

Final

Groundwater Periodic Monitoring Report

January through June 2014

Fort Wingate Depot Activity

McKinley County, New Mexico

September 2014

Contract No. W9126G-12-D-0027

Task Order No. 0002

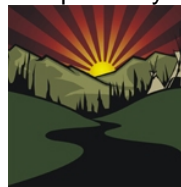
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14. ABSTRACT This Groundwater Periodic Monitoring Report documents the activities conducted from January through June 2014 at Fort Wingate Depot Activity (FWDA) under the Interim Facility-Wide Groundwater Monitoring Plan, Version 7. The report describes the monitoring activities, presents the analytical data, evaluates the data, and makes recommendations for future investigation at FWDA.					
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BIA = Bureau of Indian Affairs

BRACD = U.S. Army Base Realignment and Closure Division

DOA, DAIM-ODB = Department of the Army's Assistant Chief of Staff for Installation Management

FWDA BEC = Fort Wingate Depot Activity Base Realignment and Closure Environmental Coordinator

FWDA EIMS = Fort Wingate Depot Activity Environmental Information Management System

NMED HWB = New Mexico Environment Department, Hazardous Waste Bureau

USACE SPA = U.S. Army Corps of Engineers, Albuquerque District

USACE SWF = U.S. Army Corps of Engineers, Fort Worth District

USEPA = U.S. Environmental Protection Agency

1 Contents

2	List of Acronyms and Abbreviations.....	iii
3	Executive Summary.....	ES-1
4	1.0 Introduction.....	1-1
5	1.1 Site Description and Activities	1-1
6	1.2 Hydrogeologic Setting.....	1-2
7	1.3 Regulatory Background	1-3
8	1.4 Document Organization.....	1-4
9	2.0 Scope of Services.....	2-1
10	2.1 Groundwater Elevation Measurements	2-1
11	2.2 Groundwater Sampling.....	2-1
12	2.3 Data Management and Validation.....	2-3
13	3.0 Regulatory Criteria	3-1
14	4.0 Groundwater Elevations.....	4-1
15	4.1 Northern Area Groundwater Elevations.....	4-1
16	4.1.1 Northern Area Alluvial Groundwater System.....	4-1
17	4.1.2 Northern Area Bedrock Groundwater System	4-2
18	4.2 OB/OD Area Groundwater Elevations	4-2
19	5.0 Groundwater Analytical Results.....	5-1
20	5.1 Northern Area Analytical Results.....	5-1
21	5.1.1 Water Quality Parameters.....	5-1
22	5.1.2 Nitrate and Nitrite	5-1
23	5.1.3 Explosive Compounds.....	5-2
24	5.1.4 Perchlorate	5-3
25	5.1.5 Volatile Organic Compounds	5-3
26	5.1.6 Other Organic Compounds	5-4
27	5.1.7 Metals.....	5-5
28	5.2 OB/OD Area Analytical Results	5-5
29	5.3 Field Variances from the Work Plan	5-5
30	5.4 New Findings	5-6
31	6.0 Summary and Recommendations	6-1
32	6.1 Summary.....	6-1
33	6.2 Recommendations.....	6-2
34	7.0 Works Cited	7-1

List of Appendices

35	A	Field Notes
36	B	Groundwater Sampling Field Data and Chain of Custody Forms
37	C	Laboratory Analytical Data Quality Evaluation
38	D	Historic Groundwater Analytical Data (<i>Provided as a separate file on the DVD included with this report</i>)

Contents

1	List of Tables	
2	2-1	Spring 2014 Groundwater Sample Matrix..... 2-5
3	4-1	Northern Area Groundwater Elevations (Wells Screened in Alluvial Sediments) 4-3
4	4-2	Northern Area Groundwater Elevations (Wells Screened in Bedrock) 4-5
5	4-3	OB/OD Area Groundwater Elevations 4-6
6	5-1	April 2014 Stable Groundwater Parameters 5-7
7	5-2	Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections 5-9
8	5-3	Summary of Total Explosives Analytical Detections 5-17
9	5-4	Summary of Perchlorate Analytical Detections 5-23
10	5-5	Summary of Volatile Organic Compound Analytical Detections 5-29
11	5-6	Summary of Semivolatile Organic Compounds and Total Petroleum Hydrocarbons Analytical Results ... 5-35
12	5-7	Summary of Dissolved Metals Analytical Detections 5-41
13	5-8	Summary of Total Metals Analytical Detections 5-51
14	List of Figures	
15	1-1	Location Map 1-5
16	1-2	Site Features – Northern Area 1-77
17	4-1	January 2014 Northern Area Alluvial Groundwater Contour Map 4-7
18	4-2	April 2014 Northern Area Alluvial Groundwater Contour Map 4-9
19	4-3	January 2014 Northern Area Bedrock Groundwater Contour Map 4-11
20	4-4	April 2014 Northern Area Bedrock Groundwater Contour Map 4-13
21	5-1	Spring 2014 Northern Area Nitrate and Nitrite Concentrations in Alluvial Groundwater 5-61
22	5-2	Spring 2014 Northern Area Nitrate and Nitrite Concentrations in Bedrock Groundwater 5-63
23	5-3	Spring 2014 Northern Area Explosives and Perchlorate Concentrations in Alluvial Groundwater 5-65
24	5-4	Spring 2014 Northern Area Explosives and Perchlorate Concentrations in Bedrock Groundwater 5-67
25	5-5	Spring 2014 Northern Area VOC, SVOC and TPH Concentrations in Alluvial Groundwater 5-69
26	5-6	Spring 2014 Northern Area VOC, SVOC and TPH Concentrations in Bedrock Groundwater 5-71

List of Acronyms and Abbreviations

1	µg/L	microgram(s) per liter
2	µS/cm	microsiemen(s) per centimeter
3	ADR	Automated Data Review
4	AOC	area of concern
5	bgs	below ground surface
6	BRAC	Base Realignment and Closure
7	BOC	below top of casing
8	°C	degrees Celsius
9	CCC	Calibration Check Compound
10	CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980</i>
11	CFR	<i>Code of Federal Regulations</i>
12	DoD	Department of Defense
13	DOI	U.S. Department of Interior
14	DQE	data quality evaluation
15	DRO	diesel range organics
16	DTW	depth to water
17	DUP	duplicate
18	EDD	electronic data deliverable
19	EDMS	Electronic Data Management System
20	Eh	redox potential
21	EPA	U.S. Environmental Protection Agency
22	EQU	equipment rinsate
23	ERP	Environmental Restoration Program
24	°F	degrees Fahrenheit
25	ft/ft	foot per foot
26	FWDA	Fort Wingate Depot Activity
27	GPMP	Groundwater Periodic Monitoring Report
28	GRO	gasoline range organics
29	GWMP	Groundwater Monitoring Plan
30	HMX	octahydro-1.3.5.7-tetranitro-1.3.5.7-tetrazocine
31	HWB	Hazardous Waste Bureau
32	HWMR	New Mexico Hazardous Waste Management Regulations
33	HWMU	hazardous waste management unit
34	ID	identification
35	J	analyte was positively identified; reported value is estimated
36	MCL	maximum contaminant level
37	MEC	munitions and explosives of concern
38	mg/L	milligram(s) per liter
39	MS	matrix spike
40	MSD	matrix spike duplicate
41	mS/cm	millisiemen(s) per centimeter
42	mV	millivolt(s)
43	N	nitrogen
44	N/A	not applicable
45	NAD83	North American Datum of 1983
46	NAD88	North American Datum of 1988
47	NAVD88	North American Vertical Datum of 1988

List of Acronyms and Abbreviations

1	NC	not collected
2	ND	not detected
3	NM	not measured
4	NMAC	New Mexico Administrative Code
5	NMED	New Mexico Environment Department
6	NMHWA	New Mexico Hazardous Waste Act
7	NMSA	New Mexico State Rules Act
8	NMWQCC	New Mexico Water Quality Control Commission
9	NO ₃	nitrate
10	NS	not sampled
11	NTU	nephelometric turbidity unit
12	OB/OD	Open Burn/Open Detonation
13	ORP	oxidation-reduction potential
14	pH	scale used to measure the concentration of hydrogen atoms (acidity) of a sample
15	PPE	personal protective equipment
16	QA	quality assurance
17	QAPP	Quality Assurance Project Plan
18	QC	quality control
19	QSM	Quality Systems Manual
20	RCRA	<i>Resource Conservation and Recovery Act</i>
21	RDX	hexahydro-1,3,5-trinitro-1,3,5-triazine
22	RFI	RCRA Facility Investigation
23	SDG	sample delivery group
24	SPCC	System Performance Check Compound
25	SVOC	semivolatile organic compound
26	SWMU	solid waste management unit
27	TDS	total dissolved solids
28	TNT	trinitrotoluene
29	TOC	top of casing
30	TPH	total petroleum hydrocarbons
31	U	non-detected result below the limit of detection
32	USACE	U.S. Army Corps of Engineers
33	UXO	unexploded ordnance
34	VOC	volatile organic compound

1 Executive Summary

2 This Groundwater Periodic Monitoring Report (GPMR) documents groundwater-monitoring activities conducted
3 at Fort Wingate Depot Activity (FWDA) from January to June 2014 in accordance with the *Interim Facility-Wide*
4 *Groundwater Monitoring Plan, Version 7* (Innovar, 2014). Groundwater monitoring was performed by Sundance
5 Consulting and CH2M HILL at FWDA under contract to the U.S. Army Corps of Engineers (USACE), Fort Worth
6 District as part of the Environmental Restoration Program (ERP). The GPMR was prepared on behalf of the U.S.
7 Department of the Army Base Realignment and Closure (BRAC) Division for submission to the New Mexico
8 Environment Department (NMED) – Hazardous Waste Bureau (HWB), as required by Section V.A of the *Resource*
9 *Conservation and Recovery Act* (RCRA) Permit number NM 6213820974 for FWDA (NMED, 2005). The report
10 presents a summary of the monitoring activities and results; an evaluation of the results; and recommendations
11 for future monitoring events and investigations.

12 Field activities conducted during the reporting period included two groundwater elevation surveys and one
13 groundwater sampling event. Groundwater elevation surveys were performed on January 13, 2014 and April 7,
14 2014. On January 13, 2014, depth to water (DTW) was measured at 78 monitoring wells and piezometers; 2 wells
15 were verified as dry. On April 7, 2014, prior to groundwater sampling, DTW was measured at 75 monitoring wells
16 and piezometers; 2 wells were verified as dry. The groundwater-sampling event for the reporting period was
17 performed from April 8 to 17, 2014. Groundwater samples were collected from 62 monitoring wells listed in the
18 Groundwater Monitoring Plan (GWMP) (Innovar, 2014). The groundwater samples were analyzed for the
19 constituents listed in Table 2-1. During this monitoring period, access to the Open Burn/Open Detonation (OB/OD)
20 Area was not allowed due to explosive hazards associated with the ongoing remediation activities. Monitoring of
21 the East Landfill Area monitoring wells was not performed as these monitoring wells are in the process of being
22 abandoned.

23 Groundwater flow directions at FWDA are controlled by regional geologic structure orientation and by local
24 topography and stratigraphy. The flow of groundwater in the Northern Area alluvium is from potentiometric highs
25 in the east, north, and south towards a potentiometric low west of the Administration Area (Figures 4-1 and 4-2).
26 Hydraulic gradients in alluvium ranged from 0.003 foot per foot (ft/ft) to 0.03 ft/ft. Groundwater flow in the
27 bedrock appears to flow radially to a potentiometric low adjacent to monitoring well TMW37 in the eastern
28 portion of the Workshop Area and to the west in the western portion of the Workshop Area, with an inferred
29 geologic structural feature impeding flow between the two areas. Groundwater flow is to the northwest in the
30 East Landfill Area (Figures 4-3 and 4-4). Groundwater elevation in the bedrock groundwater unit is slightly higher
31 than in the alluvial groundwater unit and exists under hydraulically confined conditions in most of the Northern
32 Area. Groundwater hydraulic gradients in the bedrock unit range from approximately 0.007 to 0.1 ft/ft in the
33 Workshop Area to and are approximately 0.14 ft/ft in the East Landfill Area.

34 Nitrate, perchlorate, explosives, one volatile organic compound (VOC), one semivolatile organic compound
35 (SVOC), and metals were detected in groundwater samples at concentrations above the regulatory screening
36 levels. Six groundwater contaminant plumes have been identified: two nitrate plumes, one in the alluvial
37 groundwater unit and one in the bedrock groundwater unit; two perchlorate plumes, one in the alluvial
38 groundwater unit and one in the bedrock groundwater unit; an explosives plume in the alluvial groundwater unit;
39 and a 1,2-dichloroethane plume in the alluvial groundwater unit.

40 The highest concentrations of nitrate contamination occur in shallow alluvial groundwater units of the Northern
41 Area. The nitrate plume in the alluvial groundwater unit appears to originate from the TNT Leaching Beds and
42 extends downgradient to the Administration Area. The groundwater concentrations in the alluvial nitrate plume
43 decline in the vicinity of the former water storage cistern (monitoring wells MW01 and MW02). The extent of the
44 alluvial nitrate plume is not defined to the west of the Administration Area. The bedrock nitrate plume is also
45 present at the TNT Leaching Beds, but extends upgradient from solid waste management unit (SWMU) 1 to the

1 south. A portion of the bedrock nitrate plume is collocated with the bedrock perchlorate plume. The nitrate
2 plumes may have a common source.

3 The highest perchlorate concentrations were detected in groundwater samples from the bedrock groundwater
4 unit in the Workshop Area. The extent of the bedrock perchlorate plume has not been defined on the northern
5 plume boundary. The alluvial perchlorate plume is located in the same vicinity as the bedrock plume.

6 The compound hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) is the primary explosive compound of interest. This
7 compound is consistently detected at concentration above screening levels in the Workshop and eastern
8 Administrative areas. The explosives plume in the alluvial groundwater unit appears to originate from the TNT
9 Leaching Beds in the Workshop Area. Groundwater concentrations of explosive compounds (primarily RDX)
10 attenuate to levels below the screening level within 2,500 feet downgradient of the TNT Leaching Beds.

11 One VOC, 1,2-dichloroethane, was detected in groundwater samples at concentrations above the regulatory
12 cleanup standard. The compound 1,2-dichloroethane was historically used as a gasoline additive and degreasing
13 solvent. The 1,2-dichloroethane plume in the alluvial groundwater unit is limited to a group of wells near a former
14 fueling facility in the Administration Area. Groundwater samples collected from three alluvial monitoring wells
15 had concentrations above the U.S. Environmental Protection Agency (EPA) maximum contaminant level (MCL) of
16 5 micrograms per liter ($\mu\text{g/L}$). No VOCs were detected at concentrations above cleanup standards in bedrock wells
17 of the Northern Area. Two SVOCs, bis(2-ethylhexyl) phthalate and 2,4-dinitrophenol, were also detected at
18 concentrations above the MCL or regulatory screening level in one sample each. Detections of bis(2-ethylhexyl)
19 phthalate are likely attributable to sampling and laboratory contamination. The SVOC 2,4-dinitrophenol is a
20 degradation product of the explosive compound 2,4-dinitrotoluene and was detected in the sample from
21 monitoring well TMW03 located downgradient of the TNT Leaching Beds.

22 Dissolved aluminum, arsenic, iron, manganese, and selenium were detected at concentrations above regulatory
23 screening levels in multiple groundwater samples. Since background groundwater concentrations have not yet
24 been established for FWDA, it cannot clearly be demonstrated if the detected concentrations are a result of
25 natural conditions or anthropogenic sources of contamination. A background evaluation of FWDA groundwater
26 will be issued to the NMED in September 2014.

27 Additional delineation and investigation for groundwater plumes at FWDA are planned. A Supplemental RCRA
28 Facility Investigation (RFI) Work Plan is in preparation.

1.0 Introduction

This Groundwater Periodic Monitoring Report (GPMR) documents groundwater-monitoring activities conducted at Fort Wingate Depot Activity (FWDA) from January through June 2014 in accordance with the *Interim Facility-Wide Groundwater Monitoring Plan*, Version 7 (Innovar, 2014). Groundwater monitoring was performed by Sundance Consulting and CH2M HILL at FWDA under contract to the U.S. Army Corps of Engineers (USACE), Fort Worth District as part of the Environmental Restoration Program (ERP). The GPMR was prepared on behalf of the U.S. Department of the Army Base Realignment and Closure (BRAC) Division for submission to the New Mexico Environment Department (NMED) – Hazardous Waste Bureau (HWB), as required by Section V.A of the *Resource Conservation and Recovery Act* (RCRA) Permit number NM 6213820974 for FWDA (NMED, 2005).

The U.S. Department of the Army BRAC Division is managing FWDA for closure and transfer of property. As part of the planned property transfer to the U.S. Department of Interior (DOI), the installation has been divided into reuse parcels as specified by the Permit. Pending RCRA closure and property transfer of the reuse parcels, the ERP must comply with the RCRA Permit.

1.1 Site Description and Activities

FWDA is located in McKinley County of western New Mexico, approximately seven miles east of Gallup and 130 miles west of Albuquerque (Figure 1-1). The current facility occupies an area of approximately 24 square miles (15,277 acres).

FWDA was founded as a U.S. Cavalry post in the 1860s. In 1918, the facility became a munitions storage depot for the U.S. Department of the Army. The facility was operated by the U.S. Department of the Army for numerous missions from 1918 until 1993, when FWDA was selected for closure under the BRAC Act of 1988. In 2002, the U.S. Department of the Army reassigned many functions at FWDA to the BRAC Division, including property management and ERP activities. In addition to property management and ERP activities, FWDA is currently used for missile testing. The Missile Defense Agency leases portions of the installation for these tests.

Historic activities at FWDA that may have contributed to soil and groundwater contamination include munitions storage, maintenance, and disposal; the use and storage of petroleum fuels; and equipment maintenance (TerranearPMC [TPMC], 2008). The following areas had historic activities with known or potential impacts to site soils and/or groundwater:

- The Administration Area in the northern portion of FWDA is the location of all active administrative and maintenance buildings. Munitions storage and shipping, fuel storage and dispensary, and mechanical maintenance activities were performed in this area.
- The Workshop Area is located directly south of the Administration Area and encompasses former industrial facilities for munitions maintenance and renovation activities, including the former trinitrotoluene (TNT) washout facility and the TNT Leaching Beds Area.
- The Igloo Areas cover almost half of the current FWDA and were used for the storage of various munitions. These areas consist of rows of earth-covered igloos (also known as earth-covered magazines) located in the central portion of the installation. The 10 Igloo Areas contain a total of 732 earth-covered igloos and 241 earthen revetments (Innovar, 2014).
- The Open Burn/Open Detonation (OB/OD) Areas are munitions disposal locations in the southwest and western portions of the facility. The Closed OB/OD Area was used from 1948 to 1955 and includes the Old Burning Ground, the Demolition Landfill Area, and the Old Demolition Area (Program Management Company [PMC], 1999). The current OB/OD Unit was used from 1955 to 1993 and contains the hazardous waste management unit (HWMU) identified in the RCRA Permit.

1.2 Hydrogeologic Setting

1 A brief description of the hydrogeologic setting at FWDA is presented in this section to provide context for the
2 contaminant nature and extent discussions presented in Section 5 of this report.

3
4 The geologic units exposed at FWDA were largely deposited in the Mesozoic era and have been significantly
5 modified by more recent erosion and redeposition. The lithified stratigraphic units are Triassic to Cretaceous in age
6 with uplift and deformation occurring in the Cretaceous during the Laramide orogeny series of mountain-building
7 events in western North America (McCraw et al., 2009). Quaternary alluvial and colluvial deposits unconformably
8 overlie the Mesozoic bedrock in the lower elevation and northern portions of FWDA (Anderson et al., 2003).

9 The majority of FWDA is underlain by the Triassic-age Chinle Group, which is predominantly non-marine, red-bed
10 siliciclastics. The Chinle Group consists of the Shinarump, Bluewater Creek, Petrified Forest, and Owl Rock
11 Formations (Anderson et al., 2003). The Petrified Forest Formation directly underlies the majority of the
12 installation, and is subdivided into three members: the Blue Mesa, Sonsela, and Painted Desert Members. All
13 three members of the Petrified Forest Formation outcrop in various locations across the installation. The Blue
14 Mesa, Sonsela, and Painted Desert lithologies are green-gray smectitic¹ mudstone, light-gray to yellowish-brown
15 cross-bedded sandstone, and reddish-brown and grayish-red smectitic mudstone, respectively (Innovar and Shaw,
16 2012). In the eastern portion of FWDA, the older Bluewater Creek and Shinarump Formations outcrop
17 intermittently between layers of Quaternary alluvium (Innovar, 2014).

18 Permian-age bedrock underlies the Mesozoic-age rock beneath FWDA. These strata do not outcrop in FWDA, and
19 are not known to be contaminated by historic activities at the installation. However, the deeper, older San Andres
20 Limestone and Glorieta Sandstone formations provide the potable water supply to the installation.

21 In the northern portion of the installation, the surface is covered by either remnants of the Chinle Group or
22 Quaternary alluvial and colluvial deposits. The majority of the alluvial deposits are present in the Northern Area of
23 the installation in lowland areas between bedrock remnants. Alluvial deposits are also present along intermittent
24 streams draining the Nutria Monocline (also known as the Hogback) and Zuni Mountains. The intermittent
25 streams flow downgradient through the northern portion of the installation before joining the south fork of the
26 Rio Puerco. Based on soil-boring logs from the installation, alluvial deposits are heterogeneous and are thickest
27 near major drainages. The alluvium has been found to be up to 150 feet thick near the south fork of the
28 Rio Puerco. In the Administration Area, alluvium thickness generally ranges between 30 and 70 feet.

29 The regional groundwater aquifer in the vicinity of FWDA is present in the semi-confined Permian San Andres
30 Limestone and Glorieta Sandstone Formations (Cooper and John, 1968; Summers, 1972). Shallow groundwater is
31 also present in the unconsolidated alluvium and Mesozoic-age bedrock overlying these units, but is typically of
32 poor quality.

33 Groundwater flow in the San Andres-Glorieta aquifer is to the north beneath FWDA and is separated from the
34 shallow groundwater units by shales and claystones across much of FWDA (Anderson et al., 2003). The top of the
35 San Andres-Glorieta aquifer is approximately 1,100 feet below ground surface (bgs) near the Administration Area.
36 Recharge to both the regional aquifer and to shallow groundwater units is from precipitation and snowmelt
37 primarily in the upland areas and along faults south of FWDA.

38 Shallow groundwater flow in the southern portions of the installation (OB/OD Area) is to the north. Groundwater
39 recharge occurs in the higher elevations and discharges to the arroyos. Significant thicknesses of alluvium are not
40 present in the OB/OD Area, and shallow groundwater typically occurs in the bedrock units in these areas.
41 However, water-bearing zones are occasionally identified in the alluvium present in arroyo bottoms.

¹ A liquid crystal characterized by the arrangement of its molecules in layers with the long molecular axes in a given layer being parallel to one another and those of other layers being perpendicular or slightly inclined to the plane of the layer.

1 The groundwater flow direction in the alluvium present in the northern portion of FWDA is predominantly to the
2 southwest and west. Along the northern border of the installation, hydraulic communication exists between the
3 groundwater and the Rio Puerco during periods of active stream flow. Groundwater flow in the alluvium occurs
4 primarily in discontinuous, stream-deposited sand and gravel units. Groundwater flow in the bedrock units in the
5 northern portion of FWDA is to the west and north. The direction of groundwater flow in the bedrock units is
6 largely controlled by the bedding dip direction and other geologic structural features.

7 The depth to water under FWDA is generally between 10 and 100 feet bgs.

8 **1.3 Regulatory Background**

9 Environmental restoration activities at FWDA began in 1989 under the *Comprehensive Environmental Response,*
10 *Compensation, and Liability Act* of 1980 (CERCLA) guidelines, as part of the Installation Restoration Program. The
11 one exception was the current OB/OD Area, which followed RCRA guidelines.

12 Since that time, NMED has become the lead regulatory agency. In 2002, NMED determined that the remediation
13 pathway would be solely through a RCRA permit for post-closure care of the current OB/OD Area with a RCRA
14 corrective action module attached to address requirements for other solid waste management units (SWMUs)
15 and areas of concern (AOCs). The RCRA Permit was finalized in December 2005 and became effective
16 December 31, 2005 (NMED, 2005). The RCRA permit identified one HWMU within the current OB/OD Unit
17 (Parcel 3), and a total of 93 SWMUs and AOCs.

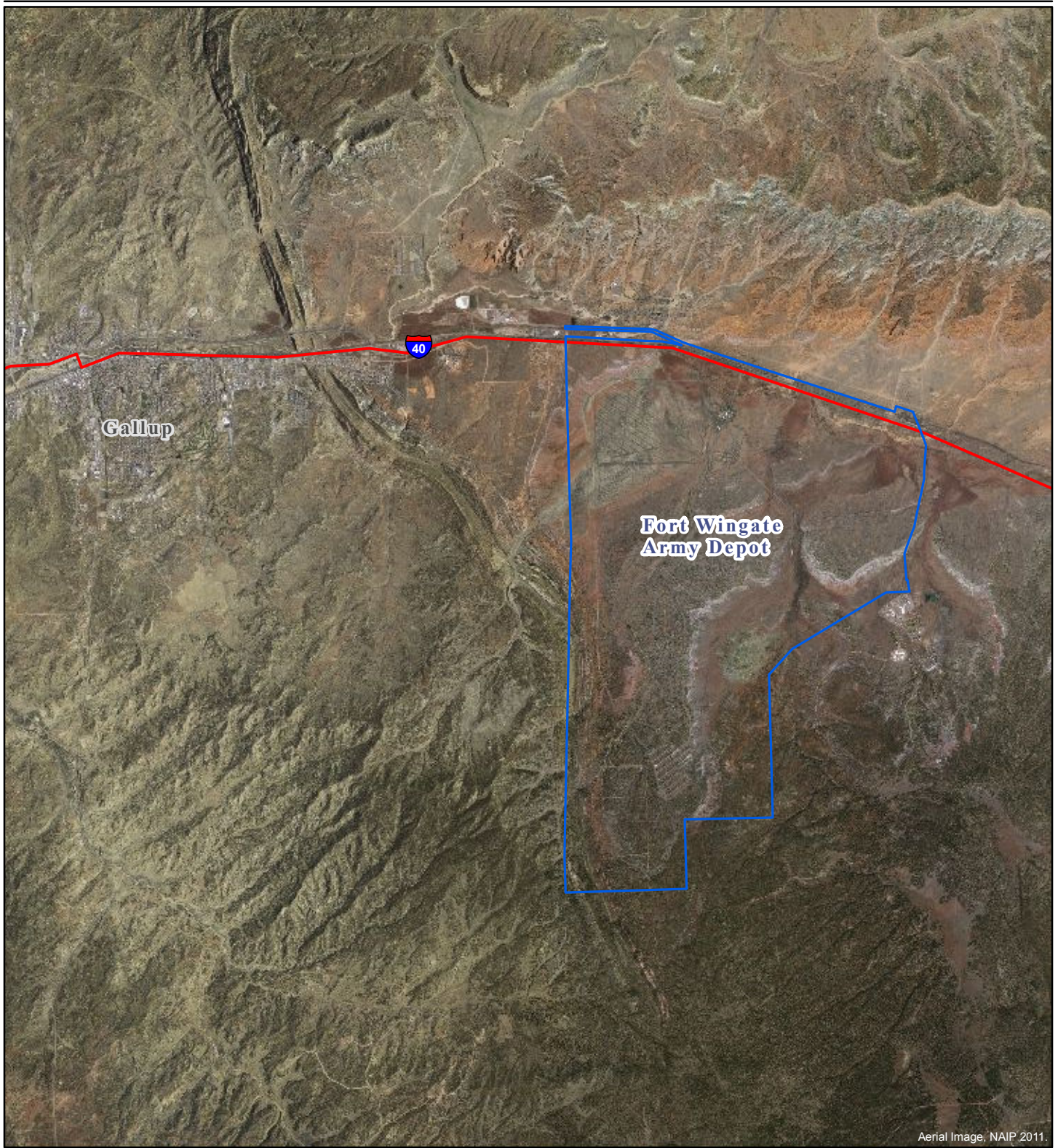
18 Since the 1980s, a number of groundwater investigations have been completed at FWDA. Groundwater
19 investigation efforts have primarily focused on five areas: the TNT Leaching Beds Area (SWMU 1 located within
20 Parcel 21); the Administration Area (multiple SWMUs and AOCs located in Parcels 6, 7, and 11); the Eastern
21 Landfill Area (SWMU 13 located within Parcel 18); Buildings 542 and 600 Area (SWMUs 11 and 4 located within
22 Parcel 6); and the OB/OD Area (located within Parcel 3). Numerous groundwater monitoring wells have been
23 installed to characterize the nature and extent of contamination that resulted from activities associated with the
24 OB/OD Area and various SWMUs and AOCs. Figure 1-2 shows the current monitoring well network, pertinent site
25 features, and the reuse parcels at FWDA.

26 The Interim Facility-Wide Groundwater Monitoring Plan (GWMP) is required by Permit Section V.A and describes
27 the groundwater monitoring activities to be conducted as part of the ERP at FWDA. The current monitoring
28 network has been designed to evaluate the horizontal and vertical extent of chemical constituents in
29 groundwater, and transport of chemicals that originate from multiple sources. The current GWMP combines the
30 original 2008 Plan, approved by NMED, and subsequent revisions produced annually. Revisions to the GWMP are
31 based on an analysis of historic groundwater monitoring data and a data quality objective assessment. Sampling
32 under the NMED-approved GWMP has been ongoing since 2008. The results of the monitoring activities are
33 documented in semiannual groundwater monitoring reports and submitted to NMED.

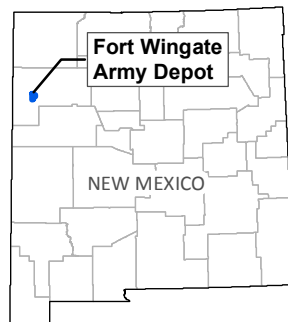
1 1.4 Document Organization

2 The GPMR is organized to comply with the guidance presented in NMED's *General Reporting Requirements for*
3 *Routine Groundwater Monitoring at RCRA Sites* (NMED, 2003). The remainder of this document is organized into
4 the following sections:

- 5 ○ Section 2 provides a discussion of the activities or scope of services performed during the January through
6 June 2014 reporting period.
- 7 ○ Section 3 presents the applicable regulatory criteria that sample analytical results are compared against for
8 FWDA.
- 9 ○ Section 4 presents the results of the quarterly groundwater elevation surveys.
- 10 ○ Section 5 presents the groundwater sample analytical data for the January through June 2014 monitoring
11 period.
- 12 ○ Section 6 presents a summary discussion of the groundwater monitoring results and recommendations for
13 future monitoring events.



Aerial Image, NAIP 2011.



**FIGURE 1-1
LOCATION MAP**

Groundwater Periodic Monitoring
Report for January to June 2014
*Fort Wingate Army Depot,
McKinley County, New Mexico*



2.0 Scope of Services

This section presents an overview the field activities, laboratory analyses, and data management activities conducted during the period from January through June 2014. Field activities conducted during the reporting period included two groundwater elevation surveys and one groundwater sampling event. All monitoring activities were conducted in accordance with the GWMP (Innovar, 2014). The groundwater monitoring locations are shown in Figure 1-2.

2.1 Groundwater Elevation Measurements

Groundwater elevation surveys were performed at FWDA on January 13, 2014 and April 7, 2014. On January 13, 2014, depth to water (DTW) was measured at 78 monitoring wells and piezometers; 2 wells were verified as dry. During the January survey event, monitoring well Wingate89 was surrounded by thin ice and was not accessible for DTW measurements. On April 7, 2014, prior to groundwater sampling, DTW was measured at 75 monitoring wells and piezometers; 2 wells were verified as dry. The four monitoring wells located in the East Landfill Area, EMW01 through EMW04, were measured during the January survey event but were not measured during the April survey event due to ongoing well abandonment activities. Of the 78 total accessible monitoring locations with water, 48 locations were alluvial monitoring wells, 20 locations were bedrock monitoring wells, and 10 locations were piezometers—all located in the Northern Area (Administrative and Workshop Areas). When abandonment of East Landfill Area monitoring wells is complete, the number of bedrock wells in the Northern area will be reduced to 16. No access to the OB/OD Area has been permitted for groundwater monitoring since April 2013 due to explosive hazards associated with the excavation and removal of unexploded ordinance (UXO) and munitions and explosives of concern (MEC). No groundwater elevation measurements were collected in the OB/OD Area during the current monitoring period.

As a health and safety consideration, water level measurements were collected by two-person teams. One team member documented the field measurements and the second operated the water level meter. The DTW was measured from the top of the casing reference point at each monitoring well and piezometers using a Solonist® Model 101 water level meter. The DTW measurements were recorded in the field data sheets or field notebooks to the nearest 0.01 foot. Copies of the field notes are provided in Appendix A.

The portions of the water level meter that came in contact with groundwater water were decontaminated after each use by washing with Liqui-Nox® soap solution and rinsing with deionized water. Decontamination fluids were contained in 5-gallon buckets for later disposal at the FWDA evaporation tank. The portions of the water level meter that were lowered into wells were wiped down with paper towels as they were retrieved from the well casings.

The DTW data were tabulated and compared to historic data to identify potential field measurement errors. Following this evaluation, the groundwater elevation at each monitoring location was calculated by subtracting the DTW from the surveyed elevation of the top of casing reference point. The groundwater elevation data were subsequently used to generate groundwater elevation contour maps and calculate hydraulic gradients for the alluvial and bedrock water-bearing units at FWDA. The groundwater elevation data and analyses are presented in Section 4 of this report.

2.2 Groundwater Sampling

The groundwater-sampling event for the reporting period was performed from April 8 to April 17, 2014. Groundwater samples were collected from 62 of the 82 monitoring wells listed in the GWMP (Innovar, 2014). The four monitoring wells located in the East Landfill Area, EMW01 through EMW04, were not sampled due to ongoing well abandonment activities. The 16 monitoring wells in the OB/OD Area were not sampled due to the explosive hazards associated with the active remediation of the area. The groundwater samples were analyzed for the constituents listed in Table 2-1. The sample analytical results are presented in Section 5 of this report. Variances from the GWMP are also discussed in Section 5.

2.0 Scope of Services

1 Monitoring well purging and sampling was performed using a variety of sampling techniques: dedicated low-flow
2 pneumatic pumps from BESST Products, dedicated pneumatic Bennett Sample Pumps, a non-dedicated Grundfos
3 Redi-Flo2 submersible pump, and disposable bailers. During well purging operations, the water quality
4 parameters of pH, temperature, specific conductance, dissolved oxygen, turbidity, and oxygen reduction potential
5 (ORP) were measured using a Horiba U-52 water quality meter and HF® Scientific DRT-15CE portable turbidimeter,
6 and recorded on groundwater sampling field data sheets. All water quality meters were calibrated daily according
7 to manufacturer specifications. The groundwater sampling field data sheets for each monitoring well are provided
8 in Appendix B.

9 Monitoring wells equipped with dedicated low-flow pneumatic pumps were purged in accordance with the
10 GWMP and NMED's position paper *Use of Low-Flow and Other Non-Traditional Sampling Techniques for RCRA*
11 *Compliant Groundwater Monitoring* (NMED, 2001). Well purging was performed until water-quality parameters
12 stabilized within the following ranges: temperature (± 10 percent), pH (± 0.5 standard units), specific conductance
13 (± 10 percent), dissolved oxygen (± 10 percent), turbidity (± 10 percent), and ORP (± 10 percent). In general,
14 drawdown was minimized during final parameter stabilization and during sampling to ensure that formation
15 water was being measured and sampled. In several wells, the poor production of the screened formations
16 resulted in drawdown of between 1 and 2 feet during the initial period of low-flow pumping prior to stabilization.

17 Monitoring wells not equipped with low-flow pumps were purged by pumping or bailing three well volumes of the
18 water standing in the well (including the saturated annular space). Water-quality parameters were measured
19 during the well purging operations until they stabilized within the ranges presented above. If a monitoring well
20 was emptied prior to the purging of three well volumes due to a slow recharge rate, then the well was sampled
21 after it refilled with sufficient groundwater volume. This typically required the sample team to return to the well
22 location on the following day to collect the groundwater sample. A minimum of three water-quality parameter
23 measurements were collected from wells that emptied during purging operations.

24 Nine wells in the monitoring program are equipped with dedicated Bennett Sample Pumps. The wells equipped
25 with Bennett Sample Pumps were purged and sampled using the installed pumps.

26 The 18 wells not equipped with dedicated pumps were purged dry by either bailing, or with a non-dedicated,
27 Grundfos Redi-Flow2 submersible electric pump. All samples from wells without dedicated pumps were collected
28 using disposable bailers.

29 The Grundfos Redi-Flo2 submersible pump was decontaminated between sample locations by pumping
30 Liqui-Nox® soap solution through the pump and pumping through two rinse cycles with deionized water. The
31 Grundfos pump discharge tubing was discarded at the end of each day that it was used for well purging.
32 Disposable bailers used for well purging and sampling were also discarded and not reused at other sample
33 locations. Three quality assurance equipment rinsate samples were collected from the decontaminated
34 submersible pump and the analytical results were evaluated as part of the data validation process. Eleven
35 monitoring wells were purged using the Grundfos Redi-Flo2 submersible pump. The three equipment rinsate
36 samples comply with the 10-percent sample frequency requirement of the GWMP (Innovar, 2014). The
37 equipment rinsate sample results indicate equipment decontamination was sufficient to prevent
38 cross-contamination.

39 Following well purging, groundwater samples were collected in laboratory-supplied bottles for the analyses listed
40 in Table 2-1. The quality assurance/quality control (QA/QC) samples collected during the monitoring event are
41 also listed in Table 2-1 and meet the requirements specified in the GWMP. Filled sample bottles were placed, on
42 ice, in coolers for shipment to TestAmerica Laboratories. Sample coolers were shipped daily, under chain-of-
43 custody, by FedEx overnight delivery. Copies of the chain-of-custody forms for the groundwater sampling event
44 are provided in Appendix B.

45 Water was generated during well-purging activities as part of the sampling process. Decontamination fluids were
46 generated during the decontamination of non-dedicated sampling equipment and reusable monitoring
47 equipment. Purge water and decontamination fluids were contained in closable 5-gallon and 15-gallon containers
48 during sampling activities and emptied into the FWDA evaporation tank on a daily basis. Solid waste such as

1 disposable sampling equipment, personal protective equipment (PPE), and general refuse was placed in rented
2 refuse containers.

3 **2.3 Data Management and Validation**

4 An electronic database was created to support the data management and tracking activities for the groundwater-
5 sampling event. The database was used to prepare sample labels in advance of the sampling event, as well as to
6 prepare electronic chain-of-custody forms on a daily basis at FWDA during the sampling event. Sample identifiers
7 were assigned based on the convention described in the GWMP. Groundwater sample identifiers consisted of the
8 well identification (ID) and sample date. The QA and QC samples used the same ID number as the parent sample
9 and followed by MS (matrix spike) and MSD (matrix spike duplicate), as dictated by the work plan. Changes were
10 made to the sample identifiers for field duplicates so that these QC samples would be blind to the laboratory. The
11 duplicate (DUP) naming convention was not used. The duplicates relating to normal samples are presented in
12 Table 2-1. Copies of the chain-of-custody forms were emailed to the project chemist on a daily basis to facilitate
13 sample tracking and laboratory interaction.

14 Sample analyses were performed by TestAmerica Laboratories in accordance with the *Department of Defense*
15 *Quality Systems Manual for Environmental Laboratories* (U.S. Department of Defense [DoD], 2013). Electronic
16 data deliverables (EDDs) of the analytical results for each sample delivery group (SDG) were provided by
17 TestAmerica Laboratories for validation. The sample result EDDs were loaded into the Automated Data Review
18 (ADR) software for data validation. Results were subjected to 100-percent Level 2, Functional Guideline equivalent
19 validation procedures using the ADR software. An additional 10 percent of the sample results were subjected to
20 Level IV data validation by the project chemist. The validated data output files from the ADR software were
21 exported to the FWDA Electronic Data Management System (EDMS) database. The EDMS database was used to
22 prepare the validated data table output presented in this report. Information on the data validation process and
23 the results are provided in Appendix C.

2.0 Scope of Services

TABLE 2-1
Spring 2014 Groundwater Sample Matrix (Page 1 of 3)
Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well ID	Sample ID	Total Explosives Method 8330B	TCL VOCs Method 8260B	TCL SVOCs Method 8270C	TCL Pesticides Method 8081A	TAL Total Metals Methods 6010C/6020A/7470A	TAL Dissolved Metals Methods 6010C/6020A/7470A	Total Nitrate/Nitrite Method 9056	Perchlorate Method 6860	TPH DRO Method 8015C	TPH GRO Method 8015C
OB/OD Area Monitoring Wells - No Sampling due to No Safe Access											
Northern Area Monitoring Wells - Alluvial											
BGMW01	BGMW01042014	X	X	X	X	X	X	X	X		
BGMW02	BGMW02042014	X	X	X	X	X	X	X	X		
<i>Duplicate</i>	DBW02042014	X	X	X	X	X	X	X	X		
BGMW03	BGMW03042014	X	X	X	X	X	X	X	X		
FW31	FW31042014	X	X	X	X	X	X	X			
FW35	FW35042014	X	X	X		X	X	X			
MW01	MW01042014	X	X		X	X	X	X	X	X	X
MW02	MW02042014	X	X		X	X	X	X	X	X	X
MW03	MW03042014	X	X			X	X	X	X	X	X
MW18D	MW18D042014	X	X			X	X	X	X	X	X
MW20	MW20042014	X	X	X	X	X	X	X	X	X	X
MW22D	MW22D042014	X	X	X	X	X	X	X	X	X	X
<i>Duplicate</i>	DMW22D042014	X	X	X	X	X	X	X	X	X	X
MW22S	MW22S042014	X	X	X	X	X	X	X	X	X	X
MW23	MW23042014	X	X	X	X	X	X	X	X		
<i>Duplicate</i>	DMW23042014	X	X	X	X	X	X	X	X		
MW24	MW24042014	X	X	X	X	X	X	X	X		
<i>Duplicate</i>	DMW24042014	X	X	X	X	X	X	X	X		
<i>Matrix Spike</i>	MW24042014MS	X	X	X	X	X	X	X	X		
	MW24042014MSD	X	X	X	X	X	X	X	X		
SMW01	SMW01042014	X	X	X		X	X	X	X		
TMW01	TMW01042014	X	X			X	X	X	X		
TMW03	TMW03042014	X	X	X		X	X	X	X		
TMW04	TMW04042014	X	X	X		X	X	X	X		
TMW06	TMW06042014	X	X	X		X	X	X			
TMW07	TMW07042014	X	X	X		X	X	X			
TMW08	TMW08042014		X		X	X	X	X	X	X	X
<i>Duplicate</i>	DTW08042014		X		X	X	X	X	X	X	X
<i>Matrix Spike</i>	TMW08042014MS		X		X	X	X	X	X	X	X
	TMW08042014MSD		X		X	X	X	X	X	X	X

TABLE 2-1

Spring 2014 Groundwater Sample Matrix (Page 2 of 3)*Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity*

Well ID	Sample ID	Total Explosives Method 8330B	TCL VOCs Method 8260B	TCL SVOCs Method 8270C	TCL Pesticides Method 8081A	TAL Total Metals Methods 6010C/6020A/7470A	TAL Dissolved Metals Methods 6010C/6020A/7470A	Total Nitrate/Nitrite Method 9056	Perchlorate Method 6860	TPH DRO Method 8015C	TPH GRO Method 8015C
Northern Area Monitoring Wells - Alluvial											
TMW10	TMW10042014	X	X			X	X	X	X		
TMW11	TMW11042014	X	X			X	X	X	X		
TMW13	TMW13042014		X			X	X	X	X		
TMW15	TMW15042014	X	X	X		X	X	X	X		
TMW21	TMW21042014	X	X			X	X	X	X		
TMW22	TMW22042014	X	X	X		X	X	X	X		
TMW23	TMW23042014	X	X		X	X	X	X	X		
TMW24	TMW24042014	X	X		X	X	X	X	X		
TMW25	TMW25042014	X	X			X	X	X			
TMW26	TMW26042014	X	X			X	X	X	X		
TMW27	TMW27042014		X			X	X		X		
TMW28	TMW28042014		X			X	X				
TMW29	TMW29042014	X	X			X	X	X	X		
TMW31S	TMW31S042014	X	X	X	X	X	X	X	X	X	
TMW33	TMW33042014		X	X		X	X	X		X	X
TMW34	TMW34042014		X			X	X	X	X	X	X
TMW35	TMW35042014		X	X	X	X	X	X	X	X	X
TMW39S	TMW39S042014	X	X	X	X	X	X	X	X		
TMW40S	TMW40S042014	X	X	X	X	X	X	X	X		
TMW41	TMW41042014	X	X	X	X	X	X	X	X		
TMW43	TMW43042014	X	X	X	X	X	X	X	X		
TMW44	TMW44042014	X	X	X	X	X	X	X	X		
TMW45	TMW45042014	X	X	X	X	X	X	X	X		
TMW46	TMW46042014	X	X	X	X	X	X	X	X		
TMW47	TMW47042014	X	X	X	X	X	X	X	X		

2.0 Scope of Services

TABLE 2-1

Spring 2014 Groundwater Sample Matrix (Page 3 of 3)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well ID	Sample ID	Total Explosives Method 8330B	TCL VOCs Method 8260B	TCL SVOCs Method 8270C	TCL Pesticides Method 8081A	TAL Total Metals Methods 6010C/6020A/7470A	TAL Dissolved Metals Methods 6010C/6020A/7470A	Total Nitrate/Nitrite Method 9056	Perchlorate Method 6860	TPH DRO Method 8015C	TPH GRO Method 8015C
Northern Area Monitoring Wells - Bedrock											
EMW01	Not sampled due to well abandonment activities										
EMW02	Not sampled due to well abandonment activities										
EMW03	Not sampled due to well abandonment activities										
EMW04	Not sampled due to well abandonment activities										
TMW02	TMW02042014	X	X			X	X	X	X		
TMW14A	TMW14A042014	X	X	X		X	X	X			
TMW16	TMW16042014	X	X	X		X	X		X		
TMW17	TMW17042014		X			X	X	X	X		
TMW18	TMW18042014	X	X	X		X	X	X	X		
TMW19	TMW19042014	X	X	X		X	X		X		
TMW30	TMW30042014	X	X	X	X	X	X	X	X		
TMW31D	TMW31D042014	X	X	X	X	X	X	X	X		
Duplicate	DTW31D042014	X	X	X	X	X	X	X	X		
Matrix Spike	TMW31D042014MS	X	X	X	X	X	X	X	X		
	TMW31D042014MSD	X	X	X	X	X	X	X	X		
TMW32	TMW32042014	X	X	X	X	X	X	X	X		
TMW36	TMW36042014	X	X	X	X	X	X	X	X		
TMW37	TMW37042014	X	X	X	X	X	X	X	X		
TMW38	YMW38042014	X	X	X	X	X	X	X	X		
TMW39D	TMW39D042014	X	X	X	X	X	X	X	X		
TMW40D	TMW40D042014	X	X	X	X	X	X	X	X		
TMW48	TMW48042014	X	X	X	X	X	X	X	X		
Duplicate	DTW48042014	X	X	X	X	X	X	X	X		
Matrix Spike	TMW48042014MS	X	X	X	X	X	X	X	X		
	TMW48042014MSD	X	X	X	X	X	X	X	X		
TMW49	TMW49042014	X	X	X	X	X	X	X	X		
Duplicate	DMW49042014	X	X	X	X	X	X	X	X		

Notes:

Trip blank samples were collected daily and equipment blanks were collected twice a week (not shown above)

X = samples collected according to work plan (Innovar, 2014)

DRO = diesel range organics

ID = identification

TAL = target analyte list

TPH = total petroleum hydrocarbon(s)

GRO = gasoline range organics

SVOC = semivolatle organic compound

TCL = target compound list

VOC = volatile organic compound

1 3.0 Regulatory Criteria

2 On December 1, 2005, NMED issued a RCRA Permit (EPA ID No. NM6213820974) to the U.S. Department of the
3 Army (Permittee), the owner and operator of FWDA. The Permit established the general and specific standards
4 and requirements for these activities pursuant to the New Mexico Hazardous Waste Act (NMHWA), as amended;
5 New Mexico State Rules Act (NMSA) 1978, §§ 74-4-1 et seq.; and the New Mexico Hazardous Waste Management
6 Regulations (HWMR), 20 New Mexico Administrative Code (NMAC) Part 4.1 (NMED, 2005).

7 As required by Section V.A of the Permit, the U.S. Department of the Army developed and implemented a
8 groundwater monitoring program. A GWMP was developed according to provisions of the Permit, Section VIII.B.1
9 (20 NMAC § 4.1.500, incorporating 40 *Code of Federal Regulations* [CFR] 264.101) (TPMC, 2008). NMED approved
10 the initial GWMP in March 2008. The GWMP has been revised five times with the revisions submitted to NMED in
11 2009, 2010, 2011, 2012, and 2013. All groundwater monitoring, sampling, and reporting activities are conducted
12 in compliance with the Permit, applicable Permit attachments, and the GWMP.

13 Attachment 7 of the Permit provides cleanup levels applicable to the FWDA groundwater-monitoring program.
14 Groundwater analytical results are evaluated and compared to these cleanup levels. The following documents and
15 regulations are used to determine if the concentration of a particular hazardous constituent exceeds the RCRA
16 Permit cleanup level (NMED, 2005):

- 17 ○ New Mexico Water Quality Control Commission (NMWQCC) standards in 20 NMAC § 6.2.4103.A and B
- 18 ○ U.S. Environmental Protection Agency (EPA) drinking water maximum contaminant level (MCL) under 40 CFR
19 Parts 141 and 142
- 20 ○ No current NMWQCC or MCL standard exists for perchlorate. Pending NMED approval of a standard, a
21 screening level of 6 micrograms per liter (µg/L) will be used for perchlorate as stated in the RCRA Permit.

22 If both an NMWQCC standard and an EPA MCL have been established for a contaminant, the lower of the two is
23 used as the criterion. The Permit does not specify cleanup standards for compounds (other than perchlorate) that
24 do not have either NMWQCC or MCL standards. The Permit specifies that risk-based cleanup standards should be
25 developed for these compounds and must be approved by NMED. Pending the development and approval of
26 cleanup criteria, the EPA Region 6 Human Health Tap Water Screening Levels are used as temporary screening
27 criteria.

28 The GWMP, requires the Permittee to submit periodic monitoring reports within 60 days of receipt of validated
29 groundwater chemical analytical results and the Permit, Section V.A.2 requires the format to be consistent with
30 NMED's *General Reporting Requirements for Routine Groundwater Monitoring at RCRA Sites* (Innovar, 2014;
31 NMED, 2003).

1 4.0 Groundwater Elevations

2 Groundwater elevation surveys in monitoring wells and piezometers at FWDA are currently performed on a
3 quarterly basis. Two groundwater elevation surveys were performed during this monitoring period, the first on
4 January 13, 2014 and the second on April 7, 2014. As noted in Section 2, no groundwater elevation measurements
5 were collected in the OB/OD Area during these events and no groundwater sampling was performed at the East
6 Landfill Area during the April monitoring event. The groundwater elevation data are used to calculate hydraulic
7 gradients and determine groundwater flow directions in the Northern Area alluvium, Northern Area bedrock and
8 OB/OD Area water-bearing units. Tables 4-1 through 4-3 present the DTW measurements in feet, the surveyed
9 elevation of the top of casing (TOC), and calculated groundwater elevations in feet above the North American
10 Vertical Datum of 1988 (NAVD88) for the January and April 2014 monitoring events. Figures 4-1 through 4-5 show
11 the groundwater elevation maps for the two monitoring events.

12 4.1 Northern Area Groundwater Elevations

13 Shallow groundwater in the Northern Area is present in both unconsolidated alluvium and bedrock. The water
14 quality and hydraulic properties differ between these two groundwater-bearing units. Therefore, the
15 groundwater elevation data and chemistry are presented and discussed separately. Table 4-1 presents the
16 groundwater elevation data for wells screened in alluvium. Table 4-2 presents the groundwater elevation data for
17 wells screened in the bedrock. The Northern Area groundwater elevation contour maps are shown in Figures 4-1
18 through 4-4. The groundwater elevation contours presented in these figures were drafted using the mathematical
19 interpolation algorithms in Surfer, version 11 software. The Kriging geostatistical interpolation method were used
20 to generate a 100-foot-by-100-foot interpolated grid based on the groundwater elevations. An experienced
21 hydrogeologist reviewed and digitally adjusted the contours based on known hydrogeologic conditions and
22 professional judgment. Boundary conditions were used to crop the interpolation grids based on geologic
23 constraints and data limitations. In some portions of the bedrock monitoring area, groundwater elevation data
24 was found to be inconsistent and conflicting between adjacent well locations. Groundwater flow in the bedrock
25 has been reevaluated to reconcile differences in apparent groundwater gradient with observed contaminant
26 transport direction. Bedrock contours in Figure 4 -3 and Figure 4-4 were hand drawn and are different from what
27 has been depicted in previous monitoring reports.

28 4.1.1 Northern Area Alluvial Groundwater System

29 The groundwater flow direction in the alluvium is from potentiometric highs in the east, north, and south towards
30 a potentiometric low west of the Administration Area (Figures 4-1 and 4-2). From the Administration Area, the
31 groundwater flow direction is generally to the west. These groundwater flow directions are consistent with recent
32 historic data. A small groundwater mound is present in the Administration Area near monitoring wells MW01,
33 MW02, and MW03. This feature has been previously attributed to a leaking water-storage cistern (USACE, 2012).
34 The cistern is no longer in service and the groundwater mound is expected to attenuate over time. However, the
35 groundwater mound is still observed in the water level data for monitoring well MW02. Groundwater flow
36 directions and elevations were similar between the January and April 2014 monitoring events, and were
37 consistent with recent historical data. The recent historical data are also included in Table 4-1.

38 Hydraulic gradients ranged from 0.003 foot per foot (ft/ft) to 0.03 ft/ft in the alluvial groundwater unit. The
39 steepest gradients were found in the southeast portions of the monitoring area and the flattest gradients were
40 found in the western portions of the monitoring area. Hydraulic gradients did not vary significantly in direction or
41 magnitude between the January and April 2014 monitoring events and were very similar to those calculated in
42 2013.

4.1.2 Northern Area Bedrock Groundwater System

Groundwater flow in the shallow bedrock is generally to the north and west in the Workshop Area and to the northwest in the East Landfill Area (Figures 4-3 and 4-4). Groundwater flow patterns in this area have been re-interpreted given the known contaminant distribution. Steep horizontal gradients from east to west (in particular between monitoring wells TMW38 and TMW40D and between monitoring wells TMW17 and TWM37) indicate a geologic structural feature that impedes flow. Geologic structures such as a faults, fracture zones, or mineralized banding in the sandstone units may be present in this area and impede groundwater flow. Contaminant transport of perchlorate to the north (instead of to the west) also provides evidence supporting the conceptual model of structural impediment to westerly groundwater flow in bedrock beneath the Workshop Area.

Groundwater flow in the bedrock appears to flow radially to a potentiometric low adjacent to TMW37 in the eastern portion of the Workshop Area and to the west in the western portion of the Workshop Area. Groundwater flow directions and elevations were similar between the January and April 2014 monitoring events. Water-level elevation data from monitoring well TMW02 was not used in the generation of the groundwater-elevation contour maps or the calculation of hydraulic gradients because the well is completed in a different water-bearing zone than the other bedrock monitoring wells. Two water bearing sandstone layers or units of the Painted Desert Member of the Petrified Forest Formation are known to exist in the Workshop Area. The upper sandstone unit is monitored by monitoring well TMW02. The remaining bedrock monitoring wells are completed in the lower sandstone unit. Since July 2012, groundwater elevations in most of the bedrock monitoring wells have declined approximately 1 to 2 feet, with the exception of monitoring well TMW02 which has remained relatively stable. This observation supports the conclusion that TMW02 is installed in a different bedrock water bearing unit than the other bedrock monitoring wells. Groundwater elevation in the bedrock groundwater unit is slightly higher than in the alluvial groundwater unit and is under hydraulically confined conditions in most of the Northern Area. The confining unit for the bedrock groundwater unit is missing in the vicinity of monitoring wells TWM31D and TMW48.

Groundwater hydraulic gradients are moderate in the Workshop Area at approximately 0.007 to 0.008 ft/ft on the eastern side and 0.01 ft/ft on the west. The groundwater elevations were very similar to recent historic data, but flow direction was reinterpreted and, therefore, gradients are slightly different from those reported in previous monitoring reports.

4.2 OB/OD Area Groundwater Elevations

No monitoring data were collected in this area during the January to June 2014 monitoring period. Recent historic groundwater elevation data are presented in Table 4-3. Monitoring of the OB/OD Area wells may resume following completion of remediation activities in the area.

TABLE 4-1

Northern Area Groundwater Elevations (Wells Screened in Alluvial Sediments) (Page 1 of 2)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	TOC Elevation (feet)	23-Jul-12	22/23-Oct-12	9-Jan-13	1-Apr-13	9-Jul-13	28-Oct-13	13-Jan-14		7-Apr-14	
		Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	DTW (feet BTOC)	Elevation (feet)	DTW (feet BTOC)	Elevation (feet)
BGMW01	6692.68	6673.72	6673.69	6673.70	6673.92	6673.27	6673.92	18.66	6674.02	18.68	6674.00
BGMW02	6691.99	6670.91	6670.79	6670.91	6671.12	6670.58	6671.23	20.69	6671.30	20.61	6671.38
BGMW03	6680.57	6663.93	6663.84	6665.32	6664.75	6663.53	6663.96	16.23	6664.34	15.91	6664.66
FW26	6674.4	NM	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
FW31	6832.49	6790.54	6790.27	6790.18	6790.36	6790.24	6790.20	42.27	6790.22	42.21	6790.28
FW35	6711.11	6686.43	6685.36	6685.95	6686.33	6684.11	6683.28	27.31	6683.80	26.78	6684.33
MW01	6685.94	6643.86	6643.8	6643.64	6643.85	6643.63	6643.59	42.60	6643.34	42.59	6643.35
MW02	6685.22	6646.09	6646.06	6645.57	6645.76	6645.40	6645.26	40.25	6644.97	40.16	6645.06
MW03	6689.53	6643.51	6643.51	6643.32	6643.58	6643.31	6643.45	46.40	6643.13	46.39	6643.14
MW18D	6686.32	6643.21	6643.24	6643.00	6643.32	6643.05	6643.12	43.52	6642.80	43.47	6642.85
MW18S	6686.61	NM	Dry	6647.94	6648.01	Dry	6648.01*	Dry	Dry	Dry	Dry
MW20	6687.67	6642.63	6642.55	6642.49	6642.69	6642.48	6642.44	45.33	6642.34	45.33	6642.34
MW22D	6684.55	6642.61	6642.67	6642.42	6642.74	6642.47	6642.49	42.25	6642.30	42.25	6642.30
MW22S	6684.69	6642.88	6642.67	6642.67	6642.91	6642.71	6642.77	42.15	6642.54	42.09	6642.60
MW23	6654.5	6639.61	6639.3	6639.25	6639.49	6638.96	6639.36	14.98	6639.52	14.84	6639.66
MW24	6657.08	6637.27	6637.14	6646.14	6638.05	6636.83	6637.32	19.37	6637.71	19.06	6638.02
SMW01	6669.94	6640.34	6640.08	6641.83	6640.05	6639.25	6639.30	30.78	6639.16	30.54	6639.40
TMW01	6711.84	6674.66	6674.52	6674.44	6674.22	6673.86	6673.78	38.40	6673.44	38.6	6673.24
TMW03	6702.43	6645.48	6645.42	6645.48	6645.49	6645.35	6645.42	57.13	6645.30	57.22	6645.21
TMW04	6700.86	6644.5	6644.48	6644.52	6644.55	6644.42	6644.50	56.49	6644.37	56.54	6644.32
TMW06	6690.63	6643.61	6643.62	6643.44	6643.72	6643.42	6643.67	47.25	6643.38	47.31	6643.32
TMW07	6690.47	6642.86	6643.36	6642.86	6643.52	6643.09	6643.71	47.45	6643.02	46.97	6643.50
TMW08	6680.31	6643.57	6643.7	6643.39	6643.59	6643.46	6643.56	37.14	6643.17	37.06	6643.25
TMW10	6680.04	6642.56	6642.49	6642.35	6643.73	6642.43	6642.44	37.83	6642.21	37.77	6642.27
TMW11	6718.28	6651.69	6650.49	6651.37	6651.37	6651.15	6650.94	67.37	6650.91	67.42	6650.86
TMW13	6707.49	6647.53	6647.44	6647.50	6647.44	6647.32	6647.30	60.27	6647.22	60.31	6647.18
TMW15	6713.89	6649.63	6649.48	6649.48	6649.42	6649.26	6649.19	64.75	6649.14	64.8	6649.09
TMW21	6695.14	6644.5	6644.53	6644.47	6644.58	6644.36	6644.51	50.81	6644.33	50.88	6644.26
TMW22	6691.74	6642.93	6643.13	6642.88	6643.11	6642.90	6643.28	48.82	6642.92	48.75	6642.99
TMW23	6687.66	6642.11	6642.23	6642.03	6642.24	6642.05	6642.40	45.55	6642.11	45.54	6642.12
TMW24	6680.42	6641.66	6641.81	6641.67	6641.94	6641.75	6641.67	38.47	6641.95	38.37	6642.05
TMW25	6672.88	6633.87	6633.82	6634.63	6634.00	6633.82	6633.89	39.19	6633.69	39	6633.88
TMW26	6677.71	6650.33	6649.9	6650.45	6650.60	6650.45	6651.84	25.45	6652.26	25.43	6652.28
TMW27	6668.13	6640.17	6639.95	6639.95	6640.14	6639.96	6639.89	28.11	6640.02	27.82	6640.31

4.0 Groundwater Elevations

TABLE 4-1

Northern Area Groundwater Elevations (Wells Screened in Alluvial Sediments) (Page 2 of 2)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	TOC Elevation (feet)	23-Jul-12	22/23-Oct-12	9-Jan-13	1-Apr-13	9-Jul-13	28-Oct-13	13-Jan-14		7-Apr-14	
		Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	DTW (feet BTOC)	Elevation (feet)	DTW (feet BTOC)	Elevation (feet)
TMW28	6689.17	6670.26	6670.05	6670.26	6670.36	6669.68	6671.04	18.11	6671.06	18.16	6671.01
TMW29	6702.88	6645.62	6645.65	6645.66	6645.60	6645.55	6645.57	57.41	6645.47	57.5	6645.38
TMW31S	6710.2	6673.8	6673.7	6673.62	6673.39	6673.00	6672.99	37.62	6672.58	37.75	6672.45
TMW33	6686.6	6643.01	6643.00	6642.76	6643.09	6642.84	6642.91	44.02	6642.58	43.98	6642.62
TMW34	6687.29	6641.61	6641.51	6641.81	6641.66	6641.49	6641.44	45.92	6641.37	45.91	6641.38
TMW35	6686.52	6642.81	6642.75	6642.69	6642.92	6642.67	6642.64	44.08	6642.44	44.06	6642.46
TMW39S	6708.61	6673.67	6673.63	6673.73	6673.47	6673.44	6673.24	35.43	6673.18	35.45	6673.16
TMW40S	6706.4	6646.26	6646.26	6646.19	6646.19	6646.12	6646.15	60.32	6646.08	60.34	6646.06
TMW41	6705.21	6664.89	6664.97	6664.97	6664.77	6664.54	6664.70	40.91	6664.30	40.9	6664.31
TMW43	6698.63	6645.32	6645.32	6645.25	6645.36	6645.20	6645.30	53.49	6645.14	53.57	6645.06
TMW44	6697.31	6644.68	6644.72	6644.56	6644.78	6644.52	6644.83	52.79	6644.52	52.84	6644.47
TMW45	6689	6641.18	6641.21	6641.16	6641.35	6641.22	6641.60	47.67	6641.33	47.68	6641.32
TMW46	6680.98	6636.79	6636.54	6636.57	6637.03	6636.78	6636.59	44.31	6636.67	44.16	6636.82
TMW47	6701.88	6655.81	6655.76	6655.79	6655.78	6655.67	6655.70	46.19	6655.69	46.18	6655.70
Wingate89	6663.69	6648.54	6648.2	6648.41	6648.55	6648.35	NM	NM	NM	15.3	6648.39
Wingate90	6656.49	6643.1	6642.79	6642.87	6643.09	6640.78	6642.78	13.48	6643.01	13.24	6643.25
Wingate91	6659.74	6645.65	6645.34	6646.40	6645.60	6645.30	6645.34	14.17	6645.57	13.95	6645.79
PZ01	6677.29	6650.60	6650.03	6650.43	6650.58	6650.17	6650.39	26.99	6650.17	26.65	6650.39
PZ02	6674.95	6652.06	6650.44	6651.74	6652.05	6651.73	6651.69	23.25	6651.73	22.82	6651.69
PZ03	6679.44	6653.06	6653.25	6653.08	6653.44	6653.02	6653.16	26.30	6653.02	25.85	6653.16
PZ04	6676.68	6648.64	6646.58	6649.38	6648.65	6648.28	6648.66	28.17	6648.28	27.83	6648.66
PZ05	6674.15	6648.25	6652.81	6653.68	6654.16	6653.10	6653.54	20.29	6653.10	19.80	6653.54
PZ06	6676.04	6655.91	6656.25	6657.09	6657.77	6655.34	6656.88	18.59	6655.34	18.12	6656.88
PZ07	6684.53	6669.48	6668.93	6668.95	6669.06	6668.37	6672.51	12.71	6668.37	13.44	6672.51
PZ08	6686.81	6668.14	6667.66	6669.79	6667.92	6666.95	6671.71	15.87	6666.95	16.69	6671.71
PZ09	6653.61	6637.83	6637.8	6638.04	6638.66	6637.24	6638.27	14.90	6637.24	14.46	6638.27
PZ10	6657.27	6637.65	6637.67	6637.87	6638.52	6637.04	6638.08	18.74	6637.04	18.31	6638.08

Notes:

* Well was nearly dry and not sampled; water elevation may not be representative of the water table.

Elevations are recorded in U.S. feet above North American Vertical Datum of 1988 (NAVD88).

BTOC = below top of casing

DTW = depth to water

NM = not measured

TOC = top of casing

TABLE 4-2

Northern Area Groundwater Elevations (Wells Screened in Bedrock)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	TOC Elevation (feet)	23-Jul-12	22/23-Oct-12	9-Jan-13	1-Apr-13	9-Jul-13	28-Oct-13	13-Jan-14		7-Apr-14	
		Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	DTW (feet BTOC)	Elevation (feet)	DTW (feet BTOC)	Elevation (feet)
EMW01	6718.38	6637.55	6638.30	6637.49	6638.45	6637.83	NM	79.5	6638.88	Abandoned	
EMW02	6702.49	6670.56	6670.98	6669.89	6670.40	6669.77	NM	32.84	6669.65	Abandoned	
EMW03	6701.09	6671.99	6671.96	6671.54	6671.59	6671.10	NM	29.75	6671.34	Abandoned	
EMW04	6708.30	6602.36	6607.16	6602.22	6607.20	6603.59	NM	99.01	6609.29	Abandoned	
TMW02	6705.35	6650.01	6649.98	6649.93	6649.85	6649.70	6649.85	55.68	6649.67	55.72	6649.63
TMW14A	6723.54	6660.38	6660.18	6659.70	6659.47	6659.04	6659.32	64.66	6658.88	64.76	6658.78
TMW16	6714.15	6658.77	6658.68	6658.25	6658.17	6657.95	6657.95	56.33	6657.82	56.37	6657.78
TMW17	6719.89	6657.98	6657.87	6657.44	6657.33	6657.30	6657.28	62.99	6656.90	63.06	6656.83
TMW18	6713.49	6660.04	6659.01	6658.63	6658.57	6658.38	6658.36	55.18	6658.31	55.22	6658.27
TMW19	6700.52	6658.37	6658.31	6657.95	6657.88	6657.65	6657.81	42.9	6657.62	42.92	6657.60
TMW30	6714.59	6675.18	6674.93	6674.61	6674.47	6674.12	6674.44	40.33	6674.26	40.57	6674.02
TMW31D	6710.44	6674.65	6674.20	6673.91	6673.39	6673.03	6672.93	37.82	6672.62	37.98	6672.46
TMW32	6709.31	6670.89	6670.73	6670.48	6669.99	6669.70	6669.56	39.94	6669.37	40.06	6669.25
TMW36	6699.04	6673.09	6672.91	6672.22	6672.09	6671.79	6672.55	27.64	6671.40	27.71	6671.33
TMW37	6713.09	6668.29	6668.24	6667.89	6667.58	6667.29	6667.22	46.08	6667.01	46.15	6666.94
TMW38	6706.79	6660.36	6660.59	6660.30	6660.18	6659.91	6659.80	47.13	6659.66	47.19	6659.60
TMW39D	6708.61	6675.29	6675.11	6674.49	6674.29	6673.94	6673.83	35.14	6673.47	35.26	6673.35
TMW40D	6706.15	6675.16	6674.98	6674.32	6674.15	6673.80	6673.65	32.75	6673.40	32.89	6673.26
TMW48	6709.84	6675.30	6675.15	6674.60	6674.29	6673.99	6673.84	36.21	6673.63	36.44	6673.40
TMW49	6714.71	6672.10	6671.87	6671.29	6671.11	6670.81	6670.60	44.37	6670.34	44.56	6670.15

Notes:

Elevations are recorded in U.S. feet above North American Vertical Datum of 1988 (NAVD88)

BTOC = below top of casing

DTW = depth to water

NM = not measured

TOC = top of casing

4.0 Groundwater Elevations

TABLE 4-3

OB/OD Area Groundwater Elevations

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	TOC Elevation (feet)	23-Jul-12	22/23-Oct-12	9-Jan-13	1-Apr-13	9-Jul-13	28-Oct-13	13-Jan-14		7-Apr-14	
		Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	Elevation (feet)	DTW (feet BTOC)	Elevation (feet)	DTW (feet BTOC)	Elevation (feet)
CMW02	7258.00	7240.58	7238.80	NM	7239.09	NM	NM	NM	NM	NM	NM
CMW04	7251.15	7204.44	7204.34	NM	7203.83	NM	NM	NM	NM	NM	NM
CMW07	7235.16	7192.14	7191.35	NM	7190.27	NM	NM	NM	NM	NM	NM
CMW10	7179.31	7111.45	7113.92	NM	7113.26	NM	NM	NM	NM	NM	NM
CMW14	7153.06	7118.75	7119.60	NM	7118.74	NM	NM	NM	NM	NM	NM
CMW17	7145.18	7121.98	7125.23	NM	7121.36	NM	NM	NM	NM	NM	NM
CMW18	7158.24	7115.85	7115.52	NM	7115.07	NM	NM	NM	NM	NM	NM
CMW19	7129.85	7101.89	7101.05	NM	7101.55	NM	NM	NM	NM	NM	NM
CMW22	7081.94	6967.39	6967.30	NM	6967.35	NM	NM	NM	NM	NM	NM
CMW23	7035.58	6938.23	6938.01	NM	6938.00	NM	NM	NM	NM	NM	NM
CMW24	7099.68	7054.26	7054.23	NM	7054.36	NM	NM	NM	NM	NM	NM
CMW25	7007.52	6969.94	6970.59	NM	6970.20	NM	NM	NM	NM	NM	NM
FW24	6999.19	NM	Dry	NM	Dry	NM	NM	NM	NM	NM	NM
FW38	7172.02	Dry	Dry	NM	Dry	NM	NM	NM	NM	NM	NM
KMW09	7187.93	7146.95	7146.85	NM	7146.74	NM	NM	NM	NM	NM	NM
KMW10	7131.38	6964.61	6964.67	NM	Dry	NM	NM	NM	NM	NM	NM
KMW11	7108.78	7075.79	7075.89	NM	7075.33	NM	NM	NM	NM	NM	NM
KMW12	7193.08	7143.43	7143.62	NM	7143.51	NM	NM	NM	NM	NM	NM
KMW13	7168.46	NM	NM	NM	7114.91*	NM	NM	NM	NM	NM	NM

Notes:

* Well was near dry and not sampled; water elevation may not be representative

Elevations are recorded in U.S. feet above North American Vertical Datum of 1988 (NAVD88)

Wells CMW06, CMW16, and CMW21 are buried and not accessible for depth-to-water measurements

Well casing at CMW20 is damaged and does not allow for depth to water measurements

BTOC = below top of casing

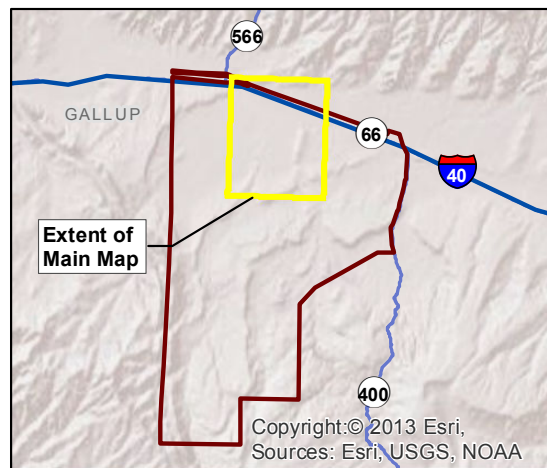
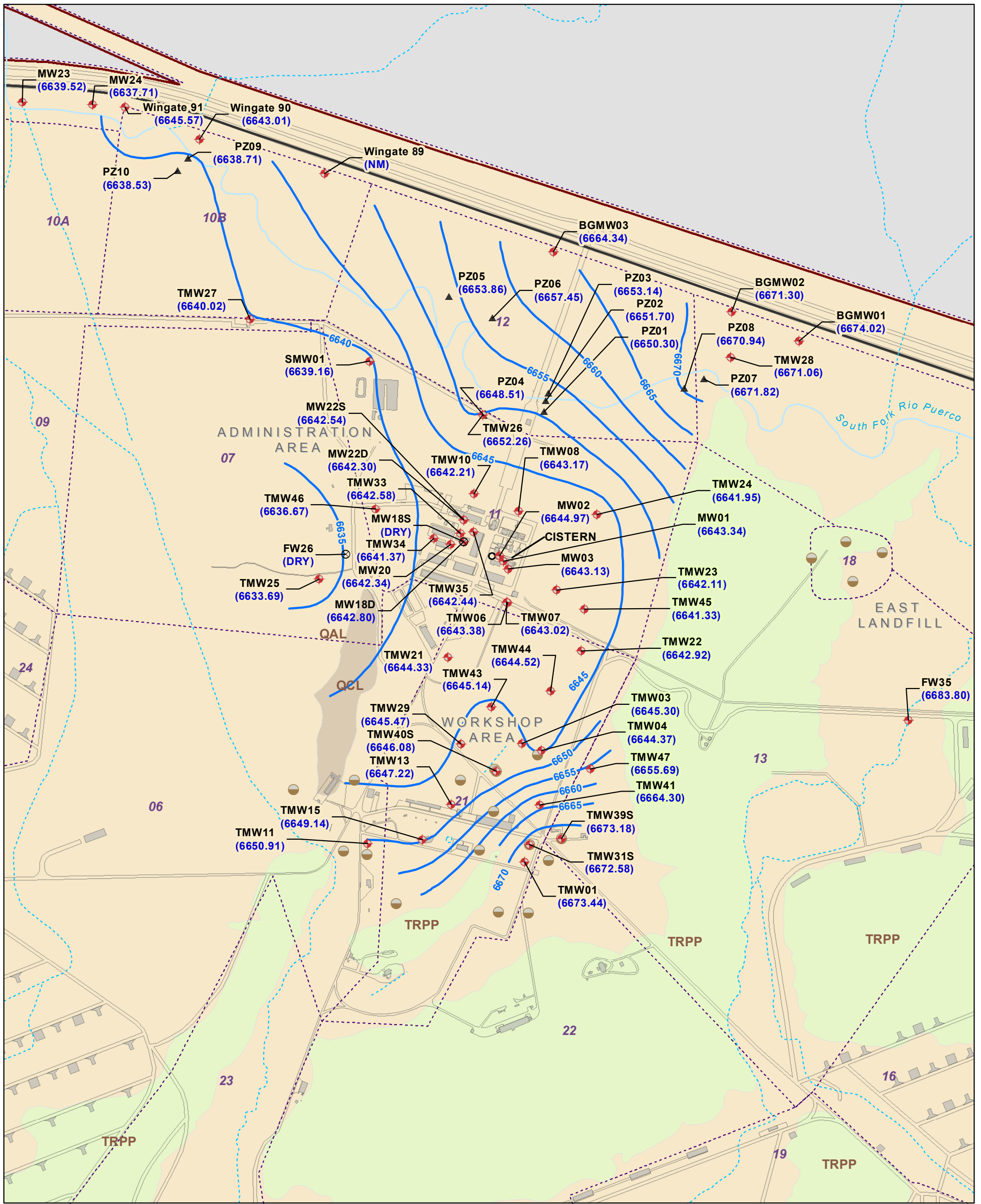
DTW = depth to water

NM = not measured

OB = open burn

OD = open detonation

TOC = top of casing



Legend

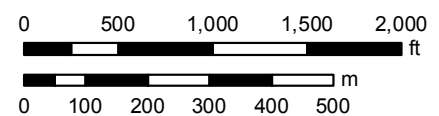
- ◆ Alluvial Monitoring Well
- Bedrock Monitoring Well
- ▲ Piezometer
- ⊗ Dry Well
- Water Supply Well 69
- ◆ Well Label = Well ID (Groundwater Elevation in feet)
- Alluvial Groundwater Contours, January 2014
- Building
- 10A Property Transfer Parcel
- Fort Wingate Installation Boundary

Surface Geology

- QAL QAL - Quarternary Alluvial Deposits
- QCL QCL - Quaternary Colluvial and Gravel Deposits
- TRPP TRPP - Petrified Forest Formation, Painted Desert Member

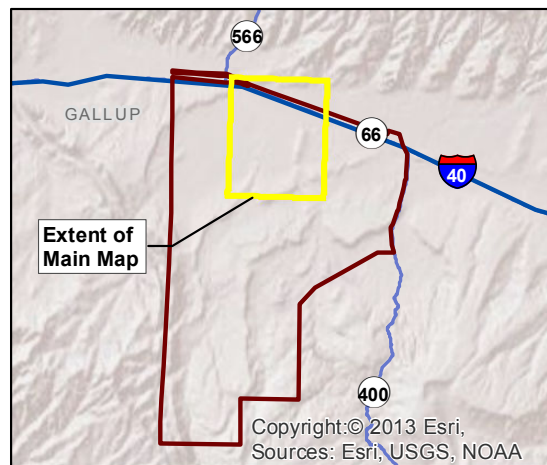
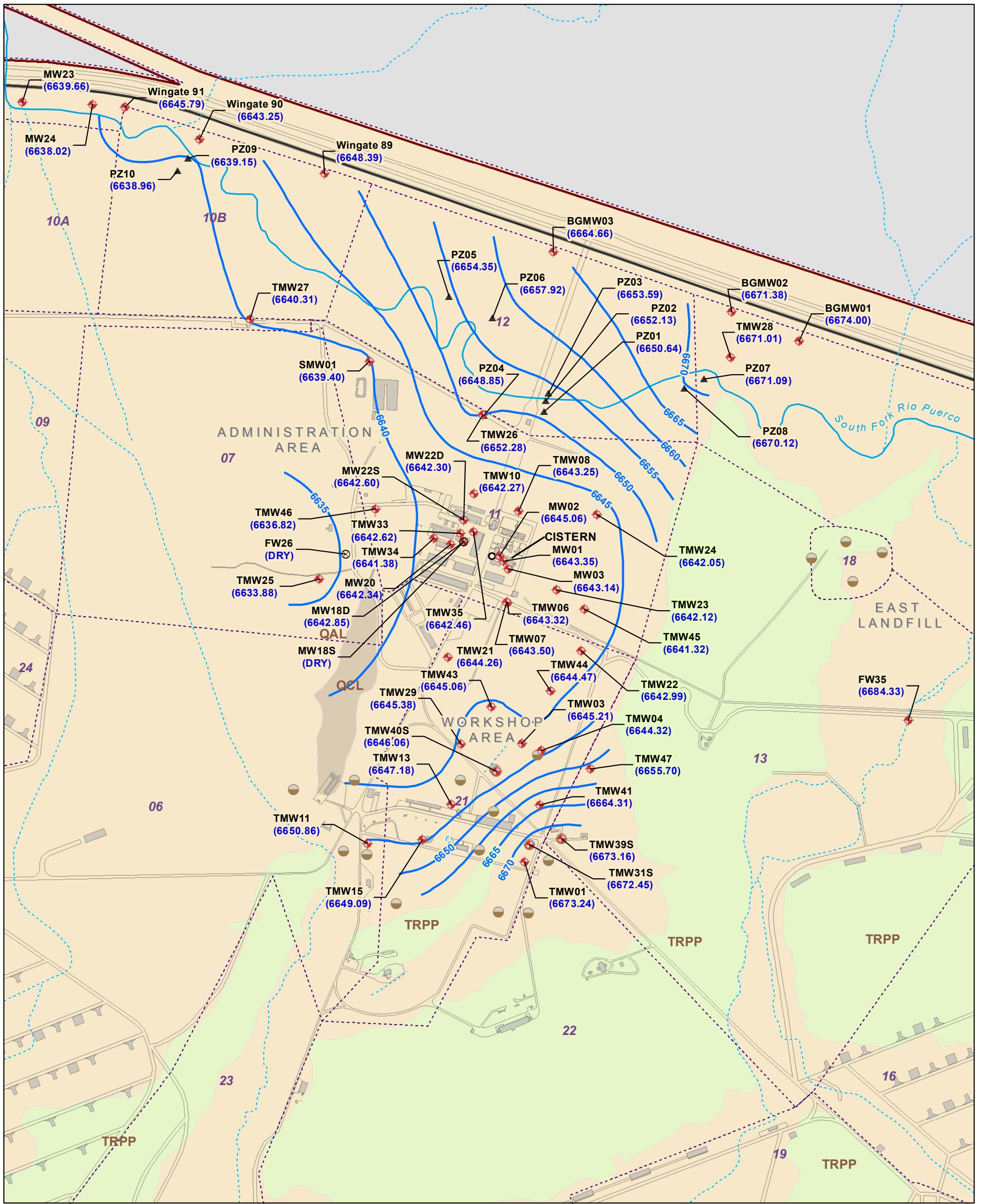
FIGURE 4-1
January 2014 Northern Area Alluvial Groundwater Contour Map

Groundwater Periodic Monitoring Report for January to June 2014
 Fort Wingate Depot Activity,
 McKinley County, New Mexico



State Plane Coordinate System, New Mexico West,
 North American Datum 1983, US Feet.
 North American Vertical Datum 1988, US Feet.

Data Sources:
 Roads, Railroad: Tele Atlas GDT-Dynamap, 2008;
 Populated Places: ESRI 2005;
 Fort Wingate Environmental Restoration Detail: USACE.



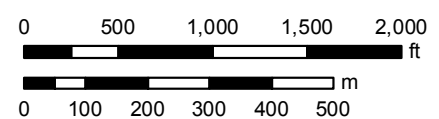
Legend

- ◆ Alluvial Monitoring Well
 - Bedrock Monitoring Well
 - ▲ Piezometer
 - ⊗ Dry Well
 - Water Supply Well 69
 - Arroyo
 - Stream
 - Road
- TMW11 Well Label = Well ID
(6651.15) (Groundwater Elevation in feet)
- 6635 - Alluvial Groundwater Contours, April 2014
- Building
 - 10A Property Transfer Parcel
 - Fort Wingate Installation Boundary

Surface Geology

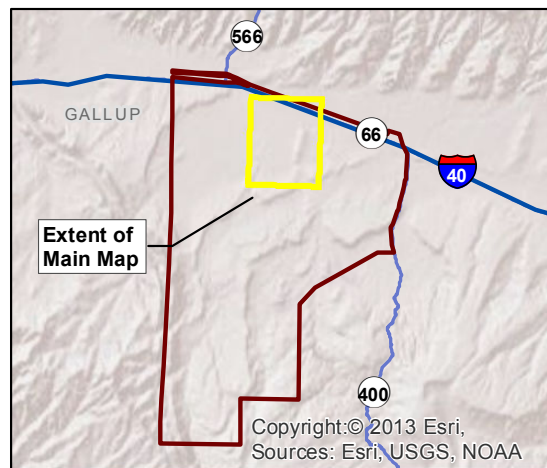
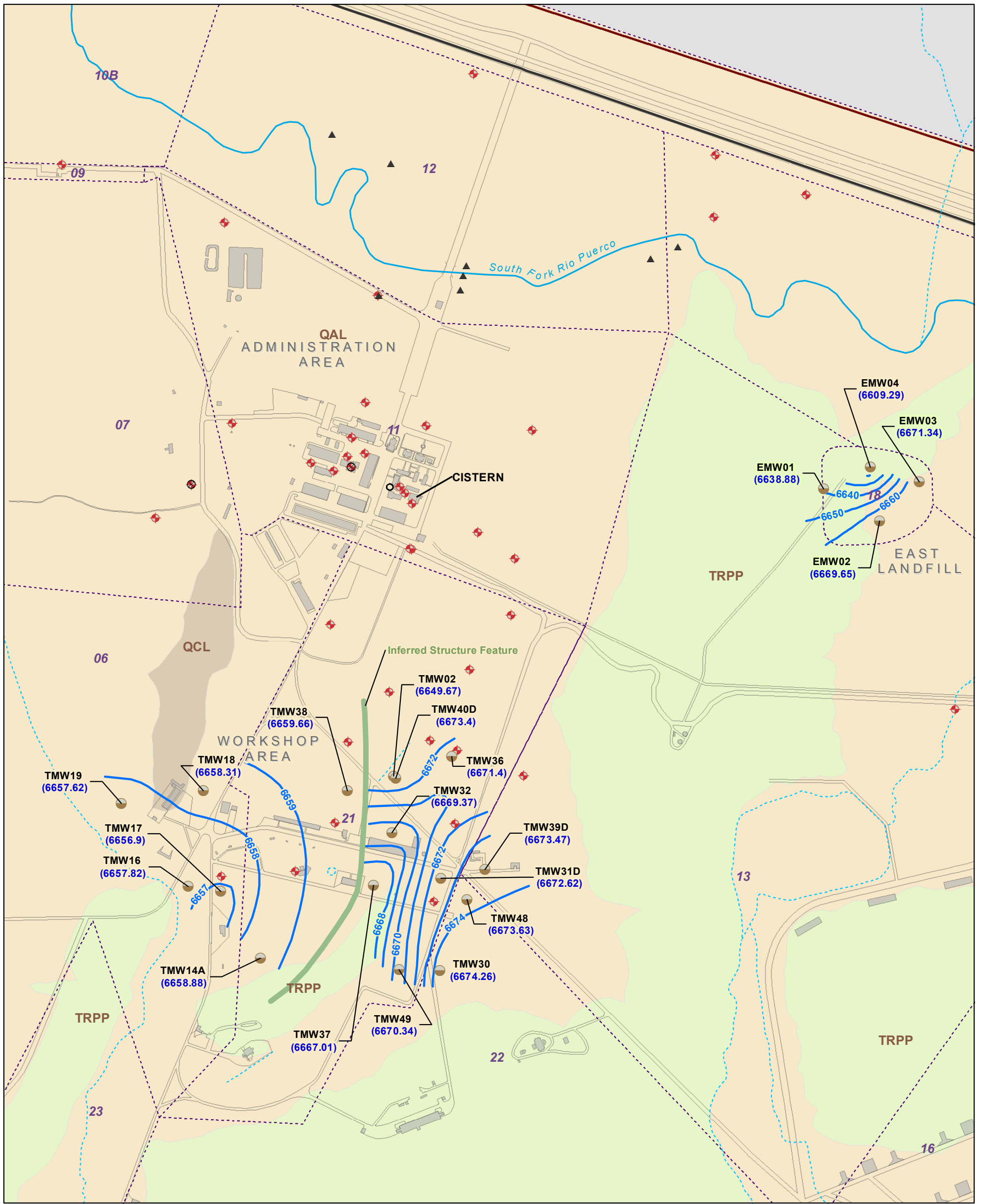
- QAL QAL - Quaternary Alluvial Deposits
- QCL QCL - Quaternary Colluvial and Gravel Deposits
- TRPP TRPP - Petrified Forest Formation, Painted Desert Member

FIGURE 4-2
April 2014 Northern Area Alluvial Groundwater Contour Map
 Groundwater Periodic Monitoring Report for January to June 2014
 Fort Wingate Depot Activity, McKinley County, New Mexico



State Plane Coordinate System, New Mexico West,
 North American Datum 1983, US Feet.
 North American Vertical Datum 1988, US Feet.

Data Sources:
 Roads, Railroad: Tele Atlas GDT-Dynamap, 2008;
 Populated Places: ESRI 2005;
 Fort Wingate Environmental Restoration Detail: USACE.



Legend

- ◆ Alluvial Monitoring Well
- Bedrock Monitoring Well
- ▲ Piezometer
- ⊗ Dry Well
- Water Supply Well 69
- TMW11 Well Label = Well ID (6650.94) (Groundwater Elevation in feet)
- 6660 - Bedrock Groundwater Contours, January 2014
- Building
- 10A Property Transfer Parcel
- Fort Wingate Installation Boundary

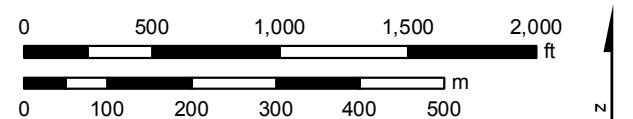
Surface Geology

- QAL QAL - Quarternary Alluvial Deposits
- QCL QCL - Quaternary Colluvial and Gravel Deposits
- TRPP TRPP - Petrified Forest Formation, Painted Desert Member

FIGURE 4-3
January 2014 Northern Area Bedrock
Groundwater Contour Map

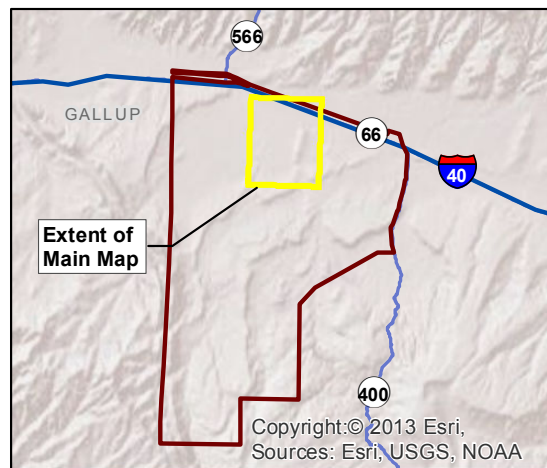
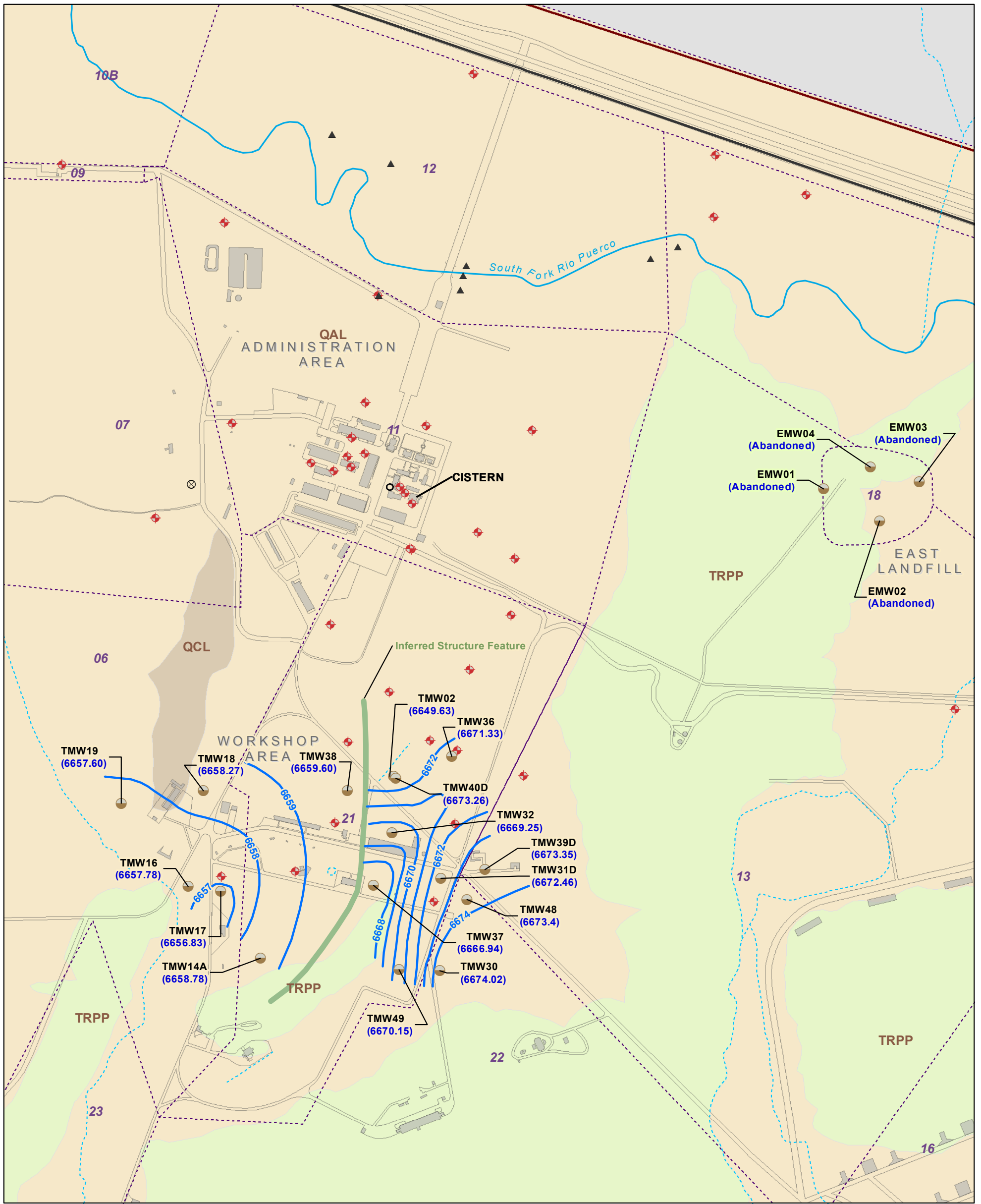
Groundwater Periodic Monitoring
 Report for January to June 2014
 Fort Wingate Depot Activity,
 McKinley County, New Mexico

Note: Elevation data from well TMW02 is not used to generate contours. Well screens for this well are not consistent with adjacent bedrock monitoring wells resulting in anomalous low water elevations.



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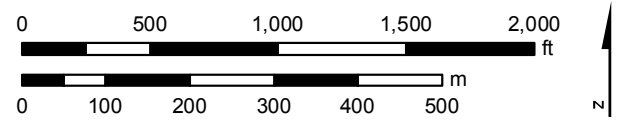


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- QAL QAL - Quarternary Alluvial Deposits
 - QCL QCL - Quaternary Colluvial and Gravel Deposits
 - TRPP TRPP - Petrified Forest Formation, Painted Desert Member
- Arroyo
 - Stream
 - Road

FIGURE 4-4
April 2014 Northern Area Bedrock Groundwater Contour Map
 Groundwater Periodic Monitoring Report for January to June 2014
 Fort Wingate Depot Activity, McKinley County, New Mexico

Note: Elevation data from well TMW02 is not used to generate contours. Well screens for this well are not consistent with adjacent bedrock monitoring wells resulting in anomalous low water elevations.



5.0 Groundwater Analytical Results

The groundwater quality parameters and laboratory analytical results for the April 2014 groundwater sampling event are presented in Tables 5-1 through 5-8. Figures 5-1 through 5-5 are maps for the various groundwater contaminants identified at FWDA. The laboratory data were reviewed and determined to be valid and suitable for the project objectives. The Data Quality Evaluation (DQE) Report is provided in Appendix C.

5.1 Northern Area Analytical Results

5.1.1 Water Quality Parameters

The water-quality parameter measurements collected in the field provide useful data for assessing general water quality and evaluating contaminant fate and transport. The stable parameter readings and drawdown measurements collected during well purging activities are presented in Table 5-1.

The specific conductance of groundwater is considered a proxy for total dissolved solids (TDS) concentration. For most groundwater, multiplying the specific conductance value in microsiemens per centimeter ($\mu\text{S}/\text{cm}$) by a factor of 0.55 to 0.75 yields an approximate TDS concentration in milligrams per liter (mg/L) (Hem, 1989). Groundwater specific conductance values ranged from 1.24 to 16.6 millisiemens per centimeter (mS/cm). Median values for groundwater from the Northern Area monitoring wells were 3.59 and 2.69 mS/cm in the alluvial and bedrock units, respectively.

Groundwater pH measurements ranged from 7.0 to 10.3, with two data points above 9.4 in water from the Northern Area bedrock monitoring wells. Median pH values were 7.88 and 8.98 in the Northern Area alluvial and bedrock groundwater units, respectively.

Dissolved oxygen is a measure of aerobic and anaerobic conditions in the water-bearing units. Dissolved oxygen values ranged from 0.0 to 7.5 mg/L, with median values of 0.77 and 0.0 mg/L for the alluvial and bedrock groundwater units, respectively. Low median values indicate that anaerobic conditions (<1 mg/L) are likely present in many areas of FWDA. The dissolved oxygen measurements for samples collected using bailer techniques are considered to be somewhat elevated due to the introduction of a bailer into the water column.

The oxidation state for groundwater was measured as the ORP and subsequently calculated as the redox potential (Eh). These values are a measure of electrical potential in the aquifer that can be used to determine the stability of contaminants in groundwater. The Eh values were calculated from the instrument-specific ORP readings using a formula that accounts for the instrument calibration standard and location-specific water temperature (Horiba, 2014; Matsushida, 1974). The formula used for the calculation and the Eh values are presented in Table 5-1.

The Eh values ranged from 434 to -24 millivolts (mV) across the monitoring area. Median values of Eh were 281 mV in water from alluvial aquifer wells and 64 mV in water from bedrock wells, respectively. Values of Eh below approximately 400 mV in neutral pH waters indicate that perchlorate is susceptible to chemical degradation (Takeno, 2005). Values of Eh below approximately 300 mV in neutral pH waters indicate that nitrate and some nitrogen-based explosives are susceptible to chemical degradation (Takeno, 2005).

5.1.2 Nitrate and Nitrite

Nitrate and nitrite were released at FWDA due to historic activities relating to munitions storage and disposal. Nitrate is also a naturally occurring compound commonly detected in natural surface water and groundwater systems. Nitrate and nitrite were analyzed by EPA Method 9056 and reported as nitrogen mass concentrations, nitrate-nitrogen, and nitrite-nitrogen. A summary of the nitrate and nitrite analytical results is presented in Table 5-2.

Nitrate was detected in samples from 31 alluvial monitoring wells in the Northern Area. Concentrations of nitrate ranged from 0.14 J to 130 mg/L, and exceeded the EPA MCL of 10 mg/L in samples from 12 alluvial monitoring wells in the Northern Area. Nitrite was detected in samples from four alluvial monitoring wells in the Northern

5.0 Groundwater Analytical Results

1 Area, with concentrations ranging from 0.41 J to 1.5 J mg/L, and exceeded the EPA MCL of 1 mg/L in samples from
2 two alluvial monitoring wells. The highest nitrate concentrations in alluvial groundwater were found in the
3 Workshop Area immediately downgradient of the TNT Leaching Beds (monitoring wells TMW40S and TMW03).
4 Groundwater nitrate concentrations were also detected above the MCLs in multiple samples collected from wells
5 in the Administrative Area. The extent of nitrate contamination downgradient (to the west) of the Administration
6 Area has not been defined. In addition, elevated nitrate concentrations are detected in samples from background
7 alluvial monitoring well BGMW02. Well BGMW02 is located on the FWDA boundary and upgradient of any
8 SWMUs or AOCs. Therefore, the source of nitrate in this area does not appear to originate from FWDA. Figure 5-1
9 shows the groundwater nitrate and nitrite concentration data for the alluvial monitoring wells in the Northern
10 Area.

11 Nitrate was detected in samples from nine bedrock monitoring wells in the Northern Area. Groundwater nitrate
12 concentrations in samples from bedrock monitoring wells ranged from 0.069 J to 90 mg/L and exceeded the EPA
13 MCL in samples from four wells. Nitrite was detected in only one sample from groundwater sample from the
14 bedrock monitoring well TMW40D at a concentration of 0.86 J mg/L. The highest groundwater nitrate
15 concentrations in the bedrock groundwater unit were found in the Workshop Area (samples from monitoring well
16 TMW02) immediately downgradient of the TNT Leaching Beds. However, samples from three monitoring wells
17 upgradient of the TNT Leaching Beds also had nitrate concentrations that exceeded the EPA MCL. Figure 5-2
18 shows the groundwater nitrate and nitrite concentration data for the bedrock monitoring wells in the Northern
19 Area.

20 5.1.3 Explosive Compounds

21 Explosive compounds were released to the environment at FWDA due to historic munitions storage, maintenance,
22 and disposal activities. Groundwater samples were analyzed for explosives using EPA Method SW8330B. A
23 summary of the explosive analytical results is presented in Table 5-3. To date, no regulatory cleanup standards
24 have been established for explosive compounds at FWDA. The EPA Region 6 Human Health Tap Water Screening
25 Levels are presented in Table 5-3 as reference screening criteria.

26 The following explosive compounds were detected in groundwater samples from alluvial and bedrock monitoring
27 wells collected during the April 2014 groundwater sampling event (the maximum concentrations are shown in
28 parentheses):

- 29 ○ 2,4-dinitrotoluene (0.48 J µg/L at alluvial monitoring well TMW03); detected in samples from one alluvial and
30 two bedrock monitoring wells
- 31 ○ 2,6-dinitrotoluene (0.17 J µg/L at bedrock monitoring well TMW16)
- 32 ○ 2-amino-4,6-dinitrotoluene (1.3 J µg/L at alluvial monitoring well TMW04); detected in three samples from
33 alluvial monitoring wells and two samples from bedrock monitoring wells
- 34 ○ 2-nitrotoluene (1.6 µg/L at bedrock monitoring well TMW19); detected in three samples from alluvial
35 monitoring wells and two samples from bedrock monitoring wells
- 36 ○ 3-nitrotoluene (0.35 J µg/L at alluvial monitoring well MW02); detected in one sample from an alluvial
37 monitoring well and one sample from a bedrock monitoring well
- 38 ○ 4-nitrotoluene (3.0 J µg/L at alluvial monitoring well TMW40S); detected in three samples from alluvial
39 monitoring wells and three samples from bedrock monitoring wells
- 40 ○ 4-amino-4,6-dinitrotoluene (0.14 J µg/L at bedrock monitoring well TMW02)
- 41 ○ Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) (1,200 µg/L at alluvial monitoring well TMW40S); detected in six
42 samples from alluvial monitoring wells and was not detected in samples from bedrock monitoring wells

- 1 ○ Nitrobenzene (8.8 J µg/L at alluvial monitoring well TMW04)
- 2 ○ Octahydro-1.3.5.7-tetranitro-1.3.5.7-tetrazocine (HMX) (10 J µg/L at alluvial monitoring well TMW03);
- 3 detected in four samples from alluvial monitoring wells and one sample from a bedrock monitoring well

4 RDX is a recognized groundwater explosive compound of interest. The compound RDX is detected at

5 concentrations several orders of magnitude higher than screening criteria in several samples from alluvial

6 monitoring wells. Highest concentrations of RDX were detected downgradient of the TNT Leaching Beds in

7 samples monitoring wells TMW03 and TMW40S at concentrations of 480 J and 1,200 µg/L, respectively, and was

8 detected in samples from several other alluvial monitoring wells. The RDX plume is well defined in the alluvial

9 aquifer and is depicted with other explosives detections in Figures 5-3 and 5-4 for the alluvial and bedrock

10 groundwater aquifers, respectively.

11 Other explosives analytes are detected in both the alluvial and bedrock aquifers. Detections occur most frequently

12 and at higher concentrations in the alluvial aquifer downgradient of the TNT Leaching Beds. Three explosive

13 compounds were detected at concentrations above Human Health Tap Water Screening Levels. The compound

14 2,4-dinitrotoluene was detected at concentrations above the screening level at 0.48 J µg/L in samples from alluvial

15 aquifer monitoring well TMW03. The compound 2-nitrotoluene was detected above the screening level at

16 concentrations up to 0.90 µg/L in samples from alluvial aquifer monitoring wells MW02, TMW07, and TMW21.

17 The compound nitrobenzene was detected at concentrations above the screening level at 8.8 J µg/L in samples

18 from alluvial aquifer monitoring well TMW04. The compound 2,4-dinitrotoluene was detected above the

19 screening level at 0.35 J µg/L and 1.6 µg/L in samples from bedrock monitoring well TMW19. The compound 2-

20 nitrotoluene was detected above the screening level at concentrations of up to 1.6 µg/L in samples from bedrock

21 aquifer monitoring wells TMW19 and TMW31D.

22 **5.1.4 Perchlorate**

23 Groundwater samples were analyzed for perchlorate by EPA Method 6860. A summary of analytical results is

24 presented in Table 5-4. Groundwater perchlorate-concentration data for the Northern Area are shown in

25 Figures 5-3 and 5-4. The regulatory screening level for perchlorate is 6 µg/L, as defined in the FWDA RCRA Permit.

26 The highest perchlorate concentrations were found in groundwater samples collected from the bedrock

27 monitoring wells in the Workshop Area. The extent of perchlorate groundwater contamination has not been

28 completely defined to date.

29 Perchlorate was detected in groundwater samples from 25 alluvial monitoring wells in the Northern Area with

30 concentrations ranging from 0.015 J to 880 µg/L. Perchlorate was detected in groundwater samples from nine

31 bedrock wells with concentrations ranging from 0.084 to 2,000 µg/L. Overall, the regulatory screening level was

32 exceeded in groundwater samples collected from four alluvial and six bedrock monitoring wells.

33 The higher perchlorate concentrations detected in groundwater samples collected from bedrock monitoring wells

34 suggest that the source area of perchlorate contamination is located upgradient in a recharge area for the

35 bedrock groundwater unit. Based on site history and analytical results from previous investigations, the source

36 area for perchlorate contamination is believed to be SWMU 27, Building 528 Complex (USACE, 2011). The

37 perchlorate contamination identified in the alluvial water-bearing unit is collocated with the bedrock groundwater

38 plume and is believed to result from a common source.

39 **5.1.5 Volatile Organic Compounds**

40 Groundwater contamination from volatile organic compounds (VOCs) at concentration above screening levels is

41 limited to a small number of shallow alluvial monitoring wells in the Administration Area. The detected VOCs are

42 primarily associated with chlorinated solvents, petroleum fuels, and their degradation products. Groundwater

43 samples were analyzed for VOCs using EPA Method SW8260B. A summary of the VOC analytical results is

44 presented in Table 5-5. Eight VOCs were detected in one or more groundwater samples collected during the April

45 2014 groundwater sampling event. Figure 5-5 shows the VOC data for samples collected in the Northern Area.

5.0 Groundwater Analytical Results

- 1 The following VOCs were detected in samples collected during the April 2014 groundwater sampling event in the
2 Northern Area (the maximum detected concentrations are shown in parentheses):
- 3 ○ 1,1,1-trichloroethane (2.0 µg/L at alluvial monitoring well MW22S)
 - 4 ○ 1,1-dichloroethane (0.66 J µg/L at alluvial monitoring well MW22S)
 - 5 ○ 1,2-dichloroethane (78 J µg/L at alluvial monitoring well MW18D); detected in six samples from alluvial
6 monitoring wells
 - 7 ○ Acetone (3.5 J µg/L at alluvial monitoring well TMW08 and bedrock monitoring well TMW38)
 - 8 ○ Carbon disulfide (19 µg/L at bedrock monitoring well TMW38); detected in two samples from alluvial
9 monitoring wells and three samples from bedrock monitoring wells
 - 10 ○ Chloroform (2.0 µg/L at alluvial monitoring well TMW40S)
 - 11 ○ Chloromethane (1.1 J µg/L at bedrock monitoring well TMW17)
 - 12 ○ Toluene (18 µg/L at alluvial monitoring well TMW23); detected in two samples from alluvial monitoring wells
13 and three samples from bedrock monitoring wells

14 The only VOC detected in groundwater samples at concentrations above regulatory screening levels was the
15 chlorinated solvent 1,2-dichloroethane. Groundwater samples collected from two alluvial monitoring wells in the
16 vicinity of a former fueling facility had concentrations above the EPA MCL of 5 µg/L. Samples collected from wells,
17 MW18D and TMW33, had 1,2-dichloroethane concentrations of 78 J and 34 µg/L, respectively. No other VOCs
18 were detected in groundwater samples above screening levels.

19 Overall, VOCs were detected samples from 13 alluvial wells and 6 bedrock wells of the Northern Area. The
20 majority of VOC detections were sporadic and at concentrations below regulatory screening levels.

21 5.1.6 Other Organic Compounds

22 Detections of organic compounds other than VOCs in groundwater samples from FWDA are generally sporadic
23 and at concentrations below screening levels. A summary of the detected organic compounds other than VOCs is
24 presented in Table 5-6. No pesticides, as analyzed using EPA Method SW8081A, were detected in any
25 groundwater samples. Petroleum hydrocarbons were detected in the diesel and gasoline range, as analyzed using
26 EPA Method SW8015C, and semivolatle organic compounds (SVOCs) were analyzed using EPA Method SW8270D.

27 Detected concentrations of petroleum hydrocarbons and SVOCs detected in more than one sample are as follows
28 (the maximum detected concentrations are shown in parentheses):

- 29 ○ Diesel range organics (DRO) (170 J µg/L at alluvial monitoring well TMW33); detected in samples from five
30 alluvial monitoring wells
- 31 ○ Gasoline range organics (GRO) (33 µg/L at alluvial monitoring well MW18D); detected in samples from four
32 alluvial monitoring wells
- 33 ○ 2,4-dinitrophenol (52 J µg/L at alluvial monitoring well TMW03); detected in two samples from alluvial
34 monitoring wells
- 35 ○ Bis(2-ethylhexyl)phthalate (35 µg/L at bedrock monitoring well TMW18); detected in eight samples from
36 alluvial monitoring wells and three samples from bedrock monitoring wells
- 37 ○ Diethyl phthalate (0.91 J µg/L at bedrock monitoring well TMW18)
- 38 ○ Flouranthene (0.82 J µg/L at alluvial monitoring well TMW04)

39 Petroleum hydrocarbons were detected in several samples collected from wells in the Administration Area of the
40 Northern Area. Overall, petroleum hydrocarbons were detected in samples from six alluvial monitoring wells, with
41 no detections in bedrock monitoring wells. The highest concentrations occurred in samples from shallow wells

1 adjacent to the former fueling facility (170 J µg/L as diesel range organics in monitoring well TMW22S). No
2 screening levels were identified for petroleum hydrocarbons.

3 Detections of SVOCs are associated with historic releases of explosives compounds and with sampling and
4 laboratory contaminants. Two SVOCs were detected at concentrations above their screening levels,
5 2,4-dinitrophenol and bis(2-ethylhexyl)phthalate. The compound 2,4-dinitrophenol is a degradation product of
6 the explosive compound 2,4-dinitrotoluene. The SVOC 2,4-dinitrophenol was detected in a sample from alluvial
7 monitoring well TMW03 downgradient of the TNT Leaching Beds at a concentration of 52 J µg/L. The compound
8 bis(2-ethylhexyl)phthalate was detected at a concentration above the MCL of 6 µg/L in one sample from bedrock
9 monitoring well TMW18 at a concentration of 35 µg/L. The common plastic additive bis(2-ethylhexyl)phthalate
10 may be present in a variety of laboratory and sampling equipment (including sample tubing, pump, bailer, and
11 laboratory equipment) and was detected in samples from 11 monitoring wells. No other SVOCs were detected at
12 concentrations above screening levels. Detections of other SVOCs were sporadic (with each compound occurring
13 in three or fewer samples) and at concentrations below screening levels.

14 5.1.7 Metals

15 Samples were collected and analyzed as total and dissolved concentrations at FWDA. Groundwater samples were
16 analyzed for metals by EPA Methods SW6010C, SW6020A, and SW7470A. Total metals analysis has been shown in
17 studies to be affected by sediment and the method of well purging, and does not produce representative
18 groundwater metals concentrations at many sites. A summary of detections for total metals is presented in
19 Table 5-8, but the results are not discussed in the report. A summary of detections for dissolved metals is
20 presented in Table 5-7.

21 Dissolved aluminum, arsenic, iron, manganese, and selenium were detected in multiple groundwater samples
22 above regulatory screening levels. Since background groundwater concentrations have not yet been accepted by
23 the regulators for FWDA, it cannot clearly be demonstrated if the detected concentrations are a result of natural
24 conditions or anthropogenic sources of contamination. Therefore, no contaminant plume maps were created for
25 the metals data. A background evaluation of FWDA groundwater will be issued to the NMED in September 2014.

26 5.2 OB/OD Area Analytical Results

27 No monitoring was performed in the OB/OD Area during this period. Historic analytical results are presented for
28 OB/OD Area wells from samples collected during the three previous monitoring events from October 2012
29 through April 2013 in Tables 5-2 to 5-8.

30 5.3 Field Variances from the Work Plan

31 A variance from the GWMP occurred during the laboratory analysis of samples for VOCs. The laboratory analyzed
32 all samples for VOCs using EPA Method SW8260B instead of the newer EPA Method SW8260C. There are a
33 number of differences between SW8260B and SW8260C; however, the overall impact from these differences to
34 data quality is considered negligible. In part, the differences are negligible because the updates to remove dated
35 practices would be superseded by the more conservative requirements of the DoD QSM.

36 An example of criteria that have been updated from EPA Method SW8260B to Method SW8260C is the use of
37 System Performance Check Compounds (SPCCs) and Calibration Check Compounds (CCCs). These two criteria have
38 been removed in Method SW8260C and replaced with a table of compounds with more specific response factor
39 suggestions, which are recommendations only. An example of a criterion that may be less conservative in
40 Method SW8260C than in the DoD QSM is the calibration control of the sampling instrument. The required
41 method control of calibration is somewhat more liberal in Method SW8260C than in Method SW8260B, and both
42 are less conservative than the DoD QSM. The laboratory standard practice is to use the DoD QSM when different
43 from the EPA Method.

1 Overall, no changes to the EPA Method are of significant concern to data quality, especially when considering the
2 requirement to comply with the DoD QSM. A request will be submitted to the laboratory to obtain DoD
3 certification for Method SW8260C to enable compliance with the work plan.

4 **5.4 New Findings**

5 Bedrock groundwater flow patterns were reevaluated and the current gradient pattern is more consistent with
6 observed contaminant migration patterns. Very steep horizontal gradients across a narrow band trending north-
7 south were interpreted as a structural bedrock feature such as faulting or cementation that restricts groundwater
8 flow. Groundwater elevation contours were redrawn and the revised contours show a gradient to the north from
9 the Building 528 Complex, which is consistent with the bedrock perchlorate plume (Figures 4-4 and 5-4)

10 The bedrock nitrate plume in Figure 5-2 was divided into two areas. Two water bearing sandstone layers or units
11 of the Painted Desert Member of the Petrified Forest Formation are known to exist in the Workshop Area. The
12 monitoring well TMW02 is screened in upper sandstone unit. The remaining bedrock monitoring wells are
13 completed in the lower sandstone unit. The plume depicted around monitoring well TMW02 may be associated
14 with releases from the TNT Leaching Beds to the upper sandstone unit and does not appear to be hydraulically
15 connected to other bedrock aquifer wells. The nitrate plume depicted around bedrock aquifer wells TMW30,
16 TWM31D, and TMW48 is downgradient of the Building 528 Complex and has significantly lower nitrate
17 concentrations.

5.0 Groundwater Analytical Results

TABLE 5-1

April 2014 Stable Groundwater Parameters (Page 1 of 2)

Groundwater Periodic Monitoring Report January through June 2014

Location	Groundwater Zone	Screen Interval (feet bgs)	Date	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Eh (mV)	pH (pH Units)	Temperature (°C)	Turbidity (NTU)	Drawdown (feet)
BGMW01	North Alluvial	12.5 - 32.5	4/15/2014	3.43	0	65	280	7.55	11.68	79.37	0.30
BGMW02	North Alluvial	13.5 - 33.5	4/15/2014	5.11	7.48	112	326	7.59	13.46	1.98	0.18
BGMW03	North Alluvial	8.5 - 28.5	4/9/2014	3.57	0.49	148	362	7.65	13.08	17.63	N/A
FW31	North Alluvial	10.0 - 50.0	4/8/2014	2.28	3.33	221	434	7.84	14.29	13.66	N/A
FW35	North Alluvial	10.0 - 30.0	4/8/2014	3.77	1.37	-27	187	7.26	13.98	25.25	N/A
MW01	North Alluvial	33.6 - 53.6	4/9/2014	2.20	1.34	172	384	8.83	16.01	>1100	N/A
MW02	North Alluvial	37.0 - 47.0	4/8/2014	3.57	4.26	87	299	9.38	16.62	1096	N/A
MW03	North Alluvial	43.0 - 53.0	4/14/2014	4.58	4.9	0	214	7.76	13.69	0.0	0.52
MW18D	North Alluvial	47.0 - 57.0	4/14/2014	8.97	0.0	-53	162	7.28	11.89	0.42	2.19
MW20	North Alluvial	47.0 - 57.0	4/14/2014	16.6	1.04	163	374	7.01	18.07	8.13	0.34
MW22D	North Alluvial	47.0 - 57.0	4/14/2014	5.04	0.0	126	339	7.68	15.04	0.0	0.11
MW22S	North Alluvial	31.0 - 41.0	4/8/2014	3.70	1.51	193	405	8.69	16.86	>1100	N/A
MW23	North Alluvial	63.5 - 133.5	4/11/2014	1.83	0.0	-73	141	8.63	13.42	7.58	N/A
MW24	North Alluvial	16.0 - 66.0	4/11/2014	1.24	0.0	-155	59	8.15	13.33	3.11	N/A
SMW01	North Alluvial	29.9 - 49.9	4/15/2014	2.57	0.0	-92	122	8.75	13.20	0.0	0.61
TMW01	North Alluvial	44.0 - 59.0	4/16/2014	2.66	0.0	91	304	8.00	15.11	0.00	0.28
TMW03	North Alluvial	49.8 - 69.8	4/16/2014	4.25	0.0	153	366	7.52	14.63	0.62	0.12
TMW04	North Alluvial	50.0 - 70.0	4/16/2014	3.94	0.58	156	369	7.66	15.57	0.37	0.27
TMW06	North Alluvial	45.0 - 55.0	4/16/2014	3.67	0.0	196	410	7.48	13.54	3.86	0.54
TMW07	North Alluvial	65.0 - 75.0	4/9/2014	5.07	0.0	-90	120	7.89	18.59	9.88	N/A
TMW08	North Alluvial	30.0 - 60.0	4/15/2014	14.99	0.95	14	230	7.99	10.28	10.28	0.22
TMW10	North Alluvial	28.0 - 58.0	4/14/2014	8.04	0.71	-134	80	8.08	13.69	0.00	0.31
TMW11	North Alluvial	55.0 - 80.0	4/17/2014	2.12	1.22	44	257	7.33	14.77	3.17	0.35
TMW13	North Alluvial	60.7 - 70.7	4/17/2014	2.21	0.26	3	215	7.23	16.02	0.0	0.21
TMW15	North Alluvial	56.0 - 71.0	4/17/2014	2.20	0.82	48	260	7.38	16.96	0.0	0.16
TMW21	North Alluvial	48.0 - 58.0	4/14/2014	2.48	0.69	-71	144	8.46	11.46	0.00	0.51
TMW22	North Alluvial	52.0 - 62.0	4/8/2014	3.40	3.49	108	320	8.10	15.95	12.4	N/A
TMW23	North Alluvial	42.5 - 52.5	4/9/2014	3.22	0.47	-24	188	7.88	16.55	191.4	N/A
TMW24	North Alluvial	42.5 - 52.5	4/17/2014	3.99	1.72	-169	45	8.32	13.94	1.81	0.80
TMW25	North Alluvial	42.5 - 52.5	4/15/2014	3.87	0.0	-157	56	8.15	14.73	2.96	0.88
TMW26	North Alluvial	45.0 - 55.0	4/15/2014	3.27	0.0	-82	132	8.67	13.96	13.35	0.03
TMW27	North Alluvial	60.0 - 70.0	4/15/2014	1.29	0.0	-177	38	8.25	12.50	0.0	0.86
TMW28	North Alluvial	37.0 - 47.0	4/15/2014	1.83	0.0	-87	126	7.37	15.48	0.23	0.07
TMW29	North Alluvial	49.0 - 59.0	4/8/2014	2.33	2.84	161	374	8.67	15.43	814.1	N/A
TMW31S	North Alluvial	50.0 - 60.0	4/8/2014	2.84	1.56	69	281	7.36	15.94	90.08	N/A
TMW33	North Alluvial	37.0 - 57.0	4/8/2014	9.85	0.86	74	286	7.56	17.14	>1100	N/A
TMW34	North Alluvial	37.0 - 57.0	4/15/2014	6.01	0.0	175	389	7.56	14.21	1.55	0.08
TMW35	North Alluvial	35.0 - 55.0	4/14/2014	5.33	1.39	-6	208	7.04	13.63	0.17	0.21
TMW39S	North Alluvial	32.5 - 52.5	4/9/2014	3.99	1.55	148	360	7.71	16.94	257.1	N/A

5.0 Groundwater Analytical Results

TABLE 5-1

April 2014 Stable Groundwater Parameters (Page 2 of 2)

Groundwater Periodic Monitoring Report January through June 2014

Location	Groundwater Zone	Screen Interval (feet bgs)	Date	Conductivity (mS/cm)	DO (mg/L)	ORP (mV)	Eh (mV)	pH (pH Units)	Temperature (°C)	Turbidity (NTU)	Drawdown (feet)
TMW40S	North Alluvial	50.0 - 60.0	4/8/2014	3.60	4.62	204	415	9.83	18.48	4.62	N/A
TMW41	North Alluvial	55.5 - 65.5	4/8/2014	3.77	1.31	142	354	8.02	16.58	51.8	N/A
TMW43	North Alluvial	58.0 - 78.0	4/15/2014	2.43	0.10	87	300	8.07	14.93	0.89	0.03
TMW44	North Alluvial	43.5 - 63.5	4/9/2014	3.21	4.83	152	364	7.88	16.50	149.4	N/A
TMW45	North Alluvial	38.5 - 58.5	4/11/2014	3.60	3.51	-33	180	8.68	15.18	4.46	0.17
TMW46	North Alluvial	38.5 - 58.5	4/9/2014	5.20	0.0	89	302	7.59	15.66	117.4	N/A
TMW47	North Alluvial	82.5 - 102.5	4/16/2014	2.32	1.0	-187	26	9.33	15.67	2.14	1.0
TMW02	North Bedrock	67.9 - 81.9	4/16/2014	4.35	0.0	141	353	7.78	16.41	0.60	0.10
TMW14A	North Bedrock	94.25 - 109.25	4/15/2014	1.68	0.74	-118	92	8.51	19.03	0.27	0.04
TMW16	North Bedrock	123.0 - 138.0	4/8/2014	1.77	0.0	-143	71	9.08	13.51	180.5	N/A
TMW17	North Bedrock	112.0 - 127.0	4/17/2014	1.77	0.0	-162	53.4	8.92	11.56	7.10	0.35
TMW18	North Bedrock	150.0 - 160.0	4/8/2014	2.80	0.0	-84	129	10.30	14.36	2.25	N/A
TMW19	North Bedrock	169.0 - 184.0	4/8/2014	3.03	0.0	-210	4	9.09	14.09	78.81	N/A
TMW30	North Bedrock	35.0 - 45.0	4/8/2014	2.23	5.13	89	302	7.49	15.10	31.47	N/A
TMW31D	North Bedrock	77.0 - 107.0	4/16/2014	2.40	0.00	171	385	8.05	13.08	0.01	0.36
TMW32	North Bedrock	117.0 - 137.0	4/16/2014	3.15	0.08	-158	56.3	9.04	13.13	1.96	0.23
TMW36	North Bedrock	132.0 - 152.0	4/8/2014	2.78	0.0	-238	-24	8.92	13.68	31.71	N/A
TMW37	North Bedrock	88.0 - 108.0	4/8/2014	2.32	0.0	-200	13.8	9.09	13.87	8.52	N/A
TMW38	North Bedrock	118.9 - 158.9	4/17/2014	3.48	0.0	-164	45	9.61	20.57	0.60	0.67
TMW39D	North Bedrock	70.0 - 100.0	4/16/2014	3.24	0.0	-174	40	9.21	13.62	0.0	0.59
TMW40D	North Bedrock	135.0 - 155.0	4/17/2014	3.02	0.0	-172	41	9.40	14.55	0.75	0.07
TMW48	North Bedrock	71.0 - 91.0	4/17/2014	2.53	0.0	143	358	8.05	11.81	0.0	0.02
TMW49	North Bedrock	40.0 - 60.0	4/16/2014	2.60	0.0	79	293	8.16	13.89	0.30	0.41

Notes:

Drawdown is measured as the change in water level from initial measurement to final field reading on the day of well purging

bgs = below ground surface

°C = degrees Celsius

DO = dissolved oxygen

mg/L = milligram(s) per liter

mS/cm = millisiemens per centimeter

mV = millivolts

N/A = not applicable; drawdown measurements are not applicable for casing volume purging method

NTU = nephelometric turbidity units

ORP = oxygen-reduction potential

pH = hydrogen (ion) concentration

Eh = redox potential

Eh is calculated from the ORP field reading and the water temperature using manufacturer specifications. The formula for conversion of ORP to Eh is as follows:

$$Eh = ORP_{\text{measured}} + Eh_{\text{reference}} = ORP_{\text{measured}} + 206 - 0.7 * (\text{Temperature} - 25)$$

Sources: Horiba, 2014 and Matsushita, 1974

5.0 Groundwater Analytical Results

TABLE 5-2

Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 1 of 7)
 Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L) CAS 14797-55-8	Nitrite-N (mg/L) CAS 14797-65-0
					EPA Method 9056	EPA Method 9056
Regulatory Limits					10 ^a	1 ^b
BGMW02	BGMW02042014	Normal	North Alluvial	4/15/2014	32 J	0.50 U
	DBW02042014	Duplicate	North Alluvial	4/15/2014	13 J	0.20 U
	BGMW02102013	Normal	North Alluvial	11/5/2013	13	0.20 U
	BGMW02042013	Normal	North Alluvial	4/3/2013	12 J	0.20 R
	BGMW02102012	Normal	North Alluvial	10/30/2012	12	0.20 U
BGMW03	BGMW03042014	Normal	North Alluvial	4/11/2014	4.4	0.78 J
	BGMW03102013	Normal	North Alluvial	11/5/2013	3.8	0.20 UJ
	DBW03102013	Duplicate	North Alluvial	11/5/2013	4.7	0.15 J
	BGMW03042013	Normal	North Alluvial	4/8/2013	4.1	0.20 U
	DBW03042013	Duplicate	North Alluvial	4/8/2013	4.2	0.20 U
	BGMW03102012	Normal	North Alluvial	10/31/2012	5.8	0.11 J
FW31	FW31042014	Normal	North Alluvial	4/10/2014	0.14 J	0.10 U
	FW31102013	Normal	North Alluvial	11/1/2013	0.098 J	0.10 U
	FW31042013	Normal	North Alluvial	4/12/2013	0.24 J	0.10 UJ
	FW31102012	Normal	North Alluvial	11/5/2012	0.27 J	0.10 U
FW35	FW35042014	Normal	North Alluvial	4/10/2014	0.32 J	0.20 U
	FW35102013	Normal	North Alluvial	10/29/2013	0.28 J	0.10 UJ
	FW35042013	Normal	North Alluvial	4/11/2013	0.27 J	0.20 U
	FW35102012	Normal	North Alluvial	11/7/2012	0.67 J	0.20 U
MW01	MW01042014	Normal	North Alluvial	4/9/2014	7.0	0.20 U
	MW01102013	Normal	North Alluvial	11/1/2013	7.3	0.10 U
	MW01042013	Normal	North Alluvial	4/15/2013	6.7	0.20 U
	MW01102012	Normal	North Alluvial	10/24/2012	2.9	0.20 U
MW02	MW02042014	Normal	North Alluvial	4/9/2014	1.3	0.10 U
	MW02102013	Normal	North Alluvial	11/1/2013	1.6	0.10 U
	MW02042013	Normal	North Alluvial	4/12/2013	1.3	0.10 U
	MW02102012	Normal	North Alluvial	10/24/2012	0.39 J	0.10 U
MW03	MW03042014	Normal	North Alluvial	4/14/2014	7.7	0.20 U
	MW03102013	Normal	North Alluvial	11/5/2013	9.6	0.20 U
	MW03042013	Normal	North Alluvial	4/4/2013	9.1	0.20 U
	MW03102012	Normal	North Alluvial	10/23/2012	9.7	0.20 U
MW18D	MW18D042014	Normal	North Alluvial	4/14/2014	0.50 U	0.50 U
	MW18D102013	Normal	North Alluvial	11/1/2013	0.20 U	0.20 U
	MW18D042013	Normal	North Alluvial	4/17/2013	0.31 J	0.50 U
	MW18D102012	Normal	North Alluvial	11/8/2012	0.50 U	0.50 U
MW20	MW20042014	Normal	North Alluvial	4/14/2014	9.1	0.50 U
	MW20102013	Normal	North Alluvial	11/8/2013	11	0.62 J
	MW20042013	Normal	North Alluvial	4/10/2013	15	0.93 J
	DW20042013	Duplicate	North Alluvial	4/10/2013	15	0.95 J
	MW20102012	Normal	North Alluvial	10/29/2012	17	4.7 J
MW22D	MW22D042014	Normal	North Alluvial	4/14/2014	27 J	0.20 U
	DMW22D042014	Duplicate	North Alluvial	4/14/2014	27 J	0.20 U
	MW22D102013	Normal	North Alluvial	11/1/2013	26 J	0.20 U
	DMW22D102013	Duplicate	North Alluvial	11/1/2013	26 J	0.20 U
	MW22D042013	Normal	North Alluvial	4/9/2013	24	0.20 U
	MW22D102012	Normal	North Alluvial	11/8/2012	24 J	0.20 U

5.0 Groundwater Analytical Results

TABLE 5-2

Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 2 of 7)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L)CAS 14797-55-8	Nitrite-N (mg/L)CAS 14797-65-0
					EPA Method 9056	EPA Method 9056
Regulatory Limits					10^a	1^b
MW22S	MW22S042014	Normal	North Alluvial	4/9/2014	19	0.20 U
	MW22S102013	Normal	North Alluvial	10/31/2013	19	0.20 U
	MW22S042013	Normal	North Alluvial	4/11/2013	20	0.20 U
	MW22S102012	Normal	North Alluvial	10/25/2012	20	0.20 U
SMW01	SMW01042014	Normal	North Alluvial	4/15/2014	0.10 U	0.10 U
	SMW01102013	Normal	North Alluvial	11/8/2013	0.10 U	0.10 U
	SMW01042013	Normal	North Alluvial	4/12/2013	0.055 J	0.10 UJ
	SMW01102012	Normal	North Alluvial	11/1/2012	0.10 U	0.10 U
TMW01	TMW01042014	Normal	North Alluvial	4/16/2014	8.6	0.10 U
	TMW01102013	Normal	North Alluvial	11/6/2013	9.3	0.10 U
	TMW01042013	Normal	North Alluvial	4/15/2013	8.4	0.10 U
	TMW01102012	Normal	North Alluvial	10/31/2012	7.5	0.10 U
TMW03	TMW03042014	Normal	North Alluvial	4/16/2014	130	1.2 J
	TMW03102013	Normal	North Alluvial	11/4/2013	130	0.72 J
	TMW03042013	Normal	North Alluvial	4/16/2013	140 J	0.82 J
	TMW03102012	Normal	North Alluvial	11/7/2012	140	0.33 J
TMW04	TMW04042014	Normal	North Alluvial	4/16/2014	45	0.20 U
	TMW04102013	Normal	North Alluvial	11/4/2013	43	0.20 U
	TMW04042013	Normal	North Alluvial	4/16/2013	48	0.20 U
	TMW04102012	Normal	North Alluvial	11/7/2012	45	0.20 U
TMW06	TMW06042014	Normal	North Alluvial	4/16/2014	13	0.20 U
	TMW06102013	Normal	North Alluvial	11/7/2013	14	0.20 U
	TMW06042013	Normal	North Alluvial	4/15/2013	13	0.20 U
	TMW06102012	Normal	North Alluvial	11/8/2012	15	0.20 U
TMW07	TMW07042014	Normal	North Alluvial	4/10/2014	0.20 U	0.20 U
	TMW07102013	Normal	North Alluvial	10/29/2013	0.10 UJ	0.10 UJ
	TMW07042013	Normal	North Alluvial	4/8/2013	0.16 J	0.20 U
	TMW07102012	Normal	North Alluvial	11/6/2012	0.12 J	0.20 U
TMW08	TMW08042014	Normal	North Alluvial	4/15/2014	4.5	0.50 U
	DTW08042014	Duplicate	North Alluvial	4/15/2014	4.6	0.50 U
	TMW08102013	Normal	North Alluvial	11/8/2013	4.4 J	1.0 U
	TMW08042013	Normal	North Alluvial	4/3/2013	4.6	0.50 U
	DTW08042013	Duplicate	North Alluvial	4/3/2013	4.5 J	1.0 U
	TMW08102012	Normal	North Alluvial	10/24/2012	34	1.0 U
TMW10	TMW10042014	Normal	North Alluvial	4/14/2014	0.50 U	0.50 U
	TMW10102013	Normal	North Alluvial	11/1/2013	0.25 J	0.50 U
	TMW10042013	Normal	North Alluvial	4/16/2013	0.37 J	0.50 UJ
	TMW10102012	Normal	North Alluvial	10/24/2012	0.50 U	0.50 U
	TMW10102012DUP	Duplicate	North Alluvial	10/24/2012	0.50 U	0.50 U

TABLE 5-2

Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 3 of 7)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L) CAS 14797-55-8	Nitrite-N (mg/L) CAS 14797-65-0
					EPA Method 9056	EPA Method 9056
Regulatory Limits					10 ^a	1 ^b
TMW11	TMW11042014	Normal	North Alluvial	4/17/2014	4.6	0.10 U
	TMW11102013	Normal	North Alluvial	11/5/2013	3.5	0.10 U
	TMW11042013	Normal	North Alluvial	4/9/2013	4.7	0.10 U
	TMW11102012	Normal	North Alluvial	11/9/2012	4.4	0.10 U
	TMW11102012DUP	Duplicate	North Alluvial	11/9/2012	4.41	0.10 U
TMW13	TMW13042014	Normal	North Alluvial	4/17/2014	1.9	0.10 U
	TMW13102013	Normal	North Alluvial	11/5/2013	0.10 U	0.10 U
	TMW13042013	Normal	North Alluvial	4/17/2013	1.5	0.10 U
	TMW13102012	Normal	North Alluvial	11/8/2012	1.6	0.10 U
	TMW13102012DUP	Duplicate	North Alluvial	11/8/2012	1.59	0.10 U
TMW15	TMW15042014	Normal	North Alluvial	4/17/2014	9.0	0.10 U
	TMW15102013	Normal	North Alluvial	11/6/2013	8.9	0.10 U
	TMW15042013	Normal	North Alluvial	4/17/2013	7.2	0.10 U
	TMW15102012	Normal	North Alluvial	11/8/2012	6.9	0.10 U
TMW21	TMW21042014	Normal	North Alluvial	4/14/2014	8.7	0.10 U
	TMW21102013	Normal	North Alluvial	11/7/2013	8.8	0.10 U
	TMW21042013	Normal	North Alluvial	4/16/2013	8.3	0.10 U
	TMW21102012	Normal	North Alluvial	11/8/2012	8.7	0.10 U
TMW22	TMW22042014	Normal	North Alluvial	4/10/2014	11 J	0.20 U
	TMW22102013	Normal	North Alluvial	10/29/2013	12 J	0.10 U
	TMW22042013	Normal	North Alluvial	4/12/2013	11 J	0.20 UJ
	TMW22102012	Normal	North Alluvial	11/6/2012	10	0.20 U
TMW23	TMW23042014	Normal	North Alluvial	4/10/2014	29 J	0.20 U
	TMW23102013	Normal	North Alluvial	10/29/2013	32	0.69 J
	TMW23042013	Normal	North Alluvial	4/8/2013	31	0.20 U
	TMW23102012	Normal	North Alluvial	11/6/2012	32	0.20 U
TMW25	TMW25042014	Normal	North Alluvial	4/15/2014	0.44 J	0.20 U
	TMW25102013	Normal	North Alluvial	11/4/2013	0.47 J	0.20 U
	TMW25042013	Normal	North Alluvial	4/16/2013	0.59 J	0.20 U
	TMW25102012	Normal	North Alluvial	11/1/2012	0.54 J	0.20 U
TMW29	TMW29042014	Normal	North Alluvial	4/10/2014	2.4 J	0.41 J
	TMW29102013	Normal	North Alluvial	10/31/2013	3.3	0.10 U
	TMW29042013	Normal	North Alluvial	4/11/2013	5.1	0.10 U
	TMW29102012	Normal	North Alluvial	10/26/2012	3.5	0.20 U
TMW31S	TMW31S042014	Normal	North Alluvial	4/10/2014	7.8 J	0.10 U
	TMW31S102013	Normal	North Alluvial	10/30/2013	7.7	0.10 U
	TMW31S042013	Normal	North Alluvial	4/11/2013	7.8	0.10 U
	TMW31S102012	Normal	North Alluvial	11/5/2012	7.9	0.10 U
	TMW31S102012DUP	Duplicate	North Alluvial	11/5/2012	7.6	0.10 U
TMW33	TMW33042014	Normal	North Alluvial	4/10/2014	1.1 J	0.50 U
	TMW33102013	Normal	North Alluvial	10/30/2013	0.27 U	0.50 U
	TMW33042013	Normal	North Alluvial	4/17/2013	0.29 U	0.50 U
	TMW33102012	Normal	North Alluvial	10/26/2012	0.29 J	0.50 U
	TMW33102012DUP	Duplicate	North Alluvial	10/26/2012	0.280	0.50 U

5.0 Groundwater Analytical Results

TABLE 5-2

Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 4 of 7)
Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L) CAS 14797-55-8	Nitrite-N (mg/L) CAS 14797-65-0
					EPA Method 9056	EPA Method 9056
Regulatory Limits					10^a	1^b
TMW34	TMW34042014	Normal	North Alluvial	4/15/2014	0.20 U	0.20 U
	TMW34102013	Normal	North Alluvial	11/1/2013	57 J	0.10 U
	DTW34102013	Duplicate	North Alluvial	11/1/2013	55 J	0.20 U
	TMW34042013	Normal	North Alluvial	4/10/2013	50	0.20 U
	TMW34-102012	Normal	North Alluvial	10/23/2012	50	0.20 U
TMW35	TMW35042014	Normal	North Alluvial	4/14/2014	12	0.20 U
	TMW35102013	Normal	North Alluvial	11/4/2013	15	0.20 U
	TMW35042013	Normal	North Alluvial	4/9/2013	15	0.20 U
	DTW35042013	Duplicate	North Alluvial	4/9/2013	16 J	0.20 UJ
	TMW35-102012	Normal	North Alluvial	10/23/2012	17	0.20 U
TMW39S	TMW39S042014	Normal	North Alluvial	4/11/2014	8.5	0.20 U
	TMW39S102013	Normal	North Alluvial	11/5/2013	8.4	0.20 U
	TMW39S042013	Normal	North Alluvial	4/11/2013	8.8	0.20 U
	TMW39S102012	Normal	North Alluvial	11/1/2012	8.1	0.20 U
TMW40S	TMW40S042014	Normal	North Alluvial	4/10/2014	120 J	1.5 J
	TMW40S102013	Normal	North Alluvial	10/31/2013	140	0.22 J
	TMW40S042013	Normal	North Alluvial	4/12/2013	110 J	1.4 J
	TMW40S102012	Normal	North Alluvial	11/6/2012	130	0.35 J
TMW41	TMW41042014	Normal	North Alluvial	4/10/2014	7.1 J	0.20 U
	TMW41102013	Normal	North Alluvial	10/30/2013	5.9	0.20 U
	TMW41042013	Normal	North Alluvial	4/11/2013	6.5	0.20 U
	TMW41102012	Normal	North Alluvial	11/6/2012	5.7	0.20 U
TMW43	TMW43042014	Normal	North Alluvial	4/15/2014	0.10 U	0.10 U
	TMW43102013	Normal	North Alluvial	10/30/2013	9.4	0.10 U
	TMW43042013	Normal	North Alluvial	4/16/2013	8.7	0.10 U
	TMW43102012	Normal	North Alluvial	11/8/2012	8.2	0.10 U
TMW44	TMW44042014	Normal	North Alluvial	4/10/2014	45 J	0.20 U
	TMW44102013	Normal	North Alluvial	10/29/2013	48	0.68 J
	TMW44042013	Normal	North Alluvial	4/8/2013	45	0.20 U
	TMW44102012	Normal	North Alluvial	11/6/2012	45	0.20 U
TMW45	TMW45042014	Normal	North Alluvial	4/11/2014	0.50 J	0.20 U
	TMW45102013	Normal	North Alluvial	11/7/2013	0.20 U	0.20 U
	TMW45042013	Normal	North Alluvial	4/4/2013	0.33 J	0.20 U
	TMW45102012	Normal	North Alluvial	11/6/2012	0.48 J	0.20 U
	TMW45102012DUP	Duplicate	North Alluvial	11/6/2012	0.50 J	0.20 U
TMW46	TMW46042014	Normal	North Alluvial	4/11/2014	84 J	0.20 U
	TMW46102013	Normal	North Alluvial	10/30/2013	86	0.20 U
	TMW46042013	Normal	North Alluvial	4/8/2013	82	0.20 U
	TMW46102012	Normal	North Alluvial	11/6/2012	87	0.20 U
TMW47	TMW47042014	Normal	North Alluvial	4/16/2014	0.10 U	0.10 U
	TMW47102013	Normal	North Alluvial	11/7/2013	0.10 U	0.10 U
	TMW47042013	Normal	North Alluvial	4/15/2013	0.10 U	0.10 U
	TMW47102012	Normal	North Alluvial	11/2/2012	16	0.10 U

TABLE 5-2

Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 5 of 7)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L) CAS 14797-55-8	Nitrite-N (mg/L) CAS 14797-65-0
					EPA Method 9056	EPA Method 9056
Regulatory Limits					10 ^a	1 ^b
EMW02	Well not sampled in spring 2014 ^c					
	Well not sampled in fall 2013 ^c					
	EMW02042013	Normal	North Bedrock	4/16/2013	0.70 J	0.50 U
	EMW02102012	Normal	North Bedrock	10/25/2012	0.97 J	0.50 U
	EMW02102012DUP	Duplicate	North Bedrock	10/25/2012	1.08	0.50 U
EMW04	Well not sampled in spring 2014 ^c					
	Well not sampled in fall 2013 ^c					
	EMW04042013	Normal	North Bedrock	4/15/2013	1.3 J	0.50 U
	EMW04102012	Normal	North Bedrock	10/25/2012	0.50 UJ	0.50 U
	EMW04102012DUP	Duplicate	North Bedrock	10/25/2012	0.99 J	0.50 U
TMW02	TMW02042014	Normal	North Bedrock	4/16/2014	90	0.20 U
	TMW02102013	Normal	North Bedrock	11/4/2013	88	0.20 U
	TMW02042013	Normal	North Bedrock	4/16/2013	89	0.20 U
	TMW02102012	Normal	North Bedrock	10/31/2012	93	0.20 U
TMW14A	TMW14A042014	Normal	North Bedrock	4/15/2014	0.069 J	0.10 U
	TMW14A102013	Normal	North Bedrock	11/6/2013	0.10 U	0.10 U
	TMW14A042013	Normal	North Bedrock	4/17/2013	0.060 U	0.10 U
	TMW14A102012	Normal	North Bedrock	11/8/2012	0.10 U	0.10 U
TMW17	TMW17042014	Normal	North Bedrock	4/17/2014	0.10 U	0.10 U
	TMW17102013	Normal	North Bedrock	11/6/2013	0.10 U	0.10 U
	TMW17042013	Normal	North Bedrock	4/9/2013	0.10 U	0.10 U
	TMW17102012	Normal	North Bedrock	11/9/2012	0.16 J	0.10 U
TMW18	TMW18042014	Normal	North Bedrock	4/11/2014	0.10 U	0.10 U
	TMW18102013	Normal	North Bedrock	10/31/2013	0.10 U	0.10 U
	TMW18042013	Normal	North Bedrock	4/12/2013	0.10 U	0.10 U
	TMW18102012	Normal	North Bedrock	11/5/2012	0.10 UJ	0.10 U
	TMW18102012DUP	Duplicate	North Bedrock	11/5/2012	0.049 J	0.10 U
TMW30	TMW30042014	Normal	North Bedrock	4/11/2014	17 J	0.10 U
	TMW30102013	Normal	North Bedrock	10/30/2013	16	0.10 U
	TMW30042013	Normal	North Bedrock	4/11/2013	13	0.10 UJ
	TMW30102012	Normal	North Bedrock	11/5/2012	15	0.10 U
	TMW30102012DUP	Duplicate	North Bedrock	11/5/2012	15.5	0.10 U
TMW31D	TMW31D042014	Normal	North Bedrock	4/16/2014	14	0.10 U
	DTW31D042014	Duplicate	North Bedrock	4/16/2014	15	0.10 U
	TMW31D102013	Normal	North Bedrock	11/6/2013	15	0.10 U
	DTW31D102013	Duplicate	North Bedrock	11/6/2013	15	0.10 U
	TMW31D042013	Normal	North Bedrock	4/10/2013	15	0.10 U
	DTW31D042013	Duplicate	North Bedrock	4/10/2013	15	0.10 U
	TMW31D102012	Normal	North Bedrock	10/30/2012	16	0.10 U
TMW32	TMW32042014	Normal	North Bedrock	4/16/2014	2.4	0.20 U
	TMW32102013	Normal	North Bedrock	11/7/2013	0.30 J	0.79 J
	TMW32042013	Normal	North Bedrock	4/11/2013	0.41 J	1.0
	TMW32102012	Normal	North Bedrock	10/30/2012	1.8	0.16 J
	TMW32102012DUP	Duplicate	North Bedrock	10/30/2012	1.8	0.13 J

5.0 Groundwater Analytical Results

TABLE 5-2

Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 6 of 7)
Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L) CAS 14797-55-8	Nitrite-N (mg/L) CAS 14797-65-0
					EPA Method 9056	EPA Method 9056
Regulatory Limits					10 ^a	1 ^b
TMW36	TMW36042014	Normal	North Bedrock	4/9/2014	0.10 U	0.10 U
	TMW36102013	Normal	North Bedrock	11/5/2013	0.10 U	0.10 U
	TMW36042013	Normal	North Bedrock	4/15/2013	0.10 U	0.10 U
	TMW36102012	Normal	North Bedrock	11/5/2012	0.055 J	0.10 U
TMW37	TMW37042014	Normal	North Bedrock	4/9/2014	0.050 U	0.10 U
	TMW37102013	Normal	North Bedrock	10/31/2013	0.068 U	0.10 U
	TMW37042013	Normal	North Bedrock	4/12/2013	0.20 UJ	0.20 UJ
	TMW37102012	Normal	North Bedrock	11/2/2012	0.046 J	0.10 U
	TMW37102012DUP	Duplicate	North Bedrock	11/2/2012	0.0440	0.10 U
TMW38	TMW38042014	Normal	North Bedrock	4/17/2014	0.20 U	0.20 U
	TMW38102013	Normal	North Bedrock	10/31/2013	0.20 U	0.20 U
	TMW38042013	Normal	North Bedrock	4/11/2013	0.086 J	0.20 U
	TMW38102012	Normal	North Bedrock	11/8/2012	0.10 U	0.10 U
TMW39D	TMW39D042014	Normal	North Bedrock	4/16/2014	0.20 J	0.20 U
	TMW39D102013	Normal	North Bedrock	11/6/2013	0.24 J	0.20 U
	TMW39D042013	Normal	North Bedrock	4/10/2013	0.71 J	0.20 U
	TMW39D102012	Normal	North Bedrock	10/31/2012	0.19 J	0.20 U
	TMW39D102012DUP	Duplicate	North Bedrock	10/31/2012	0.193	0.20 U
TMW40D	TMW40D042014	Normal	North Bedrock	4/17/2014	1.9	0.86 J
	TMW40D102013	Normal	North Bedrock	11/7/2013	0.10 U	0.38 J
	TMW40D042013	Normal	North Bedrock	4/11/2013	2.0	0.36 J
	TMW40D102012	Normal	North Bedrock	11/1/2012	1.7	1.1
TMW48	TMW48042014	Normal	North Bedrock	4/17/2014	14 J	0.10 U
	DTW48042014	Duplicate	North Bedrock	4/17/2014	15 J	0.10 U
	TMW48102013	Normal	North Bedrock	10/31/2013	16	0.10 U
	DTW48102013	Duplicate	North Bedrock	10/31/2013	16	0.10 U
	TMW48042013	Normal	North Bedrock	4/10/2013	16	0.10 U
	DTW48042013	Duplicate	North Bedrock	4/10/2013	16	0.10 U
	TMW48102012	Normal	North Bedrock	11/2/2012	16	0.10 U
TMW49	TMW49042014	Normal	North Bedrock	4/16/2014	6.6	0.10 U
	TMW49102013	Normal	North Bedrock	11/6/2013	7.2	0.10 U
	DTW49102013	Duplicate	North Bedrock	11/6/2013	7.3	0.10 U
	TMW49042013	Normal	North Bedrock	4/15/2013	7.7	0.10 U
	DTW49042013	Duplicate	North Bedrock	4/15/2013	7.2	0.10 U
	TMW49102012	Normal	North Bedrock	10/31/2012	7.5	0.10 U
CMW02	Well not sampled in spring 2014 ^d					
	Well not sampled in fall 2013 ^d					
	CMW02042013	Normal	OB/OD	4/2/2013	2.7	0.10 U
	CMW02102012	Normal	OB/OD	10/29/2012	2.7	0.10 U
CMW10	Well not sampled in spring 2014 ^d					
	Well not sampled in fall 2013 ^d					
	CMW10042013	Normal	OB/OD	4/3/2013	3.6	0.20 U
	CMW10102012	Normal	OB/OD	11/7/2012	3.6	0.20 U

TABLE 5-2

Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 7 of 7)
 Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L)	Nitrite-N (mg/L)
					EPA Method 9056	EPA Method 9056
Regulatory Limits					10^a	1^b
CMW17	Well not sampled in spring 2014 ^d					
	Well not sampled in fall 2013 ^d					
	CMW17042013	Normal	OB/OD	4/3/2013	2.9	0.10 U
	CMW17102012	Normal	OB/OD	11/6/2012	3.0	0.10 U
	CMW17102012DUP	Duplicate	OB/OD	11/6/2012	3.0	0.10 U
CMW18	Well not sampled in spring 2014 ^d					
	Well not sampled in fall 2013 ^d					
	CMW18042013	Normal	OB/OD	4/4/2013	3.3	0.10 U
	DCW18042013	Duplicate	OB/OD	4/4/2013	3.3	0.10 U
	CMW18102012	Normal	OB/OD	11/6/2012	3.6	0.10 U
	CMW18102012DUP	Duplicate	OB/OD	11/6/2012	3.60	0.10 U
CMW22	Well not sampled in spring 2014 ^d					
	Well not sampled in fall 2013 ^d					
	CMW22042013	Normal	OB/OD	4/5/2013	0.076 J	0.10 U
	CMW22102012	Normal	OB/OD	11/1/2012	0.10 U	0.10 U
KMW10	Well not sampled in spring 2014 ^d					
	Well not sampled in fall 2013 ^d					
	KMW10042013	Normal	OB/OD	4/5/2013	9.4	0.10 U
	KMW10102012	Normal	OB/OD	10/29/2012	9.3	0.10 U
KMW11	Well not sampled in spring 2014 ^d					
	Well not sampled in fall 2013 ^d					
	KMW11042013	Normal	OB/OD	4/4/2013	0.13 U	0.10 U
	KMW11102012	Normal	OB/OD	11/1/2012	0.17 J	0.10 U
KMW12	Well not sampled in spring 2014 ^d					
	Well not sampled in fall 2013 ^d					
	KMW12042013	Normal	OB/OD	4/5/2013	0.24 J	0.20 U
	KMW12102012	Normal	OB/OD	10/29/2012	0.57 J	0.20 U
	KMW12102012DUP	Duplicate	OB/OD	10/29/2012	0.566	0.20 U

Notes:

^a New Mexico Water Quality Control Commission regulatory limit is 10 mg/L

^b EPA maximum contaminant level regulatory limit is 1.0 mg/L

^c Wells at the East Landfill Area were not sampled this event due to excavation and offsite disposal of refuse

^d OB/OD Area wells were not accessible due to active source area remediation

Bold indicates analyte was positively detected above regulatory limits

If no detections occurred for nitrate or nitrite during the previous four monitoring events, no non-detect or historic data is presented

CAS = Chemical Abstract Services (registry number)

DUP = duplicate

J = analyte was positively identified; reported value is estimated

mg/L = milligram(s) per liter

N = nitrogen

OB/OD = Open Burn/Open Detonation

R = result is unusable for any purpose

U = non-detected result below the limit of detection

UJ = analyte was not detected; however, the result is estimated because of discrepancies in meeting certain analyte-specific quality control criteria

TABLE 5-3
Summary of Total Explosives Analytical Detections (Page 1 of 5)
 Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8330B (µg/L)													
					1,3,5-Trinitrobenzene CAS 99-35-4	1,3-Dinitrobenzene CAS 99-65-0	2,4,6-Trinitrotoluene CAS 118-96-7	2,4-Dinitrotoluene CAS 121-14-2	2,6-Dinitrotoluene CAS 606-20-2	2-Amino-4,6-Dinitrotoluene CAS 35572-78-2	2-Nitrotoluene CAS 88-72-2	3-Nitrotoluene CAS 99-08-1	4-Amino-2,6-Dinitrotoluene CAS 19406-51-0	4-Nitrotoluene CAS 99-99-0	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) CAS 121-82-4	Methyl-2,4,6-trinitrophenylnitramine CAS 479-45-8	Nitrobenzene CAS 98-95-3	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) CAS 2691-41-0
					Regulatory Limit (EPA Region 6 Tap Water Screening Levels) ^a													
460	1.5	2.2	0.2	15	30	0.27	1.3	30	3.7	0.61	61	0.12	780					
FW31	FW31042014	Normal	North Alluvial	4/10/2014	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	0.069 UJ	0.16 U	0.16 U	0.16 U
	FW31102013	Normal	North Alluvial	11/1/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
	FW31042013	Normal	North Alluvial	4/12/2013	0.41 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.41 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ
	FW31102012	Normal	North Alluvial	11/5/2012	0.46 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.46 U	0.17 U	0.17 U	0.17 U	0.24 J
MW01	MW01042014	Normal	North Alluvial	4/9/2014	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 J	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
	MW01102013	Normal	North Alluvial	11/1/2013	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U
	MW01042013	Normal	North Alluvial	4/15/2013	0.44 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.44 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ
	MW01102012	Normal	North Alluvial	10/24/2012	0.41 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.41 U	0.15 U	0.15 U	0.15 U	0.15 U
MW02	MW02042014	Normal	North Alluvial	4/9/2014	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.46 J	0.35 J	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
	MW02102013	Normal	North Alluvial	11/1/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
	MW02042013	Normal	North Alluvial	4/12/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
	MW02102012	Normal	North Alluvial	10/24/2012	0.40 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.40 U	0.15 U	0.15 U	0.15 U	0.15 U
TMW03	TMW03042014	Normal	North Alluvial	4/16/2014	0.42 UJ	0.16 UJ	0.16 UJ	0.48 J	0.16 UJ	0.90 J	0.16 UJ	0.16 UJ	0.16 U	0.42 UJ	480 J	0.16 UJ	0.16 UJ	10 J
	TMW03102013	Normal	North Alluvial	11/4/2013	1.6 J	0.17 R	0.17 R	0.45 J	0.17 UJ	1.6 J	0.17 R	0.17 UJ	3.4 J	0.45 UJ	450 J	0.17 R	0.17 UJ	28 J
	TMW03042013	Normal	North Alluvial	4/16/2013	0.94 J	0.16 UJ	0.16 UJ	0.16 UJ	0.094 J	1.3 J	0.16 UJ	0.16 UJ	3.4 J	0.42 UJ	420	0.16 UJ	0.16 UJ	0.16 UJ
	TMW03102012	Normal	North Alluvial	11/7/2012	0.42 U	0.16 U	0.16 U	0.41 J	0.16 U	0.96 J	0.16 U	0.16 U	2.4 J	0.42 U	590	0.16 U	0.16 U	5.1 J
TMW04	TMW04042014	Normal	North Alluvial	4/16/2014	0.45 UJ	0.17 UJ	0.17 UJ	0.17 UJ	0.17 UJ	1.3 J	0.17 UJ	0.17 UJ	0.17 UJ	0.45 UJ	5.2 J	0.17 UJ	8.8 J	0.17 UJ
	TMW04102013	Normal	North Alluvial	11/4/2013	2.5 J	0.11 J	0.16 UJ	0.16 UJ	0.16 UJ	3.4 J	0.16 UJ	0.16 UJ	0.16 UJ	0.43 UJ	5.9 J	0.16 UJ	0.16 UJ	22 J
	TMW04042013	Normal	North Alluvial	4/16/2013	2.0 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.41 J	1.6 J	0.40 UJ	2.5 J	0.15 UJ	0.15 UJ	0.15 UJ
	TMW04102012	Normal	North Alluvial	11/7/2012	0.41 U	0.16 U	0.16 U	0.16 U	0.16 U	2.0 J	0.16 U	0.16 U	3.2 J	0.41 U	0.16 U	0.16 U	0.16 U	0.16 U
TMW07	TMW07042014	Normal	North Alluvial	4/10/2014	0.41 U	0.15 U	0.15 U	0.092 J	0.15 U	0.15 U	0.90	0.15 U	0.15 U	0.93 J	0.15 U	0.15 U	0.15 U	0.15 U
	TMW07102013 ^c	Normal	North Alluvial	10/29/2013	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW07042013	Normal	North Alluvial	4/8/2013	0.42 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 U	0.16 UJ	0.16 UJ	0.16 UJ	0.42 UJ	0.16 UJ	0.16 UJ	0.16 U	0.16 UJ
	TMW07102012	Normal	North Alluvial	11/6/2012	0.64 J	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 J	0.16 UJ	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U
TMW21	TMW21042014	Normal	North Alluvial	4/14/2014	0.45 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.36 J	0.17 U	0.17 U	0.38 J	0.17 U	0.17 U	0.17 U	0.17 U
	TMW21102013	Normal	North Alluvial	11/7/2013	0.46 UJ	0.17 UJ	0.17 UJ	0.17 UJ	0.17 UJ	0.17 UJ	0.17 UJ	0.17 UJ	0.17 UJ	0.46 UJ	0.17 UJ	0.17 UJ	0.17 UJ	0.17 UJ
	TMW21042013	Normal	North Alluvial	4/16/2013	0.44 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.44 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ
	TMW21102012	Normal	North Alluvial	11/8/2012	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U

5.0 Groundwater Analytical Results

TABLE 5-3

Summary of Total Explosives Analytical Detections (Page 2 of 5)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8330B (µg/L)													
					1,3,5-Trinitrobenzene CAS 99-35-4	1,3-Dinitrobenzene CAS 99-65-0	2,4,6-Trinitrotoluene CAS 118-96-7	2,4-Dinitrotoluene CAS 121-14-2	2,6-Dinitrotoluene CAS 606-20-2	2-Amino-4,6-Dinitrotoluene CAS 35572-78-2	2-Nitrotoluene CAS 88-72-2	3-Nitrotoluene CAS 99-08-1	4-Amino-2,6-Dinitrotoluene CAS 19406-51-0	4-Nitrotoluene CAS 99-99-0	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) CAS 121-82-4	Methyl-2,4,6-trinitrophenylnitramine CAS 479-45-8	Nitrobenzene CAS 98-95-3	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) CAS 2691-41-0
					Regulatory Limit (EPA Region 6 Tap Water Screening Levels) ^a													
460	1.5	2.2	0.2	15	30	0.27	1.3	30	3.7	0.61	61	0.12	780					
TMW22	TMW22042014	Normal	North Alluvial	4/10/2014	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW22102013	Normal	North Alluvial	10/29/2013	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.21 J	0.16 U	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW22042013	Normal	North Alluvial	4/12/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW22102012	Normal	North Alluvial	11/6/2012	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 J	0.16 U	0.16 U	0.16 U	0.42 U	0.38	0.16 U	0.16 U	0.16 U
TMW23	TMW23042014	Normal	North Alluvial	4/10/2014	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	49	0.16 U	0.16 U	1.2 J
	TMW23102013 ^c	Normal	North Alluvial	10/29/2013	0.40 U	0.15 U	0.15 U	0.15 U	0.15 U	0.71 J	0.15 U	0.15 U	0.34 J	0.40 U	56	0.15 U	0.15 U	0.15 U
	TMW23042013	Normal	North Alluvial	4/8/2013	0.42 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.42 UJ	40 J	0.16 UJ	0.58 J	0.16 U
	TMW23102012	Normal	North Alluvial	11/6/2012	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.42 U	56	0.16 U	0.16 U	0.16 U
TMW40S	TMW40S042014	Normal	North Alluvial	4/10/2014	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.36 J	0.16 U	0.16 U	0.16 U	3.0 J	1200	0.16 U	0.16 U	9.6 J
	TMW40S102013	Normal	North Alluvial	10/31/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	1.5 J	0.16 U	0.16 U	0.16 UJ	0.43 U	1300	0.16 U	1.5 J	36
	TMW40S042013	Normal	North Alluvial	4/12/2013	1.0 J	0.16 R	0.35 J	0.16 R	0.16 U	1.8 J	0.16 R	0.16 R	1.3 J	0.43 R	730	0.16 R	0.16 U	18 J
	TMW40S102012	Normal	North Alluvial	11/9/2012	0.50 U	0.19 U	0.19 U	0.19 U	0.19 U	2.1 J	0.19 U	0.19 U	1.5 J	0.50 U	1300	0.19 U	0.19 U	28
TMW43	TMW43042014	Normal	North Alluvial	4/15/2014	0.46 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.46 U	4.0	0.17 U	0.17 U	0.17 U
	TMW43102013	Normal	North Alluvial	10/30/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	3.4	0.16 U	0.16 U	0.16 U
	TMW43042013	Normal	North Alluvial	4/16/2013	0.43 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.43 UJ	2.7 J	0.16 UJ	0.16 UJ	0.16 UJ
	TMW43102012	Normal	North Alluvial	11/8/2012	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.42 U	4.5 J	0.16 U	0.16 U	0.16 U
TMW44	TMW44042014	Normal	North Alluvial	4/10/2014	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	0.34 J	0.16 U	0.16 U	2.3 J
	TMW44102013	Normal	North Alluvial	10/29/2013	0.41 U	0.15 U	0.15 U	0.15 U	0.15 U	0.93 J	0.15 U	0.15 U	0.42 J	0.41 U	0.15 U	0.15 U	0.15 U	0.15 U
	TMW44042013	Normal	North Alluvial	4/8/2013	0.66 J	0.16 U	0.26 J	0.16 U	0.16 U	0.91 J	0.16 U	0.16 U	0.72 J	0.43 U	0.88 J	0.16 U	0.16 U	0.16 U
	TMW44102012	Normal	North Alluvial	11/6/2012	0.42 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	1.3 J	0.16 UJ	0.16 UJ	1.3 J	0.42 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ
TMW47	TMW47042014	Normal	North Alluvial	4/16/2014	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.42 UJ	0.16 U	0.16 U	0.16 U	0.16 U
	TMW47102013	Normal	North Alluvial	11/7/2013	0.43 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.083 J	0.16 UJ	0.16 UJ	0.11 J	0.43 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ
	TMW47042013	Normal	North Alluvial	4/15/2013	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	0.18 J
	TMW47102012	Normal	North Alluvial	11/2/2012	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
TMW02	TMW02042014	Normal	North Bedrock	4/16/2014	0.46 U	0.17 U	0.17 U	0.17 U	0.17 U	0.10 J	0.17 U	0.17 U	0.14 J	0.46 UJ	0.17 U	0.17 U	0.17 U	1.2
	TMW02102013	Normal	North Bedrock	11/4/2013	0.44 U	0.16 U	0.16 U	0.16 U	0.16 U	0.25 J	0.16 U	0.16 U	0.50 J	0.44 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW02042013	Normal	North Bedrock	4/16/2013	0.43 UJ	0.16 U	0.16 U	0.16 U	0.16 U	0.22 J	0.16 UJ	0.16 UJ	0.20 UJ	0.43 UJ	0.16 U	0.16 U	0.16 UJ	0.16 UJ
	TMW02102012	Normal	North Bedrock	10/31/2012	0.42 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.54 J	0.16 UJ	0.16 UJ	0.36 J	0.42 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ

TABLE 5-3
Summary of Total Explosives Analytical Detections (Page 3 of 5)
Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8330B (µg/L)													
					1,3,5-Trinitrobenzene CAS 99-35-4	1,3-Dinitrobenzene CAS 99-65-0	2,4,6-Trinitrotoluene CAS 118-96-7	2,4-Dinitrotoluene CAS 121-14-2	2,6-Dinitrotoluene CAS 606-20-2	2-Amino-4,6-Dinitrotoluene CAS 35572-78-2	2-Nitrotoluene CAS 88-72-2	3-Nitrotoluene CAS 99-08-1	4-Amino-2,6-Dinitrotoluene CAS 19406-51-0	4-Nitrotoluene CAS 99-99-0	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) CAS 121-82-4	Methyl-2,4,6-trinitrophenylnitramine CAS 479-45-8	Nitrobenzene CAS 98-95-3	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) CAS 2691-41-0
					Regulatory Limit (EPA Region 6 Tap Water Screening Levels) ^a													
460	1.5	2.2	0.2	15	30	0.27	1.3	30	3.7	0.61	61	0.12	780					
TMW16	TMW16042014	Normal	North Bedrock	4/9/2014	0.40 U	0.15 U	0.15 U	0.17 J	0.17 J	0.15 U	0.15 U	0.15 U	0.15 U	0.40 U	0.15 U	0.15 U	0.15 U	0.15 U
	TMW16102013	Normal	North Bedrock	10/31/2013	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW16042013	Normal	North Bedrock	4/18/2013	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW16102012	Normal	North Bedrock	11/6/2012	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.42 U	0.33	0.16 U	0.16 U	0.16 U
TMW18	TMW18042014	Normal	North Bedrock	4/11/2014	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW18102013	Normal	North Bedrock	10/31/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	0.45 J	0.16 U	0.16 U	0.16 U
	TMW18042013	Normal	North Bedrock	4/12/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.096 J	0.16 U	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW18102012	Normal	North Bedrock	11/5/2012	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW18102012DU	Duplicate	North Bedrock	11/5/2012	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
TMW19	TMW19042014	Normal	North Bedrock	4/9/2014	0.40 U	0.15 U	0.15 U	0.35 J	0.15 U	0.15 U	1.6	0.18 J	0.15 U	1.5	0.15 U	0.15 U	0.15 U	0.15 U
	TMW19102013	Normal	North Bedrock	10/31/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.13 J	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW19042013	Normal	North Bedrock	4/12/2013	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.10 J	0.16 U	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW19102012	Normal	North Bedrock	11/5/2012	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U
TMW30	TMW30042014	Normal	North Bedrock	4/11/2014	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U
	TMW30102013	Normal	North Bedrock	10/30/2013	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 J	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW30042013	Normal	North Bedrock	4/11/2013	0.42 U	0.098 J	0.16 U	0.16 U	0.16 U	0.077 J	0.16 U	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	0.60 J
	TMW30102012	Normal	North Bedrock	11/5/2012	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.44 U	0.17 U	0.17 U	0.17 U	0.26 J
	TMW30102012DU	Duplicate	North Bedrock	11/5/2012	0.44 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.44 U	0.16 U	0.16 U	0.16 U	0.34 J
TMW31D	TMW31D042014	Normal	North Bedrock	4/16/2014	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.42 J	0.16 U	0.16 U	0.50 J	0.16 U	0.16 U	0.16 U	0.16 U
	DTW31D042014	Duplicate	North Bedrock	4/16/2014	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U
	TMW31D102013	Normal	North Bedrock	11/6/2013	0.46 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.46 U	0.17 U	0.17 U	0.17 U	0.17 U
	DTW31D102013	Duplicate	North Bedrock	11/6/2013	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U
	TMW31D042013	Normal	North Bedrock	4/10/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
	DTW31D042013	Duplicate	North Bedrock	4/10/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW31D102012	Normal	North Bedrock	10/30/2012	0.40 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.40 U	0.15 U	0.15 U	0.15 U	0.15 U

5.0 Groundwater Analytical Results

TABLE 5-3

Summary of Total Explosives Analytical Detections (Page 4 of 5)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8330B (µg/L)													
					1,3,5-Trinitrobenzene CAS 99-35-4	1,3-Dinitrobenzene CAS 99-65-0	2,4,6-Trinitrotoluene CAS 118-96-7	2,4-Dinitrotoluene CAS 121-14-2	2,6-Dinitrotoluene CAS 606-20-2	2-Amino-4,6-Dinitrotoluene CAS 35572-78-2	2-Nitrotoluene CAS 88-72-2	3-Nitrotoluene CAS 99-08-1	4-Amino-2,6-Dinitrotoluene CAS 19406-51-0	4-Nitrotoluene CAS 99-99-0	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) CAS 121-82-4	Methyl-2,4,6-trinitrophenylhydrazine CAS 479-45-8	Nitrobenzene CAS 98-95-3	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) CAS 2691-41-0
					Regulatory Limit (EPA Region 6 Tap Water Screening Levels) ^a													
460	1.5	2.2	0.2	15	30	0.27	1.3	30	3.7	0.61	61	0.12	780					
TMW36	TMW36042014	Normal	North Bedrock	4/9/2014	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW36102013	Normal	North Bedrock	11/5/2013	0.42 UJ	0.86 J	0.16 UJ	0.22 J	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.42 UJ	2.4 J	0.16 UJ	0.29 J	0.16 UJ
	TMW36042013	Normal	North Bedrock	4/15/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22	0.15 J	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW36102012	Normal	North Bedrock	11/5/2012	0.51 J	0.71 J	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.70 J	0.42 UJ	2.0 J	0.16 UJ	0.16 UJ	1.7 J
TMW38	TMW38042014	Normal	North Bedrock	4/17/2014	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.098 J	0.16 U	0.16 U	0.16 U	0.41 J	0.16 U	0.16 U	0.16 U	0.16 U
	TMW38102013	Normal	North Bedrock	10/31/2013	0.44 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.44 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW38042013	Normal	North Bedrock	4/11/2013	0.40 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.40 U	0.15 U	0.15 U	0.15 U	0.15 U
	TMW38102012	Normal	North Bedrock	11/8/2012	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.44 U	0.17 U	0.17 U	1.6	0.17 U
TMW39D	TMW39D042014	Normal	North Bedrock	4/16/2014	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.42 UJ	0.16 U	0.16 U	0.16 U	0.16 U
	TMW39D102013	Normal	North Bedrock	11/6/2013	0.43 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.43 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ
	TMW39D042013	Normal	North Bedrock	4/10/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
	TMW39D102012	Normal	North Bedrock	10/31/2012	0.41 UJ	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 UJ	0.15 UJ	0.15 U	0.41 U	0.15 U	0.15 U	0.15 U	0.23 J
CMW10	Well not sampled since April 2013 ^b																	
	CMW10042013	Normal	OB/OD	4/3/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.11 J	0.16 UJ	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
	CMW10102012	Normal	OB/OD	11/7/2012	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U
CMW17	Well not sampled since April 2013 ^b																	
	CMW17042013	Normal	OB/OD	4/3/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 UJ	0.084 J	0.43 U	2.1	0.16 U	0.16 U	0.28 J
	CMW17102012	Normal	OB/OD	11/6/2012	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 UJ	0.16 U	0.42 U	1.7	0.16 U	0.16 U	0.16 U
	CMW17102012DU	Duplicate	OB/OD	11/6/2012	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 UJ	0.16 U	0.42 U	1.8	0.16 U	0.16 U	0.16 U
CMW18	Well not sampled since April 2013 ^b																	
	CMW18042013	Normal	OB/OD	4/4/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	2.2	0.16 U	0.16 U	2.8	0.43 U	67	0.16 U	0.16 U	21
	DCW18042013	Duplicate	OB/OD	4/4/2013	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	2.1 J	0.16 U	0.16 U	2.7 J	0.42 U	68	0.16 U	0.16 U	19 J
	CMW18102012	Normal	OB/OD	11/6/2012	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	1.9	0.16 U	0.16 U	2.5	0.43 U	66	0.16 U	0.16 U	18
CMW23	Well not sampled since April 2013 ^b																	
	CMW23042013	Normal	OB/OD	4/8/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U
	CMW23102012	Normal	OB/OD	10/30/2012	0.44 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.44 U	0.093 J	0.16 U	0.16 U	0.16 U

TABLE 5-3
Summary of Total Explosives Analytical Detections (Page 5 of 5)
Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8330B (µg/L)													
					1,3,5-Trinitrobenzene CAS 99-35-4	1,3-Dinitrobenzene CAS 99-65-0	2,4,6-Trinitrotoluene CAS 118-96-7	2,4-Dinitrotoluene CAS 121-14-2	2,6-Dinitrotoluene CAS 606-20-2	2-Amino-4,6-Dinitrotoluene CAS 35572-78-2	2-Nitrotoluene CAS 88-72-2	3-Nitrotoluene CAS 99-08-1	4-Amino-2,6-Dinitrotoluene CAS 19406-51-0	4-Nitrotoluene CAS 99-99-0	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) CAS 121-82-4	Methyl-2,4,6-trinitrophenylamine CAS 479-45-8	Nitrobenzene CAS 98-95-3	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) CAS 2691-41-0
					Regulatory Limit (EPA Region 6 Tap Water Screening Levels) ^a													
					460	1.5	2.2	0.2	15	30	0.27	1.3	30	3.7	0.61	61	0.12	780
Well not sampled since April 2013 ^b																		
CMW24	CMW24042013	Normal	OB/OD	4/5/2013	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	1.3 J
	CMW24102012	Normal	OB/OD	11/1/2012	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.72	0.17 U	0.17 U	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U
Well not sampled since April 2013 ^b																		
KMW09	KMW09042013	Normal	OB/OD	4/4/2013	0.44 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.44 U	0.16 U	0.16 U	0.16 U	0.16 U
	KMW09102012	Normal	OB/OD	10/26/2012	0.41 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.41 U	0.15 U	0.15 U	2.7	0.15 U

Notes:

^a EPA Region 6, Regional Screening Levels (Formerly Human Health Medium Specific Screening Levels) (EPA 2012)

^b Wells in the OB/OD area were not accessible during active remediation of the area

^c EPA Method 8330B analytical results from samples TMW07102013 and TMW23102013 were not consistent with any historical results. It is believed that sample results for these two locations were switched by the analytical laboratory based upon a review of field notes and historical data. The data has been corrected in this table.

Bold indicates analyte was positively detected above regulatory limits

If no detections occurred for explosives compounds during the previous four events, no non-detect or historic data is presented

µg/L = microgram(s) per liter

CAS = Chemical Abstract Services (registry number)

DUP = duplicate

J = analyte was positively identified; reported value is estimated

OB/OD = Open Burn/Open Detonation

R = result is unusable for any purpose

U = non-detected result reported at the limit of detection.

UJ = analyte was not detected; however, the result is estimated because of discrepancies in meeting certain analyte-specific quality control criteria

TABLE 5-4

Summary of Perchlorate Analytical Detections (Page 1 of 6)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Perchlorate (µg/L) CAS 14797-73-0
					EPA Method 6860
Regulatory Limits					6^a
BGMW02	BGMW02042014	Normal	North Alluvial	4/15/2014	0.45
	DBW02042014	Duplicate	North Alluvial	4/15/2014	0.44
	BGMW02102013	Normal	North Alluvial	11/5/2013	0.49
	BGMW02042013	Normal	North Alluvial	4/3/2013	0.44 J
	BGMW02102012	Normal	North Alluvial	10/30/2012	0.45
BGMW03	BGMW03042014	Normal	North Alluvial	4/11/2014	0.24
	BGMW03102013	Normal	North Alluvial	11/5/2013	0.28
	DBW03102013	Duplicate	North Alluvial	11/5/2013	0.31
	BGMW03042013	Normal	North Alluvial	4/8/2013	0.35
	DBW03042013	Duplicate	North Alluvial	4/8/2013	0.34
	BGMW03102012	Normal	North Alluvial	10/31/2012	3.1
MW01	MW01042014	Normal	North Alluvial	4/9/2014	0.020 U
	MW01102013	Normal	North Alluvial	11/1/2013	0.022 J
	MW01042013	Normal	North Alluvial	4/15/2013	0.017 J
	MW01102012	Normal	North Alluvial	10/24/2012	0.020 U
MW02	MW02042014	Normal	North Alluvial	4/10/2014	0.015 J
	MW02102013	Normal	North Alluvial	11/1/2013	0.012 J
	MW02042013	Normal	North Alluvial	4/12/2013	0.020 U
	MW02102012	Normal	North Alluvial	10/24/2012	0.0093 J
MW03	MW03042014	Normal	North Alluvial	4/14/2014	0.018 J
	MW03102013	Normal	North Alluvial	11/5/2013	0.015 J
	MW03042013	Normal	North Alluvial	4/4/2013	0.023 J
	MW03-102012	Normal	North Alluvial	10/23/2012	0.017 J
MW18D	MW18D042014	Normal	North Alluvial	4/14/2014	0.020 U
	MW18D102013	Normal	North Alluvial	11/1/2013	0.039 J
	MW18D042013	Normal	North Alluvial	4/17/2013	0.10 U
	MW18D102012	Normal	North Alluvial	11/8/2012	0.020 U
MW20	MW20042014	Normal	North Alluvial	4/14/2014	0.33
	MW20102013	Normal	North Alluvial	11/8/2013	0.44 J
	MW20042013	Normal	North Alluvial	4/10/2013	0.49 J
	DW20042013	Duplicate	North Alluvial	4/10/2013	0.44 J
	MW20102012	Normal	North Alluvial	10/29/2012	0.47 J
MW22D	MW22D042014	Normal	North Alluvial	4/14/2014	0.36
	DMW22D042014	Duplicate	North Alluvial	4/14/2014	0.36
	MW22D102013	Normal	North Alluvial	11/1/2013	0.73 J
	DMW22D102013	Duplicate	North Alluvial	11/1/2013	0.31 J
	MW22D042013	Normal	North Alluvial	4/9/2013	0.26 J
	MW22D102012	Normal	North Alluvial	11/8/2012	0.18
MW22S	MW22S042014	Normal	North Alluvial	4/10/2014	0.039 J
	MW22S102013	Normal	North Alluvial	11/1/2013	0.063
	MW22S042013	Normal	North Alluvial	4/12/2013	0.072 J
	MW22S102012	Normal	North Alluvial	10/29/2012	0.57
MW23	MW23042014	Normal	North Alluvial	4/11/2014	0.010 J
	DMW23042014	Duplicate	North Alluvial	4/11/2014	0.016 J
	MW23102013	Normal	North Alluvial	11/8/2013	0.020 U
	DMW23102013	Duplicate	North Alluvial	11/8/2013	0.020 U
	MW23042013	Normal	North Alluvial	4/8/2013	0.020 UJ
	DMW23042013	Duplicate	North Alluvial	4/8/2013	0.014 J
	MW23102012	Normal	North Alluvial	10/31/2012	0.020 U
MW23102012DUP	Duplicate	North Alluvial	10/31/2012	0.020 U	

5.0 Groundwater Analytical Results

TABLE 5-4

Summary of Perchlorate Analytical Detections (Page 2 of 6)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Perchlorate ($\mu\text{g/L}$) CAS 14797-73-0
					EPA Method 6860
Regulatory Limits					6^a
TMW01	TMW01042014	Normal	North Alluvial	4/16/2014	300
	TMW01102013	Normal	North Alluvial	11/6/2013	310
	TMW01042013	Normal	North Alluvial	4/15/2013	270
	TMW01102012	Normal	North Alluvial	10/31/2012	300
TMW03	TMW03042014	Normal	North Alluvial	4/16/2014	0.98
	TMW03102013	Normal	North Alluvial	11/4/2013	0.84
	TMW03042013	Normal	North Alluvial	4/16/2013	0.79
	TMW03102012	Normal	North Alluvial	11/7/2012	0.85
TMW04	TMW04042014	Normal	North Alluvial	4/16/2014	0.34
	TMW04102013	Normal	North Alluvial	11/4/2013	0.35
	TMW04042013	Normal	North Alluvial	4/16/2013	0.25
	TMW04102012	Normal	North Alluvial	11/7/2012	0.41
TMW11	TMW11042014	Normal	North Alluvial	4/17/2014	0.18
	TMW11102013	Normal	North Alluvial	11/5/2013	0.16
	TMW11042013	Normal	North Alluvial	4/9/2013	0.15 J
	TMW11102012	Normal	North Alluvial	11/9/2012	0.15
TMW13	TMW13042014	Normal	North Alluvial	4/17/2014	0.077 J
	TMW13102013	Normal	North Alluvial	11/5/2013	0.078
	TMW13042013	Normal	North Alluvial	4/17/2013	0.066
	TMW13102012	Normal	North Alluvial	11/8/2012	0.068
TMW15	TMW15042014	Normal	North Alluvial	4/17/2014	0.16 J
	TMW15102013	Normal	North Alluvial	11/6/2013	0.24
	TMW15042013	Normal	North Alluvial	4/17/2013	0.16
	TMW15102012	Normal	North Alluvial	11/8/2012	0.14
TMW21	TMW21042014	Normal	North Alluvial	4/14/2014	0.020 U
	TMW21102013	Normal	North Alluvial	11/7/2013	0.020 U
	TMW21042013	Normal	North Alluvial	4/16/2013	0.011 J
	TMW21102012	Normal	North Alluvial	11/8/2012	0.020 U
TMW22	TMW22042014	Normal	North Alluvial	4/10/2014	0.010 J
	TMW22102013	Normal	North Alluvial	10/29/2013	0.0088 J
	TMW22042013	Normal	North Alluvial	4/12/2013	0.0091 J
	TMW22102012	Normal	North Alluvial	11/6/2012	0.013 J
TMW23	TMW23042014	Normal	North Alluvial	4/10/2014	0.037 J
	TMW23102013	Normal	North Alluvial	10/29/2013	0.045 J
	TMW23042013	Normal	North Alluvial	4/8/2013	0.044 J
	TMW23102012	Normal	North Alluvial	11/6/2012	0.041 J
TMW26	TMW26042014	Normal	North Alluvial	4/15/2014	0.020 U
	TMW26102013	Normal	North Alluvial	11/4/2013	0.020 U
	TMW26042013	Normal	North Alluvial	4/17/2013	0.055
	TMW26102012	Normal	North Alluvial	10/25/2012	0.020 U
	TMW26102012DUP	Duplicate	North Alluvial	10/25/2012	0.020 U
TMW29	TMW29042014	Normal	North Alluvial	4/10/2014	0.067
	TMW29102013	Normal	North Alluvial	10/31/2013	0.084 UJ
	TMW29042013	Normal	North Alluvial	4/11/2013	0.086
	TMW29102012	Normal	North Alluvial	10/26/2012	0.071
TMW31S	TMW31S042014	Normal	North Alluvial	4/10/2014	440
	TMW31S102013	Normal	North Alluvial	10/30/2013	430
	TMW31S042013	Normal	North Alluvial	4/11/2013	470
	TMW31S102012	Normal	North Alluvial	11/5/2012	500
	TMW31S102012DUP	Duplicate	North Alluvial	11/5/2012	570

TABLE 5-4

Summary of Perchlorate Analytical Detections (Page 3 of 6)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Perchlorate ($\mu\text{g/L}$) CAS 14797-73-0
					EPA Method 6860
Regulatory Limits					6^a
TMW34	TMW34042014	Normal	North Alluvial	4/15/2014	0.26
	TMW34102013	Normal	North Alluvial	11/1/2013	0.30 J
	DTW34102013	Duplicate	North Alluvial	11/1/2013	0.029 J
	TMW34042013	Normal	North Alluvial	4/10/2013	0.24 J
	TMW34-102012	Normal	North Alluvial	10/23/2012	0.25
TMW35	TMW35042014	Normal	North Alluvial	4/14/2014	0.076
	TMW35102013	Normal	North Alluvial	11/4/2013	0.10
	TMW35042013	Normal	North Alluvial	4/9/2013	0.096 J
	DTW35042013	Duplicate	North Alluvial	4/9/2013	0.096 J
	TMW35102012	Normal	North Alluvial	10/23/2012	NS
TMW39S	TMW39S042014	Normal	North Alluvial	4/11/2014	880
	TMW39S102013	Normal	North Alluvial	11/5/2013	800
	TMW39S042013	Normal	North Alluvial	4/11/2013	780
	TMW39S102012	Normal	North Alluvial	11/1/2012	720
TMW40S	TMW40S042014	Normal	North Alluvial	4/11/2014	9.1
	TMW40S102013	Normal	North Alluvial	10/31/2013	20
	TMW40S042013	Normal	North Alluvial	4/15/2013	29
	TMW40S102012	Normal	North Alluvial	11/6/2012	51 J
TMW41	TMW41042014	Normal	North Alluvial	4/10/2014	2.5
	TMW41102013	Normal	North Alluvial	10/30/2013	2.5
	TMW41042013	Normal	North Alluvial	4/11/2013	1.9
	TMW41102012	Normal	North Alluvial	11/6/2012	1.9 J
TMW44	TMW44042014	Normal	North Alluvial	4/10/2014	0.032 J
	TMW44102013	Normal	North Alluvial	10/29/2013	0.010 J
	TMW44042013	Normal	North Alluvial	4/8/2013	0.020 U
	TMW44102012	Normal	North Alluvial	11/6/2012	0.38 J
TMW46	TMW46042014	Normal	North Alluvial	4/11/2014	0.47
	TMW46102013	Normal	North Alluvial	10/30/2013	0.36
	TMW46042013	Normal	North Alluvial	4/8/2013	0.49
	TMW46102012	Normal	North Alluvial	11/6/2012	0.46
TMW47	TMW47042014	Normal	North Alluvial	4/16/2014	0.020 U
	TMW47102013	Normal	North Alluvial	11/7/2013	0.020 U
	TMW47042013	Normal	North Alluvial	4/15/2013	0.020 UJ
	TMW47102012	Normal	North Alluvial	11/2/2012	0.014 J
EMW01	Well not sampled since April 2013 ^b				
	EMW01042013	Normal	North Bedrock	4/15/2013	0.016 J
	EMW01102012	Normal	North Bedrock	10/25/2012	0.029 J
TMW02	TMW02042014	Normal	North Bedrock	4/16/2014	3.8
	TMW02102013	Normal	North Bedrock	11/4/2013	4.7
	TMW02042013	Normal	North Bedrock	4/16/2013	6.1 J
	TMW02102012	Normal	North Bedrock	10/31/2012	9.0

5.0 Groundwater Analytical Results

TABLE 5-4

Summary of Perchlorate Analytical Detections (Page 4 of 6)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Perchlorate (µg/L) CAS 14797-73-0
					EPA Method 6860
Regulatory Limits					6^a
TMW16	TMW16042014	Normal	North Bedrock	4/9/2014	0.020 U
	TMW16102013	Normal	North Bedrock	10/31/2013	0.020 U
	TMW16042013	Normal	North Bedrock	4/18/2013	0.020 U
	TMW16102012	Normal	North Bedrock	11/6/2012	0.018 J
TMW17	TMW17042014	Normal	North Bedrock	4/17/2014	0.020 U
	TMW17102013	Normal	North Bedrock	11/6/2013	0.020 U
	TMW17042013	Normal	North Bedrock	4/9/2013	0.020 UJ
	TMW17102012	Normal	North Bedrock	11/9/2012	0.019 J
TMW18	TMW18042014	Normal	North Bedrock	4/11/2014	0.084
	TMW18102013	Normal	North Bedrock	10/31/2013	0.024 UJ
	TMW18042013	Normal	North Bedrock	4/12/2013	0.010 J
	TMW18102012	Normal	North Bedrock	11/5/2012	0.019 J
	TMW18102012DUP	Duplicate	North Bedrock	11/5/2012	0.018 J
TMW30	TMW30042014	Normal	North Bedrock	4/11/2014	1400
	TMW30102013	Normal	North Bedrock	10/30/2013	1900
	TMW30042013	Normal	North Bedrock	4/11/2013	2100
	TMW30102012	Normal	North Bedrock	11/5/2012	2500
	TMW30102012DUP	Duplicate	North Bedrock	11/5/2012	2000
TMW31D	TMW31D042014	Normal	North Bedrock	4/16/2014	1400
	DTW31D042014	Duplicate	North Bedrock	4/16/2014	2000
	TMW31D102013	Normal	North Bedrock	11/6/2013	1500
	DTW31D102013	Duplicate	North Bedrock	11/6/2013	1500
	TMW31D042013	Normal	North Bedrock	4/10/2013	1500 J
	DTW31D042013	Duplicate	North Bedrock	4/10/2013	1400 J
	TMW31D102012	Normal	North Bedrock	10/30/2012	1500
TMW32	TMW32042014	Normal	North Bedrock	4/16/2014	370
	TMW32102013	Normal	North Bedrock	11/7/2013	290
	TMW32042013	Normal	North Bedrock	4/11/2013	200
	TMW32102012	Normal	North Bedrock	10/30/2012	370
	TMW32102012DUP	Duplicate	North Bedrock	10/30/2012	360
TMW36	TMW36042014	Normal	North Bedrock	4/9/2014	0.020 U
	TMW36102013	Normal	North Bedrock	11/5/2013	0.020 U
	TMW36042013	Normal	North Bedrock	4/15/2013	0.020 U
	TMW36102012	Normal	North Bedrock	11/5/2012	0.017 J
TMW37	TMW37042014	Normal	North Bedrock	4/9/2014	0.020 U
	TMW37102013	Normal	North Bedrock	10/31/2013	0.020 U
	TMW37042013	Normal	North Bedrock	4/12/2013	0.020 U
	TMW37102012	Normal	North Bedrock	11/2/2012	1300 J
TMW38	TMW38042014	Normal	North Bedrock	4/17/2014	0.020 UJ
	TMW38102013	Normal	North Bedrock	10/31/2013	0.020 UJ
	TMW38042013	Normal	North Bedrock	4/11/2013	0.024 J
	TMW38102012	Normal	North Bedrock	11/8/2012	0.020 U
TMW39D	TMW39D042014	Normal	North Bedrock	4/16/2014	4.2
	TMW39D102013	Normal	North Bedrock	11/6/2013	8.5
	TMW39D042013	Normal	North Bedrock	4/10/2013	77 J
	TMW39D102012	Normal	North Bedrock	10/31/2012	3.1

TABLE 5-4

Summary of Perchlorate Analytical Detections (Page 5 of 6)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Perchlorate (µg/L) CAS 14797-73-0
					EPA Method 6860
Regulatory Limits					6^a
TMW40D	TMW40D042014	Normal	North Bedrock	4/17/2014	610 J
	TMW40D102013	Normal	North Bedrock	11/7/2013	260
	TMW40D042013	Normal	North Bedrock	4/11/2013	280
	TMW40D102012	Normal	North Bedrock	11/1/2012	330
TMW48	TMW48042014	Normal	North Bedrock	4/17/2014	1500 J
	DTW48042014	Duplicate	North Bedrock	4/17/2014	1600 J
	TMW48102013	Normal	North Bedrock	10/31/2013	1500 J
	DTW48102013	Duplicate	North Bedrock	10/31/2013	4400 J
	TMW48042013	Normal	North Bedrock	4/10/2013	1600 J
	DTW48042013	Duplicate	North Bedrock	4/10/2013	1300 J
TMW49	TMW48102012	Normal	North Bedrock	11/2/2012	1800
	TMW49042014	Normal	North Bedrock	4/16/2014	1500
	TMW49102013	Normal	North Bedrock	11/6/2013	4100 J
	DTW49102013	Duplicate	North Bedrock	11/6/2013	1500 J
	TMW49042013	Normal	North Bedrock	4/15/2013	1900
	DTW49042013	Duplicate	North Bedrock	4/15/2013	1700
CMW02	TMW49102012	Normal	North Bedrock	10/31/2012	2100
	Well not sampled since April 2013 ^c				
CMW02	CMW02042013	Normal	OB/OD	4/2/2013	0.63
	CMW02102012	Normal	OB/OD	10/29/2012	0.56
CMW10	Well not sampled since April 2013 ^c				
	CMW10042013	Normal	OB/OD	4/3/2013	0.66
CMW10	CMW10102012	Normal	OB/OD	11/7/2012	3.3
	Well not sampled since April 2013 ^c				
CMW14	CMW14042013	Normal	OB/OD	4/3/2013	0.020 J
	CMW14102012	Normal	OB/OD	11/6/2012	0.025 J
CMW17	Well not sampled since April 2013 ^c				
	CMW17042013	Normal	OB/OD	4/3/2013	1.8
	CMW17102012	Normal	OB/OD	11/6/2012	1.9 J
CMW17	CMW17102012DUP	Duplicate	OB/OD	11/6/2012	2.1 J
	Well not sampled since April 2013 ^c				
	CMW18042013	Normal	OB/OD	4/4/2013	5.7
CMW18	DCW18042013	Duplicate	OB/OD	4/4/2013	5.7
	CMW18102012	Normal	OB/OD	11/6/2012	5.3 J

5.0 Groundwater Analytical Results

TABLE 5-4

Summary of Perchlorate Analytical Detections (Page 6 of 6)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Perchlorate (µg/L) CAS 14797-73-0
					EPA Method 6860
Regulatory Limits					6 ^a
KMW10	KMW10042013	Normal	OB/OD	4/5/2013	2.2
	KMW10102012	Normal	OB/OD	10/29/2012	2.3
KMW11	KMW11042013	Normal	OB/OD	4/4/2013	0.40
	KMW11102012	Normal	OB/OD	11/1/2012	0.40

Notes:

^a Regulatory Limit is 6 µg/L (Resource Conservation and Recovery Act Permit Screening Levels; NMED, 2011)

^b Wells in the East Landfill Area were not sampled due to landfill excavation and removal

^c Wells in the OB/OD Area were not accessible during active remediation of the area

Bold indicates analyte was positively detected above regulatory limits

If no

µg/L = microgram(s) per liter

CAS = Chemical Abstract Services (registry number)

DUP = duplicate

J = analyte was positively identified; reported value is estimated

NS = not sampled

OB/OD = Open Burn/Open Detonation

U = non-detected result reported at the limit of detection

UJ = analyte was not detected; however, the result is estimated because of discrepancies in meeting certain analyte-specific quality control criteria

5.0 Groundwater Analytical Results

TABLE 5-5

Summary of Volatile Organic Compound Analytical Detections (Page 1 of 6)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8260B (µg/L)																
					1,1,1-Trichloroethane CAS 71-55-6	1,1-Dichloroethane CAS 75-34-3	1,1-Dichloroethene CAS 75-35-4	1,2,3-Trichlorobenzene CAS 120-82-1	1,2-Dichloroethane CAS 107-06-2	2-Butanone CAS 78-93-3	Acetone CAS 67-64-1	Benzene CAS 71-43-2	Carbon Disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Cumene CAS 98-82-8	Naphthalene CAS 91-20-3	Styrene CAS 100-42-5	Tetrachloroethene CAS 127-18-4	Toluene CAS 108-88-3	
					60 ^a	25 ^a	5 ^a	5.2 ^c	5 ^b	4,900 ^c	12,000 ^c	5 ^b	720 ^c	100 ^a	190 ^c	390 ^c	30 ^a	100 ^b	5 ^b	750 ^a	
BGMW01	BGMW01042014	Normal	North Alluvial	4/15/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	BGMW01102013	Normal	North Alluvial	11/8/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	2.5 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	BGMW01042013	Normal	North Alluvial	4/2/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	BGMW01102012	Normal	North Alluvial	10/26/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
BGMW02	BGMW02042014	Normal	North Alluvial	4/15/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	DBW02042014	Duplicate	North Alluvial	4/15/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	BGMW02102013	Normal	North Alluvial	11/5/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	13	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	BGMW02042013	Normal	North Alluvial	4/3/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
FW31	BGMW02102012	Normal	North Alluvial	10/30/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	3.0 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	FW31042014	Normal	North Alluvial	4/10/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	FW31102013	Normal	North Alluvial	11/1/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 R	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	FW31042013	Normal	North Alluvial	4/12/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.19 J
FW35	FW31102012	Normal	North Alluvial	11/5/2012	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	FW35042014	Normal	North Alluvial	4/10/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	FW35102013	Normal	North Alluvial	10/29/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	FW35042013	Normal	North Alluvial	4/11/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.25 J	0.40 U	0.40 U	0.40 U	0.40 U
MW01	FW35102012	Normal	North Alluvial	11/7/2012	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	0.79 U	0.25 U	0.86 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U	0.25 U
	MW01042014	Normal	North Alluvial	4/9/2014	0.20 UJ	0.40 UJ	0.40 UJ	0.40 UJ	1.0 J	3.2 UJ	6.4 UJ	0.20 UJ	0.80 UJ	0.20 UJ	0.80 UJ	0.40 UJ	0.80 UJ	0.40 UJ	0.40 UJ	0.40 UJ	0.40 UJ
	MW01102013	Normal	North Alluvial	11/1/2013	0.20 U	0.40 U	0.40 U	0.40 U	1.3	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 R	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	MW01042013	Normal	North Alluvial	4/15/2013	0.20 U	0.20 U	0.20 U	0.40 U	1.1	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
MW18D	MW01102012	Normal	North Alluvial	10/24/2012	0.20 U	0.20 U	0.20 U	0.40 U	1.4	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	MW18D042014	Normal	North Alluvial	4/14/2014	0.20 UJ	0.40 UJ	0.40 UJ	0.40 UJ	78 J	3.2 UJ	6.4 UJ	0.20 UJ	0.80 UJ	0.20 UJ	0.80 UJ	0.40 UJ	0.80 UJ	0.40 UJ	0.40 UJ	0.40 UJ	0.40 UJ
	MW18D102013	Normal	North Alluvial	11/1/2013	0.20 U	0.40 U	0.40 U	0.40 U	80 J	3.2 U	6.4 U	0.20 U	0.53 J	0.20 U	0.80 R	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	MW18D042013	Normal	North Alluvial	4/17/2013	0.20 U	0.20 U	0.20 U	0.40 U	74	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
MW20	MW18D102012	Normal	North Alluvial	11/8/2012	0.20 U	0.20 U	0.20 U	0.40 U	93	3.2 U	3.3 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	MW20042014	Normal	North Alluvial	4/14/2014	0.20 U	0.40 U	0.40 U	0.40 U	4.6	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	MW20102013	Normal	North Alluvial	11/8/2013	0.20 U	0.40 U	0.40 U	0.40 U	6.1	3.2 U	3.9 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	MW20042013	Normal	North Alluvial	4/10/2013	0.20 U	0.20 U	0.20 U	0.40 U	7.0	3.2 U	6.4 UJ	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
MW22D	DW20042013	Duplicate	North Alluvial	4/10/2013	0.20 U	0.20 U	0.20 U	0.40 U	7.4	3.2 U	5.7 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	MW20102012	Normal	North Alluvial	10/29/2012	0.20 U	0.20 U	0.20 U	0.28 J	8.8	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.51 J	0.40 U	0.40 U	0.40 U	0.40 U
	MW22D042014	Normal	North Alluvial	4/14/2014	0.20 U	0.40 U	0.40 U	0.40 U	1.1	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	DMW22D042014	Duplicate	North Alluvial	4/14/2014	0.20 U	0.40 U	0.40 U	0.40 U	1.0	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	MW22D102013	Normal	North Alluvial	11/1/2013	0.20 U	0.40 U	0.40 U	0.40 U	1.4	3.2 U	3.0 J	0.20 U	0.80 U	0.20 U	0.80 R	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	DMW22D102013	Duplicate	North Alluvial	11/1/2013	0.20 U	0.40 U	0.40 U	0.40 U	1.4	3.2 U	6.4 UJ	0.20 U	0.80 U	0.20 U	0.80 R	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
MW22S	MW22D042013	Normal	North Alluvial	4/9/2013	0.20 U	0.20 U	0.20 U	0.40 U	1.2	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	MW22D102012	Normal	North Alluvial	11/8/2012	0.20 U	0.20 U	0.20 U	0.40 U	1.2	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	MW22S042014	Normal	North Alluvial	4/9/2014	2.0	0.66 J	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	MW22S102013	Normal	North Alluvial	10/30/2013	2.7	0.76 J	0.27 J	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 UJ	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
MW22S	MW22S042013	Normal	North Alluvial	4/11/2013	3.0	0.81 J	0.20 U	0.40 U	0.52 J	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	MW22S102012	Normal	North Alluvial	10/25/2012	2.8	0.78 J	0.20 U	0.40 U	0.65 J	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U

5.0 Groundwater Analytical Results

TABLE 5-5

Summary of Volatile Organic Compound Analytical Detections (Page 2 of 6)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8260B (µg/L)																
					1,1,1-Trichloroethane CAS 71-55-6	1,1-Dichloroethane CAS 75-34-3	1,1-Dichloroethene CAS 75-35-4	1,2,3-Trichlorobenzene CAS 120-82-1	1,2-Dichloroethane CAS 107-06-2	2-Butanone CAS 78-93-3	Acetone CAS 67-64-1	Benzene CAS 71-43-2	Carbon Disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Cumene CAS 98-82-8	Naphthalene CAS 91-20-3	Styrene CAS 100-42-5	Tetrachloroethene CAS 127-18-4	Toluene CAS 108-88-3	
					Regulatory Limit																
					60 ^a	25 ^a	5 ^a	5.2 ^c	5 ^b	4,900 ^c	12,000 ^c	5 ^b	720 ^c	100 ^a	190 ^c	390 ^c	30 ^a	100 ^b	5 ^b	750 ^a	
MW23	MW23042014	Normal	North Alluvial	4/11/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	10 UJ	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	18
	DMW23042014	Duplicate	North Alluvial	4/11/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	4.2 UJ	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	18
	MW23102013	Normal	North Alluvial	11/8/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	4.7 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	20
	DMW23102013	Duplicate	North Alluvial	11/8/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	3.3 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	20
	MW23042013	Normal	North Alluvial	4/8/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	5.1 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	69
	DMW23042013	Duplicate	North Alluvial	4/8/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	5.9 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	63
	MW23102012	Normal	North Alluvial	10/31/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	4.3 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	45 J
	MW23102012DUP	Duplicate	North Alluvial	10/31/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	4.6 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	71 J
MW24	MW24042014	Normal	North Alluvial	4/11/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	2.1 UJ	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.33 J
	DMW24042014	Duplicate	North Alluvial	4/11/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	10 UJ	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 UJ
	MW24102013	Normal	North Alluvial	11/7/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.17 J
	DMW24102013	Duplicate	North Alluvial	11/7/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.61 J
	MW24042013	Normal	North Alluvial	4/8/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	3.8 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	DMW24042013	Duplicate	North Alluvial	4/8/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	4.6 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	MW24102012	Normal	North Alluvial	10/31/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	2.6 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.33 J
SMW01	SMW01042014	Normal	North Alluvial	4/15/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	SMW01102013	Normal	North Alluvial	11/8/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	1.9 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	SMW01042013	Normal	North Alluvial	4/12/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	SMW01102012	Normal	North Alluvial	11/1/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
TMW01	TMW01042014	Normal	North Alluvial	4/16/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW01102013	Normal	North Alluvial	11/6/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	8.9 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW01042013	Normal	North Alluvial	4/15/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW01102012	Normal	North Alluvial	10/31/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	1.9 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 UJ
TMW06	TMW06042014	Normal	North Alluvial	4/16/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW06102013	Normal	North Alluvial	11/7/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW06042013	Normal	North Alluvial	4/15/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW06102012	Normal	North Alluvial	11/8/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	1.9 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
TMW08	TMW08042014	Normal	North Alluvial	4/15/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	3.5 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	DTW08042014	Duplicate	North Alluvial	4/15/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 UJ	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW08102013	Normal	North Alluvial	11/8/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	4.3 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW08042013	Normal	North Alluvial	4/3/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	8.8 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	DTW08042013	Duplicate	North Alluvial	4/3/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	4.7 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW08102012	Normal	North Alluvial	10/24/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	2.7 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
TMW21	TMW21042014	Normal	North Alluvial	4/14/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW21102013	Normal	North Alluvial	11/7/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW21042013	Normal	North Alluvial	4/16/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW21102012	Normal	North Alluvial	11/8/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	3.8 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
TMW24	TMW24042014	Normal	North Alluvial	4/17/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 UJ	0.61 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW24102013	Normal	North Alluvial	11/8/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.72 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW24042013	Normal	North Alluvial	4/4/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW24102012	Normal	North Alluvial	10/31/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	2.8 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 UJ

TABLE 5-5
Summary of Volatile Organic Compound Analytical Detections (Page 3 of 6)
 Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8260B (µg/L)															
					1,1,1-Trichloroethane CAS 71-55-6	1,1-Dichloroethane CAS 75-34-3	1,1-Dichloroethene CAS 75-35-4	1,2,3-Trichlorobenzene CAS 120-82-1	1,2-Dichloroethane CAS 107-06-2	2-Butanone CAS 78-93-3	Acetone CAS 67-64-1	Benzene CAS 71-43-2	Carbon Disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Cumene CAS 98-82-8	Naphthalene CAS 91-20-3	Styrene CAS 100-42-5	Tetrachloroethene CAS 127-18-4	Toluene CAS 108-88-3
					Regulatory Limit															
60 ^a	25 ^a	5 ^a	5.2 ^c	5 ^b	4,900 ^c	12,000 ^c	5 ^b	720 ^c	100 ^a	190 ^c	390 ^c	30 ^a	100 ^b	5 ^b	750 ^a					
TMW25	TMW25042014	Normal	North Alluvial	4/15/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW25102013	Normal	North Alluvial	11/4/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW25042013	Normal	North Alluvial	4/16/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.55 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW25102012	Normal	North Alluvial	11/1/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	3.0 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
TMW26	TMW26042014	Normal	North Alluvial	4/15/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW26102013	Normal	North Alluvial	11/4/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	2.5 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW26042013	Normal	North Alluvial	4/17/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	DMW26042013	Duplicate	North Alluvial	4/17/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW26102012	Normal	North Alluvial	10/25/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW26102012DUP	Duplicate	North Alluvial	10/25/2012	0.20 U	0.20 U	0.20 U	0.19 J	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
TMW28	TMW28042014	Normal	North Alluvial	4/15/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW28102013	Normal	North Alluvial	11/5/2013	0.20 U	0.40 U	0.40 U	0.19 U	0.40 U	3.2 U	21	0.20 U	0.82 J	0.20 U	0.80 U	0.40 U	0.33 U	0.40 U	0.40 U	0.40 U
	TMW28042013	Normal	North Alluvial	4/2/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.63 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW28102012	Normal	North Alluvial	10/25/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
TMW31S	TMW31S042014	Normal	North Alluvial	4/10/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW31S102013	Normal	North Alluvial	10/30/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW31S042013	Normal	North Alluvial	4/11/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW31S102012	Normal	North Alluvial	11/5/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	2.0 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW31S102012DUP	Duplicate	North Alluvial	11/5/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
TMW33	TMW33042014	Normal	North Alluvial	4/10/2014	0.20 U	0.40 U	0.40 U	0.40 U	34	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW33102013	Normal	North Alluvial	10/30/2013	0.20 U	0.40 U	0.40 U	0.40 U	37	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW33042013	Normal	North Alluvial	4/17/2013	0.20 U	0.20 U	0.20 U	0.40 U	35	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW33102012	Normal	North Alluvial	10/26/2012	0.20 U	0.20 U	0.20 U	0.40 U	38 J	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW33102012DUP	Duplicate	North Alluvial	10/26/2012	0.20 U	0.20 U	0.20 U	0.40 U	41 J	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
TMW34	TMW34042014	Normal	North Alluvial	4/15/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW34102013	Normal	North Alluvial	11/1/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	3.9 J	0.20 U	0.80 U	0.20 U	0.80 R	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	DTW34102013	Duplicate	North Alluvial	11/1/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 R	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW34042013	Normal	North Alluvial	4/10/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW34-102012	Normal	North Alluvial	10/23/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
TMW35	TMW35042014	Normal	North Alluvial	4/14/2014	0.20 U	0.40 U	0.40 U	0.40 U	1.8	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW35102013	Normal	North Alluvial	11/4/2013	0.20 U	0.40 U	0.40 U	0.40 U	2.0	3.2 U	8.1 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW35042013	Normal	North Alluvial	4/9/2013	0.20 U	0.20 U	0.20 U	0.40 U	1.9	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	DTW35042013	Duplicate	North Alluvial	4/9/2013	0.20 U	0.20 U	0.20 U	0.40 U	1.9	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW35-102012	Normal	North Alluvial	10/23/2012	0.20 U	0.20 U	0.20 U	0.40 U	2.3	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
TMW40S	TMW40S042014	Normal	North Alluvial	4/10/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	2.0	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW40S102013	Normal	North Alluvial	10/31/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	2.6 U	0.20 U	0.80 U	1.4 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	TMW40S042013	Normal	North Alluvial	4/15/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.81 J	0.80 U	0.40 U	0.80 U	0.40 U	0.23 J	0.40 U
	TMW40S102012	Normal	North Alluvial	11/9/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.25 J	0.80 U	0.20 J	0.80 U	0.40 U	0.40 U	0.40 U

5.0 Groundwater Analytical Results

TABLE 5-5

Summary of Volatile Organic Compound Analytical Detections (Page 4 of 6)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8260B (µg/L)																
					1,1,1-Trichloroethane CAS 71-55-6	1,1-Dichloroethane CAS 75-34-3	1,1-Dichloroethene CAS 75-35-4	1,2,3-Trichlorobenzene CAS 120-82-1	1,2-Dichloroethane CAS 107-06-2	2-Butanone CAS 78-93-3	Acetone CAS 67-64-1	Benzene CAS 71-43-2	Carbon Disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Cumene CAS 98-82-8	Naphthalene CAS 91-20-3	Styrene CAS 100-42-5	Tetrachloroethene CAS 127-18-4	Toluene CAS 108-88-3	
					Regulatory Limit																
					60 ^a	25 ^a	5 ^a	5.2 ^c	5 ^b	4,900 ^c	12,000 ^c	5 ^b	720 ^c	100 ^a	190 ^c	390 ^c	30 ^a	100 ^b	5 ^b	750 ^a	
TMW45	TMW45042014	Normal	North Alluvial	4/11/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	3.8 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW45102013	Normal	North Alluvial	11/7/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW45042013	Normal	North Alluvial	4/4/2013	0.20 UJ	0.20 UJ	0.20 UJ	0.40 UJ	0.20 UJ	3.2 UJ	2.3 J	0.20 UJ	0.80 UJ	0.20 UJ	0.80 UJ	0.22 J	0.80 UJ	0.40 UJ	0.40 UJ	0.40 UJ	0.40 UJ
	TMW45102012	Normal	North Alluvial	11/6/2012	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.0 UJ	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U
	TMW45102012DUP	Duplicate	North Alluvial	11/6/2012	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.5 UJ	0.25 U	0.22 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U
TMW47	TMW47042014	Normal	North Alluvial	4/16/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	1.5 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW47102013	Normal	North Alluvial	11/7/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	6.2	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW47042013	Normal	North Alluvial	4/15/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	8.8	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW47102012	Normal	North Alluvial	11/2/2012	0.20 U	0.20 U	0.20 U	0.45 U	0.20 U	3.2 U	6.4 U	0.20 U	0.71 J	0.20 U	0.80 U	0.40 U	0.37 U	0.40 U	0.40 U	0.40 U	0.40 U
EMW04	Well not sampled since April 2013 ^d																				
	EMW04042013	Normal	North Bedrock	4/15/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	EMW04102012	Normal	North Bedrock	10/25/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.41 J
TMW14A	EMW04102012DUP	Duplicate	North Bedrock	10/25/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.39 J
	TMW14A042014	Normal	North Bedrock	4/15/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.78 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW14A102013	Normal	North Bedrock	11/6/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.47 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW14A042013	Normal	North Bedrock	4/17/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
TMW16	TMW14A102012	Normal	North Bedrock	11/8/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.71 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW16042014	Normal	North Bedrock	4/9/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW16102013	Normal	North Bedrock	10/31/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	3.7
	TMW16042013	Normal	North Bedrock	4/18/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	10
TMW17	TMW16102012	Normal	North Bedrock	11/6/2012	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.0 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.70 J	0.25 U	0.50 U	0.50 U	0.42 J
	TMW17042014	Normal	North Bedrock	4/17/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 UJ	4.2	0.20 U	1.1 J	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW17102013	Normal	North Bedrock	11/6/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	2.7	0.20 U	0.54 J	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW17042013	Normal	North Bedrock	4/9/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	5.2	0.20 U	1.8 J	0.40 U	0.80 U	0.30 J	0.40 U	0.40 U	0.40 U
TMW18	TMW17102012	Normal	North Bedrock	11/9/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	4.9 J	0.20 U	7.5	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW18042014	Normal	North Bedrock	4/11/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	3.1 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.62 J
	TMW18102013	Normal	North Bedrock	10/31/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	120
	TMW18042013	Normal	North Bedrock	4/12/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	82
	TMW18102012	Normal	North Bedrock	11/5/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	2.6 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	6.7 J
TMW19	TMW18102012DUP	Duplicate	North Bedrock	11/5/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	2.5 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	55 J
	TMW19042014	Normal	North Bedrock	4/9/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.45 J
	TMW19102013	Normal	North Bedrock	10/31/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.64 U
	TMW19042013	Normal	North Bedrock	4/12/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	2.9
TMW36	TMW19102012	Normal	North Bedrock	11/5/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.70 J
	TMW36042014	Normal	North Bedrock	4/9/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U
	TMW36102013	Normal	North Bedrock	11/5/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.47 J
TMW36	TMW36042013	Normal	North Bedrock	4/15/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	1.9 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.38 J
	TMW36102012	Normal	North Bedrock	11/5/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	1.8 J	2.5 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	19

TABLE 5-5
Summary of Volatile Organic Compound Analytical Detections (Page 5 of 6)
 Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8260B (µg/L)																			
					1,1,1-Trichloroethane CAS 71-55-6	1,1-Dichloroethane CAS 75-34-3	1,1-Dichloroethene CAS 75-35-4	1,1,3-Trichlorobenzene CAS 120-82-1	1,2-Dichloroethane CAS 107-06-2	2-Butanone CAS 78-93-3	Acetone CAS 67-64-1	Benzene CAS 71-43-2	Carbon Disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Cumene CAS 98-82-8	Naphthalene CAS 91-20-3	Styrene CAS 100-42-5	Tetrachloroethene CAS 127-18-4	Toluene CAS 108-88-3				
					Regulatory Limit																			
60 ^a	25 ^a	5 ^a	5.2 ^c	5 ^b	4,900 ^c	12,000 ^c	5 ^b	720 ^c	100 ^a	190 ^c	390 ^c	30 ^a	100 ^b	5 ^b	750 ^a									
TMW37	TMW37042014	Normal	North Bedrock	4/9/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.74 J			
	TMW37102013	Normal	North Bedrock	10/31/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.19 U			
	TMW37042013	Normal	North Bedrock	4/12/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	1.7			
	TMW37102012	Normal	North Bedrock	11/2/2012	0.20 U	0.20 U	0.20 U	0.26 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.66 J			
TMW38	TMW38042014	Normal	North Bedrock	4/17/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	3.5 J	0.20 UJ	19	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
	TMW38102013	Normal	North Bedrock	10/31/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	4.8	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
	TMW38042013	Normal	North Bedrock	4/11/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	1.1 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
	TMW38102012	Normal	North Bedrock	11/8/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.85 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
TMW49	TMW49042014	Normal	North Bedrock	4/16/2014	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
	TMW49102013	Normal	North Bedrock	11/6/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.18 J	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
	DTW49102013	Duplicate	North Bedrock	11/6/2013	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.20 U	0.80 U	0.17 J	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
	TMW49042013	Normal	North Bedrock	4/15/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
	DTW49042013	Duplicate	North Bedrock	4/15/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
	TMW49102012	Normal	North Bedrock	10/31/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	2.0 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
CMW04	Well not sampled since April 2013 ^e																							
	CMW04042013	Normal	OB/OD	4/2/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	4.3	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
	CMW04102012	Normal	OB/OD	10/29/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	3.2 U	0.20 U	3.4	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
CMW07	Well not sampled since April 2013 ^e																							
	CMW07042013	Normal	OB/OD	4/4/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.0 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
	CMW07102012	Normal	OB/OD	10/30/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	2.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
CMW10	Well not sampled since April 2013 ^e																							
	CMW10042013	Normal	OB/OD	4/3/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	5.5 J	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
	CMW10102012	Normal	OB/OD	11/7/2012	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.0 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U			
CMW14	Well not sampled since April 2013 ^e																							
	CMW14042013	Normal	OB/OD	4/3/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	2.4 J	0.40 J	0.80 U	0.20 U	1.3 J	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
	CMW14102012	Normal	OB/OD	11/6/2012	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.3 U	0.41 J	1.6 U	0.25 U	1.3 J	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U			
CMW19	Well not sampled since April 2013 ^e																							
	CMW19042013	Normal	OB/OD	4/4/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.73 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
	CMW19102012	Normal	OB/OD	10/30/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	3.4 U	0.20 U	0.81 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
CMW24	Well not sampled since April 2013 ^e																							
	CMW24042013	Normal	OB/OD	4/5/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	2.1 J	0.20 U	16 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
	CMW24102012	Normal	OB/OD	11/1/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	2.0 U	0.20 U	57	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
CMW25	Well not sampled since April 2013 ^e																							
	CMW25042013	Normal	OB/OD	4/8/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.46 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U	0.40 U			
	CMW25102012	Normal	OB/OD	11/7/2012	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	1.0 U	1.0 U	0.25 U	0.77 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.50 U	0.25 U			

5.0 Groundwater Analytical Results

TABLE 5-5

Summary of Volatile Organic Compound Analytical Detections (Page 6 of 6)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8260B (µg/L)															
					1,1,1-Trichloroethane CAS 71-55-6	1,1-Dichloroethane CAS 75-34-3	1,1-Dichloroethene CAS 75-35-4	1,2,3-Trichlorobenzene CAS 120-82-1	1,2-Dichloroethane CAS 107-06-2	2-Butanone CAS 78-93-3	Acetone CAS 67-64-1	Benzene CAS 71-43-2	Carbon Disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Cumene CAS 98-82-8	Naphthalene CAS 91-20-3	Styrene CAS 100-42-5	Tetrachloroethene CAS 127-18-4	Toluene CAS 108-88-3
					60 ^a	25 ^a	5 ^a	5.2 ^c	5 ^b	4,900 ^c	12,000 ^c	5 ^b	720 ^c	100 ^a	190 ^c	390 ^c	30 ^a	100 ^b	5 ^b	750 ^a
KMW09	Well not sampled since April 2013 ^e																			
	KMW09042013	Normal	OB/OD	4/4/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
	KMW09102012	Normal	OB/OD	10/26/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.45 J	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.40 U	0.40 U
KMW10	Well not sampled since April 2013 ^e																			
	KMW10042013	Normal	OB/OD	4/5/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.35 J	0.40 U
	KMW10102012	Normal	OB/OD	10/29/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	3.7 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	0.22 J	0.40 U
KMW11	Well not sampled since April 2013 ^e																			
	KMW11042013	Normal	OB/OD	4/4/2013	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	1.8	0.40 U
	KMW11102012	Normal	OB/OD	11/1/2012	0.20 U	0.20 U	0.20 U	0.40 U	0.20 U	3.2 U	6.4 U	0.20 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U	2.0	0.40 U

Notes:

^a New Mexico Water Quality Control Commission Standard - New Mexico Administrative Code Title 20, Chapter 6, Part 2, Section 3103

^b EPA Maximum Contaminant Level - Code of Federal Regulations Title 40, Parts 141, 142, and 143

^c EPA Region 6, Regional Screening Levels (formerly Human Health Medium Specific Screening Levels) (EPA, 2012)

^d Wells in the East Landfill Area were not sampled due to landfill excavation and removal

^e Wells in the OB/OD Area were not accessible during active remediation of the area

Bold indicates analyte was positively detected above regulatory limits

If no detection occurred for volatile organic compounds during the last four events, no non-detect or historic data is presented

µg/L = microgram(s) per liter

CAS = Chemical Abstract Services (registry number)

DUP = duplicate

J = analyte was positively identified; reported value is estimated

NS = not sampled

OB/OD = Open Burn/Open Detonation

R = result is unusable for any purpose

U = non-detected result reported at the limit of detection

UJ = analyte was not detected; however, the result is estimated because of discrepancies in meeting certain analyte-specific quality control criteria

TABLE 5-6
Summary of Semivolatile Organic Compounds and Total Petroleum Hydrocarbons Analytical Results (Page 5 of 5)
 Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well ID	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Method 8015C		EPA Method 8270D (µg/L)																									
					Diesel Range Organics (mg/L) CAS DRO	Gasoline Range Organics (µg/L) CAS GRO	1,2-Diphenylhydrazine CAS 122-66-7	2,4-Dinitrophenol CAS 51-28-5	2-Methyl Naphthalene CAS 91-57-6	2-Methylphenol CAS 105-67-9	4-Bromophenyl-phenylether CAS 101-55-3	Acenaphthene CAS 83-32-9	Acetophenone CAS 98-86-2	Anthracene CAS 120-12-7	Benzo(g,h,i)perylene CAS 191-24-2	Benzoic Acid CAS 65-85-0	Benzyl Alcohol CAS 100-51-6	Bis(2-Ethylhexyl) Phthalate CAS 117-81-7	Caprolactam CAS 105-60-2	Chrysene CAS 218-01-9	Dibenzofuran CAS 132-64-9	Diethyl phthalate CAS 84-66-2	Di-N-Butyl Phthalate CAS 84-74-2	Fluoranthene CAS 206-44-0	Fluorene CAS 86-73-7	Hexachlorobenzene CAS 118-74-1	M,p-Cresol CAS MEHP34	Phenol CAS 108-95-2	Pyrene CAS 129-00-0			
					Regulatory Limit																											
N/A	N/A	0.067 ^c	30 ^a	27 ^c	720 ^a	N/A	400 ^a	1,500 ^a	1,300 ^a	N/A	58,000 ^a	1,500 ^a	6 ^b	7,700 ^a	2.9 ^c	5.8 ^a	11,000 ^a	670 ^a	630 ^a	220 ^a	1 ^b	720 ^c	5 ^c	87 ^a								
TMW36	TMW36042014	Normal	North Bedrock	4/9/2014	NA	NA	1.0 U	20 U	1.0 U	4.1 U	1.0 U	1.0 U	5.1 U	1.0 U	1.0 U	51 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	4.1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.1 U	1.0 U
	TMW36102013	Normal	North Bedrock	11/5/2013	NA	NA	0.98 U	20 U	0.98 U	3.9 U	0.98 U	0.98 U	4.9 U	0.98 U	0.98 U	49 U	0.98 U	3.2 J	9.8 U	0.98 U	0.98 U	1.0 J	3.9 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	4.9 U	0.98 U	
	TMW36042013	Normal	North Bedrock	4/15/2013	95 U	NA	0.95 U	19 U	0.95 U	3.8 U	0.95 U	0.95 U	4.8 U	0.95 U	0.95 U	48 U	0.95 U	0.95 U	9.5 U	0.95 U	0.95 U	0.95 U	3.8 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	4.8 U	0.95 U	
	TMW36102012	Normal	North Bedrock	11/5/2012	44 J	NA	0.98 U	20 U	0.98 U	3.4 J	0.98 U	0.98 U	NA	0.98 U	0.98 U	49 U	0.98 U	2.0 J	NA	0.98 U	0.98 U	0.98 U	3.9 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	4.9 U	0.98 U		
TMW37	TMW37042014	Normal	North Bedrock	4/9/2014	NA	NA	0.99 U	20 U	0.99 U	4.0 U	0.99 U	0.99 U	0.82 U	0.99 U	0.99 U	50 U	0.99 U	2.8 U	NA	0.99 U	0.99 U	0.99 U	4.0 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	5.0 U	0.99 U		
	TMW37102013	Normal	North Bedrock	10/31/2013	NA	NA	0.97 U	19 U	0.97 U	3.9 U	0.97 U	0.97 U	4.8 U	0.97 U	0.97 U	48 U	0.97 U	0.97 U	9.7 U	0.97 U	0.97 U	3.9 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	4.8 U	0.97 U			
	TMW37042013	Normal	North Bedrock	4/12/2013	190 J	NA	1.0 U	20 U	1.0 U	4.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	50 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U			
	TMW37102012	Normal	North Bedrock	11/2/2012	100 U	NA	1.0 U	21 U	1.0 U	4.1 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	52 U	1.0 U	1.0 J	NA	1.0 U	1.0 U	1.0 U	4.1 U	1.0 U	1.0 U	1.0 U	1.0 U	5.2 U	1.0 U			
TMW38	TMW38042014	Normal	North Bedrock	4/17/2014	NA	NA	1.0 U	20 U	1.0 U	4.1 U	1.0 U	1.0 U	5.1 U	1.0 U	1.0 U	51 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	1.0 U	4.1 U	1.0 U	1.0 U	1.0 U	1.0 U	5.1 U	1.0 U			
	TMW38102013	Normal	North Bedrock	10/31/2013	NA	NA	1.1 U	21 U	1.1 U	4.3 U	1.1 U	1.1 U	5.3 U	1.1 U	1.1 U	53 U	1.1 U	1.1 U	11 U	1.1 U	1.1 U	0.60 J	4.3 U	1.1 U	1.1 U	1.1 U	1.1 U	5.3 U	1.1 U			
	TMW38042013	Normal	North Bedrock	4/11/2013	NA	NA	0.94 U	19 U	0.94 U	3.8 U	0.94 U	0.94 U	4.7 U	0.94 U	0.94 U	47 U	0.94 U	0.94 U	9.4 U	0.94 U	0.94 U	3.8 U	0.94 U	0.94 U	0.94 U	0.94 U	4.7 U	0.94 U				
	TMW38102012	Normal	North Bedrock	11/8/2012	NA	NA	0.96 U	19 U	0.96 U	3.9 U	0.96 U	0.96 U	NA	0.96 U	0.96 U	11 J	0.96 U	0.96 U	NA	0.96 U	0.96 U	0.96 U	3.9 U	0.96 U	0.96 U	0.96 U	0.34 J	4.8 U	0.96 U			
CMW10	Well not sampled since April 2013 ^e																															
	CMW10042013	Normal	OB/OD	4/4/2013	NA	NA	1.0 U	20 U	1.0 U	4.1 U	1.0 U	1.0 U	5.1 U	1.0 U	1.0 U	51 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	4.1 U	1.0 U	1.0 U	1.0 U	1.0 U	5.1 U	1.0 U			
CMW10102012	Normal	OB/OD	11/7/2012	NA	NA	1.0 U	20 U	1.0 U	4.0 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	51 U	1.0 U	3.4 J	NA	1.0 U	1.0 U	1.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.1 U	1.0 U				
CMW14	Well not sampled since April 2013 ^e																															
	CMW14042013	Normal	OB/OD	4/3/2013	NA	NA	1.1 U	22 U	1.1 U	4.5 U	1.1 U	1.1 U	0.54 J	1.1 U	1.1 U	56 U	1.1 U	1.1 U	13 J	1.1 U	1.1 U	1.1 U	4.5 U	1.1 U	1.1 U	1.1 U	1.1 U	5.6 U	1.1 U			
CMW14102012	Normal	OB/OD	11/6/2012	NA	NA	1.0 U	20 U	1.0 U	4.1 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	14 J	1.0 U	3.0 J	NA	1.0 U	1.0 U	1.0 U	4.1 U	1.0 U	1.0 U	1.0 U	1.0 U	5.1 U	1.0 U				
CMW24	Well not sampled since April 2013 ^e																															
	CMW24042013	Normal	OB/OD	4/5/2013	NA	NA	1.0 U	21 U	1.0 U	4.1 U	1.0 U	1.0 U	5.1 U	1.0 U	1.0 U	51 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U	4.1 U	1.0 U	1.0 U	1.0 U	1.0 U	5.1 U	1.0 U			
CMW24102012	Normal	OB/OD	11/1/2012	NA	NA	1.1 U	21 U	1.1 U	4.2 U	1.1 U	1.1 U	NA	1.1 U	1.1 U	53 U	1.1 U	1.9 J	NA	1.1 U	1.1 U	1.1 U	4.2 U	1.1 U	1.1 U	1.1 U	1.1 U	5.3 U	1.1 U				
KMW10	Well not sampled since April 2013 ^e																															
	KMW10042013	Normal	OB/OD	4/5/2013	NA	NA	1.1 U	22 U	1.1 U	4.4 U	1.1 U	1.1 U	5.4 U	1.1 U	1.1 U	54 U	1.1 U	3.8 J	11 U	1.1 U	1.1 U	1.1 U	4.4 U	1.1 U	1.1 U	1.1 U	1.1 U	5.4 U	1.1 U			
KMW10102012	Normal	OB/OD	10/29/2012	NA	NA	1.3 U	26 U	1.3 U	5.3 U	1.3 U	1.3 U	NA	1.3 U	1.3 U	66 U	1.3 U	0.93 J	NA	1.3 U	1.3 U	1.3 U	1.7 J	1.3 U	1.3 U	1.3 U	1.3 U	6.6 U	1.3 U				

Notes:
^a NM WQCC Standard - New Mexico Title 20, Chapter 6, Part 2, Section 3103
^b EPA MCL - Code of Federal Regulations Title 40, Parts 141, 142, and 143
^c EPA Region 6, Regional Screening Levels (formerly Human Health Medium Specific Screening Levels) (EPA, 2012)
^d Wells in the East Landfill Area were not sampled due to landfill excavation and removal
^e Wells in the OB/OD Area were not accessible during active remediation of the area
 If no detection occurred for total petroleum hydrocarbons or semi-volatile organic compounds in the past four events, no non-detect or historic data is presented
 µg/L = microgram per liter
 CAS = Chemical Abstract Services (registry number)
 DUP = duplicate
 J = analyte was positively identified; reported value is estimated
 MCL = maximum contaminant level
 NA = not analyzed
 NM WQCC = New Mexico Water Quality Control Commission
 OB/OD = Open Burn/Open Detonation
 U = non-detected result reported at the limit of detection.
 UJ = analyte was not detected; however, the result is estimated because of discrepancies

TABLE 5-7

Summary of Dissolved Metals Analytical Detections (Page 1 of 9)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																						EPA Method 7470 (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6	
					Regulatory Limits																						
200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c						
BGMW01	BGMW01042014	Normal	North Alluvial	4/15/2014	100 J	0.60 U	0.80 J	17	0.24 U	0.12 U	46000	1.5 U	0.42 J	1.7 U	75 J	0.50 U	25000	170	6.3	1100 J	2.0 U	0.10 U	860000	0.20 U	2.3 J	0.080 U	
	BGMW01102013	Normal	North Alluvial	11/8/2013	31 U	0.60 U	0.91 J	15	0.24 U	0.12 U	37000 J	1.5 U	0.36 J	1.5 U	30 UJ	0.50 U	21000	170	1.4 J	640 J	2.0 U	0.10 U	790000	0.20 U	6.0 U	0.080 U	
	BGMW01042013	Normal	North Alluvial	4/2/2013	31 U	0.60 U	0.80 J	21	0.24 U	0.12 U	58000	1.5 U	0.66 J	1.5 U	33 J	0.50 U	29000	330	2.2 J	1100 J	2.0 U	0.10 U	900000	0.20 U	6.0 U	0.080 U	
	BGMW01102012	Normal	North Alluvial	10/26/2012	18 J	0.60 U	1.0 J	19 J	0.24 U	0.12 U	49000	1.5 U	1.1	0.91 J	25 J	0.50 UJ	24000	210 J	1.8 J	1000 J	2.0 U	0.10 U	830000	0.10 U	2.2 J	0.080 U	
BGMW02	BGMW02042014	Normal	North Alluvial	4/15/2014	31 U	0.60 U	0.73 J	18	0.24 U	0.12 U	95000	1.5 U	0.068 J	0.95 U	58 J	0.50 U	130000	85	0.50 J	950 J	80	0.10 U	1100000	0.070 J	6.0 U	0.080 U	
	DBW02042014	Duplicate	North Alluvial	4/15/2014	31 U	0.60 U	0.90 J	16	0.24 U	0.12 U	95000	1.5 U	0.085 J	0.75 U	30 UJ	0.50 U	130000	87	0.50 J	1200 J	79	0.10 U	1100000	0.20 UJ	6.0 U	0.080 U	
	BGMW02102013	Normal	North Alluvial	11/5/2013	31 U	0.60 UJ	0.88 J	17	0.24 U	0.12 U	97000	1.5 U	0.055 J	0.98 J	30 U	0.50 U	130000	88	0.65 J	1000 J	80	0.10 U	1100000	0.20 U	6.0 U	0.080 U	
	BGMW02042013	Normal	North Alluvial	4/3/2013	31 U	0.66 J	0.79 J	20	0.10 J	0.14 J	99000	1.5 U	0.25 J	0.82 J	30 U	0.50 U	130000	100 J	0.69 J	1300 J	81	0.051 J	1100000	0.14 J	6.0 U	0.080 U	
	BGMW02102012	Normal	North Alluvial	10/30/2012	31 U	0.60 U	1.0 U	14	0.24 U	0.12 U	300000	2.6 J	2.2	1.5 U	87 J	0.50 U	91000	840	12	15000	2.0 U	0.10 U	660000	0.10 J	7.6 J	0.080 U	
BGMW03	BGMW03042014	Normal	North Alluvial	4/11/2014	61 U	0.60 U	1.7 J	33	0.24 U	0.12 U	73000	0.69 U	0.21 U	3.6 U	39 U	0.50 U	16000	14 U	0.89 U	2400 J	37	0.10 U	800000 J	0.20 U	2.2 U	0.080 U	
	BGMW03102013	Normal	North Alluvial	11/5/2013	31 UJ	1.0 J	1.7 J	38	0.24 U	0.12 U	75000	0.51 J	0.19 J	2.7	30 UJ	0.50 U	17000	56	0.55 J	2100 J	28	0.10 U	820000	0.11 J	6.0 U	0.080 U	
	DBW03102013	Duplicate	North Alluvial	11/5/2013	36 J	0.53 J	1.5 J	39	0.24 U	0.12 U	74000	0.68 J	0.22 J	2.5	28 UJ	0.50 U	17000	62	0.73 J	2200 J	30	0.10 U	840000	0.20 UJ	6.0 U	0.080 U	
	BGMW03042013	Normal	North Alluvial	4/8/2013	63 J	0.60 U	1.1 J	48	0.24 U	0.12 U	84000	1.5 J	0.16 J	2.5	31 J	0.50 U	17000	17	0.68 U	2800 J	31	0.10 U	710000	0.075 J	3.9 J	0.080 U	
	DBW03042013	Duplicate	North Alluvial	4/8/2013	130 J	0.60 U	1.1 J	47	0.24 U	0.12 U	86000	1.5 J	0.17 J	2.5	61 J	0.50 U	17000	17	0.77 U	3000	29	0.10 U	690000	0.20 UJ	6.0 UJ	0.080 U	
BGMW03102012	Normal	North Alluvial	10/31/2012	58 J	0.60 U	2.3 J	32 J	0.24 U	0.12 U	44000	1.0 J	0.62 J	4.9	35 J	0.29 J	10000	25 J	1.5 J	2000 J	46	0.10 U	790000	0.10 U	11 J	0.080 U		
FW31	FW31042014	Normal	North Alluvial	4/10/2014	97 J	0.60 UJ	6.8	14	0.24 U	0.11 J	6900	0.75 J	0.10 U	1.1 J	44 J	0.50 U	2300	5.0	0.90 U	1700 J	2.0 U	0.10 U	550000	0.20 U	2.2 J	0.080 U	
	FW31102013	Normal	North Alluvial	11/1/2013	68 J	0.60 U	7.4	14	0.24 U	0.12 U	6800	0.61 J	0.062 J	0.75 J	33 J	0.50 U	2400	3.0 J	0.90 U	1800 J	2.0 U	0.10 U	550000	0.20 U	6.0 UJ	0.080 U	
	FW31042013	Normal	North Alluvial	4/12/2013	320	0.60 U	9.8	18	0.24 U	0.12 U	7200	6.1 J	0.27 J	3.0	140	0.50 U	2500	3.1 J	4.2	1900 J	2.0 U	0.10 U	550000	0.20 U	6.4 J	0.080 U	
	FW31102012	Normal	North Alluvial	11/5/2012	39 J	0.60 U	7.5 J	12	0.24 U	0.12 U	5800	0.55 J	0.47 J	1.5 U	30 U	0.50 U	2500	1.8 J	0.90 U	1600 J	2.0 U	0.10 U	540000	0.10 U	5.4 J	0.028 J	
FW35	FW35042014	Normal	North Alluvial	4/10/2014	34 J	0.60 UJ	1.0 U	15	0.24 U	0.12 U	290000	1.5 U	0.38 J	1.5 U	56 J	0.50 U	100000	380	1.7 J	1000 J	1.5 J	0.10 U	640000	0.20 U	19 J	0.080 U	
	FW35102013	Normal	North Alluvial	10/29/2013	31 U	1.0 J	1.0 U	13 U	0.24 U	0.12 U	270000	1.5 U	1.8	1.5 U	110	0.50 U	100000	130	2.1 U	780 J	1.6 J	0.10 U	600000	0.18 J	48	0.080 U	
	FW35042013	Normal	North Alluvial	4/11/2013	31 U	0.60 U	1.0 U	12	0.24 U	0.12 U	270000	1.5 U	0.87 J	1.5 U	27 J	0.50 UJ	100000	110 J	0.98 J	880 J	2.6 J	0.10 U	590000	0.20 UJ	6.0 U	0.080 U	
	FW35102012	Normal	North Alluvial	11/7/2012	290 J	0.60 U	0.35 J	24	0.24 U	0.12 U	240000	1.5 U	1.1	1.5 U	300	0.50 U	98000	390	3.1	770 J	4.8 J	0.10 U	530000	0.10 U	16 J	0.080 U	
MW01	MW01042014	Normal	North Alluvial	4/9/2014	31 U	0.60 U	0.52 J	15 U	0.24 U	0.12 U	32000	1.5 U	0.082 U	1.2 U	30 U	0.50 U	7300	39 U	0.67 U	570 J	16	0.10 U	950000	0.055 U	13 U	0.073 J	
	MW01102013	Normal	North Alluvial	11/1/2013	9900	0.60 U	2.0 J	100	0.44 J	0.12 U	37000	5.7 J	4.8	5.6	6500	3.9	9700	260 J	5.7	3200	17	0.10 U	940000	0.082 U	52 J	0.080 U	
	MW01042013	Normal	North Alluvial	4/15/2013	31 U	0.60 U	0.56 J	17	0.24 U	0.12 U	30000	0.79 J	1.0	1.9 J	30 U	0.50 U	7200	3.7	1.4 J	1100 J	15	0.10 U	950000	0.20 U	12 J	0.080 U	
	MW01102012	Normal	North Alluvial	10/24/2012	310	0.60 U	0.67 J	19	0.24 U	0.12 U	28000	1.5 U	0.89 J	2.3	160	0.50 U	6900	15	1.1 J	1200 J	18	0.10 U	920000	0.10 U	13 J	0.080 U	
MW02	MW02042014	Normal	North Alluvial	4/10/2014	590 U	0.60 U	1.0 U	30 U	0.24 U	0.12 U	170000	0.62 U	0.30 U	1.4 U	380 U	0.34 U	39000	69	1.0 U	1000 J	7.3	0.10 U	440000	0.20 U	22 U	0.080 U	
	MW02102013	Normal	North Alluvial	11/1/2013	31 U	0.60 U	1.0 U	15	0.24 U	0.12 U	160000	1.5 U	0.10 U	1.7 J	30 U	0.50 U	34000	4.0 J	0.73 J	920 J	6.1	0.10 U	430000	0.084 U	14 J	0.080 U	
	MW02042013	Normal	North Alluvial	4/12/2013	31 U	0.60 U	1.0 U	25	0.24 U	0.12 U	220000	0.57 J	0.073 J	1.5 J	30 U	0.50 U	41000	2.7 J	2.5 J	730 J	3.7 J	0.10 U	350000	0.20 U	10 J	0.080 U	
	MW02102012	Normal	North Alluvial	10/24/2012	16000	0.60 U	2.0 J	150	0.52 J	0.20 J	170000	6.5 J	2.7	5.3	7500	3.5	38000	140	7.6	3900	7.1	0.10 U	390000	0.081 J	62	0.080 U	
MW03	MW03042014	Normal	North Alluvial	4/14/2014	31 U	0.60 U	0.36 J	8.7	0.24 U	0.12 U	64000	1.5 U	0.12 J	3.6 U	30 U	0.50 U	12000	44	0.69 U	620 J	28	0.10 U	1100000	0.20 U	9.3 U	0.080 U	
	MW03102013	Normal	North Alluvial	11/5/2013	31 U	0.43 J	1.0 U	8.7	0.24 U	0.12 U	67000	1.5 U	0.13 J	1.2 J	30 U	0.50 U	14000	44	0.67 J	810 J	22	0.10 U	1200000	0.20 U	5.8 J	0.080 U	
	MW03042013	Normal	North Alluvial	4/4/2013	31 U	0.75 J	1.0 U	9.4	0.24 U	0.12 U	67000	1.5 U	0.21 J	1.1 J	30 U	0.50 U	13000	43	0.60 J	640 J	20	0.13 J	1100000	0.23 U	4.8 J	0.080 U	
	MW03-102012	Normal	North Alluvial	10/23/2012	31 U	0.60 U	0.45 J	10	0.24 U	0.12 U	63000	1.5 U	0.14 J	1.2 J	30 U	0.50 U	13000	44	1.2 J	1100 J	22	0.10 U	1200000 J	0.10 U	12 J	0.080 U	
MW18D	MW18D042014	Normal	North Alluvial	4/14/2014	34 U	0.60 U	0.84 J	19	0.24 U	0.12 U	73000	1.5 U	0.77 J	2.1 U	110 U	0.50 U	18000	760	2.9 J	2000 J	0.87 J	0.10 U	2100000	0.20 U	15 U	0.080 U	
	MW18D102013	Normal	North Alluvial	11/1/2013	31 U	0.91 J	0.97 J	17	0.24 U	0.12 U	77000	1.5 U	0.72 J	1.1 J	89 J	0.50 U	19000	730 J	3.7	2400 J	2.0 U	0.10 U	2200000	0.15 U	13 J	0.080 U	
	MW18D042013	Normal	North Alluvial	4/17/2013	31 U	3.0 U	5.0 U	18	1.2 U	0.60 U	65000	7.5 U	0.84 J	7.5 U	100	2.5 UJ	18000	740	3.8 J	1100 J	10 U	0.50 U	2100000	1.0 UJ	30 U	0.080 U	
	MW18D102012	Normal	North Alluvial	11/8/2012	31 U	1.2 U	1.2 J	19	0.48 U	0.24 U	73000	3.0 U	0.85 J	3.3 J	26 J	1.0 U	19000	710	4.2 J	2200 J	1.6 J	0.20 UJ	2000000	0.20			

5.0 Groundwater Analytical Results

TABLE 5-7

Summary of Dissolved Metals Analytical Detections (Page 2 of 9)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																				EPA Method 7470 (µg/L)	
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																					
200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c					
MW22D	MW22D042014	Normal	North Alluvial	4/14/2014	31 U	0.43 J	0.43 J	11	0.24 U	0.12 U	79000	1.5 U	0.21 J	1.0 UJ	30 U	0.50 U	15000	140	1.1 U	710 J	43	0.10 U	1100000	0.20 U	180	0.080 U
	DMW22D042014	Duplicate	North Alluvial	4/14/2014	31 U	0.60 UJ	0.38 J	10	0.24 U	0.12 U	78000	1.5 U	0.20 J	1.9 UJ	30 U	0.50 U	15000	140	1.0 U	940 J	43	0.10 U	1100000	0.20 U	170	0.080 U
	MW22D102013	Normal	North Alluvial	11/1/2013	31 U	0.60 U	0.43 J	11	0.24 U	0.12 U	82000	1.5 U	0.21 J	0.99 J	30 U	0.50 U	16000	120 J	1.0 J	1300 J	37	0.10 U	1200000	0.20 U	60 J	0.080 U
	DMW22D102013	Duplicate	North Alluvial	11/1/2013	31 U	0.60 U	1.0 UJ	11	0.24 U	0.12 U	83000	1.5 U	0.21 J	0.77 J	30 U	0.50 U	16000	130 J	0.78 J	1300 J	36	0.10 U	1200000	0.20 U	72 J	0.080 U
	MW22D042013	Normal	North Alluvial	4/9/2013	31 U	0.60 U	1.0 U	11 J	0.24 U	0.12 U	83000 J	1.5 U	0.51 J	1.5 U	30 U	0.50 U	16000	130	1.1 U	660 J	36	0.10 U	1200000	0.084 U	7.1 J	0.080 U
	MW22D102012	Normal	North Alluvial	11/8/2012	31 U	1.2 U	2.0 U	10	0.48 U	0.24 U	76000	3.0 U	0.21 J	2.5 J	30 U	1.0 U	15000	110	1.3 J	1300 J	40	0.20 UJ	1100000	0.20 U	22 J	0.080 U
MW22S	MW22S042014	Normal	North Alluvial	4/10/2014	33000	0.60 U	4.5 J	250	1.5	0.19 J	100000	7.7 U	4.5	10 U	15000	18	25000	340	11	4800	27	0.14 J	900000	0.14 U	37 U	0.19 J
	MW22S102013	Normal	North Alluvial	11/1/2013	900	0.60 U	0.81 J	21	0.24 U	0.12 U	100000	2.6 J	0.32 J	2.6	460	0.59 J	21000	33 J	1.3 J	1300 J	27	0.10 U	970000	0.20 U	3.1 J	0.080 U
	MW22S042013	Normal	North Alluvial	4/12/2013	180 J	0.60 U	0.77 J	15	0.24 U	0.12 U	89000	1.5 U	0.22 J	2.3	95 J	0.31 J	19000	17	0.97 J	1000 J	31	0.10 U	920000	0.20 U	5.0 J	0.080 U
	MW22S102012	Normal	North Alluvial	10/29/2012	1900	0.54 J	1.3 J	41	0.23 J	0.12 U	110000	1.2 J	0.83 J	2.9	1000	2.8 J	23000	74 J	1.9 J	2000 J	31	0.10 U	990000	0.10 U	7.3 J	0.080 U
MW23	MW23042014	Normal	North Alluvial	4/11/2014	27000	0.60 U	3.4 J	210	1.1	0.12 UJ	11000	21	6.7	11 U	17000	9.1	7800	210	21	6700	1.5 J	0.11 UJ	530000 J	0.21 J	62 U	0.080 U
	DMW23042014	Duplicate	North Alluvial	4/11/2014	33000	0.60 U	3.9 J	270	1.5	0.11 J	13000	26	8.5	14 U	21000	12	9800	270	23	7400	2.0 J	0.044 UJ	520000 J	0.26 J	70 U	0.080 U
	MW23102013	Normal	North Alluvial	11/8/2013	51 J	0.60 U	1.1 J	130	0.24 U	0.12 U	10000 J	1.5 UJ	1.3	1.5 UJ	40 J	0.50 UJ	4000	93	4.7	1500 J	2.0 U	0.10 U	480000	0.20 U	6.0 UJ	0.080 U
	DMW23102013	Duplicate	North Alluvial	11/8/2013	930 J	0.60 U	1.2 J	140	0.24 U	0.12 U	11000 J	0.98 J	1.5	0.78 J	520 J	0.35 J	4500	98	5.0	1800 J	2.0 U	0.10 U	510000	0.20 U	3.0 J	0.080 U
	MW23042013	Normal	North Alluvial	4/8/2013	30 J	0.52 J	0.89 J	100	0.24 U	0.12 U	7900	1.5 U	1.7	1.5 U	33 J	0.50 U	3100	100	6.2	1700 J	2.0 U	0.10 U	480000	0.14 J	6.0 U	0.080 U
	DMW23042013	Duplicate	North Alluvial	4/8/2013	31 UJ	0.60 UJ	0.76 J	98	0.24 U	0.12 U	7800	1.5 U	1.6	1.5 U	30 UJ	0.50 U	3100	110	7.0	1900 J	2.0 U	0.10 U	480000	0.20 UJ	6.0 U	0.080 U
	MW23102012	Normal	North Alluvial	10/31/2012	1100 J	0.60 U	1.1 J	160 J	0.24 U	0.12 U	14000	2.2 J	2.3	1.7 J	630 J	0.54 J	5600	150 J	11	1900 J	2.0 U	0.10 U	510000	0.10 U	12 J	0.080 U
	MW23102012DUP	Duplicate	North Alluvial	10/31/2012	220 J	0.60 U	0.91 J	150 J	0.24 U	0.12 U	14000	0.96 J	1.9	1.1 J	200 J	0.31 J	5500	110 J	7.5	1500 J	2.0 U	0.10 U	490000	0.10 U	11 J	0.080 U
MW24	MW24042014	Normal	North Alluvial	4/11/2014	31 U	0.40 J	0.83 J	290	0.24 U	0.12 U	36000	1.5 U	0.12 U	1.5 U	2000	0.50 U	12000	490	0.90 U	960 J	2.0 U	0.10 U	290000 J	0.20 U	6.0 U	0.080 U
	DMW24042014	Duplicate	North Alluvial	4/11/2014	31 U	0.60 UJ	0.93 J	300	0.24 U	0.12 U	34000	1.5 U	0.099 U	1.5 U	2000	0.50 U	11000	480	0.90 U	1000 J	2.0 U	0.10 U	280000 J	0.20 U	6.0 U	0.080 U
	MW24102013	Normal	North Alluvial	11/7/2013	31 U	2.0 J	0.70 J	280	0.24 U	0.12 U	32000	1.5 U	0.082 J	1.5 U	1500	0.50 U	10000	420	0.87 J	900 J	2.0 U	0.10 U	280000	0.10 U	6.0 U	0.080 U
	DMW24102013	Duplicate	North Alluvial	11/7/2013	31 U	0.49 J	0.60 J	270	0.24 U	0.12 U	30000	1.5 U	0.10 UJ	1.5 U	1500	0.50 U	9600	410	0.45 J	890 J	2.0 U	0.10 U	280000	0.069 U	6.0 U	0.080 U
	MW24042013	Normal	North Alluvial	4/8/2013	31 U	0.57 J	0.85 J	300	0.12 J	0.12 U	31000	1.5 U	0.083 J	1.5 U	1800	0.50 U	9800	450	0.90 U	1200 J	2.0 U	0.10 U	260000	0.18 J	6.0 U	0.080 U
	DMW24042013	Duplicate	North Alluvial	4/8/2013	31 U	0.60 UJ	0.82 J	310	0.24 UJ	0.12 U	31000	1.5 U	0.17 J	1.5 U	1800	0.50 U	9900	460	0.90 U	1000 J	2.0 U	0.10 U	260000	0.20 UJ	6.0 U	0.080 U
	MW24102012	Normal	North Alluvial	10/31/2012	31 U	0.60 U	0.81 J	310 J	0.24 U	0.12 U	31000	1.5 U	0.62 J	0.85 J	1800 J	0.50 U	9900	440 J	0.46 J	1100 J	2.0 U	0.10 U	270000	0.10 U	6.0 U	0.080 U
SMW01	SMW01042014	Normal	North Alluvial	4/15/2014	31 U	0.60 U	1.0 J	21	0.24 U	0.12 U	20000	1.5 U	0.12 J	1.5 U	30 U	0.50 U	6500	93	1.9 J	1400 J	2.0 J	0.10 U	710000	0.20 U	6.0 U	0.080 U
	SMW01102013	Normal	North Alluvial	11/8/2013	31 U	0.60 U	0.99 J	20	0.24 U	0.12 U	18000 J	1.5 U	0.14 J	1.2 J	30 UJ	0.50 U	5400	98	1.7 J	370 J	2.0 U	0.10 U	640000	0.083 U	2.8 J	0.080 U
	SMW01042013	Normal	North Alluvial	4/12/2013	34 J	0.60 U	0.65 J	16	0.24 U	0.12 U	18000	1.5 U	0.097 J	0.61 J	30 U	0.50 U	5400	47	1.3 J	430 J	2.0 U	0.10 U	510000	0.20 U	3.0 J	0.080 U
	SMW01102012	Normal	North Alluvial	11/1/2012	31 U	0.60 U	0.68 J	17	0.24 U	0.12 U	19000	1.5 U	0.082 J	1.4 J	30 U	0.50 U	5800	32	1.2 J	480 J	2.0 U	0.10 U	510000	0.10 U	6.0 U	0.080 U
TMW01	TMW01042014	Normal	North Alluvial	4/16/2014	31 U	0.66 J	0.89 J	10	0.24 U	0.12 U	110000	1.5 U	0.10 U	8.6	30 U	0.50 U	20000	12	0.31 J	290 J	5.5	0.10 U	630000	0.12 J	6.0 U	0.080 U
	TMW01102013	Normal	North Alluvial	11/6/2013	31 U	0.60 U	0.84 J	11	0.24 U	0.12 U	110000	1.5 U	0.10 U	9.4	30 U	0.50 UJ	18000	12	0.48 J	520 J	7.0	0.10 UJ	560000	0.20 U	2.7 J	0.080 U
	TMW01042013	Normal	North Alluvial	4/15/2013	31 U	0.60 U	0.63 J	12	0.24 U	0.12 U	110000	0.67 J	0.31 J	10	35 J	0.50 U	19000	14	0.90 U	680 J	5.7	0.10 U	560000	0.20 U	6.0 U	0.080 U
	TMW01102012	Normal	North Alluvial	10/31/2012	31 U	0.60 U	0.92 J	13 J	0.24 U	0.12 U	100000	0.56 J	0.21 J	1.8 J	30 U	0.50 U	18000	19 J	1.2 J	550 J	6.8	0.10 U	580000	0.10 U	2.4 J	0.080 U
TMW03	TMW03042014	Normal	North Alluvial	4/16/2014	31 U	0.60 U	0.62 J	12	0.24 U	0.12 U	50000	1.5 U	0.10 U	0.80 J	30 U	0.50 U	11000	4.7	0.34 J	900 J	64	0.10 U	1100000	0.20 U	9.7 J	0.073 U
	TMW03102013	Normal	North Alluvial	11/4/2013	31 U	0.60 U	0.49 J	13	0.24 U	0.12 U	49000	1.5 U	0.084 J	0.82 J	30 U	0.50 U	11000	5.1	0.50 J	1400 J	63	0.10 U	950000	0.20 U	10 J	0.080 U
	TMW03042013	Normal	North Alluvial	4/16/2013	100 J	0.60 U	0.62 J	12	0.24 U	0.12 U	49000	1.5 U	0.094 J	0.74 J	130	0.50 UJ	11000	6.8	0.47 J	1200 J	67	0.10 U	960000	0.20 UJ	15 J	0.080 U
TMW04	TMW03102012	Normal	North Alluvial	11/7/2012	31 U	0.60 U	0.61 J	13	0.24 U	0.12 U	45000	1.5 U	0.28 J	0.73 J	30 U	0.50 U	11000	6.1	0.48 J	1100 J	75	0.10 U	910000	0.10 U	11 J	0.080 U
	TMW04042014	Normal	North Alluvial	4/16/2014	31 U	0.60 U	0.90 J	6.8	0.24 U	0.12 U	32000	1.9 J	0.10 U	1.5 U	30 U	0.50 U	5900	0.90 U	0.60 J	1100 J	94	0.10 U	1000000	0.20 U	2.8 J	0.094 U
	TMW04102013	Normal	North Alluvial	11/4/2013	31 U	0.60 U	0.97 J	7.8	0.24 U	0.12 U	29000	1.6 J	0.10 U	1.5 U	30 U	0.50 U	5200	0.39 J	0.49 J	1600 J	90	0.10 U	900000	0.20 U	3.8 J	0.080 U
	TMW04042013	Normal	North Alluvial	4/16/2013	31 U	1.2 U	1.0 J	6.8	0.48 U	0.24 U	29000	1.8 J</														

TABLE 5-7

Summary of Dissolved Metals Analytical Detections (Page 3 of 9)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																							EPA Method 7470 (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6		
					Regulatory Limits																							
200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c							
TMW07	TMW07042014	Normal	North Alluvial	4/10/2014	330	0.48 J	0.63 J	21	0.24 U	0.12 U	59000	1.4 J	0.68 J	0.77 J	290	0.50 U	9700	320	2.1 J	5700	2.0 U	0.10 U	1300000	0.20 U	2.8 J	0.027 J		
	TMW07102013	Normal	North Alluvial	10/29/2013	49 J	0.45 J	0.96 J	27	0.24 U	0.14 J	55000	1.8 J	8.4	3.2	170	0.70 J	9900	370	8.7	6500	2.0 U	0.10 U	1300000	0.20 U	18 J	0.080 U		
	TMW07042013	Normal	North Alluvial	4/8/2013	31 U	0.84 J	0.52 J	21	0.24 U	0.12 U	31000	1.5 U	0.97 J	0.56 J	30 U	0.50 U	5400	220	3.1	5500	2.0 U	0.10 U	740000	0.20 U	5.8 J	0.080 U		
	TMW07102012	Normal	North Alluvial	11/6/2012	340 J	2.9 J	1.1 J	25	0.24 U	0.12 U	55000	1.4 J	0.70 J	1.3 J	450	0.25 J	10000	370	2.9 J	5900	2.0 U	0.10 U	1300000	0.10 U	8.8 J	0.080 U		
TMW08	TMW08042014	Normal	North Alluvial	4/15/2014	31 U	0.83 J	0.45 J	9.8	0.11 J	0.12 U	220000	1.5 U	0.28 J	1.4 U	190 J	0.50 U	69000	250	1.1 J	3700 J	39	0.10 U	4400000	0.11 J	4.4 J	0.080 U		
	DTW08042014	Duplicate	North Alluvial	4/15/2014	31 U	0.46 J	0.45 J	10	0.24 UJ	0.12 U	220000	1.5 U	0.33 J	1.7 U	68 J	0.50 U	67000	260	1.2 J	6900 J	41	0.10 U	4300000	0.076 J	5.0 J	0.080 U		
	TMW08102013	Normal	North Alluvial	11/8/2013	31 U	0.60 U	0.40 J	10	0.24 U	0.12 U	200000 J	1.5 U	0.32 J	1.7 J	30 J	0.50 U	59000	250	1.3 J	4500	40	0.10 U	4200000	0.20 U	4.3 J	0.080 U		
	TMW08042013	Normal	North Alluvial	4/3/2013	31 U	0.60 U	1.0 UJ	10	0.21 J	0.21 J	210000	1.5 U	0.36 J	2.3	110	0.50 U	62000	230 J	1.1 J	7000	39	0.063 J	4400000	0.19 J	4.1 J	0.080 U		
	DTW08042013	Duplicate	North Alluvial	4/3/2013	31 U	0.60 U	0.46 J	8.5	0.24 UJ	0.12 UJ	210000	1.5 U	0.34 J	3.1	99 J	0.50 U	62000	240 J	1.4 J	7300	41	0.083 J	4400000	0.20 UJ	4.5 J	0.080 U		
TMW08102012	Normal	North Alluvial	10/24/2012	31 U	0.60 U	1.3 J	11	0.24 U	0.22 J	200000	1.5 U	0.91 J	2.2	190	0.50 U	63000	230	2.8 J	6300	60	0.10 U	4100000	0.10 U	7.7 J	0.080 U			
TMW10	TMW10042014	Normal	North Alluvial	4/14/2014	31 U	0.60 U	0.72 J	19	0.24 U	0.12 U	88000	1.5 U	0.066 J	2.4 U	30 U	0.50 U	20000	100	1.6 U	1600 J	0.78 J	0.10 U	2000000	0.20 U	6.0 U	0.080 U		
	TMW10102013	Normal	North Alluvial	11/1/2013	31 U	0.60 U	0.69 J	20	0.24 U	0.12 U	86000	1.5 U	0.10 U	1.6 J	30 U	0.50 U	20000	72 J	1.6 J	2200 J	0.88 J	0.10 U	2100000	0.20 U	6.0 UJ	0.080 U		
	TMW10042013	Normal	North Alluvial	4/16/2013	31 U	0.60 U	0.66 J	19	0.24 U	0.12 U	77000	1.5 U	0.096 J	2.1 U	30 U	0.50 UJ	18000	51	1.1 J	850 J	1.2 J	0.10 U	1900000	0.20 UJ	2.0 J	0.080 U		
	TMW10102012	Normal	North Alluvial	10/24/2012	31 U	0.60 U	1.0 J	22	0.24 U	0.12 U	80000	1.5 U	0.70 J	2.7	30 U	0.50 U	20000	80	1.8 J	2400 J	2.0 U	0.10 U	2100000	0.10 U	6.4 J	0.080 U		
TMW11	TMW11042014	Normal	North Alluvial	4/17/2014	21 J	0.68 J	0.39 J	19	0.24 U	0.12 U	16000	1.1 J	0.10 U	1.5 U	30 U	0.50 U	3100	4.9	0.50 J	680 J	13	0.10 UJ	560000	0.16 J	2.0 J	0.083 U		
	TMW11102013	Normal	North Alluvial	11/5/2013	31 U	0.60 UJ	1.0 U	21	0.24 U	0.12 U	16000	0.92 J	0.080 J	1.5 U	30 U	0.50 U	3200	7.4	0.98 J	550 J	13	0.10 U	590000	0.20 U	4.4 J	0.080 U		
	TMW11042013	Normal	North Alluvial	4/9/2013	31 U	0.87 J	0.37 J	23 J	0.24 U	0.12 U	14000 J	0.93 J	0.13 J	1.3 J	30 U	0.50 U	2700	15	1.1 U	630 J	13	0.051 J	530000	0.15 U	5.1 J	0.080 U		
	TMW11102012	Normal	North Alluvial	11/9/2012	31 U	1.2 U	2.0 U	21	0.48 U	0.24 U	17000	1.1 J	0.20 U	3.0 U	27 J	1.0 U	3200	2.1 J	1.8 U	860 J	14	0.20 U	580000	0.20 U	5.5 J	0.080 U		
TMW13	TMW13042014	Normal	North Alluvial	4/17/2014	31 U	0.60 U	1.0 U	17	0.24 U	0.12 U	27000	0.67 J	0.10 U	1.5 U	30 U	0.50 U	5100	0.90 U	0.90 U	700 J	13	0.10 UJ	590000	0.20 U	6.0 U	0.081 U		
	TMW13102013	Normal	North Alluvial	11/5/2013	31 U	0.60 UJ	1.0 U	18	0.24 U	0.12 U	26000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	5100	0.90 U	0.90 U	650 J	12	0.10 U	580000	0.20 U	6.0 U	0.080 U		
	TMW13042013	Normal	North Alluvial	4/17/2013	31 U	0.60 U	1.0 U	16	0.24 U	0.12 U	25000	1.5 U	0.11 J	1.5 U	30 U	0.50 UJ	4800	0.38 J	0.90 U	860 J	12	0.10 U	280000	0.20 UJ	6.0 U	0.080 U		
	TMW13102012	Normal	North Alluvial	11/8/2012	31 U	1.2 U	2.0 U	17	0.48 U	0.24 U	26000	3.0 U	0.11 J	1.7 J	30 U	1.0 U	5000	1.8 U	1.8 U	440 J	12	0.20 UJ	560000	0.20 U	12 U	0.080 U		
TMW15	TMW15042014	Normal	North Alluvial	4/17/2014	31 U	0.60 U	1.0 U	21	0.24 U	0.12 U	19000	0.90 J	0.10 U	0.59 J	30 U	0.50 U	3500	0.90 U	0.52 J	660 J	15	0.10 UJ	590000	0.20 U	7.9 J	0.083 U		
	TMW15102013	Normal	North Alluvial	11/6/2013	31 U	0.60 U	1.0 U	23	0.24 U	0.12 U	19000	0.88 J	0.10 U	1.5 U	30 U	0.50 UJ	3400	0.90 U	0.44 J	620 J	14	0.10 UJ	610000	0.20 U	8.1 J	0.080 U		
	TMW15042013	Normal	North Alluvial	4/17/2013	31 U	1.2 U	2.0 U	23	0.48 U	0.24 U	18000	3.0 U	0.20 U	3.0 U	30 U	1.0 UJ	3500	1.8 U	1.8 U	840 J	15	0.20 U	300000	0.40 UJ	10 J	0.080 U		
	TMW15102012	Normal	North Alluvial	11/8/2012	31 U	1.2 U	2.0 U	23	0.48 U	0.24 U	17000	3.0 U	0.20 U	3.0 U	30 U	1.0 U	3400	1.8 U	1.8 U	960 J	15	0.20 UJ	570000	0.20 U	13 J	0.080 U		
TMW21	TMW21042014	Normal	North Alluvial	4/14/2014	31 U	0.60 U	0.90 J	20	0.24 U	0.12 U	35000	1.5 U	0.11 J	2.6 U	30 U	0.50 U	7000	57	2.7 J	1000 J	2.9 J	0.10 U	670000	0.20 U	2.8 U	0.080 U		
	TMW21102013	Normal	North Alluvial	11/7/2013	31 U	0.60 U	0.81 J	21	0.24 U	0.12 U	31000	1.5 U	0.20 J	1.6 J	30 U	0.50 U	6200	110	1.4 J	800 J	2.6 J	0.10 U	660000	0.20 U	7.5 J	0.080 U		
	TMW21042013	Normal	North Alluvial	4/16/2013	31 U	0.60 U	1.0 J	20	0.24 U	0.12 U	32000	1.5 U	0.061 J	4.4	30 U	0.50 UJ	6400	67	0.90 J	880 J	3.1 J	0.10 U	630000	0.20 UJ	7.9 J	0.080 U		
	TMW21102012	Normal	North Alluvial	11/8/2012	43 J	1.2 U	0.91 J	20	0.48 U	0.24 U	35000	3.0 U	0.20 J	7.4	27 J	1.0 U	7400	95	0.75 J	1200 J	3.7 J	0.20 UJ	630000	0.20 U	12 U	0.080 U		
TMW22	TMW22042014	Normal	North Alluvial	4/10/2014	24 J	0.60 UJ	1.0 J	20	0.24 U	0.12 U	36000	1.9 J	0.063 J	1.5 J	30 U	0.50 U	11000	1.5 J	1.1 J	1200 J	5.7	0.10 U	910000	0.20 U	7.1 J	0.080 U		
	TMW22102013	Normal	North Alluvial	10/29/2013	31 U	0.60 U	0.93 J	20	0.24 U	0.12 U	34000	1.2 J	0.28 J	2.6	30 U	0.50 U	11000	3.9	1.3 U	1300 J	3.0 J	0.10 U	860000	0.20 U	6.3 J	0.080 U		
	TMW22042013	Normal	North Alluvial	4/12/2013	31 U	0.60 U	1.0 J	20	0.24 U	0.12 U	34000	0.84 J	0.15 J	1.6 J	30 U	0.50 U	10000	4.3	0.55 J	1200 J	2.7 J	0.10 U	830000	0.20 U	4.1 J	0.080 U		
	TMW22102012	Normal	North Alluvial	11/6/2012	31 U	0.60 U	1.0 J	21	0.24 U	0.12 U	31000	1.9 J	0.15 J	2.2	30 U	0.50 U	10000	1.8 J	0.94 J	930 J	4.3 J	0.10 U	860000	0.10 U	11 J	0.080 U		
TMW23	TMW23042014	Normal	North Alluvial	4/10/2014	390	0.60 UJ	1.0 J	23	0.24 U	0.12 U	19000	1.7 J	0.14 J	1.8 J	280	0.50 U	4600	9.5	0.91 J	1100 J	1.6 J	0.10 U	840000	0.20 U	2.3 J	0.080 U		
	TMW23102013	Normal	North Alluvial	10/29/2013	77 J	0.60 U	1.0 J	21	0.24 U	0.12 U	17000	1.0 J	0.30 J	1.8 J	52 J	0.50 U	4600	10	1.5 U	940 J	2.0 U	0.10 U	780000	0.20 U	2.4 J	0.080 U		
	TMW23042013	Normal	North Alluvial	4/8/2013	31 U	0.51 J	0.92 J	22	0.24 U	0.12 U	16000	0.98 J	0.10 U	2.5	30 U	0.50 U	4100	2.7 J	0.63 U	900 J	2.0 U	0.10 U	760000	0.20 U	7.8 J	0.080 U		
	TMW23102012	Normal	North Alluvial	11/6/2012	56 J	0.67 J	1.3 J	20	0.24 U	0.12 U	17000	1.6 J	0.65 J	1.0 J	35 J	0.50 U	4600	4.3	0.83 J	830 J	2.0 U	0.10 U	860000	0.10 U	4.2 J	0.080 U		
TMW24	TMW24042014	Normal	North Alluvial	4/17/2014	31 U	0.60 U	1.1 J	34	0.24 U	0.12 U	35000	1.5 U	0.23 U	1.5 U	39 J	0.50 U	8800	140	0.96 J	570 J	2.0 U	0.10 UJ	1000000	0.20 U	6.0 U	0.086 U		
	TMW24102013	Normal	North Alluvial	11/8/2013	31 U	0.60 U	1.1 J	37	0.24 U	0.12 U																		

5.0 Groundwater Analytical Results

TABLE 5-7

Summary of Dissolved Metals Analytical Detections (Page 4 of 9)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																							EPA Method 7470 (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6		
					Regulatory Limits																							
					200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c		
TMW26	TMW26042014	Normal	North Alluvial	4/15/2014	31 U	0.60 U	1.2 J	17	0.24 U	0.12 U	19000	1.5 U	0.20 J	1.7 U	30 U	0.50 U	7300	100	1.9 J	790 J	2.0 U	0.10 U	930000	0.20 U	6.0 U	0.080 U		
	TMW26102013	Normal	North Alluvial	11/4/2013	31 U	0.76 J	1.1 J	18	0.24 U	0.12 U	19000	1.5 U	0.32 J	2.1	30 U	0.50 U	7000	100	4.2	860 J	2.0 U	0.10 U	970000	0.057 J	2.6 J	0.080 U		
	TMW26042013	Normal	North Alluvial	4/17/2013	360	1.2 U	1.3 J	21	0.48 U	0.24 U	17000	3.0 U	0.49 J	2.2 J	180	1.0 UJ	6500	100	2.2 J	710 J	4.0 U	0.20 U	860000	0.40 UJ	12 U	0.080 U		
	DMW26042013	Duplicate	North Alluvial	4/17/2013	440	1.2 U	1.2 J	20	0.48 U	0.24 U	18000	3.0 U	0.43 J	2.1 J	220	1.0 UJ	6800	99	1.9 J	1200 J	4.0 U	0.20 U	830000	0.40 UJ	12 U	0.080 U		
	TMW26102012	Normal	North Alluvial	10/25/2012	1100 J	0.60 U	1.6 J	33	0.24 U	0.12 U	19000	0.98 J	0.60 J	3.7	560	0.26 J	7300	120	2.8 J	850 J	0.74 J	0.070 J	870000	0.061 J	3.5 J	0.080 U		
TMW26102012DUP	Duplicate	North Alluvial	10/25/2012	1100 J	0.60 U	1.5 J	35	0.24 U	0.12 U	19000	1.1 J	0.61 J	3.5	550	0.24 J	7300	120	2.7 J	810 J	2.0 UJ	0.043 J	920000	0.10 UJ	2.4 J	0.080 U			
TMW27	TMW27042014	Normal	North Alluvial	4/15/2014	31 U	0.60 U	20	120	0.24 U	0.12 U	25000	1.5 U	0.19 J	1.5 U	580	0.50 U	6500	570	0.93 J	770 J	2.0 U	0.19 J	380000	0.20 U	2.2 J	0.080 U		
	TMW27102013	Normal	North Alluvial	11/5/2013	31 U	0.60 UJ	20	130	0.24 U	0.12 U	25000	1.5 U	0.20 J	1.5 U	580	0.50 U	6500	580	0.82 J	730 J	2.0 U	0.10 U	360000	0.20 U	6.0 U	0.080 U		
	TMW27042013	Normal	North Alluvial	4/12/2013	31 U	0.60 U	21	120	0.24 U	0.12 U	24000	1.5 U	0.16 J	1.5 U	530	0.50 U	5900	570	0.73 J	850 J	2.0 U	0.10 U	340000	0.20 U	6.0 U	0.080 U		
	TMW27102012	Normal	North Alluvial	11/1/2012	31 U	0.60 U	21	130	0.24 U	0.12 U	24000	1.5 U	0.20 J	0.75 J	590	0.50 U	6000	530	0.89 J	750 J	2.0 U	0.037 J	360000	0.10 U	3.0 J	0.080 U		
TMW28	TMW28042014	Normal	North Alluvial	4/15/2014	31 U	0.60 U	1.0 U	53	0.24 U	0.12 U	120000	1.5 U	0.14 J	1.5 U	410	0.50 U	37000	450	0.31 J	1500 J	2.0 U	0.10 U	360000	0.20 U	2.0 J	0.080 U		
	TMW28102013	Normal	North Alluvial	11/5/2013	31 U	1.1 J	0.36 J	60	0.47 J	0.12 U	220000	1.5 U	0.56 J	1.5 U	530	0.21 J	65000	760	1.1 J	1600 J	0.97 J	0.067 J	370000	0.29 J	6.0 U	0.080 U		
	TMW28042013	Normal	North Alluvial	4/2/2013	31 U	0.60 U	1.0 U	59	0.24 U	0.12 U	70000	1.5 U	0.089 J	1.5 U	360	0.50 U	22000	330	0.77 J	1400 J	2.0 U	0.10 U	330000	0.20 U	30	0.080 U		
TMW28102012	Normal	North Alluvial	10/25/2012	31 U	0.60 U	1.0 U	75	0.24 U	0.12 U	76000	1.5 U	0.72 J	1.5 U	420	0.50 U	25000	350	1.6 J	2700 J	2.0 U	0.10 U	320000	0.10 U	8.5 J	0.080 U			
TMW29	TMW29042014	Normal	North Alluvial	4/10/2014	2100	0.86 J	1.2 J	33	0.24 U	0.18 J	43000	1.7 J	0.55 J	1.4 J	1300	0.72 J	8200	50	1.8 J	1700 J	19	0.10 U	630000	0.14 J	5.7 J	0.080 U		
	TMW29102013	Normal	North Alluvial	10/31/2013	7100	0.60 U	2.1 J	77	0.20 J	0.12 U	47000	4.4 J	1.8	3.7	4500	2.4 J	9900	99	5.4	3000	20	0.10 U	600000	0.20 U	13 J	0.080 U		
	TMW29042013	Normal	North Alluvial	4/11/2013	30 J	0.60 U	1.3 J	18	0.24 U	0.12 U	40000	1.5 U	0.086 J	1.0 J	30 U	0.50 UJ	8000	26 J	0.72 J	1400 J	18	0.10 U	570000	0.20 UJ	2.5 J	0.080 U		
	TMW29102012	Normal	North Alluvial	10/26/2012	31 U	0.60 U	1.5 J	18 J	0.24 U	0.12 U	37000	1.5 U	0.079 J	0.88 J	30 U	0.50 UJ	7200	23 J	1.3 J	1600 J	21 J	0.10 U	590000	0.10 U	3.9 J	0.080 U		
TMW31S	TMW31S042014	Normal	North Alluvial	4/10/2014	31 U	0.60 UJ	1.0 U	16	0.24 U	0.12 U	120000	1.1 J	0.10 U	1.5 U	30 U	0.50 U	20000	18	0.41 J	760 J	9.3	0.10 U	590000	0.20 U	5.6 J	0.080 U		
	TMW31S102013	Normal	North Alluvial	10/30/2013	28 UJ	0.60 U	0.35 J	17 U	0.24 U	0.12 U	120000	0.80 J	0.16 U	0.88 J	40 UJ	0.50 U	21000	140	1.6 J	820 J	9.5	0.10 U	540000 J	0.20 U	3.7 J	0.080 U		
	TMW31S042013	Normal	North Alluvial	4/11/2013	31 U	0.60 U	0.35 J	16	0.24 U	0.12 U	110000	1.1 J	0.11 J	0.67 J	30 U	0.50 UJ	21000	22 J	0.30 J	970 J	9.2	0.10 U	540000	0.20 UJ	2.7 J	0.080 U		
	TMW31S102012	Normal	North Alluvial	11/5/2012	31 U	0.48 J	0.45 J	20	0.24 U	0.12 U	110000	1.2 J	0.58 J	1.1 J	30 U	0.50 U	22000	30	2.0 J	880 J	9.8 J	0.10 U	570000	0.10 U	4.8 J	0.080 U		
TMW31S102012DU	Duplicate	North Alluvial	11/5/2012	31 U	0.47 J	0.49 J	20	0.24 U	0.12 U	110000	1.2 J	0.13 J	1.0 J	30 U	0.50 U	22000	30	1.6 J	970 J	9.7 J	0.10 U	570000	0.10 U	4.5 J	0.080 U			
TMW33	TMW33042014	Normal	North Alluvial	4/10/2014	31 U	0.60 UJ	0.74 J	21	0.24 U	0.12 U	110000	1.5 U	0.21 J	4.3	30 U	0.50 U	27000	200	2.2 J	2500 J	1.2 J	0.10 U	2400000	0.056 J	2.6 J	0.080 U		
	TMW33102013	Normal	North Alluvial	10/30/2013	31 U	0.60 U	0.90 J	22	0.24 U	0.12 U	100000	0.80 J	0.15 U	4.1	30 U	0.50 U	29000	120	2.0 J	1700 J	1.2 J	0.10 U	2300000 J	0.20 U	3.3 J	0.080 U		
	TMW33042013	Normal	North Alluvial	4/17/2013	31 U	3.0 U	5.0 U	19	1.2 U	0.60 U	100000	3.2 J	0.42 J	3.2 J	30 U	2.5 UJ	30000	480	2.3 J	1900 J	10 U	0.50 U	2400000	1.0 UJ	30 U	0.028 J		
	TMW33102012	Normal	North Alluvial	10/26/2012	120 J	0.60 U	1.5 J	45 J	0.16 J	0.23 J	100000	9.5 J	1.1 J	4.8	68 J	0.78 J	29000	340 J	8.8 J	1300 J	0.81 J	0.10 U	2300000	0.10 U	39 J	0.080 U		
	TMW33102012DUP	Duplicate	North Alluvial	10/26/2012	120 J	0.60 U	1.2 J	22 J	0.24 UJ	0.17 J	100000	0.70 J	0.37 J	3.8	77 J	0.50 UJ	26000	390 J	3.7 J	2300 J	2.0 UJ	0.10 U	2400000	0.10 U	18 J	0.080 U		
TMW34	TMW34042014	Normal	North Alluvial	4/15/2014	31 U	0.60 U	0.37 J	11	0.24 U	0.12 U	120000	1.5 U	0.15 J	2.1 U	30 U	0.50 U	26000	130	0.51 J	1400 J	120	0.10 U	1500000	0.20 U	2.1 J	0.080 U		
	TMW34102013	Normal	North Alluvial	11/1/2013	31 U	0.60 UJ	0.36 J	13	0.24 UJ	0.12 U	130000	1.5 U	0.15 J	0.69 J	30 U	0.50 U	26000	160 J	0.70 J	2000 J	110	0.10 U	1400000	0.20 UJ	14 J	0.080 U		
	DTW34102013	Duplicate	North Alluvial	11/1/2013	31 U	0.70 J	1.0 UJ	12	0.089 J	0.12 U	130000	1.5 U	0.19 J	0.96 J	30 U	0.50 U	26000	160 J	1.1 J	1800 J	110	0.10 U	1400000	0.082 UJ	6.0 UJ	0.080 U		
	TMW34042013	Normal	North Alluvial	4/10/2013	31 U	1.2 U	2.0 U	11	0.48 U	0.24 U	120000 J	1.1 J	0.42 J	2.3 J	30 U	1.0 U	25000	150	1.2 J	1400 J	120 J	0.20 U	1300000	0.40 U	12 U	0.080 U		
	TMW34-102012	Normal	North Alluvial	10/23/2012	31 U	0.60 U	0.55 J	12	0.24 U	0.12 U	130000	1.5 U	0.29 J	1.1 J	30 U	0.50 U	27000	170	2.1 J	1400 J	130	0.10 U	1400000 J	0.10 U	6.0 U	0.080 U		
TMW35	TMW35042014	Normal	North Alluvial	4/14/2014	31 U	0.60 U	0.58 J	12	0.24 U	0.12 U	85000	1.5 U	0.16 J	1.7 U	30 U	0.50 U	15000	140	1.1 U	1200 J	36	0.10 U	1200000	0.20 U	6.0 U	0.080 U		
	TMW35102013	Normal	North Alluvial	11/4/2013	31 U	0.60 U	0.48 J	13	0.24 U	0.12 U	85000	1.5 U	0.13 J	1.2 J	30 U	0.50 U	16000	150	1.0 J	1700 J	35	0.10 U	1200000	0.20 U	6.0 U	0.080 U		
	TMW35042013	Normal	North Alluvial	4/9/2013	31 U	0.60 U	0.39 J	12 J	0.24 U	0.17 J	82000 J	1.5 U	0.16 J	1.2 J	30 U	0.50 U	15000	150	0.81 U	700 J	34	0.10 U	1200000	0.20 U	6.0 U	0.080 U		
	DTW35042013	Duplicate	North Alluvial	4/9/2013	31 U	0.60 U	0.53 J	13	0.24 U	0.12 U	83000 J	1.5 U	0.15 J	1.5 J	30 U	0.50 U	15000	160	1.4 J	870 J	46 J	0.10 U	1200000	0.20 U	6.0 U	0.080 U		
	TMW35-102012	Normal	North Alluvial	10/23/2012	31 U	0.60 U	0.76 J	14	0.24 U	0.12 U	82000	1.5 U	0.56 J	1.9 J	30 U	0.50 U	16000	160	2.0 J	660 J	48	0.10 U	1300000 J	0.10 U	2.5 J	0.080 U		
TMW39S	TMW39S042014	Normal	North Alluvial	4/11/2014	81 U	0.60 U	0.52 J	15 U	0.24 U	0.12 U	74000	2.3 U	0.057 U	0.65 U	49 U	0.50 U	15000	2.5 U	0.72 U	1300 J	11	0.10 U	910000 J	0.20 U	6.0 U	0.080 U		
	TMW39S102013	Normal	North Alluvial	11/5/20																								

TABLE 5-7

Summary of Dissolved Metals Analytical Detections (Page 5 of 9)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																				EPA Method 7470 (µg/L)	
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																					
					200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c
TMW41	TMW41042014	Normal	North Alluvial	4/10/2014	31 U	0.67 J	0.56 J	12	0.24 U	0.12 U	19000	7.7 J	0.10 U	0.94 J	30 U	0.50 U	4700	0.37 J	0.90 U	1100 J	4.9 J	0.10 U	970000	0.15 J	6.0 U	0.080 U
	TMW41102013	Normal	North Alluvial	10/30/2013	31 U	0.60 U	0.56 J	11 U	0.24 U	0.12 U	16000	2.8 J	0.076 U	0.96 J	30 U	0.50 U	3800	0.65 U	0.71 J	1100 J	2.7 J	0.10 U	860000 J	0.20 U	3.5 J	0.080 U
	TMW41042013	Normal	North Alluvial	4/11/2013	18 J	0.60 U	0.53 J	14	0.24 U	0.12 U	16000	6.1 J	0.74 J	0.90 J	30 U	0.50 UJ	4200	1.8 J	0.47 J	1600 J	3.3 J	0.10 U	860000	0.20 UJ	4.3 J	0.080 U
	TMW41102012	Normal	North Alluvial	11/6/2012	31 U	0.60 U	0.56 J	13	0.24 U	0.12 U	14000	2.5 J	0.096 J	1.4 J	30 U	0.50 U	3600	1.3 J	0.32 J	1000 J	3.2 J	0.10 U	870000	0.10 U	11 J	0.080 U
TMW43	TMW43042014	Normal	North Alluvial	4/15/2014	31 U	0.60 U	0.34 J	21	0.24 U	0.12 U	36000	1.5 U	0.087 J	1.5 U	30 U	0.50 U	6600	55	0.90 U	1100 J	6.8	0.10 U	640000	0.20 U	2.6 J	0.080 U
	TMW43102013	Normal	North Alluvial	10/30/2013	31 U	0.60 U	1.0 U	20 U	0.24 U	0.12 U	35000	1.5 U	0.075 U	1.5 U	30 U	0.50 U	6500	51	0.32 J	1100 J	6.7	0.10 U	580000 J	0.20 U	2.6 J	0.080 U
	TMW43042013	Normal	North Alluvial	4/16/2013	31 U	0.60 U	0.35 J	20	0.24 U	0.12 U	34000	1.5 U	0.070 J	1.5 U	30 U	0.50 UJ	6000	50	0.36 J	1000 J	7.6 J	0.10 U	590000	0.20 UJ	4.7 J	0.080 U
	TMW43102012	Normal	North Alluvial	11/8/2012	28 J	1.2 U	2.0 U	23	0.48 U	0.24 U	35000	3.0 U	0.16 J	3.0 U	30 U	1.0 U	6700	51	0.69 J	930 J	7.0 J	0.20 UJ	610000	0.20 U	4.3 J	0.080 U
TMW44	TMW44042014	Normal	North Alluvial	4/10/2014	900	0.60 UJ	0.92 J	17	0.24 U	0.12 U	36000	0.70 J	0.27 J	1.0 J	590	0.38 J	11000	27	0.69 J	1100 J	3.2 J	0.10 U	780000	0.20 U	2.6 J	0.080 U
	TMW44102013	Normal	North Alluvial	10/29/2013	1300	0.46 J	0.91 J	27	0.24 U	0.12 U	34000	1.0 J	0.45 J	2.1	740	0.60 J	11000	35	1.0 U	1100 J	2.2 J	0.10 U	750000	0.10 J	4.1 J	0.080 U
	TMW44042013	Normal	North Alluvial	4/8/2013	31 U	0.60 U	0.74 J	16	0.24 U	0.12 U	32000	1.5 U	0.10 U	0.96 J	30 U	0.50 U	10000	9.2	0.90 U	790 J	2.6 J	0.10 U	720000	0.20 U	2.2 J	0.080 U
	TMW44102012	Normal	North Alluvial	11/6/2012	21 J	0.60 U	0.88 J	16	0.24 U	0.12 U	31000	1.5 U	0.12 J	2.2	30 U	0.50 U	11000	5.1	0.68 J	760 J	2.7 J	0.10 U	730000	0.10 U	11 J	0.080 U
TMW45	TMW45042014	Normal	North Alluvial	4/11/2014	31 U	0.60 U	0.96 J	71	0.24 U	0.12 U	30000	1.5 U	0.068 U	2.2 U	22 U	0.50 U	7600	40	1.8 U	1100 J	2.0 U	0.10 U	960000 J	0.20 U	6.0 U	0.080 U
	TMW45102013	Normal	North Alluvial	11/7/2013	31 U	0.83 J	0.83 J	69	0.24 U	0.12 U	30000	1.5 U	0.10 U	1.4 J	30 U	0.50 U	7400	15	2.7 J	870 J	0.70 J	0.10 U	960000	0.20 U	6.0 U	0.080 U
	TMW45042013	Normal	North Alluvial	4/4/2013	31 U	0.60 U	0.53 J	70	0.24 U	0.12 U	31000	1.5 U	0.19 J	1.7 J	30 U	0.50 U	7900	11	1.1 J	770 J	0.80 J	0.050 J	930000	0.077 U	6.0 U	0.080 U
	TMW45102012	Normal	North Alluvial	11/6/2012	31 U	0.60 U	1.1 J	71	0.24 U	0.12 U	30000	1.5 U	0.060 J	2.1	30 U	0.50 U	7900	17	1.0 J	960 J	1.2 J	0.10 U	1000000	0.10 U	6.0 U	0.080 U
	TMW45102012DUP	Duplicate	North Alluvial	11/6/2012	31 U	0.60 U	1.0 J	71	0.24 U	0.12 U	30000	1.5 U	0.059 J	1.9 J	30 U	0.50 U	8000	17	1.2 J	930 J	1.3 J	0.10 U	1000000	0.10 U	6.0 U	0.080 U
TMW46	TMW46042014	Normal	North Alluvial	4/11/2014	31 U	0.60 U	0.46 J	11 U	0.24 U	0.12 U	71000	1.5 U	0.068 U	1.9 U	30 U	0.50 U	16000	0.93 U	0.90 U	960 J	130	0.10 U	1200000 J	0.20 U	6.0 U	0.080 U
	TMW46102013	Normal	North Alluvial	10/30/2013	3600 J	0.60 U	0.86 J	74	0.16 J	0.12 U	71000	3.1 J	1.2	2.8	2100 J	1.3 J	17000	66	2.4 J	1600 J	120	0.10 U	1200000 J	0.20 U	7.9 J	0.080 U
	TMW46042013	Normal	North Alluvial	4/8/2013	31 U	0.60 U	0.44 J	9.8	0.24 U	0.12 U	67000	0.54 J	0.13 J	0.81 J	30 U	0.50 U	15000	1.4 J	0.90 U	1000 J	110	0.10 U	1200000	0.20 U	4.0 J	0.080 U
	TMW46102012	Normal	North Alluvial	11/6/2012	800 J	0.60 U	0.67 J	25	0.24 U	0.12 U	67000	1.1 J	1.3	1.5 J	530	0.36 J	17000	19	1.3 J	1000 J	120	0.10 U	1300000	0.10 U	4.7 J	0.080 U
TMW47	TMW47042014	Normal	North Alluvial	4/16/2014	31 U	0.60 U	1.0 U	12	0.24 U	0.12 U	6300	1.5 U	0.067 J	1.5 U	30 U	0.50 U	690	44	0.38 J	1100 J	2.0 U	0.10 U	620000	0.20 U	6.0 U	0.080 U
	TMW47102013	Normal	North Alluvial	11/7/2013	31 U	0.60 U	0.39 J	14	0.24 U	0.12 U	5800	1.5 U	0.059 J	1.5 U	30 U	0.50 U	620	46	0.42 J	1100 J	2.0 U	0.10 U	560000	0.20 U	6.0 U	0.080 U
	TMW47042013	Normal	North Alluvial	4/15/2013	180 J	0.60 U	0.69 J	14	0.24 U	0.12 U	6000	1.5 U	0.54 J	1.5 U	140	0.50 U	750	39	0.32 J	1500 J	2.0 U	0.10 U	550000	0.20 U	6.0 U	0.080 U
	TMW47102012	Normal	North Alluvial	11/2/2012	44 J	0.60 U	0.63 J	14 J	0.24 U	0.12 U	6200	1.5 U	0.62 J	0.63 J	41 J	0.50 U	670	27	0.51 J	1100 J	2.0 U	0.10 U	580000	0.10 U	3.6 J	0.080 U
EMW01	Well not sampled since April 2013 ^d																									
	EMW01042013	Normal	North Bedrock	4/15/2013	31 U	0.75 J	0.72 J	15	0.24 U	0.12 U	73,000	1.5 U	0.063 J	1.5 U	25 J	0.50 U	8,800	120	0.69 J	3,600	2.0 U	0.052 J	1,800,000	0.13 J	6.0 U	0.080 U
	EMW01102012	Normal	North Bedrock	10/25/2012	33 J	0.60 U	1.2 J	30	0.24 U	0.13 J	78,000	1.1 J	0.36 J	0.85 J	30 U	0.50 U	6,700	42	1.5 J	5,100	2.0 U	0.10 U	1,900,000	0.10 U	4.5 J	0.080 U
EMW02	Well not sampled since April 2013 ^d																									
	EMW02042013	Normal	North Bedrock	4/16/2013	31 U	0.40 J	0.45 J	12	0.24 U	0.17 J	61,000	1.5 U	0.095 J	0.56 U	30 U	0.50 UJ	6,700	92	0.45 J	2,600 J	0.77 J	0.31 J	1,800,000	0.20 UJ	37	0.080 U
	EMW02102012	Normal	North Bedrock	10/25/2012	31 U	0.60 U	0.37 J	13	0.24 U	0.17 J	64,000	1.5 U	0.13 J	1.5 U	30 U	0.50 U	7,300	84	0.45 J	3,400	2.0 U	0.10 U	1,700,000	0.10 U	41	0.080 U
EMW03	Well not sampled since April 2013 ^d																									
	EMW03042013	Normal	North Bedrock	4/15/2013	42 J	0.60 U	0.69 J	15	0.24 U	0.12 U	15,000	1.5 U	0.056 J	1.5 U	30 U	0.50 U	1,700	1.1 J	0.35 J	3,600	2.0 U	0.10 U	1,400,000	0.20 U	7.1 J	0.080 U
	EMW03102102	Normal	North Bedrock	10/25/2012	49 J	0.60 U	0.95 J	13	0.24 U	0.18 J	20,000	1.5 U	0.16 J	1.5 U	30 U	0.50 U	1,500	1.7 J	0.50 J	3,000	2.0 U	0.10 U	1,400,000	0.10 U	8.6 J	0.080 U
EMW04	Well not sampled since April 2013 ^d																									
	EMW04042013	Normal	North Bedrock	4/15/2013	31 U	0.60 U	0.56 J	19	0.24 U	0.12 U	170,000	12	5.5	1.5 U	260	0.50 U	21,000	190	360	7,600	2.0 U	0.10 U	3,000,000	0.20 U	3.3 J	0.080 U
	EMW04102012	Normal	North Bedrock	10/25/2012	31 U	0.60 U	2.0 J	21	0.24 U	0.15 J	180,000	5.7 J	2.7	0.61 J	110	0.50 U	22,000	140	170	6,300	0.80 J	0.052 J	3,100,000	0.10 U	21	0.080 U
	EMW04102012DUP	Duplicate	North Bedrock	10/25/2012	31 U	0.60 U	1.9 J	21	0.24 U	0.12 J	180,000	8.1 J	3.5	0.62 J	140	0.50 U	22,000	170	190	6,900	0.70 J	0.10 J	3,000,000	0.10 U	27	0.080 U

5.0 Groundwater Analytical Results

TABLE 5-7

Summary of Dissolved Metals Analytical Detections (Page 6 of 9)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																							EPA Method 7470 (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6		
					Regulatory Limits																							
200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c							
TMW02	TMW02042014	Normal	North Bedrock	4/16/2014	31 U	0.60 U	1.0 J	6.8	0.24 U	0.12 U	22000	0.58 J	0.10 U	1.5 U	30 U	0.50 U	2600	0.90 U	0.90 U	1800 J	78	0.034 J	1100000	0.20 U	2.1 J	0.080 U		
	TMW02102013	Normal	North Bedrock	11/4/2013	31 U	0.60 U	1.1 J	8.3	0.24 U	0.12 U	22000	0.57 J	0.10 U	1.5 U	30 U	0.50 U	2500	0.90 U	0.90 U	2500 J	74	0.10 U	1000000	0.20 U	6.0 U	0.080 U		
	TMW02042013	Normal	North Bedrock	4/16/2013	18 J	0.60 U	1.4 J	8.3	0.24 U	0.12 U	21000	0.86 J	0.39 J	0.63 U	25 J	0.50 UJ	2400	1.0 U	0.90 U	1800 J	91 J	0.10 U	1100000	0.20 UJ	3.2 J	0.080 U		
	TMW02102012	Normal	North Bedrock	10/31/2012	31 U	0.60 U	1.4 J	9.1 J	0.24 U	0.12 U	22000	2.1 J	0.55 J	2.7	30 U	0.50 U	2500	1.0 J	0.90 U	2100 J	91	0.10 U	1100000	0.10 U	6.0 U	0.080 U		
TMW14A	TMW14A042014	Normal	North Bedrock	4/15/2014	31 U	0.60 U	0.54 J	24	0.24 U	0.12 U	3800	1.5 U	0.070 J	6.5	30 U	0.50 U	470 J	20	11	920 J	2.0 U	0.10 U	460000	0.20 U	6.0 U	0.080 U		
	TMW14A102013	Normal	North Bedrock	11/6/2013	31 U	0.60 U	0.68 J	17	0.24 U	0.12 U	3400	1.5 U	0.10 U	1.5 U	30 U	0.50 UJ	370 J	12	0.85 J	730 J	2.0 U	0.10 UJ	460000	0.20 U	6.0 U	0.080 U		
	TMW14A042013	Normal	North Bedrock	4/17/2013	170 J	0.60 U	0.63 J	34	0.24 U	0.12 U	4100	23	1.5	39	440	1.0 J	450 J	32	71	1000 J	2.0 U	0.53 J	230000	0.20 UJ	22	0.080 U		
	TMW14A102012	Normal	North Bedrock	11/8/2012	22 J	1.2 U	0.70 J	16	0.48 U	0.24 U	3300	3.0 U	0.14 J	3.2 J	27 J	1.0 U	400 J	13	2.1 J	1000 J	4.0 U	0.20 UJ	440000	0.20 U	12 U	0.080 U		
TMW16	TMW16042014	Normal	North Bedrock	4/9/2014	31 U	0.60 U	1.0 U	15 U	0.24 U	0.12 U	4200 U	1.5 U	0.095 U	5.1 U	30 U	0.50 U	420 U	4.9 U	2.1 U	860 J	2.0 U	0.10 U	470000	0.20 U	9.3 U	0.080 U		
	TMW16102013	Normal	North Bedrock	10/31/2013	31 U	0.60 U	1.0 U	16	0.24 U	0.12 U	4100	1.5 U	0.071 U	9.5	30 U	0.50 U	420 J	6.2	3.1	1000 J	2.0 U	0.10 U	470000	0.20 U	8.4 U	0.080 U		
	TMW16042013	Normal	North Bedrock	4/18/2013	130 J	1.0 J	1.0 U	16	0.24 U	0.12 U	3800	1.5 U	1.1	1.5 U	61 U	0.50 U	440 J	11	1.9 J	680 J	2.0 U	0.10 U	420000	0.20 U	5.5 J	0.080 U		
	TMW16102012	Normal	North Bedrock	11/6/2012	85 J	0.60 U	0.66 J	19	0.24 U	0.12 U	3700	1.5 U	1.6	2.2	40 J	0.50 U	440 J	15	1.8 J	780 J	2.0 U	0.10 U	470000	0.10 U	23	0.080 U		
TMW17	TMW17042014	Normal	North Bedrock	4/17/2014	130 J	0.60 U	1.0 U	16	0.24 U	0.12 U	4500	1.5 U	0.10 U	1.5 U	41 J	0.39 J	490 J	11	1.1 J	1100 J	2.0 U	0.10 UJ	440000	0.20 U	130	0.081 U		
	TMW17102013	Normal	North Bedrock	11/6/2013	67 J	0.60 U	1.0 U	14	0.24 U	0.12 U	3000	1.5 U	0.10 U	1.5 U	30 U	0.50 UJ	430 J	5.0	0.71 J	890 J	2.0 U	0.10 UJ	440000	0.20 U	6.0 U	0.080 U		
	TMW17042013	Normal	North Bedrock	4/9/2013	99 J	0.60 U	1.0 U	15 J	0.080 J	0.12 U	3100 J	1.5 U	0.17 J	0.89 J	37 J	0.52 J	430 J	9.6	0.69 U	900 J	2.0 U	0.10 U	410000	0.20 U	19 J	0.080 U		
	TMW17102012	Normal	North Bedrock	11/9/2012	150 J	1.2 U	2.0 U	21	0.48 U	0.24 U	3600	3.0 U	0.67 J	1.5 J	92 J	1.2 J	490 J	11	0.80 J	1200 J	4.0 U	0.20 U	430000	0.20 U	370	0.080 U		
TMW18	TMW18042014	Normal	North Bedrock	4/11/2014	100 U	0.60 U	3.6 J	15 U	0.24 U	0.12 U	6800	1.1 U	0.078 U	1.8 U	34 U	0.45 U	1000	2.6 U	0.62 U	4200	2.0 U	0.10 U	720000 J	0.20 U	6.1 U	0.080 U		
	TMW18102013	Normal	North Bedrock	10/31/2013	89 J	0.60 U	1.3 J	13	0.24 U	0.12 U	6100	1.5 U	0.10 U	0.81 J	30 U	0.21 J	900	0.75 J	0.32 J	4600	2.0 U	0.10 U	710000	0.20 U	6.0 U	0.080 U		
	TMW18042013	Normal	North Bedrock	4/12/2013	120 J	0.60 U	1.2 J	14	0.24 U	0.12 U	5600	1.5 U	0.099 J	0.58 J	23 J	0.29 J	910	1.3 J	0.37 J	5300	2.0 U	0.10 U	730000	0.20 U	6.0 U	0.080 U		
	TMW18102012	Normal	North Bedrock	11/5/2012	50 J	0.60 U	0.78 J	15	0.24 U	0.12 U	4900	1.5 U	0.15 J	0.81 J	30 U	0.35 J	1000	1.3 J	0.90 U	4000	2.0 U	0.10 U	720000	0.10 U	6.0 U	0.080 U		
TMW18102012DUP	Duplicate	North Bedrock	11/5/2012	50 J	0.60 U	0.92 J	14	0.24 U	0.12 U	4800	1.5 U	0.10 UJ	1.5 J	30 U	0.32 J	960	0.97 J	0.90 U	4000	2.0 U	0.10 U	700000	0.10 U	6.0 U	0.080 U			
TMW19	TMW19042014	Normal	North Bedrock	4/9/2014	290 U	0.60 U	1.0 U	7.9 U	0.24 U	0.12 U	9300	1.5 U	0.095 U	1.5 U	140 U	0.19 U	1000	17 U	1.6 U	1200 J	2.0 U	0.10 U	680000	0.075 U	3.6 U	0.080 U		
	TMW19102013	Normal	North Bedrock	10/31/2013	28 J	0.60 U	1.0 U	8.0	0.24 U	0.12 U	12000	1.5 U	0.10 U	1.5 U	66 J	0.50 U	1200	43	0.57 J	1500 J	2.0 U	0.10 U	750000	0.20 U	6.0 U	0.080 U		
	TMW19042013	Normal	North Bedrock	4/12/2013	31 J	0.60 U	1.0 U	7.9	0.24 U	0.12 U	11000	1.5 U	0.74 J	1.5 U	31 J	0.50 U	1200	44	4.2	1300 J	2.0 U	0.10 U	730000	0.20 U	6.0 U	0.080 U		
	TMW19102012	Normal	North Bedrock	11/5/2012	31 U	0.60 U	0.54 J	8.6	0.24 U	0.12 U	8800	1.5 U	0.10 U	1.4 J	74 J	0.50 U	1100	34	0.90 U	1200 J	2.0 U	0.10 U	700000	0.10 U	6.0 U	0.080 U		
TMW30	TMW30042014	Normal	North Bedrock	4/11/2014	75 U	0.60 U	0.92 J	11 U	0.24 U	0.12 U	58000	0.51 U	0.13 U	0.75 U	66 U	0.50 U	11000	4.3 U	1.1 U	1100 J	8.0	0.10 U	510000 J	0.20 U	4.2 U	0.080 U		
	TMW30102013	Normal	North Bedrock	10/30/2013	31 U	0.60 U	0.87 J	5.1 U	0.24 U	0.12 U	61000	1.5 U	0.12 U	1.4 J	30 U	0.50 U	13000	0.79 U	1.1 J	880 J	8.2	0.10 U	470000 J	0.20 U	2.4 J	0.080 U		
	TMW30042013	Normal	North Bedrock	4/11/2013	31 U	0.60 U	0.91 J	10	0.24 U	0.12 U	60000	1.5 U	0.10 U	0.92 J	30 U	0.50 UJ	13000	1.9 J	0.33 J	1100 J	8.1	0.10 U	480000	0.20 UJ	2.2 J	0.080 U		
	TMW30102012	Normal	North Bedrock	11/5/2012	31 U	0.52 J	0.96 J	9.9	0.24 U	0.12 U	49000	0.52 J	0.59 J	1.1 J	30 U	0.50 U	11000	4.2	1.2 J	1200 J	8.3 J	0.10 U	470000	0.10 U	14 J	0.080 U		
	TMW30102012DUP	Duplicate	North Bedrock	11/5/2012	31 U	0.55 J	0.99 J	10	0.24 U	0.12 U	52000	0.55 J	0.14 J	1.1 J	30 U	0.50 U	12000	4.0	1.3 J	1200 J	8.6 J	0.10 U	520000	0.10 U	14 J	0.080 U		
TMW31D	TMW31D042014	Normal	North Bedrock	4/16/2014	31 U	0.60 UJ	0.42 J	8.1	0.24 UJ	0.12 U	63000	1.5 U	0.10 U	1.7 J	30 U	0.50 U	11000	1.2 J	0.90 U	1300 J	7.2	0.10 UJ	590000	0.20 UJ	22	0.066 UJ		
	DTW31D042014	Duplicate	North Bedrock	4/16/2014	31 U	0.41 J	0.42 J	7.7	0.13 J	0.12 U	63000	1.5 U	0.10 U	1.6 J	30 U	0.50 U	11000	0.39 J	0.90 U	1500 J	7.7	0.061 J	590000	0.16 J	21	0.080 UJ		
	TMW31D102013	Normal	North Bedrock	11/6/2013	31 U	0.60 U	0.44 J	8.1	0.24 U	0.12 U	64000	1.5 U	0.10 U	1.3 J	30 UJ	0.50 UJ	11000	0.43 J	0.90 U	1400 J	8.5	0.10 UJ	550000	0.20 U	22	0.080 U		
	DTW31D102013	Duplicate	North Bedrock	11/6/2013	31 U	0.60 U	0.46 J	8.5	0.24 U	0.12 U	62000	1.5 U	0.10 U	1.4 J	64 J	0.50 UJ	10000	0.43 J	0.90 U	1400 J	8.4	0.10 UJ	550000	0.20 U	22	0.080 U		
	TMW31D042013	Normal	North Bedrock	4/10/2013	31 U	0.60 U	0.49 J	8.6	0.24 U	0.12 U	58000 J	1.5 U	0.10 U	1.6 J	30 U	0.50 U	10000	0.34 J	0.90 U	1500 J	9.8 J	0.10 U	530000	0.20 U	24	0.080 U		
	DTW31D042013	Duplicate	North Bedrock	4/10/2013	31 U	0.60 U	0.49 J	8.6	0.24 U	0.12 U	60000 J	1.5 U	0.10 U	1.5 J	30 U	0.50 U	10000	0.90 UJ	0.90 U	1600 J	9.8 J	0.10 U	530000	0.20 U	24	0.080 U		
	TMW31D102012	Normal	North Bedrock	10/30/2012	31 U	0.60 U	1.0 U	8.8	0.24 U	0.12 U	60000	1.5 U	0.088 J	1.4 J	30 U	0.50 U	10000	0.53 J	0.43 J	1700 J	7.9	0.10 U	540000	0.10 U	24	0.080 U		
TMW32	TMW32042014	Normal	North Bedrock	4/16/2014	31 U	0.60 U	0.54 J	8.1	0.24 U	0.12 U	11000	1.5 U	0.10 U	1.5 U	47 J	0.50 U	1200	25	0.90 U	1200 J	3.7 J	0.10 U	800000	0.20 U	3.1 J	0.080 U		
	TMW32102013	Normal	North Bedrock	11/7/2013	31 U	0.60 U	1.0 J	9.6	0.24 U	0.12 U	11000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	1100	30	0.90 U	1100 J	3.5 J	0.10 U	750000	0.20 U	3.0 J	0.080 U		
	TMW32042013	Normal	North Bedrock	4/11/2013	31 U	0.60 U	0.89 J	9.5	0.24 U	0.12 U	12000																	

TABLE 5-7

Summary of Dissolved Metals Analytical Detections (Page 7 of 9)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																						EPA Method 7470 (µg/L)	
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6		
					Regulatory Limits																							
					200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c		
TMW36	TMW36042014	Normal	North Bedrock	4/9/2014	31 U	0.60 U	1.0 U	7.2 U	0.24 U	0.16 J	8700	1.5 U	0.10 U	1.5 U	30 U	0.50 U	900	15 U	0.64 U	950 J	2.0 U	0.10 U	680000	0.20 U	6.1 U	0.043 J		
	TMW36102013	Normal	North Bedrock	11/5/2013	31 U	0.60 UJ	1.0 U	7.7	0.24 U	0.12 U	9100	1.5 U	0.10 U	1.5 U	30 U	0.50 U	980	21	0.67 J	1100 J	2.0 U	0.10 U	710000	0.20 U	2.3 J	0.080 U		
	TMW36042013	Normal	North Bedrock	4/15/2013	21 J	0.60 U	0.41 J	8.5	0.24 U	0.12 U	8800	1.5 U	0.16 J	1.5 U	30 U	0.50 U	950	16	0.75 J	1300 J	2.0 U	0.10 U	670000	0.20 U	2.4 J	0.080 U		
	TMW36102012	Normal	North Bedrock	11/5/2012	26 J	0.60 U	0.55 J	9.6	0.24 U	0.12 U	8700	1.5 U	0.10 J	0.61 J	30 U	0.42 J	1100	31	0.65 J	1000 J	2.0 U	0.10 U	710000	0.10 U	3.2 J	0.080 U		
TMW37	TMW37042014	Normal	North Bedrock	4/9/2014	31 U	0.60 U	0.49 J	11 U	0.24 U	0.12 U	5700	1.5 U	0.079 U	1.5 U	30 U	0.50 U	600 U	7.4 U	1.8 U	940 J	2.0 U	0.10 U	550000	0.20 U	3.5 U	0.14 J		
	TMW37102013	Normal	North Bedrock	10/31/2013	31 U	0.60 U	1.0 U	9.4	0.24 U	0.12 U	6100	1.5 U	0.10 U	1.5 U	30 U	0.50 U	660	12	1.3 J	1100 J	2.0 U	0.10 U	570000	0.20 U	3.6 U	0.080 U		
	TMW37042013	Normal	North Bedrock	4/12/2013	31 U	0.60 U	0.44 J	10	0.24 U	0.12 U	6300	1.5 U	0.29 J	1.5 U	30 U	0.50 U	700	17	0.40 J	1200 J	2.0 U	0.10 U	560000	0.20 U	6.0 U	0.080 U		
	TMW37102012	Normal	North Bedrock	11/2/2012	37 J	0.60 U	0.55 J	13 J	0.24 U	0.12 U	5700	1.5 U	0.19 J	1.8 J	22 J	0.50 U	630	14	1.3 J	850 J	2.0 U	0.10 U	540000	0.10 U	5.9 J	0.080 U		
TMW38	TMW38042014	Normal	North Bedrock	4/17/2014	31 U	0.60 U	0.57 J	19	0.24 U	0.12 U	13000	1.5 U	0.080 U	1.5 U	56 J	0.50 U	1600	88	0.32 J	1500 J	2.0 U	0.10 UJ	810000	0.20 U	6.0 U	0.091 U		
	TMW38102013	Normal	North Bedrock	10/31/2013	31 U	0.60 U	0.68 J	21	0.24 U	0.12 U	10000	1.5 U	0.081 U	1.5 U	59 J	0.50 U	1300	85	0.36 J	1400 J	2.0 U	0.10 U	710000	0.20 U	9.1 U	0.080 U		
	TMW38042013	Normal	North Bedrock	4/11/2013	31 U	0.60 U	0.74 J	24	0.24 U	0.12 U	10000	1.5 U	0.080 J	1.5 U	75 J	0.50 UJ	1600	99 J	0.35 J	1300 J	2.0 U	0.10 U	690000	0.20 UJ	6.0 U	0.080 U		
	TMW38102012	Normal	North Bedrock	11/8/2012	31 U	1.2 U	0.82 J	21	0.48 U	0.24 U	8000	3.0 U	0.14 J	3.0 U	85 J	1.0 U	1400	82	1.8 U	1100 J	4.0 U	0.20 UJ	600000	0.20 U	12 U	0.080 U		
TMW39D	TMW39D042014	Normal	North Bedrock	4/16/2014	31 U	0.60 U	1.0 U	7.9	0.24 U	0.12 U	20000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	2200	57	0.90 U	1400 J	2.0 U	0.10 U	820000	0.20 U	6.0 U	0.080 U		
	TMW39D102013	Normal	North Bedrock	11/6/2013	31 U	0.60 U	1.0 U	9.4	0.24 U	0.12 U	19000	1.5 U	0.10 U	1.0 J	30 U	0.50 UJ	2000	56	0.90 U	1300 J	2.0 U	0.10 UJ	750000	0.20 U	6.0 U	0.080 U		
	TMW39D042013	Normal	North Bedrock	4/10/2013	31 U	0.60 U	0.33 J	11	0.24 U	0.12 U	27000 J	1.5 U	0.061 J	1.5 U	30 U	0.50 U	3600	58	0.90 U	1500 J	1.4 J	0.10 U	700000	0.20 U	6.0 U	0.080 U		
	TMW39D102012	Normal	North Bedrock	10/31/2012	31 U	0.60 U	0.49 J	13 J	0.24 U	0.12 U	21000	1.5 U	0.13 J	0.96 J	30 U	0.50 U	2200	66 J	3.7	1500 J	0.83 J	0.10 U	770000	0.10 U	2.1 J	0.080 U		
TMW40D	TMW40D042014	Normal	North Bedrock	4/17/2014	31 U	0.60 U	0.46 J	8.4	0.24 U	0.12 U	16000	1.5 U	0.10 U	0.93 J	30 U	0.50 U	2000	54	0.51 J	1400 J	3.4 J	0.10 UJ	750000	0.20 U	3.9 J	0.084 U		
	TMW40D102013	Normal	North Bedrock	11/7/2013	31 U	0.44 J	0.38 J	11	0.24 U	0.12 U	13000	1.5 U	0.10 U	1.5 J	30 U	0.50 U	1700	52	0.90 U	1300 J	3.7 J	0.10 U	760000	0.20 U	4.4 J	0.080 U		
	TMW40D042013	Normal	North Bedrock	4/11/2013	31 U	0.60 U	0.58 J	12	0.24 U	0.12 U	15000	1.5 U	0.055 J	0.81 J	30 U	0.50 UJ	2100	48 J	0.90 U	1400 J	3.8 J	0.10 U	710000	0.20 UJ	5.2 J	0.080 U		
	TMW40D102012	Normal	North Bedrock	11/1/2012	28 J	0.60 U	0.64 J	14	0.24 U	0.12 U	15000	1.5 U	0.13 J	1.8 J	30 U	0.50 U	2000	50	0.38 J	1500 J	4.5 J	0.10 U	780000	0.10 U	9.6 J	0.080 U		
TMW48	TMW48042014	Normal	North Bedrock	4/17/2014	31 U	0.60 UJ	0.63 J	11	0.24 U	0.12 U	80000	1.5 U	0.10 UJ	0.96 J	30 U	0.50 U	17000	7.9	0.39 J	1400 J	7.4	0.10 UJ	550000	0.071 J	9.7 J	0.081 U		
	DTW48042014	Duplicate	North Bedrock	4/17/2014	31 U	0.42 J	0.79 J	13	0.24 U	0.12 U	80000	1.5 U	0.061 UJ	0.60 J	30 U	0.50 U	17000	8.7	0.43 J	1500 J	8.3	0.10 UJ	550000	0.15 J	12 J	0.074 U		
	TMW48102013	Normal	North Bedrock	10/31/2013	31 U	0.60 U	0.55 J	11	0.24 U	0.12 U	78000	1.5 U	0.10 U	0.67 J	30 U	0.50 U	16000	5.0	0.33 J	1400 J	7.8	0.10 U	520000	0.078 U	11 U	0.080 U		
	DTW48102013	Duplicate	North Bedrock	10/31/2013	31 U	0.60 U	0.54 J	12	0.24 U	0.12 U	80000	1.5 U	0.10 U	0.88 J	30 U	0.50 U	16000	7.4	0.66 J	1400 J	7.5	0.10 U	550000	0.10 U	11 U	0.080 U		
	TMW48042013	Normal	North Bedrock	4/10/2013	31 U	0.60 U	0.68 J	11	0.24 U	0.12 U	73000 J	1.5 U	0.10 U	1.0 J	30 U	0.50 U	15000	1.5 J	0.43 J	1300 J	9.5 J	0.10 U	500000	0.20 U	11 J	0.080 U		
	DTW48042013	Duplicate	North Bedrock	4/10/2013	31 U	0.60 U	0.76 J	11	0.24 U	0.12 U	73000 J	1.5 U	0.10 U	1.2 J	30 U	0.50 U	15000	1.6 J	0.46 J	1300 J	9.4 J	0.10 U	510000	0.20 U	10 J	0.080 U		
TMW49	TMW48102012	Normal	North Bedrock	11/2/2012	31 U	0.60 U	0.77 J	14 J	0.24 U	0.12 U	75000	1.5 U	0.27 J	1.7 J	30 U	0.50 U	16000	1.7 J	1.1 J	1200 J	9.4	0.10 U	530000	0.10 U	12 J	0.080 U		
	TMW49042014	Normal	North Bedrock	4/16/2014	31 U	0.60 U	0.52 J	13	0.24 U	0.12 U	79000	0.51 J	0.10 U	1.4 J	30 U	0.50 U	14000	0.90 U	1.7 J	1400 J	21	0.10 U	610000	0.20 U	10 J	0.080 U		
	TMW49102013	Normal	North Bedrock	11/6/2013	31 U	0.60 U	0.55 J	11	0.24 U	0.12 U	71000	1.5 UJ	0.10 U	0.99 J	30 U	0.50 UJ	12000	0.90 UJ	0.32 J	1400 J	19	0.10 UJ	610000	0.20 U	5.9 J	0.080 U		
	DTW49102013	Duplicate	North Bedrock	11/6/2013	31 U	0.60 U	0.57 J	11	0.24 U	0.12 U	75000	1.8 J	0.10 U	1.2 J	30 U	0.50 UJ	12000	0.33 J	0.45 J	1500 J	20	0.10 UJ	610000	0.20 U	6.5 J	0.080 U		
	TMW49042013	Normal	North Bedrock	4/15/2013	31 U	0.60 U	0.52 J	11	0.24 U	0.12 U	67000	0.61 J	0.10 U	0.68 J	30 U	0.50 U	12000	0.90 U	0.44 J	1700 J	18	0.10 U	580000	0.20 UJ	5.4 J	0.080 U		
	DTW49042013	Duplicate	North Bedrock	4/15/2013	31 U	0.60 U	0.79 J	12	0.24 U	0.12 U	69000	0.58 J	0.10 U	0.76 J	30 U	0.50 U	12000	0.90 U	0.39 J	1700 J	18	0.10 U	570000	0.064 J	6.2 J	0.080 U		
CMW02	TMW49102012	Normal	North Bedrock	10/31/2012	31 U	0.60 U	0.75 J	18 J	0.24 U	0.12 U	69000	0.50 J	0.11 J	1.3 J	30 U	0.50 U	12000	0.50 J	1.2 J	1500 J	19	0.10 U	590000	0.10 U	9.9 J	0.080 U		
	Well not sampled since April 2013 ^e																											
	CMW02042013	Normal	OB/OD	4/2/2013	31 U	0.60 U	4.8 J	30	0.24 U	0.12 U	6100	1.5 U	0.18 J	0.60 J	30 U	0.50 U	1100	1.1 J	0.90 U	770 J	4.0 J	0.10 U	200000	0.20 U	3.2 J	0.080 U		
CMW02102012	Normal	OB/OD	10/29/2012	31 U	0.60 U	4.1 J	30	0.24 U	0.12 U	6000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	1100	1.5 J	0.90 U	1200 J	4.0 J	0.10 U	190000	0.10 U	3.3 J	0.080 U			
CMW04	Well not sampled since April 2013 ^e																											
	CMW04042013	Normal	OB/OD	4/2/2013	31 U	0.60 U	1.0 U	10	0.24 U	0.12 U	41000	1.5 U	0.33 J	1.5 U	100	0.50 U	4600	210	0.90 U	2300 J	2.0 U	0.10 U	1300000	0.20 U	6.0 U	0.080 U		
CMW04102012	Normal	OB/OD	10/29/2012	31 U	0.60 U	1.0 U	7.8	0.24 U	0.12 U	36000	1.5 U	0.23 J	1.5 U	160	0.50 U	4400	180 J	0.90 U	4500	0.84 J	0.10 U	1200000	0.10 U	2.3 J	0.080 U			

5.0 Groundwater Analytical Results

TABLE 5-7

Summary of Dissolved Metals Analytical Detections (Page 8 of 9)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																							EPA Method 7470 (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6		
					200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c		
CMW07	Well not sampled since April 2013 ^e																											
	CMW07042013	Normal	OB/OD	4/4/2013	31 U	0.60 U	1.1 J	21	0.24 U	0.12 U	12000	1.5 U	0.14 J	0.57 J	190	0.50 U	2200	13	0.82 J	1500 J	2.0 U	0.10 U	400000	0.20 U	6.0 U	0.080 U		
	CMW07102012	Normal	OB/OD	10/30/2012	31 U	0.60 U	0.82 J	20	0.24 U	0.12 U	12000	1.5 U	0.23 J	1.5 U	260	0.50 U	2100	12	0.52 J	1500 J	2.0 U	0.10 U	370000	0.10 U	6.0 U	0.080 U		
CMW10	Well not sampled since April 2013 ^e																											
	CMW10042013	Normal	OB/OD	4/3/2013	41 J	0.60 U	2.6 J	20	0.14 J	0.12 U	77000	11	0.18 J	4.2	30 U	0.50 U	350 J	0.35 J	0.30 J	6900	35	0.10 U	1300000	0.20 U	6.0 U	0.080 U		
	CMW10102012	Normal	OB/OD	11/7/2012	31 U	0.60 U	3.3 J	20	0.24 U	0.11 J	79000	12	0.71 J	1.3 J	30 U	0.50 U	1600	1.1 J	0.67 J	5800	48	0.10 U	1300000	0.10 U	2.3 J	0.080 U		
CMW14	Well not sampled since April 2013 ^e																											
	CMW14042013	Normal	OB/OD	4/3/2013	450	0.60 U	0.84 J	29	0.24 U	0.12 U	40000	25	0.21 J	1.1 J	30 U	0.50 U	200 J	0.45 J	0.97 J	5600	2.0 U	0.10 U	1300000	0.20 U	2.1 J	0.080 U		
	CMW14102012	Normal	OB/OD	11/6/2012	430 J	0.60 U	0.91 J	26	0.24 U	0.15 J	41000	28	0.48 J	1.0 J	30 U	0.50 U	210 J	1.1 J	1.1 J	4700	2.0 U	0.10 U	1300000	0.10 U	2.9 J	0.080 U		
CMW17	Well not sampled since April 2013 ^e																											
	CMW17042013	Normal	OB/OD	4/3/2013	89 J	0.60 U	5.9	29	0.24 U	0.12 U	2900	1.5 U	0.10 U	0.68 J	49 J	0.32 J	1200	4.6 J	0.34 J	1600 J	1.8 J	0.10 U	270000	0.084 J	7.1 J	0.080 U		
	CMW17102012	Normal	OB/OD	11/6/2012	1000 J	0.60 U	7.9	34	0.095 J	0.12 U	2700	1.7 J	0.50 J	1.1 J	530	0.39 J	1400	11	1.3 J	1300 J	2.2 J	0.049 J	270000	0.10 U	6.3 J	0.080 U		
	CMW17102012DUP	Duplicate	OB/OD	11/6/2012	1100 J	0.60 U	7.7	31	0.082 J	0.12 U	2300	2.0 J	1.5 J	0.79 J	580	0.32 J	1400	8.6	1.0 J	1500 J	2.0 J	0.10 UJ	280000	0.10 U	5.3 J	0.080 U		
CMW18	Well not sampled since April 2013 ^e																											
	CMW18042013	Normal	OB/OD	4/4/2013	31 U	0.60 U	0.68 J	50	0.24 U	0.12 U	49000	1.5 U	0.10 UJ	0.64 J	30 U	0.50 U	14000	0.90 U	0.31 J	1100 J	2.3 J	0.10 U	140000	0.20 UJ	5.9 J	0.080 U		
	DCW18042013	Duplicate	OB/OD	4/4/2013	31 U	0.60 U	0.93 J	49	0.24 U	0.12 U	49000	1.5 U	0.063 J	1.5 UJ	30 U	0.50 U	15000	0.90 U	0.90 UJ	1100 J	2.5 J	0.10 U	150000	0.15 UJ	6.7 J	0.080 U		
	CMW18102012	Normal	OB/OD	11/6/2012	31 U	0.60 U	1.1 J	53	0.24 U	0.12 U	47000	1.5 U	0.20 J	0.60 J	30 U	0.50 U	14000	0.65 J	0.84 J	1100 J	2.7 J	0.10 U	160000	0.10 U	7.4 J	0.080 U		
CMW19	Well not sampled since April 2013 ^e																											
	CMW19042013	Normal	OB/OD	4/4/2013	300	0.60 U	1.3 J	25	0.24 U	0.12 U	4200	1.5 U	0.60 J	0.66 J	39 J	0.50 U	1300	7.9	2.4 J	2600 J	2.0 U	0.15 J	390000	0.20 U	3.8 J	0.080 U		
	CMW19102012	Normal	OB/OD	10/30/2012	220 J	0.60 U	1.1 J	23	0.24 U	0.12 U	3900	1.5 U	0.096 J	1.5 U	30 U	0.50 U	1200	5.2	3.6	2400 J	2.0 U	0.044 J	360000	0.10 U	2.3 J	0.080 U		
CMW22	Well not sampled since April 2013 ^e																											
	CMW22042013	Normal	OB/OD	4/5/2013	360	0.60 U	0.37 J	110	0.24 U	0.12 U	4900	1.2 J	0.61 J	0.57 J	140	0.22 J	800	8.1	0.33 J	890 J	2.0 U	0.10 U	180000	0.20 U	6.0 U	0.080 U		
	CMW22102012	Normal	OB/OD	11/1/2012	31 U	0.60 U	0.70 J	140	0.24 U	0.12 U	4700	0.76 J	0.16 J	1.1 J	30 U	0.43 J	650	18	0.63 J	810 J	2.0 U	0.053 J	180000	0.10 U	3.6 J	0.080 U		
CMW23	Well not sampled since April 2013 ^e																											
	CMW23042013	Normal	OB/OD	4/8/2013	1100	0.60 U	4.8 J	6.3	0.24 U	0.12 U	28000	1.5 J	0.60 J	1.6 J	340	0.40 J	2900	41	0.75 U	2000 J	2.4 J	0.10 U	690000	0.20 U	7.3 J	0.080 U		
	CMW23102012	Normal	OB/OD	10/30/2012	1200	0.40 J	2.7 J	33	0.29 J	0.10 J	7200	1.1 J	0.79 J	5.2	580	1.1 J	1000	41	0.96 J	1200 J	0.98 J	0.041 J	290000	0.10 U	39	0.080 U		
CMW24	Well not sampled since April 2013 ^e																											
	CMW24042013	Normal	OB/OD	4/5/2013	64 J	0.60 U	1.0 U	28	0.24 U	0.12 U	6100	1.5 U	0.18 J	1.5 U	50 J	0.50 U	1100	88	1.5 J	1900 J	2.0 U	0.10 U	630000	0.20 U	3.7 J	0.080 U		
	CMW24102012	Normal	OB/OD	11/1/2012	2200	0.60 U	0.73 J	52	0.082 J	0.10 J	6700	3.3 J	1.1	2.5	1500	1.3 J	1700	130	3.7	1800 J	2.0 U	0.077 J	660000	0.10 U	760	0.080 U		
CMW25	Well not sampled since April 2013 ^e																											
	CMW25042013	Normal	OB/OD	4/8/2013	250 J	0.60 U	0.87 J	27	0.24 U	0.12 U	3200	1.5 U	0.33 J	0.63 J	83 J	0.50 U	620	21	0.90 U	840 J	2.0 U	0.10 U	260000	0.20 U	4.0 J	0.080 U		
	CMW25102012	Normal	OB/OD	11/7/2012	390	0.60 U	0.90 J	29	0.24 U	0.12 U	3400	1.5 U	0.16 J	1.5 U	150	0.50 U	740	17	0.90 U	610 J	2.0 U	0.10 U	260000	0.10 U	6.0 U	0.080 U		
KMW09	Well not sampled since April 2013 ^e																											
	KMW09042013	Normal	OB/OD	4/4/2013	31 U	0.60 U	0.64 J	8.9	0.24 U	0.12 U	190000	1.5 U	0.24 J	1.5 U	230	0.50 U	41000	210	0.34 J	14000	2.0 U	0.10 U	640000	0.20 U	6.0 U	0.080 U		
	KMW09102012	Normal	OB/OD	10/26/2012	20 J	0.60 U	0.73 J	12 J	0.24 U	0.12 U	180000	1.5 U	0.22 J	1.5 U	240	0.50 UJ	34000	180 J	3.5	14000	2.0 U	0.10 U	630000	0.10 U	31	0.080 U		

TABLE 5-7

Summary of Dissolved Metals Analytical Detections (Page 9 of 9)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																				EPA Method 7470 (µg/L)			
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6		
					Regulatory Limits																							
					200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c		
KMW10	Well not sampled since April 2013 ^e																											
	KMW10042013	Normal	OB/OD	4/5/2013	31 U	0.60 U	1.6 J	16	0.24 U	0.12 U	120000	2.9 J	0.11 J	1.8 J	30 U	0.50 U	28000	1.1 J	0.66 J	2500 J	23	0.10 U	50000	0.20 U	9.7 J	0.080 U		
	KMW10102012	Normal	OB/OD	10/29/2012	31 U	0.60 U	1.9 J	15	0.24 U	0.12 U	110000	1.5 U	0.12 J	1.5 U	30 U	0.50 U	26000	0.91 J	0.90 U	2000 J	21	0.12 J	46000	0.10 U	3.8 J	0.080 U		
KMW11	Well not sampled since April 2013 ^e																											
	KMW11042013	Normal	OB/OD	4/4/2013	31 U	0.60 U	27	25	0.24 U	0.12 U	2500	1.5 U	0.10 U	1.5 U	30 U	0.50 U	1200	1.8 J	0.90 U	1000 J	4.3 J	0.10 U	270000	0.20 U	2.6 J	0.080 U		
	KMW11102012	Normal	OB/OD	11/1/2012	31 U	0.60 U	30	27	0.24 U	0.12 U	2200	1.5 U	0.18 J	1.5 U	30 U	0.50 U	970	1.7 J	0.90 U	700 J	5.1	0.10 U	260000	0.10 U	3.0 J	0.080 U		
KMW12	Well not sampled since April 2013 ^e																											
	KMW12042013	Normal	OB/OD	4/5/2013	31 U	0.60 U	1.0 U	12	0.24 U	0.12 U	250000	0.56 J	2.7	1.5 U	30 U	0.50 U	69000	870	20	15000	2.0 U	0.10 U	720000	0.20 U	8.2 J	0.080 U		
	KMW12102012	Normal	OB/OD	10/29/2012	31 U	0.60 U	1.0 U	13	0.24 U	0.12 U	300000	2.5 J	2.5	1.5 U	88 J	0.50 U	90000	880 J	12	15000	2.0 U	0.10 U	660000	0.10 U	7.6 J	0.080 U		

Notes:

^a New Mexico Water Quality Control Commission - New Mexico Administrative Code Title 20, Chapter 6, Part 2, Section 3103

^b EPA Maximum Contaminant Level - Code of Federal Regulations Title 40, Parts 141, 142, and 143

^c EPA Region 6, Regional Screening Levels (formerly Human Health Medium Specific Screening Levels) (EPA, 2012)

^d Wells in the East Landfill Area were not sampled due to landfill excavation and removal

^e Wells in the OB/OD Area were not accessible during active remediation of the area

Bold indicates analyte was positively detected above regulatory limits

µg/L = microgram per liter

CAS = Chemical Abstract Services (registry number)

DUP = duplicate

J = analyte was positively identified; reported value is estimated

N/A = not applicable

OB/OD = Open Burn/Open Detonation

U = non-detected result reported at the limit of detection

UJ = analyte was not detected; however the result is estimated because of discrepancies in meeting certain analyte-specific quality control criteria

TABLE 5-8

Summary of Total Metals Analytical Detections (Page 1 of 9)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																				EPA Method 7470 (µg/L)		
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0		Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																						
					200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b		5,000 ^a	2 ^c
BGMW01	BGMW01042014	Normal	North Alluvial	4/15/2014	2500	0.60 U	1.1 J	37	0.14 J	0.14 J	49000	1.7 J	1.3	6.0	1600	1.4 J	26000	280	9.3	1500 J	2.0 U	0.24 J	850000	0.20 UJ	23	0.080 U	
	BGMW01102013	Normal	North Alluvial	11/8/2013	62 J	0.60 U	0.82 J	16	0.24 U	0.12 U	38000	1.5 U	0.34 J	0.79 J	47 J	0.50 U	21000	160	3.5	650 J	2.0 U	0.10 U	830000	0.20 U	6.0 U	0.080 U	
	BGMW01042013	Normal	North Alluvial	4/2/2013	130 J	0.60 U	1.0 J	25	0.24 U	0.12 U	59000	1.5 U	0.73 J	2.9	97 J	0.50 U	31000	310	3.0	1000 J	2.0 U	0.10 U	770000	0.20 U	6.0 U	0.080 U	
	BGMW01102012	Normal	North Alluvial	10/26/2012	250 J	1.2 U	0.95 J	18	0.48 U	0.24 U	52000	3.0 U	0.42 J	1.4 J	150	1.0 UJ	27000	190 J	1.8 J	1100 J	4.0 U	0.20 UJ	850000 J	0.20 U	12 U	0.080 U	
BGMW02	BGMW02042014	Normal	North Alluvial	4/15/2014	240 J	0.60 U	0.87 J	20	0.24 U	0.12 U	92000	1.5 U	0.16 J	2.0 J	160	0.50 UJ	130000	94	0.71 J	970 J	92 J	0.10 U	1100000	0.20 UJ	6.0 U	0.080 U	
	DBW02042014	Duplicate	North Alluvial	4/15/2014	270 J	0.60 U	0.92 J	21	0.24 U	0.12 U	93000	1.5 U	0.16 J	0.97 J	180	0.50 UJ	130000	96	0.77 J	1200 J	92 J	0.10 U	1100000	0.20 UJ	6.0 U	0.080 U	
	BGMW02102013	Normal	North Alluvial	11/5/2013	28 J	0.60 U	0.78 J	22	0.24 U	0.12 U	89000	1.5 U	0.12 J	1.1 J	22 J	0.50 U	130000	110	0.54 J	970 J	87	0.10 U	1000000	0.11 J	4.5 J	0.080 U	
	BGMW02042013	Normal	North Alluvial	4/3/2013	310	0.60 U	1.1 J	22	0.24 U	0.12 U	100000	0.61 J	0.097 J	2.3	160	0.24 J	120000	99	0.52 J	920 J	84	0.10 U	1100000	0.11 U	2.4 J	0.080 U	
	BGMW02102012	Normal	North Alluvial	10/30/2012	97 J	0.60 U	0.87 J	22	0.24 U	0.12 U	100000	1.5 U	0.073 J	0.83 J	55 J	0.50 U	130000	90	0.31 J	730 J	79	0.10 U	1000000	0.056 J	6.0 U	0.080 U	
BGMW03	BGMW03042014	Normal	North Alluvial	4/11/2014	3100	0.60 U	2.3 J	67	0.23 J	0.12 U	67000	2.9 U	1.2	5.7 U	2000	2.2 U	16000	75	2.1 U	3000	37	0.10 U	760000	0.055 J	9.8 U	0.080 U	
	BGMW03102013	Normal	North Alluvial	11/5/2013	2500	0.87 J	2.1 J	70	0.30 J	0.12 U	75000	2.4 J	1.1	4.6	1800	1.8 J	18000	100	1.8 J	2800 J	29	0.051 J	800000	0.18 J	10 J	0.080 U	
	DBW03102013	Duplicate	North Alluvial	11/5/2013	4000	0.60 UJ	2.0 J	79	0.27 J	0.12 U	88000	2.8 J	1.1	4.4	2700	2.4 J	20000	100	1.8 J	3500	29	0.10 UJ	770000	0.20 UJ	12 J	0.080 U	
	BGMW03042013	Normal	North Alluvial	4/8/2013	5000	0.60 UJ	1.8 J	100	0.25 J	0.12 U	89000	4.1 J	1.4	4.6	3200	3.3	18000	93	2.2 J	4100	30	0.10 U	650000	0.086 J	14 J	0.080 U	
	DBW03042013	Duplicate	North Alluvial	4/8/2013	5200	0.60 UJ	1.5 J	83	0.19 J	0.12 U	92000	3.0 J	1.5	4.1	3400	2.8 J	18000	86	1.8 J	4300	28	0.10 U	660000	0.20 UJ	9.4 J	0.080 U	
BGMW03102012	Normal	North Alluvial	10/31/2012	26000 J	0.60 U	4.9 J	200 J	1.3	0.27 J	48000	15	7.1	17	15000 J	11	16000	320	11	5800	40	0.055 J	830000	0.20 J	52	0.028 J		
FW31	FW31042014	Normal	North Alluvial	4/10/2014	1700	0.60 UJ	7.6	72	0.10 J	0.13 J	7100	2.0 J	0.51 J	1.2 J	630	0.73 J	2700	83	1.3 J	2000 J	2.0 U	0.10 U	550000	0.094 U	6.6 J	0.080 U	
	FW31102013	Normal	North Alluvial	11/1/2013	12000	0.60 U	7.7	480	0.46 J	0.12 J	13000	8.0 J	4.0	8.6	4400	4.7	5300	490 J	7.4	4100	2.0 U	0.13 J	540000	0.13 U	53	0.080 U	
	FW31042013	Normal	North Alluvial	4/12/2013	1400	0.60 U	9.2	50	0.24 U	0.12 U	7300	7.6 J	0.45 J	4.5	610	0.58 J	2800	33	4.1	1800 J	2.0 U	0.10 U	520000	0.20 U	12 J	0.080 U	
	FW31102012	Normal	North Alluvial	11/5/2012	240 J	0.60 U	6.5	20	0.24 U	0.12 U	5800	0.77 J	0.10 U	1.5 U	96 J	0.50 U	2600	8.3	0.90 U	1600 J	2.0 U	0.10 U	540000	0.10 U	6.3 J	0.080 U	
FW35	FW35042014	Normal	North Alluvial	4/10/2014	3000	0.60 UJ	0.50 J	94	0.21 J	0.12 U	280000	3.0 J	1.4	2.7	1400	1.2 J	110000	620	4.4	1400 J	1.2 J	0.10 U	620000	0.20 U	64	0.080 U	
	FW35102013	Normal	North Alluvial	10/29/2013	5900 J	0.51 J	1.0 J	210 J	0.25 J	0.12 U	280000	6.0 J	3.6	5.7	3200 J	2.6 U	100000	300 J	6.2	1700 J	1.4 J	0.14 J	610000	0.19 U	220	0.080 U	
	FW35042013	Normal	North Alluvial	4/11/2013	2400	0.60 U	0.59 J	55 J	0.13 J	0.12 UJ	270000	2.3 J	0.73 J	2.5	1500	1.1 J	100000	220 J	2.5 J	1400 J	2.4 J	0.10 UJ	600000	0.20 UJ	170	0.080 U	
	FW35102012	Normal	North Alluvial	11/7/2012	51000	0.60 U	9.8	1500	3.1	0.57 J	310000	33	18	67	30000	29	120000	3200	38	6700	5.9	0.30 J	600000	0.46 J	3300	0.049 J	
MW01	MW01042014	Normal	North Alluvial	4/9/2014	7300	0.60 U	1.8 J	96	0.39 J	0.10 J	38000	5.3 J	2.1	5.1 U	4200	3.0	8800	190	4.7	2100 J	19	0.10 U	940000	0.077 J	50 U	0.080 U	
	MW01102013	Normal	North Alluvial	11/1/2013	74000	0.60 U	15	1100	4.0	0.56 J	120000	41	26	43	54000	38	30000	3400 J	48	11000	16	0.21 J	940000	0.44 J	530	0.12 J	
	MW01042013	Normal	North Alluvial	4/15/2013	6600	0.60 R	1.5 J	81	0.32 J	0.12 U	31000	5.0 J	1.8	4.4	3800	2.9 J	8100	150	4.4	2200 J	17	0.069 J	930000	0.050 U	45	0.080 U	
	MW01102012	Normal	North Alluvial	10/24/2012	830	0.60 U	1.1 J	56	0.17 J	0.12 U	30000	2.5 J	1.1	3.0	570	1.5 J	7000	100	2.4 J	1000 J	17	0.10 U	930000	0.10 U	28	0.080 U	
MW02	MW02042014	Normal	North Alluvial	4/9/2014	20000	0.60 U	3.7 J	210	1.1	1.5	210000	7.3 J	5.4	7.0 U	14000	7.4	42000	1100	9.0	4100	8.6	0.043 J	390000	0.11 J	290	0.034 J	
	MW02102013	Normal	North Alluvial	11/1/2013	68000	0.60 U	13	1200	3.9	0.44 J	260000	32	24	30	45000	36	59000	3100 J	40	10000	7.1	0.17 J	430000	0.53 J	580	0.046 J	
	MW02042013	Normal	North Alluvial	4/12/2013	7100	0.60 U	1.2 J	91	0.30 J	0.12 U	220000	5.0 J	2.0	3.3	4300	2.4 J	43000	310	5.8	2000 J	5.2	0.10 U	330000	0.090 J	29	0.080 U	
	MW02102012	Normal	North Alluvial	10/24/2012	39000	0.60 U	26	2600	7.4	0.75 J	330000	67	52	62	22000	78	48000	6900	87	6100	13	0.46 J	380000	0.86 J	610	0.19 J	
MW03	MW03042014	Normal	North Alluvial	4/14/2014	31 U	0.60 U	0.36 J	9.0	0.24 U	0.12 U	62000	1.5 U	0.12 J	0.89 J	30 U	0.50 U	12000	45 J	0.77 U	760 J	26	0.10 U	1200000	0.20 U	6.5 U	0.080 U	
	MW03102013	Normal	North Alluvial	11/5/2013	31 U	0.60 U	1.0 U	11	0.24 U	0.12 U	67000	1.5 U	0.12 J	1.0 J	31 J	0.50 U	14000	46	0.52 J	730 J	24	0.10 U	1200000	0.20 U	5.1 J	0.080 U	
	MW03042013	Normal	North Alluvial	4/4/2013	31 U	0.60 U	1.0 U	11 J	0.24 U	0.12 U	67000	1.5 U	0.14 J	0.56 J	30 U	0.50 U	12000	48	0.71 J	1000 J	19	0.036 J	1200000	0.12 U	5.6 J	0.080 U	
	MW03-102012	Normal	North Alluvial	10/23/2012	31 U	0.60 U	0.37 J	10	0.24 U	0.12 U	64000	1.5 U	0.10 J	0.98 J	26 J	0.50 U	13000	46	0.53 J	880 J	19	0.10 U	1200000	0.10 U	9.9 J	0.080 U	
MW18D	MW18D042014	Normal	North Alluvial	4/14/2014	52 U	0.60 U	0.90 J	19	0.24 U	0.12 U	72000	1.5 U	0.81 J	0.69 J	120 U	0.50 U	17000	780 J	3.1 U	1500 J	0.74 J	0.10 U	2200000	0.20 U	16 U	0.080 U	
	MW18D102013	Normal	North Alluvial	11/1/2013	31 U	1.0 J	0.95 J	19	0.24 U	0.12 U	82000	1.5 U	0.81 J	0.89 J	130	0.50 U	21000	650 J	3.7	2600 J	2.0 U	0.046 J	2300000	0.17 U	7.9 J	0.080 U	
	MW18D042013	Normal	North Alluvial	4/17/2013	240 J	0.60 U	0.74 J	20 J	0.24 U	0.12 U	68000	0.77 J	0.82 J	1.1 J	310	0.33 J	18000	720 J	3.1	1100 J	2.0 U	0.036 J	2100000	0.20 U	29	0.080 U	
	MW18D102012	Normal	North Alluvial	11/8/2012	530	0.48 J	1.1 J	21	0.24 U	0.12 U	67000	0.65 J	0.81 J	1.9 J	290	0.57 J	19000	660	3.6	2100 J	1.1 J	0.10 U	2100000	0.10 U	88	0.080 U	
MW20	MW20042014	Normal	North Alluvial	4/14/2014	31 U	0.60 U	0.60 J	15	0.24 U	0.10 J	380000	0.52 U	1.6	2.4	250	0.50 U	74000	1600 J	4.5	4100	1						

5.0 Groundwater Analytical Results

TABLE 5-8

Summary of Total Metals Analytical Detections (Page 2 of 9)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																							EPA Method 7470 (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6		
					200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c		
MW22D	MW22D042014	Normal	North Alluvial	4/14/2014	31 U	0.60 U	0.36 J	11	0.24 U	0.12 U	81000	1.5 U	0.22 J	0.64 J	30 U	0.50 U	15000	130 J	0.96 U	710 J	44	0.10 U	1200000	0.20 U	15 U	0.080 U		
	DMW22D042014	Duplicate	North Alluvial	4/14/2014	31 U	0.60 U	0.36 J	11	0.24 U	0.12 U	80000	1.5 U	0.21 J	0.82 J	30 U	0.50 U	15000	130 J	0.95 U	910 J	43	0.10 U	1200000	0.20 U	19 U	0.080 U		
	MW22D102013	Normal	North Alluvial	11/1/2013	31 U	0.60 U	0.34 J	11	0.24 U	0.12 U	80000	1.5 U	0.18 J	0.69 J	25 J	0.50 U	17000	130 J	0.93 J	1100 J	37	0.062 J	1200000	0.20 U	33	0.080 U		
	DMW22D102013	Duplicate	North Alluvial	11/1/2013	31 U	0.60 U	1.0 UJ	11	0.24 U	0.12 U	79000	1.5 U	0.19 J	0.73 J	25 J	0.50 U	17000	130 J	1.0 J	1100 J	37	0.12 J	1200000	0.20 U	44	0.080 U		
	MW22D042013	Normal	North Alluvial	4/9/2013	31 U	0.60 U	0.37 J	12	0.24 U	0.12 U	79000	1.5 U	0.18 J	0.75 J	160	0.50 U	15000	120	1.2 J	520 J	38	0.10 U	1200000	0.092 U	14 J	0.080 U		
	MW22D102012	Normal	North Alluvial	11/8/2012	31 U	0.60 U	1.0 U	11	0.24 U	0.12 U	75000	1.5 U	0.14 J	1.5 U	160	0.50 U	16000	110	0.75 J	1200 J	35	0.10 U	1200000	0.10 U	15 J	0.080 U		
MW22S	MW22S042014	Normal	North Alluvial	4/10/2014	23000	0.60 U	7.3	240	1.7	0.32 J	110000	6.7 J	4.9	10	13000	28	24000	490	8.8	3100	25	0.22 J	920000	0.20 U	55 U	0.11 J		
	MW22S102013	Normal	North Alluvial	11/1/2013	14000	0.42 J	3.7 J	190	0.88 J	0.12 U	110000	6.8 J	3.1	7.5	7000	13	26000	250 J	6.5	2600 J	28	0.076 J	970000	0.10 U	25	0.080 U		
	MW22S042013	Normal	North Alluvial	4/16/2013	11000	0.60 U	3.5 J	170	0.75 J	0.17 J	110000	5.6 J	3.3	7.3	6300	9.2 J	22000	300	6.5	2600 J	34 J	0.11 J	930000 J	0.089 J	27 J	0.080 U		
	MW22S102012	Normal	North Alluvial	10/26/2012	35000	1.2 U	14 J	410	2.9	0.54 J	130000	10 J	6.4	19	20000	51 J	31000	570 J	13	3300	37 J	0.25 J	980000 J	0.32 J	91	0.080 U		
MW23	MW23042014	Normal	North Alluvial	4/11/2014	20000	0.60 U	1.1 J	150	0.24 U	0.12 U	10000	2.7 U	1.3	0.80 U	11000	0.47 UJ	7000	110	3.2 U	5000	2.0 U	0.21 J	540000	0.20 U	3.3 U	0.080 U		
	DMW23042014	Duplicate	North Alluvial	4/11/2014	26000	0.60 U	1.2 J	140	0.24 U	0.12 U	12000	3.4 U	1.3	0.95 U	15000	1.8 UJ	8600	110	3.8 U	5700	2.0 U	0.13 J	490000	0.20 U	3.7 U	0.080 U		
	MW23102013	Normal	North Alluvial	11/8/2013	2100	0.60 U	1.2 J	150	0.24 J	0.12 U	11000	4.8 J	1.7	1.5 J	960	0.95 J	4700	110	6.3	2000 J	2.0 U	0.092 J	520000	0.20 U	4.3 J	0.080 U		
	DMW23102013	Duplicate	North Alluvial	11/8/2013	2000	0.60 U	1.3 J	160	0.15 J	0.12 U	11000	2.7 J	1.6	1.5 J	930	0.93 J	4700	100	6.0	2000 J	2.0 U	0.14 J	510000	0.20 U	2.9 J	0.080 U		
	MW23042013	Normal	North Alluvial	4/8/2013	9500	0.62 J	1.5 J	160	0.35 J	0.12 U	12000	8.7 J	3.9	4.3	5500	3.0	6000	170	11	3500	2.0 U	7.0	490000	0.19 J	14 J	0.080 U		
	DMW23042013	Duplicate	North Alluvial	4/8/2013	9000	0.60 UJ	1.8 J	180	0.25 J	0.12 U	12000	8.2 J	4.1	4.3	5300	3.4	5700	180	11	3500	2.0 U	7.3	480000	0.097 J	13 J	0.080 U		
	MW23102012	Normal	North Alluvial	10/31/2012	1200 J	0.60 U	1.2 J	190 J	0.24 U	0.12 U	15000	3.5 J	2.3	1.3 J	760 J	0.78 J	5700	130	9.2	1600 J	2.0 U	0.34 J	480000	0.10 U	8.3 J	0.080 U		
MW23102012DUP	Duplicate	North Alluvial	10/31/2012	1500 J	0.60 U	1.1 J	170 J	0.24 U	0.12 U	15000	10 J	2.0	0.99 J	890 J	0.66 J	5900	120	6.6	1600 J	2.0 U	0.042 J	480000	0.10 U	5.0 J	0.080 U			
MW24	MW24042014	Normal	North Alluvial	4/11/2014	26 U	0.60 U	0.82 J	290	0.24 U	0.12 U	34000	1.5 U	0.10 U	1.5 U	1900	0.50 U	11000	480	0.90 U	930 J	2.0 U	0.10 U	270000	0.20 U	6.0 U	0.080 U		
	DMW24042014	Duplicate	North Alluvial	4/11/2014	31 U	0.60 U	0.83 J	300	0.24 U	0.12 U	35000	1.5 U	0.12 U	1.5 U	2000	0.50 U	11000	490	0.90 U	1000 J	2.0 U	0.10 U	270000	0.20 U	6.0 U	0.080 U		
	MW24102013	Normal	North Alluvial	11/7/2013	95 J	2.0 J	0.88 J	320	0.24 U	0.12 U	32000	1.5 U	0.10 J	1.5 U	2000	0.50 U	10000	430	0.52 J	880 J	2.0 U	0.10 U	270000	0.16 J	6.0 U	0.080 U		
	DMW24102013	Duplicate	North Alluvial	11/7/2013	98 J	0.67 J	0.88 J	320	0.24 U	0.12 U	33000	1.5 U	0.070 J	1.5 U	2100	0.50 U	10000	420	0.50 J	960 J	2.0 U	0.10 U	270000	0.14 J	6.0 U	0.080 U		
	MW24042013	Normal	North Alluvial	4/8/2013	84 J	0.60 UJ	0.86 J	280	0.24 U	0.12 U	31000	0.71 J	0.13 J	1.5 U	2000	0.50 U	9900	430	0.90 U	1000 J	2.0 U	0.10 U	260000	0.17 J	6.0 U	0.080 U		
	DMW24042013	Duplicate	North Alluvial	4/8/2013	110 J	0.60 UJ	0.88 J	300	0.24 U	0.12 U	29000	0.60 J	0.088 J	1.5 U	1800	0.50 U	9300	460	0.90 U	850 J	2.0 U	0.10 U	250000	0.084 J	6.0 U	0.080 U		
MW24102012	Normal	North Alluvial	10/31/2012	22 J	0.60 U	0.76 J	280 J	0.24 U	0.12 U	31000	1.5 U	0.10 U	1.5 U	1900 J	0.50 U	10000	430	0.90 U	960 J	2.0 U	0.10 U	260000	0.10 U	6.0 U	0.080 U			
SMW01	SMW01042014	Normal	North Alluvial	4/15/2014	31 U	0.60 U	1.0 J	23	0.24 U	0.12 U	20000	1.5 U	0.23 J	1.2 J	28 J	0.50 UJ	6600	120	2.0 J	920 J	0.85 J	0.078 J	740000	0.20 UJ	6.0 U	0.080 U		
	SMW01102013	Normal	North Alluvial	11/8/2013	31 U	0.60 U	1.1 J	23	0.24 U	0.12 U	18000	1.5 U	0.38 J	1.5 U	44 J	0.50 U	5500	230	1.6 J	340 J	2.0 U	0.10 U	640000	0.062 J	6.0 U	0.080 U		
	SMW01042013	Normal	North Alluvial	4/12/2013	31 U	0.60 U	0.68 J	17	0.24 U	0.12 U	19000	1.5 U	0.13 J	1.5 U	30 U	0.50 U	5700	92	1.1 J	270 J	2.0 U	0.10 U	490000	0.20 U	6.0 U	0.080 U		
	SMW01102012	Normal	North Alluvial	11/1/2012	22 J	0.60 U	0.64 J	18	0.24 U	0.12 U	19000	1.5 U	0.14 J	0.95 J	30 U	0.50 U	5600	80	1.4 U	580 J	2.0 U	0.10 U	490000	0.10 U	6.0 U	0.080 U		
TMW01	TMW01042014	Normal	North Alluvial	4/16/2014	31 U	0.60 U	0.64 J	11	0.24 U	0.14 J	110000	1.5 U	0.10 U	9.0	30 U	0.50 U	18000	12 J	0.90 U	540 J	4.7 J	0.10 U	580000	0.20 U	3.1 J	0.080 U		
	TMW01102013	Normal	North Alluvial	11/6/2013	31 U	0.60 U	0.67 J	11	0.24 U	0.12 U	110000	1.5 U	0.10 U	9.5	30 U	0.50 U	18000	12	0.57 J	480 J	6.3	0.10 U	590000	0.20 U	6.0 U	0.080 U		
	TMW01042013	Normal	North Alluvial	4/15/2013	31 U	0.60 R	0.63 J	10	0.24 U	0.12 U	98000	0.86 J	0.10 U	14	30 U	0.50 U	17000	15	0.35 J	550 J	6.2	0.10 U	580000	0.20 U	6.0 U	0.080 U		
	TMW01102012	Normal	North Alluvial	10/31/2012	31 U	0.60 U	0.69 J	12 J	0.24 U	0.12 U	100000	0.59 J	0.10 U	2.0	30 U	0.50 U	18000	18	0.32 J	290 J	5.2	0.10 U	600000	0.10 U	2.7 J	0.080 U		
TMW03	TMW03042014	Normal	North Alluvial	4/16/2014	31 U	0.60 U	0.43 J	13	0.24 U	0.12 U	48000	1.5 U	0.077 J	0.57 J	30 U	0.50 U	10000	4.9 J	0.90 U	710 J	64	0.10 U	970000	0.20 U	10 J	0.080 U		
	TMW03102013	Normal	North Alluvial	11/4/2013	21 J	0.60 U	0.51 J	13	0.24 U	0.12 U	51000	1.5 U	0.063 J	1.5 U	49 J	0.50 U	11000	5.6	0.90 U	1600 J	58	0.10 U	950000 J	0.20 U	10 J	0.080 U		
	TMW03042013	Normal	North Alluvial	4/16/2013	31 U	0.79 J	0.55 J	15 J	0.14 J	0.12 U	48000	1.5 U	0.14 J	0.70 J	48 J	0.24 J	11000	7.8 J	0.90 U	680 J	61	0.10 U	1000000	0.27 J	16 J	0.080 U		
	TMW03102012	Normal	North Alluvial	11/7/2012	19 J	0.60 U	0.60 J	13	0.24 U	0.12 U	46000	1.5 U	0.10 U	0.67 J	30 U	0.50 U	11000	7.1	0.90 U	840 J	54	0.10 U	990000	0.10 U	12 J	0.080 U		
TMW04	TMW04042014	Normal	North Alluvial	4/16/2014	31 U	0.60 U	1.2 J	7.5	0.24 U	0.12 U	30000	2.3 J	0.10 U	0.66 J	200	0.26 J	5300	0.90 UJ	0.90 U	1100 J	89	0.10 U	940000	0.20 U	7.3 J	0.080 U		
	TMW04102013	Normal	North Alluvial	11/4/2013	31 U	0.60 U	0.84 J	7.0	0.24 U	0.12 U	29000	1.6 J	0.10 U	1.5 U	33 J	0.50 U	5100	0.46 J	0.90 U	1700 J	83	0.10 U	870000 J	0.20 U	4.7 J	0.080 U		
	TMW04042013	Normal	North Alluvial	4/16/2013	180 J	0.60 U	2.2 J	14 J	0.24 U	0.12 U	31000	4.1 J	0.32 J	0.91 J	2300	0.49												

TABLE 5-8
Summary of Total Metals Analytical Detections (Page 3 of 9)
 Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																									EPA Method 7470 (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6				
					Regulatory Limits																									
					200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c				
TMW06	TMW06042014	Normal	North Alluvial	4/16/2014	93 J	0.60 U	0.73 J	14	0.24 U	0.12 U	32000	0.55 J	0.14 J	6.4	71 J	0.50 U	7000	92 J	1.4 J	660 J	0.92 J	0.13 J	930000	0.20 U	4.6 J	0.080 U				
	TMW06102013	Normal	North Alluvial	11/7/2013	23 J	0.60 U	0.74 J	14	0.24 U	0.12 U	32000	1.5 U	0.10 U	3.1	24 J	0.50 U	6900	14	0.48 J	730 J	1.4 J	0.10 U	930000	0.20 U	6.0 U	0.080 U				
	TMW06042013	Normal	North Alluvial	4/15/2013	24 J	0.60 R	0.65 J	13	0.24 U	0.12 U	31000	0.69 J	0.085 J	4.0	30 U	0.50 U	7000	18	0.75 J	460 J	1.8 J	0.10 U	930000	0.20 U	6.0 U	0.080 U				
	TMW06102012	Normal	North Alluvial	11/8/2012	18 J	0.60 U	0.59 J	14	0.24 U	0.12 U	37000	0.55 J	0.065 J	5.0	30 U	0.50 U	8900	27	0.59 J	910 J	3.5 J	0.10 U	1000000	0.10 U	6.0 U	0.080 U				
TMW07	TMW07042014	Normal	North Alluvial	4/10/2014	1400	0.60 J	0.92 J	38	0.14 J	0.12 U	58000	4.5 J	1.3	4.6	820	0.74 J	9900	360	4.5	6800	2.0 U	0.10 U	1300000	0.20 U	9.8 J	0.089 J				
	TMW07102013	Normal	North Alluvial	10/29/2013	730 J	0.72 J	0.86 J	32 J	0.24 U	0.12 U	52000	7.5 J	13	5.1	790 J	0.65 U	9600	370 J	7.9	6100	2.0 U	0.10 J	1200000	0.20 U	15 J	0.080 U				
	TMW07042013	Normal	North Alluvial	4/8/2013	250 J	1.0 J	0.70 J	22	0.24 U	0.12 U	33000	3.4 J	0.57 J	1.2 J	240	0.38 J	5800	260	3.7	4700	2.0 U	0.10 U	810000	0.20 U	8.0 J	0.080 U				
TMW08	TMW07102012	Normal	North Alluvial	11/6/2012	340	2.5 J	0.93 J	23	0.24 U	0.12 U	57000	1.2 J	0.49 J	0.96 J	460	0.24 J	10000	330 J	2.1 J	6700	2.0 U	0.10 U	1300000	0.10 U	7.0 J	0.080 U				
	TMW08042014	Normal	North Alluvial	4/15/2014	31 U	0.60 U	0.66 J	11	0.24 U	0.12 U	220000	1.5 U	0.38 J	2.0	2000	0.50 UJ	67000	270	1.5 J	4400 J	53 J	0.10 U	4400000	0.20 UJ	6.4 J	0.080 U				
	DTW08042014	Duplicate	North Alluvial	4/15/2014	31 U	0.60 U	0.66 J	11	0.24 U	0.12 U	230000	1.5 U	0.41 J	2.2	2100	0.50 UJ	68000	280	1.6 J	5900 J	54 J	0.10 U	4600000	0.20 UJ	6.4 J	0.080 U				
	TMW08102013	Normal	North Alluvial	11/8/2013	31 U	0.60 U	0.43 J	10	0.24 U	0.12 U	210000	1.5 U	0.29 J	1.5 J	930	0.50 U	60000	240	1.1 J	5000	40	0.10 U	8200000	0.20 U	4.2 J	0.080 U				
	TMW08042013	Normal	North Alluvial	4/3/2013	31 U	0.60 U	0.60 J	11	0.24 U	0.18 J	210000	0.50 J	0.35 J	2.3	7800	0.36 J	62000	240	1.3 J	5800	45	0.10 U	3200000	0.067 UJ	17 J	0.080 U				
TMW10	DTW08042013	Duplicate	North Alluvial	4/3/2013	31 U	0.60 U	0.66 J	9.7	0.24 U	0.12 UJ	220000	1.5 UJ	0.32 J	1.8 J	6000	0.50 UJ	63000	240	1.4 J	7100	45	0.10 U	3800000	0.20 UJ	14 J	0.080 U				
	TMW08102012	Normal	North Alluvial	10/24/2012	31 U	0.60 U	0.61 J	11	0.24 U	0.12 U	210000	1.5 U	0.30 J	2.0	2500	0.50 U	63000	240	1.1 J	5700	57	0.10 U	4200000	0.10 U	12 J	0.080 U				
	TMW10042014	Normal	North Alluvial	4/14/2014	31 U	0.60 U	0.74 J	19	0.24 U	0.12 U	88000	1.5 U	0.10 U	2.2	30 U	0.50 U	20000	110 J	1.3 U	1500 J	0.90 J	0.10 U	2100000	0.20 U	2.8 U	0.080 U				
	TMW10102013	Normal	North Alluvial	11/1/2013	31 U	0.60 U	0.54 J	18	0.24 U	0.12 U	83000	1.5 U	0.10 U	2.3	36 J	0.50 U	21000	75 J	0.96 J	2000 J	2.0 U	0.10 U	2100000	0.20 U	6.0 U	0.080 U				
TMW11	TMW10042013	Normal	North Alluvial	4/16/2013	31 U	0.60 U	0.74 J	19	0.24 U	0.12 U	80000	0.67 J	0.10 U	3.5	30 U	0.50 UJ	18000	52	1.4 J	800 J	0.94 J	0.10 U	2100000 J	0.20 UJ	7.6 J	0.080 U				
	TMW10102012	Normal	North Alluvial	10/24/2012	31 U	0.60 U	0.65 J	22	0.24 U	0.12 U	82000	1.3 J	0.10 U	7.7	30 U	0.50 U	20000	81	1.0 J	2000 J	2.0 U	0.10 U	2000000	0.10 U	3.0 J	0.080 U				
	TMW11042014	Normal	North Alluvial	4/17/2014	540	0.76 J	0.38 J	21	0.24 U	0.12 U	16000	1.5 J	0.12 J	1.5 U	240	0.20 J	3100	9.7	0.63 J	740 J	15	0.10 U	550000	0.14 U	3.9 J	0.080 U				
	TMW11102013	Normal	North Alluvial	11/5/2013	51 J	0.60 U	0.39 J	23	0.081 J	0.12 U	16000	0.97 J	0.10 U	1.5 U	38 J	0.50 U	3200	12	0.73 J	560 J	14	0.10 U	570000	0.20 U	5.6 J	0.080 U				
TMW13	TMW11042013	Normal	North Alluvial	4/9/2013	47 J	0.53 J	0.38 J	21	0.24 U	0.12 U	14000	0.93 J	0.075 J	1.5 U	27 J	0.50 U	2700	6.9	0.75 J	600 J	13	0.10 U	520000	0.17 U	2.4 J	0.080 U				
	TMW11102012	Normal	North Alluvial	11/9/2012	200 J	0.60 U	0.35 J	21	0.24 U	0.12 U	16000	1.3 J	0.10 U	1.5 U	95 J	0.50 U	3200	3.7	0.58 J	520 J	15	0.10 U	570000	0.10 U	15 J	0.080 U				
	TMW13042014	Normal	North Alluvial	4/17/2014	31 U	0.60 U	1.0 U	19	0.24 U	0.12 U	26000	0.67 J	0.10 U	1.5 U	30 U	0.50 U	4900	0.42 J	0.30 J	720 J	12	0.10 U	570000	0.20 U	6.0 U	0.080 U				
	TMW13102013	Normal	North Alluvial	11/5/2013	31 U	0.60 U	0.35 J	19	0.24 U	0.12 U	26000	0.74 J	0.10 U	1.5 U	30 U	0.50 U	5000	0.90 U	0.90 U	560 J	12	0.10 U	570000	0.20 U	6.0 U	0.080 U				
TMW15	TMW13042013	Normal	North Alluvial	4/17/2013	31 U	0.60 U	1.0 U	17 J	0.24 U	0.12 U	25000	0.73 J	0.10 U	1.5 U	30 U	0.50 U	4700	0.55 J	0.90 U	530 J	10	0.10 U	570000	0.20 U	6.0 U	0.080 U				
	TMW13102012	Normal	North Alluvial	11/8/2012	31 U	0.60 U	0.34 J	15	0.14 J	0.12 J	25000	0.72 J	0.15 J	1.5 U	30 U	0.18 J	5200	0.90 U	0.90 U	700 J	9.9	0.10 U	590000	0.087 J	6.0 U	0.080 U				
	TMW15042014	Normal	North Alluvial	4/17/2014	19 J	0.60 U	1.0 U	25	0.24 U	0.12 U	20000	1.2 J	0.10 U	1.5 U	30 U	0.50 U	3700	8.5	0.34 J	590 J	14	0.10 U	580000	0.20 U	7.2 J	0.080 U				
	TMW15102013	Normal	North Alluvial	11/6/2013	31 U	0.60 U	1.0 U	23	0.24 U	0.12 U	19000	0.93 J	0.10 U	1.5 U	30 U	0.50 U	3400	0.90 U	0.46 J	640 J	13	0.10 U	610000	0.20 U	8.3 J	0.080 U				
TMW21	TMW15042013	Normal	North Alluvial	4/17/2013	31 U	0.60 U	1.0 U	23 J	0.24 U	0.12 U	17000	1.2 J	0.10 U	1.5 U	30 U	0.50 U	3300	0.58 J	0.41 J	460 J	14	0.10 U	580000	0.20 U	11 J	0.080 U				
	TMW15102012	Normal	North Alluvial	11/8/2012	31 U	0.60 U	1.0 U	22	0.24 U	0.12 U	16000	1.1 J	0.10 U	1.5 U	30 U	0.50 U	3600	0.90 U	0.90 U	730 J	13	0.10 U	610000	0.10 U	8.6 J	0.080 U				
	TMW21042014	Normal	North Alluvial	4/14/2014	31 U	0.60 U	0.98 J	20	0.24 U	0.12 U	34000	1.5 U	0.075 J	4.8	30 U	0.50 U	6700	40 J	0.62 U	760 J	3.0 J	0.15 J	680000	0.20 U	7.5 U	0.080 U				
	TMW21102013	Normal	North Alluvial	11/7/2013	31 U	0.60 U	0.84 J	20	0.24 U	0.12 U	33000	1.5 U	0.071 J	4.0	30 U	0.50 U	6200	31	0.93 J	900 J	3.0 J	0.047 J	630000	0.20 U	6.0 U	0.080 U				
TMW22	TMW21042013	Normal	North Alluvial	4/16/2013	50 J	0.60 U	0.95 J	20	0.24 U	0.12 U	32000	0.62 J	0.075 J	6.0	39 J	0.50 UJ	6300	31	0.99 J	730 J	3.4 J	0.18 J	1100000 J	0.20 UJ	8.2 J	0.080 U				
	TMW21102012	Normal	North Alluvial	11/8/2012	68 J	0.60 U	0.83 J	18	0.24 U	0.12 U	32000	0.69 J	0.12 J	7.7	43 J	0.50 U	7400	90	0.90 J	1100 J	3.3 J	0.14 J	650000	0.10 U	4.1 J	0.080 U				
	TMW22042014	Normal	North Alluvial	4/10/2014	300	0.60 UJ	0.92 J	21	0.24 U	0.12 U	36000	3.0 J	0.19 J	1.2 J	160	0.36 J	11000	3.9	1.5 J	1000 J	5.1	0.10 U	920000	0.20 U	9.2 J	0.076 J				
	TMW22102013	Normal	North Alluvial	10/29/2013	930 J	0.44 J	1.0 J	32 J	0.24 U	0.12 U	35000	3.2 J	0.79 J	5.2	470 J	0.37 U	11000	17 J	2.7 J	1400 J	2.9 J	0.10 U	870000	0.20 U	13 J	0.051 J				
TMW23	TMW22042013	Normal	North Alluvial	4/12/2013	540	0.60 U	1.1 J	25	0.24 U	0.11 J	34000	1.6 J	0.18 J	2.1	310	0.42 J	10000	13	1.1 J	930 J	3.0 J	0.10 U	790000	0.20 U	9.2 J	0.080 U				
	TMW22102012	Normal	North Alluvial	11/6/2012	4200	0.60 UJ	1.1 J	73	0.24 J	0.12 U	37000	4.4 J	0.87 J	2.1	2100	1.0 J	12000	54 J	2.2 J	1700 J	3.4 J	0.10 U	840000	0.052 J	16 J	0.080 U				
	TMW23042014	Normal	North Alluvial	4/10/2014	4900	0.60 UJ	1.8 J	87	0.15 J	0.12 U	21000	5.1 J	1.4	5.9	2800	1.8 J	5800	90	3.7											

5.0 Groundwater Analytical Results

TABLE 5-8

Summary of Total Metals Analytical Detections (Page 4 of 9)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																							EPA Method 7470 (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6		
					Regulatory Limits																							
					200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c		
TMW25	TMW25042014	Normal	North Alluvial	4/15/2014	22 J	0.60 U	0.63 J	13	0.24 U	0.12 U	53000	1.5 U	0.56 J	0.97 J	60 J	0.50 UJ	11000	430	1.0 J	960 J	0.92 J	0.10 U	900000	0.20 UJ	4.7 J	0.080 U		
	TMW25102013	Normal	North Alluvial	11/4/2013	24 J	0.60 U	0.56 J	15	0.24 U	0.12 U	55000	1.5 U	1.2	0.69 J	150	0.50 U	11000	870	1.5 J	760 J	2.0 U	0.10 U	890000 J	0.20 U	8.3 J	0.080 U		
	TMW25042013	Normal	North Alluvial	4/16/2013	32 J	0.60 U	0.69 J	13	0.24 U	0.12 U	51000	1.5 U	0.71 J	0.96 J	150	0.50 UJ	10000	710	1.2 J	410 J	2.0 U	0.10 U	940000 J	0.20 UJ	9.0 J	0.080 U		
	TMW25102012	Normal	North Alluvial	11/1/2012	24 J	0.60 U	0.75 J	16	0.24 U	0.12 U	53000	1.5 U	0.91 J	1.4 J	160	0.50 U	10000	690	1.6 U	600 J	2.0 U	0.052 J	930000	0.10 U	10 J	0.080 U		
TMW26	TMW26042014	Normal	North Alluvial	4/15/2014	840	0.60 U	1.2 J	34	0.24 U	0.12 U	19000	0.98 J	0.49 J	2.7	490	0.28 J	7500	130	2.6 J	870 J	2.0 U	0.10 U	960000	0.20 UJ	2.2 J	0.080 U		
	TMW26102013	Normal	North Alluvial	11/4/2013	1400 J	0.60 U	1.4 J	40	0.24 U	0.12 U	19000	0.98 J	0.49 J	3.4	840	0.34 J	7300	120	2.2 J	980 J	2.0 U	0.034 J	860000 J	0.066 J	2.7 J	0.080 U		
	TMW26042013	Normal	North Alluvial	4/17/2013	1600 J	0.82 J	1.2 J	28 J	1.2 U	0.11 J	19000	0.84 J	0.38 J	3.7	810	0.42 J	7500	120 J	2.3 J	700 J	10 U	0.11 J	880000	0.071 J	11 J	0.080 U		
	DMW26042013	Duplicate	North Alluvial	4/17/2013	1200 J	0.60 UJ	1.2 J	33 J	0.24 U	0.12 UJ	19000	0.87 J	0.41 J	3.9	540	0.29 J	7300	120 J	2.2 J	690 J	2.0 U	0.10 UJ	880000	0.20 UJ	4.9 J	0.080 U		
	TMW26102012	Normal	North Alluvial	10/25/2012	1500 J	0.42 J	1.3 J	45	0.088 J	0.12 U	20000	1.3 J	0.58 J	3.9	820 J	0.41 J	7300	120	2.6 J	1300 J	2.0 U	0.10 UJ	900000 J	0.10 U	4.3 J	0.080 U		
	TMW26102012DUP	Duplicate	North Alluvial	10/25/2012	1700 J	0.60 UJ	1.4 J	49	0.22 J	0.12 U	18000	1.6 J	0.63 J	4.6	890 J	0.42 J	6900	130	2.6 J	1100 J	2.0 U	0.047 J	880000 J	0.10 U	5.1 J	0.080 U		
TMW27	TMW27042014	Normal	North Alluvial	4/15/2014	31 U	0.60 U	20 J	120	0.24 U	0.12 U	25000	1.5 U	0.18 J	1.4 J	610	0.50 UJ	6500	550	0.66 J	640 J	2.0 U	0.10 U	390000	0.20 UJ	8.1 J	0.080 U		
	TMW27102013	Normal	North Alluvial	11/5/2013	31 U	0.60 U	20	130	0.24 U	0.12 U	24000	1.5 U	0.16 J	1.5 U	580	0.50 U	6500	560	0.55 J	630 J	2.0 U	0.10 U	350000	0.20 U	6.4 J	0.080 U		
	TMW27042013	Normal	North Alluvial	4/12/2013	31 U	0.60 U	21	130	0.24 U	0.12 U	25000	1.5 U	0.20 J	1.5 U	600	0.50 U	6100	610	0.64 J	610 J	2.0 U	0.10 U	330000	0.20 U	7.9 J	0.080 U		
	TMW27102012	Normal	North Alluvial	11/1/2012	31 U	0.60 U	19	130	0.24 U	0.12 U	24000	1.5 U	0.18 J	1.5 U	610	0.50 U	5900	530	0.99 U	610 J	2.0 U	0.10 U	370000	0.10 U	4.8 J	0.080 U		
TMW28	TMW28042014	Normal	North Alluvial	4/15/2014	31 U	0.60 U	1.0 U	52	0.24 U	0.12 U	110000	1.5 U	0.14 J	0.84 J	440	0.50 UJ	34000	420	0.59 J	1400 J	2.0 U	0.10 U	370000	0.20 UJ	11 J	0.080 U		
	TMW28102013	Normal	North Alluvial	11/5/2013	31 U	0.60 U	1.0 U	64	0.18 J	0.12 U	210000	1.5 U	0.46 J	0.82 J	550	0.50 U	64000	790	0.75 J	1500 J	2.0 U	0.10 U	360000	0.21 J	8.9 J	0.080 U		
	TMW28042013	Normal	North Alluvial	4/2/2013	30 J	0.60 U	1.0 U	64	0.24 U	0.12 U	74000	1.5 U	0.10 J	1.5 U	420	0.50 U	23000	320	0.37 J	1400 J	2.0 U	0.10 U	330000	0.20 U	120	0.080 U		
	TMW28102012	Normal	North Alluvial	10/25/2012	31 U	0.60 U	1.0 U	76	0.24 U	0.12 U	75000	1.5 U	0.15 J	1.5 U	450 J	0.50 U	23000	350	0.76 J	2400 J	2.0 U	0.10 U	320000 J	0.10 U	21	0.080 U		
TMW29	TMW29042014	Normal	North Alluvial	4/10/2014	10000	0.91 J	2.3 J	120	0.60 J	0.36 J	48000	6.4 J	2.8	4.0	5200	3.4	10000	180	6.9	2800 J	19	0.10 U	620000	0.19 U	19 J	0.080 U		
	TMW29102013	Normal	North Alluvial	10/31/2013	150000	0.60 U	32	3800	10	1.3	340000	110	65	79	100000	91	55000	5600	160	20000	33	0.53 J	570000	0.87 J	340	0.052 J		
	TMW29042013	Normal	North Alluvial	4/11/2013	23000	0.60 U	6.1	440 J	1.8	0.22 J	72000	22	10	14	14000	12 J	15000	680 J	24	5100	23	0.10 J	540000	0.17 J	63	0.080 U		
	TMW29102012	Normal	North Alluvial	10/26/2012	230000	1.2 U	47 J	5800	17	2.7	470000	190	110	120	170000	140 J	89000	7200 J	260	31000	33 J	0.71 J	640000 J	1.4 J	520	0.27		
TMW31S	TMW31S042014	Normal	North Alluvial	4/10/2014	400	0.60 UJ	0.34 J	20	0.24 U	0.12 U	120000	1.9 J	0.15 J	0.92 J	180	0.29 J	21000	29	1.1 J	810 J	9.8	0.10 U	590000	0.20 U	7.3 J	0.080 U		
	TMW31S102013	Normal	North Alluvial	10/30/2013	10000	0.60 U	0.80 J	120	0.38 J	0.14 J	130000	8.8 J	2.8	4.7	4000	3.3	25000	280	7.4	2100 J	9.8	0.034 J	590000	0.057 J	20	0.080 U		
	TMW31S042013	Normal	North Alluvial	4/11/2013	210 J	0.60 U	0.40 J	18 J	0.24 U	0.12 UJ	110000	1.3 J	0.10 J	0.76 J	96 J	0.24 J	20000	30 J	0.55 J	1000 J	9.6	0.10 UJ	520000	0.20 UJ	7.8 J	0.080 U		
	TMW31S102012	Normal	North Alluvial	11/5/2012	400	0.91 J	0.34 J	25	0.24 U	0.12 U	100000	1.8 J	0.25 J	1.4 J	200	0.91 J	21000	41	0.96 J	850 J	8.4	0.10 U	550000	0.082 UJ	9.1 J	0.080 U		
	TMW31S102012DUP	Duplicate	North Alluvial	11/5/2012	480	0.50 J	0.36 J	25	0.24 U	0.12 U	100000	2.0 J	0.21 J	0.89 J	230	0.49 J	21000	40	0.75 J	980 J	8.5	0.10 U	550000	0.10 UJ	7.5 J	0.080 U		
TMW33	TMW33042014	Normal	North Alluvial	4/10/2014	4900	0.60 UJ	1.5 J	87	0.30 J	0.14 J	100000	4.8 J	1.7	7.8	3200	2.4 J	28000	520	4.6	2800 J	0.86 J	0.10 U	2500000	0.084 U	12 J	0.14 J		
	TMW33102013	Normal	North Alluvial	10/30/2013	8400	0.60 U	2.8 J	170	0.47 J	0.17 J	110000	9.6 J	2.9	11	7100	5.1	30000	500	6.7	4400	2.5 J	0.094 J	2400000	0.18 J	23	0.080 U		
	TMW33042013	Normal	North Alluvial	4/17/2013	3400 J	0.60 U	1.3 J	46 J	0.24 J	0.20 J	110000	6.9 J	1.5	4.1	1700	1.7 J	29000	730 J	3.6	2500 J	2.0 U	0.049 J	2500000	0.20 U	11 J	0.080 U		
	TMW33102012	Normal	North Alluvial	10/26/2012	1100 J	1.2 U	1.3 J	36	0.48 U	0.21 J	110000	6.7 J	0.94 J	4.1	860	0.41 J	30000	390 J	7.2	2200 J	4.0 U	0.20 UJ	2500000 J	0.20 U	33 J	0.080 U		
	TMW33102012DUP	Duplicate	North Alluvial	10/26/2012	640 J	1.2 U	1.3 J	39	0.48 U	0.24 UJ	110000	6.6 J	0.94 J	4.5	610	0.64 J	29000	530 J	6.5	4200 J	4.0 U	0.20 UJ	2500000 J	0.20 U	25 J	0.080 U		
TMW34	TMW34042014	Normal	North Alluvial	4/15/2014	22 J	0.60 U	0.36 J	12	0.24 U	0.12 U	130000	1.5 U	0.19 J	1.5 U	25 J	0.50 UJ	27000	160	0.83 J	1400 J	130 J	0.10 U	1600000	0.20 UJ	6.0 U	0.080 U		
	TMW34102013	Normal	North Alluvial	11/1/2013	52 J	0.60 UJ	0.39 J	12	0.24 U	0.12 U	120000	1.5 U	0.23 J	0.88 J	33 J	0.50 U	27000	180 J	0.64 J	1700 J	100	0.10 U	1400000	0.20 UJ	6.0 U	0.080 U		
	DTW34102013	Duplicate	North Alluvial	11/1/2013	150 J	0.47 J	0.35 J	13	0.24 U	0.12 U	120000	1.5 U	0.27 J	0.60 J	89 J	0.50 U	27000	210 J	0.67 J	1500 J	100	0.10 U	1400000	0.051 UJ	6.0 U	0.080 U		
	TMW34042013	Normal	North Alluvial	4/10/2013	150 J	1.2 U	2.0 U	14	0.48 U	0.24 U	120000	1.4 J	0.32 J	3.0 U	100	1.0 U	24000	190	1.4 J	1300 J	120	0.20 U	1300000	0.40 U	12 U	0.080 U		
	TMW34-102012	Normal	North Alluvial	10/23/2012	24 J	0.60 U	0.33 J	13	0.24 U	0.12 U	130000	1.5 U	0.23 J	0.98 J	30 U	0.50 U	27000	190	0.74 J	1200 J	130	0.10 U	1400000	0.10 U	6.0 U	0.080 U		
TMW35	TMW35042014	Normal	North Alluvial	4/14/2014	31 U	0.60 U	0.62 J	14	0.24 U	0.12 U	91000	1.5 U	0.22 J	1.2 J	30 U	0.50 U	16000	200 J	1.3 U	1100 J	35	0.10 U	1300000	0.20 U	6.0 U	0.080 U		
	TMW35102013	Normal	North Alluvial	11/4/2013	31 U	0.60 U	0.49 J	12	0.24 U	0.12 U	88000	1.5 U	0.11 J	0.80 J	30 U	0.50 U	16000	150	0.98 J	1900 J	33	0.10 U	1200000 J	0.20 U	6.0 U	0.080 U		

TABLE 5-8
Summary of Total Metals Analytical Detections (Page 5 of 9)
 Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																				EPA Method 7470 (µg/L)			
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6		
					Regulatory Limits																							
					200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c		
TMW40S	TMW40S042014	Normal	North Alluvial	4/11/2014	66000	0.60 U	26	1300	8.8	0.80 J	110000	30	16	26	31000	76	29000	1900	37	5400	62	0.16 J	950000	0.31 J	500	0.056 J		
	TMW40S102013	Normal	North Alluvial	11/1/2013	22000	0.60 U	16	310	2.0	0.17 J	78000	10	4.4	7.5	11000	19	15000	430 J	9.5	3400	51	0.043 J	1000000	0.12 U	150	0.080 U		
	TMW40S042013	Normal	North Alluvial	4/15/2013	36000	0.60 R	18	530	3.7	0.23 J	78000	16	7.2	13	20000	36	17000	850	16	4500	55	0.060 J	940000	0.17 U	280	0.080 U		
Not sampled previously for metals due to lack of available water																												
TMW41	TMW41042014	Normal	North Alluvial	4/10/2014	820	0.85 J	0.59 J	19	0.13 J	0.12 U	19000	7.8 J	0.30 J	1.4 J	490	0.56 J	4600	14	1.0 J	1100 J	3.4 J	0.10 U	960000	0.17 U	7.4 J	0.079 J		
	TMW41102013	Normal	North Alluvial	10/30/2013	640	0.60 U	0.53 J	15	0.24 U	0.12 U	15000	3.6 J	0.20 J	1.3 J	300	0.26 J	4000	9.5	0.89 J	1200 J	2.6 J	0.10 U	890000	0.20 U	9.6 J	0.080 U		
	TMW41042013	Normal	North Alluvial	4/11/2013	540	0.60 U	0.61 J	16 J	0.24 U	0.12 U	17000	6.6 J	0.16 J	1.7 J	340	0.29 J	4500	9.6 J	0.97 J	1800 J	4.5 J	0.10 U	850000	0.20 U	12 J	0.080 U		
	TMW41102012	Normal	North Alluvial	11/6/2012	790	0.60 U	0.56 J	15	0.24 U	0.29 J	16000	2.4 J	0.078 J	1.2 J	360	0.22 J	4000	7.8 J	0.56 J	1400 J	2.1 J	0.10 U	880000	0.10 U	5.8 J	0.080 U		
TMW43	TMW43042014	Normal	North Alluvial	4/15/2014	31 U	0.60 U	1.0 U	20	0.24 U	0.12 U	35000	1.5 U	0.089 J	1.5 U	30 U	0.50 U	6600	52	0.30 J	990 J	6.0 J	0.10 U	650000	0.20 U	4.2 J	0.080 U		
	TMW43102013	Normal	North Alluvial	10/30/2013	100 J	0.60 U	0.35 J	21	0.24 U	0.12 U	36000	1.5 U	0.10 J	0.65 J	56 J	0.50 U	6700	53	0.30 J	1200 J	6.8	0.10 U	630000	0.20 U	2.2 J	0.029 J		
	TMW43042013	Normal	North Alluvial	4/16/2013	1500	0.60 U	0.48 J	33	0.24 U	0.12 U	34000	1.4 J	0.47 J	1.7 J	830	0.63 J	6200	64	1.2 J	1200 J	6.3 J	0.10 U	600000 J	0.20 U	8.0 J	0.080 U		
	TMW43102012	Normal	North Alluvial	11/8/2012	130 J	0.60 U	0.39 J	23	0.24 U	0.12 U	33000	0.55 J	0.16 J	0.62 J	79 J	0.50 U	6800	55	0.83 J	1300 J	4.9 J	0.10 U	600000	0.10 U	4.0 J	0.080 U		
TMW44	TMW44042014	Normal	North Alluvial	4/10/2014	1400	0.60 U	0.94 J	32	0.24 U	0.12 U	35000	1.4 J	0.44 J	1.0 J	750	0.54 J	12000	53	1.2 J	910 J	2.2 J	0.10 U	780000	0.20 U	3.7 J	0.097 J		
	TMW44102013	Normal	North Alluvial	10/29/2013	12000 J	0.88 J	2.3 J	130 J	0.72 J	0.12 U	46000	7.9 J	3.9	5.0	6800 J	4.9	15000	350 J	6.4	2900 J	2.1 J	0.033 J	780000	0.23 U	22	0.080 U		
	TMW44042013	Normal	North Alluvial	4/8/2013	8800	0.47 J	1.8 J	77	0.19 J	0.12 U	37000	4.3 J	2.0	3.9	5300	2.9 J	12000	240	3.5	2400 J	2.6 J	0.10 U	700000	0.20 U	20	0.080 U		
	TMW44102012	Normal	North Alluvial	11/6/2012	19000	0.60 U	4.0 J	210	0.87 J	0.13 J	57000	11	6.5	8.4	12000	9.0	16000	640 J	11 J	4100	2.3 J	0.037 J	710000	0.15 J	47	0.080 U		
TMW45	TMW45042014	Normal	North Alluvial	4/11/2014	280 U	0.60 U	1.0 J	76	0.24 U	0.12 U	29000	1.5 U	0.54 J	3.8 U	82 U	0.21 U	7900	490	2.8 U	1200 J	2.0 U	0.065 J	940000	0.20 U	6.0 U	0.080 U		
	TMW45102013	Normal	North Alluvial	11/7/2013	770	1.0 J	1.3 J	97	0.24 U	0.12 U	31000	0.85 J	1.5	3.9	460	0.71 J	7500	1400	8.7	1200 J	2.0 U	0.67 J	940000	0.20 U	4.1 J	0.080 U		
	TMW45042013	Normal	North Alluvial	4/4/2013	91 J	0.60 U	1.1 J	74 J	0.24 U	0.12 U	29000	1.5 U	0.19 J	1.9 J	60 J	0.50 U	7200	110	1.1 J	1200 J	0.75 J	0.10 U	910000	0.056 U	6.0 U	0.080 U		
	TMW45102012	Normal	North Alluvial	11/6/2012	170 J	0.60 U	1.0 J	71	0.24 U	0.12 U	30000	0.66 J	0.085 J	2.1	94 J	0.18 J	8300	51 J	1.2 J	1600 J	0.85 J	0.10 U	940000	0.10 U	6.3 J	0.080 U		
	TMW45102012DUP	Duplicate	North Alluvial	11/6/2012	160 J	0.60 U	0.84 J	70	0.24 U	0.12 U	32000	0.60 J	0.13 J	1.7 J	97 J	0.50 U	8300	50 J	0.86 J	1800 J	0.77 J	0.10 U	990000	0.10 U	6.0 U	0.080 U		
TMW46	TMW46042014	Normal	North Alluvial	4/11/2014	2200	0.60 U	0.75 J	42	0.10 J	0.12 U	73000	2.7 U	0.83 J	5.5 U	970	0.98 U	18000	54	1.9 U	1400 J	120	0.10 U	1200000	0.20 U	4.3 U	0.080 U		
	TMW46102013	Normal	North Alluvial	10/30/2013	23000	0.60 U	6.2	760	1.5	0.21 J	120000	20	12	16	15000	15	23000	960	17	4600	120	0.11 J	1200000	0.23 J	57	0.080 U		
	TMW46042013	Normal	North Alluvial	4/8/2013	6100	0.60 U	1.1 J	89	0.22 J	0.12 U	68000	4.1 J	3.1	5.7	4200	3.2	15000	120	3.5	1900 J	97	0.10 U	1100000	0.20 U	12 J	0.080 U		
	TMW46102012	Normal	North Alluvial	11/6/2012	18000	0.60 U	4.1 J	320	0.91 J	0.14 J	110000	13	7.0	9.7	12000	9.2	22000	560 J	9.4 J	4300	93	0.10 U	1200000	0.16 J	36	0.080 U		
TMW47	TMW47042014	Normal	North Alluvial	4/16/2014	20 J	0.60 U	0.48 J	13	0.24 U	0.12 U	5900	1.5 U	0.070 J	0.56 J	30 U	0.50 U	670	44 J	0.90 U	1100 J	2.0 U	0.10 U	560000	0.20 U	6.0 U	0.080 U		
	TMW47102013	Normal	North Alluvial	11/7/2013	19 J	0.60 U	0.53 J	16	0.24 U	0.12 U	6100	1.5 U	0.077 J	1.5 U	22 J	0.50 U	630	43	0.34 J	1200 J	2.0 U	0.10 U	580000	0.20 U	6.0 U	0.080 U		
	TMW47042013	Normal	North Alluvial	4/15/2013	73 J	0.60 R	0.58 J	15	0.24 U	0.12 U	5900	1.5 U	0.078 J	0.78 J	62 J	0.50 U	660	40	0.58 J	1400 J	2.0 U	0.10 U	560000	0.20 U	4.0 J	0.080 U		
	TMW47102012	Normal	North Alluvial	11/2/2012	75 J	0.60 U	0.56 J	16 J	0.24 U	0.12 U	5900	1.5 U	0.090 J	1.7 J	48 J	0.50 U	630	32	0.75 U	1300 J	2.0 U	0.10 U	580000	0.10 U	6.8 J	0.080 U		
EMW01	Well not sampled since April 2013 ^d																											
	EMW01042013	Normal	North Bedrock	4/15/2013	37 J	0.61 J	0.59 J	19	0.24 U	0.12 U	79000	0.50 J	0.082 J	1.5 U	59 J	0.50 U	9000	130	0.74 J	4200	2.0 U	0.10 U	1900000	0.12 U	11 J	0.080 U		
EMW01102012	Normal	North Bedrock	10/25/2012	36 J	0.60 U	0.91 J	31	0.24 U	0.18 J	78000	1.0 J	0.077 J	0.93 J	32 U	0.50 U	6700	50	1.6 J	4900	2.0 U	0.10 U	1900000 J	0.10 U	13 J	0.080 U			
EMW02	Well not sampled since April 2013 ^d																											
	EMW02042013	Normal	North Bedrock	4/16/2013	36 J	0.41 J	0.34 J	13	0.24 U	0.18 J	60000	1.5 U	0.10 J	0.59 J	30 U	0.50 U	6600	100	1.0 J	2300 J	2.0 U	0.41 J	1700000 J	0.20 U	43 J	0.080 U		
EMW02102012	Normal	North Bedrock	10/25/2012	31 J	0.60 U	1.0 U	14	0.24 U	0.16 J	66000	1.5 U	0.072 J	1.5 U	30 U	0.50 U	7300	89	0.90 U	2900 J	2.0 U	0.10 U	1700000 J	0.10 U	58	0.080 U			
EMW03	Well not sampled since April 2013 ^d																											
	EMW03042013	Normal	North Bedrock	4/15/2013	310	0.60 R	1.1 J	16	0.24 U	0.10 J	34000	0.83 J	0.088 J	1.5 U	30 U	0.50 U	760	0.32 J	1.0 J	4100	2.0 U	0.10 U	1500000	0.20 U	36	0.080 U		
EMW03102102	Normal	North Bedrock	10/25/2012	55 J	0.60 U	0.69 J	14	0.24 U	0.12 U	20000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	1500	1.7 J	0.48 J	3000	2.0 U	0.10 U	1400000 J	0.10 U	17 J	0.080 U			
EMW04	Well not sampled since April 2013 ^d																											
	EMW04042013	Normal	North Bedrock	4/15/2013	190 J	0.60 R	0.83 J	21	0.24 U	0.12 U	170000	200	6.9	2.0	1300	0.24 J	21000	210	430	6200	2.0 U	2.7 J	2700000	0.20 U	5.7 J	0.080 U		
	EMW04102012	Normal	North Bedrock	10/25/2012	200 J	0.60 U	1.1 J	28	0.24 U	0.11 J	180000	150 J	3.5	0.97 J	1100 J	0.29 J	20000	180	200	5900	2.0 U	0.51 J	3000000 J	0.10 U	34	0.080 U		
EMW04102012DUP	Duplicate	North Bedrock	10/25/2012	330 J	0.60 U	0.96 J	29	0.24 U	0.12 U	180000	340 J	4.4	1.0 J	1900 J	0.45 J	21000	230	250	6200	2.0 U	0.68 J	2900000 J	0.10 U	31	0.080 U			
TMW02	TMW02042014	Normal	North Bedrock	4/16/2014	31 U	0.60 U	0.93 J	7.1	0.24 U	0.12 U	22000	0.52 J	0.10 U	1.5 U	30 U	0.50 U	2600	0.90 U	0.90 U	1700 J	74	0.10 U	1200000	0.20 U	6.0 U	0.080 U		
	TMW02102013	Normal	North Bedrock	11/4/2013	31 U	0.60 U	1.3 J	8.6	0.24 U	0.12 U	21000	0.63 J	0.10 U	1.5 U	30 U	0.50 U	2500	0.32 J	0.90 U	2600 J	73	0.10 U	1000000 J	0.20 U	6.0 U	0.080 U		

5.0 Groundwater Analytical Results

TABLE 5-8

Summary of Total Metals Analytical Detections (Page 6 of 9)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																							EPA Method 7470 (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6		
					Regulatory Limits																							
					200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c		
TMW14A	TMW14A042014	Normal	North Bedrock	4/15/2014	48 J	0.60 U	0.55 J	18	0.24 U	0.12 U	3300	1.5 U	0.056 J	13	52 J	0.22 J	420 J	14	3.1	790 J	2.0 U	0.28 J	470000	0.20 UJ	4.8 J	0.080 U		
	TMW14A102013	Normal	North Bedrock	11/6/2013	27 J	0.60 U	0.67 J	16	0.24 U	0.12 U	3300	1.5 U	0.10 U	1.7 J	37 J	0.50 U	380 J	12	1.1 J	690 J	2.0 U	0.10 U	460000	0.20 U	6.0 U	0.080 U		
	TMW14A042013	Normal	North Bedrock	4/17/2013	120 J	0.60 U	0.54 J	21 J	0.24 U	0.12 U	3300	1.5 U	0.26 J	0.74 J	58 J	0.50 U	430 J	15 J	0.65 J	690 J	2.0 U	0.10 U	450000	0.20 U	6.0 U	0.080 U		
	TMW14A102012	Normal	North Bedrock	11/8/2012	36 J	0.60 U	0.53 J	17	0.24 U	0.12 U	3200	1.5 U	0.10 U	4.1	40 J	0.50 U	440 J	13	2.6 J	910 J	0.86 J	0.069 J	460000	0.10 U	6.0 U	0.080 U		
TMW16	TMW16042014	Normal	North Bedrock	4/9/2014	840 U	0.60 U	0.37 J	22 U	0.24 U	0.12 U	4300 U	1.3 U	0.29 U	7.0 U	350 U	0.44 U	620	11 U	3.2 U	950 J	2.0 U	0.27 J	450000	0.20 U	15 U	0.080 U		
	TMW16102013	Normal	North Bedrock	10/31/2013	1600	0.60 U	0.33 J	32	0.080 J	0.12 U	4200	3.3 J	0.55 U	6.3	830	0.69 J	890	19	5.0	1500 J	2.0 U	1.3 J	460000	0.20 U	13 U	0.080 U		
	TMW16042013	Normal	North Bedrock	4/18/2013	3000	0.92 J	0.46 J	32	0.24 U	0.12 U	4800	4.1 J	0.74 J	8.2	1200	1.4 J	1200	26	5.4	1300 J	2.0 U	0.81 J	480000	0.20 U	18 J	0.080 U		
TMW17	TMW16102012	Normal	North Bedrock	11/6/2012	4400	0.60 UJ	0.76 J	81	0.20 J	0.12 U	5500	3.8 J	0.81 J	9.2	2100	1.4 J	1700	48 J	5.8 J	1500 J	2.0 U	0.21 J	440000	0.074 J	65	0.080 U		
	TMW17042014	Normal	North Bedrock	4/17/2014	970	0.60 U	0.68 J	29	0.24 U	0.23 J	6200	2.6 J	0.44 J	7.3	600	5.5	860	43	3.9	1100 J	2.0 U	2.1 J	430000	0.20 U	2900	0.035 J		
	TMW17102013	Normal	North Bedrock	11/6/2013	220 J	0.60 U	0.34 J	16	0.24 U	0.12 U	3500	1.5 U	0.10 U	1.1 J	74 J	0.60 J	500	9.6	0.45 J	980 J	2.0 U	0.047 J	450000	0.20 U	60	0.080 U		
TMW18	TMW17042013	Normal	North Bedrock	4/9/2013	300	0.60 U	0.38 J	16	0.24 U	0.12 U	3600	0.50 J	0.093 J	1.9 J	130	1.5 J	530	17	0.76 J	910 J	2.0 U	0.13 J	430000	0.20 U	1100	0.080 U		
	TMW17102012	Normal	North Bedrock	11/9/2012	3000	0.68 J	5.1	64	0.18 J	0.53 J	14000	5.6 J	1.5	28	2300	22	2100	200	5.6	1000 J	1.0 J	1.7 J	420000	0.10 U	54000	0.080 U		
	TMW18042014	Normal	North Bedrock	4/11/2014	320 U	0.44 J	3.9 J	24	0.24 U	0.12 U	6900	1.8 U	0.18 U	3.5 U	160 U	1.1 U	1100	7.3 U	1.1 U	4000	2.0 U	0.13 J	680000	0.20 U	23 U	0.080 U		
	TMW18102013	Normal	North Bedrock	10/31/2013	370	0.60 U	2.6 J	16	0.24 U	0.12 U	6200	0.94 J	0.068 U	1.5 J	160	0.58 J	870	6.3	0.53 J	4500	0.76 J	0.079 J	680000	0.20 U	3.0 U	0.080 U		
TMW19	TMW18042013	Normal	North Bedrock	4/12/2013	320	0.60 U	2.6 J	19	0.24 U	0.12 U	6400	0.90 J	0.10 U	1.9 J	120	0.97 J	1000	5.5	0.77 J	4500	2.0 U	0.041 J	680000	0.20 U	5.7 J	0.080 U		
	TMW18102012	Normal	North Bedrock	11/5/2012	80 J	0.60 U	0.57 J	15	0.24 U	0.12 U	5000	1.5 U	0.10 U	0.57 J	34 J	0.51 J	1000	2.1 J	0.32 J	3800	2.0 U	0.10 U	720000	0.063 UJ	6.0 U	0.080 U		
	TMW18102012DUP	Duplicate	North Bedrock	11/5/2012	77 J	0.60 U	0.60 J	15	0.24 U	0.12 U	5000	1.5 U	0.10 U	1.5 UJ	29 J	0.47 J	1000	2.4 J	0.36 J	4100	2.0 U	0.10 U	720000	0.10 UJ	6.0 U	0.080 U		
TMW30	TMW19042014	Normal	North Bedrock	4/9/2014	990 U	0.60 U	0.36 J	9.8 U	0.24 U	0.12 U	9900	0.59 U	0.19 U	0.82 U	450 U	0.56 U	1200	22 U	2.1 U	1300 J	2.0 U	0.23 J	710000	0.20 U	4.5 U	0.080 U		
	TMW19102013	Normal	North Bedrock	10/31/2013	780	0.60 U	0.36 J	10	0.24 U	0.12 U	9900	0.79 J	0.13 U	0.73 J	420	0.44 J	1200	38	0.97 J	1700 J	2.0 U	0.84 J	710000	0.20 U	2.6 U	0.080 U		
	TMW19042013	Normal	North Bedrock	4/12/2013	9800	0.60 U	0.86 J	44	0.43 J	0.12 U	13000	6.6 J	2.2	11	5100	3.0	3600	120	7.4	2200 J	0.77 J	0.90 J	680000	0.20 U	16 J	0.080 U		
	TMW19102012	Normal	North Bedrock	11/5/2012	190 J	0.60 U	0.39 J	8.3	0.24 U	0.12 U	9000	1.5 U	0.11 J	1.5 U	140	0.50 U	1100	37	0.43 J	1200 J	2.0 U	0.10 U	710000	0.10 U	6.0 U	0.080 U		
TMW31D	TMW30042014	Normal	North Bedrock	4/11/2014	3300	0.60 U	1.3 J	40	0.14 J	0.12 U	56000	2.8 U	0.96 J	3.2 U	1800	2.1 U	12000	48	2.1 U	1500 J	7.9	0.039 J	470000	0.20 U	23 U	0.080 U		
	TMW30102013	Normal	North Bedrock	10/30/2013	5000	0.43 J	1.9 J	100	0.30 J	0.12 U	66000	4.2 J	2.1	6.2	4600	4.2	14000	150	3.6	2000 J	8.9	0.11 J	510000	0.059 J	49	0.080 U		
	TMW30042013	Normal	North Bedrock	4/11/2013	320	0.60 U	0.94 J	12 J	0.24 U	0.12 UJ	58000	0.84 J	0.17 J	1.3 J	480	0.33 J	12000	15 J	0.71 J	1300 J	7.4	0.10 UJ	480000	0.20 UJ	7.9 J	0.080 U		
	TMW30102012	Normal	North Bedrock	11/5/2012	720 J	1.5 J	1.2 J	31	0.10 J	0.12 U	53000	2.0 J	0.53 J	2.4	820	1.1 J	12000	34	1.5 J	1200 J	7.2	0.035 J	480000	0.10 UJ	22	0.080 U		
	TMW30102012DUP	Duplicate	North Bedrock	11/5/2012	420 J	1.6 J	1.4 J	35	0.24 UJ	0.12 U	51000	2.3 J	0.66 J	2.9	500	2.0 J	12000	35	1.5 J	1200 J	7.2	0.045 J	470000	0.16 UJ	26	0.080 U		
TMW32	TMW31D042014	Normal	North Bedrock	4/16/2014	31 U	0.60 UJ	0.46 J	11	0.24 UJ	0.12 U	56000	1.5 U	0.10 U	2.3	30 U	0.50 U	9500	0.71 J	0.90 U	1400 J	7.2	0.10 U	540000	0.20 UJ	23	0.080 U		
	DTW31D042014	Duplicate	North Bedrock	4/16/2014	31 U	0.42 J	0.53 J	8.7	0.13 J	0.12 U	55000	1.5 U	0.10 U	2.1	30 U	0.50 U	9200	0.63 J	0.90 U	1500 J	7.1	0.10 U	550000	0.12 J	20	0.080 U		
	TMW31D102013	Normal	North Bedrock	11/6/2013	31 U	0.60 U	0.46 J	8.6	0.24 U	0.12 U	59000	1.5 U	0.10 U	2.2	30 U	0.50 U	9800	0.93 J	0.37 J	1300 J	7.9	0.10 U	540000	0.20 U	24	0.080 U		
	DTW31D102013	Duplicate	North Bedrock	11/6/2013	31 U	0.60 U	0.46 J	8.9	0.24 U	0.12 U	60000	1.5 U	0.10 U	2.3	30 U	0.50 U	10000	0.81 J	0.90 UJ	1400 J	7.9	0.10 U	550000	0.20 U	24	0.080 U		
	TMW31D042013	Normal	North Bedrock	4/10/2013	31 U	0.60 U	0.45 J	7.8	0.24 U	0.12 U	50000	1.5 U	0.10 U	1.7 J	30 U	0.50 U	8600	0.54 J	0.43 J	1400 J	9.5	0.10 U	520000	0.20 U	23	0.080 U		
	DTW31D042013	Duplicate	North Bedrock	4/10/2013	31 U	0.60 U	0.45 J	8.2	0.24 U	0.12 U	57000	1.5 U	0.10 U	1.6 J	30 U	0.50 U	9800	0.38 J	0.31 J	1300 J	8.5	0.10 U	500000	0.20 U	23	0.080 U		
	TMW31D102012	Normal	North Bedrock	10/30/2012	31 U	0.60 U	0.43 J	9.4	0.24 U	0.12 U	62000	1.5 U	0.10 U	1.7 J	30 U	0.50 U	10000	0.32 J	0.90 U	1400 J	7.1	0.10 U	530000	0.10 U	24	0.080 U		
TMW32	TMW32042014	Normal	North Bedrock	4/16/2014	31 U	0.60 U	0.56 J	7.9	0.24 U	0.12 U	11000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	1100	25 J	0.90 U	1100 J	3.1 J	0.10 U	730000	0.20 U	2.0 J	0.080 U		
	TMW32102013	Normal	North Bedrock	11/7/2013	31 U	0.50 J	1.5 J	9.5	0.24 U	0.12 U	10000	1.5 U	0.061 J	1.5 U	30 U	0.50 U	1000	31	0.90 U	1100 J	3.1 J	0.10 U	710000	0.20 U	2.0 J	0.080 U		
	TMW32042013	Normal	North Bedrock	4/11/2013	31 U	0.60 U	1.1 J	8.1 J	0.24 U	0.12 UJ	11000	1.5 U	0.075 J	1.5 U	30 U	0.50 UJ	1300	35 J	0.46 J	1600 J	0.78 J	0.10 UJ	660000	0.20 UJ	6.0 U	0.080 U		
	TMW32102012	Normal	North Bedrock	10/30/2012	31 U	0.60 U	0.50 J	10	0.24 U	0.12 U	11000	1.5 U	0.10 U	0.72 J	30 U	0.50 U	1200	25	0.90 U	1100 J	3.9 J	0.10 U	710000	0.10 U	2.7 J	0.080 U		
TMW32102012DUP	Duplicate	North Bedrock	10/30/2012	31 U	0.60 U	0.69 J	9.7	0.24 U	0.12 U	11000	1.5 U	0.10 U	0.58 J	30 U	0.50 U	1200	27	0.90 U	1200 J	3.9 J	0.10 U	710000	0.10 U	4.3 J	0.080 U			

TABLE 5-8
 Summary of Total Metals Analytical Detections (Page 7 of 9)
 Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																				EPA Method 7470 (µg/L)	
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																					
200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c					
TMW36	TMW36042014	Normal	North Bedrock	4/9/2014	110 U	0.60 U	1.0 U	8.4 U	0.24 U	0.12 U	8600	1.5 U	0.092 U	1.5 U	66 U	0.41 U	910	17 U	0.96 U	1100 J	2.0 U	0.037 J	680000	0.20 U	17 U	0.074 J
	TMW36102013	Normal	North Bedrock	11/5/2013	1900	0.60 U	1.5 J	23	0.13 J	0.12 U	15000	5.8 J	1.2	3.1	1300	8.2	2200	120	19	1800 J	2.0 U	1.1 J	830000	0.20 U	280	0.080 U
	TMW36042013	Normal	North Bedrock	4/15/2013	160 J	0.60 R	0.35 J	11	0.24 U	0.12 U	8400	0.50 J	0.12 J	1.5 U	79 J	0.53 J	920	14	0.69 J	1200 J	2.0 U	0.062 J	690000	0.062 U	13 J	0.080 U
	TMW36102012	Normal	North Bedrock	11/5/2012	180 J	0.60 U	0.47 J	9.3	0.24 U	0.12 U	8900	1.5 U	0.12 J	1.5 U	110	0.66 J	1100	33	0.63 J	1000 J	2.0 U	0.13 J	720000	0.10 U	16 J	0.080 U
TMW37	TMW37042014	Normal	North Bedrock	4/9/2014	240 U	0.60 U	0.62 J	13 U	0.24 U	0.12 U	5400	0.99 U	0.15 U	1.3 U	150 U	1.0 U	610	10 U	2.2 U	920 J	2.0 U	0.089 J	530000	0.20 U	36 U	0.080 U
	TMW37102013	Normal	North Bedrock	10/31/2013	250 J	0.60 U	0.41 J	12	0.24 U	0.12 U	5600	0.58 J	0.14 U	0.98 J	120	0.71 J	650	15	2.3 J	1200 J	2.0 U	0.077 J	550000	0.20 U	28	0.080 U
	TMW37042013	Normal	North Bedrock	4/12/2013	210 J	0.60 U	0.57 J	16	0.24 U	0.12 U	9600	0.60 J	0.13 J	1.2 J	140	1.0 J	1100	41	1.6 J	1000 J	2.0 U	0.10 U	650000	0.20 U	30	0.080 U
TMW38	TMW37102012	Normal	North Bedrock	11/2/2012	110 J	0.60 U	0.48 J	13 J	0.24 U	0.12 U	5800	1.5 U	0.12 J	0.63 J	70 J	0.60 J	640	15	1.9 U	1000 J	2.0 U	0.033 J	560000	0.10 U	21	0.080 U
	TMW38042014	Normal	North Bedrock	4/17/2014	31 U	0.60 U	0.53 J	24	0.24 U	0.12 U	15000	1.5 U	0.12 J	1.5 U	120	0.50 U	1700	110	0.90 U	1600 J	2.0 U	0.10 J	840000	0.20 U	2.2 J	0.080 U
	TMW38102013	Normal	North Bedrock	10/31/2013	31 U	0.60 U	0.75 J	22	0.24 U	0.12 U	10000	1.5 U	0.080 U	1.5 U	89 J	0.50 U	1300	89	0.90 U	1600 J	2.0 U	0.10 U	720000	0.20 U	2.1 U	0.080 U
	TMW38042013	Normal	North Bedrock	4/11/2013	38 J	0.46 J	0.75 J	22 J	0.24 U	0.12 U	11000	1.5 U	0.12 J	0.57 J	110	0.50 U	1600	93 J	0.33 J	1400 J	2.0 U	0.10 U	730000	0.20 U	5.3 J	0.080 U
TMW39D	TMW38102012	Normal	North Bedrock	11/8/2012	22 J	0.60 U	0.73 J	20	0.24 U	0.12 U	8200	1.5 U	0.12 J	1.5 U	130	0.50 U	1400	83	0.36 J	1200 J	0.86 J	0.10 U	660000	0.10 U	2.3 J	0.080 U
	TMW39D042014	Normal	North Bedrock	4/16/2014	31 U	0.60 U	1.0 U	8.4	0.24 U	0.12 U	18000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	1900	56 J	0.90 U	1400 J	2.0 U	0.10 U	760000	0.20 U	6.0 U	0.080 U
	TMW39D102013	Normal	North Bedrock	11/6/2013	31 U	0.60 U	1.0 U	8.7	0.24 U	0.12 U	19000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	1900	54	0.33 J	1400 J	2.0 U	0.10 U	800000	0.20 U	6.0 U	0.080 U
	TMW39D042013	Normal	North Bedrock	4/10/2013	31 U	0.60 U	1.0 U	11	0.24 U	0.12 U	28000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	4100	49	0.90 U	1300 J	2.0 J	0.10 U	640000	0.20 U	6.0 U	0.080 U
TMW40D	TMW39D102012	Normal	North Bedrock	10/31/2012	31 U	0.60 U	0.46 J	11 J	0.24 U	0.12 U	19000	1.5 U	0.056 J	1.5 U	30 U	0.50 U	2100	61	0.90 U	1200 J	0.74 J	0.10 U	780000	0.10 U	6.0 U	0.080 U
	TMW40D042014	Normal	North Bedrock	4/17/2014	18 J	0.60 U	0.40 J	11	0.24 U	0.12 U	15000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	2000	53	0.90 U	1400 J	3.6 J	0.10 U	730000	0.20 U	4.5 J	0.080 U
	TMW40D102013	Normal	North Bedrock	11/7/2013	31 U	0.60 U	0.48 J	11	0.24 U	0.12 U	15000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	1900	49	0.90 U	1400 J	3.1 J	0.10 U	750000	0.062 J	4.1 J	0.080 U
	TMW40D042013	Normal	North Bedrock	4/11/2013	59 J	0.60 U	0.53 J	11 J	0.24 U	0.12 U	15000	1.5 U	0.10 U	1.5 U	35 J	0.50 U	2100	49 J	0.90 U	1700 J	3.5 J	0.10 U	690000	0.20 U	7.7 J	0.080 U
TMW48	TMW40D102012	Normal	North Bedrock	11/1/2012	740	0.60 U	0.76 J	21	0.24 U	0.12 U	15000	0.98 J	0.32 J	2.3	460	0.51 J	2100	62	1.4 U	1700 J	4.2 J	0.088 J	750000	0.10 U	43	0.080 U
	TMW48042014	Normal	North Bedrock	4/17/2014	31 U	0.60 U	0.69 J	13	0.24 U	0.12 U	80000	1.5 U	0.10 U	0.62 J	30 U	0.50 U	16000	13	0.46 J	1300 J	7.8	0.10 U	540000	0.20 U	12 J	0.080 U
	DTW48042014	Duplicate	North Bedrock	4/17/2014	31 U	0.57 J	0.66 J	13	0.24 U	0.12 U	78000	0.51 J	0.10 U	0.79 J	30 U	0.50 U	15000	12	0.53 J	1500 J	7.7	0.076 J	550000	0.12 U	11 J	0.080 U
	TMW48102013	Normal	North Bedrock	10/31/2013	21 U	0.60 U	0.69 J	12	0.24 U	0.12 U	77000	1.5 U	0.10 U	0.77 J	30 U	0.50 U	16000	6.3	0.58 J	1400 J	8.6	0.10 U	540000	0.20 U	12 U	0.080 U
	DTW48102013	Duplicate	North Bedrock	10/31/2013	30 U	0.60 U	0.69 J	12	0.24 U	0.12 U	76000	1.5 U	0.10 U	0.82 J	30 U	0.50 U	15000	6.3	0.87 J	1500 J	8.6	0.10 U	540000	0.20 U	12 U	0.080 U
	TMW48042013	Normal	North Bedrock	4/10/2013	31 U	0.60 U	0.71 J	11	0.24 U	0.12 U	71000	1.5 U	0.10 U	0.80 J	30 U	0.18 J	15000	1.5 J	0.43 J	1300 J	8.4	0.10 U	500000	0.20 U	9.5 J	0.080 U
	DTW48042013	Duplicate	North Bedrock	4/10/2013	31 U	0.60 U	0.66 J	11	0.24 U	0.15 J	71000	1.5 U	0.10 U	0.96 J	30 U	0.50 U	15000	1.6 J	0.40 J	1100 J	8.5	0.10 U	500000	0.20 U	9.4 J	0.080 U
TMW48102012	Normal	North Bedrock	11/2/2012	31 U	0.60 U	0.85 J	16 J	0.24 U	0.12 U	74000	0.55 J	0.071 J	1.2 J	30 U	0.50 U	15000	1.8 J	1.0 U	1400 J	9.0	0.10 U	530000	0.10 U	12 J	0.080 U	
TMW49	TMW49042014	Normal	North Bedrock	4/16/2014	25 J	0.60 U	0.67 J	16	0.24 U	0.12 U	81000	0.69 J	0.10 U	1.2 J	30 U	0.50 U	14000	0.56 J	1.9 J	1400 J	20	0.41 J	580000	0.20 U	9.4 J	0.080 U
	TMW49102013	Normal	North Bedrock	11/6/2013	45 J	0.60 U	0.60 J	12	0.24 U	0.12 U	74000	0.60 J	0.10 U	1.2 J	52 J	0.50 U	12000	1.3 J	0.35 J	1400 J	19	0.10 U	590000	0.20 U	6.5 J	0.080 U
	DTW49102013	Duplicate	North Bedrock	11/6/2013	47 J	0.60 U	0.60 J	12	0.24 U	0.12 U	74000	0.51 J	0.10 U	1.1 J	24 J	0.50 U	12000	1.3 J	0.46 J	1400 J	19	0.10 U	610000	0.20 U	6.5 J	0.080 U
	TMW49042013	Normal	North Bedrock	4/15/2013	210 J	0.60 R	0.73 J	13	0.24 U	0.12 U	65000	0.86 J	0.058 J	0.88 J	73 J	0.50 U	11000	1.3 J	0.33 J	1600 J	18	0.10 U	580000	0.20 U	5.0 J	0.080 U
	DTW49042013	Duplicate	North Bedrock	4/15/2013	210 J	0.60 R	0.65 J	13	0.24 U	0.12 U	65000	0.70 J	0.098 J	1.1 J	74 J	0.50 U	11000	1.3 J	0.65 J	1600 J	18	0.099 J	570000	0.20 U	6.3 J	0.080 U
	TMW49102012	Normal	North Bedrock	10/31/2012	18 J	0.60 U	0.71 J	19 J	0.24 U	0.12 U	67000	0.69 J	0.10 U	1.8 J	30 U	0.50 U	11000	0.75 J	1.6 J	1300 J	15	0.10 U	580000	0.10 U	16 J	0.080 U
CMW02	Well not sampled since April 2013 ^e																									
	CMW02042013	Normal	OB/OD	4/2/2013	31 U	0.60 U	4.6 J	32	0.24 U	0.12 U	6300	1.5 U	0.10 U	0.56 J	30 U	0.47 J	1100	0.76 U	0.90 U	780 J	4.3 J	0.10 U	200000	0.20 U	3.3 J	0.080 U
	CMW02102012	Normal	OB/OD	10/29/2012	31 U	0.60 U	4.5 J	35	0.24 U	0.12 U	6600	1.5 U	0.10 U	1.5 U	30 U	0.50 U	1100	2.0 J	0.90 U	1000 J	3.5 J	0.10 U	180000	0.10 U	3.8 J	0.080 U
CMW04	Well not sampled since April 2013 ^e																									
	CMW04042013	Normal	OB/OD	4/2/2013	25 J	0.60 U	1.0 U	11	0.24 U	0.12 U	41000	1.5 U	0.18 J	1.5 U	170	0.18 J	4700	210	0.90 U	2200 J	2.0 U	0.10 U	1100000	0.20 U	4.2 J	0.080 U
	CMW04102012	Normal	OB/OD	10/29/2012	31 U	0.60 U	0.36 J	9.8	0.24 U	0.12 U	39000	1.5 U	0.26 J	1.5 U	210 U	0.50 U	4400	170	0.33 J	4400	2.0 U	0.20 U	1200000	0.20 U	6.6 J	0.080 U

5.0 Groundwater Analytical Results

TABLE 5-8

Summary of Total Metals Analytical Detections (Page 8 of 9)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																							EPA Method 7470 (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6		
					Regulatory Limits																							
					200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c		
CMW07	Well not sampled since April 2013 ^e																											
	CMW07042013	Normal	OB/OD	4/4/2013	31 U	0.60 U	1.1 J	21 J	0.24 U	0.12 U	11000	1.5 U	0.16 J	1.5 U	210	0.50 U	2000	15	0.73 J	1600 J	2.0 U	0.10 U	360000	0.20 U	6.0 U	0.080 U		
	CMW07102012	Normal	OB/OD	10/30/2012	31 U	0.60 U	0.81 J	22	0.24 U	0.12 U	12000	1.5 U	0.11 J	1.5 U	290	0.50 U	2100	11	0.45 J	1200 J	2.0 U	0.10 U	370000	0.10 U	6.0 U	0.080 U		
CMW10	Well not sampled since April 2013 ^e																											
	CMW10042013	Normal	OB/OD	4/3/2013	1200	0.60 U	3.4 J	31	0.24 U	0.10 J	80000	15	0.50 J	5.1	550	0.49 J	2000	27	1.8 J	7400	34	0.10 U	1300000	0.20 U	32	0.080 U		
	CMW10102012	Normal	OB/OD	11/7/2012	1200	0.60 U	2.9 J	34	0.24 U	0.22 J	69000	11	0.49 J	0.93 J	490	0.39 J	2800	28	1.4 J	6000	34	0.10 U	1300000	0.10 U	30	0.080 U		
CMW14	Well not sampled since April 2013 ^e																											
	CMW14042013	Normal	OB/OD	4/3/2013	500	0.60 U	0.67 J	25	0.24 U	0.10 J	41000	18	0.18 J	1.1 J	30 U	0.50 U	65 J	0.46 J	0.63 J	5800	0.71 J	0.10 U	1300000	0.20 U	6.5 J	0.080 U		
	CMW14102012	Normal	OB/OD	11/6/2012	450	0.60 U	0.67 J	25	0.24 U	0.12 U	41000	25	0.16 J	0.74 J	56 J	0.50 U	120 J	0.39 J	0.57 J	5100	2.0 U	0.10 U	1200000	0.10 U	4.4 J	0.080 U		
CMW17	Well not sampled since April 2013 ^e																											
	CMW17042013	Normal	OB/OD	4/3/2013	210 J	0.60 U	7.3	22	0.24 U	0.12 U	2300	0.57 J	0.064 J	1.1 J	98 J	0.50 U	1100	1.5 J	0.32 J	1600 J	2.1 J	0.10 U	270000	0.20 U	2.1 J	0.080 U		
	CMW17102012	Normal	OB/OD	11/6/2012	29000	0.60 U	6.6	170 J	0.66 J	0.14 J	33000	14 J	6.2	5.9	13000	6.5	11000	330 J	12 J	6600	1.7 J	2.7 J	260000	0.21 J	42	0.080 U		
CMW17102012DUP	Duplicate	OB/OD	11/6/2012	40000	0.60 U	5.3	450 J	1.3 J	0.12 J	46000	6.8 J	4.2	3.6	20000	6.1	15000	370 J	5.7 J	8800	1.4 J	1.1 J	280000	0.19 J	28	0.080 U			
CMW18	Well not sampled since April 2013 ^e																											
	CMW18042013	Normal	OB/OD	4/4/2013	33 J	0.60 U	0.84 J	49 J	0.24 U	0.12 U	48000	0.60 J	0.10 U	1.5 U	23 J	0.50 U	13000	0.70 J	0.90 U	1200 J	2.8 J	0.10 U	140000	0.080 U	4.4 J	0.080 U		
	DCW18042013	Duplicate	OB/OD	4/4/2013	31 U	0.40 J	1.0 J	56 J	0.24 U	0.12 U	47000	0.56 J	0.074 J	1.5 U	30 U	0.50 U	13000	0.57 J	0.90 U	1300 J	2.5 J	0.061 J	130000	0.18 U	6.2 J	0.080 U		
CMW18102012	Normal	OB/OD	11/6/2012	31 U	0.60 U	1.0 J	46	0.24 U	0.12 U	51000	0.65 J	0.10 U	1.5 U	30 U	0.50 U	15000	0.60 J	1.1 J	1100 J	2.3 J	0.10 U	150000	0.10 U	4.9 J	0.080 U			
CMW19	Well not sampled since April 2013 ^e																											
	CMW19042013	Normal	OB/OD	4/4/2013	2600	0.60 U	0.93 J	37 J	0.18 J	0.12 U	4600	1.4 J	0.45 J	2.0	980	0.81 J	1800	17	3.8	3200	2.0 U	1.6 J	350000	0.20 U	45	0.080 U		
	CMW19102012	Normal	OB/OD	10/30/2012	880	0.60 U	1.0 J	28	0.24 U	0.12 U	4200	0.90 J	0.20 J	1.1 J	200	0.31 J	1300	7.6	4.3	2400 J	2.0 U	1.4 J	350000	0.10 U	25	0.080 U		
CMW22	Well not sampled since April 2013 ^e																											
	CMW22042013	Normal	OB/OD	4/5/2013	5900	0.60 U	1.5 J	450	0.58 J	0.12 U	14000	3.6 J	1.5	3.6	2800	4.4	2300	250	4.7	1800 J	2.0 U	0.57 J	170000	0.20 U	17 J	0.080 U		
	CMW22102012	Normal	OB/OD	11/1/2012	550	0.60 U	0.65 J	140	0.24 U	0.12 U	5300	0.85 J	0.17 J	0.86 J	250	0.43 J	800	18	0.69 U	1000 J	2.0 U	0.053 J	180000	0.10 U	3.7 J	0.080 U		
CMW23	Well not sampled since April 2013 ^e																											
	CMW23042013	Normal	OB/OD	4/8/2013	4500	0.60 U	4.1 J	16	0.26 J	0.12 U	12000	2.6 J	0.84 J	4.9	1700	1.7 J	2000	43	1.3 J	1300 J	2.2 J	0.042 J	420000	0.20 U	30	0.080 U		
	CMW23102012	Normal	OB/OD	10/30/2012	16000	0.60 U	3.4 J	97	1.1	0.12 U	17000	6.9 J	2.4	16	5800	7.1	4100	160	4.7	1900 J	1.1 J	0.17 J	310000	0.085 J	92	0.048 J		
CMW24	Well not sampled since April 2013 ^e																											
	CMW24042013	Normal	OB/OD	4/5/2013	240 J	0.60 U	1.0 U	29	0.24 U	0.12 U	5900	0.65 J	0.11 J	1.5 U	160	0.21 J	1100	84	1.7 J	2000 J	2.0 U	0.10 U	630000	0.20 U	68	0.080 U		
	CMW24102012	Normal	OB/OD	11/1/2012	6100	0.60 U	1.4 J	83	0.22 J	0.36 J	8300	9.5 J	2.1	6.6	3900	3.5	2700	180	8.9	2700 J	2.0 U	0.31 J	660000	0.058 J	2200	0.080 U		
CMW25	Well not sampled since April 2013 ^e																											
	CMW25042013	Normal	OB/OD	4/8/2013	410	0.60 U	0.82 J	25	0.24 U	0.12 U	3300	0.58 J	0.11 J	1.5 U	170	0.29 J	690	21	0.90 U	650 J	2.0 U	0.10 U	250000	0.20 U	5.6 J	0.080 U		
	CMW25102012	Normal	OB/OD	11/7/2012	420	0.60 U	0.74 J	29	0.24 U	0.12 U	3500	1.5 U	0.079 J	1.5 U	170	0.48 J	810	22	0.39 J	800 J	2.0 U	0.10 U	290000	0.10 U	6.6 J	0.080 U		
KMW09	Well not sampled since April 2013 ^e																											
	KMW09042013	Normal	OB/OD	4/4/2013	31 U	0.60 U	0.75 J	11 J	0.24 U	0.12 U	190000	1.5 U	0.071 J	1.5 U	230	0.50 U	37000	220	0.54 J	14000	2.0 U	0.10 U	630000	0.20 U	12 J	0.080 U		
	KMW09102012	Normal	OB/OD	10/26/2012	24 J	0.60 U	0.82 J	11	0.24 U	0.12 U	190000	1.5 U	0.11 J	1.5 U	270	0.50 U	38000	190 J	0.96 J	14000	2.0 U	0.10 U	650000	0.10 U	6.0 U	0.080 U		

TABLE 5-8
Summary of Total Metals Analytical Detections (Page 9 of 9)
Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																				EPA Method 7470 (µg/L)			
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6		
					Regulatory Limits																							
					200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c		
KMW10	Well not sampled since April 2013 ^e																											
	KMW10042013	Normal	OB/OD	4/5/2013	700	0.60 U	1.8 J	24	0.24 U	0.10 J	120000	5.2 J	0.38 J	2.7	440	1.1 J	25000	18	1.7 J	3000	20	0.35 J	45000	0.20 U	20	0.080 U		
	KMW10102012	Normal	OB/OD	10/29/2012	140 J	0.60 U	1.8 J	17	0.24 U	0.25 J	120000	1.5 U	0.17 J	0.56 J	97 UJ	0.50 U	25000	3.2 J	0.74 J	2300 J	23	0.16 J	44000	0.10 U	3.8 J	0.080 U		
KMW11	Well not sampled since April 2013 ^e																											
	KMW11042013	Normal	OB/OD	4/4/2013	31 U	0.60 U	26	30 J	0.24 U	0.12 U	2300	1.5 U	0.10 U	1.5 U	28 J	0.50 U	1000	2.1 J	0.90 U	1000 J	3.7 J	0.10 U	250000	0.20 U	3.1 J	0.080 U		
	KMW11102012	Normal	OB/OD	11/1/2012	31 U	0.60 U	29	27	0.24 U	0.12 U	2300	1.5 U	0.10 U	1.5 U	30 U	0.50 U	1000	1.8 J	0.32 U	1100 J	4.9 J	0.10 U	260000	0.10 U	3.7 J	0.080 U		
KMW12	Well not sampled since April 2013 ^e																											
	KMW12042013	Normal	OB/OD	4/5/2013	31 U	0.60 U	1.0 U	13	0.24 U	0.12 U	250000	25	3.2	0.88 J	500	0.23 J	66000	820	71	15000	2.0 U	0.12 J	670000	0.052 U	9.4 J	0.080 U		
	KMW12102012	Normal	OB/OD	10/29/2012	2500 J	1.2 U	0.73 J	29	0.48 U	0.24 U	350000	8.4 J	2.8	1.6 J	3100 J	1.5 J	100000	850 J	15	17000	4.0 U	0.20 U	650000	0.20 U	15 J	0.080 U		

Notes:

^a New Mexico Water Quality Control Commission - New Mexico Administrative Code Title 20, Chapter 6, Part 2, Section 3103

^b EPA Maximum Contaminant Level - *Code of Federal Regulations* Title 40, Parts 141, 142, and 143

^c EPA Region 6, Regional Screening Levels (Formerly Human Health Medium Specific Screening Levels) (EPA, 2012)

^d Wells in the East Landfill Area were not sampled due to landfill excavation and removal

^e Wells in the OB/OD Area were not accessible during active remediation of the area

Bold indicates analyte was positively detected above regulatory limits

µg/L = microgram per liter

CAS = Chemical Abstract Services (registry number)

DUP = duplicate

J = analyte was positively identified; reported value is estimated

N/A = not applicable

R = result is unusable for any purpose

U = non-detected result reported at the limit of detection

UJ = analyte was not detected; however, the result is estimated because of discrepancies in meeting certain analyte-specific quality control criteria

5.0 Groundwater Analytical Results

TABLE 5-8

Summary of Total Metals Analytical Detections (Page 6 of 9)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																								EPA Method 7470 (µg/L)
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6			
					Regulatory Limits																								
					200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c			
TMW14A	TMW14A042014	Normal	North Bedrock	4/15/2014	48 J	0.60 U	0.55 J	18	0.24 U	0.12 U	3300	1.5 U	0.056 J	13	52 J	0.22 J	420 J	14	3.1	790 J	2.0 U	0.28 J	470000	0.20 UJ	4.8 J	0.080 U			
	TMW14A102013	Normal	North Bedrock	11/6/2013	27 J	0.60 U	0.67 J	16	0.24 U	0.12 U	3300	1.5 U	0.10 U	1.7 J	37 J	0.50 U	380 J	12	1.1 J	690 J	2.0 U	0.10 U	460000	0.20 U	6.0 U	0.080 U			
	TMW14A042013	Normal	North Bedrock	4/17/2013	120 J	0.60 U	0.54 J	21 J	0.24 U	0.12 U	3300	1.5 U	0.26 J	0.74 J	58 J	0.50 U	430 J	15 J	0.65 J	690 J	2.0 U	0.10 U	450000	0.20 U	6.0 U	0.080 U			
	TMW14A102012	Normal	North Bedrock	11/8/2012	36 J	0.60 U	0.53 J	17	0.24 U	0.12 U	3200	1.5 U	0.10 U	4.1	40 J	0.50 U	440 J	13	2.6 J	910 J	0.86 J	0.069 J	460000	0.10 U	6.0 U	0.080 U			
TMW16	TMW16042014	Normal	North Bedrock	4/9/2014	840 U	0.60 U	0.37 J	22 U	0.24 U	0.12 U	4300 U	1.3 U	0.29 U	7.0 U	350 U	0.44 U	620	11 U	3.2 U	950 J	2.0 U	0.27 J	450000	0.20 U	15 U	0.080 U			
	TMW16102013	Normal	North Bedrock	10/31/2013	1600	0.60 U	0.33 J	32	0.080 J	0.12 U	4200	3.3 J	0.55 U	6.3	830	0.69 J	890	19	5.0	1500 J	2.0 U	1.3 J	460000	0.20 U	13 U	0.080 U			
	TMW16042013	Normal	North Bedrock	4/18/2013	3000	0.92 J	0.46 J	32	0.24 U	0.12 U	4800	4.1 J	0.74 J	8.2	1200	1.4 J	1200	26	5.4	1300 J	2.0 U	0.81 J	480000	0.20 U	18 J	0.080 U			
	TMW16102012	Normal	North Bedrock	11/6/2012	4400	0.60 UJ	0.76 J	81	0.20 J	0.12 U	5500	3.8 J	0.81 J	9.2	2100	1.4 J	1700	48 J	5.8 J	1500 J	2.0 U	0.21 J	440000	0.074 J	65	0.080 U			
TMW17	TMW17042014	Normal	North Bedrock	4/17/2014	970	0.60 U	0.68 J	29	0.24 U	0.23 J	6200	2.6 J	0.44 J	7.3	600	5.5	860	43	3.9	1100 J	2.0 U	2.1 J	430000	0.20 U	2900	0.035 J			
	TMW17102013	Normal	North Bedrock	11/6/2013	220 J	0.60 U	0.34 J	16	0.24 U	0.12 U	3500	1.5 U	0.10 U	1.1 J	74 J	0.60 J	500	9.6	0.45 J	980 J	2.0 U	0.047 J	450000	0.20 U	60	0.080 U			
	TMW17042013	Normal	North Bedrock	4/9/2013	300	0.60 U	0.38 J	16	0.24 U	0.12 U	3600	0.50 J	0.093 J	1.9 J	130	1.5 J	530	17	0.76 J	910 J	2.0 U	0.13 J	430000	0.20 U	1100	0.080 U			
	TMW17102012	Normal	North Bedrock	11/9/2012	3000	0.68 J	5.1	64	0.18 J	0.53 J	14000	5.6 J	1.5	28	2300	22	2100	200	5.6	1000 J	1.0 J	1.7 J	420000	0.10 U	54000	0.080 U			
TMW18	TMW18042014	Normal	North Bedrock	4/11/2014	320 U	0.44 J	3.9 J	24	0.24 U	0.12 U	6900	1.8 U	0.18 U	3.5 U	160 U	1.1 U	1100	7.3 U	1.1 U	4000	2.0 U	0.13 J	680000	0.20 U	23 U	0.080 U			
	TMW18102013	Normal	North Bedrock	10/31/2013	370	0.60 U	2.6 J	16	0.24 U	0.12 U	6200	0.94 J	0.068 U	1.5 J	160	0.58 J	870	6.3	0.53 J	4500	0.76 J	0.079 J	680000	0.20 U	3.0 U	0.080 U			
	TMW18042013	Normal	North Bedrock	4/12/2013	320	0.60 U	2.6 J	19	0.24 U	0.12 U	6400	0.90 J	0.10 U	1.9 J	120	0.97 J	1000	5.5	0.77 J	4500	2.0 U	0.041 J	680000	0.20 U	5.7 J	0.080 U			
	TMW18102012	Normal	North Bedrock	11/5/2012	80 J	0.60 U	0.57 J	15	0.24 U	0.12 U	5000	1.5 U	0.10 U	0.57 J	34 J	0.51 J	1000	2.1 J	0.32 J	3800	2.0 U	0.10 U	720000	0.063 UJ	6.0 U	0.080 U			
TMW18102012DUP	Duplicate	North Bedrock	11/5/2012	77 J	0.60 U	0.60 J	15	0.24 U	0.12 U	5000	1.5 U	0.10 U	1.5 UJ	29 J	0.47 J	1000	2.4 J	0.36 J	4100	2.0 U	0.10 U	720000	0.10 UJ	6.0 U	0.080 U				
TMW19	TMW19042014	Normal	North Bedrock	4/9/2014	990 U	0.60 U	0.36 J	9.8 U	0.24 U	0.12 U	9900	0.59 U	0.19 U	0.82 U	450 U	0.56 U	1200	22 U	2.1 U	1300 J	2.0 U	0.23 J	710000	0.20 U	4.5 U	0.080 U			
	TMW19102013	Normal	North Bedrock	10/31/2013	780	0.60 U	0.36 J	10	0.24 U	0.12 U	9900	0.79 J	0.13 U	0.73 J	420	0.44 J	1200	38	0.97 J	1700 J	2.0 U	0.84 J	710000	0.20 U	2.6 U	0.080 U			
	TMW19042013	Normal	North Bedrock	4/12/2013	9800	0.60 U	0.86 J	44	0.43 J	0.12 U	13000	6.6 J	2.2	11	5100	3.0	3600	120	7.4	2200 J	0.77 J	0.90 J	680000	0.20 U	16 J	0.080 U			
	TMW19102012	Normal	North Bedrock	11/5/2012	190 J	0.60 U	0.39 J	8.3	0.24 U	0.12 U	9000	1.5 U	0.11 J	1.5 U	140	0.50 U	1100	37	0.43 J	1200 J	2.0 U	0.10 U	710000	0.10 U	6.0 U	0.080 U			
TMW30	TMW30042014	Normal	North Bedrock	4/11/2014	3300	0.60 U	1.3 J	40	0.14 J	0.12 U	56000	2.8 U	0.96 J	3.2 U	1800	2.1 U	12000	48	2.1 U	1500 J	7.9	0.039 J	470000	0.20 U	23 U	0.080 U			
	TMW30102013	Normal	North Bedrock	10/30/2013	5000	0.43 J	1.9 J	100	0.30 J	0.12 U	66000	4.2 J	2.1	6.2	4600	4.2	14000	150	3.6	2000 J	8.9	0.11 J	510000	0.059 J	49	0.080 U			
	TMW30042013	Normal	North Bedrock	4/11/2013	320	0.60 U	0.94 J	12 J	0.24 U	0.12 UJ	58000	0.84 J	0.17 J	1.3 J	480	0.33 J	12000	15 J	0.71 J	1300 J	7.4	0.10 UJ	480000	0.20 UJ	7.9 J	0.080 U			
	TMW30102012	Normal	North Bedrock	11/5/2012	720 J	1.5 J	1.2 J	31	0.10 J	0.12 U	53000	2.0 J	0.53 J	2.4	820	1.1 J	12000	34	1.5 J	1200 J	7.2	0.035 J	480000	0.10 UJ	22	0.080 U			
	TMW30102012DUP	Duplicate	North Bedrock	11/5/2012	420 J	1.6 J	1.4 J	35	0.24 UJ	0.12 U	51000	2.3 J	0.66 J	2.9	500	2.0 J	12000	35	1.5 J	1200 J	7.2	0.045 J	470000	0.16 UJ	26	0.080 U			
TMW31D	TMW31D042014	Normal	North Bedrock	4/16/2014	31 U	0.60 UJ	0.46 J	11	0.24 UJ	0.12 U	56000	1.5 U	0.10 U	2.3	30 U	0.50 U	9500	0.71 J	0.90 U	1400 J	7.2	0.10 U	540000	0.20 UJ	23	0.080 U			
	DTW31D042014	Duplicate	North Bedrock	4/16/2014	31 U	0.42 J	0.53 J	8.7	0.13 J	0.12 U	55000	1.5 U	0.10 U	2.1	30 U	0.50 U	9200	0.63 J	0.90 U	1500 J	7.1	0.10 U	550000	0.12 J	20	0.080 U			
	TMW31D102013	Normal	North Bedrock	11/6/2013	31 U	0.60 U	0.46 J	8.6	0.24 U	0.12 U	59000	1.5 U	0.10 U	2.2	30 U	0.50 U	9800	0.93 J	0.37 J	1300 J	7.9	0.10 U	540000	0.20 U	24	0.080 U			
	DTW31D102013	Duplicate	North Bedrock	11/6/2013	31 U	0.60 U	0.46 J	8.9	0.24 U	0.12 U	60000	1.5 U	0.10 U	2.3	30 U	0.50 U	10000	0.81 J	0.90 UJ	1400 J	7.9	0.10 U	550000	0.20 U	24	0.080 U			
	TMW31D042013	Normal	North Bedrock	4/10/2013	31 U	0.60 U	0.45 J	7.8	0.24 U	0.12 U	50000	1.5 U	0.10 U	1.7 J	30 U	0.50 U	8600	0.54 J	0.43 J	1400 J	9.5	0.10 U	520000	0.20 U	23	0.080 U			
	DTW31D042013	Duplicate	North Bedrock	4/10/2013	31 U	0.60 U	0.45 J	8.2	0.24 U	0.12 U	57000	1.5 U	0.10 U	1.6 J	30 U	0.50 U	9800	0.38 J	0.31 J	1300 J	8.5	0.10 U	500000	0.20 U	23	0.080 U			
	TMW31D102012	Normal	North Bedrock	10/30/2012	31 U	0.60 U	0.43 J	9.4	0.24 U	0.12 U	62000	1.5 U	0.10 U	1.7 J	30 U	0.50 U	10000	0.32 J	0.90 U	1400 J	7.1	0.10 U	530000	0.10 U	24	0.080 U			
TMW32	TMW32042014	Normal	North Bedrock	4/16/2014	31 U	0.60 U	0.56 J	7.9	0.24 U	0.12 U	11000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	1100	25 J	0.90 U	1100 J	3.1 J	0.10 U	730000	0.20 U	2.0 J	0.080 U			
	TMW32102013	Normal	North Bedrock	11/7/2013	31 U	0.50 J	1.5 J	9.5	0.24 U	0.12 U	10000	1.5 U	0.061 J	1.5 U	30 U	0.50 U	1000	31	0.90 U	1100 J	3.1 J	0.10 U	710000	0.20 U	2.0 J	0.080 U			
	TMW32042013	Normal	North Bedrock	4/11/2013	31 U	0.60 U	1.1 J	8.1 J	0.24 U	0.12 UJ	11000	1.5 U	0.075 J	1.5 U	30 U	0.50 UJ	1300	35 J	0.46 J	1600 J	0.78 J	0.10 UJ	660000	0.20 UJ	6.0 U	0.080 U			
	TMW32102012	Normal	North Bedrock	10/30/2012	31 U	0.60 U	0.50 J	10	0.24 U	0.12 U	11000	1.5 U	0.10 U	0.72 J	30 U	0.50 U	1200	25	0.90 U	1100 J	3.9 J	0.10 U	710000	0.10 U	2.7 J	0.080 U			
	TMW32102012DUP	Duplicate	North Bedrock	10/30/2012	31 U	0.60 U	0.69 J	9.7	0.24 U	0.12 U	11000	1.5 U	0.10 U	0.58 J	30 U	0.50 U	1200	27	0.90 U	1200 J	3.9 J	0.10 U	710000	0.10 U	4.3 J	0.080 U			

TABLE 5-8
 Summary of Total Metals Analytical Detections (Page 7 of 9)
 Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																				EPA Method 7470 (µg/L)	
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																					
200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c					
TMW36	TMW36042014	Normal	North Bedrock	4/9/2014	110 U	0.60 U	1.0 U	8.4 U	0.24 U	0.12 U	8600	1.5 U	0.092 U	1.5 U	66 U	0.41 U	910	17 U	0.96 U	1100 J	2.0 U	0.037 J	680000	0.20 U	17 U	0.074 J
	TMW36102013	Normal	North Bedrock	11/5/2013	1900	0.60 U	1.5 J	23	0.13 J	0.12 U	15000	5.8 J	1.2	3.1	1300	8.2	2200	120	19	1800 J	2.0 U	1.1 J	830000	0.20 U	280	0.080 U
	TMW36042013	Normal	North Bedrock	4/15/2013	160 J	0.60 R	0.35 J	11	0.24 U	0.12 U	8400	0.50 J	0.12 J	1.5 U	79 J	0.53 J	920	14	0.69 J	1200 J	2.0 U	0.062 J	690000	0.062 U	13 J	0.080 U
	TMW36102012	Normal	North Bedrock	11/5/2012	180 J	0.60 U	0.47 J	9.3	0.24 U	0.12 U	8900	1.5 U	0.12 J	1.5 U	110	0.66 J	1100	33	0.63 J	1000 J	2.0 U	0.13 J	720000	0.10 U	16 J	0.080 U
TMW37	TMW37042014	Normal	North Bedrock	4/9/2014	240 U	0.60 U	0.62 J	13 U	0.24 U	0.12 U	5400	0.99 U	0.15 U	1.3 U	150 U	1.0 U	610	10 U	2.2 U	920 J	2.0 U	0.089 J	530000	0.20 U	36 U	0.080 U
	TMW37102013	Normal	North Bedrock	10/31/2013	250 J	0.60 U	0.41 J	12	0.24 U	0.12 U	5600	0.58 J	0.14 U	0.98 J	120	0.71 J	650	15	2.3 J	1200 J	2.0 U	0.077 J	550000	0.20 U	28	0.080 U
	TMW37042013	Normal	North Bedrock	4/12/2013	210 J	0.60 U	0.57 J	16	0.24 U	0.12 U	9600	0.60 J	0.13 J	1.2 J	140	1.0 J	1100	41	1.6 J	1000 J	2.0 U	0.10 U	650000	0.20 U	30	0.080 U
	TMW37102012	Normal	North Bedrock	11/2/2012	110 J	0.60 U	0.48 J	13 J	0.24 U	0.12 U	5800	1.5 U	0.12 J	0.63 J	70 J	0.60 J	640	15	1.9 U	1000 J	2.0 U	0.033 J	560000	0.10 U	21	0.080 U
TMW38	TMW38042014	Normal	North Bedrock	4/17/2014	31 U	0.60 U	0.53 J	24	0.24 U	0.12 U	15000	1.5 U	0.12 J	1.5 U	120	0.50 U	1700	110	0.90 U	1600 J	2.0 U	0.10 J	840000	0.20 U	2.2 J	0.080 U
	TMW38102013	Normal	North Bedrock	10/31/2013	31 U	0.60 U	0.75 J	22	0.24 U	0.12 U	10000	1.5 U	0.080 U	1.5 U	89 J	0.50 U	1300	89	0.90 U	1600 J	2.0 U	0.10 U	720000	0.20 U	2.1 U	0.080 U
	TMW38042013	Normal	North Bedrock	4/11/2013	38 J	0.46 J	0.75 J	22 J	0.24 U	0.12 U	11000	1.5 U	0.12 J	0.57 J	110	0.50 U	1600	93 J	0.33 J	1400 J	2.0 U	0.10 U	730000	0.20 U	5.3 J	0.080 U
	TMW38102012	Normal	North Bedrock	11/8/2012	22 J	0.60 U	0.73 J	20	0.24 U	0.12 U	8200	1.5 U	0.12 J	1.5 U	130	0.50 U	1400	83	0.36 J	1200 J	0.86 J	0.10 U	660000	0.10 U	2.3 J	0.080 U
TMW39D	TMW39D042014	Normal	North Bedrock	4/16/2014	31 U	0.60 U	1.0 U	8.4	0.24 U	0.12 U	18000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	1900	56 J	0.90 U	1400 J	2.0 U	0.10 U	760000	0.20 U	6.0 U	0.080 U
	TMW39D102013	Normal	North Bedrock	11/6/2013	31 U	0.60 U	1.0 U	8.7	0.24 U	0.12 U	19000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	1900	54	0.33 J	1400 J	2.0 U	0.10 U	800000	0.20 U	6.0 U	0.080 U
	TMW39D042013	Normal	North Bedrock	4/10/2013	31 U	0.60 U	1.0 U	11	0.24 U	0.12 U	28000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	4100	49	0.90 U	1300 J	2.0 J	0.10 U	640000	0.20 U	6.0 U	0.080 U
	TMW39D102012	Normal	North Bedrock	10/31/2012	31 U	0.60 U	0.46 J	11 J	0.24 U	0.12 U	19000	1.5 U	0.056 J	1.5 U	30 U	0.50 U	2100	61	0.90 U	1200 J	0.74 J	0.10 U	780000	0.10 U	6.0 U	0.080 U
TMW40D	TMW40D042014	Normal	North Bedrock	4/17/2014	18 J	0.60 U	0.40 J	11	0.24 U	0.12 U	15000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	2000	53	0.90 U	1400 J	3.6 J	0.10 U	730000	0.20 U	4.5 J	0.080 U
	TMW40D102013	Normal	North Bedrock	11/7/2013	31 U	0.60 U	0.48 J	11	0.24 U	0.12 U	15000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	1900	49	0.90 U	1400 J	3.1 J	0.10 U	750000	0.062 J	4.1 J	0.080 U
	TMW40D042013	Normal	North Bedrock	4/11/2013	59 J	0.60 U	0.53 J	11 J	0.24 U	0.12 U	15000	1.5 U	0.10 U	1.5 U	35 J	0.50 U	2100	49 J	0.90 U	1700 J	3.5 J	0.10 U	690000	0.20 U	7.7 J	0.080 U
	TMW40D102012	Normal	North Bedrock	11/1/2012	740	0.60 U	0.76 J	21	0.24 U	0.12 U	15000	0.98 J	0.32 J	2.3	460	0.51 J	2100	62	1.4 U	1700 J	4.2 J	0.088 J	750000	0.10 U	43	0.080 U
TMW48	TMW48042014	Normal	North Bedrock	4/17/2014	31 U	0.60 U	0.69 J	13	0.24 U	0.12 U	80000	1.5 U	0.10 U	0.62 J	30 U	0.50 U	16000	13	0.46 J	1300 J	7.8	0.10 U	540000	0.20 U	12 J	0.080 U
	DTW48042014	Duplicate	North Bedrock	4/17/2014	31 U	0.57 J	0.66 J	13	0.24 U	0.12 U	78000	0.51 J	0.10 U	0.79 J	30 U	0.50 U	15000	12	0.53 J	1500 J	7.7	0.076 J	550000	0.12 U	11 J	0.080 U
	TMW48102013	Normal	North Bedrock	10/31/2013	21 U	0.60 U	0.69 J	12	0.24 U	0.12 U	77000	1.5 U	0.10 U	0.77 J	30 U	0.50 U	16000	6.3	0.58 J	1400 J	8.6	0.10 U	540000	0.20 U	12 U	0.080 U
	DTW48102013	Duplicate	North Bedrock	10/31/2013	30 U	0.60 U	0.69 J	12	0.24 U	0.12 U	76000	1.5 U	0.10 U	0.82 J	30 U	0.50 U	15000	6.3	0.87 J	1500 J	8.6	0.10 U	540000	0.20 U	12 U	0.080 U
	TMW48042013	Normal	North Bedrock	4/10/2013	31 U	0.60 U	0.71 J	11	0.24 U	0.12 U	71000	1.5 U	0.10 U	0.80 J	30 U	0.18 J	15000	1.5 J	0.43 J	1300 J	8.4	0.10 U	500000	0.20 U	9.5 J	0.080 U
	DTW48042013	Duplicate	North Bedrock	4/10/2013	31 U	0.60 U	0.66 J	11	0.24 U	0.15 J	71000	1.5 U	0.10 U	0.96 J	30 U	0.50 U	15000	1.6 J	0.40 J	1100 J	8.5	0.10 U	500000	0.20 U	9.4 J	0.080 U
	TMW48102012	Normal	North Bedrock	11/2/2012	31 U	0.60 U	0.85 J	16 J	0.24 U	0.12 U	74000	0.55 J	0.071 J	1.2 J	30 U	0.50 U	15000	1.8 J	1.0 U	1400 J	9.0	0.10 U	530000	0.10 U	12 J	0.080 U
TMW49	TMW49042014	Normal	North Bedrock	4/16/2014	25 J	0.60 U	0.67 J	16	0.24 U	0.12 U	81000	0.69 J	0.10 U	1.2 J	30 U	0.50 U	14000	0.56 J	1.9 J	1400 J	20	0.41 J	580000	0.20 U	9.4 J	0.080 U
	TMW49102013	Normal	North Bedrock	11/6/2013	45 J	0.60 U	0.60 J	12	0.24 U	0.12 U	74000	0.60 J	0.10 U	1.2 J	52 J	0.50 U	12000	1.3 J	0.35 J	1400 J	19	0.10 U	590000	0.20 U	6.5 J	0.080 U
	DTW49102013	Duplicate	North Bedrock	11/6/2013	47 J	0.60 U	0.60 J	12	0.24 U	0.12 U	74000	0.51 J	0.10 U	1.1 J	24 J	0.50 U	12000	1.3 J	0.46 J	1400 J	19	0.10 U	610000	0.20 U	6.5 J	0.080 U
	TMW49042013	Normal	North Bedrock	4/15/2013	210 J	0.60 R	0.73 J	13	0.24 U	0.12 U	65000	0.86 J	0.058 J	0.88 J	73 J	0.50 U	11000	1.3 J	0.33 J	1600 J	18	0.10 U	580000	0.20 U	5.0 J	0.080 U
	DTW49042013	Duplicate	North Bedrock	4/15/2013	210 J	0.60 R	0.65 J	13	0.24 U	0.12 U	65000	0.70 J	0.098 J	1.1 J	74 J	0.50 U	11000	1.3 J	0.65 J	1600 J	18	0.099 J	570000	0.20 U	6.3 J	0.080 U
	TMW49102012	Normal	North Bedrock	10/31/2012	18 J	0.60 U	0.71 J	19 J	0.24 U	0.12 U	67000	0.69 J	0.10 U	1.8 J	30 U	0.50 U	11000	0.75 J	1.6 J	1300 J	15	0.10 U	580000	0.10 U	16 J	0.080 U
CMW02	Well not sampled since April 2013 ^e																									
	CMW02042013	Normal	OB/OD	4/2/2013	31 U	0.60 U	4.6 J	32	0.24 U	0.12 U	6300	1.5 U	0.10 U	0.56 J	30 U	0.47 J	1100	0.76 U	0.90 U	780 J	4.3 J	0.10 U	200000	0.20 U	3.3 J	0.080 U
CMW02102012	Normal	OB/OD	10/29/2012	31 U	0.60 U	4.5 J	35	0.24 U	0.12 U	6600	1.5 U	0.10 U	1.5 U	30 U	0.50 U	1100	2.0 J	0.90 U	1000 J	3.5 J	0.10 U	180000	0.10 U	3.8 J	0.080 U	
CMW04	Well not sampled since April 2013 ^e																									
	CMW04042013	Normal	OB/OD	4/2/2013	25 J	0.60 U	1.0 U	11	0.24 U	0.12 U	41000	1.5 U	0.18 J	1.5 U	170	0.18 J	4700	210	0.90 U	2200 J	2.0 U	0.10 U	1100000	0.20 U	4.2 J	0.080 U
CMW04102012	Normal	OB/OD	10/29/2012	31 U	0.60 U	0.36 J	9.8	0.24 U	0.12 U	39000	1.5 U	0.26 J	1.5 U	210 U	0.50 U	4400	170	0.33 J	4400	2.0 U	0.20 U	1200000	0.20 U	6.6 J	0.080 U	

5.0 Groundwater Analytical Results

TABLE 5-8

Summary of Total Metals Analytical Detections (Page 8 of 9)

Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																				EPA Method 7470 (µg/L)	
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																					
200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c					
CMW07	CMW07042013	Normal	OB/OD	4/4/2013	Well not sampled since April 2013 ^e																					
	CMW07102012	Normal	OB/OD	10/30/2012	31 U	0.60 U	1.1 J	21 J	0.24 U	0.12 U	11000	1.5 U	0.16 J	1.5 U	210	0.50 U	2000	15	0.73 J	1600 J	2.0 U	0.10 U	360000	0.20 U	6.0 U	0.080 U
CMW10	CMW10042013	Normal	OB/OD	4/3/2013	Well not sampled since April 2013 ^e																					
	CMW10102012	Normal	OB/OD	11/7/2012	1200	0.60 U	3.4 J	31	0.24 U	0.10 J	80000	15	0.50 J	5.1	550	0.49 J	2000	27	1.8 J	7400	34	0.10 U	1300000	0.20 U	32	0.080 U
CMW14	CMW14042013	Normal	OB/OD	4/3/2013	Well not sampled since April 2013 ^e																					
	CMW14102012	Normal	OB/OD	11/6/2012	500	0.60 U	0.67 J	25	0.24 U	0.10 J	41000	18	0.18 J	1.1 J	30 U	0.50 U	65 J	0.46 J	0.63 J	5800	0.71 J	0.10 U	1300000	0.20 U	6.5 J	0.080 U
CMW17	CMW17042013	Normal	OB/OD	4/3/2013	Well not sampled since April 2013 ^e																					
	CMW17102012	Normal	OB/OD	11/6/2012	210 J	0.60 U	7.3	22	0.24 U	0.12 U	2300	0.57 J	0.064 J	1.1 J	98 J	0.50 U	1100	1.5 J	0.32 J	1600 J	2.1 J	0.10 U	270000	0.20 U	2.1 J	0.080 U
	CMW17102012DUP	Duplicate	OB/OD	11/6/2012	29000	0.60 U	6.6	170 J	0.66 J	0.14 J	33000	14 J	6.2	5.9	13000	6.5	11000	330 J	12 J	6600	1.7 J	2.7 J	260000	0.21 J	42	0.080 U
CMW18	CMW18042013	Normal	OB/OD	4/4/2013	Well not sampled since April 2013 ^e																					
	DCW18042013	Duplicate	OB/OD	4/4/2013	40000	0.60 U	5.3	450 J	1.3 J	0.12 J	46000	6.8 J	4.2	3.6	20000	6.1	15000	370 J	5.7 J	8800	1.4 J	1.1 J	280000	0.19 J	28	0.080 U
	CMW18102012	Normal	OB/OD	11/6/2012	33 J	0.60 U	0.84 J	49 J	0.24 U	0.12 U	48000	0.60 J	0.10 U	1.5 U	23 J	0.50 U	13000	0.70 J	0.90 U	1200 J	2.8 J	0.10 U	140000	0.080 U	4.4 J	0.080 U
CMW19	CMW19042013	Normal	OB/OD	4/4/2013	Well not sampled since April 2013 ^e																					
	CMW19102012	Normal	OB/OD	10/30/2012	2600	0.60 U	0.93 J	37 J	0.18 J	0.12 U	4600	1.4 J	0.45 J	2.0	980	0.81 J	1800	17	3.8	3200	2.0 U	1.6 J	350000	0.20 U	45	0.080 U
CMW22	CMW22042013	Normal	OB/OD	4/5/2013	Well not sampled since April 2013 ^e																					
	CMW22102012	Normal	OB/OD	11/1/2012	880	0.60 U	1.0 J	28	0.24 U	0.12 U	4200	0.90 J	0.20 J	1.1 J	200	0.31 J	1300	7.6	4.3	2400 J	2.0 U	1.4 J	350000	0.10 U	25	0.080 U
CMW23	CMW23042013	Normal	OB/OD	4/8/2013	Well not sampled since April 2013 ^e																					
	CMW23102012	Normal	OB/OD	10/30/2012	5900	0.60 U	1.5 J	450	0.58 J	0.12 U	14000	3.6 J	1.5	3.6	2800	4.4	2300	250	4.7	1800 J	2.0 U	0.57 J	170000	0.20 U	17 J	0.080 U
CMW24	CMW24042013	Normal	OB/OD	4/5/2013	Well not sampled since April 2013 ^e																					
	CMW24102012	Normal	OB/OD	11/1/2012	550	0.60 U	0.65 J	140	0.24 U	0.12 U	5300	0.85 J	0.17 J	0.86 J	250	0.43 J	800	18	0.69 U	1000 J	2.0 U	0.053 J	180000	0.10 U	3.7 J	0.080 U
CMW25	CMW25042013	Normal	OB/OD	4/8/2013	Well not sampled since April 2013 ^e																					
	CMW25102012	Normal	OB/OD	11/7/2012	4500	0.60 U	4.1 J	16	0.26 J	0.12 U	12000	2.6 J	0.84 J	4.9	1700	1.7 J	2000	43	1.3 J	1300 J	2.2 J	0.042 J	420000	0.20 U	30	0.080 U
KMW09	KMW09042013	Normal	OB/OD	4/4/2013	Well not sampled since April 2013 ^e																					
	KMW09102012	Normal	OB/OD	10/26/2012	16000	0.60 U	3.4 J	97	1.1	0.12 U	17000	6.9 J	2.4	16	5800	7.1	4100	160	4.7	1900 J	1.1 J	0.17 J	310000	0.085 J	92	0.048 J
CMW24	CMW24042013	Normal	OB/OD	4/5/2013	Well not sampled since April 2013 ^e																					
	CMW24102012	Normal	OB/OD	11/1/2012	240 J	0.60 U	1.0 U	29	0.24 U	0.12 U	5900	0.65 J	0.11 J	1.5 U	160	0.21 J	1100	84	1.7 J	2000 J	2.0 U	0.10 U	630000	0.20 U	68	0.080 U
CMW25	CMW25042013	Normal	OB/OD	4/8/2013	Well not sampled since April 2013 ^e																					
	CMW25102012	Normal	OB/OD	11/7/2012	6100	0.60 U	1.4 J	83	0.22 J	0.36 J	8300	9.5 J	2.1	6.6	3900	3.5	2700	180	8.9	2700 J	2.0 U	0.31 J	660000	0.058 J	2200	0.080 U
KMW09	KMW09042013	Normal	OB/OD	4/4/2013	Well not sampled since April 2013 ^e																					
	KMW09102012	Normal	OB/OD	10/26/2012	31 U	0.60 U	0.75 J	11 J	0.24 U	0.12 U	190000	1.5 U	0.071 J	1.5 U	230	0.50 U	37000	220	0.54 J	14000	2.0 U	0.10 U	630000	0.20 U	12 J	0.080 U

TABLE 5-8
Summary of Total Metals Analytical Detections (Page 9 of 9)
Groundwater Periodic Monitoring Report January through June 2014 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 6010/6020 (µg/L)																				EPA Method 7470 (µg/L)	
					Aluminum CAS 7429-90-5	Antimony CAS 7440-36-0	Arsenic CAS 7440-38-2	Barium CAS 7440-39-3	Beryllium CAS 7440-41-7	Cadmium CAS 7440-43-9	Calcium CAS 7440-70-2	Chromium CAS 7440-47-3	Cobalt CAS 7440-48-4	Copper CAS 7440-50-8	Iron CAS 7439-89-6	Lead CAS 7439-92-1	Magnesium CAS 7439-95-4	Manganese CAS 7439-96-5	Nickel CAS 7440-02-0	Potassium CAS 7440-09-7	Selenium CAS 7782-49-2	Silver CAS 7440-22-4	Sodium CAS 7440-23-5	Thallium CAS 7440-28-0	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																					
200 ^a	6 ^b	10 ^b	1,000 ^c	4 ^b	5 ^b	N/A	50 ^c	50 ^c	1,000 ^c	300 ^a	15 ^b	N/A	50 ^a	200 ^c	N/A	50 ^c	50 ^c	N/A	2 ^b	5,000 ^a	2 ^c					
KMW10	KMW10042013	Normal	OB/OD	4/5/2013	700	0.60 U	1.8 J	24	0.24 U	0.10 J	120000	5.2 J	0.38 J	2.7	440	1.1 J	25000	18	1.7 J	3000	20	0.35 J	45000	0.20 U	20	0.080 U
	KMW10102012	Normal	OB/OD	10/29/2012	140 J	0.60 U	1.8 J	17	0.24 U	0.25 J	120000	1.5 U	0.17 J	0.56 J	97 UJ	0.50 U	25000	3.2 J	0.74 J	2300 J	23	0.16 J	44000	0.10 U	3.8 J	0.080 U
KMW11	KMW11042013	Normal	OB/OD	4/4/2013	31 U	0.60 U	26	30 J	0.24 U	0.12 U	2300	1.5 U	0.10 U	1.5 U	28 J	0.50 U	1000	2.1 J	0.90 U	1000 J	3.7 J	0.10 U	250000	0.20 U	3.1 J	0.080 U
	KMW11102012	Normal	OB/OD	11/1/2012	31 U	0.60 U	29	27	0.24 U	0.12 U	2300	1.5 U	0.10 U	1.5 U	30 U	0.50 U	1000	1.8 J	0.32 U	1100 J	4.9 J	0.10 U	260000	0.10 U	3.7 J	0.080 U
KMW12	KMW12042013	Normal	OB/OD	4/5/2013	31 U	0.60 U	1.0 U	13	0.24 U	0.12 U	250000	25	3.2	0.88 J	500	0.23 J	66000	820	71	15000	2.0 U	0.12 J	670000	0.052 U	9.4 J	0.080 U
	KMW12102012	Normal	OB/OD	10/29/2012	2500 J	1.2 U	0.73 J	29	0.48 U	0.24 U	350000	8.4 J	2.8	1.6 J	3100 J	1.5 J	100000	850 J	15	17000	4.0 U	0.20 U	650000	0.20 U	15 J	0.080 U

Notes:

^a New Mexico Water Quality Control Commission - New Mexico Administrative Code Title 20, Chapter 6, Part 2, Section 3103

^b EPA Maximum Contaminant Level - *Code of Federal Regulations* Title 40, Parts 141, 142, and 143

^c EPA Region 6, Regional Screening Levels (Formerly Human Health Medium Specific Screening Levels) (EPA, 2012)

^d Wells in the East Landfill Area were not sampled due to landfill excavation and removal

^e Wells in the OB/OD Area were not accessible during active remediation of the area

Bold indicates analyte was positively detected above regulatory limits

µg/L = microgram per liter

CAS = Chemical Abstract Services (registry number)

DUP = duplicate

J = analyte was positively identified; reported value is estimated

N/A = not applicable

R = result is unusable for any purpose

U = non-detected result reported at the limit of detection

UJ = analyte was not detected; however, the result is estimated because of discrepancies in meeting certain analyte-specific quality control criteria

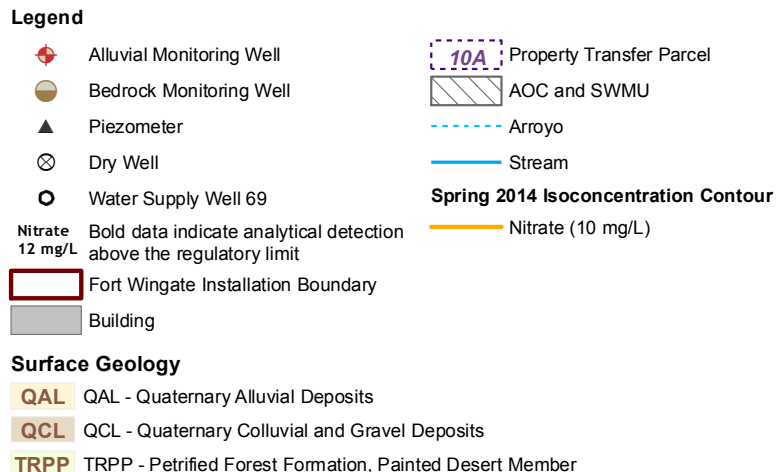
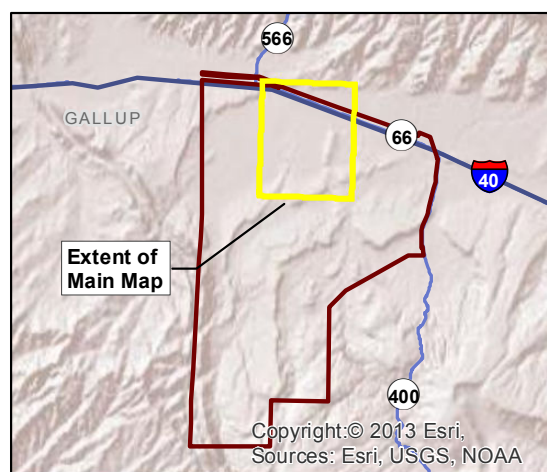
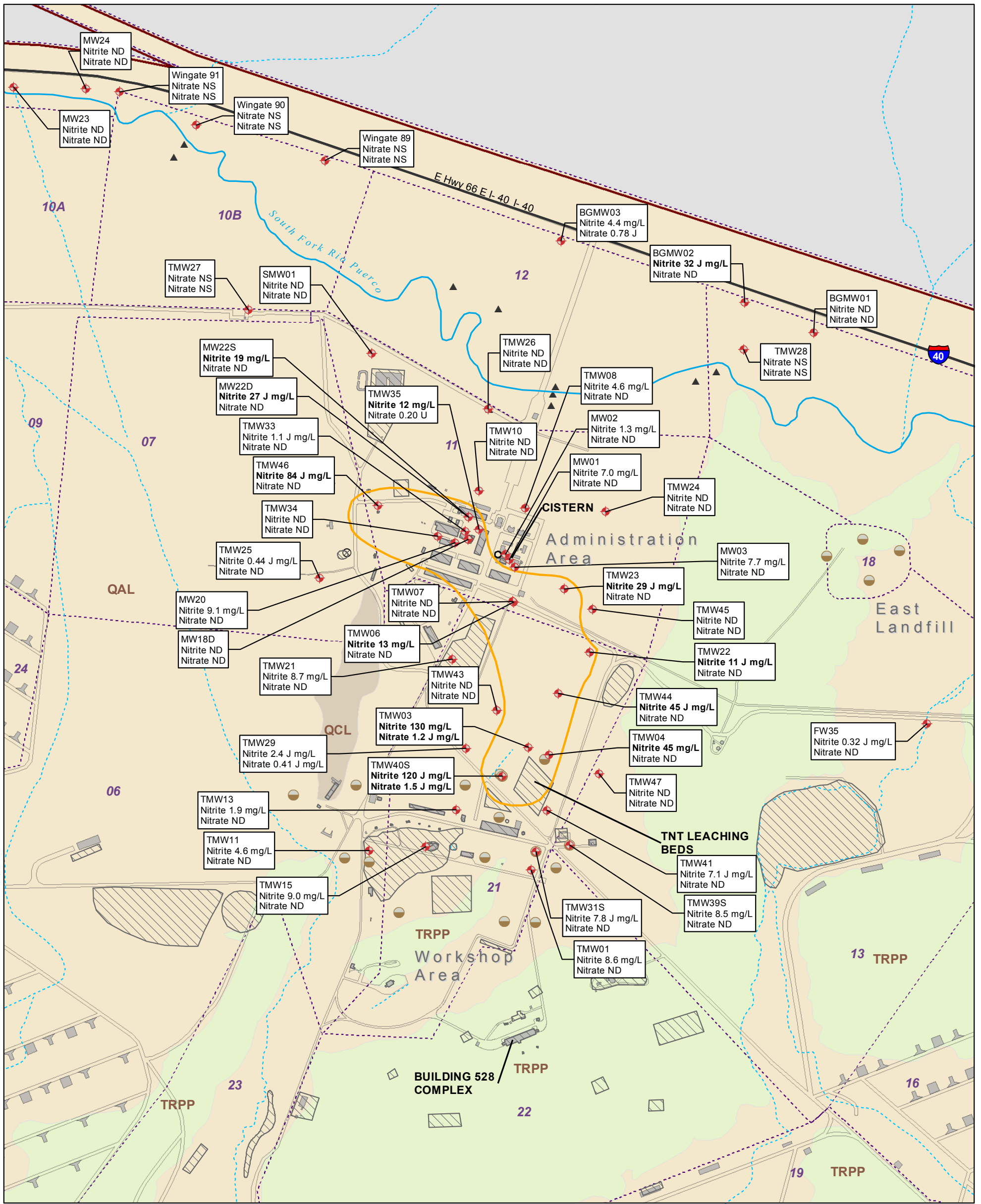
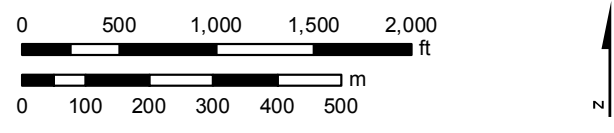


FIGURE 5-1
Spring 2014 Northern Area Nitrate and Nitrite Concentrations in Alluvial Groundwater
 Groundwater Periodic Monitoring Report for January to June 2014
 Fort Wingate Depot Activity, McKinley County, New Mexico

Notes:
 ND = Not Detected
 NS = Not Sampled
 Nitrate was detected at well FW31 at 0.14 J mg/L (FW31 is approximately 5000 feet southeast of map view)



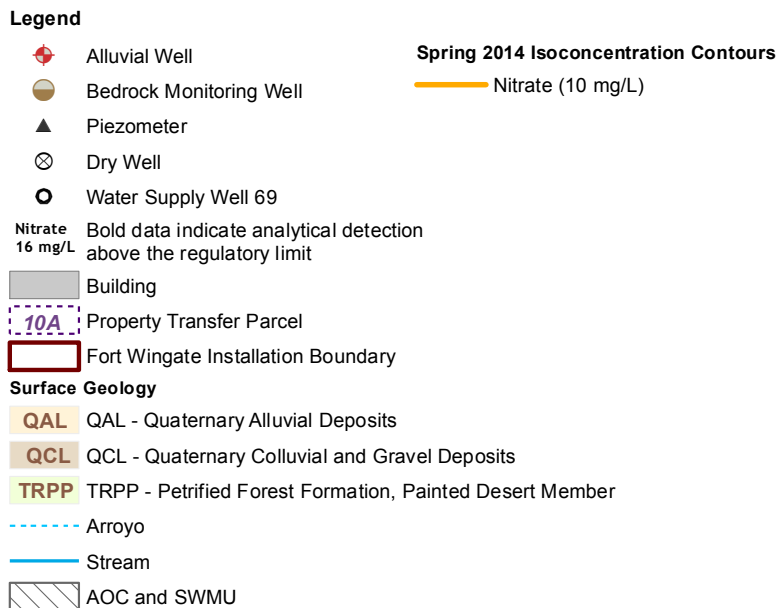
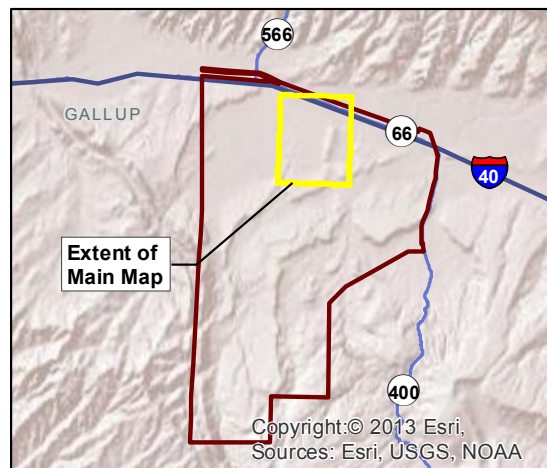
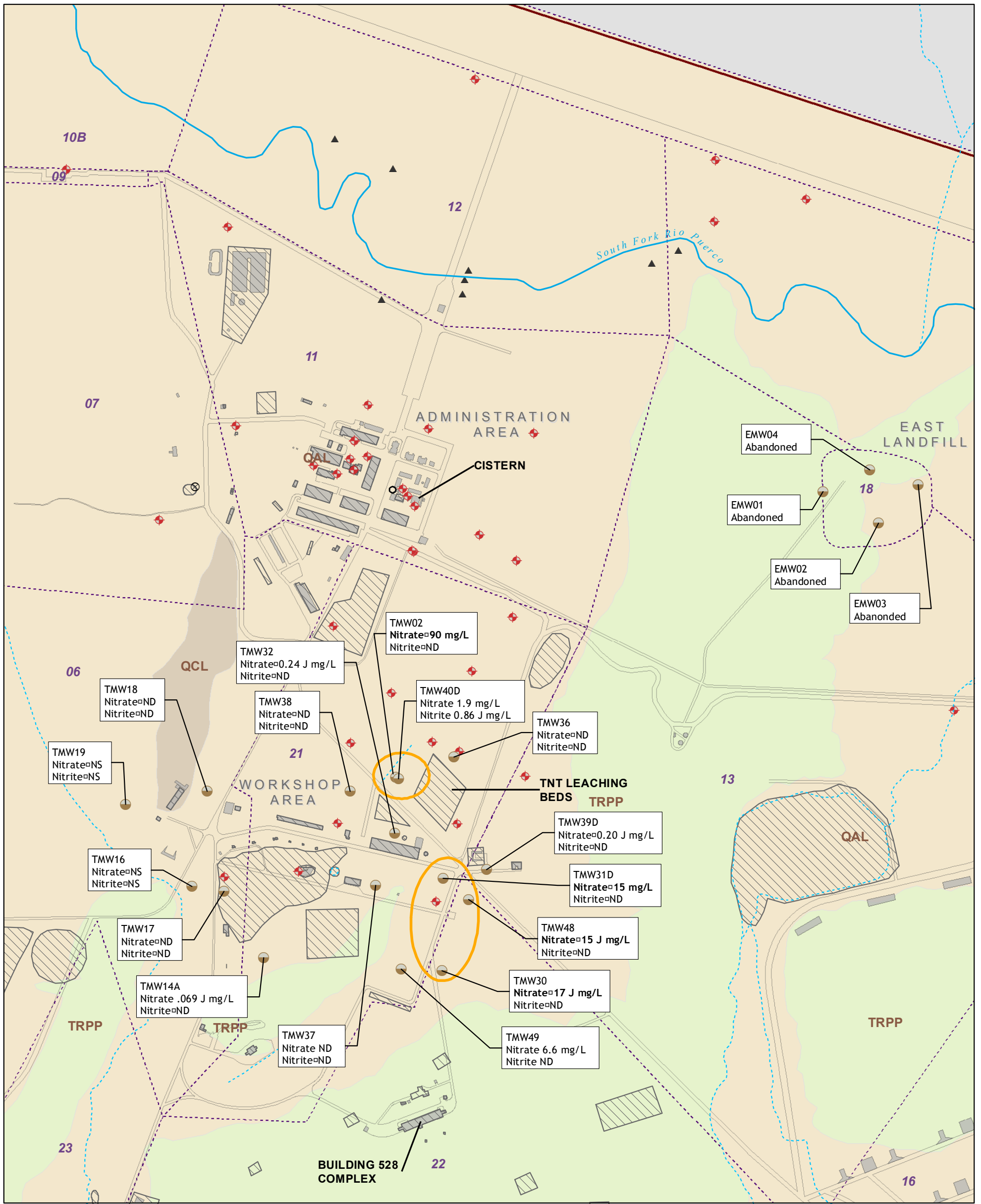
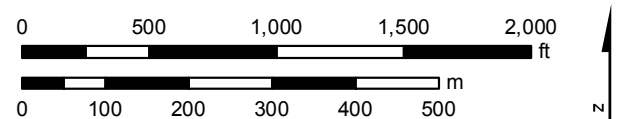


FIGURE 5-2
Spring 2014 Northern Area Nitrate and Nitrite Concentrations in Bedrock Groundwater
 Groundwater Periodic Monitoring Report for January to June 2014
 Fort Wingate Depot Activity, McKinley County, New Mexico

Notes:
 ND = Not Detected
 NS = Not Sampled



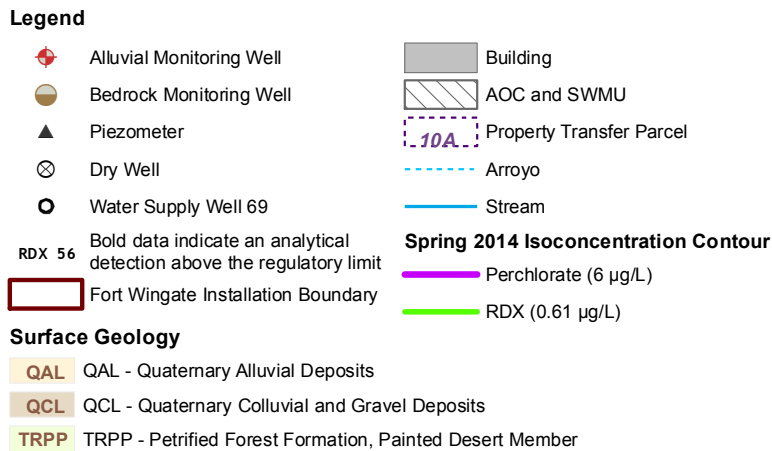
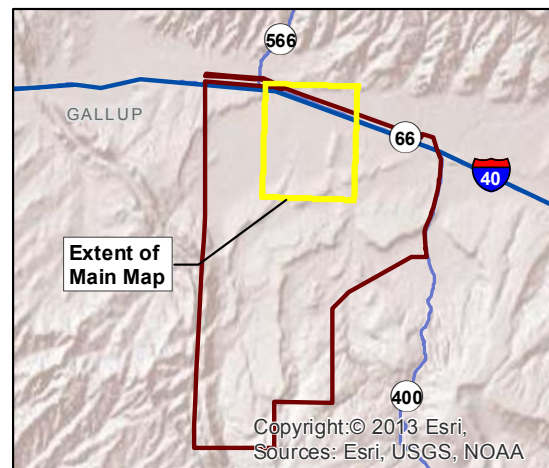
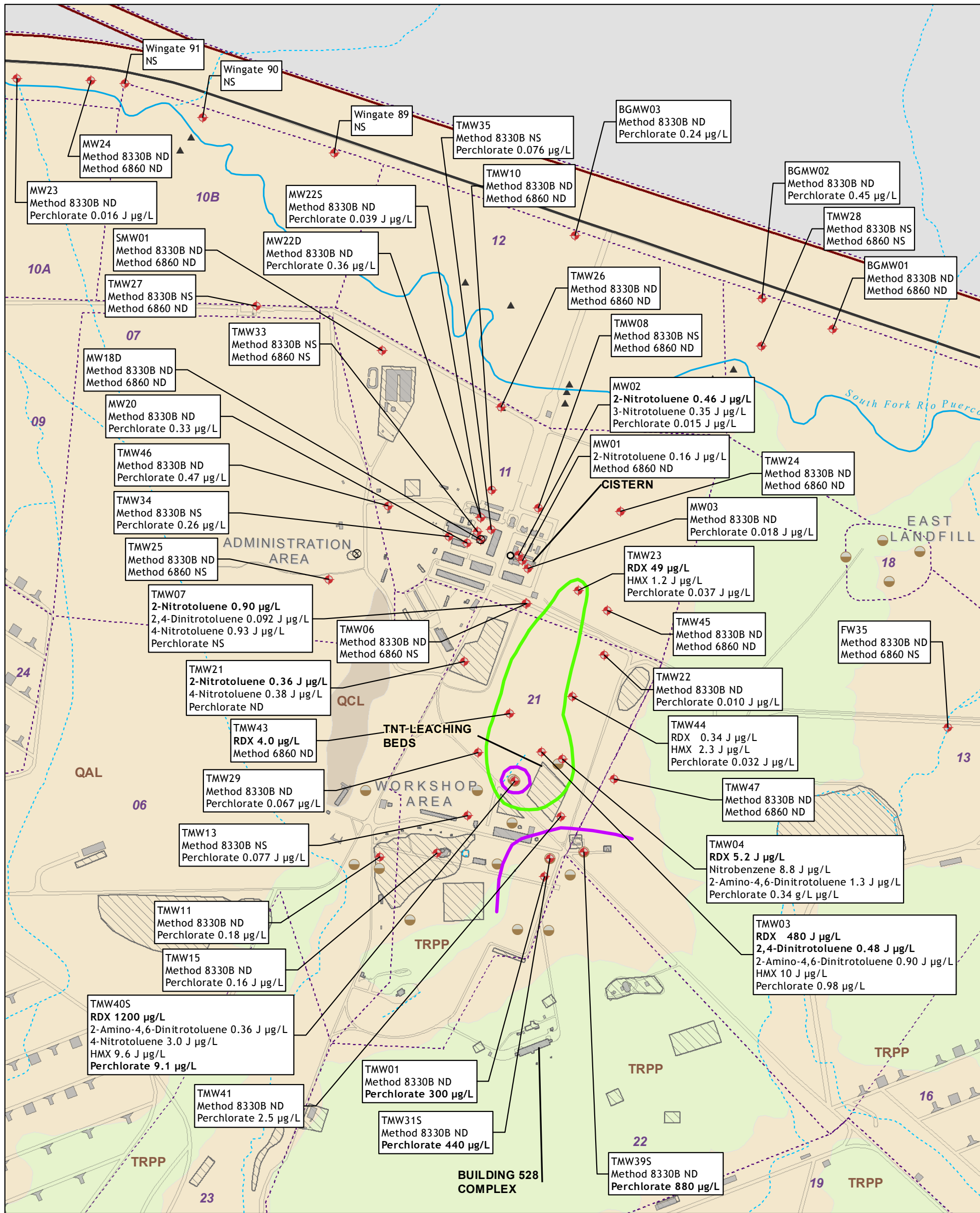
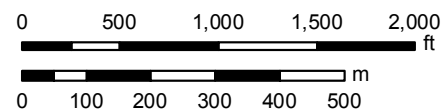


FIGURE 5-3
Spring 2014 Northern Area Explosives and Perchlorate Concentrations in Alluvial Groundwater
 Groundwater Periodic Monitoring Report for January to June 2014
 Fort Wingate Depot Activity, McKinley County, New Mexico

Notes:
 ND = Not Detected
 NS = Not Sampled
 No explosives compounds were detected at well FW31, which is approximately 5000 feet southeast of map view



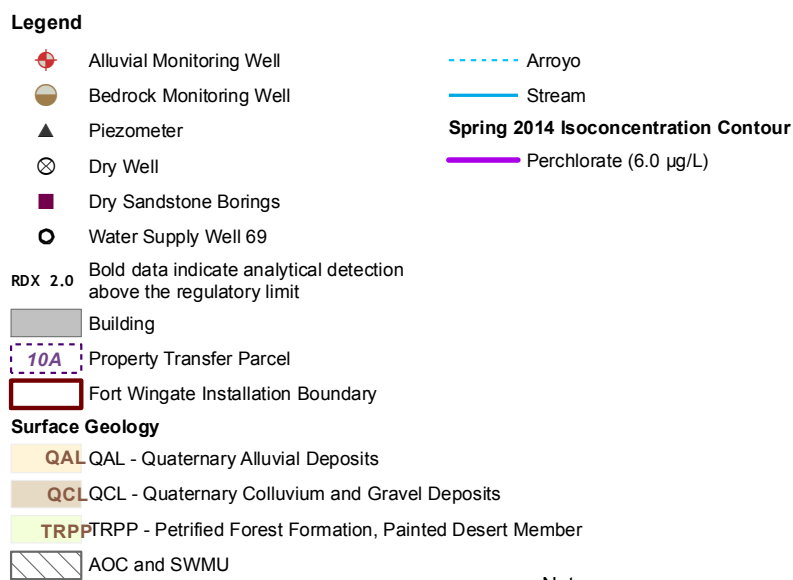
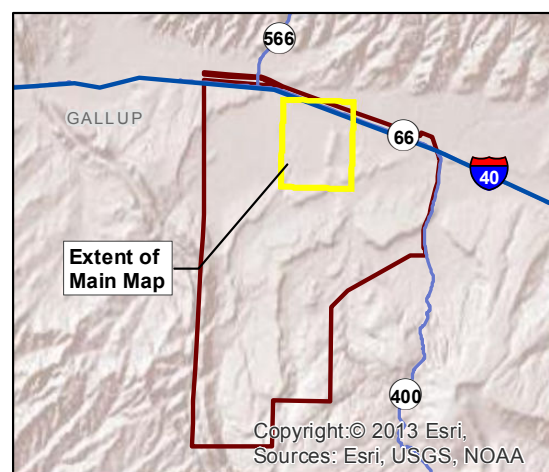
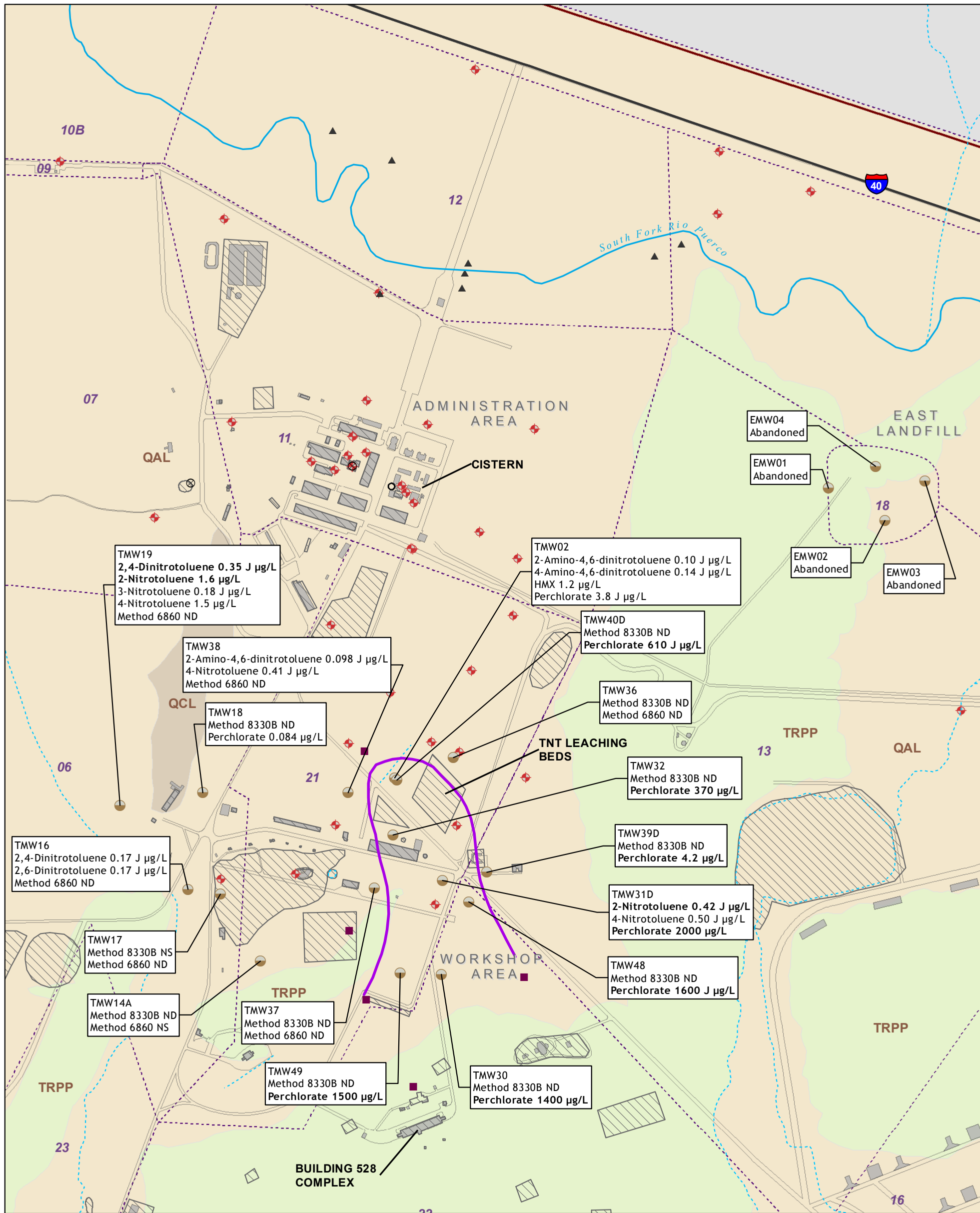
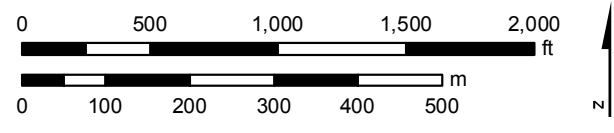


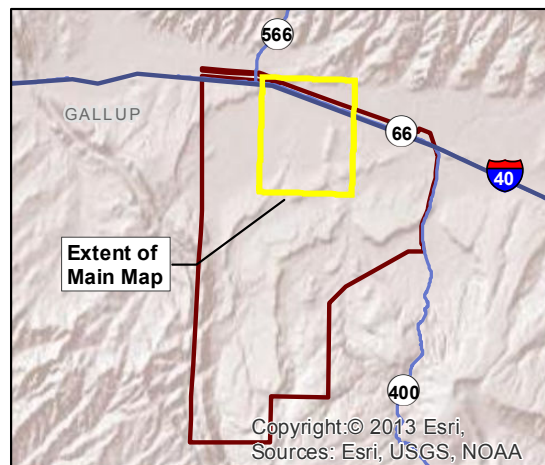
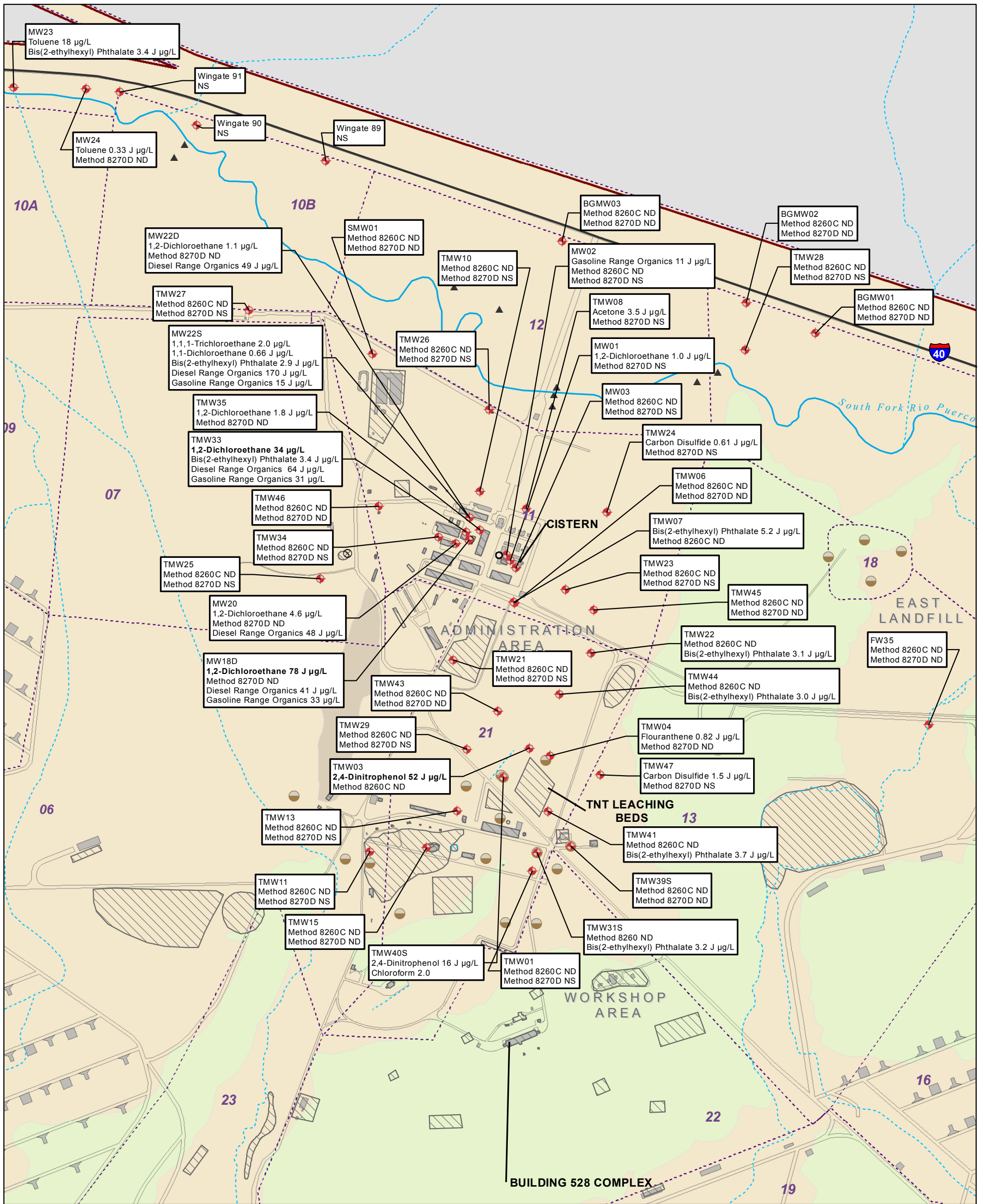
FIGURE 5-4
Spring 2014 Northern Area Explosives and Perchlorate Concentrations in Bedrock Groundwater
 Groundwater Periodic Monitoring Report for January to June 2014
 Fort Wingate Depot Activity, McKinley County, New Mexico

State Plane Coordinate System, New Mexico West, North American Datum 1983, US Feet.

Data Sources:
 Roads, Railroad: Tele Atlas GDT-Dynamap, 2008;
 Populated Places: ESRI 2005;
 Fort Wingate Environmental Restoration Detail: USACE.

Notes:
 ND = Not Detected
 NS = Not Sampled





Legend

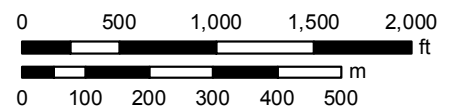
- ▲ Piezometer
- Alluvial Monitoring Well
- Bedrock Monitoring Well
- ⊗ Dry Well
- Water Supply Well 69
- 1,2-DCA 93 Bold data indicate analytical detection above the regulatory limit
- Surface Geology**
- QAL QAL - Quaternary Alluvial Deposits
- QCL QCL - Quaternary Colluvium and Gravel Deposits
- TRPP TRPP - Petrified Forest Formation, Painted Desert Member
- Fort Wingate Installation Boundary
- Building
- AOC and SWMU
- 10A Property Transfer Parcel
- Arroyo
- Stream

Notes:

- ND = Not Detected
- NS = Not Sampled
- 1) No VOCs or SVOCs were detected at well FW31 (FW31 is located approximately 4,800 feet southeast of map view)
- 2) Organochlorine pesticides (by Method SW8081A) were not detected in any monitoring well. For list of wells, see Table 2-1.
- 3) Only wells adjacent to the former fueling facility and newly installed wells were analyzed for total petroleum hydrocarbon compounds. For list of wells, see Table 2-1.

FIGURE 5-5
Spring 2014 Northern Area VOC, SVOC and TPH Concentrations in Alluvial Groundwater

Groundwater Periodic Monitoring Report for January to June 2014
 Fort Wingate Depot Activity,
 McKinley County, New Mexico



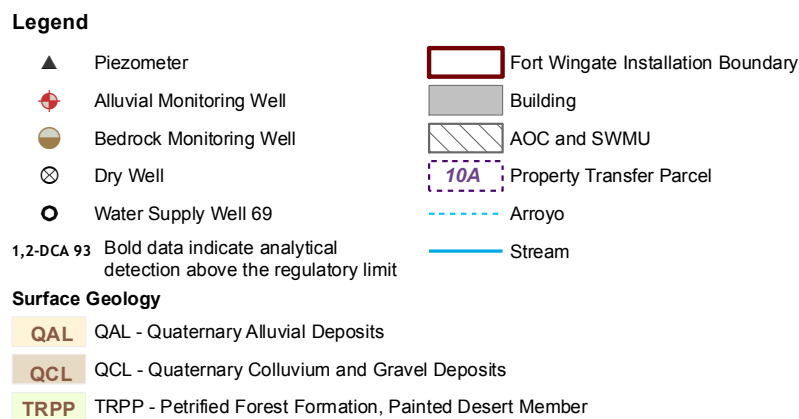
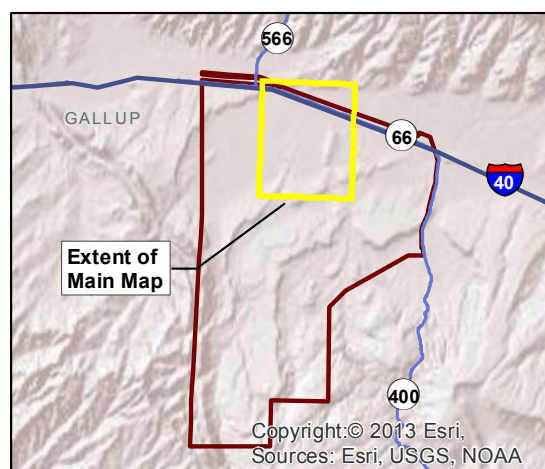
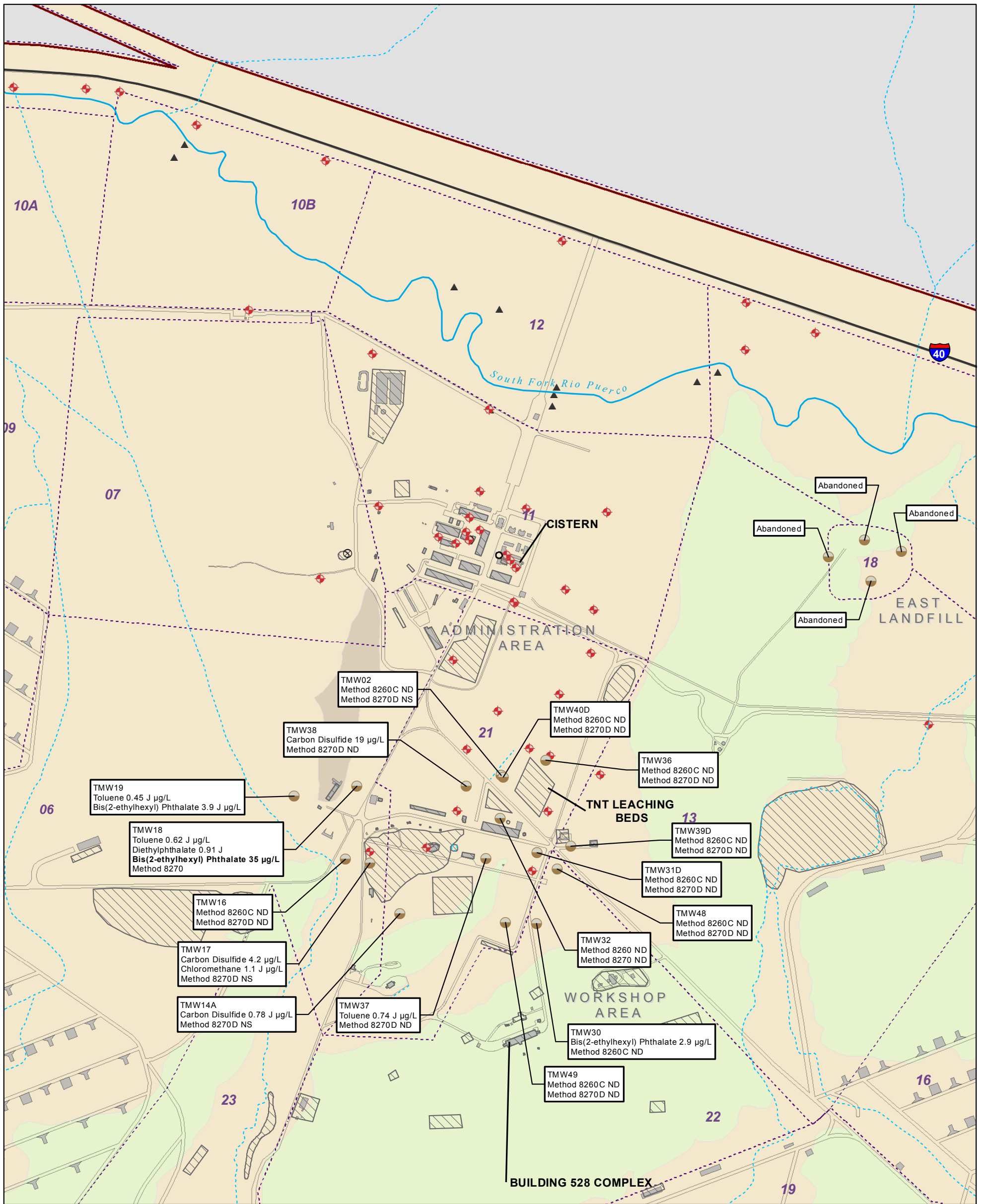
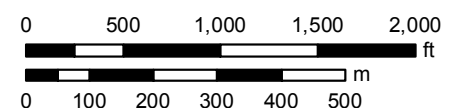


FIGURE 5-6
Spring 2014 Northern Area VOC, SVOC and TPH Concentrations in Bedrock Groundwater
 Groundwater Periodic Monitoring Report for January to June 2014
 Fort Wingate Depot Activity, McKinley County, New Mexico

State Plane Coordinate System, New Mexico West,
 North American Datum 1983, US Feet.

Data Sources:
 Roads, Railroad: Tele Atlas GDT-Dynamap, 2008;
 Populated Places: ESRI 2005;
 Fort Wingate Environmental Restoration Detail: USACE.

Notes:
 ND = Not Detected
 NS = Not Sampled
 Organochlorine pesticides (by Method SW8081A) were not detected in any monitoring well. For list of wells, see Table 2-1.



1 6.0 Summary and Recommendations

2 6.1 Summary

3 Two groundwater elevation surveys and one groundwater sampling event were performed during the monitoring
4 period from January to June 2014. Groundwater elevation surveys were conducted on January 13, 2014 and
5 April 7, 2014. The groundwater-sampling event was conducted from April 8 to April 17, 2014.

6 Shallow groundwater in the Northern Area of FWDA is present in both the unconsolidated alluvium and bedrock.
7 The groundwater flow direction in the alluvium is from potentiometric highs in the east, north, and south towards
8 a potentiometric low west of the Administration Area. A small groundwater mound is present in the
9 Administration Area near monitoring wells MW01, MW02, and MW03. This groundwater mound has been
10 previously attributed to a leaking water storage cistern in the Administration Area. The cistern is no longer in
11 service. Hydraulic gradients ranged from 0.003 ft/ft to 0.03 ft/ft in the alluvial groundwater unit. Groundwater in
12 the bedrock appears to flow radially to a potentiometric low adjacent to monitoring well TMW37 in the eastern
13 portion of the Workshop Area and to the west in the western portion of the Workshop Area, with an inferred
14 geologic structural feature impeding flow between the two areas. Groundwater flow is to the northwest in the
15 East Landfill Area. Hydraulic gradients in the bedrock unit were approximately 0.007 to 0.01 ft/ft in the Workshop
16 Area and 0.14 ft/ft in the East Landfill Area. The groundwater elevation in the bedrock groundwater unit is slightly
17 higher than in the alluvial groundwater unit and exists under hydraulically confined conditions under most of the
18 Northern Area. The confining unit for the bedrock aquifer is missing in the vicinity of monitoring wells TMW31D
19 and TMW48.

20 Nitrate, perchlorate, explosives, one VOC, two SVOCs, and metals were detected in groundwater samples at
21 concentrations above the cleanup or regulatory screening levels. Groundwater contaminant plumes at FWDA
22 appear to be limited to the Northern Area. Six groundwater contaminant plumes have been identified: two nitrate
23 plumes, one in the alluvial groundwater unit and one in the bedrock groundwater unit; two perchlorate plumes,
24 one in the alluvial groundwater unit and one in the bedrock groundwater unit; an explosives plume in the alluvial
25 groundwater unit; and a 1,2-dichloroethane plume in the alluvial groundwater unit.

26 The highest concentrations of nitrate contamination occur in alluvial groundwater units of the Northern Area. The
27 nitrate plume in the alluvial groundwater unit appears to originate from the TNT Leaching Beds and extends
28 downgradient to the Administration Area. The groundwater concentrations in the alluvial nitrate plume decline in
29 the vicinity of the former leaking water storage cistern (monitoring wells MW01 and MW02). The extent of the
30 alluvial nitrate plume is not defined west of the Administration Area. The bedrock nitrate plume is also present at
31 the TNT Leaching Beds (SWMU 1), but extends upgradient to the south. A portion of the bedrock nitrate plume is
32 collocated with the bedrock perchlorate plume. The collocated perchlorate and nitrate plumes appear to have a
33 common source at the Building 528 Complex. In addition, elevated nitrate concentrations were detected in
34 samples from background monitoring well BGMW02. This well is located on the boundary of FWDA and
35 upgradient of any SWMUs or AOCs. Therefore, the source of nitrate in monitoring well BGMW02 does not appear
36 to originate from FWDA.

37 The highest perchlorate concentrations were detected in groundwater samples from the bedrock groundwater
38 unit in the Workshop Area. The northern boundary of the bedrock perchlorate plume has not been defined. The
39 alluvial perchlorate plume is located in the same vicinity as the bedrock plume. The source of perchlorate appears
40 to be the Building 528 Complex.

41 RDX is the primary explosive compound of interest. This compound is consistently detected at concentrations
42 above screening levels in the Workshop and eastern Administrative Areas, as well as in the OB/OD Area. The
43 explosives plume in the alluvial groundwater unit appears to originate from the TNT Leaching Beds in the
44 Workshop Area. Groundwater concentrations of explosive compounds (primarily RDX) attenuate to levels below
45 the screening criteria within 2,500 feet downgradient of the TNT Leaching Beds.

6.0 Summary and Recommendations

1 One VOC was detected in groundwater samples at concentrations above regulatory cleanup standards. The
2 compound 1,2-dichloroethane was historically used as a gasoline additive and degreasing solvent. The
3 1,2-dichloroethane plume in the alluvial groundwater unit is limited to a group of wells near a former fueling
4 facility in the Administration Area. Groundwater samples collected from three alluvial monitoring wells had
5 concentrations above the EPA MCL of 5 µg/L. No other VOCs were detected above cleanup standards. Two SVOCs,
6 bis(2-ethylhexyl) phthalate and 2,4-dinitrophenol, were each detected at concentrations above the regulatory
7 cleanup standards in groundwater samples from one monitoring well. The detection of bis(2-ethylhexyl)
8 phthalate is likely attributable to sampling and laboratory contamination. The detection of 2,4-dinitrophenol, a
9 degradation byproduct of the explosive compound 2,4-dinitrotoluene, in the sample from monitoring well
10 TWM03 is attributed to historic discharges to the TNT Leaching Beds.

11 Dissolved aluminum, arsenic, iron, manganese, and selenium were detected above regulatory screening levels in
12 multiple groundwater samples. Since background groundwater concentrations have not been accepted for FWDA,
13 it cannot clearly be demonstrated if the detected concentrations are a result of natural conditions or
14 anthropogenic sources of contamination. A background evaluation of FWDA groundwater will be issued to NMED
15 in September 2014.

16 Additional delineation and investigation for groundwater plumes at FWDA are planned. A Supplemental RCRA
17 Facility Investigation (RFI) Work Plan is in preparation. This document will propose locations for additional
18 groundwater monitoring wells necessary to further delineate the alluvial and bedrock groundwater contaminant
19 plumes. The Supplemental RFI Work Plan is currently under review by the Army.

20 6.2 Recommendations

21 Based on a review of the monitoring activities and results, several recommendations were developed to address
22 data gaps and optimize the groundwater-monitoring program at FWDA. The following recommendations are
23 made for field sampling procedures:

- 24 ○ Suspend groundwater-sampling activities at monitoring wells containing less than 1 foot of saturated well
25 screen. The stagnant water present in the well sump cannot be effectively purged and groundwater samples
26 collected from these wells are not believed to be representative of formation water. Two alluvial aquifer
27 monitoring wells currently included in the monitoring program meet this criteria, MW22S and TMW40S.
28 Alluvial monitoring well MW22S is collocated with MW22D in the same borehole with a screen depth 16 feet
29 above that of MW22D. It is recommended that sampling be suspended from MW22S due to lack of saturated
30 well screen. Monitoring well MW22D and the surrounding monitoring wells TMW10, TMW33, and TMW35
31 provide sufficient monitoring coverage of the alluvial aquifer in this area. It is recommend that sampling of
32 TMW40S be suspended due to the lack of saturated well screen. Well TMW40S will be replaced by one or
33 more alluvial aquifer monitoring wells proposed in the Supplemental RFI Work Plan.

34 The following recommendations are made for the analytical program, data analysis, and investigation:

- 35 ○ Obtain regulatory consensus on the results of the FWDA background study. Implementation of background
36 study findings is necessary to determine whether dissolved metals concentrations detected above regulatory
37 screening levels are naturally occurring or the result of waste management activities at FWDA. A background
38 evaluation of FWDA groundwater will be issued to NMED in September 2014.
- 39 ○ Perform additional investigation of the alluvial aquifer nitrate plume to define the western boundary of the
40 plume. The nitrate plume boundaries will be investigated as part of the upcoming Supplemental RFI.
- 41 ○ Perform additional investigation of the bedrock aquifer perchlorate plume to define the northern boundary of
42 the plume. The perchlorate plume boundaries will be investigated as part of the upcoming Supplemental RFI.

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