qualification should be taken into consideration when interpreting sample concentrations. Data that have been rejected (R)

should not be used for any purpose. Results with no qualifiers meet all data quality goals as outlined in the UFP-QAPP.

The data was reviewed and validated by calculating Relative Percent Difference (RPD) between spiked sample values according to the *USEPA National Functional Guidelines for Organic Data Review (EPA 2014)* and *USEPA National Functional Guidelines for Inorganic Data Review (EPA 2014)*. Therefore, the RPDs were calculated using the percent recovery values as stated in the above referenced USEPA documents. SW-846 Methods were utilized for this project and they recommend using the actual spiked sample values to calculate RPD values. However, the laboratory used varying spike amounts due to sample aliquot and percent moisture differences which lead to variations in the spike amounts making it very difficult to compare the spiked sample values. These differences would have created poor precision results for the spiked sample values that were not necessarily indicative of the data quality. The use of comparing spike recovery values in this case was a much better indicator of analytical precision.

The following samples were validated:

Sample ID	Laboratory ID	Sample Date	Matrix	QC Sample	VOCs (phthalates)	SVOCs (nitroaromatics & phthalates) (full list)	PAHs	Pesticides	PCBs	Explosives	Nitroguanidine	Perchlorate	Metals	Total Cyanide	Sulfide	Alkalinity	Nitroc�헤이루ose	Anions (Sulfate & Chloride)
LLImw-088-120217-GW	280-1-04281-1	12/02/17	Groundwater		✓								✓		✓			
LL3mw-246-120217-GW	280-1-04281-2	12/02/17	Groundwater		✓								✓		✓			
NTAnw-120-120417-GW	280-1-04281-3	12/04/17	Groundwater		✓								✓		✓			
TB-120417	280-1-04281-4	12/04/17	Groundwater Trip Blank		✓								✓		✓			
FBQnw-171-120417-GW	280-1-04281-6	12/04/17	Groundwater		✓								✓		✓			
FBQnw-172-120417-GW	280-1-04281-7	12/04/17	Groundwater		✓								✓		✓			
FBQnw-175-120417-GW	280-1-04281-8	12/04/17	Groundwater		✓								✓		✓			
FBQnw-176-120417-GW	280-1-04281-9	12/04/17	Groundwater		✓								✓		✓			
BKGrnw-016-120417-GW	280-1-04281-10	12/04/17	Groundwater		✓								✓		✓			
NTAnw-117-120417-GW	280-1-04281-11	12/04/17	Groundwater		✓								✓		✓			
NTAnw-118-120417-GW	280-1-04281-12	12/04/17	Groundwater		✓								✓		✓			
NTAnw-119-120417-GW	280-1-04281-13	12/04/17	Groundwater		✓								✓		✓			
FWGmw-007-120417-GW	280-1-04281-14	12/04/17	Groundwater		✓								✓		✓			
LL1Imw-005-120417-GW	280-1-04281-15	12/04/17	Groundwater		✓								✓		✓			
FWGmw-016-120417-GW	280-1-04281-16	12/04/17	Groundwater		✓								✓		✓			
FWGmw-015-120417-GW	280-1-04281-17	12/04/17	Groundwater		✓								✓		✓			
LL7mw-006-120417-GW	280-1-04281-18	12/04/17	Groundwater		✓								✓		✓			
FWGmw-024-120217-GW	280-1-04281-19	12/02/17	Groundwater Trip Blank		✓								✓		✓			
TB-120217-1030	280-1-04281-20	12/02/17	Groundwater		✓								✓		✓			
FWGmw-017-120217-GW	280-1-04281-25	12/02/17	Groundwater		✓								✓		✓			
FWGmw-021-120217-GW	280-1-04281-26	12/02/17	Groundwater		✓								✓		✓			
FWGmw-020-120217-GW	280-1-04281-27	12/02/17	Groundwater		✓								✓		✓			
FWGmw-018-120217-GW	280-1-04281-28	12/02/17	Groundwater		✓								✓		✓			

DATA VALIDATION REPORT

1.1 DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative. All requested target analytes were reported for each sample.

1.2 SAMPLE RECEIPT

The samples were received by the laboratory on December 5, 2017; the samples were received in good condition, under chain-of-custody, and custody seals intact. Samples were properly preserved and cooler temperatures were less than 6°C.

Nitroguanidine and nitrocellulose analyses were performed by TestAmerica Sacramento.

The chain of custody requests hexavalent chromium analysis for samples FWGmw-024-120217-GW and FWGmw-021-120217-GW. The laboratory did not perform these analyses in this SDG because the hexavalent chromium sample volume was delivered directly to TestAmerica Canton on December 2, 2017 for hexavalent chromium analysis.

The chain of custody requests an MS/MSD to be performed for sample FWGmw-020-120217-GW. However, the laboratory did not receive triplicate sample volume to perform an MS/MSD.

1.3 DEFINITIONS

Detection limit (DL): The smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration with 99% confidence. At the DL, the false positive rate is 1%. A DL may be used as the lowest concentration for reliably reporting a detection of a specific matrix with a specific method with 99% confidence.

Limit of detection (LOD): The smallest concentration of a substance that must be present in a sample in order to be detected at the DL with 99% confidence. At the LOD, the false negative rate is 1%. An LOD may be used as the lowest concentration for reliably reporting a non-detect of a specific analyte in a specific matrix with a specific method with 99% confidence.

Limits of Quantitation (LOQ): The smallest concentration that produces a quantitative result with known and recorded precision and bias. For DoD/DOE projects, the LOQ shall be set at or above the concentration of the lowest initial calibration standard and within the calibration range.

The following validation flags and reason codes were applied:

Validation Flag	Reason Code	Description
U	B	Non-detection; blank detection.
UJ	S	Estimated non-detection; surrogate outlier.
UJ	CC	Estimated non-detection; continuing calibration criteria not met.
UJ	L	Estimated non-detection; LCS/LCSD percent recovery or RPD exceedance.
UJ	Q	Estimated non-detection; based on professional judgement, results are qualified
J	M	Estimated detection; MS/MSD percent recovery or RPD exceedance.
J	IC	Estimated detection; initial calibration criteria not met.
J	CC	Estimated detection; continuing calibration criteria not met.
J	S	Estimated detection; surrogate outlier.
J	L	Estimated detection; LCS/LCSD percent recovery or RPD exceedance.
J	Q	Estimated detection; based on professional judgement, results are qualified

1.4 TECHNICAL DATA VALIDATION

1.4.1 Volatile Organic Compounds by Method 8260B

The following parameters were evaluated and met the required criteria. No validation flags were assigned based on the following:

- Holding times
- LCS recoveries
- Method blanks
- MS/MSD recoveries and RPDs
- Surrogate Recoveries
- LODs and LOQs
- Instrument tuning
- Internal standard area counts
- Initial calibration
- Initial calibration verification
- Closing calibration verification

All analytical or quality parameters requiring further discussion for Method 8260B are described in the sections below.

1.4.1.1 Trip Blanks

Acetone (7.9 µg/L) was detected in trip blank TB-120417 at a concentration below the LOQ (10 µg/L). Acetone was non-detect in all associated samples; therefore, no qualification was necessary. It was noted that acetone is a common laboratory contaminant.

Acetone (9.3 µg/L) and methylene chloride (0.65 µg/L) were detected in trip blank TB-120217-1030 below their respective LOQs (10 µg/L, 5.0 µg/L). Acetone and methylene chloride were non-detect in all associated samples; therefore, no qualification was necessary. It was noted that acetone and methylene chloride are common laboratory contaminants.

1.4.1.2 Vial Headspace

The VOA vials for samples TB-120417 and FWGmw-018-120217-GW were received by the laboratory with significant headspace. All VOC sample results associated with these samples were qualified as estimated (J/UJ Q).

The VOA vial for closing calibration verification CCVC 280-398624/34 had significant headspace. All analytes recovered within the acceptance criteria; therefore, no qualification was necessary.

1.4.2 Semivolatile Organic Compounds by Method 8270D

The following parameters were evaluated and met the required criteria. No validation flags were assigned based on the following:

- Holding times
- Method blanks
- MS/MSD recoveries and RPDs
- Surrogate recoveries
- LODs and LOQs
- Instrument tuning
- Internal standard area counts
- Initial calibration
- Initial calibration verification
- Continuing calibration verification
- Closing calibration verification

All analytical or quality parameters requiring further discussion for Method 8270D are described in the sections below.

1.4.2.1 Laboratory Control Sample

Several analytes exceeded the control limits for the LCS/LCSD. The following table outlines the exceedances:

Analyte	LCS %R	LCSD %R	%R Limits	RPD	RPD Limit
1,3-Dichlorobenzene	45	57	28-110	23	20
2,2'-Oxybis[1-chloropropane]	57	72	37-130	23	20
2-Chlorophenol	53	66	38-117	22	20
2-Methylphenol	53	67	30-117	23	20
2-Nitrophenol	59	74	47-123	22	20
4-Nitrophenol	40	43	59-129	7	20
Benzoic acid	31	37	41-120	17	20
Bis(2-chloroethyl)ether	55	70	43-118	24	20
Hexachloroethane	45	58	21-115	24	20
Nitrobenzene	55	68	45-121	21	20
Phenol	26	32	61-120	23	20

%R = percent recovery

Bolded values are outside control limits.

4-Nitrophenol and benzoic acid recovered below the control limits in the LCS and LCSD. All associated sample results were qualified as estimated (UJ L).

The RPD for 1,3-dichlorobenzene, 2,2'-oxybis[1-chloropropane], 2-chlorophenol, 2-methylphenol, 2-nitrophenol, bis(2-chloroethyl)ether, hexachloroethane, and nitrobenzene exceeded the control limit. The LCS and LCSD recovered with the control limits for these analytes; therefore, no qualification was necessary.

The LCS, LCSD, and RPD for phenol exceeded the control limit. All associated sample results were qualified as estimated (UJ L).

1.4.3 Polycyclic Aromatic Hydrocarbons by Method 8270D SIM

The following parameters were evaluated and met the required criteria. No validation flags were assigned based on the following:

- Holding times
- Surrogate recoveries
- MS/MSD recoveries and RPDs
- LODs and LOQs
- Instrument tuning
- Internal standard area counts
- Initial calibration
- Initial calibration verification

- Closing calibration verification

All analytical or quality parameters requiring further discussion for Method 8270D SIM are described in the sections below.

1.4.3.1 Method Blanks

Benzo[a]anthracene (0.0106 µg/L), chrysene (0.00509 µg/L), fluoranthene (0.0138 µg/L), phenanthrene (0.0110 µg/L), and pyrene (0.0105 µg/L) were detected in the method blank at concentrations below the LOQ (0.10 µg/L).

Benzo[a]anthracene, chrysene, phenanthrene, and pyrene were detected in samples NTAmw-120-120417-GW and NTAmw-119-120417-GW at concentrations below the LOQ. These sample results were qualified as non-detect at the LOQ (U B).

Fluoranthene was detected in samples NTAmw-120-120417-GW, NTAmw-119-120417-GW, FWGmw-024-120217-GW, FWGmw-021-120217-GW, and FWGmw-020-120217-GW at concentrations below the LOQ. These sample results were qualified as non-detect at the LOQ (U B).

1.4.3.2 Surrogate Recoveries

The incorrect surrogate spike was used for all samples in this SDG. All required required by the method were spiked, but at the wrong concentration. The recovery calculations were adjusted and all surrogate recoveries were within the control limits. Based on professional judgement, no qualification was necessary.

1.4.3.3 Laboratory Control Sample

The RPD for anthracene (21%), benzo[b]fluoranthene (32%), benzo[k]fluoranthene (22%), benzo[a]pyrene (33%), and indeno(1,2,3-cd)pyrene (22%) exceeded the control limit (20%). All LCS and LCSD recoveries for these analytes were within control limits; therefore, no qualification was necessary.

1.4.4 Organochlorine Pesticides by Method 8081B

The following parameters were evaluated and met the required criteria. No validation flags were assigned based on the following:

- Holding times
- LODs and LOQs
- Surrogate recoveries
- Method blank
- LCS recoveries
- MS/MSD recoveries and RPDs
- Initial calibration
- Initial calibration verification
- Continuing calibration verification
- Internal standards
- Endrin/DDT breakdown check
- Second column confirmation

No analytical or quality parameters required further discussion for Method 8081B.

1.4.5 Polychlorinated Biphenyls by Method 8082A

The following parameters were evaluated and met the required criteria. No validation flags were assigned based on the following:

- Holding times
- LODs and LOQs
- Surrogate recoveries
- Method blank
- LCS recoveries
- MS/MSD recoveries and RPDs
- Initial calibration
- Initial calibration verification
- Continuing calibration verification
- Internal standards
- Second column confirmation

No analytical or quality parameters required further discussion for Method 8082A.

1.4.6 Explosives by Method 8330B

The following parameters were evaluated and met the required criteria. No validation flags were assigned:

- Holding times
- Method blanks
- Initial calibration
- Initial calibration verification
- Initial calibration blank
- Continuing calibration verification
- Continuing calibration blank
- LODs and LOQs
- Initial calibration verification
- 2nd column confirmation

All analytical or quality parameters requiring further discussion for Method 8330B are described in the sections below.

1.4.6.1 Sample Preparation

Samples LL1mw088-120217-GW, LL2mw-246-120217-GW, NTAmw-120-120417-GW, FBQmw-175-120417-GW, NTAmw-119-120417-GW, FWGmw-007-120417-GW, FWGmw-016-120417-GW, FWGmw-015-120417-GW, LL7mw-006-1204-GW, FWGmw-024-120217-GW, and FWGmw-021-120217-GW were filtered prior to analysis to reduce matrix interferences.

Only a portion of samples FWGmw-024-120217-GW (280-104281-19), FWGmw-017-120217-GW (280-104281-25), FWGmw-021-120217-GW (280-104281-26), FWGmw-020-120217-GW (280-104281-27) and FWGmw-018-120217-GW (280-104281-28) were used for analysis, rather than testing the entire sample amount in the original container, due to the sample container not being appropriate size. As such, the required solvent rinse of the original container could not be performed. Based on professional judgement, no qualifications were necessary.

1.4.6.2 Surrogate Recoveries

Surrogate 1,2-dinitrobenzene recovered below control limits (83-119%) in samples LL1mw-088-120217-GW (59%), LL3mw-246-120217-GW (75%), NTAmw-120-120417-GW (70%), FBQmw-176-120417-GW (64%), NTAmw-119-120417-GW (63%), FWGmw-007-120417-GW (78%), FWGmw-015-120417-GW (72%), LL7mw-006-1204-GW (73%), FWGmw-024-120217-GW (82%), FWGmw-017-120217-GW (69%), FWGmw-021-120217-GW (75%), FWGmw-020-120217-GW (77%), and FWGmw-018-120217-GW (80%). All associated sample results were qualified as estimated (J/UJ S).

1.4.6.3 Laboratory Control Samples

Several analytes recovered outside of the control limits in the LCS/LCSD. The following table outlines these exceedances:

Analysis Batch	Associated Samples	Analyte	LCS %R	LCSD %R	%R QC Limits	RPD	RPD Limit
398264	LL1mw-088-120217-GW	1,3-Dinitrotoluene	81	75	78-120	8	20
	LL3mw-246-120217-GW						
	NTAmw-120-120417-GW	2,4-Dinitrotoluene	80	72	78-120	11	20
	FBQmw-176-120417-GW						
	NTAmw-119-120417-GW						
	FWGmw-007-120417-GW	2,6-Dinitrotoluene	79	69	77-127	14	20

	FWGmw-016-120417-GW	2-Amino-4,6-dinitrotoluene	67	56	79-120	18	20
	FWGmw-015-120417-GW	2-Nitrotoluene	71	59	70-127	18	20
	FWGmw-024-120417-GW	3-Nitrotoluene	72	60	73-125	18	20
	FWGmw-017-120217-GW	4-Amino-2,6-dinitrotoluene	64	51	76-125	23	20
	FWGmw-021-120217-GW	4-Nitrotoluene	74	64	71-127	13	20
	FWGmw-020-120217-GW						
	FWGmw-018-120217-GW						
398263	LL7mw-006-1204-GW	1,3-Dinitrotoluene	81	64	78-120	23	20
		2,4,6-Trinitrotoluene	77	67	71-123	13	20
		2,4-Dinitrotoluene	79	63	78-120	22	20
		2,6-Dinitrotoluene	75	63	77-127	17	20
		2-Amino-4,6-dinitrotoluene	67	53	79-120	23	20
		2-Nitrotoluene	71	52	70-127	30	20
		3-Nitrotoluene	70	53	73-125	27	20
		4-Amino-2,6-dinitrotoluene	63	50	76-125	22	20
		4-Nitrotoluene	72	55	71-127	26	20
		HMX	103	74	65-135	32	20
		Nitrobenzene	79	57	65-134	32	20

%R = percent recovery

Bolded values are outside control limits.

The LCSD recovered below control limits for 1,3-dinitrotoluene, 2,4,6-trinitrotoluene, 2,4-dinitrotoluene, 2-nitrotoluene, and 4-nitrotoluene associated with analysis batch 398264, but the LCS recovery and RPDs were within control limits; therefore, no qualification was necessary.

The LCS and LCSD recovered below control limits for 2-amino-4,6-dinitrotoluene associated with analysis batch 398264. All associated sample results were qualified as estimated (J/UJ L).

The LCS, LCSD, and RPD were outside of the control limits for 4-amino-2,6-dinitrotoluene associated with analysis batch 398264. All associated sample results were qualified as estimated (J/UJ L).

The LCSD recovered below control limits for 2,4,6-trinitrotoluene and nitrobenzene associated with analysis batch 398263, but the LCS recoveries and RPDs were within control limits; therefore, no qualification was necessary.

The RPD was outside of the control limits for HMX associated with analysis batch 398263, but the LCS and LCSD recovered within control limits; therefore, no qualification was necessary.

The LCSD and RPD were outside of the control limits for 1,3-dinitrotoluene, 2,4-dinitrotoluene, 2-nitrotoluene, 4-nitrotoluene, and nitrobenzene associated with analysis batch 398263. All associated sample results were qualified as estimated (J/UJ L).

The LCS and LCSD were outside of the control limits for 2,6-dinitrotoluene associated with analysis batch 398263. All associated sample results were qualified as estimated (J/UJ L).

The LCS, LCSD, and RPD were outside of the control limits for 2-amino-4,6-dinitrotoluene, 3-nitrotoluene, and 4-amino-2,6-dinitrotoluene associated with analysis batch 398263. All associated sample results were qualified as estimated (J/UJ L).

1.4.7 Nitroguanidine by Method 8330

The following parameters were evaluated and met the required criteria. No validation flags were assigned:

- Holding times
- Method blanks
- LCS recoveries
- Initial calibration
- Initial calibration verification
- Initial calibration blank
- Continuing calibration verification
- Continuing calibration blank
- LODs and LOQs
- Initial calibration verification

No analytical or quality parameters required further discussion for Method 8330.

1.4.8 Perchlorate by Method 6860

The following parameters were evaluated and met the required criteria. No validation flags were assigned based on the following:

- Holding times
- LODs and LOQs
- LCS recoveries
- Method blank
- Initial calibration verification
- Initial calibration blank
- Continuing calibration verification
- Continuing calibration blank
- Detection limit check
- Interference check standards

No analytical or quality parameters required further discussion for Method 6860.

1.4.9 Total Metals by Method 6010C/6020A/7470A

The following parameters were evaluated and met the required criteria. No validation flags were assigned based on the following:

- Holding times
- LODs and LOQs
- LCS recoveries
- MS/MSD recoveries and RPDs
- Post digestion spike
- Serial dilution
- Initial calibration blanks

- Contract required detection limit standard
- Instrument tuning
- Interference check solutions
- Field duplicates

All analytical or quality issues requiring further discussion for Methods 6010C, 6020A, and/or 7470A are described in the sections below.

1.4.9.1 Method Blanks

Zinc (8.32 µg/L) was detected in the method blank at a concentration below the LOQ (20 µg/L). Zinc was detected at a concentration below the LOQ in samples NTAmw-120-120417-GW (7.4 µg/L), FWGmw-007-120417-GW (17 µg/L), and FWGmw-015-120417-GW (2.2 µg/L). These sample results were qualified as non-detect at the LOQ (U B). All other associated sample results were either non-detect or at a concentration above the LOQ; therefore, no qualification was necessary.

1.4.9.2 Continuing calibration Blanks

Several analytes were detected in the calibration blanks. The following table outlines these detections:

Calibration Blank	Associated Samples	Analyte	Blank Detection (µg/L)	LOQ (µg/L)	Assigned Flags	Samples Qualified
CCB 280-398527/69	LL1mw-088-120217-GW LL3mw-246-120217-GW NTAmw-120-120417-GW BKGmw-016-120417-GW NTAmw-119-120417-GW FWGmw-007-120417-GW FWGmw-016-120417-GW FWGmw-015-120417-GW FWGmw-024-120217-GW FWGmw-017-120217-GW FWGmw-021-120217-GW FWGmw-020-120217-GW FWGmw-018-120217-GW	Potassium	255	3000	U B	LL3mw-246-120217-GW BKGmw-016-120417-GW NTAmw-119-120417-GW FWGmw-016-120417-GW FWGmw-024-120217-GW FWGmw-017-120217-GW FWGmw-021-120217-GW FWGmw-018-120217-GW
CCB 280-398592/36	LL1mw-088-120217-GW LL3mw-246-120217-GW NTAmw-120-120417-GW	Iron	24.1	100	U B	LL3mw-246-120217-GW
ICB 280-398658/9	LL1mw-088-120217-GW	Antimony	0.127	2	U B	LL3mw-246-120217-GW

	LL3mw-246-120217-GW NTAmw-120-120417-GW BKGmw-016-120417-GW NTAmw-119-120417-GW FWGmw-007-120417-GW					FWGmw-021-120217-GW
	FWGmw-016-120417-GW FWGmw-015-120417-GW FWGmw-024-120217-GW FWGmw-017-120217-GW FWGmw-021-120217-GW FWGmw-020-120217-GW FWGmw-018-120217-GW	Vanadium	0.613	5	N/A	None
CCB 280-398658/157	LL1mw-088-120217-GW LL3mw-246-120217-GW NTAmw-120-120417-GW BKGmw-016-120417-GW	Beryllium	0.081	1	U B	NTAmw-120-120417-GW
		Thallium	0.053	1	U B	NTAmw-120-120417-GW

All associated sample detections below the LOQ were qualified as non-detect at the LOQ (U B).

1.4.9.3 Initial/Continuing Calibrations Verifications

Manganese recovered below control limits (80-120%) in the low-level continuing calibration verifications CCVL 280-398658-167 (78%) All associated manganese sample results were qualified as estimated (UJ/J CC).

Barium recovered above control limits (80-120%) in the low-level initial/continuing calibration verification ICVL 280-398658/10 (124%) and CCVL 280-395658/180 (126%). All associated barium detections were qualified as estimated (J IC/CC).

1.4.10 Nitrocellulose by Method 353.2

The following parameters were evaluated and met the required criteria. No validation flags were assigned based on the following:

- Holding times
- LODs and LOQs
- LCS recoveries
- Method blank
- MS/MSD recoveries and RPDs
- Initial calibration verification
- Continuing calibration verification
- Initial calibration blank
- Continuing calibration blank

No analytical or quality parameters required further discussion for Method 353.2.

1.4.11 Total Cyanide by Method 9012B

The following parameters were evaluated and met the required criteria. No validation flags were assigned based on the following:

- Holding times
- LODs and LOQs
- LCS recoveries
- MS/MSD recoveries and RPDs
- Initial calibration verification
- Continuing calibration verification
- Initial calibration blank
- Continuing calibration blank
- Field duplicates

All analytical or quality issues requiring further discussion for Method 9012B are described in the sections below.

1.4.11.1 Method Blanks

Total cyanide (3.04 µg/L) was detected in the method blank at a concentration above the LOQ (10 µg/L). Total cyanide was detected in samples FBQmw-171-120417-GW (3.0 µg/L), FWGmw-021-120217-GW (2.0 µg/L), and FWGmw-018-120217-GW (4.3 µg/L) at concentrations below the LOQ. These results were qualified as non-detect at the LOQ (U B). Total cyanide was non-detect in all other associated samples; therefore, no qualification was necessary.

1.4.12 Alkalinity by Method 2320B

The following parameters were evaluated and met the required criteria. No validation flags were assigned based on the following:

- Holding times
- LODs and LOQs
- LCS recoveries
- Initial calibration verification
- Continuing calibration verification
- Initial calibration blank
- Continuing calibration blank

All analytical or quality issues requiring further discussion for Method 2320B are described in the sections below.

1.4.12.1 Method Blanks

Alkalinity (2.40 µg/L) was detected in the method blank at a concentration above the LOQ (5.0 µg/L). Alkalinity was detected at a concentration above the LOQ in all associated samples; therefore, no qualification was necessary.

1.4.13 Sulfide by Method 9034

The following parameters were evaluated and met the required criteria. No validation flags were assigned based on the following:

- Holding times
- LODs and LOQs
- LCS recoveries
- Method blanks

No analytical or quality issues required further discussion for Method 9034 are described in the sections below.

1.4.14 Anions by Method 9056A

The following parameters were evaluated and met the required criteria. No validation flags were assigned based on the following:

- Holding times
- LODs and LOQs
- LCS recoveries
- Initial calibration verification
- Continuing calibration verification
- Initial calibration blank
- Continuing calibration blank

All analytical or quality issues requiring further discussion for Method 9056A are described in the sections below.

1.4.14.1 Method Blanks

Chloride (399 µg/L) was detected in the method blank at a concentration below the LOQ (3000 µg/L). Chloride was detected in samples FBQmw-171-120417-GW (1400 µg/L) and FBQmw-175-120417-GW (1400 µg/L) at a concentration below the LOQ. These results were qualified as non-detect at the LOQ. Chloride was detected in all other associated samples at concentrations above the LOQ; therefore, no qualification was necessary.

Sulfate (351 µg/L) was detected in the method blank at a concentration below the LOQ (5000 µg/L). Sulfate was detected in all associated samples at concentrations above the LOQ; therefore, no qualification was necessary.

1.4.14.2 Matrix Spike/Matrix Spike Duplicate

An MS/MSD was performed on sample FBQmw-171-120417-GW. Chloride recovered below the control limits (87-111%) in the MS (81%) and MSD (83%). The parent sample chloride result was qualified as estimated (J M).

An MS/MSD was performed on sample BKGmw-016-120417-GW. Chloride recovered below the control limits (87-111%) in the MS (85%) and MSD (84%). The parent sample chloride result was qualified as estimated (J M).

DATA VALIDATION TABLE

SDG	Field Sample ID	Lab Sample ID	Matrix	Parameter	CAS Number	Units	Result	Lab Flag	IV Flag	DQ	MDL	Analytic Method	Reason Code
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	Barium	7440-39-3	µg/L	39	v	j	y	3	0.95	0.29
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	Manganese	7439-96-5	µg/L	49	v	j	y	3.5	0.95	0.31
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	1,3,5-Trinitrobenzene	99-35-4	µg/L	0.41	uq	uj	n	1	0.41	0.21
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	1,3-Dinitrobenzene	99-65-0	µg/L	0.21	uq	uj	n	0.41	0.21	0.092
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	2,4,6-Trinitrotoluene	118-96-7	µg/L	0.21	uq	uj	n	0.41	0.21	0.075
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	2,4-Dinitrotoluene	121-14-2	µg/L	0.21	uq	uj	n	0.41	0.21	0.087
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	2,6-Dinitrotoluene	606-20-2	µg/L	0.21	uq	uj	n	0.21	0.21	0.067
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	2-Amino-4,6-dinitrotoluene	35572-78-2	µg/L	0.12	uq	uj	n	0.21	0.12	0.053
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	2-Nitrotoluene	88-72-2	µg/L	0.21	uq	uj	n	0.41	0.21	0.089
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	3-Nitrotoluene	99-08-1	µg/L	0.21	uq	uj	n	0.41	0.21	0.086
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	4-Amino-2,6-dinitrotoluene	19406-51-0	µg/L	0.12	uq	uj	n	0.21	0.12	0.06
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	4-Nitrotoluene	99-99-0	µg/L	0.41	uq	uj	n	1	0.41	0.21
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	HMX	2691-41-0	µg/L	0.21	uq	uj	n	0.41	0.21	0.091
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	Nitrobenzene	98-95-3	µg/L	0.21	uq	uj	n	0.41	0.21	0.094
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	Nitroglycerin	55-63-0	µg/L	2.1	uq	uj	n	3.1	2.1	0.95
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	PETN	78-11-5	µg/L	1.2	uq	uj	n	2.1	1.2	0.43
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	RDX	121-82-4	µg/L	0.12	uq	uj	n	0.21	0.12	0.054
280-104281-1	LL1mw-088-120217-GW	280-104281-1	Ground Water	Tetryl	479-45-8	µg/L	0.21	uq	uj	n	0.25	0.21	0.082
280-104281-1	BKGrnw-016-120217-GW	280-104281-10	Ground Water	Potassium	7440-09-7	µg/L	3000	j	u	n	3000	940	240
280-104281-1	BKGrnw-016-120217-GW	280-104281-10	Ground Water	Barium	7440-39-3	µg/L	20	v	j	y	3	0.95	0.29
280-104281-1	BKGrnw-016-120217-GW	280-104281-10	Ground Water	Manganese	7439-96-5	µg/L	7.2	v	j	y	3.5	0.95	0.31
280-104281-1	BKGrnw-016-120217-GW	280-104281-10	Ground Water	Chloride	16887-00-6	µg/L	5000	j	j	y	3000	500	250
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	Potassium	7440-09-7	µg/L	3000	j	u	n	3000	940	240
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	Barium	7440-39-3	µg/L	88	v	j	y	3	0.95	0.29
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	Manganese	7439-96-5	µg/L	330	v	j	y	3.5	0.95	0.31
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	Benz(a)anthracene	56-55-3	µg/L	0.1	j	u	n	0.1	0.012	0.0042
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	Chrysene	218-01-9	µg/L	0.1	j	u	n	0.1	0.012	0.0033
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	Fluoranthene	206-44-0	µg/L	0.1	j	u	n	0.1	0.012	0.0033
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	Phenanthrene	85-01-8	µg/L	0.1	j	u	n	0.1	0.02	0.0093
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	Perylene	129-00-0	µg/L	0.1	j	u	n	0.1	0.02	0.0061
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	1,3,5-Trinitrobenzene	99-35-4	µg/L	0.42	uq	uj	n	1.1	0.42	0.21
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	1,3-Dinitrobenzene	99-65-0	µg/L	0.21	uq	uj	n	0.42	0.21	0.093
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	2,4,6-Trinitrotoluene	118-96-7	µg/L	0.21	uq	uj	n	0.42	0.21	0.076
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	2,4-Dinitrotoluene	121-14-2	µg/L	0.21	uq	uj	n	0.42	0.21	0.088
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	2,6-Dinitrotoluene	606-20-2	µg/L	0.21	uq	uj	n	0.21	0.21	0.068
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	2-Amino-4,6-dinitrotoluene	35572-78-2	µg/L	0.13	uq	uj	n	0.21	0.13	0.053
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	2-Nitrotoluene	88-72-2	µg/L	0.21	uq	uj	n	0.42	0.21	0.09
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	3-Nitrotoluene	99-08-1	µg/L	0.21	uq	uj	n	0.42	0.21	0.088
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	4-Amino-2,6-dinitrotoluene	19406-51-0	µg/L	0.13	uq	uj	n	0.21	0.13	0.061
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	4-Nitrotoluene	99-99-0	µg/L	0.42	uq	uj	n	1.1	0.42	0.21
280-104281-1	NTAnw-119-1-20417-GW	280-104281-13	Ground Water	HMX	2691-41-0	µg/L	0.21	uq	uj	n	0.42	0.21	0.092

280-104281-1	NT Anw-119-1-20417-GW	280-104281-13	Ground Water	Nitrobenzene	98-95-3	0.21	u.q	0.21	u.q	0.42	0.21	0.096	Explosives	S
280-104281-1	NT Anw-119-1-20417-GW	280-104281-13	Ground Water	Nitroglycerin	55-63-0	2.1	u.q	n	u.j	3.2	2.1	0.97	Explosives	S
280-104281-1	NT Anw-119-1-20417-GW	280-104281-13	Ground Water	PETN	78-11-5	1.3	u.q	u.j	n	2.1	1.3	0.44	Explosives	S
280-104281-1	NT Anw-119-1-20417-GW	280-104281-13	Ground Water	RDX	121-82-4	0.13	u.q	0.13	u.q	0.21	0.13	0.055	Explosives	S
280-104281-1	NT Anw-119-1-20417-GW	280-104281-13	Ground Water	Tetryl	479-45-8	0.21	u.q	0.21	u.q	0.25	0.21	0.083	Explosives	S
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	Barium	7440-39-3	33	v	j	y	3	0.95	0.29	Metals	IC CC
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	Manganese	7439-96-5	360	v	j	y	3.5	0.95	0.31	Metals	CC
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	Zinc	7440-66-6	20	j	u	n	20	8	2	Metals	B
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	1,3,5-Trinitrobenzene	99-35-4	0.44	u.q	0.44	u.q	1.1	0.44	0.22	Explosives	S
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	1,3-Dinitrobenzene	99-65-0	0.22	u.q	0.22	u.q	0.44	0.22	0.097	Explosives	S
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	2,4,6-Trinitrotoluene	118-96-7	0.22	u.q	0.22	u.q	0.44	0.22	0.079	Explosives	S
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	2,4-Dinitrotoluene	121-14-2	0.22	u.q	0.22	u.q	0.44	0.22	0.092	Explosives	S
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	2,6-Dinitrotoluene	606-20-2	0.22	u.q	0.22	u.q	0.22	0.22	0.071	Explosives	S
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	2-Amino-4,6-dinitrotoluene	35572-78-2	0.13	u.q	0.13	u.q	0.22	0.13	0.055	Explosives	S
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	2-Nitrotoluene	88-72-2	0.22	u.q	0.22	u.q	0.44	0.22	0.094	Explosives	S
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	3-Nitrotoluene	99-08-1	0.22	u.q	0.22	u.q	0.44	0.22	0.091	Explosives	S
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	4-Amino-2,6-dinitrotoluene	19406-51-0	0.13	u.q	0.13	u.q	0.22	0.13	0.063	Explosives	S
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	4-Nitrotoluene	99-99-0	0.44	u.q	0.44	u.q	1.1	0.44	0.22	Explosives	S
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	HMX	2691-41-0	0.22	u.q	0.22	u.q	0.44	0.22	0.096	Explosives	S
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	Nitrobenzene	98-95-3	0.22	u.q	0.22	u.q	0.44	0.22	0.1	Explosives	S
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	Nitroglycerin	55-63-0	0.22	u.q	0.22	u.q	3.3	2.2	1	Explosives	S
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	PETN	78-11-5	0.13	u.q	0.13	u.q	2.2	1.3	0.46	Explosives	S
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	RDX	121-82-4	0.13	u.q	0.13	u.q	0.22	0.13	0.057	Explosives	S
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-14	Ground Water	Tetryl	479-45-8	0.22	u.q	0.22	u.q	0.26	0.22	0.087	Explosives	S
280-104281-1	FW Gmw-016-1-20417-GW	280-104281-16	Ground Water	Potassium	7440-09-7	3000	j	u	n	3000	940	240	Metals	B
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-16	Ground Water	Barium	7440-39-3	56	v	j	y	3	0.95	0.29	Metals	IC CC
280-104281-1	FW Gmw-007-1-20417-GW	280-104281-16	Ground Water	Manganese	7439-96-5	200	v	j	y	3.5	0.95	0.31	Metals	CC
280-104281-1	FW Gmw-016-1-20417-GW	280-104281-16	Ground Water	2-Amino-4,6-dinitrotoluene	35572-78-2	0.13	u.q	0.13	u.q	0.22	0.13	0.055	Explosives	L
280-104281-1	FW Gmw-016-1-20417-GW	280-104281-16	Ground Water	3-Nitrotoluene	99-08-1	0.22	u.q	0.22	u.q	0.43	0.22	0.091	Explosives	L
280-104281-1	FW Gmw-016-1-20417-GW	280-104281-16	Ground Water	4-Amino-2,6-dinitrotoluene	19406-51-0	0.13	u.q	0.13	u.q	0.22	0.13	0.063	Explosives	L
280-104281-1	FW Gmw-016-1-20417-GW	280-104281-17	Ground Water	Barium	7440-39-3	11	v	j	y	3	0.95	0.29	Metals	IC CC
280-104281-1	FW Gmw-016-1-20417-GW	280-104281-17	Ground Water	Manganese	7439-96-5	500	v	j	y	3.5	0.95	0.31	Metals	CC
280-104281-1	FW Gmw-016-1-20417-GW	280-104281-17	Ground Water	Zinc	7440-66-6	20	j	u	n	20	8	2	Metals	B
280-104281-1	FW Gmw-016-1-20417-GW	280-104281-17	Ground Water	1,3,5-Trinitrobenzene	99-35-4	0.43	u.q	0.43	u.q	1.1	0.43	0.22	Explosives	S
280-104281-1	FW Gmw-016-1-20417-GW	280-104281-17	Ground Water	1,3-Dinitrobenzene	99-65-0	0.22	u.q	0.22	u.q	0.43	0.22	0.096	Explosives	S
280-104281-1	FW Gmw-016-1-20417-GW	280-104281-17	Ground Water	2,4,6-Trinitrotoluene	118-96-7	0.22	u.q	0.22	u.q	0.43	0.22	0.078	Explosives	S
280-104281-1	FW Gmw-016-1-20417-GW	280-104281-17	Ground Water	2,4-Dinitrotoluene	121-14-2	0.22	u.q	0.22	u.q	0.43	0.22	0.091	Explosives	S
280-104281-1	FW Gmw-016-1-20417-GW	280-104281-17	Ground Water	2,6-Dinitrotoluene	606-20-2	0.22	u.q	0.22	u.q	0.22	0.22	0.07	Explosives	S
280-104281-1	FW Gmw-016-1-20417-GW	280-104281-17	Ground Water	2-Amino-4,6-dinitrotoluene	35572-78-2	0.13	u.q	0.13	u.q	0.22	0.13	0.055	Explosives	S
280-104281-1	FW Gmw-015-1-20417-GW	280-104281-17	Ground Water	2-Nitrotoluene	88-72-2	0.22	u.q	0.22	u.q	0.43	0.22	0.093	Explosives	S
280-104281-1	FW Gmw-015-1-20417-GW	280-104281-17	Ground Water	3-Nitrotoluene	99-08-1	0.22	u.q	0.22	u.q	0.43	0.22	0.09	Explosives	S
280-104281-1	FW Gmw-015-1-20417-GW	280-104281-17	Ground Water	4-Amino-2,6-dinitrotoluene	19406-51-0	0.13	u.q	0.13	u.q	0.22	0.13	0.062	Explosives	S
280-104281-1	FW Gmw-015-1-20417-GW	280-104281-17	Ground Water	4-Nitrotoluene	99-99-0	0.43	u.q	0.43	u.q	1.1	0.43	0.22	0.22	Explosives
280-104281-1	FW Gmw-015-1-20417-GW	280-104281-17	Ground Water	HMX	2691-41-0	0.22	u.q	0.22	u.q	0.43	0.22	0.095	Explosives	S
280-104281-1	FW Gmw-015-1-20417-GW	280-104281-17	Ground Water	Nitrobenzene	98-95-3	0.22	u.q	0.22	u.q	0.43	0.22	0.099	Explosives	S

280-104281-1	FWGmw-015-1-20417-GW	280-104281-17	Ground Water	Nitroglycerin	55-63-0	2.2	uq	n	uj	n	3.2	2.2	1	Explosives	S
280-104281-1	FWGmw-015-1-20417-GW	280-104281-17	Ground Water	PETN	78-11-5	1.3	uq	n	uj	n	2.2	1.3	0.45	Explosives	S
280-104281-1	FWGmw-015-1-20417-GW	280-104281-17	Ground Water	RDX	121-82-4	0.13	uq	n	uj	n	0.22	0.13	0.057	Explosives	S
280-104281-1	FWGmw-015-1-20417-GW	280-104281-17	Ground Water	Tetryl	479-45-8	0.22	uq	n	uj	n	0.26	0.22	0.086	Explosives	S
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	1,3,5-Trinitrobenzene	99-35-4	0.41	uq	n	uj	n	1	0.41	0.21	Explosives	S
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	1,3-Dinitrobenzene	99-65-0	0.21	uq	n	uj	n	0.41	0.21	0.092	Explosives	SL
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	2,4,6-Trinitrotoluene	118-96-7	0.21	uq	n	uj	n	0.41	0.21	0.075	Explosives	S
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	2,4-Dinitrotoluene	121-14-2	0.21	uq	n	uj	n	0.41	0.21	0.087	Explosives	SL
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	2,6-Dinitrotoluene	606-20-2	0.21	uq	n	uj	n	0.21	0.21	0.067	Explosives	SL
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	2-Amino-4,6-dinitrotoluene	35572-78-2	0.12	uq	n	uj	n	0.21	0.12	0.052	Explosives	SL
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	2-Nitrotoluene	88-72-2	0.21	uq	n	uj	n	0.41	0.21	0.088	Explosives	SL
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	3-Nitrotoluene	99-08-1	0.21	uq	n	uj	n	0.41	0.21	0.086	Explosives	SL
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	4-Nitrotoluene	99-99-0	0.41	uq	n	uj	n	1	0.41	0.21	Explosives	SL
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	HMX	2691-41-0	0.21	uq	n	uj	n	0.41	0.21	0.091	Explosives	S
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	Nitrobenzene	98-95-3	0.21	uq	n	uj	n	0.41	0.21	0.094	Explosives	SL
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	Nitroglycerin	55-63-0	2.1	uq	n	uj	n	3.1	2.1	0.95	Explosives	S
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	PETN	78-11-5	1.2	uq	n	uj	n	2.1	1.2	0.43	Explosives	S
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	RDX	121-82-4	0.78	q	j	y	j	0.21	0.12	0.054	Explosives	S
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	Tetryl	78-11-5	0.21	uq	n	uj	n	0.21	0.21	0.082	Explosives	S
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	4-Amino-2,6-dinitrotoluene	19406-51-0	0.12	uq	n	uj	n	0.21	0.12	0.06	Explosives	SL
280-104281-1	LL7mw-006-1204-GW	280-104281-18	Ground Water	Potassium	7440-09-7	3000	j	u	u	n	3000	940	240	Metals	B
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	Barium	7440-39-3	6.5	v	j	y	j	3	0.95	0.29	Metals	IC, CC
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	Manganese	7439-96-5	260	v	j	y	j	3.5	0.95	0.31	Metals	CC
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	Fluoranthene	206-44-0	0.1	j	u	u	n	0.1	0.012	0.0049	PAHs	B
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	1,3,5-Trinitrobenzene	99-35-4	0.43	uq	n	uj	n	1.1	0.43	0.22	Explosives	S
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	1,3-Dinitrobenzene	99-65-0	0.22	uq	n	uj	n	0.43	0.22	0.096	Explosives	S
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	2,4,6-Trinitrotoluene	118-96-7	0.22	uq	n	uj	n	0.43	0.22	0.078	Explosives	S
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	2,4-Dinitrotoluene	121-14-2	0.22	uq	n	uj	n	0.43	0.22	0.09	Explosives	S
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	2,6-Dinitrotoluene	606-20-2	0.22	uq	n	uj	n	0.22	0.22	0.069	Explosives	S
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	2-Amino-4,6-dinitrotoluene	35572-78-2	0.13	uq	n	uj	n	0.22	0.13	0.055	Explosives	SL
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	2-Nitrotoluene	88-72-2	0.22	uq	n	uj	n	0.43	0.22	0.092	Explosives	S
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	3-Nitrotoluene	99-08-1	0.22	uq	n	uj	n	0.43	0.22	0.09	Explosives	SL
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	4-Amino-2,6-dinitrotoluene	19406-51-0	0.13	uq	n	uj	n	0.22	0.13	0.062	Explosives	SL
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	4-Nitrotoluene	99-99-0	0.43	uq	n	uj	n	1.1	0.43	0.22	Explosives	S
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	HMX	2691-41-0	0.13	uq	n	uj	n	0.43	0.22	0.094	Explosives	S
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	Nitrobenzene	98-95-3	0.22	uq	n	uj	n	0.43	0.22	0.098	Explosives	S
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	Nitroglycerin	55-63-0	2.2	uq	n	uj	n	3.2	2.2	0.99	Explosives	S
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	PETN	78-11-5	1.3	uq	n	uj	n	2.2	1.3	0.45	Explosives	S
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	RDX	121-82-4	0.13	uq	n	uj	n	0.22	0.13	0.056	Explosives	S
280-104281-1	FWGmw-024-1-20217-GW	280-104281-19	Ground Water	Tetryl	479-45-8	0.22	uq	n	uj	n	0.26	0.22	0.085	Explosives	S
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	Potassium	7440-09-7	3000	j	u	u	n	3000	940	240	Metals	B
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	Iron	7439-89-6	100	j	u	u	n	100	85	22	Metals	B
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	Antimony	7440-36-0	6	j	u	u	n	6	1	0.4	Metals	B
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	Barium	7440-39-3	18	v	j	y	j	3	0.95	0.29	Metals	C
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	Manganese	7439-96-5	0.77	j	y	y	j	3.5	0.95	0.31	Metals	CC

280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	1,3,5-Trinitrobenzene	99-35-4	uq	0.43	uq	n	1.1	0.43	0.22	Explosives	S	
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	1,3-Dinitrobenzene	99-65-0	uq/L	0.22	uq	n	0.43	0.22	0.096	Explosives	S	
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	2,4,6-Trinitrotoluene	118-96-7	uq/L	0.22	uq	n	0.43	0.22	0.079	Explosives	S	
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	2,4-Dinitrotoluene	121-14-2	uq/L	0.22	uq	n	0.43	0.22	0.091	Explosives	S	
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	2,6-Dinitrotoluene	606-20-2	uq/L	0.22	uq	n	0.22	0.22	0.07	Explosives	S	
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	2-Nitrotoluene	88-72-2	uq/L	0.22	uq	n	0.43	0.22	0.093	Explosives	S	
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	3-Nitrotoluene	99-08-1	uq/L	0.22	uq	n	0.43	0.22	0.09	Explosives	SL	
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	4-Amino-2,6-dinitrotoluene	19406-51-0	uq/L	0.2	qj	j	y	0.22	0.13	0.063	Explosives	SL
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	4-Nitrotoluene	99-99-0	uq/L	0.43	uq	n	1.1	0.43	0.22	Explosives	S	
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	HMX	2691-41-0	uq/L	0.22	uq	n	0.43	0.22	0.095	Explosives	S	
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	Nitrobenzene	98-95-3	uq/L	0.22	uq	n	0.43	0.22	0.099	Explosives	S	
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	Nitroglycerin	55-63-0	uq/L	2.2	uq	n	3.3	2.2	1	Explosives	S	
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	PETN	78-11-5	uq/L	1.3	uq	n	2.2	1.3	0.45	Explosives	S	
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	Tetryl	479-45-8	uq/L	0.22	uq	n	0.26	0.22	0.086	Explosives	S	
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	2-Amino-4,6-dinitrotoluene	35572-78-2	uq/L	0.13	uq	n	0.22	0.13	0.055	Explosives	SL	
280-104281-1	LL3mw-246-120217-GW	280-104281-2	Ground Water	RDX	121-82-4	uq/L	0.097	qj	j	y	0.22	0.13	0.057	Explosives	S
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	Potassium	7440-09-7	uq/L	3000	j	u	n	3000	940	240	Metals	B
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	Barium	7440-39-3	uq/L	130	v	j	y	3	0.95	0.29	Metals	IC CC
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	Manganese	7439-96-5	uq/L	310	v	j	y	3.5	0.95	0.31	Metals	CC
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	4-Nitrophenol	100-02-7	uq/L	4	uq	u	n	50	4	1	SVOCS	L
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	Benzoic acid	65-85-0	uq/L	16	uq	u	n	81	16	5.7	SVOCS	L
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	Phenol	108-95-2	uq/L	2	uq	u	n	10	2	0.57	SVOCS	L
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	1,3,5-Trinitrobenzene	99-35-4	uq/L	0.44	uq	u	n	1.1	0.44	0.22	Explosives	S
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	1,3-Dinitrobenzene	99-65-0	uq/L	0.22	uq	u	n	0.44	0.22	0.098	Explosives	S
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	2,4,6-Trinitrotoluene	118-96-7	uq/L	0.22	uq	u	n	0.44	0.22	0.08	Explosives	S
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	2,4-Dinitrotoluene	121-14-2	uq/L	0.22	uq	u	n	0.44	0.22	0.093	Explosives	S
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	2,6-Dinitrotoluene	606-20-2	uq/L	0.22	uq	u	n	0.22	0.22	0.071	Explosives	S
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	2-Amino-4,6-dinitrotoluene	35572-78-2	uq/L	0.13	uq	u	n	0.22	0.13	0.056	Explosives	SL
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	2-Nitrotoluene	88-72-2	uq/L	0.22	uq	u	n	0.44	0.22	0.095	Explosives	S
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	3-Nitrotoluene	99-08-1	uq/L	0.22	uq	u	n	0.44	0.22	0.092	Explosives	SL
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	4-Amino-2,6-dinitrotoluene	19406-51-0	uq/L	0.13	uq	u	n	0.22	0.13	0.064	Explosives	SL
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	4-Nitrotoluene	99-99-0	uq/L	0.44	uq	u	n	1.1	0.44	0.22	Explosives	S
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	HMX	2691-41-0	uq/L	0.22	uq	u	n	0.44	0.22	0.097	Explosives	S
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	Nitrobenzene	98-95-3	uq/L	0.22	uq	u	n	0.44	0.22	0.1	Explosives	S
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	Nitroglycerin	55-63-0	uq/L	2.2	uq	u	n	3.3	2.2	1	Explosives	S
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	Tetryl	78-11-5	uq/L	1.3	uq	u	n	2.2	1.3	0.46	Explosives	S
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	2-Amino-4,6-dinitrotoluene	479-45-8	uq/L	0.22	uq	u	n	0.27	0.22	0.088	Explosives	S
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	RDX	121-82-4	uq/L	0.13	uq	u	n	0.22	0.13	0.058	Explosives	S
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	Potassium	7440-09-7	uq/L	3000	j	u	n	3000	940	240	Metals	B
280-104281-1	FWGmw-017-120217-GW	280-104281-25	Ground Water	Antimony	7440-36-0	uq/L	6	j	u	n	6	1	0.4	Metals	B
280-104281-1	FWGmw-017-120217-GW	280-104281-26	Ground Water	4-Nitrotoluene	7440-39-3	uq/L	16	v	j	y	3	0.95	0.29	Metals	IC CC
280-104281-1	FWGmw-017-120217-GW	280-104281-26	Ground Water	Manganese	7439-96-5	uq/L	360	v	j	y	3.5	0.95	0.31	Metals	CC
280-104281-1	FWGmw-021-120217-GW	280-104281-26	Ground Water	4-Nitrophenol	100-02-7	uq/L	3.9	uq	u	n	49	3.9	0.99	SVOCS	L
280-104281-1	FWGmw-021-120217-GW	280-104281-26	Ground Water	Benzoic acid	65-85-0	uq/L	16	uq	u	n	79	16	5.6	SVOCS	L
280-104281-1	FWGmw-021-120217-GW	280-104281-26	Ground Water	Phenol	108-95-2	uq/L	2	uq	u	n	9.8	2	0.55	SVOCS	L

280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	1,1,2-Trichloroethane	79-00-5	µg/L	0.8	u	n	1	0.8	0.32	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	1,1-Dichloroethane	75-34-3	µg/L	0.8	u	n	1	0.8	0.16	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	1,1-Dichloroethene	75-35-4	µg/L	0.8	u	n	1	0.8	0.14	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	1,2-Dibromoethane	106-93-4	µg/L	0.4	u	n	1	0.4	0.18	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	1,2-Dichloroethane	107-06-2	µg/L	0.4	u	n	1	0.4	0.13	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	1,2-Dichloroethene	540-59-0	µg/L	0.2	u	n	1	0.2	0.15	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	1,2-Dichloropropane	78-87-5	µg/L	0.4	u	n	1	0.4	0.13	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	2-Butanone	78-93-3	µg/L	4	u	u	6	4	1.8	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	2-Hexanone	591-78-6	µg/L	4	u	u	5	4	1.4	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	4-Methyl-2-pentanone	108-10-1	µg/L	3.2	u	u	5	3.2	1	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Acetone	67-64-1	µg/L	6.4	u	u	10	6.4	1.9	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Benzene	71-43-2	µg/L	0.4	u	u	1	0.4	0.16	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Bromodichloromethane	75-27-4	µg/L	0.4	u	u	1	0.4	0.17	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Bromoform	75-25-2	µg/L	0.4	u	u	1	0.4	0.19	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Bromonethane	74-83-9	µg/L	0.8	u	u	2	0.8	0.21	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Carbon disulfide	75-15-0	µg/L	1.6	u	u	2	1.6	0.45	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Carbon tetrachloride	56-23-5	µg/L	0.4	u	u	2	0.4	0.19	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Chlorobenzene	108-90-7	µg/L	0.4	u	u	1	0.4	0.17	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Chlorobromomethane	74-97-5	µg/L	0.2	u	u	1	0.2	0.1	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Chloroethane	75-00-3	µg/L	1.6	u	u	2	1.6	0.41	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Chloroform	67-66-3	µg/L	0.4	u	u	1	0.4	0.16	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Chloromethane	74-87-3	µg/L	0.8	u	u	2	0.8	0.3	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	cis-1,3-Dichloropropene	10661-01-5	µg/L	0.4	u	u	1	0.4	0.16	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Dibromochloromethane	124-48-1	µg/L	0.4	u	u	1	0.4	0.17	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Ethylbenzene	100-41-4	µg/L	0.4	u	u	1	0.4	0.16	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Methylene chloride	75-09-2	µg/L	0.8	u	u	5	0.8	0.32	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Styrene	100-42-5	µg/L	0.4	u	u	1	0.4	0.17	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Tetrachloroethene	127-18-4	µg/L	0.4	u	u	1	0.4	0.2	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Toluene	108-88-3	µg/L	0.4	u	u	1	0.4	0.17	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	trans-1,3-Dichloropropene	10061-02-6	µg/L	0.4	u	u	1	0.4	0.19	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Trichloroethene	79-01-6	µg/L	0.4	u	u	1	0.4	0.16	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Vinylchloride	75-01-4	µg/L	0.2	u	u	1	0.5	0.2	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Xylene (Total)	1330-20-7	µg/L	0.8	u	u	2	0.8	0.19	VOCs
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	4-Nitrophenol	100-02-7	µg/L	3.8	u	q	47	3.8	0.96	SVOCS
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Benzoic acid	65-85-0	µg/L	15	u	q	76	15	5.4	SVOCS
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	Phenol	108-95-2	µg/L	1.9	u	q	n	9.5	1.9	L
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	1,3,5-Trinitrobenzene	99-35-4	µg/L	0.41	u	q	n	1	0.41	Explosives
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	1,3-Dinitrobenzene	99-65-0	µg/L	0.21	u	q	n	0.41	0.21	0.092 Explosives
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	2,4,6-Trinitrotoluene	118-96-7	µg/L	0.21	u	q	n	0.41	0.21	0.075 Explosives
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	2,4-Dinitrotoluene	121-14-2	µg/L	0.21	u	q	n	0.41	0.21	0.087 Explosives
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	2,6-Dinitrotoluene	606-20-2	µg/L	0.21	u	q	n	0.21	0.21	0.067 Explosives
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	2-Amino-4,6-dinitrotoluene	35572-78-2	µg/L	0.12	u	q	n	0.21	0.12	0.052 Explosives
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	2-Nitrotoluene	88-72-2	µg/L	0.21	u	q	n	0.41	0.21	0.088 Explosives
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	3-Nitrotoluene	99-08-1	µg/L	0.21	u	q	n	0.41	0.21	0.086 Explosives
280-104281-1	FWGmw-018-1-20217-GW	280-104281-28	Ground Water	4-Amino-2,6-dinitrotoluene	19406-51-0	µg/L	0.12	u	q	n	0.21	0.12	0.06 Explosives

280-104281-1	FWGmw-018-1-120217-GW	280-104281-28	Ground Water	4-Nitrotoluene	99.99-0	0.41	u.q	n	0.41	0.21	0.091	Explosives	
280-104281-1	FWGmw-018-1-120217-GW	280-104281-28	Ground Water	HMX	2691-41-0	0.21	u.q	u.j	0.41	0.21	0.094	Explosives	
280-104281-1	FWGmw-018-1-120217-GW	280-104281-28	Ground Water	Nitrobenzene	98.95-3	0.21	u.q	u.j	0.41	0.21	0.094	Explosives	
280-104281-1	FWGmw-018-1-120217-GW	280-104281-28	Ground Water	Nitroglycerin	55-63-0	μg/L	2.1	u.q	n	3.1	2.1	0.95	Explosives
280-104281-1	FWGmw-018-1-120217-GW	280-104281-28	Ground Water	PETN	78-11-5	μg/L	1.2	u.q	u.j	2.1	1.2	0.43	Explosives
280-104281-1	FWGmw-018-1-120217-GW	280-104281-28	Ground Water	RDX	121-82-4	μg/L	0.12	u.q	u.j	0.21	0.12	0.054	Explosives
280-104281-1	FWGmw-018-1-120217-GW	280-104281-28	Ground Water	Tetryl	479-45-8	μg/L	0.21	u.q	u.j	0.25	0.21	0.082	Explosives
280-104281-1	FWGmw-018-1-120217-GW	280-104281-28	Ground Water	Total Cyanide	57-12-5	μg/L	10	j	u	10	5	2	Total Cyanide
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	Barium	7440-39-3	μg/L	31	v	j	3	0.95	0.29	Metals
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	Beryllium	7440-41-7	μg/L	1	j	u	1	0.3	0.08	Metals
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	Manganese	7439-96-5	μg/L	130	v	j	3.5	0.95	0.31	Metals
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	Thallium	7440-28-0	μg/L	1	j	u	1	0.2	0.05	Metals
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	Zinc	7440-66-6	μg/L	20	j	u	20	8	2	Metals
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	4-Nitrophenol	100-02-7	μg/L	4.1	u.q	u.j	51	4.1	1	SVOCS
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	Benzoic acid	65-85-0	μg/L	16	u.q	u.j	81	16	5.7	SVOCS
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	Phenol	108-95-2	μg/L	2	u.q	u.j	10	2	0.57	SVOCS
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	Benz(a)anthracene	56-55-3	μg/L	0.11	j	u	0.11	0.013	0.0047	PAHs
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	Chrysene	218-01-9	μg/L	0.11	j	u	0.11	0.013	0.0037	PAHs
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	Fluoranthene	206-44-0	μg/L	0.11	j	u	0.11	0.013	0.0053	PAHs
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	Phenanthrene	85-01-8	μg/L	0.11	j	u	0.11	0.022	0.01	PAHs
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	Pyrene	129-00-0	μg/L	0.11	j	u	0.11	0.022	0.0068	PAHs
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	1,3,5-Trinitrobenzene	99-35-4	μg/L	0.43	u.q	u.j	1.1	0.43	0.22	Explosives
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	1,3-Dinitrobenzene	99-65-0	μg/L	0.22	u.q	u.j	0.43	0.22	0.096	Explosives
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	2,4,6-Trinitrotoluene	118-96-7	μg/L	0.22	u.q	u.j	0.43	0.22	0.079	Explosives
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	2,4-Dinitrotoluene	121-14-2	μg/L	0.22	u.q	u.j	0.43	0.22	0.091	Explosives
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	2,6-Dinitrotoluene	606-20-2	μg/L	0.22	u.q	u.j	0.22	0.22	0.07	Explosives
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	2-Amino-4,6-dinitrotoluene	35572-78-2	μg/L	0.13	u.q	u.j	0.22	0.13	0.055	Explosives
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	2-Nitrotoluene	88-72-2	μg/L	0.22	u.q	u.j	0.43	0.22	0.093	Explosives
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	3-Nitrotoluene	99-08-1	μg/L	0.22	u.q	u.j	0.43	0.22	0.091	Explosives
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	4-Amino-2,6-dinitrotoluene	19406-51-0	μg/L	0.13	u.q	u.j	0.22	0.13	0.063	Explosives
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	4-Nitrotoluene	99-99-0	μg/L	0.43	u.q	u.j	1.1	0.43	0.22	Explosives
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	HMX	2691-41-0	μg/L	0.22	u.q	u.j	0.43	0.22	0.095	Explosives
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	Nitrobenzene	98-95-3	μg/L	0.22	u.q	u.j	0.43	0.22	0.099	Explosives
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	Nitroglycerin	55-63-0	μg/L	2.2	u.q	u.j	3.3	2.2	1	Explosives
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	PETN	78-11-5	μg/L	1.3	u.q	u.j	2.2	1.3	0.45	Explosives
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	RDX	121-82-4	μg/L	0.13	u.q	u.j	0.22	0.13	0.057	Explosives
280-104281-1	NTAnw-120-1-20417-GW	280-104281-3	Ground Water	Tetryl	479-45-8	μg/L	0.22	u.q	u.j	0.26	0.22	0.086	Explosives
280-104281-1	TB-120417	280-104281-4	Ground Water	1,1,1-Trichloroethane	71-55-6	μg/L	0.4	u	u.j	1	0.4	0.16	VOCs
280-104281-1	TB-120417	280-104281-4	Ground Water	1,1,2,2-Tetrachloroethane	79-34-5	μg/L	0.8	u	u.j	1	0.8	0.2	VOCs
280-104281-1	TB-120417	280-104281-4	Ground Water	1,1,2-Trichloroethane	79-00-5	μg/L	0.8	u	u.j	1	0.8	0.32	VOCs
280-104281-1	TB-120417	280-104281-4	Ground Water	1,1-Dichloroethane	75-34-3	μg/L	0.8	u	u.j	1	0.8	0.16	VOCs
280-104281-1	TB-120417	280-104281-4	Ground Water	1,1-Dichloroethene	75-35-4	μg/L	0.8	u	u.j	1	0.8	0.14	VOCs
280-104281-1	TB-120417	280-104281-4	Ground Water	1,2-Dibromoethane	106-93-4	μg/L	0.4	u	u.j	1	0.4	0.18	VOCs
280-104281-1	TB-120417	280-104281-4	Ground Water	1,2-Dichloroethane	107-06-2	μg/L	0.4	u	u.j	1	0.4	0.13	VOCs
280-104281-1	TB-120417	280-104281-4	Ground Water	1,2-Dichloroethene	540-59-0	μg/L	0.2	u	u.j	1	0.2	0.15	VOCs

280-104281-1	TB-120417	280-104281-4	Ground Water	1,2-Dichloropropane	78-87-5	0.4	u	0.4	1	0.4	0.13	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	2-Butanone	78-93-3	4	u	4	6	4	1.8	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	2-Hexanone	591-78-6	4	u	4	5	4	1.4	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	4-Methyl-2-pentanone	108-10-1	μg/L	3.2	u	5	3.2	1	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Acetone	67-64-1	μg/L	7.9	j	10	6.4	1.9	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Benzene	71-43-2	μg/L	0.4	u	1	0.4	0.16	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Bromodichloromethane	75-27-4	μg/L	0.4	u	1	0.4	0.17	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Bromoform	75-25-2	μg/L	0.4	u	1	0.4	0.19	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Bromonethane	74-83-9	μg/L	0.8	u	2	0.8	0.21	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Carbon disulfide	75-15-0	μg/L	1.6	u	2	1.6	0.45	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Carbon tetrachloride	56-23-5	μg/L	0.4	u	2	0.4	0.19	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Chlorobenzene	108-90-7	μg/L	0.4	u	1	0.4	0.17	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Chlorobromomethane	74-97-5	μg/L	0.2	u	1	0.2	0.11	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Chloroethane	75-00-3	μg/L	1.6	u	2	1.6	0.41	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Chloroform	67-66-3	μg/L	0.4	u	1	0.4	0.16	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Chloronemethane	74-87-3	μg/L	0.8	u	2	0.8	0.3	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	cis-1,3-Dichloropropene	10061-01-5	μg/L	0.4	u	1	0.4	0.16	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Dibromochloromethane	124-48-1	μg/L	0.4	u	1	0.4	0.17	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Ethylbenzene	100-41-4	μg/L	0.4	u	1	0.4	0.16	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Methylene chloride	75-09-2	μg/L	0.8	u	5	0.8	0.32	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Styrene	100-42-5	μg/L	0.4	u	1	0.4	0.17	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Tetrachloroethene	127-18-4	μg/L	0.4	u	1	0.4	0.2	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Toluene	108-88-3	μg/L	0.4	u	1	0.4	0.17	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	trans-1,3-Dichloropropene	10061-02-6	μg/L	0.4	u	1	0.4	0.19	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Trichloroethene	79-01-6	μg/L	0.4	u	1	0.4	0.16	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Vinylchloride	75-01-4	μg/L	0.2	u	1.5	0.2	0.1	VOCs	Q	
280-104281-1	TB-120417	280-104281-4	Ground Water	Xylene (Total)	1330-20-7	μg/L	0.8	u	2	0.8	0.19	VOCs	Q	
280-104281-1	FBQnw-176-1-20417-GW	280-104281-6	Ground Water	Total Cyanide	57-12-5	μg/L	10	j	10	5	2	Total Cyanide	M	
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	Chlorobenzene	16887-00-6	μg/L	1400	j	y	3000	500	250	Anions	S
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	1,3,5-Trinitrobenzene	99-35-4	μg/L	0.45	u	n	1.1	0.45	0.22	Explosives	S
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	1,3,5-Trinitrotoluene	99-65-0	μg/L	0.22	u	n	0.45	0.22	0.099	Explosives	S
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	2,4,6-Trinitrotoluene	118-96-7	μg/L	0.22	u	n	0.45	0.22	0.081	Explosives	S
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	2,4-Dinitrotoluene	121-14-2	μg/L	0.22	u	n	0.45	0.22	0.093	Explosives	S
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	2,6-Dinitrotoluene	606-20-2	μg/L	0.22	u	n	0.22	0.22	0.072	Explosives	S
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	2-Amino-4,6-dinitrotoluene	35572-78-2	μg/L	0.13	u	n	0.22	0.13	0.056	Explosives	S,L
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	2-Nitrotoluene	88-72-2	μg/L	0.22	u	n	0.45	0.22	0.095	Explosives	S
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	3-Nitrotoluene	99-08-1	μg/L	0.22	u	n	0.45	0.22	0.093	Explosives	S,L
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	4-Amino-2,6-dinitrotoluene	19406-51-0	μg/L	0.13	u	n	0.22	0.13	0.064	Explosives	S,L
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	4-Nitrotoluene	99-99-0	μg/L	0.45	u	n	1.1	0.45	0.22	Explosives	S
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	HMX	2691-41-0	μg/L	0.22	u	n	0.45	0.22	0.098	Explosives	S
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	Nitrobenzene	98-95-3	μg/L	0.22	u	n	0.45	0.22	0.1	Explosives	S
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	Nitroglycerin	55-63-0	μg/L	2.2	u	n	3.3	2.2	1	Explosives	S
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	PETN	78-11-5	μg/L	1.3	u	n	2.2	1.3	0.46	Explosives	S
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	Tetryl	479-45-8	μg/L	0.22	u	n	0.27	0.22	0.088	Explosives	S
280-104281-1	FBQnw-176-1-20417-GW	280-104281-9	Ground Water	RDX	121-82-4	μg/L	0.089	qj	j	0.22	0.13	0.058	Explosives	S

