Final

Groundwater Periodic Monitoring Report

July through December 2016

Fort Wingate Depot Activity

McKinley County, New Mexico

August 2017

Contract No. W912PP-15-C-0014

Prepared for:

U.S. Army Corps of Engineers®

U.S. Army Corps of Engineers
Fort Worth District
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Fort Worth, Texas 76102

Prepared by:

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14. ABSTRACT
This Groundwater Periodic Monitoring Report documents the activities conducted from July through December 2016 at Fort Wingate Depot Activity (FWDA) under the Interim Facility-Wide Groundwater Monitoring Plan, Version 9. The report describes the monitoring activities, presents the analytical data, evaluates the data, and makes recommendations for future monitoring at FWDA.

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NMED HWB = New Mexico Environment Department, Hazardous Waste Bureau
USEPA 6 = U.S. Environmental Protection Agency Region 6
FWDA BEC = Fort Wingate Depot Activity Base Realignment and Closure Environmental Coordinator
OH = Ohio
NM = New Mexico
BRACD = U.S. Army Base Realignment and Closure Division
POC = Point of Contact, Steve Smith
USACE SWF = U.S. Army Corps of Engineers Fort Worth District
USACE = U.S. Army Corps of Engineers
NN = Navajo Nation
POZ = Pueblo of Zuni
BIA - NRO = Bureau of Indian Affairs – Navajo Regional Office
BIA SW = Bureau of Indian Affairs, Southwest Region
DOI - BIA = Department of the Interior – Bureau of Indian Affairs

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List of Acronyms and Abbreviations

°C	degrees Celsius
ADR	Automated Data Review
AOC	area of concern
bgs	below ground surface
BRAC	Base Realignment and Closure
BTOC	below top of casing
CAS	Chemical Abstracts Service
CERCLA	*Comprehensive Environmental Response, Compensation, and Liability Act* of 1980
CFR	*Code of Federal Regulations*
CH2M	CH2M HILL, Incorporated
DO	dissolved oxygen
DoD	U.S. Department of Defense
DRO	diesel range organics
DTW	depth to water
EDD	electronic data deliverable
EDMS	Electronic Data Management System
Eh	redox potential
EPA	U.S. Environmental Protection Agency
ERP	Environmental Restoration Program
ft/ft	foot per foot
FWDA	Fort Wingate Depot Activity
GPMR	Groundwater Periodic Monitoring Report
GRO	gasoline range organics
GWMP	Groundwater Monitoring Plan
HMX	octahydro-1.3.5.7-tetranitro-1.3.5.7-tetrazocine
ID	identification
Innovar	Innovar Environmental, Inc.
J	analyte was positively identified; reported value is estimated
MAROS	Monitoring and Remediation Optimization System
MCL	maximum contaminant level
µg/L	microgram(s) per liter
µS/cm	microsiemen(s) per centimeter
mg/L	milligram(s) per liter
MS	matrix spike
MSD	matrix spike duplicate
mS/cm	millisiemen(s) per centimeter
mV	millivolt(s)
N	nitrogen
N/A	not applicable
NA	not analyzed
NAVD88	North American Vertical Datum of 1988
ND	not detected
NE	not established
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NM WQCC	New Mexico Water Quality Control Commission
No.	number

NS	not sampled
NTU	nephelometric turbidity unit
OB/OD	Open Burn/Open Detonation
ORP	oxidation reduction potential
pH	scale used to measure the concentration of hydrogen atoms (acidity) of a sample
QC	quality control
QSM	Quality Systems Manual
R	result is not usable for any purpose
RCRA	*Resource Conservation and Recovery Act*
RDX	hexahydro-1,3,5-trinitro-1,3,5-triazine
RFI	*Resource Conservation and Recovery Act* Facility Investigation
RSL	Regional Screening Level
SVOC	semivolatile organic compound
SWMU	solid waste management unit
TAL	target analyte list
TCL	target compound list
TDS	total dissolved solids
TNT	2,4,6-trinitrotoluene
TOC	top of casing
TPH	total petroleum hydrocarbon(s)
TPMC	TerranearPMC
U	non-detected result below the limit of detection
UJ	analyte was not detected
USACE	U.S. Army Corps of Engineers
VOC	volatile organic compound

Executive Summary

This Groundwater Periodic Monitoring Report (GPMR) documents groundwater monitoring activities conducted at Fort Wingate Depot Activity (FWDA) from July through December 2016 in accordance with the *Interim Facility-Wide Groundwater Monitoring Plan, Version 9* (Innovar Environmental, Inc. [Innovar], 2016). Groundwater monitoring was performed by Sundance Consulting, Inc. and CH2M HILL, Inc. at FWDA under contract to the U.S. Army Corps of Engineers, Fort Worth District, as part of the Environmental Restoration Program. This GPMR was prepared on behalf of the U.S. Department of the Army Base Realignment and Closure Division for submission to the New Mexico Environment Department (NMED) – Hazardous Waste Bureau, as required by Section V.A of the *Resource Conservation and Recovery Act* (RCRA) Permit U.S. Environmental Protection Agency (EPA) Identification (ID) Number (No.) NM6213820974 for FWDA (NMED, 2005; NMED, 2014; NMED, 2015). This GPMR summarizes the monitoring activities and results, evaluates the results, and provides recommendations for future monitoring events and investigations.

Field activities conducted during the reporting period included two groundwater elevation surveys and one groundwater sampling event. Groundwater elevation surveys were performed on July 13, 2016, and October 24 and 25, 2016. Depth to water was measured at 73 monitoring wells and piezometers; two wells were verified as dry during the July monitoring event and four wells were verified as dry during the October monitoring event. The groundwater sampling event for the reporting period was performed from October 24 to November 4, 2016. Groundwater samples were collected from 59 monitoring wells listed in the Groundwater Monitoring Plan (Innovar, 2016). Monitoring wells FW35, MW22S, and TMW40S were dry and could not be sampled during this monitoring period. The groundwater samples were analyzed for the constituents listed in Table 2-1 of this GPMR. During this monitoring period, access to the Open Burn/Open Detonation Area was not allowed due to explosive hazards associated with the excavation and removal of unexploded ordnance, munitions, and explosives of concern.

Groundwater flow directions at FWDA are controlled by regional geologic structure orientation and by local topography and stratigraphy. The flow of groundwater in the Northern Area alluvium is from potentiometric highs in the east, north, and south toward a potentiometric low west of the Administration Area (Figures 4-1 and 4-2 in this GPMR). Hydraulic gradients in alluvium ranged from 0.003 foot per foot (ft/ft) to 0.03 ft/ft. Groundwater flow in the bedrock appears to flow radially to a potentiometric low south of monitoring well TMW32 in the eastern portion of the Workshop Area. Bedrock groundwater flow is to the west in the western portion of the Workshop Area, with an interpreted geologic structural feature impeding flow between the two areas. Groundwater elevation in the bedrock groundwater unit is slightly higher than in the alluvial groundwater unit and exists under hydraulically confined conditions in most of the Northern Area. Groundwater hydraulic gradients in the bedrock unit range from approximately 0.005 ft/ft to 0.006 ft/ft in the Workshop Area.

Nitrate, perchlorate, explosives, one volatile organic compound (VOC), one semivolatile organic compound (SVOC), and metals were detected in groundwater samples at concentrations above the regulatory screening levels. Six groundwater contaminant plumes were identified: two nitrate plumes, one in the alluvial groundwater unit and one in the bedrock groundwater unit; two perchlorate plumes, one in the alluvial groundwater unit and one in the bedrock groundwater unit; an explosives plume in the alluvial groundwater unit; and a 1,2-dichloroethane plume in the alluvial groundwater unit. SVOC detections are sporadic and are not attributed to contaminant plumes.

The highest concentrations of nitrate contamination occur in shallow alluvial groundwater units of the Northern Area. The nitrate plume in the alluvial groundwater unit appears to originate from the trinitrotoluene (TNT) Leaching Beds (Solid Waste Management Unit [SWMU] 1) and extends downgradient to the Administration Area. The nitrate concentrations in groundwater within the alluvial nitrate plume decline in the vicinity of the former water storage cistern (monitoring wells MW01 and MW02) and the installation water supply well. The extent of the alluvial nitrate plume is not defined to the west of the Administration Area. The bedrock nitrate plume is also

present at the TNT Leaching Beds (SWMU 1) but extends upgradient from the site to the south. A portion of the bedrock nitrate plume is collocated with the bedrock perchlorate plume. The collocated perchlorate and nitrate plumes appear to have a common source at the Building 528 Complex (SWMU 27).

The highest perchlorate concentrations were detected in groundwater samples from the bedrock groundwater unit in the Workshop Area. The northern boundary of the bedrock perchlorate plume has not been defined. The alluvial perchlorate plume is located in the same vicinity as the bedrock plume. The source of perchlorate appears to be the Building 528 Complex (SWMU 27).

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

One VOC was detected in groundwater samples at concentrations above regulatory cleanup standards. The compound 1,2-dichloroethane was historically used as a gasoline additive and degreasing solvent. The 1,2-dichloroethane plume in the alluvial groundwater unit is limited to a group of wells near a former fueling facility (SWMU 45, Building 6) in the Administration Area. Groundwater samples collected from two alluvial monitoring wells had concentrations above the EPA's maximum contaminant level of 5.0 micrograms per liter. No other VOCs were detected above cleanup standards. The SVOC 2,4-dinitrophenol was detected at concentrations above the screening level in the sample from alluvial monitoring well TMW03, directly downgradient of the TNT Leaching Beds (SWMU 1). The compound 2,4-dinitrophenol is attributed to degradation of explosives compounds within the RDX plume. The detections of bis(2-ethylhexyl) phthalate in samples from multiple wells are attributed to sampling and laboratory contamination.

Dissolved aluminum, arsenic, iron, lead, manganese, and selenium were detected above regulatory screening levels in multiple groundwater samples. Because background groundwater concentrations have not been accepted for FWDA, it cannot clearly be demonstrated whether the detected concentrations are a result of natural conditions or anthropogenic sources of contamination.

1.0 Introduction

This Groundwater Periodic Monitoring Report (GPMR) documents groundwater monitoring activities conducted at Fort Wingate Depot Activity (FWDA) from July through December 2016 in accordance with the *Interim Facility-Wide Groundwater Monitoring Plan*, *Version 9* (Innovar Environmental, Inc. [Innovar], 2016). Groundwater monitoring was performed by Sundance Consulting Inc. (Sundance) and CH2M HILL Inc. (CH2M) at FWDA under contract to the U.S. Army Corps of Engineers (USACE), Fort Worth District, as part of the Environmental Restoration Program (ERP). This 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, as required by Section V.A of the *Resource Conservation and Recovery Act* (RCRA) Permit, U.S. Environmental Protection Agency (EPA) Identification (ID) Number (No.) NM6213820974 for FWDA (NMED, 2005; NMED, 2011; NMED, 2014; NMED 2015).

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 the Interior, the installation has been divided into reuse parcels as specified by the RCRA 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 in western New Mexico, approximately 7 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.

Historical 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 historical 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 (Solid Waste Management Unit [SWMU] 1) Area. The buildings and other structures were demolished in 2010.
- The Igloo Areas cover almost half of the current FWDA and were used to store 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, 2016).
- The Open Burn/Open Detonation (OB/OD) Area includes munitions disposal locations in the southwestern and western portions of the installation. 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, 1999). The current OB/OD Area was used from 1955 to 1993 and contains the hazardous waste management unit identified in the RCRA Permit.

1.2 Hydrogeologic Setting

This section briefly describes the hydrogeologic setting at FWDA to provide context for the contaminant nature and discussions presented in Section 5 of this GPMR.

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

The majority of FWDA is underlain by the Triassic-age Chinle Group, which is predominantly non-marine, red-bed siliciclastics. The Chinle Group consists of the Shinarump, Bluewater Creek, Petrified Forest, and Owl Rock Formations (Anderson et al., 2003). The Petrified Forest Formation directly underlies the majority of the installation and is subdivided into three members: the Blue Mesa, Sonsela, and Painted Desert. All three members of the Petrified Forest Formation outcrop in various locations across the installation. The Blue Mesa, Sonsela, and Painted Desert lithologies are green-gray smectitic[1] mudstone, light-gray to yellowish-brown cross-bedded sandstone, and reddish-brown and grayish-red smectitic mudstone, respectively (Innovar, 2016). In the eastern portion of FWDA, the older Bluewater Creek and Shinarump Formations outcrop intermittently between layers of Quaternary alluvium (Innovar, 2016).

Permian-age bedrock underlies the Mesozoic-age rock beneath FWDA. These strata do not outcrop in FWDA and are not known to be contaminated by historical activities at the installation. However, the deeper, older San Andres Limestone and Glorieta Sandstone Formations historically provided the potable water supply to the installation.

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

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

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

[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.

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

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

The depth to water (DTW) under FWDA is generally between 10 and 100 feet bgs. Groundwater is present at shallow depths in the alluvium along drainages, including the Rio Puerco, with DTW ranging from 15 to 68 feet bgs in Northern Area alluvial wells. Groundwater in the Northern Area bedrock aquifer wells is also shallow, with DTW ranging from 29 to 65 feet bgs in the bedrock monitoring wells.

1.3 Regulatory Background

Environmental restoration activities at FWDA began in 1989 under the *Comprehensive Environmental Response, Compensation, and Liability Act* of 1980 (CERCLA) guidelines, as part of the Installation Restoration Program. The one exception was the current OB/OD Area, which was classified as a RCRA Interim Status, thermal treatment unit.

Since that time, NMED has become the lead regulatory agency. In 2002, NMED determined that the remediation pathway would be solely through a RCRA permit for post-closure care of the current OB/OD Area with a RCRA corrective action module attached to address requirements for other SWMUs and areas of concern (AOCs). The RCRA Permit was finalized in December 2005 and became effective December 31, 2005 (NMED, 2005). Since the original permit issuance, the permit has been revised through NMED-issued modifications in 2011, 2014, and 2015 (NMED, 2011; NMED, 2014; NMED, 2015). The NMED identified one hazardous waste management unit within the current OB/OD Unit (Parcel 3) and a total of 93 SWMUs and AOCs. The 2011 permit modification authorized the construction and operation of a Corrective Action Management Unit as a second hazardous waste management unit. The NMED is currently in the process of preparing a renewal of the FWDA RCRA Permit.

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

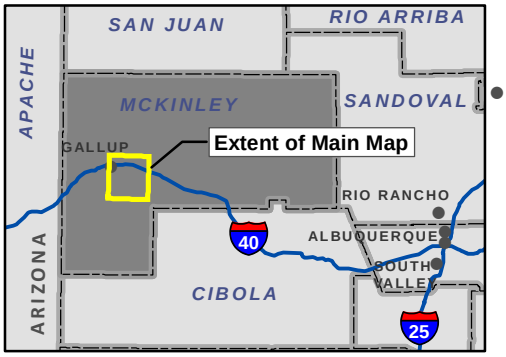
The Interim Facility-Wide Groundwater Monitoring Plan (GWMP) is required by Permit Section V.A and describes the groundwater monitoring activities to be conducted as part of the ERP at FWDA. The current monitoring network has been designed to evaluate the horizontal and vertical extent of chemical constituents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

1.4 Document Organization

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

- Section 2 provides a discussion of the activities or scope of services performed during the July through December 2016 reporting period.
- Section 3 presents the applicable regulatory criteria against which sample analytical results are compared for FWDA.
- Section 4 presents the results of the quarterly groundwater elevation surveys.
- Section 5 presents the groundwater sample analytical data for the July through December 2016 monitoring period.
- Section 6 presents a summary discussion of the groundwater monitoring results and provides recommendations for future monitoring events.
- Section 7 presents a list of the works cited in this GPMR.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



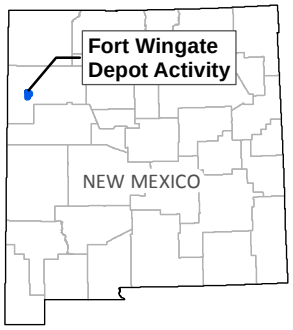


FIGURE 1-1
LOCATION MAP
Groundwater Periodic Monitoring Report for July to December 2016
Fort Wingate Depot Activity,
McKinley County, New Mexico

0 1 2 3 mi
0 1 2 3 4 5 km

N

FIGURE 1-2
SITE FEATURES

Groundwater Periodic Monitoring Report for July to December 2016
Fort Wingate Depot Activity, McKinley County, New Mexico

SEE INSET MAP

INSET MAP

ADMINISTRATION AREA
EAST LANDFILL
WORKSHOP AREA
BUILDING 528 COMPLEX
TNT LEACHING BEDS
South Fork Rio Puerco

10A 10B 25 12 9 24 11 18 14 21 13 15 8 6 16 23 22 5A 5B 4A 4B 19 17 2 20 3

CMW25 FW24 CMW23 CMW22 CMW24 CMW21 KMW11 CMW16 KMW10 KMW13 CMW19 KMW09 KMW12 CMW18 CMW17 CMW14 FW38 CMW10 CMW20 CMW06 CMW07 CMW04 CMW02

FW31

MW23 MW24 PZ09 PZ10 BGMW03 BGMW02 BGMW01 TMW27 PZ05 PZ06 SMW01 TMW28 PZ03 PZ02 PZ07 PZ01 PZ08 TMW26 PZ04 MW22D MW22S TMW33 TMW10 TMW46 TMW08 TMW24 TMW35 TMW34 MW18D MW02 MW01 TMW25 MW20 MW03 Well 69 TMW23 TMW07 TMW45 TMW06 TMW22 TMW21 TMW40D TMW40S TMW43 TMW44 TMW29 FW35 TMW18 TMW19 TMW03 TMW04 TMW02 TMW36 TMW38 TMW47 TMW13 TMW41 TMW11 TMW32 TMW39S TMW39D TMW16 TMW31D TMW17 TMW31S TMW15 TMW48 TMW37 TMW14A TMW01 TMW49 TMW30

SWMU 3 SWMU 10 SWMU 24 SWMU 23 SWMU 37 SWMU 40 COAL TANK SWMU 6 SWMU 5 SWMU 45 SWMU 9 SWMU 40 SWMU 50 SWMU 40 (S63) SWMU 40 (B T-50) SWMU 40 (B T-33) SWMU 7 SWMU 11 SWMU 1 SWMU 4 SWMU 8 SWMU 72 SWMU 70 SWMU 27 SWMU 12 SWMU 21

AOC 75 AOC 52 AOC 46 & 51 AOC 49 AOC 47 AOC 48 AOC 86 AOC 42 AOC 61-67 AOC 60 AOC 55 AOC 68 AOC 87 AOC 56 AOC 81 AOC 84 AOC 83 AOC 53 AOC 71 AOC 88 AOC 73

0 500 1,000 2,000 Feet

Legend

- Piezometers
- OB/OD Monitoring Well
- Alluvial Monitoring Well
- Abandoned Well
- Bedrock Monitoring Well
- Dry or Damaged Well
- Buried Well
- Water Supply Well 69
- Arroyo
- Stream
- 10A Property Transfer Parcel
- AOC and SWMU
- Building
- Fort Wingate Installation Boundary
- Topographic Contour (100 foot Interval)
- Fort Wingate Road

SAN JUAN RIO ARRIBA SANDOVAL MCKINLEY APACHE CIBOLA GALLUP Extent of Main Map RIO RANCHO ALBUQUERQUE SOUTH VALLEY 40 25

Notes:
AOC = Area of Concern
OB/OD = Open Burn/Open Detonation
SWMU = Solid Waste Management Unit

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

1:20,000
0 2,500 5,000 7,500 10,000 Feet
0 500 1,000 1,500 2,000 2,500 3,000 Meters

N

FW-2014-004

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2.0 Scope of Services

This section presents an overview of the field activities, laboratory analyses, and data management activities conducted during the period from July through December 2016. 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 *2016 Interim Measures Facility-Wide Groundwater Monitoring Plan, Version 9* (Innovar, 2016). The groundwater monitoring locations are shown on Figure 1-2.

2.1 Groundwater Elevation Measurements

Groundwater elevation surveys were performed at FWDA on July 13, 2016, and October 24 and 25, 2016. During each elevation survey, DTW was measured at 73 monitoring wells and piezometers; 2 wells were verified as dry during the July monitoring event, and 4 wells were identified as dry during the October monitoring event. Of the 69 monitoring wells and piezometers with water, 43 locations were alluvial monitoring wells, 16 locations were bedrock monitoring wells, and 10 locations were piezometers—all located in the Northern Area (Administration and Workshop Areas). No access to the OB/OD Area has been permitted during groundwater monitoring events since April 2013 due to explosive hazards associated with the excavation and removal of unexploded ordnance, munitions, and explosives of concern. No groundwater elevation measurements were collected in the OB/OD Area during the current monitoring period. A Parcel 3 Groundwater RCRA Facility Investigation (RFI) is currently being performed. Results of this investigation will be presented in a Parcel 3 Groundwater RFI to be prepared in 2017.

As a health and safety consideration, water level measurements were collected by two-person teams. One team member documented the field measurements and the other operated the water level meter. The DTW was measured from the top of the casing reference point at each monitoring well and piezometer 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 into contact with groundwater 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 historical data to identify potential field measurement errors. After 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 GPMR.

2.2 Groundwater Sampling

The groundwater sampling event for the reporting period was performed from October 24 to November 4, 2016. Groundwater samples were collected from 59 monitoring wells listed in the GWMP (Innovar, 2016). The 16 monitoring wells in the OB/OD Area were not sampled due to the explosive hazards associated with the excavation and removal of unexploded ordnance and explosives of concern in the area. Four alluvial monitoring wells in the Northern Area were dry. The groundwater samples were analyzed for the constituents listed in Table 2-1. The sample analytical results are presented in Section 5 of this GPMR. Variances from the GWMP are also discussed in Section 5.

Monitoring well purging and sampling was performed using a variety of sampling techniques: dedicated low-flow pneumatic pumps from BESST Products, dedicated pneumatic Bennett Sample Pumps, a non-dedicated Grundfos

Redi-Flo2 submersible pump, and disposable bailers. During well purging operations, the water quality parameters of pH, temperature, specific conductance, dissolved oxygen (DO), turbidity, and oxidation reduction potential (ORP) were measured using Horiba Instruments, Inc. Model U-52 water quality meters and recorded on groundwater sampling field data sheets. All water quality meters were calibrated daily according to manufacturer specifications. The groundwater sampling field data sheets for each monitoring well are provided in Appendix B.

Monitoring wells equipped with dedicated low-flow pneumatic pumps were purged in accordance with the GWMP and NMED's position paper *Use of Low-Flow and Other Non-Traditional Sampling Techniques for RCRA Compliant Groundwater Monitoring* (NMED, 2001). Well purging was performed until water quality parameters stabilized within the following ranges: temperature (±10 percent), pH (±0.5 standard units), specific conductance (±10 percent), DO (±10 percent), turbidity (±10 percent), and ORP (±10 percent). In general, drawdown was minimized during final parameter stabilization and during sampling to ensure that formation water was being measured and sampled. Drawdown was minimized by slow purging of the wells; however, poor groundwater production from the screened intervals resulted in greater than desired drawdown in some wells. During the initial period of low-flow pumping prior to stabilization, drawdown in several wells was greater than 0.5 foot, but only greater than 1.0 foot in two wells during this monitoring event.

Monitoring wells not equipped with low-flow pumps were purged by pumping or bailing three well volumes of the water standing in the well (including the saturated annular space). Water quality parameters were measured during the well purging operations until they stabilized within the ranges presented above. If a monitoring well was emptied prior to the purging of three well volumes due to a slow recharge rate, then the well was sampled after it refilled with sufficient groundwater volume. This typically required the sample team to return to the well location on the next day to collect the groundwater sample. A minimum of three water quality parameter measurements was collected from wells that emptied during purging operations except at MW24, where only one set of parameter readings was collected due to equipment malfunction and at TMW23 and TMW30 where only two sets of parameter readings were collected before the well went dry.

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

The 18 wells not equipped with dedicated pumps were purged dry either by bailing or with a non-dedicated, Grundfos Redi-Flo2 submersible electric pump. All samples from wells without dedicated pumps were collected using disposable bailers.

The Grundfos Redi-Flo2 submersible pump was decontaminated between sample locations by pumping Liqui-Nox soap solution through the pump and pumping through two rinse cycles with deionized water. The Grundfos pump discharge tubing was discarded at the end of each day that it was used for well purging. Disposable bailers used for well purging and sampling were also discarded and not reused at other sample locations. Two quality control (QC) equipment rinsate samples were collected from the decontaminated submersible pump, and the analytical results were evaluated as part of the data validation process. Thirteen monitoring wells were purged using the Grundfos Redi-Flo2 submersible pump. The two equipment rinsate samples comply with the 10 percent sample frequency requirement of the GWMP (Innovar, 2016). The equipment rinsate sample results indicate equipment decontamination was sufficient to prevent cross-contamination.

After well purging, groundwater samples were collected in laboratory-supplied bottles for the analyses listed in Table 2-1. The QC samples collected during the monitoring event are also listed in Table 2-1 and meet the requirements specified in the GWMP. Filled sample bottles were placed on ice in coolers for shipment to TestAmerica Laboratories. Sample coolers were shipped daily, under chain of custody, by FedEx overnight delivery. Copies of the chain of custody forms for the groundwater sampling event are provided in Appendix B.

Water was generated during well-purging activities as part of the sampling process. Decontamination fluids were generated during the decontamination of non-dedicated sampling equipment and reusable monitoring equipment. Purge water and decontamination fluids were contained in closable 5-gallon and 15-gallon containers during sampling activities and emptied into the FWDA evaporation tank daily. Solid waste such as disposable sampling equipment, personal protective equipment, and general refuse was placed in rented refuse containers.

2.3 Data Management and Validation

An electronic database was created to support the data management and tracking activities for the groundwater sampling event. The database was used to prepare sample labels in advance of the sampling event and to prepare electronic chain of custody forms daily at FWDA during the sampling event. Sample identifiers were assigned based on the convention described in the GWMP. Groundwater sample identifiers consisted of the well ID and sample date. The QC samples used the same ID number as the parent sample and followed by MS (matrix spike) or MSD (matrix spike duplicate), as dictated by the work plan. Changes were made to the sample identifiers for field duplicates so that these QC samples would be blind to the laboratory. The duplicates relating to normal samples are presented in Table 2-1. Copies of the chain of custody forms were emailed to the project chemist daily to facilitate sample tracking and laboratory interaction.

Sample analyses were performed by TestAmerica Laboratories in accordance with the *Department of Defense Quality Systems Manual for Environmental Laboratories* (QSM) (U.S. Department of Defense [DoD], 2013). Electronic data deliverables (EDDs) of the analytical results for each sample delivery group were provided by TestAmerica Laboratories for validation. The sample result EDDs were loaded into the Automated Data Review (ADR) software for data validation. Results were subjected to 100 percent Stage 2a validation using the ADR software. An additional 10 percent of the sample results was subjected to Stage 3 data validation by the project chemist. The validated data output files from the ADR software were exported to the FWDA Electronic Data Management System (EDMS) database. The EDMS database was used to prepare the validated data table output presented in this GPMR. The overall data validation assessment found that data were of sufficient quality for evaluation of data quality objectives. Information on the data validation process and the results is provided in Appendix C. Attachments to data validation reports are provided in electronic format.

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TABLE 2-1
Fall 2016 Groundwater Sample Matrix (Page 1 of 3)
Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well ID	Purge Method	Pump Type	Sample ID	Total Explosives Method 8330B	TCL VOCs Method 8260C	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	low-flow	BESST	BGMW01102016	X	X	X	X	X	X	X	X		
BGMW02	low-flow	BESST	BGMW02102016	X	X	X	X	X	X	X	X		
Matrix Spike [a]	low-flow	BESST	BGMW02102016MS	X	X	X	X	X	X	X	X		
			BGMW02102016MSD	X	X	X	X	X	X	X	X		
BGMW03	well volume	Grundfos	BGMW03102016	X	X	X	X	X	X	X	X		
FW31	well volume	bail	FW31102016	X	X	X	X	X	X	X			
FW35	well volume	Grundfos	FW35102016	Well Dry - Not Sampled									
MW01	well volume	bail	MW01102016	X	X		X	X	X	X	X	X	X
MW02	well volume	bail	MW02102016	X	X		X	X	X	X	X	X	X
MW03	low-flow	BESST	MW03102016	X	X			X	X	X	X	X	X
MW18D	well volume	Grundfos	MW18D102016	X	X			X	X	X	X	X	X
MW18S	well volume	bail	MW18S102016	Well Dry - Not Sampled									
MW20	low-flow	BESST	MW20102016	X	X	X	X	X	X	X	X	X	X
Matrix Spike [a]	low-flow	BESST	MW20102016MS	X	X	X	X	X	X	X	X	X	X
			MW20102016MSD	X	X	X	X	X	X	X	X	X	X
MW22D	low-flow	BESST	MW22D102016	X	X	X	X	X	X	X	X	X	X
MW22S	well volume	bail	MW22S102016	Well Dry - Not Sampled									
MW23	well volume	Bennett	MW23102016	X	X	X	X	X	X	X	X		
MW24	well volume	Bennett	MW24102016	X	X	X	X	X	X	X	X		
Duplicate [b]	well volume	Bennett	DMW24102016	X	X	X	X	X	X	X	X		
Matrix Spike [a]	well volume	Bennett	MW24102016MS	X	X	X	X	X	X	X	X		
			MW24102016MSD	X	X	X	X	X	X	X	X		
SMW01	low-flow	BESST	SMW01102016	X	X	X		X	X	X	X		
TMW01	low-flow	BESST	TMW01102016	X	X			X	X	X	X		
TMW03	low-flow	BESST	TMW03102016	X	X	X		X	X	X	X		
TMW04	low-flow	BESST	TMW04102016	X	X	X		X	X	X	X		
TMW06	low-flow	BESST	TMW06102016	X	X	X		X	X	X			
TMW07	well volume	Grundfos	TMW07102016	X	X	X		X	X	X			
TMW08	low-flow	BESST	TMW08102016		X		X	X	X	X	X	X	X
Duplicate [b]	low-flow	BESST	DTW08102016		X		X	X	X	X	X	X	X

TABLE 2-1

Fall 2016 Groundwater Sample Matrix (Page 2 of 3)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well ID	Purge Method	Pump Type	Sample ID	Total Explosives Method 8330B	TCL VOCs Method 8260C	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													
TMW10	well volume	bail	TMW10102016	X	X			X	X	X	X		
TMW11	low-flow	BESST	TMW11102016	X	X			X	X	X	X		
Duplicate [b]	low-flow	BESST	DTW11102016	X	X			X	X	X	X		
TMW13	low-flow	BESST	TMW13102016		X			X	X	X	X		
TMW15	low-flow	BESST	TMW15102016	X	X	X		X	X	X	X		
TMW21	well volume	bail	TMW21102016	X	X			X	X	X	X		
TMW22	well volume	Grundfos	TMW22102016	X	X	X		X	X	X	X		
TMW23	well volume	Grundfos	TMW23102016	X	X		X	X	X	X	X		
TMW24	low-flow	BESST	TMW24102016	X	X		X	X	X	X	X		
TMW25	low-flow	BESST	TMW25102016	X	X			X	X	X			
TMW26	low-flow	BESST	TMW26102016	X	X			X	X	X	X		
TMW27	low-flow	BESST	TMW27102016		X			X	X		X		
TMW28	low-flow	BESST	TMW28102016		X			X	X	X			
TMW29	well volume	bail	TMW29102016	X	X			X	X	X	X		
TMW31S	well volume	Grundfos	TMW31S102016	X	X	X	X	X	X	X	X		
TMW33	well volume	Grundfos	TMW33102016		X	X		X	X	X		X	X
TMW34	low-flow	BESST	TMW34102016		X			X	X	X	X	X	X
TMW35	low-flow	Grundfos	TMW35102016		X	X	X	X	X	X	X	X	X
Duplicate [b]	low-flow	Grundfos	DTW35102016		X	X	X	X	X	X	X	X	X
TMW39S	well volume	BESST	TMW39S102016	X	X	X	X	X	X	X	X		
TMW40S	well volume	bail	TMW40S102016	Well Dry - Not Sampled									
TMW41	well volume	Grundfos	TMW41102016	X	X	X	X	X	X	X	X		
TMW43	low-flow	BESST	TMW43102016	X	X	X	X	X	X	X	X		
Duplicate	low-flow	BESST	DTW43102016	X	X	X	X	X	X	X	X		
TMW44	low-flow	Grundfos	TMW44102016	X	X	X	X	X	X	X	X		
TMW45	low-flow	BESST	TMW45102016	X	X	X	X	X	X	X	X		
Duplicate	low-flow	BESST	DTW45102016	X	X	X	X	X	X	X	X		
TMW46	well volume	Grundfos	TMW46102016	X	X	X	X	X	X	X	X		
TMW47	low-flow	BESST	TMW47102016	X	X	X	X	X	X	X	X		

TABLE 2-1

Fall 2016 Groundwater Sample Matrix (Page 3 of 3)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well ID	Purge Method	Pump Type	Sample ID	Total Explosives Method 8330B	TCL VOCs Method 8260C	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													
TMW02	low-flow	BESST	TMW02102016	X	X			X	X	X	X		
TMW14A	low-flow	BESST	TMW14A102016	X	X	X		X	X	X			
TMW16	well volume	Bennett	TMW16102016	X	X	X		X	X		X		
TMW17	low-flow	BESST	TMW17102016		X			X	X	X	X		
TMW18	well volume	Bennett	TMW18102016	X	X	X		X	X	X	X		
TMW19	well volume	Bennett	TMW19102016	X	X	X		X	X		X		
Duplicate [b]	well volume	Bennett	TMW19102016	X	X	X		X	X		X		
TMW30	well volume	Grundfos	TMW30102016	X	X	X	X	X	X	X	X		
TMW31D	low-flow	BESST	TMW31D102016	X	X	X	X	X	X	X	X		
Duplicate [b]	low-flow	BESST	TMW31D102016	X	X	X	X	X	X	X	X		
TMW32	low-flow	BESST	TMW32102016	X	X	X	X	X	X	X	X		
TMW36	well volume	Bennett	TMW36102016	X	X	X	X	X	X	X	X		
Matrix Spike [a]	well volume	Bennett	TMW36102016MS	X	X	X	X	X	X	X	X		
			TMW36102016MSD	X	X	X	X	X	X	X	X		
TMW37	well volume	Bennett	TMW37102016	X	X	X	X	X	X	X	X		
TMW38	low-flow	BESST	TMW38102016	X	X	X	X	X	X	X	X		
TMW39D	low-flow	BESST	TMW39D102016	X	X	X	X	X	X	X	X		
TMW40D	low-flow	BESST	TMW40D102016	X	X	X	X	X	X	X	X		
TMW48	low-flow	BESST	TMW48102016	X	X	X	X	X	X	X	X		
TMW49	low-flow	BESST	TMW49102016	X	X	X	X	X	X	X	X		

Notes:

[a] Matrix spike (MS) and matrix spike duplicate (MSD) samples are quality control samples and associated with the normal sample above.

[b] Duplicate samples are quality control samples that are collected to verify the consistency of the laboratory analysis.

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

DRO = diesel range organics

GRO = gasoline range organics

ID = identification

OB/OD = Open Burn/Open Detonation

SVOC = semivolatile organic compound

TAL = target analyte list

TCL = target compound list

TPH = total petroleum hydrocarbons

VOC = volatile organic compound

X = samples collected according to work plan (Innovar, 2016)

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3.0 Regulatory Criteria

On December 1, 2005, NMED issued a RCRA Permit (EPA ID No. NM6213820974) to the U.S. Department of the Army (Permittee), the owner and operator of FWDA. The Permit established the general and specific standards and requirements for these activities pursuant to the New Mexico Hazardous Waste Act, as amended; New Mexico State Rules Act 1978, §§ 74-4-1 et seq.; and the New Mexico Hazardous Waste Management Regulations, 20 New Mexico Administrative Code (NMAC) Part 4.1 (NMED, 2005). Since the original permit issuance, the FWDA RCRA permit has been revised through NMED-issued modifications on June 27, 2011, April 4, 2014, and February 25, 2015 (NMED, 2011; NMED, 2014; NMED, 2015). A renewal of the FWDA RCRA permit is currently in progress. Until the renewal process is completed, all environmental activities at the installation will be conducted in accordance with the requirements of the 2015 revision of the RCRA Permit, which includes the original Permit and all subsequent modifications (NMED, 2015).

As required by Section V.A of the Permit, the U.S. Department of the Army developed and implemented a groundwater monitoring program. A GWMP was developed according to provisions of the Permit, Section VIII.B.1 (20 NMAC § 4.1.500, incorporating 40 *Code of Federal Regulations* [CFR] 264.101) (TPMC, 2008). NMED approved the initial GWMP in March 2008. The GWMP has been revised annually, with the revisions submitted to NMED from 2009 through 2016. All groundwater monitoring, sampling, and reporting activities are conducted in compliance with the Permit, applicable Permit attachments, and the GWMP.

Attachment 7 of the Permit provides cleanup levels applicable to the FWDA groundwater monitoring program. Groundwater analytical results are evaluated and compared to these cleanup levels. The following documents and regulations are used to determine whether the concentration of a particular hazardous constituent exceeds the RCRA Permit cleanup level (NMED, 2015):

- New Mexico Water Quality Control Commission (NM WQCC) standards in 20 NMAC § 6.2.4103.A and B
- EPA drinking water maximum contaminant level (MCL) under 40 CFR Parts 141 and 142

If both an NM WQCC standard and an EPA MCL have been established for a contaminant, the lower of the two is used as the criterion. The Permit does not specify cleanup standards for compounds that do not have either NM WQCC or EPA MCL standards. The Permit specifies that risk-based cleanup standards should be developed for these compounds and must be approved by NMED. Pending the development and approval of cleanup criteria, the EPA RSLs based on a cancer risk of 10^{-5} and a non-cancer hazard index of 1.0 are used as temporary screening criteria in accordance with the risk criteria of the RCRA Permit. The RSLs have replaced EPA Human Health Medium-Specific Screening Levels as EPA guidance.

The GWMP requires the Permittee to submit periodic monitoring reports within 60 days of receipt of validated groundwater chemical analytical results, and the Permit Section V.A.2 requires the format to be consistent with NMED's *General Reporting Requirements for Routine Groundwater Monitoring at RCRA Sites* (NMED, 2003; Innovar, 2016).

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4.0 Groundwater Elevations

Groundwater elevation surveys in monitoring wells and piezometers at FWDA are currently performed quarterly. Two groundwater elevation surveys were performed during this monitoring period, the first on July 13, 2016, and the second on October 24 and 25, 2016. As discussed in Section 2, no groundwater elevation measurements were collected in the OB/OD Area during these events. The groundwater elevation data are used to calculate hydraulic gradients and determine groundwater flow directions in the Northern Area alluvium and Northern Area bedrock water-bearing units. Tables 4-1 and 4-2 present the DTW measurements in feet, the surveyed elevation of the top of casing, and calculated groundwater elevations in feet above the North American Vertical Datum of 1988 (NAVD88) for the July and October 2016 monitoring events. Figures 4-1 through 4-4 show the groundwater elevation maps for the two monitoring events.

4.1 Northern Area Groundwater Elevations

Shallow groundwater in the Northern Area is present in both unconsolidated alluvium and bedrock. The water quality and hydraulic properties differ between these two groundwater-bearing units. Therefore, the groundwater elevation data and chemistry are presented and discussed separately. Table 4-1 presents the groundwater elevation data for wells screened in alluvium. Table 4-2 presents the groundwater elevation data for wells screened in the bedrock. The Northern Area groundwater elevation contour maps are shown as Figures 4-1 through 4-4. The groundwater elevation contours presented as Figure 4-1 and Figure 4-2 were drafted using the mathematical interpolation algorithms in Surfer, Version 11, software. The Kriging geostatistical interpolation method was used to generate a 100-foot by 100-foot interpolated grid based on the groundwater elevations. An experienced hydrogeologist reviewed and digitally adjusted the contours based on known hydrogeologic conditions and professional judgment. Boundary conditions were used to crop the interpolation grids based on geologic constraints and data limitations. Groundwater elevation contours were interpreted by a hydrogeologist using site-specific information on bedrock structure from the site conceptual model and groundwater elevation data. The bedrock groundwater contours shown as Figures 4-3 and 4-4 were hand drawn.

4.1.1 Northern Area Alluvial Groundwater System

The groundwater flow direction in the alluvium is from potentiometric highs in the east, north, and south toward a potentiometric low west of the Administration Area (Figures 4-1 and 4-2). From the Administration Area, the groundwater flow direction is generally to the west. These groundwater flow directions are consistent with recent historical data. A small groundwater mound is present in the Administration Area near monitoring wells MW01, MW02, and MW03. This feature has been previously attributed to a leaking water storage cistern (USACE, 2012). The cistern is no longer in service, and the groundwater mound was expected to attenuate over time. However, the groundwater mound is still observed in the water level data for monitoring well MW02 and may be the result of leakage from the artesian Water Supply Well 69. Groundwater flow directions and elevations were similar between the July and October 2016 monitoring events and were also consistent with recent historical data. The recent historical data are also included in Table 4-1.

Hydraulic gradients ranged from 0.003 foot per foot (ft/ft) to 0.03 ft/ft in the alluvial groundwater unit. The steepest gradients were found in the southeast portions of the monitoring area, and the flattest gradients were found in the western portions of the monitoring area. Hydraulic gradients did not vary significantly in direction or magnitude between the July and October 2016 monitoring events and were similar to those calculated in previous monitoring events from 2015 and 2016.

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 (Figures 4-3 and 4-4). Steep horizontal gradients from east to west (in particular, between monitoring wells TMW38 and TMW40D and between monitoring wells TMW17 and TMW37) indicate that a geologic structural feature impedes

groundwater flow. Vertical offset of the sandstone layers in the bedrock aquifer by a fault or fracture zones may be present in this area and impede groundwater flow. Contaminant transport of perchlorate to the north (rather than to the west) also provides evidence supporting the conceptual model of a 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 south of TMW32 in the eastern portion of the Workshop Area and to the west in the western portion of the Workshop Area. Groundwater elevations were similar between the July and October 2016 monitoring events. Water-level elevation data from monitoring well TMW02 were 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 January 2013, groundwater elevations in most of the bedrock monitoring wells have declined approximately 1 foot, with the exception of monitoring wells TMW02 and TMW30, which have relatively stable water levels. 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 TMW30 and TMW48.

Groundwater hydraulic gradients are moderate in the Workshop Area at approximately 0.005 ft/ft to 0.006 ft/ft to the north and west. The groundwater elevations were similar to those calculated in previous monitoring events from 2015 and 2016. The current conceptual model includes a structural feature that impedes flow to the west in the Workshop Area (Figure 4-3).

4.2 OB/OD Area Groundwater Elevations

No monitoring data were collected in this area during the July through December 2016 monitoring period. No groundwater elevation data are available for the last 2 years from this area; therefore, no historical data are presented in this GPMR. Monitoring of the OB/OD Area wells may resume when access to the area is not restricted due to munition safety concerns. A Parcel 3 Groundwater RFI Report containing groundwater elevation data will be prepared and submitted in 2018.

TABLE 4-1

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

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	TOC Elevation (feet)	Total Depth (feet)	Screen Interval (feet)	20/21-Jan-15 Elevation (feet)	30-Mar-15 Elevation (feet)	21/22-July-15 Elevation (feet)	26-Oct-15 Elevation (feet)	14/15-Jan-16 Elevation (feet)	4-Apr-16 Elevation (feet)	13-Jul-16 DTW (feet BTOC)	13-Jul-16 Elevation (feet)	24/25-Oct-16 DTW (feet BTOC)	24/25-Oct-16 Elevation (feet)	Purged Dry
BGMW01	6692.68	33.0	12.5-32.5	6673.66	6673.73	6673.26	6673.04	6673.37	6673.33	19.87	6672.81	19.99	6672.69	No
BGMW02	6691.99	34.0	13.5-33.5	6670.86	6671.03	6670.63	6670.18	6670.52	6670.64	21.77	6670.22	22.16	6669.83	No
BGMW03	6680.57	29.0	8.5-28.5	6664.20	6664.48	6663.60	6663.48	6663.86	6664.08	17.53	6663.04	17.88	6662.69	Yes
FW26	6674.40	31.0	11.0-31.0	Dry	Dry	Abandoned	Abandoned	Abandoned	d	Abandoned		Abandoned		N/A
FW31	6832.49	50.0	10.0-50.0	6790.08	6790.10	6789.94	6789.83	6789.90	6789.84	42.83	6789.66	42.92	6789.57	Yes
FW35	6711.11	30.0	10.0-30.0	6681.26	6681.60	6680.12	Dry	Dry	Dry	Dry	Dry	Dry	Dry	N/A
MW01	6685.94	55.0	33.6-53.6	6643.40	6643.25	6643.31	6643.11	6643.17	6642.99	42.99	6642.95	43.02	6642.92	Yes
MW02	6685.22	48.0	37.0-47.0	6644.51	6644.46	6644.41	6644.27	6644.25	6644.07	41.15	6644.07	41.27	6643.95	Yes
MW03	6689.53	53.0	43.0-53.0	6643.23	6643.11	6643.10	6643.02	6643.11	6642.88	46.63	6642.90	46.87	6642.66	No
MW18D	6686.32	59.9	47.0-57.0	6642.91	6642.71	6642.82	6642.61	6642.67	6642.44	43.89	6642.43	44.04	6642.28	Yes
MW18S	6686.61	39.0	27.0-37.0	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	N/A
MW20	6687.67	59.4	47.0-57.0	6642.35	6642.25	6642.29	6642.11	6642.15	6642.06	45.69	6641.98	45.82	6641.85	No
MW22D	6684.55	58.6	47.0-57.0	6642.30	6642.24	6642.22	6641.98	6642.03	6641.88	42.74	6641.81	42.92	6641.63	No
MW22S	6684.69	43.5	31.0-41.0	6642.51	6642.32	6642.40	6642.16	6642.22	6642.08	42.70	6641.99	Dry	Dry	N/A
MW23	6654.50	134.0	63.5-133.5	6639.24	6639.75	6639.82	6639.38	6639.52	6639.14	15.04	6639.46	15.63	6638.87	Yes
MW24	6657.08	66.5	16.0-66.0	6637.37	6637.78	6637.59	6635.55	6637.46	6637.14	19.78	6637.30	20.63	6636.45	Yes
SMW01	6669.94	50.2	29.9-49.9	6639.22	6639.14	6638.75	6638.49	6638.74	6638.53	31.83	6638.11	32.11	6637.83	No
TMW01	6711.84	60.0	44.0-59.0	6672.83	6672.61	6672.47	6672.22	6672.21	6671.90	40.16	6671.68	40.41	6671.43	No
TMW03	6702.43	70.1	49.8-69.8	6645.25	6645.11	6645.11	6645.04	6645.11	6645.03	57.45	6644.98	57.50	6644.93	No
TMW04	6700.86	70.5	50.0-70.0	6644.44	6644.34	6644.36	6644.32	6644.36	6644.17	56.66	6644.20	56.71	6644.15	No
TMW06	6690.63	57.0	45.0-55.0	6643.53	6643.32	6643.41	6643.30	6643.49	6643.11	47.56	6643.07	47.51	6643.12	No
TMW07	6690.47	76.0	65.0-75.0	6643.22	6643.37	6643.15	6643.43	6643.59	6643.52	47.15	6643.32	47.00	6643.47	Yes
TMW08	6680.31	62.0	30.0-60.0	6643.37	6643.14	6643.23	6643.11	6643.27	6642.93	37.36	6642.95	37.57	6642.74	No
TMW10	6680.04	65.0	28.0-58.0	6642.29	6642.10	6642.12	6641.97	6642.13	6641.88	38.28	6641.76	38.50	6641.54	Yes
TMW11	6718.28	82.0	55.0-80.0	6650.48	6650.47	6650.35	6650.18	6650.09	6650.06	68.40	6649.88	68.39	6649.89	No
TMW13	6707.49	72.5	60.7-70.7	6647.03	6646.99	6646.93	6646.83	6646.80	6646.74	60.82	6646.67	60.96	6646.53	No
TMW15	6713.89	82.0	56.0-71.0	6648.81	6648.78	6648.67	6648.54	6648.51	6648.47	65.53	6648.36	65.70	6648.19	No
TMW21	6695.14	72.0	48.0-58.0	6644.32	6644.23	6644.24	6644.26	6644.26	6644.09	51.04	6644.10	51.08	6644.06	Yes
TMW22	6691.74	77.0	52.0-62.0	6643.22	6643.03	6643.07	6643.03	6643.28	6642.91	48.74	6643.00	48.49	6643.25	Yes
TMW23	6687.66	72.0	46.0-56.0	6642.34	6642.18	6642.34	6642.23	6642.46	6642.11	45.50	6642.16	45.57	6642.09	Yes
TMW24	6680.42	75.0	44.0-54.0	6642.30	6642.22	6642.39	6642.27	6642.60	6642.37	38.06	6642.36	38.22	6642.20	No

TABLE 4-1

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

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	TOC Elevation (feet)	Total Depth (feet)	Screen Interval (feet)	20/21-Jan-15 Elevation (feet)	30-Mar-15 Elevation (feet)	21/22-July-15 Elevation (feet)	26-Oct-15 Elevation (feet)	14/15-Jan-16 Elevation (feet)	4-Apr-16 Elevation (feet)	13-Jul-16 DTW (feet BTOC)	13-Jul-16 Elevation (feet)	24/25-Oct-16 DTW (feet BTOC)	24/25-Oct-16 Elevation (feet)	Purged Dry
TMW25	6672.88	74.0	42.5-52.5	6634.02	6633.95	6634.06	6633.88	6633.89	6633.78	39.05	6633.83	39.25	6633.63	No
TMW26	6677.71	64.8	45.0-55.0	6650.58	6650.56	6650.66	6650.23	6650.13	6650.41	27.60	6650.11	28.11	6649.60	No
TMW27	6668.13	102.2	60.0-70.0	6639.93	6640.06	6640.07	6639.69	6639.81	6639.88	28.63	6639.50	28.74	6639.39	No
TMW28	6689.17	72.5	37.0-47.0	6670.15	6670.48	6669.82	6669.34	6669.74	6669.82	19.77	6669.40	20.31	6668.86	No
TMW29	6702.88	69.0	49.0-59.0	6645.37	6645.31	6645.30	6645.26	6645.22	6645.11	57.78	6645.10	57.85	6645.03	Yes
TMW31S	6710.20	61.0	50.0-60.0	6672.09	6671.85	6671.70	6671.44	6671.50	6671.09	39.24	6670.96	39.60	6670.60	Yes
TMW33	6686.60	60.4	37.0-57.0	6642.65	6642.50	6642.55	6642.34	6642.39	6642.17	44.45	6642.15	44.63	6641.97	Yes
TMW34	6687.29	57.3	37.0-57.0	6641.37	6641.30	6641.34	6641.15	6641.19	6641.15	46.23	6641.06	46.37	6640.92	No
TMW35	6686.52	55.0	35.0-55.0	6642.39	6642.27	6642.32	6642.13	6642.16	6642.00	44.57	6641.95	44.73	6641.79	No
TMW39S	6708.61	53.0	32.5-52.5	6672.66	6672.54	6672.38	6672.24	6672.21	6672.10	36.70	6671.91	36.91	6671.70	Yes
TMW40S	6706.40	60.5	50.0-60.0	6646.02	6645.98	6645.96	6645.90	6645.91	6645.82	60.57	6645.83	Dry	Dry	N/A
TMW41	6705.21	66.0	55.5-65.5	6664.21	6663.93	6663.86	6663.73	6663.95	6663.47	41.76	6663.45	42.00	6663.21	Yes
TMW43	6698.63	78.5	58.0-78.0	6645.13	6645.04	6645.05	6645.00	6645.04	6644.84	53.79	6644.84	53.84	6644.79	No
TMW44	6697.31	64.0	43.5-63.5	6644.69	6644.49	6644.53	6644.45	6644.65	6644.28	52.96	6644.35	53.02	6644.29	No
TMW45	6689.00	59.0	38.5-58.5	6641.69	6641.61	6641.77	6641.70	6641.95	6641.70	47.35	6641.65	47.29	6641.71	No
TMW46	6680.98	59.0	38.5-58.5	6636.88	6636.93	6636.88	6636.59	6636.80	6636.74	44.59	6636.39	44.57	6636.41	Yes
TMW47	6701.88	103.0	82.5-102.5	6655.55	6655.56	6655.29	6655.27	6655.31	6655.19	46.84	6655.04	46.88	6655.00	No
PZ01	6677.29	43.1	23.1-43.1	6650.65	6650.49	6650.49	6650.37	6650.39	6650.05	27.29	6650.00	27.60	6649.69	N/A
PZ02	6674.95	50.7	30.3-50.3	6651.64	6651.70	6651.67	6651.29	6651.38	6651.25	23.70	6651.25	24.27	6650.68	N/A
PZ03	6679.44	46.9	26.7-46.7	6653.24	6653.24	6653.31	6652.96	6652.83	6653.00	26.58	6652.86	27.02	6652.42	N/A
PZ04	6676.68	47.0	26.8-46.8	6648.53	6648.44	6648.42	6648.23	6648.28	6647.98	28.70	6647.98	29.07	6647.61	N/A
PZ05	6674.15	46.3	26.0-46.0	6653.73	6653.88	6653.39	6652.74	6653.44	6653.45	21.53	6652.62	22.06	6652.09	N/A
PZ06	6676.04	46.7	26.5-46.5	6657.28	6657.58	6656.02	6655.64	6656.88	6657.09	20.75	6655.29	21.13	6654.91	N/A
PZ07	6684.53	30.5	10.6-30.6	6669.53	6670.39	6669.08	6668.23	6668.70	6668.82	15.57	6668.96	15.99	6668.54	N/A
PZ08	6686.81	46.6	26.3-46.3	6668.56	6669.67	6667.93	6667.19	6667.72	6667.75	19.03	6667.78	19.49	6667.32	N/A
PZ09	6653.61	33.5	18.1-33.1	6638.22	6638.69	6637.99	6637.39	6638.22	6638.26	16.23	6637.38	16.82	6636.79	N/A
PZ10	6657.27	46.3	31.0-46.0	6638.06	6638.51	6637.78	6637.24	6638.09	6638.13	20.10	6637.17	20.64	6636.63	N/A

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

N/A = Not applicable, Well purged or sampled

TOC = top of casing

TABLE 4-2

Northern Area Groundwater Elevations (Wells Screened in Bedrock)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	TOC Elevation (feet)	Total Depth (feet)	Screen Interval (feet)	20/21-Jan-15 Elevation (feet)	30-Mar-15 Elevation (feet)	21/22-July-15 Elevation (feet)	26-Oct-15 Elevation (feet)	14/15-Jan-16 Elevation (feet)	4-Apr-16 Elevation (feet)	13-Jul-16 DTW (feet BTOC)	13-Jul-16 Elevation (feet)	24/25-Oct-16 DTW (feet BTOC)	24/25-Oct-16 Elevation (feet)	Purged Dry
TMW02	6705.35	85.0	67.9-81.9	6649.66	6649.53	6649.50	6649.45	6649.53	6649.31	56.76	6648.59	56.18	6649.17	No
TMW14A	6723.54	110.0	94.3-109.3	6658.47	6658.54	6658.40	6658.37	6658.35	6658.34	65.51	6658.03	65.50	6658.04	No
TMW16	6714.15	142.0	123.0-138.0	6657.47	6657.41	6657.38	6657.12	6657.11	6656.94	57.39	6656.76	57.56	6656.59	Yes
TMW17	6719.89	152.0	112.0-127.0	6656.57	6656.46	6656.24	6656.19	6656.20	6655.99	64.03	6655.86	64.14	6655.75	No
TMW18	6713.49	220.0	150.0-160.0	6657.93	6657.94	6657.69	6657.64	6657.62	6657.47	56.20	6657.29	56.30	6657.19	Yes
TMW19	6700.52	187.0	169.0-184.0	6657.38	6657.32	6657.27	6656.98	6657.06	6656.79	43.93	6656.59	44.03	6656.49	Yes
TMW30	6714.59	51.5	35.0-45.0	6674.03	6674.64	6674.21	6674.21	6674.16	6674.01	40.54	6674.05	40.58	6674.01	Yes
TMW31D	6710.44	111.5	77.0-107.0	6671.99	6671.79	6671.63	6671.39	6671.38	6671.07	39.57	6670.87	39.86	6670.58	No
TMW32	6709.31	139.1	117.0-137.0	6668.78	6668.62	6668.39	6668.23	6668.18	6667.96	41.57	6667.74	41.79	6667.52	No
TMW36	6699.04	157.0	132.0-152.0	6670.64	6670.55	6670.34	6670.06	6670.00	6669.78	29.59	6669.45	29.78	6669.26	Yes
TMW37	6713.09	111.0	88.0-108.0	6666.48	6666.34	6666.44	6666.27	6666.29	6665.97	47.25	6665.84	47.51	6665.58	Yes
TMW38	6706.79	159.5	118.9-158.9	6659.33	6659.24	6658.93	6658.88	6658.89	6658.67	48.28	6658.51	48.40	6658.39	No
TMW39D	6708.61	100.5	70.0-100.0	6672.89	6672.69	6672.55	6672.30	6672.30	6671.99	36.83	6671.78	37.11	6671.50	No
TMW40D	6706.15	155.5	135.0-155.0	6672.76	6672.57	6672.39	6672.14	6672.13	6671.84	34.50	6671.65	34.81	6671.34	No
TMW48	6709.84	91.5	71.0-91.0	6672.87	6672.74	6672.56	6672.31	6672.27	6672.03	37.98	6671.86	38.31	6671.53	No
TMW49	6714.71	60.5	40.0-60.0	6669.66	6669.49	6669.37	6669.13	6669.08	6668.78	46.14	6668.57	46.35	6668.36	No

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

TOC = top of casing

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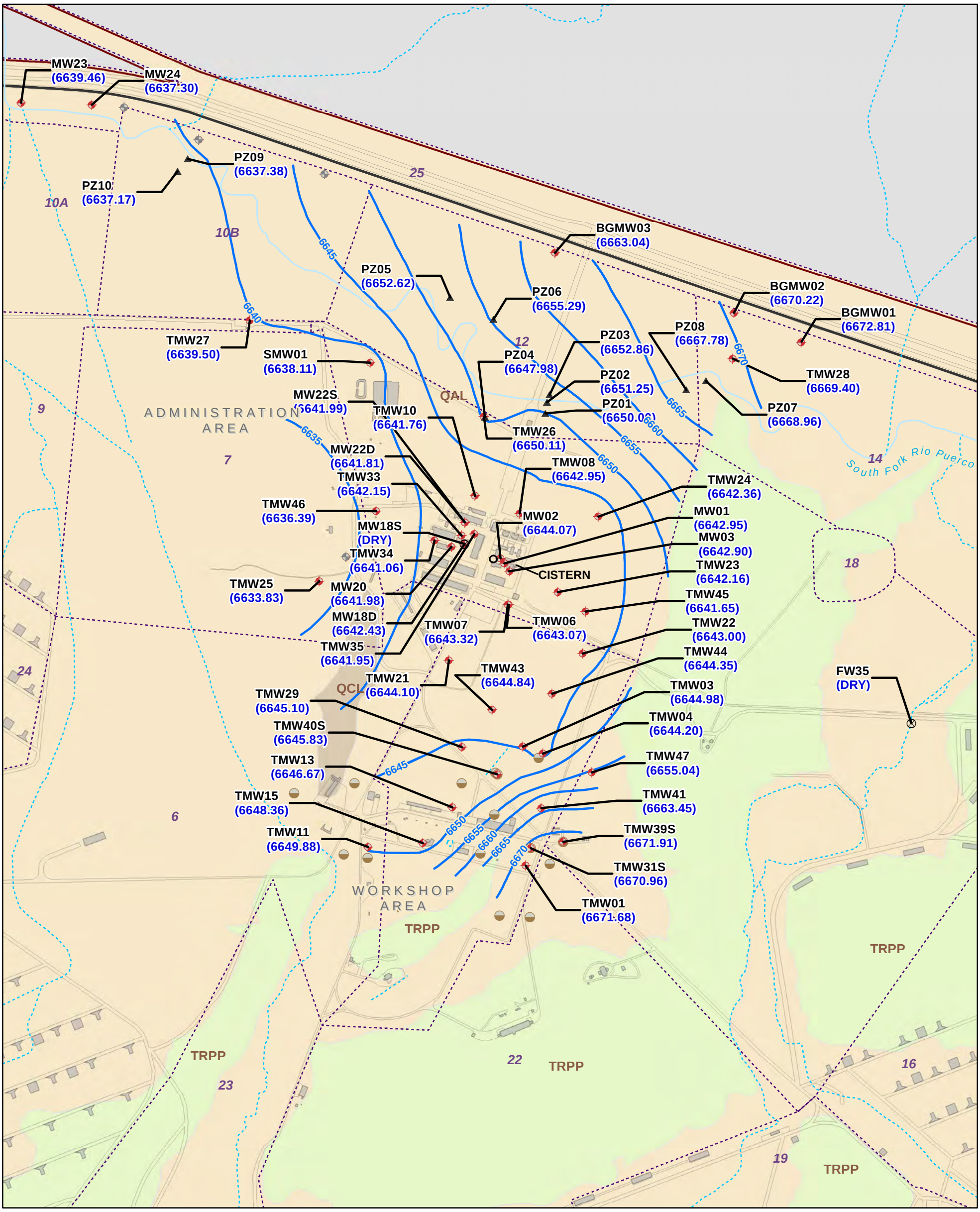
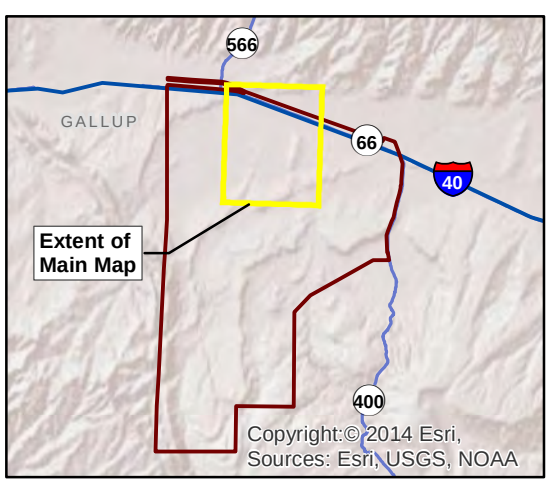




State Plane Coordinate System, New Mexico West,
North American Datum 1983, US Feet.
North American Vertical Datum 1988, US Feet.

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
- Abandoned Well
- Water Supply Well 69
- TMW11 (6651.15) — Well Label = Well ID (Groundwater Elevation in feet)
- 6635 — Alluvial Groundwater Contours, July 2016
- Building
- 10A — Property Transfer Parcel
- Fort Wingate Installation Boundary
- Arroyo
- Stream
- Road

Surface Geology

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

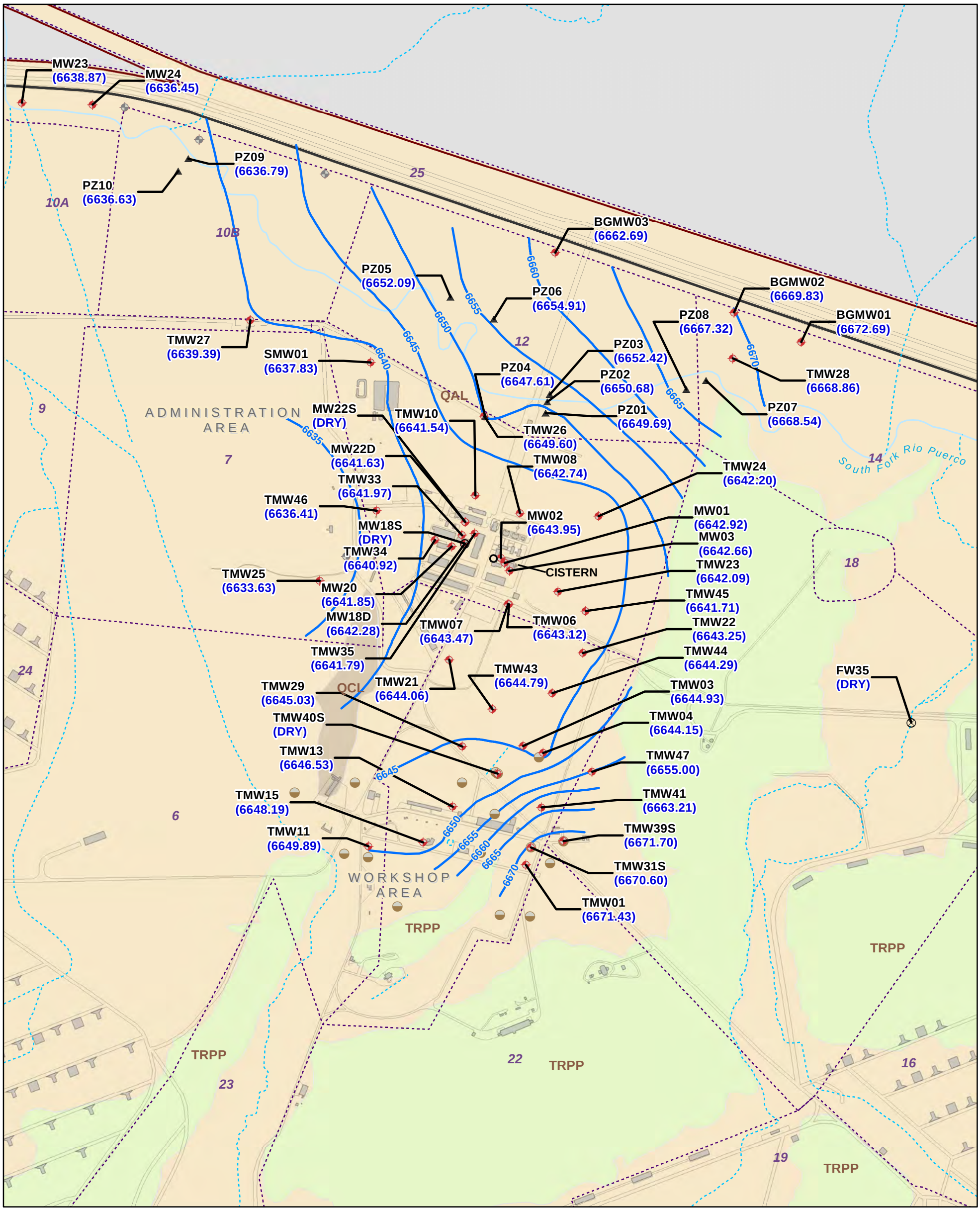
FIGURE 4-1
July 2016 Northern Area Alluvial Groundwater Contour Map

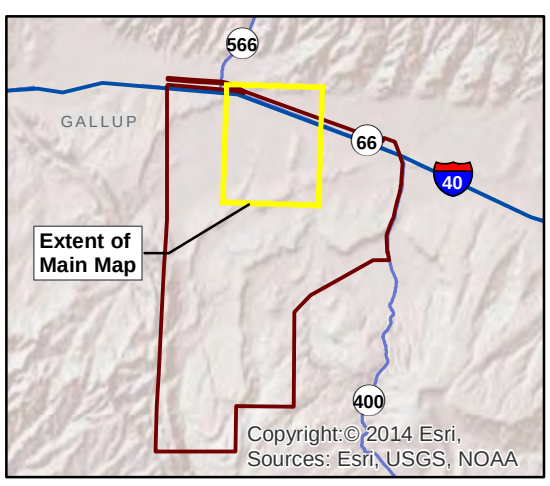
Groundwater Periodic Monitoring Report for July to December 2016
Fort Wingate Depot Activity,
McKinley County, New Mexico

0 500 1,000 1,500 2,000 ft
0 100 200 300 400 500 m

N

\\ROSWELL\ARCINFO\AV_PROJ\FTWINGATE\662230FORTWINGATETO4\MAPFILES\DEC_2016\FIGURE4-1.MXD AHILL3 8/29/2017 11:58:47 AM





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
- Abandoned Well
- Water Supply Well 69
- TMW11 (6651.15) Well Label = Well ID (Groundwater Elevation in feet)
- 6635 Alluvial Groundwater Contours, October 2016
- Building
- 10A Property Transfer Parcel
- Fort Wingate Installation Boundary
- Arroyo
- Stream
- Road

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
October 2016 Northern Area Alluvial Groundwater Contour Map

Groundwater Periodic Monitoring
Report for July to December 2016
Fort Wingate Depot Activity,
McKinley County, New Mexico

0 500 1,000 1,500 2,000 ft
0 100 200 300 400 500 m

N

\\ROSWELL\ARCINFO\AV_PROJ\FTWINGATE\662230FORTWINGATETO4\MAPFILES\DEC_2016\FIGURE4-2.MXD AHILL3 8/29/2017 12:00:54 PM

ADMINISTRATION AREA

CISTERN

WORKSHOP AREA

QAL

QCL

TRPP

Interpreted Structure Feature

TMW02 (6648.59)

TMW40D (6671.65)

TMW36 (6669.45)

TMW38 (6658.51)

TMW18 (6657.29)

TMW19 (6656.59)

TMW32 (6667.74)

TMW31D (6670.87)

TMW39D (6671.78)

TMW16 (6656.76)

TMW48 (6671.86)

TMW17 (6655.86)

TMW14A (6658.03)

TMW30 (6674.05)

TMW37 (6665.84)

TMW49 (6668.57)

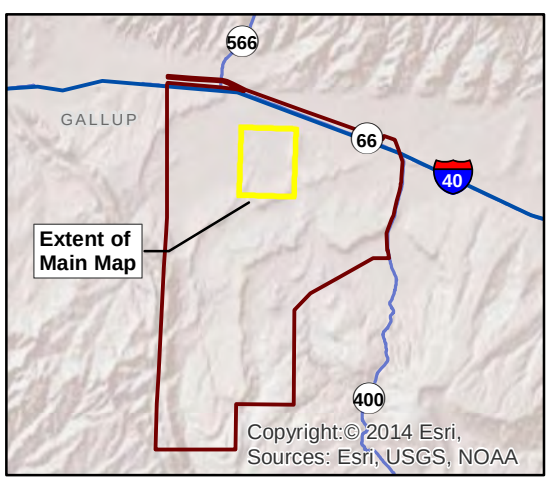
7

6

23

22

T9



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
- Dry Well
- Water Supply Well 69
- TMW11 (6650.94) Well Label = Well ID (Groundwater Elevation in feet)
- Building
- 10A Property Transfer Parcel
- Fort Wingate Installation Boundary

Surface Geology

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

FIGURE 4-3
July 2016 Northern Area Bedrock Groundwater Elevation Map

Groundwater Periodic Monitoring Report for July to December 2016

Fort Wingate Depot Activity, McKinley County, New Mexico

Note: Groundwater contours for the bedrock zone were removed per NMED request in disapproval letter dated August 7, 2017

0 375 750 1,125 1,500 ft

0 80 160 240 320 400 m

N

14

7

CISTERN

TMW02
(6649.17)

TMW40D
(6671.34)

QCL

Interpreted Structure Feature

TMW38
(6658.39)

TMW36
(6669.26)

TMW18
(6657.19)

WORKSHOP AREA

QAL

TMW32
(6667.52)

TMW19
(6656.49)

TMW31D
(6670.58)

6

TMW39D
(6671.50)

TMW16
(6656.59)

TMW48
(6671.53)

TMW17
(6655.75)

TMW14A
(6658.04)

TRPP

TMW30
(6674.01)

TMW37
(6665.58)

TMW49
(6668.36)

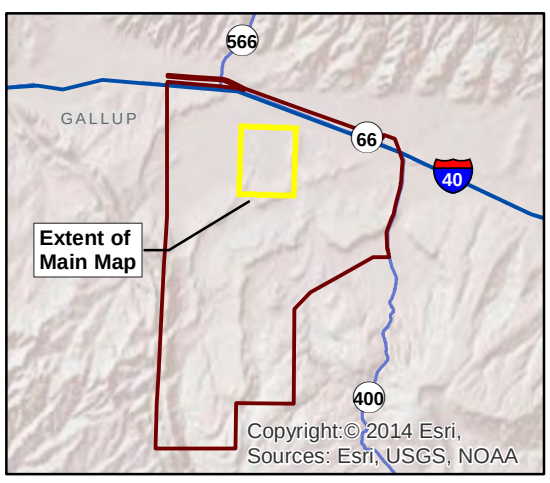
TRPP

TRPP

23

22

19



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
- Dry Well
- Water Supply Well 69
- TMW11 (6650.94) Well Label = Well ID (Groundwater Elevation in feet)
- 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
- Arroyo
- Road

FIGURE 4-4
October 2016 Northern Area Bedrock Groundwater Elevation Map

Groundwater Periodic Monitoring
Report for July to December 2016
Fort Wingate Depot Activity,
McKinley County, New Mexico

Note: Groundwater contours for the bedrock zone were removed per NMED request in disapproval letter dated August 7, 2017

0 375 750 1,125 1,500 ft
0 80 160 240 320 400 m
N

\\ROSWELL\ARCINFO\AV_PROJ\FTWINGATE\662230FORTWINGATETO4\MAPFILES\DEC_2016\FIGURE4-4.MXD AHILL3 8/29/2017 12:08:20 PM

5.0 Analytical Results

The groundwater quality parameters and laboratory analytical results for the Fall 2016 groundwater sampling event are presented in Tables 5-1 through 5-8. Figures 5-1 through 5-6 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 Report is provided in Appendix C. The historical groundwater monitoring data are provided in Appendix D.

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. Some groundwater parameter measurements in the data set are skewed (biased high) due to well design and different sample collection methods. Therefore, the median value is presented for each parameter for discussion purposes.

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 (µS/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 1.33 to 16.4 millisiemens per centimeter (mS/cm). Median values for groundwater from the Northern Area monitoring wells were 3.6 and 2.99 mS/cm in the alluvial and bedrock units, respectively. When values in µS/cm are converted to TDS concentrations using a conversion factor of 0.65, the median values for groundwater in the alluvial and bedrock units are 2,300 and 1,900 mg/L, respectively.

Groundwater pH measurements ranged from 6.80 to 9.93, with four data points above 9.0 in water from the Northern Area alluvial monitoring wells and five data points above 9.0 in water from the Bedrock monitoring wells. Median pH values were 7.8 and 8.5 in the Northern Area alluvial and bedrock groundwater units, respectively.

DO is a measure of aerobic and anaerobic conditions in the water-bearing units. DO values ranged from 0.0 to 11.7 mg/L, with median values of 1.5 and 1.7 mg/L for the alluvial and bedrock groundwater units, respectively. Low DO values indicate that anaerobic conditions (<1 mg/L) are likely present in some areas of FWDA. The DO 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 Instruments, Inc., 2014; Matsushita et al., 1974). The formula used for the calculation and the Eh values are presented in Table 5-1.

The Eh values ranged from -90 to 509 millivolts (mV) across the monitoring area. Median values of Eh were 251 mV in water from alluvial aquifer wells and 220 mV in water from bedrock wells, respectively.

5.1.2 Nitrate and Nitrite

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 from32 alluvial monitoring wells in the Northern Area. Concentrations of nitrate ranged from 0.058 J to 130 mg/L, and exceeded the EPA MCL of 10 mg/L in samples from 11 alluvial monitoring wells in the Northern Area. Nitrite was not detected at concentrations exceeding the MCL in the alluvial

monitoring wells during this sampling event. The highest nitrate concentrations in alluvial groundwater were found in the Workshop Area immediately downgradient of the TNT Leaching Beds (SWMU 1) (monitoring well TMW03). Groundwater nitrate concentrations were also detected above the MCLs in multiple samples collected from wells in the Administration Area. The extent of nitrate contamination downgradient (to the west) of the Administration Area has not been defined. In addition, elevated nitrate concentrations are detected in samples from background alluvial monitoring well BGMW02. Well BGMW02 is located on the FWDA boundary and upgradient of any SWMUs or AOCs.

Nitrate was detected in samples from nine bedrock monitoring wells in the Northern Area. Groundwater nitrate concentrations in samples from bedrock monitoring wells ranged from 0.10 J to 90 mg/L and exceeded the EPA MCL in samples from four wells. Nitrite was not detected at concentrations exceeding the MCL in any bedrock monitoring well sampled during this monitoring event. The highest groundwater nitrate concentrations in the bedrock groundwater unit were found in the Workshop Area (samples from monitoring well TMW02) immediately downgradient of the TNT Leaching Beds (SWMU 1). However, samples from three monitoring wells upgradient of the TNT Leaching Beds (SWMU 1) also had nitrate concentrations that exceeded the EPA MCL. Figure 5-2 shows the groundwater nitrate and nitrite concentration data for the bedrock monitoring wells in the Northern Area.

5.1.3 Explosive Compounds

Explosive compounds were released into the environment at FWDA as a result of historical munitions storage, maintenance, and disposal activities. Groundwater samples were analyzed for explosives using EPA Method SW-8330B. A summary of the explosive analytical results is presented in Table 5-3. To date, no groundwater regulatory cleanup standards have been established for explosive compounds at FWDA. The EPA RSLs are presented in Table 5-3 as reference screening criteria.

The following explosive compounds were detected in groundwater samples from alluvial and bedrock monitoring wells collected during the Fall 2016 groundwater sampling event (the maximum concentrations are shown in parentheses):

- 1,3,5-Trinitrobenzene (3.0 J µg/L at alluvial monitoring well TMW23)
- 1,3-Dinitrobenzene (3.4 J µg/L at alluvial monitoring well TMW23)
- 2,4-Dinitrotoluene (0.24 J µg/L at alluvial monitoring well TMW44)
- 2,6-Dinitrotoluene (0.22 J µg/L at alluvial monitoring well TMW31S)
- 2-Amino-4,6-dinitrotoluene (0.23 µg/L at alluvial monitoring well TMW23)
- 3-Nitrotoluene (3.9 J µg/L at alluvial monitoring well TMW44)
- 4-Amino-2,6-dinitrotoluene (0.32 J µg/L at alluvial monitoring well TMW47)
- RDX (490 µg/L at alluvial monitoring well TMW03)
- Octahydro-1.3.5.7-tetranitro-1.3.5.7-tetrazocine (HMX) (19 J µg/L at alluvial monitoring well TMW04)

Explosive compounds 1,3-dinitrobenzene, 3-nitrotoluene, and RDX were detected above the RSLs in groundwater samples from the Fall 2016 sampling event. RDX is a recognized groundwater explosive compound of interest. The compound RDX was detected at concentrations two orders of magnitude greater than the RSL of 7.0 µg/L in one alluvial monitoring well downgradient of the TNT Leaching Beds (SWMU 1). During this monitoring event, concentration of RDX in the sample from monitoring well TMW03 was 490 µg/L. RDX was also detected above the RSL, but at a lower concentration in the sample from alluvial monitoring well TMW23 (67 J µg/L). RDX is typically detected at the highest concentrations in samples from TMW40S, which was dry during this monitoring event. The RDX plume is well-defined in the alluvial aquifer and is shown with other explosives detections on Figures 5-3 and 5-4 for the alluvial and bedrock groundwater aquifers, respectively.

Other explosives analytes are occasionally detected in both the alluvial and bedrock aquifers. Detections occur most frequently and at higher concentrations in the alluvial aquifer downgradient of the TNT Leaching Beds (SWMU 1). During this monitoring event, 3-nitrotoluene was detected above the RSL of 3.1 µg/L in one sample from alluvial monitoring well TMW44 at a concentration of 3.9 J µg/L and 1,3-dinitrobenzene was detected above the RSL of 2.0 µg/L in one sample from alluvial monitoring well TMW23 at a concentration of 3.4 J µg/L. These detections lie adjacent to and within the RDX plume.

5.1.4 Perchlorate

Groundwater samples were analyzed for perchlorate by EPA Method 6860. A summary of analytical results is presented in Table 5-4. Groundwater perchlorate-concentration data for the Northern Area are shown on Figures 5-3 and 5-4. The EPA RSL for perchlorate is 14.0 µg/L. The highest perchlorate concentrations were found in groundwater samples collected from the bedrock monitoring wells in the Workshop Area. The extent of perchlorate groundwater contamination has not been completely defined to date.

Perchlorate was detected in groundwater samples from 21 alluvial monitoring wells in the Northern Area, with concentrations ranging from 0.015 J to 660 µg/L. Perchlorate was detected in groundwater samples from nine bedrock wells, with concentrations ranging from 0.0082 J to 1,300 µg/L. Overall, the RSL was exceeded in groundwater samples collected from three alluvial and seven bedrock monitoring wells.

The higher perchlorate concentrations detected in groundwater samples collected from bedrock monitoring wells suggest that the source area of perchlorate contamination is located upgradient in a recharge area for the bedrock groundwater unit. Based on site history and analytical results from previous investigations, the source area for perchlorate contamination is believed to be SWMU 27, Building 528 Complex (USACE, 2011). The perchlorate contamination identified in the alluvial water-bearing unit is collocated with the bedrock groundwater plume and is believed to result from a common source.

5.1.5 Volatile Organic Compounds

Groundwater contamination from volatile organic compounds (VOCs) at concentrations above screening levels is limited to a small number of shallow alluvial monitoring wells in the Administration Area. The detected VOCs are primarily associated with chlorinated solvents, petroleum fuels, and their degradation products. Groundwater samples were analyzed for VOCs using EPA Method SW-8260C. A summary of the VOC analytical results is presented in Table 5-5. Six VOCs were detected in one or more groundwater samples collected during the Fall 2016 groundwater sampling event. Figures 5-5 and 5-6 show the VOC data for samples collected in the Northern Area alluvial wells and bedrock wells, respectively.

The following VOCs were detected in samples collected during the Fall 2016 groundwater sampling event in the Northern Area (the maximum detected concentrations are shown in parentheses):

- 1,2-Dichloroethane (100 J µg/L at alluvial monitoring well MW18D)
- 2-butanone (3.9 J µg/L at alluvial monitoring well SMW01)
- Acetone (10 J µg/L at alluvial monitoring well BGMW01)
- Carbon disulfide (3.6 J µg/L at bedrock monitoring well TMW47)
- Methylene chloride (2.3 J µg/L at alluvial monitoring well MW03)
- Toluene (3.0 J µg/L at bedrock monitoring well TMW37)

The only VOC detected in groundwater samples at concentrations above regulatory screening levels was the gasoline additive and chlorinated solvent 1,2-dichloroethane. Groundwater samples collected from two alluvial monitoring wells in the vicinity of a former fueling facility had concentrations above the EPA MCL of 5.0 µg/L. Samples collected from wells MW18D and TMW33 had 1,2-dichloroethane concentrations of 100 J and 41 J µg/L, respectively. No other VOCs were detected in groundwater samples above regulatory screening levels.

Overall, VOCs were detected in samples from 23 alluvial wells and 4 bedrock wells in the Northern Area. The majority of VOC detections were sporadic and at concentrations below regulatory screening levels. The source of 2-butanone detections has not been determined and the compound has not been consistently detected in the past. Detections are at trace concentrations approximately 1,000 times less than regulatory screening levels and with no identified trends.

5.1.6 Other Organic Compounds

Detections of organic compounds other than VOCs in groundwater samples from FWDA are generally sporadic and at concentrations below screening levels. A summary of the detected organic compounds other than VOCs is presented in Table 5-6. Petroleum hydrocarbons were detected in the diesel and gasoline range, as analyzed using EPA Method SW-8015C, and semivolatile organic compounds (SVOCs) were analyzed using EPA Method SW-8270D. Pesticide compounds were analyzed using EPA Method SW-8081A.

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

- Diesel range organics (DRO) (54 J µg/L at alluvial monitoring well MW20)
- Gasoline range organics (24 J µg/L at alluvial monitoring well MW18D)
- 2,4-Dinitrophenol (40 J µg/L at alluvial monitoring well TMW03)
- 4-nitrophenol (24 J µg/L at alluvial monitoring well TMW03)
- Bis(2-ethylhexyl)phthalate (4.4 J µg/L at bedrock monitoring well TMW36)
- Isophorone (0.36 J µg/L at alluvial monitoring well TMW03)

Petroleum hydrocarbons were detected in several samples collected from wells in the Administration Area of the Northern Area. Overall, petroleum hydrocarbons were detected in samples from six alluvial monitoring wells. The highest concentrations occurred in samples from shallow wells adjacent to the former fueling facility (54 J µg/L as DRO in monitoring well MW20).

Detections of SVOCs are associated with historical releases of explosives compounds and with sampling and laboratory contaminants. The SVOC 2,4-dinitrophenol was detected at concentrations above the RSL of 39 µg/L at alluvial monitoring well TMW03, directly downgradient of the TNT Leaching Beds (SWMU 1). The compound 2,4-dinitrophenol attributed to degradation of explosives compounds within the RDX plume. The SVOC bis(2-ethylhexyl)phthalate was detected at many wells at concentrations below the EPA MCL of 6.0 µg/L. The common plastic additive bis(2-ethylhexyl)phthalate may be present in a variety of laboratory and sampling equipment (including sample tubing, pump, bailer, and laboratory equipment) and was detected in samples from 16 monitoring wells. No other SVOCs were detected at concentrations above screening levels. Detections of other SVOCs were sporadic (with each compound occurring in two or fewer samples).

No pesticide compounds were detected from samples collected during this monitoring period. Previous pesticide detections are sporadic and are discussed in the January to June 2016 GWMR (USACE, 2016).

5.1.7 Metals

Samples were collected and analyzed as total and dissolved concentrations at FWDA. Groundwater samples were analyzed for metals by EPA Methods SW-6010C, SW-6020A, and SW-7470A. Total metals analysis has been shown in studies to be affected by sediment and the method of well purging, and does not produce representative groundwater metals concentrations at many sites. A summary of detections for total metals is presented in Table 5-8, but the results are not discussed in this GPMR. A summary of detections for dissolved metals is presented in Table 5-7.

Dissolved aluminum, arsenic, iron, manganese, and selenium were detected in multiple groundwater samples above regulatory screening levels. Because background groundwater concentrations have not yet been accepted

by the regulators for FWDA, it cannot clearly be demonstrated whether the detected concentrations are a result of natural conditions or anthropogenic sources of contamination. Therefore, no contaminant plume maps were created for the metals data. Installation of additional background monitoring wells is planned and will be included in a revised Northern Area background evaluation. The work plan for the Supplemental RFI was submitted to NMED in December 2016 and is currently in review.

5.2 OB/OD Area Analytical Results

No monitoring was performed in the OB/OD Area during this period. No historical analytical results are available for monitoring events after April 2013. A Parcel 3 Groundwater RFI Report containing information on groundwater quality will be prepared and submitted in 2017.

5.3 Field Variances from the Work Plan

Three field variances from the Work Plan occurred during the monitoring period. Alluvial monitoring wells FW35, MW18S, MW22S, and TMW40S were dry and could not be sampled during this monitoring event. Well MW18S has been dry for the past eight monitoring events and FW35 has been dry for the past five monitoring events. Both MW22S and TMW40S have had limited screen saturation in recent monitoring events. Water levels will be monitored at these sample locations to determine whether sampling can resume or whether the well should be plugged and abandoned.

All analytical and data quality methods and procedures were performed in accordance with the QSM (DoD, 2013). VOC samples were previously analyzed by EPA Method SW-8260B. This analysis is now performed by the required SW-8260C method.

5.4 New Findings

No new findings were identified from monitoring data. Monitoring data are generally consistent with historical data.

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TABLE 5-1

Fall 2016 Stable Groundwater Parameters (Page 1 of 3)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

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	11/02/16	3.40	0.00	-82	132	7.84	13.83	44.10	0.37
BGMW02	North Alluvial	13.5 - 33.5	11/02/16	5.04	0.00	180 [a]	N/A	7.54	11.88	9.10	0.04
BGMW03	North Alluvial	8.5 - 28.5	10/28/16	3.30	11.64 [a]	0	213	8.09	14.62	105	N/A
FW31	North Alluvial	10.0 - 50.0	10/25/16	2.39	8.77	163	378	7.95	12.17	22.4	N/A
FW35	North Alluvial	10.0 - 30.0	Well was dry and was not purged and sampled								
MW01	North Alluvial	33.6 - 53.6	10/27/16	3.60	3.01	204	415	7.58	17.68	16.5	N/A
MW02	North Alluvial	37.0 - 47.0	10/25/16	2.25	3.97	23.3	237	7.18	14.27	22.8	N/A
MW03	North Alluvial	43.0 - 53.0	11/03/16	4.58	0.82	-43	171	7.47	13.42	0.0	0.36
MW18D	North Alluvial	47.0 - 57.0	10/26/16	8.61	1.62	-54	160	7.47	13.83	388.0	N/A
MW18S	North Alluvial	27.0 - 37.0	Well was dry and was not purged and sampled								
MW20	North Alluvial	47.0 - 57.0	11/04/16	16.4	0.00	73	288	8.10	11.59	0.0	0.24
MW22D	North Alluvial	47.0 - 57.0	10/28/16	5.50	0.00	212 [a]	N/A	8.44	16.89	0.0	0.04
MW22S	North Alluvial	31.0 - 41.0	Well was dry and was not purged and sampled								
MW23	North Alluvial	63.5 - 133.5	10/27/16	1.86	7.38	190	403	9.37	14.70	419.0	N/A
MW24	North Alluvial	16.0 - 66.0	10/26/16	1.33	2.73	-230 [a]	N/A	7.46	11.30	0.6	N/A
SMW01	North Alluvial	29.9 - 49.9	11/02/16	4.12	0.00	-114	101	9.76 [a]	12.66	6.4	0.36
TMW01	North Alluvial	44.0 - 59.0	10/31/16	2.95	1.21	25	239	7.52	13.01	0.0	0.27
TMW03	North Alluvial	49.8 - 69.8	10/31/16	4.23	2.41	31	245	7.69	12.94	0.0	0.2
TMW04	North Alluvial	50.0 - 70.0	11/03/16	3.95	1.46	155	368	7.67	15.10	0.6	0.25
TMW06	North Alluvial	45.0 - 55.0	10/31/16	3.72	1.98	43	257	7.79	13.49	0.0	0.38
TMW07	North Alluvial	65.0 - 75.0	10/25/16	4.82	2.86	-120	93	7.86	14.73	25.4	N/A
TMW08	North Alluvial	30.0 - 60.0	11/01/16	8.29	0.00	-19	196	7.27	12.75	11.0	0.21
TMW10	North Alluvial	28.0 - 58.0	11/02/16	5.45	3.92	291	509	9.64	7.21	94.9	N/A
TMW11	North Alluvial	55.0 - 80.0	11/03/16	2.59	0.00	23	237	9.05	12.94	265.0	0.89
TMW13	North Alluvial	60.7 - 70.7	11/01/16	2.31	0.00	-88	128	8.83	10.65	0.0	0.08
TMW15	North Alluvial	56.0 - 71.0	11/02/16	2.34	1.88	-68	146	7.78	13.91	0.0	0.15
TMW21	North Alluvial	48.0 - 58.0	10/27/16	2.62	1.62	129	344	7.02	11.58	40	N/A
TMW22	North Alluvial	52.0 - 62.0	10/27/16	3.44	11.68 [a]	147	360	7.96	14.33	21.6	N/A
TMW23	North Alluvial	46.0 - 56.0	10/28/16	3.24	7.49	172	386	8.06	13.25	156.0	N/A
TMW24	North Alluvial	44.0 - 54.0	11/03/16	4.25	1.29	-97	116	7.79	14.85	0.0	0.29
TMW25	North Alluvial	42.5 - 52.5	11/01/16	3.94	0.00	-68	145	8.98	15.00	4.5	0.09
TMW26	North Alluvial	45.0 - 55.0	11/01/16	3.56	1.32	-10	205	7.95	11.47	55.0	0.03
TMW27	North Alluvial	60.0 - 70.0	11/03/16	1.44	0.00	-127	88	9.13	11.56	2.7	0.25
TMW28	North Alluvial	37.0 - 47.0	11/03/16	1.90	0.00	-77	140	8.44	9.63	0.0	0.5
TMW29	North Alluvial	49.0 - 59.0	10/25/16	2.08	2.86	165	379	7.68	14.07	753	N/A

TABLE 5-1

Fall 2016 Stable Groundwater Parameters (Page 2 of 3)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

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)
TMW31S	North Alluvial	50.0 - 60.0	10/27/16	2.96	11.70	137	351	7.46	12.95	56.0	N/A
TMW33	North Alluvial	37.0 - 57.0	10/28/16	9.82	10.53	167	381	7.33	13.71	23.4	N/A
TMW34	North Alluvial	37.0 - 57.0	11/01/16	5.85	1.12	127	341	7.22	14.20	18.4	0.15
TMW35	North Alluvial	35.0 - 55.0	10/31/16	5.11	0.00	-5	208	7.28	15.32	1.4	0.08
TMW39S	North Alluvial	32.5 - 52.5	10/27/16	3.86	11.38	133	348	7.69	11.57	152.0	N/A
TMW40S	North Alluvial	50.0 - 60.0	Well was dry and was not purged and sampled								
TMW41	North Alluvial	55.5 - 65.5	10/27/16	3.99	9.48	123	339	8.09	11.42	7.1	N/A
TMW43	North Alluvial	58.0 - 78.0	11/03/16	2.35	0.00	153	368	7.47	12.45	1.2	0.12
TMW44	North Alluvial	43.5 - 63.5	10/27/16	3.23	10.87	140	354	7.92	13.80	94.0	N/A
TMW45	North Alluvial	38.5 - 58.5	11/04/16	3.81	0.00	64	281	8.82	9.38	0.0	0.00
TMW46	North Alluvial	38.5 - 58.5	10/28/16	5.15	6.93	243	458	6.80	12.72	300.0	N/A
TMW47	North Alluvial	82.5 - 102.5	11/04/16	2.42	0.00	-111	105	9.12	10.17	0.0	0.52
TMW02	North Bedrock	67.9 - 81.9	11/01/16	4.67	0.00	91	306	9.44	11.99	0.0	0.0
TMW14A	North Bedrock	94.25 - 109.25	11/03/16	1.90	1.99	-168	47	8.85	11.57	0.0	0.01
TMW16	North Bedrock	123.0 - 138.0	10/25/16	1.91	3.64 [a]	-222	-7	8.50	12.77	6.0	N/A
TMW17	North Bedrock	112.0 - 127.0	11/04/16	1.95	4.80	-180	37	7.94	9.66	0.0	0.00
TMW18	North Bedrock	150.0 - 160.0	10/28/16	3.20	16.84 [a]	236	451	11.64 [a]	11.52	85.0	N/A
TMW19	North Bedrock	169.0 - 184.0	10/28/16	2.92	3.08	-305	-90	8.17	12.16	4.7	N/A
TMW30	North Bedrock	35.0 - 45.0	10/26/16	2.25	7.48	115	329	7.83	13.17	5.0	N/A
TMW31D	North Bedrock	77.0 - 107.0	10/31/16	2.66	0.00	107	322	8.84	11.69	0.0	0
TMW32	North Bedrock	117.0 - 137.0	11/02/16	3.48	1.33	-154	62	8.47	10.72	0.0	0.1
TMW36	North Bedrock	132.0 - 152.0	10/27/16	2.91	4.09	168	383	9.62	11.48	38.3	N/A
TMW37	North Bedrock	88.0 - 108.0	10/27/16	3.04	6.24	177	391	9.92	13.29	60.4	N/A
TMW38	North Bedrock	118.9 - 158.9	11/04/16	4.31	1.48	-173	43	7.42	10.90	0.0	0.93
TMW39D	North Bedrock	70.0 - 100.0	10/31/16	3.35	0.00	-108	107	10.07 [a]	12.81	0.0	0.43
TMW40D	North Bedrock	135.0 - 155.0	10/31/16	3.08	0.00	-30	183	9.93	14.62	0.0	0.03
TMW48	North Bedrock	71.0 - 91.0	11/01/16	2.93	1.22	87	302	7.72	12.02	0.0	0.02
TMW49	North Bedrock	40.0 - 60.0	11/02/16	3.67	3.76	42	257	7.83	11.77	0.0	0.6

TABLE 5-1
Fall 2016 Stable Groundwater Parameters (Page 3 of 3)
Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Notes:

[a] Anomalous field parameter readings occurred at some sample locations during purging but are not expected to affect sampling results.

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

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:

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

bgs = below ground surface

°C = degrees Celsius

DO = dissolved oxygen

Eh = redox potential

mg/L = milligram(s) per liter

mS/cm = millisiemen(s) per centimeter

mV = millivolt(s)

N/A = not applicable; drawdown measurements are not applicable for casing volume purging method, and Eh values are not caluclated from anomalous ORP.

NTU = nephelometric turbidity unit

ORP = oxygen reduction potential

pH = hydrogen (ion) concentration

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TABLE 5-2

Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 1 of 6)

Groundwater Periodic Monitoring Report July through December 2016 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]
BGMW01	BGMW01102016	Normal	North Alluvial	11/2/2016	0.10 U	0.10 U
	BGMW01042016	Normal	North Alluvial	4/15/2016	0.10 U	0.10 U
	BGMW01102015	Normal	North Alluvial	11/5/2015	0.20 U	0.20 U
	BGMW01042015	Normal	North Alluvial	4/2/2015	0.10 U	0.10 U
BGMW02	BGMW02102016	Normal	North Alluvial	11/2/2016	**13**	0.20 U
	BGMW02042016	Normal	North Alluvial	4/14/2016	**13**	0.20 U
	BGMW02102015	Normal	North Alluvial	11/5/2015	**13**	0.20 U
	BGMW02042015	Normal	North Alluvial	4/2/2015	**12 J**	0.20 U
BGMW03	BGMW03102016	Normal	North Alluvial	10/28/2016	3.1	0.42 J
	BGMW03042016	Normal	North Alluvial	4/8/2016	0.97 J	0.10 U
	BGMW03102015	Normal	North Alluvial	10/30/2015	3.4	0.25 J
	BGMW03042015	Normal	North Alluvial	4/1/2015	5.0	0.10 U
FW31	FW31102016	Normal	North Alluvial	10/26/2016	0.10 U	0.10 U
	FW31042016	Normal	North Alluvial	4/7/2016	0.065 J	0.10 U
	FW3112015	Normal	North Alluvial	11/2/2015	0.077 J	0.10 U
	FW31042015	Normal	North Alluvial	4/1/2015	0.099 J	0.10 U
FW35	FW35102016	Normal	North Alluvial	10/2016	Well dry this event	
	FW35042016	Normal	North Alluvial	04/2016	Well dry this event	
	FW35102015	Normal	North Alluvial	10/2015	Well dry this event	
	FW35042015	Normal	North Alluvial	4/2/2015	0.099 J	0.10 U
MW01	MW01102016	Normal	North Alluvial	10/27/2016	7.9	0.10 U
	MW01042016	Normal	North Alluvial	4/6/2016	7.8	0.20 U
	MW01102015	Normal	North Alluvial	10/28/2015	7.9	0.20 U
	MW01042015	Normal	North Alluvial	4/1/2015	7.8	0.10 U
MW02	MW02102016	Normal	North Alluvial	10/28/2016	4.6	0.10 U
	MW02042016	Normal	North Alluvial	4/6/2016	5.1	0.10 U
	MW02102015	Normal	North Alluvial	10/28/2015	5.5	0.10 U
	MW02042015	Normal	North Alluvial	4/1/2015	4.7	0.10 U
MW03	MW03102016	Normal	North Alluvial	11/3/2016	6.2	0.20 U
	MW03042016	Normal	North Alluvial	4/12/2016	7.0	0.20 U
	MW03102015	Normal	North Alluvial	10/30/2015	7.0	0.20 U
	MW03042015	Normal	North Alluvial	4/3/2015	7.0	0.10 U
MW18D	MW18D102016	Normal	North Alluvial	10/28/2016	0.20 U	0.20 U
	MW18D042016	Normal	North Alluvial	4/12/2016	0.50 U	0.50 U
	MW18D102015	Normal	North Alluvial	11/2/2015	0.50 U	0.50 U
	MW18D042015	Normal	North Alluvial	4/8/2015	0.11 U	0.20 U
MW20	MW20102016	Normal	North Alluvial	11/4/2016	3.9	0.50 U
	MW20042016	Normal	North Alluvial	4/11/2016	6.7	**2.4 J**
	MW20102015	Normal	North Alluvial	11/2/2015	7.7	**2.1 J**
	DMW20102015	Duplicate	North Alluvial	11/2/2015	6.6	**1.7 J**
	MW20042015	Normal	North Alluvial	4/3/2015	6.9	0.50 U
MW22D	MW22D102016	Normal	North Alluvial	10/28/2016	**27**	0.20 U
	MW22D042016	Normal	North Alluvial	4/11/2016	**27**	0.20 U
	MW22D102015	Normal	North Alluvial	11/2/2015	**25**	0.20 U
	MW22D042015	Normal	North Alluvial	4/6/2015	**25**	0.10 UJ
MW22S	MW22S102016	Normal	North Alluvial	10/2016	Well dry this event	
	MW22S042016	Normal	North Alluvial	4/7/2016	**17**	0.10 U
	MW22S102015	Normal	North Alluvial	10/28/2015	**16**	0.20 U
	MW22S042015	Normal	North Alluvial	4/1/2015	**17 J**	0.10 U

TABLE 5-2

Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 2 of 6)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L) CAS 14797-55-8 EPA Method 9056	Nitrite-N (mg/L) CAS 14797-65-0 EPA Method 9056
				Regulatory Limits	10[a]	1[b]
MW23	MW23102016	Normal	North Alluvial	10/27/2016	0.10 U	0.092 J
	MW23042016	Normal	North Alluvial	4/7/2016	0.10 U	0.12 J
	DMW23042016	Duplicate	North Alluvial	4/7/2016	0.10 U	0.13 J
	MW23102015	Normal	North Alluvial	11/6/2015	0.10 U	0.10 UJ
	DMW23102015	Duplicate	North Alluvial	11/6/2015	0.10 U	0.053 UJ
	MW23042015	Normal	North Alluvial	4/7/2015	0.10 U	0.10 U
	DMW23042015	Duplicate	North Alluvial	4/7/2015	0.10 U	0.10 UJ
MW24	MW24102016	Normal	North Alluvial	10/26/2016	0.10 U	0.10 U
	DMW24102016	Duplicate	North Alluvial	10/26/2016	0.10 U	0.10 U
	MW24042016	Normal	North Alluvial	4/6/2016	0.10 U	0.10 U
	DMW24042016	Duplicate	North Alluvial	4/6/2016	0.10 U	0.10 U
	MW24102015	Normal	North Alluvial	11/5/2015	0.10 U	0.10 U
	MW24042015	Normal	North Alluvial	4/6/2015	0.10 U	0.10 UJ
	DMW24042015	Duplicate	North Alluvial	4/6/2015	0.10 U	0.10 UJ
SMW01	SMW01102016	Normal	North Alluvial	11/2/2016	0.058 J	0.10 U
	SMW01042016	Normal	North Alluvial	4/8/2016	0.20 UJ	0.20 U
	SMW011102015	Normal	North Alluvial	11/3/2015	0.20 U	0.20 U
	SMW01042015	Normal	North Alluvial	4/8/2015	0.10 U	0.10 U
TMW01	TMW01102016	Normal	North Alluvial	10/31/2016	9.6	0.10 U
	TMW01042016	Normal	North Alluvial	4/8/2016	9.3 J	0.10 U
	TMW01102015	Normal	North Alluvial	11/4/2015	9.3	0.10 U
	TMW01042015	Normal	North Alluvial	4/7/2015	9.2	0.10 U
TMW03	TMW03102016	Normal	North Alluvial	10/31/2016	**130**	0.37 J
	TMW03042016	Normal	North Alluvial	4/8/2016	**130 J**	0.43 J
	TMW03102015	Normal	North Alluvial	11/4/2015	**130**	0.24 J
	TMW03042015	Normal	North Alluvial	4/9/2015	**130**	0.10 U
TMW04	TMW04102016	Normal	North Alluvial	11/3/2016	**40**	0.10 U
	TMW04042016	Normal	North Alluvial	4/13/2016	**52 J**	0.20 UJ
	TMW04102015	Normal	North Alluvial	11/4/2015	**43**	0.20 U
	TMW04042015	Normal	North Alluvial	4/9/2015	**43**	0.10 U
TMW06	TMW06102016	Normal	North Alluvial	10/31/2016	**13**	0.10 U
	TMW06042016	Normal	North Alluvial	4/12/2016	**13**	0.10 U
	TMW06102015	Normal	North Alluvial	11/4/2015	**13**	0.20 U
	TMW06042015	Normal	North Alluvial	4/9/2015	**13**	0.10 U
TMW07	TMW07102016	Normal	North Alluvial	10/27/2016	0.20 U	0.20 U
	TMW07042016	Normal	North Alluvial	4/8/2016	0.34 J	0.20 U
	TMW07102015	Normal	North Alluvial	10/30/2015	0.097 J	0.20 U
	TMW07042015	Normal	North Alluvial	4/1/2015	0.19 J	0.20 U
TMW08	TMW08102016	Normal	North Alluvial	11/1/2016	3.5	0.94 J
	DTW08102016	Duplicate	North Alluvial	11/1/2016	3.6	0.80 J
	TMW08042016	Normal	North Alluvial	4/12/2016	3.9	0.35 J
	TMW08102015	Normal	North Alluvial	11/5/2015	4.4	0.63 J
	TMW08042015	Normal	North Alluvial	4/8/2015	4.2	0.50 U
TMW10	TMW10102016	Normal	North Alluvial	11/2/2016	0.20 U	0.20 U
	TMW10042016	Normal	North Alluvial	4/12/2016	0.10 J	0.20 U
	TMW10102015	Normal	North Alluvial	11/4/2015	0.50 U	0.50 U
	TMW10042015	Normal	North Alluvial	4/7/2015	0.17 J	0.20 U

TABLE 5-2

Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 3 of 6)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L) CAS 14797-55-8 EPA Method 9056	Nitrite-N (mg/L) CAS 14797-65-0 EPA Method 9056
				Regulatory Limits	10[a]	1[b]
TMW11	TMW11102016	Normal	North Alluvial	11/3/2016	0.5	0.10 U
	DTW11102016	Duplicate	North Alluvial	11/3/2016	0.5	0.10 U
	TMW11042016	Normal	North Alluvial	4/11/2016	1.3	0.10 U
	TMW11102015	Normal	North Alluvial	11/5/2015	0.5	0.10 U
	TMW11042015	Normal	North Alluvial	4/8/2015	3.6	0.10 U
TMW13	TMW13102016	Normal	North Alluvial	11/1/2016	5.2	0.10 U
	TMW13042016	Normal	North Alluvial	4/12/2016	4.6	0.10 U
	TMW13102015	Normal	North Alluvial	11/4/2015	3.8	0.10 U
	TMW13042015	Normal	North Alluvial	4/9/2015	2.9	0.10 U
TMW15	TMW15102016	Normal	North Alluvial	11/2/2016	5.8	0.10 U
	TMW15042016	Normal	North Alluvial	4/13/2016	6.9 J	0.10 UJ
	DTW15042016	Duplicate	North Alluvial	4/13/2016	6.9 J	0.10 UJ
	TMW15102015	Normal	North Alluvial	11/6/2015	7.3	0.10 U
	DTW15102015	Duplicate	North Alluvial	11/6/2015	7.3	0.10 U
	TMW15042015	Normal	North Alluvial	4/8/2015	8.2 J	0.10 U
	DTW15042015	Duplicate	North Alluvial	4/8/2015	270 R	0.10 U
TMW21	TMW21102016	Normal	North Alluvial	10/27/2016	9.6	0.10 U
	TMW21042016	Normal	North Alluvial	4/11/2016	9.7	0.10 U
	TMW21102015	Normal	North Alluvial	10/29/2015	8.7	0.10 U
	TMW21042015	Normal	North Alluvial	4/3/2015	8.0	0.10 U
TMW22	TMW22102016	Normal	North Alluvial	10/27/2016	**16**	0.10 U
	TMW22042016	Normal	North Alluvial	4/8/2016	**11 J**	0.10 U
	TMW22102015	Normal	North Alluvial	10/30/2015	**11**	0.20 U
	TMW22042015	Normal	North Alluvial	4/1/2015	**11 J**	0.10 U
TMW23	TMW23102016	Normal	North Alluvial	10/28/2016	**27**	0.089 J
	TMW23042016	Normal	North Alluvial	4/8/2016	**29 J**	0.12 J
	TMW23102015	Normal	North Alluvial	10/30/2015	**29 J**	0.063 J
	TMW23042015	Normal	North Alluvial	4/1/2015	**27 J**	0.10 U
TMW24	TMW24102016	Normal	North Alluvial	11/3/2016	0.20 U	0.20 U
	TMW24042016	Normal	North Alluvial	4/15/2016	0.10 U	0.10 U
	TMW24102015	Normal	North Alluvial	11/6/2015	0.20 U	0.20 U
	TMW24042015	Normal	North Alluvial	4/8/2015	0.10 U	0.10 U
TMW25	TMW25102016	Normal	North Alluvial	11/1/2016	0.45 J	0.10 U
	TMW25042016	Normal	North Alluvial	4/13/2016	0.46 J	0.20 U
	TMW25102015	Normal	North Alluvial	11/4/2015	0.49 J	0.20 U
	TMW25042015	Normal	North Alluvial	4/7/2015	0.45 J	0.10 U
TMW26	TMW26102016	Normal	North Alluvial	11/1/2016	0.10 U	0.10 U
	TMW26042016	Normal	North Alluvial	4/8/2016	0.10 UJ	0.10 U
	TMW26102015	Normal	North Alluvial	10/30/2015	0.20 U	0.20 U
	DTW26102015	Duplicate	North Alluvial	10/30/2015	0.20 U	0.20 U
	TMW26042015	Normal	North Alluvial	4/7/2015	0.10 U	0.10 U
	DTW26042015	Duplicate	North Alluvial	4/7/2015	0.10 U	0.10 U
TMW28	TMW28102016	Normal	North Alluvial	11/3/2016	0.12 J	0.10 U
	TMW28102015	Normal	North Alluvial	12/1/2015	0.048 U	0.10 U
	Added to schedule in 2015 per New Mexico Environment Department request					

TABLE 5-2

Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 4 of 6)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L) CAS 14797-55-8 EPA Method 9056	Nitrite-N (mg/L) CAS 14797-65-0 EPA Method 9056
				Regulatory Limits	10[a]	1[b]
TMW29	TMW29102016	Normal	North Alluvial	10/28/2016	2.8	0.10 U
	TMW29042016	Normal	North Alluvial	4/7/2016	2.6	0.069 J
	TMW29102015	Normal	North Alluvial	10/28/2015	2.6	0.10 U
	TMW29042015	Normal	North Alluvial	4/3/2015	2.7	0.10 U
TMW31S	TMW31S102016	Normal	North Alluvial	10/27/2016	8.2	0.10 U
	TMW31S042016	Normal	North Alluvial	4/6/2016	7.9	0.10 U
	TMW31S102015	Normal	North Alluvial	10/29/2015	7.6	0.10 U
	TMW31S042015	Normal	North Alluvial	4/2/2015	7.0	0.10 U
TMW33	TMW33102016	Normal	North Alluvial	10/28/2016	2.1 J	0.50 U
	TMW33042016	Normal	North Alluvial	4/7/2016	0.50 U	0.50 U
	TMW33102015	Normal	North Alluvial	10/30/2015	0.50 U	0.50 U
	TMW33042015	Normal	North Alluvial	4/2/2015	0.22 J	0.20 U
TMW34	TMW34102016	Normal	North Alluvial	11/1/2016	**71**	0.20 U
	TMW34042016	Normal	North Alluvial	4/12/2016	**68**	0.20 U
	DTW34042016	Duplicate	North Alluvial	4/12/2016	**68**	0.20 U
	TMW34102015	Normal	North Alluvial	11/3/2015	**64**	0.20 U
	DTW34102015	Duplicate	North Alluvial	11/3/2015	**63**	0.20 U
	TMW34042015	Normal	North Alluvial	4/3/2015	**58**	0.20 U
	DTW34042015	Duplicate	North Alluvial	4/3/2015	**60**	0.20 U
TMW35	TMW35102016	Normal	North Alluvial	10/31/2016	**10**	0.20 U
	DTW35102016	Duplicate	North Alluvial	10/31/2016	**10**	0.20 U
	TMW35042016	Normal	North Alluvial	4/11/2016	**11**	0.20 U
	TMW35102015	Normal	North Alluvial	11/2/2015	**11**	0.20 U
	TMW35042015	Normal	North Alluvial	4/3/2015	**12**	0.10 U
TMW39S	TMW39S102016	Normal	North Alluvial	10/27/2016	9.7	0.10 U
	TMW39S042016	Normal	North Alluvial	4/6/2016	9.5	0.10 U
	TMW39S102015	Normal	North Alluvial	10/29/2015	8.8	0.20 U
	TMW39S042015	Normal	North Alluvial	4/1/2015	8.9	0.10 U
TMW40S	TMW40S102016	Normal	North Alluvial	10/2016	Well dry this event	
	TMW40S042016	Normal	North Alluvial	4/7/2016	**120**	0.77 J
	TMW40S102015	Normal	North Alluvial	10/28/2015	**110**	**1.1**
	TMW40S042015	Normal	North Alluvial	4/6/2015	**110**	**2.2 J**
TMW41	TMW41102016	Normal	North Alluvial	10/27/2016	6.4	0.10 U
	TMW41042016	Normal	North Alluvial	4/7/2016	5.6	0.10 U
	TMW41102015	Normal	North Alluvial	10/29/2015	5.5	0.20 U
	TMW41042015	Normal	North Alluvial	4/1/2015	6.4	0.10 U
TMW43	TMW43102016	Normal	North Alluvial	11/3/2016	7.5	0.10 U
	DTW43102016	Duplicate	North Alluvial	11/3/2016	7.4	0.10 U
	TMW43042016	Normal	North Alluvial	4/13/2016	8.5 J	0.10 U
	DTW43042016	Duplicate	North Alluvial	4/13/2016	8.8 J	0.10 UJ
	TMW43102015	Normal	North Alluvial	11/3/2015	7.9	0.10 U
	DTW43102015	Duplicate	North Alluvial	11/3/2015	8.6	0.10 U
	TMW43042015	Normal	North Alluvial	4/10/2015	8.8	0.10 U
	DTW43042015	Duplicate	North Alluvial	4/10/2015	8.6	0.10 U
TMW44	TMW44102016	Normal	North Alluvial	10/27/2016	**54**	0.10 U
	TMW44042016	Normal	North Alluvial	4/8/2016	**52 J**	0.10 U
	TMW44102015	Normal	North Alluvial	10/29/2015	**51**	0.20 U
	TMW44042015	Normal	North Alluvial	4/1/2015	**48 J**	0.10 U

TABLE 5-2

Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 5 of 6)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L) CAS 14797-55-8 EPA Method 9056	Nitrite-N (mg/L) CAS 14797-65-0 EPA Method 9056
				Regulatory Limits	10[a]	1[b]
TMW45	TMW45102016	Normal	North Alluvial	11/4/2016	0.5	0.10 U
	DTW45102016	Duplicate	North Alluvial	11/4/2016	0.5	0.10 U
	TMW45042016	Normal	North Alluvial	4/14/2016	0.74	0.10 U
	TMW45102015	Normal	North Alluvial	11/3/2015	0.66 J	0.20 U
	TMW45042015	Normal	North Alluvial	4/9/2015	0.5	0.10 U
TMW46	TMW46102016	Normal	North Alluvial	10/28/2016	**84**	0.20 U
	TMW46042016	Normal	North Alluvial	4/7/2016	**82**	0.20 U
	TMW46102015	Normal	North Alluvial	10/29/2015	**81**	0.20 U
	TMW46042015	Normal	North Alluvial	4/2/2015	**75**	0.20 U
TMW47	TMW47102016	Normal	North Alluvial	11/4/2016	0.10 U	0.10 U
	TMW47042016	Normal	North Alluvial	4/14/2016	0.10 U	0.10 U
	TMW47102015	Normal	North Alluvial	11/5/2015	0.10 U	0.10 U
	TMW47042015	Normal	North Alluvial	4/10/2015	0.10 U	0.10 U
TMW02	TMW02102016	Normal	North Bedrock	11/1/2016	**90**	0.20 U
	TMW02042016	Normal	North Bedrock	4/13/2016	**92 J**	0.20 UJ
	TMW02102015	Normal	North Bedrock	11/3/2015	**88**	0.20 U
	TMW02042015	Normal	North Bedrock	4/9/2015	**88**	0.10 U
TMW14A	TMW14A102016	Normal	North Bedrock	11/3/2016	0.10 J	0.10 U
	TMW14A042016	Normal	North Bedrock	4/14/2016	0.10 U	0.10 U
	TMW14A102015	Normal	North Bedrock	11/3/2015	0.10 U	0.10 U
	TMW14A042015	Normal	North Bedrock	4/8/2015	0.10 U	0.10 U
TMW17	TMW17102016	Normal	North Bedrock	11/4/2016	0.10 U	0.10 U
	TMW17042016	Normal	North Bedrock	4/15/2016	0.10 U	0.10 U
	TMW17102015	Normal	North Bedrock	11/3/2015	0.10 U	0.10 U
	TMW17042015	Normal	North Bedrock	4/7/2015	0.10 U	0.10 U
TMW18	TMW18102016	Normal	North Bedrock	10/28/2016	0.10 U	0.10 U
	TMW18042016	Normal	North Bedrock	4/7/2016	0.10 U	0.10 U
	TMW18102015	Normal	North Bedrock	10/29/2015	0.10 U	0.10 U
	TMW18042015	Normal	North Bedrock	4/1/2015	0.10 U	0.10 U
TMW30	TMW30102016	Normal	North Bedrock	10/26/2016	**15**	0.10 U
	TMW30042016	Normal	North Bedrock	4/7/2016	**15**	0.070 J
	TMW30102015	Normal	North Bedrock	10/29/2015	**16**	0.10 U
	TMW30042015	Normal	North Bedrock	4/1/2015	**17**	0.10 U
TMW31D	TMW31D102016	Normal	North Bedrock	10/31/2016	**15**	0.10 U
	DTW31D102016	Duplicate	North Bedrock	10/31/2016	**15**	0.10 U
	TMW31D042016	Normal	North Bedrock	4/13/2016	**15 J**	0.10 U
	DTW31D042016	Duplicate	North Bedrock	4/13/2016	**14 J**	0.10 UJ
	TMW31D102015	Normal	North Bedrock	11/5/2015	**14**	0.10 U
	DTW31D102015	Duplicate	North Bedrock	11/5/2015	**14**	0.10 U
	TMW31D042015	Normal	North Bedrock	4/6/2015	**14**	0.10 UJ
TMW32	TMW32102016	Normal	North Bedrock	11/2/2016	2	0.40 J
	TMW32042016	Normal	North Bedrock	4/13/2016	1.4 J	0.39 J
	TMW32102015	Normal	North Bedrock	11/5/2015	1.6	0.51 J
	TMW32042015	Normal	North Bedrock	4/9/2015	1.4	**1.2**
TMW36	TMW36102016	Normal	North Bedrock	10/27/2016	0.10 U	0.10 U
	TMW36042016	Normal	North Bedrock	4/7/2016	0.10 U	0.10 U
	TMW36102015	Normal	North Bedrock	10/28/2015	0.10 U	0.10 U
	TMW36042015	Normal	North Bedrock	4/1/2015	0.10 U	0.10 U

TABLE 5-2

Summary of Nitrate-nitrogen and Nitrite-nitrogen Analytical Detections (Page 6 of 6)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Nitrate-N (mg/L) CAS 14797-55-8 EPA Method 9056	Nitrite-N (mg/L) CAS 14797-65-0 EPA Method 9056
				Regulatory Limits	10[a]	1[b]
TMW37	TMW37102016	Normal	North Bedrock	10/27/2016	0.10 U	0.10 U
	TMW37042016	Normal	North Bedrock	4/7/2016	0.10 U	0.10 U
	TMW37102015	Normal	North Bedrock	10/28/2015	0.10 U	0.10 U
	TMW37042015	Normal	North Bedrock	4/1/2015	0.10 U	0.10 U
TMW38	TMW38102016	Normal	North Bedrock	11/4/2016	0.10 U	0.10 U
	TMW38042016	Normal	North Bedrock	4/14/2016	0.10 U	0.10 U
	TMW38102015	Normal	North Bedrock	11/6/2015	0.16 J	0.20 U
	TMW38042015	Normal	North Bedrock	4/8/2015	0.10 U	0.10 U
TMW39D	TMW39D102016	Normal	North Bedrock	10/31/2016	1.4	0.10 U
	TMW39D042016	Normal	North Bedrock	4/12/2016	0.29 J	0.10 U
	TMW39D102015	Normal	North Bedrock	11/4/2015	0.52 J	0.20 U
	TMW39D042015	Normal	North Bedrock	4/6/2015	0.86	0.10 UJ
	DTW39D042015	Duplicate	North Bedrock	4/6/2015	0.87	0.10 UJ
TMW40D	TMW40D102016	Normal	North Bedrock	10/31/2016	2.1	0.20 J
	TMW40D042016	Normal	North Bedrock	4/12/2016	2.2	0.15 J
	TMW40D102015	Normal	North Bedrock	11/3/2015	2.0	0.21 J
	TMW40D042015	Normal	North Bedrock	4/9/2015	1.8	0.10 U
TMW48	TMW48102016	Normal	North Bedrock	11/1/2016	**13**	0.065 J
	TMW48042016	Normal	North Bedrock	4/12/2016	**14**	0.053 J
	TMW48102015	Normal	North Bedrock	11/4/2015	**14**	0.10 U
	TMW48042015	Normal	North Bedrock	4/6/2015	**13**	0.10 UJ
TMW49	TMW49102016	Normal	North Bedrock	11/2/2016	5.5	0.10 U
	TMW49042016	Normal	North Bedrock	4/14/2016	4.3	0.10 U
	TMW49102015	Normal	North Bedrock	11/5/2015	5.4	0.10 U
	TMW49042015	Normal	North Bedrock	4/9/2015	4.9	0.10 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 regulatory limit is 1.0 mg/L.

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 historical data are presented.

EPA = U.S. Environmental Protection Agency

J = analyte was positively identified; reported value is estimated.

mg/L = milligram(s) per liter

N = nitrogen

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 8)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	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	3,5-Dinitroaniline CAS 618-87-1	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	Nitroglycerine CAS 55-63-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	PETN CAS 78-11-5
					Regulatory Limit (EPA Region 6 Regional Screening Levels)[a]																
					590	2.0	9.8	2.4	0.49	39	3.1	NE	1.7	39	43	7	39	1.4	2	1000	39
BGMW01	BGMW01102016	Normal	North Alluvial	11/2/2016	0.49 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.25 U	0.37 U	0.25 U	0.15 UJ	0.49 U	0.15 U	0.25 U	0.25 U	2.5 U	0.25 U	1.5 U
	BGMW01042016	Normal		4/15/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	BGMW01102015	Normal		11/5/2015	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	BGMW01042015	Normal		4/2/2015	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
BGMW02	BGMW02102016	Normal	North Alluvial	11/2/2016	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	0.34 U	0.23 U	0.14 U	0.45 U	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	BGMW02042016	Normal		4/14/2016	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.45 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA
	BGMW02102015	Normal		11/5/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	BGMW02042015	Normal		4/2/2015	0.41 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.41 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
BGMW03	BGMW03102016	Normal	North Alluvial	10/28/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 UJ	0.22 UJ	0.33 U	0.22 UJ	0.13 U	0.44 UJ	0.41 UJ	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	BGMW03042016	Normal		4/8/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	BGMW03102015	Normal		10/30/2015	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 UJ	NA
	BGMW03042015	Normal		4/1/2015	0.45 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	0.17 U	0.45 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	NA
FW31	FW31102016	Normal	North Alluvial	10/26/2016	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.15 U	0.24 U	0.36 U	0.24 U	0.15 U	0.48 U	0.15 U	0.24 U	0.24 U	2.4 U	0.24 U	1.5 U
	FW31042016	Normal		4/7/2016	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.18 J	0.21 U	0.21 U	NA	0.21 U	NA
	FW3112015	Normal		11/2/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	FW31042015	Normal		4/1/2015	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
FW35	FW35102016	Normal	North Alluvial	10/2016	Well dry this event																
	FW35042016	Normal		4/2016	Well dry this event																
	FW35102015	Normal		10/2015	Well dry this event																
	FW35042015	Normal		4/1/2015	0.49 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	NA	0.19 U	0.19 U	0.49 U	0.19 U	0.19 U	0.19 U	NA	0.19 U	NA
MW01	MW01102016	Normal	North Alluvial	10/27/2016	0.46 U	0.23 U	0.23 U	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	0.34 U	0.23 UJ	0.14 UJ	0.46 UJ	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	MW01042016	Normal		4/6/2016	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.45 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	MW01102015	Normal		10/28/2015	0.41 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.20 U	NA	0.20 U	0.12 U	0.41 U	0.12 U	0.20 U	0.20 U	NA	0.20 U	NA
	MW01042015	Normal		4/1/2015	0.48 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	NA	0.18 U	0.18 U	0.48 U	0.18 U	0.18 U	0.18 U	NA	0.18 U	NA
MW02	MW02102016	Normal	North Alluvial	10/27/2016	0.46 U	0.23 U	0.23 U	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	0.34 U	0.23 UJ	0.14 UJ	0.46 UJ	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	MW02042016	Normal		4/6/2016	0.50 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.25 U	NA	0.25 U	0.15 U	0.50 U	0.15 U	0.25 U	0.25 U	NA	0.25 U	NA
	MW02102015	Normal		10/28/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	MW02042015	Normal		4/1/2015	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.33 J	NA	0.17 U	0.17 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	NA

TABLE 5-3

Summary of Total Explosives Analytical Detections (Page 2 of 8)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	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	3,5-Dinitroaniline CAS 618-87-1	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	Nitroglycerine CAS 55-63-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	PETN CAS 78-11-5
					Regulatory Limit (EPA Region 6 Regional Screening Levels)[a]																
					590	2.0	9.8	2.4	0.49	39	3.1	NE	1.7	39	43	7	39	1.4	2	1000	39
MW03	MW03102016	Normal	North Alluvial	11/3/2016	0.43 U	0.21 U	0.21 U	0.21 UJ	0.21 UJ	0.13 UJ	0.21 UJ	0.32 U	0.21 UJ	0.13 UJ	0.43 UJ	0.13 U	0.21 U	0.21 U	2.1 U	0.21 U	1.3 U
	MW03042016	Normal		4/12/2016	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	MW03102015	Normal		10/30/2015	0.49 U	0.24 U	0.24 U	0.24 U	0.24 U	0.15 U	0.24 U	NA	0.24 U	0.15 U	0.49 U	0.15 U	0.24 U	0.24 U	NA	0.24 UJ	NA
	MW03042015	Normal		4/3/2015	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
MW18D	MW18D102016	Normal	North Alluvial	10/28/2016	0.48 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.14 UJ	0.24 UJ	0.36 UJ	0.24 UJ	0.14 UJ	0.48 UJ	0.14 UJ	0.24 UJ	0.24 UJ	2.4 UJ	0.24 UJ	1.4 UJ
	MW18D042016	Normal		4/12/2016	0.45 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	NA	0.22 UJ	0.13 UJ	0.45 UJ	0.13 UJ	0.22 UJ	0.22 UJ	NA	0.22 UJ	NA
	MW18D102015	Normal		11/2/2015	0.41 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	NA	0.21 U	0.12 U	0.41 U	0.12 U	0.21 U	0.21 U	NA	0.21 U	NA
	MW18D042015	Normal		4/8/2015	0.49 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	NA	0.18 U	0.18 U	0.49 U	0.18 U	0.18 U	0.18 U	NA	0.18 U	NA
MW20	MW20102016	Normal	North Alluvial	11/4/2016	0.46 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	0.35 UJ	0.23 UJ	0.14 UJ	0.46 UJ	0.14 UJ	0.23 UJ	0.23 UJ	2.3 UJ	0.23 UJ	1.4 UJ
	MW20042016	Normal		4/11/2016	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	MW20102015	Normal		11/2/2015	0.47 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.47 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA
	DMW20102015	Duplicate		11/2/2015	0.47 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.47 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA
	MW20042015	Normal		4/3/2015	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
MW22S	MW22S102016	Normal	North Alluvial	10/2016	Well dry this event																
	MW22S042016	Normal		4/11/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	MW22S102015	Normal		10/30/2015	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 UJ	NA
	MW22S042015	Normal		4/1/2015	0.52 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	NA	0.20 U	0.20 U	0.52 U	0.20 U	0.20 U	0.20 U	NA	0.20 U	NA
MW22D	MW22D102016	Normal	North Alluvial	10/28/2016	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UJ	0.23 UJ	0.34 U	0.23 UJ	0.14 U	0.45 UJ	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	MW22D042016	Normal		4/11/2016	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.46 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA
	MW22D102015	Normal		11/2/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	MW22D042015	Normal		4/6/2015	0.41 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.41 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
MW23	MW23102016	Normal	North Alluvial	10/27/2016	0.44 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 UJ	0.44 UJ	0.13 UJ	0.22 UJ	0.22 UJ	2.2 UJ	0.22 UJ	1.3 UJ
	MW23042016	Normal		4/7/2016	0.43 U	0.21 U	0.21 U	0.21 U	0.21 UJ	0.13 UJ	0.21 UJ	NA	0.21 UJ	0.13 UJ	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 UJ	NA
	DMW23042016	Duplicate		4/7/2016	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.39 J	NA	0.21 U	NA
	MW23102015	Normal		11/6/2015	0.43 R	0.21 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.13 UJ	0.21 UJ	NA	0.21 UJ	0.13 UJ	0.43 UJ	0.13 UJ	0.21 UJ	0.21 UJ	NA	0.21 UJ	NA
	DMW23102015	Duplicate		11/6/2015	0.43 R	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	NA	0.22 UJ	0.13 UJ	0.43 UJ	0.13 UJ	0.22 UJ	0.22 UJ	NA	0.22 UJ	NA
	MW23042015	Normal		4/7/2015	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 UJ	NA	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
	DMW23042015	Duplicate		4/7/2015	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.13 J	NA	0.17 U	0.17 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	NA

TABLE 5-3

Summary of Total Explosives Analytical Detections (Page 3 of 8)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	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	3,5-Dinitroaniline CAS 618-87-1	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	Nitroglycerine CAS 55-63-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	PETN CAS 78-11-5
					Regulatory Limit (EPA Region 6 Regional Screening Levels)[a]																
					590	2.0	9.8	2.4	0.49	39	3.1	NE	1.7	39	43	7	39	1.4	2	1000	39
MW24	MW24102016	Normal	North Alluvial	10/26/2016	0.43 UJ	0.22 U	0.22 U	0.22 U	0.22 UJ	0.13 U	0.22 U	0.32 U	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	DMW24102016	Duplicate		10/26/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	MW24042016	Normal		4/6/2016	0.41 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.20 U	NA	0.20 U	0.12 U	0.41 U	0.12 U	0.20 U	0.20 U	NA	0.20 U	NA
	DMW24042016	Duplicate		4/6/2016	0.41 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.20 U	NA	0.20 U	0.12 U	0.41 U	0.12 U	0.20 U	0.20 U	NA	0.20 U	NA
	MW24102015	Normal		11/5/2015	0.41 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	NA	0.21 U	0.12 U	0.41 U	0.12 U	0.21 U	0.21 U	NA	0.21 U	NA
	MW24042015	Normal		4/6/2015	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	0.17 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	NA
	DMW24042015	Duplicate		4/6/2015	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	0.17 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	NA
SMW01	SMW01102016	Normal	North Alluvial	11/2/2016	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	1.3 U	2.2 U	3.3 U	2.2 U	1.3 U	4.4 U	1.3 U	2.2 U	2.2 U	22 U	2.2 U	13 U
	SMW01042016	Normal		4/8/2016	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	NA	0.24 U	0.14 U	0.48 U	0.14 U	0.24 U	0.24 U	NA	0.24 U	NA
	SMW011102015	Normal		11/3/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	NA	0.21 UJ	0.12 U	0.42 U	0.12 U	0.21 U	0.21 U	NA	0.21 U	NA
	SMW01042015	Normal		4/8/2015	0.44 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.44 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
TMW01	TMW01102016	Normal	North Alluvial	10/31/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 UJ	0.22 U	0.32 U	0.22 U	0.13 UJ	0.43 U	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW01042016	Normal		4/8/2016	0.41 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	NA	0.21 U	0.12 U	0.41 U	0.12 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW01102015	Normal		11/4/2015	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.45 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA
	TMW01042015	Normal		4/7/2015	0.49 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	NA	0.18 U	0.18 U	0.49 U	0.18 U	0.18 U	0.18 U	NA	0.18 U	NA
TMW03	TMW03102016	Normal	North Alluvial	10/31/2016	22 U	11 U	11 U	11 U	11 U	6.7 UJ	11 U	17 U	11 U	6.7 UJ	22 U	**490**	11 U	11 U	110 U	11 U	67 U
	TMW03042016	Normal		4/8/2016	0.43 U	0.21 UJ	0.21 UJ	0.24 J	0.21 UJ	0.86 J	0.21 UJ	NA	0.21 UJ	0.95 J	0.43 UJ	**480**	0.21 UJ	0.21 U	NA	11 J	NA
	TMW03102015	Normal		11/4/2015	0.42 U	0.21 U	0.21 U	0.29 J	0.21 U	1.9	0.21 U	NA	0.21 U	1.5 J	0.42 U	**490**	0.21 U	0.21 U	NA	0.21 U	NA
	TMW03042015	Normal		4/9/2015	0.41 UJ	0.15 UJ	0.15 UJ	0.44 J	0.15 UJ	2.4 J	0.15 UJ	NA	0.15 UJ	2.2 J	0.41 UJ	**420 J**	0.15 UJ	0.15 UJ	NA	4.0 J	NA
TMW04	TMW04102016	Normal	North Alluvial	11/3/2016	22 U	11 U	11 U	11 UJ	11 UJ	6.6 UJ	11 UJ	17 U	11 UJ	6.6 UJ	22 UJ	6.6 U	11 U	11 U	110 U	19 J	66 U
	TMW04042016	Normal		4/13/2016	9.1 U	0.23 U	0.23 U	0.23 U	0.23 U	2.6	0.23 U	NA	0.23 U	1.5 J	0.45 U	2.7 U	0.23 U	0.23 U	NA	0.23 U	NA
	TMW04102015	Normal		11/4/2015	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	2.7 J	0.23 U	NA	0.23 U	1.5 J	1.9 J	2.8 U	0.23 U	0.23 U	NA	0.23 U	NA
	TMW04042015	Normal		4/9/2015	3.1 J	0.15 UJ	0.15 UJ	0.39 J	0.15 UJ	2.9 J	1.5 J	NA	0.15 UJ	2.6 J	40 J	**16 J**	0.49 J	0.15 UJ	NA	5.1 J	NA
TMW06	TMW06102016	Normal	North Alluvial	10/31/2016	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 UJ	0.22 U	0.34 U	0.22 U	0.13 UJ	0.45 U	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW06042016	Normal		4/12/2016	0.43 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.13 UJ	0.21 UJ	NA	0.21 UJ	0.13 UJ	0.43 UJ	0.13 UJ	0.21 UJ	0.21 UJ	NA	0.21 UJ	NA
	TMW06102015	Normal		11/4/2015	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW06042015	Normal		4/9/2015	0.41 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	NA	0.15 U	0.15 U	0.41 U	0.15 U	0.15 U	0.15 U	NA	0.15 U	NA
TMW07	TMW07102016	Normal	North Alluvial	10/27/2016	0.40 U	0.20 U	0.20 U	0.20 UJ	0.20 UJ	0.12 UJ	0.20 UJ	0.30 U	0.20 UJ	0.12 UJ	0.40 UJ	0.080 UJ	0.20 U	0.20 U	2.0 U	0.22 J	1.2 U
	TMW07042016	Normal		4/8/2016	0.43 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	NA	0.22 UJ	0.13 UJ	0.43 UJ	0.13 UJ	0.22 UJ	0.22 UJ	NA	0.22 UJ	NA
	TMW07102015	Normal		10/30/2015	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 UJ	NA
	TMW07042015	Normal		4/1/2015	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA

TABLE 5-3

Summary of Total Explosives Analytical Detections (Page 4 of 8)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	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	3,5-Dinitroaniline CAS 618-87-1	3-Nitrotoluene CAS 99-08-1	4-Amino-2,6-dinitrotouene 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	Nitroglycerine CAS 55-63-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	PETN CAS 78-11-5
					Regulatory Limit (EPA Region 6 Regional Screening Levels)[a]																	
					590	2.0	9.8	2.4	0.49	39	3.1	NE	1.7	39	43	7	39	1.4	2	1000	39
TMW10	TMW10102016	Normal	North Alluvial	11/2/2016	0.47 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	0.36 U	0.24 U	0.14 U	0.47 U	0.14 U	0.24 U	0.24 U	2.4 U	0.24 U	1.4 U
	TMW10042016	Normal		4/12/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW10102015	Normal		11/4/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW10042015	Normal		4/7/2015	0.45 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	0.17 U	0.45 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	NA
TMW11	TMW11102016	Normal	North Alluvial	11/3/2016	0.45 U	0.22 U	0.22 U	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.34 U	0.22 UJ	0.13 UJ	0.45 UJ	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	DTW11102016	Duplicate		11/3/2016	0.45 U	0.22 U	0.22 U	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.34 U	0.22 UJ	0.13 UJ	0.45 UJ	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW11042016	Normal		4/11/2016	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.46 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA
	TMW11102015	Normal		11/5/2015	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW11042015	Normal		4/8/2015	0.44 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.44 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
TMW15	TMW15102016	Normal	North Alluvial	11/2/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.32 U	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW15042016	Normal		4/13/2016	0.40 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.20 U	NA	0.20 U	0.12 U	0.40 U	0.12 U	0.20 U	0.20 U	NA	0.20 U	NA
	DTW15042016	Duplicate		4/13/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW15102015	Normal		11/6/2015	0.45 R	0.23 UJ	0.23 UJ	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	NA	0.23 UJ	0.14 UJ	0.45 UJ	0.14 UJ	0.23 UJ	0.23 UJ	NA	0.23 UJ	NA
	DTW15102015	Duplicate		11/6/2015	0.44 R	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	NA	0.22 UJ	0.13 UJ	0.44 UJ	0.13 UJ	0.22 UJ	0.22 UJ	NA	0.22 UJ	NA
	TMW15042015	Normal		4/8/2015	0.46 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	0.17 U	0.46 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	NA
	DTW15042015	Duplicate		4/8/2015	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	0.17 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	NA
TMW21	TMW21102016	Normal	North Alluvial	10/27/2016	0.42 U	0.21 U	0.21 U	0.21 UJ	0.21 UJ	0.13 UJ	0.21 UJ	0.31 U	0.21 UJ	0.13 UJ	0.42 UJ	0.13 U	0.21 U	0.21 U	2.1 U	0.21 U	1.3 U
	TMW21042016	Normal		4/11/2016	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.45 U	0.14 U	0.23 U	0.13 J	NA	0.23 U	NA
	TMW21102015	Normal		10/29/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW21042015	Normal		4/3/2015	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
TMW22	TMW22102016	Normal	North Alluvial	10/27/2016	0.43 U	0.22 U	0.22 U	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.32 U	0.91 J	0.13 UJ	0.43 UJ	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW22042016	Normal		4/8/2016	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.46 U	0.14 U	0.16 J	0.23 U	NA	0.23 U	NA
	TMW22102015	Normal		10/29/2015	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 J	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW22042015	Normal		4/1/2015	0.45 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	0.17 U	0.45 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	NA
TMW23	TMW23102016	Normal	North Alluvial	10/28/2016	3.0 J	**3.4 J**	0.22 U	0.22 U	0.22 U	0.23 J	0.22 UJ	0.32 U	0.22 UJ	0.13 U	0.43 UJ	**67**	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW23042016	Normal		4/8/2016	0.45 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.19 J	0.22 UJ	NA	0.22 UJ	0.13 UJ	0.45 UJ	**84 J**	0.22 UJ	**1.8 J**	NA	0.22 UJ	NA
	TMW23102015	Normal		10/30/2015	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.83 J	0.22 U	NA	0.22 U	0.41 J	1.3 J	**56**	0.22 U	0.22 U	NA	0.22 UJ	NA
	TMW23042015	Normal		4/1/2015	0.45 U	0.17 U	0.17 U	0.17 U	0.17 U	0.55 J	0.17 U	NA	0.17 U	0.17 U	0.45 U	**57**	0.17 U	0.17 U	NA	0.17 U	NA
TMW24	TMW24102016	Normal	North Alluvial	11/3/2016	0.43 U	0.22 U	0.22 U	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.32 U	0.22 UJ	0.13 UJ	0.43 UJ	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW24042016	Normal		4/15/2016	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.45 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW24102015	Normal		11/6/2015	0.45 R	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	NA	0.22 UJ	0.13 UJ	0.45 UJ	0.13 UJ	0.22 UJ	0.22 UJ	NA	0.22 UJ	NA
	TMW24042015	Normal		4/8/2015	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA

TABLE 5-3

Summary of Total Explosives Analytical Detections (Page 5 of 8)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	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	3,5-Dinitroaniline CAS 618-87-1	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	Nitroglycerine CAS 55-63-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	PETN CAS 78-11-5
					Regulatory Limit (EPA Region 6 Regional Screening Levels)[a]																
					590	2.0	9.8	2.4	0.49	39	3.1	NE	1.7	39	43	7	39	1.4	2	1000	39
TMW25	TMW25102016	Normal	North Alluvial	11/1/2016	0.50 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 UJ	0.25 U	0.38 U	0.25 U	0.15 UJ	0.50 U	0.15 U	0.25 U	0.25 U	2.5 U	0.25 U	1.5 U
	TMW25042016	Normal		4/13/2016	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.15 U	0.24 U	NA	0.24 U	0.15 U	0.48 U	0.15 U	0.24 U	0.24 U	NA	0.24 U	NA
	TMW25102015	Normal		11/4/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW25042015	Normal		4/7/2015	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
TMW26	TMW26102016	Normal	North Alluvial	11/1/2016	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 UJ	0.22 U	0.33 U	0.22 U	0.13 UJ	0.45 U	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW26042016	Normal		4/8/2016	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	NA	0.24 U	0.14 U	0.48 U	0.14 U	0.24 U	0.24 U	NA	0.24 U	NA
	TMW26102015	Normal		10/30/2015	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.45 U	0.13 U	0.22 U	0.22 U	NA	0.22 UJ	NA
	DTW26102015	Duplicate		10/30/2015	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.45 U	0.14 U	0.23 U	0.23 U	NA	0.23 UJ	NA
	TMW26042015	Normal		4/7/2015	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
	DTW26042015	Duplicate		4/7/2015	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
TMW29	TMW29102016	Normal	North Alluvial	10/28/2016	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UJ	0.23 UJ	0.34 U	0.23 UJ	0.14 U	0.45 UJ	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	TMW29042016	Normal		4/7/2016	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.46 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA
	TMW29102015	Normal		10/28/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW29042015	Normal		4/3/2015	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
TMW31S	TMW31S102016	Normal	North Alluvial	10/27/2016	0.44 U	0.22 U	0.22 U	0.22 UJ	0.22 J	0.13 UJ	0.22 UJ	0.33 U	0.22 UJ	0.13 UJ	0.44 UJ	0.16 UJ	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW31S042016	Normal		4/6/2016	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW31S102015	Normal		10/29/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.16 J	NA	0.21 U	NA
	TMW31S042015	Normal		4/2/2015	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.23 J	NA	0.16 U	NA
TMW39S	TMW39S102016	Normal	North Alluvial	10/27/2016	0.43 U	0.22 U	0.22 U	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 U	0.22 UJ	0.13 UJ	0.43 UJ	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW39S042016	Normal		4/6/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW39S102015	Normal		10/29/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW39S042015	Normal		4/1/2015	0.46 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.19 J	NA	0.17 U	0.17 U	0.29 J	0.17 U	0.17 U	0.17 U	NA	0.17 U	NA
TMW40S	TMW40S102016	Normal	North Alluvial	10/2016	Well dry this event																
	TMW40S042016	Normal		4/7/2016	46 U	0.23 U	0.40 J	0.23 U	0.23 U	0.78 J	0.23 U	NA	0.23 U	0.14 U	0.46 U	**980**	0.23 U	0.23 U	NA	21 J	NA
	TMW40S102015	Normal		10/29/2015	2.2 J	0.21 R	0.081 J	0.21 R	0.21 R	0.13 R	0.21 R	NA	0.21 R	0.13 R	0.43 R	**1000**	0.21 U	0.21 R	NA	14 J	NA
	TMW40S042015	Normal		4/2/2015	2.2 J	0.18 UJ	0.18 UJ	0.17 R	0.17 R	2.0 J	0.19 J	NA	0.78 J	1.3 J	0.43 R	**1200 J**	0.17 R	**2.6 J**	NA	22 J	NA
TMW41	TMW41102016	Normal	North Alluvial	10/27/2016	0.40 U	0.20 U	0.20 U	0.20 UJ	0.20 UJ	0.12 UJ	0.20 UJ	0.30 U	0.20 UJ	0.12 UJ	0.40 UJ	0.12 U	0.20 U	0.20 U	2.0 U	0.20 U	1.2 U
	TMW41042016	Normal		4/7/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW41102015	Normal		10/29/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW41042015	Normal		4/1/2015	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA

TABLE 5-3

Summary of Total Explosives Analytical Detections (Page 6 of 8)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	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	3,5-Dinitroaniline CAS 618-87-1	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	Nitroglycerine CAS 55-63-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	PETN CAS 78-11-5
					Regulatory Limit (EPA Region 6 Regional Screening Levels)[a]																
					590	2.0	9.8	2.4	0.49	39	3.1	NE	1.7	39	43	7	39	1.4	2	1000	39
TMW43	TMW43102016	Normal	North Alluvial	11/3/2016	0.46 U	0.23 U	0.23 U	0.23 UJ	0.23 UJ	0.14 UJ	0.23 UJ	0.35 U	0.23 UJ	0.14 UJ	0.46 UJ	3.6	0.23 U	0.23 U	2.3 U	0.22 J	1.4 U
	DTW43102016	Duplicate		11/3/2016	0.49 U	0.24 U	0.24 U	0.24 UJ	0.24 UJ	0.15 UJ	0.24 UJ	0.37 U	0.24 UJ	0.15 UJ	0.49 UJ	3.9	0.24 U	0.24 U	2.4 U	0.35 J	1.5 U
	TMW43042016	Normal		4/13/2016	0.46 U	0.23 U	0.23 U	0.23 UJ	0.23 U	0.14 UJ	0.23 UJ	NA	0.23 UJ	0.14 UJ	0.46 UJ	4	0.23 U	0.36 U	NA	0.14 J	NA
	DTW43042016	Duplicate		4/13/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	4.2	0.22 U	0.22 U	NA	0.22 U	NA
	TMW43102015	Normal		11/3/2015	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 UJ	0.13 U	0.44 U	4.1	0.22 U	0.22 U	NA	0.22 U	NA
	DTW43102015	Duplicate		11/3/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 UJ	0.13 U	0.42 U	3.9	0.21 U	0.21 U	NA	0.21 U	NA
	TMW43042015	Normal		4/10/2015	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	0.17 U	0.44 U	3.5	0.17 U	0.17 U	NA	0.17 UJ	NA
	DTW43042015	Duplicate		4/10/2015	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	0.17 U	0.44 U	4.4	0.17 U	0.17 U	NA	0.27 J	NA
TMW44	TMW44102016	Normal	North Alluvial	10/27/2016	0.45 U	0.23 U	0.23 U	0.24 J	0.23 UJ	0.14 UJ	0.23 UJ	0.34 U	**3.9 J**	0.14 UJ	0.45 UJ	0.42 J	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	TMW44042016	Normal		4/8/2016	0.49 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.15 UJ	0.24 UJ	NA	0.24 UJ	0.15 UJ	0.49 UJ	0.15 UJ	0.35 J	0.24 UJ	NA	4.6 J	NA
	TMW44102015	Normal		10/29/2015	0.47 U	0.23 U	0.23 U	0.23 U	0.23 U	0.98 J	0.23 U	NA	0.23 U	0.49 J	0.47 U	0.14 U	0.23 U	0.23 U	NA	2.5 J	NA
	TMW44042015	Normal		4/1/2015	0.47 U	0.18 U	0.18 U	0.18 U	0.18 U	0.86 J	0.18 U	NA	0.18 U	0.59	0.47 U	0.18 U	0.18 U	0.18 U	NA	0.18 U	NA
TMW45	TMW45102016	Normal	North Alluvial	11/4/2016	0.44 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 UJ	0.44 UJ	0.13 UJ	0.22 UJ	0.22 UJ	2.2 UJ	0.22 UJ	1.3 UJ
	DTW45102016	Duplicate		11/4/2016	0.43 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 UJ	0.43 UJ	0.13 UJ	0.22 UJ	0.22 UJ	2.2 UJ	0.22 UJ	1.3 UJ
	TMW45042016	Normal		4/14/2016	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.46 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA
	TMW45102015	Normal		11/3/2015	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 UJ	0.13 U	0.45 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW45042015	Normal		4/9/2015	0.45 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	0.17 U	0.45 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	NA
TMW46	TMW46102016	Normal	North Alluvial	10/28/2016	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UJ	0.23 UJ	0.34 U	0.23 UJ	0.14 U	0.45 UJ	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	TMW46042016	Normal		4/7/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW46102015	Normal		10/29/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW46042015	Normal		4/2/2015	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
TMW47	TMW47102016	Normal	North Alluvial	11/4/2016	0.47 U	0.24 UJ	0.24 U	0.24 UJ	0.24 UJ	0.14 UJ	0.24 UJ	0.36 U	0.24 UJ	0.32 J	0.47 UJ	0.14 U	0.24 U	0.24 U	2.4 U	0.68	1.4 U
	TMW47042016	Normal		4/14/2016	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.45 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA
	TMW47102015	Normal		11/5/2015	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.37 J	NA
	TMW47042015	Normal		4/10/2015	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
TMW02	TMW02102016	Normal	North Bedrock	11/1/2016	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UJ	0.23 U	0.34 U	0.23 U	0.25 J	0.45 U	0.14 U	0.23 U	0.23 U	2.3 U	0.23 U	1.4 U
	TMW02042016	Normal		4/13/2016	0.42 U	0.40 J	0.21 U	0.21 U	0.21 U	0.36 J	0.21 U	NA	0.21 U	0.13 J	0.42 U	1.3	0.21 U	0.12 UJ	NA	1.4 J	NA
	TMW02102015	Normal		11/3/2015	0.46 U	0.20 J	0.23 U	0.23 U	0.23 U	0.37 J	0.23 U	NA	0.23 UJ	0.21 J	0.46 U	1.3	0.23 U	0.23 U	NA	0.23 U	NA
	TMW02042015	Normal		4/9/2015	0.46 U	0.17 U	0.17 U	0.17 U	0.17 U	0.42 J	0.17 U	NA	0.17 U	0.41 J	0.46 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	NA
TMW14A	TMW14A102016	Normal	North Bedrock	11/3/2016	0.45 U	0.22 U	0.22 U	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.34 U	0.22 UJ	0.13 UJ	0.45 UJ	0.072 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW14A042016	Normal		4/14/2016	0.46 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.23 U	NA	0.23 U	0.14 U	0.46 U	0.14 U	0.23 U	0.23 U	NA	0.23 U	NA
	TMW14A102015	Normal		11/3/2015	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 UJ	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW14A042015	Normal		4/8/2015	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA

TABLE 5-3

Summary of Total Explosives Analytical Detections (Page 7 of 8)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	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	3,5-Dinitroaniline CAS 618-87-1	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	Nitroglycerine CAS 55-63-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	PETN CAS 78-11-5
					Regulatory Limit (EPA Region 6 Regional Screening Levels)[a]																
					590	2.0	9.8	2.4	0.49	39	3.1	NE	1.7	39	43	7	39	1.4	2	1000	39
TMW16	TMW16102016	Normal	North Bedrock	10/28/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 UJ	0.22 UJ	0.33 U	0.22 UJ	0.13 U	0.44 UJ	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW16042016	Normal		4/7/2016	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW16102015	Normal		10/28/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW16042015	Normal		4/1/2015	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	0.17 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	NA
TMW18	TMW18102016	Normal	North Bedrock	10/28/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 UJ	0.22 UJ	0.33 U	0.22 UJ	0.13 U	0.44 UJ	0.097 UJ	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW18042016	Normal		4/7/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW18102015	Normal		10/29/2015	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW18042015	Normal		4/1/2015	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
TMW19	TMW19102016	Normal	North Bedrock	10/28/2016	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 UJ	0.24 UJ	0.36 U	0.24 UJ	0.14 U	0.48 UJ	0.12 UJ	0.24 U	0.24 U	2.4 U	0.24 U	1.4 U
	DTW19102016	Duplicate		10/28/2016	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 UJ	0.24 UJ	0.36 U	0.24 UJ	0.14 U	0.48 UJ	0.11 UJ	0.24 U	0.24 U	2.4 U	0.24 U	1.4 U
	TMW19042016	Normal		4/7/2016	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW19102015	Normal		10/28/2015	0.40 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.20 U	NA	0.20 U	0.12 U	0.40 U	0.12 U	0.20 U	0.20 U	NA	0.20 U	NA
	TMW19042015	Normal		4/1/2015	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
TMW30	TMW30102016	Normal	North Bedrock	10/26/2016	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.45 U	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW30042016	Normal		4/7/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.11 J	0.22 U	0.22 U	NA	0.22 U	NA
	TMW30102015	Normal		10/29/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW30042015	Normal		4/1/2015	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.15 J	NA	0.16 U	NA
TMW31D	TMW31D102016	Normal	North Bedrock	10/31/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 UJ	0.22 U	0.32 U	0.22 U	0.13 UJ	0.43 U	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	DTW31D102016	Duplicate		10/31/2016	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 UJ	0.21 U	0.32 U	0.21 U	0.13 UJ	0.42 U	0.13 U	0.21 U	0.21 U	2.1 U	0.21 U	1.3 U
	TMW31D042016	Normal		4/13/2016	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	DTW31D042016	Duplicate		4/13/2016	0.41 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	NA	0.21 U	0.12 U	0.41 U	0.12 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW31D102015	Normal		11/5/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	DTW31D102015	Duplicate		11/5/2015	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.45 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW31D042015	Normal		4/6/2015	0.41 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	NA	0.15 U	0.15 U	0.41 U	0.15 U	0.15 U	0.15 U	NA	0.15 U	NA
TMW32	TMW32102016	Normal	North Bedrock	11/2/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW32042016	Normal		4/13/2016	0.51 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.25 U	NA	0.25 U	0.15 U	0.51 U	0.15 U	0.25 U	0.25 U	NA	0.25 U	NA
	TMW32102015	Normal		11/5/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW32042015	Normal		4/9/2015	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
TMW36	TMW36102016	Normal	North Bedrock	10/27/2016	0.42 U	0.21 U	0.21 U	0.21 UJ	0.21 UJ	0.13 UJ	0.21 UJ	0.32 U	0.21 UJ	0.13 UJ	0.42 UJ	0.18 UJ	0.21 U	0.21 U	2.1 U	0.21 U	1.3 U
	TMW36042016	Normal		4/7/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW36102015	Normal		10/28/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW36042015	Normal		4/1/2015	0.40 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	NA	0.15 U	0.15 U	0.40 U	0.15 U	0.15 U	0.15 U	NA	0.15 U	NA

TABLE 5-3

Summary of Total Explosives Analytical Detections (Page 8 of 8)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	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	3,5-Dinitroaniline CAS 618-87-1	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	Nitroglycerine CAS 55-63-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	PETN CAS 78-11-5
					Regulatory Limit (EPA Region 6 Regional Screening Levels)[a]																
					590	**2.0**	**9.8**	**2.4**	**0.49**	**39**	**3.1**	**NE**	**1.7**	**39**	**43**	**7**	**39**	**1.4**	**2**	**1000**	**39**
TMW37	TMW37102016	Normal	North Bedrock	10/27/2016	0.43 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.32 UJ	0.22 UJ	0.13 UJ	0.43 UJ	0.086 UJ	0.22 UJ	0.22 UJ	2.2 UJ	0.22 UJ	1.3 UJ
	TMW37042016	Normal		4/7/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW37102015	Normal		10/28/2015	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	NA	0.24 U	0.14 U	0.48 U	0.14 U	0.24 U	0.24 U	NA	0.24 U	NA
	TMW37042015	Normal		4/1/2015	0.40 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	NA	0.15 UJ	0.15 UJ	0.40 UJ	0.15 UJ	0.15 UJ	0.15 UJ	NA	0.15 UJ	NA
TMW38	TMW38102016	Normal	North Bedrock	11/4/2016	0.44 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.13 UJ	0.22 UJ	0.33 UJ	0.22 UJ	0.13 J	0.44 UJ	0.13 UJ	0.22 UJ	0.22 UJ	2.2 UJ	0.22 UJ	1.3 UJ
	TMW38042016	Normal		4/14/2016	0.45 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.45 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW38102015	Normal		11/6/2015	0.42 R	0.21 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.13 UJ	0.21 UJ	NA	0.21 UJ	0.13 UJ	0.42 UJ	0.13 UJ	0.21 UJ	0.21 UJ	NA	0.21 UJ	NA
	TMW38042015	Normal		4/8/2015	0.42 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.42 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA
TMW39D	TMW39D102016	Normal	North Bedrock	10/31/2016	0.41 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 UJ	0.21 U	0.31 U	0.21 U	0.12 UJ	0.41 U	0.12 U	0.21 U	0.21 U	2.1 U	0.21 U	1.2 U
	TMW39D042016	Normal		4/12/2016	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW39D102015	Normal		11/4/2015	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.42 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW39D042015	Normal		4/6/2015	0.46 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	0.17 U	0.46 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	NA
	DTW39D042015	Duplicate		4/6/2015	0.44 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	0.17 U	0.44 U	0.17 U	0.17 U	0.17 U	NA	0.17 U	NA
TMW40D	TMW40D102016	Normal	North Bedrock	10/31/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 UJ	0.22 U	0.33 U	0.22 U	0.13 UJ	0.44 U	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW40D042016	Normal		4/12/2016	0.43 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	NA	0.22 U	0.13 U	0.43 U	0.13 U	0.22 U	0.22 U	NA	0.22 U	NA
	TMW40D102015	Normal		11/3/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 UJ	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW40D042015	Normal		4/9/2015	0.41 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	NA	0.15 U	0.15 U	0.41 U	0.15 U	0.15 U	0.15 U	NA	0.15 U	NA
TMW48	TMW48102016	Normal	North Bedrock	11/1/2016	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 UJ	0.21 U	0.32 U	0.21 U	0.13 UJ	0.43 U	0.13 U	0.21 U	0.21 U	2.1 U	0.21 U	1.3 U
	TMW48042016	Normal		4/12/2016	0.49 U	0.24 U	0.24 U	0.24 U	0.24 U	0.15 U	0.24 U	NA	0.24 U	0.15 U	0.49 U	0.15 U	0.24 U	0.31 J	NA	0.24 U	NA
	TMW48102015	Normal		11/4/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW48042015	Normal		4/6/2015	0.41 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	NA	0.15 U	0.15 U	0.41 U	0.15 U	0.15 U	0.15 U	NA	0.15 U	NA
TMW49	TMW49102016	Normal	North Bedrock	11/2/2016	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.13 U	0.22 U	0.33 U	0.22 U	0.13 U	0.44 U	0.13 U	0.22 U	0.22 U	2.2 U	0.22 U	1.3 U
	TMW49042016	Normal		4/14/2016	0.48 U	0.24 U	0.24 U	0.24 U	0.24 U	0.14 U	0.24 U	NA	0.24 U	0.14 U	0.48 U	0.14 U	0.24 U	0.24 U	NA	0.24 U	NA
	TMW49102015	Normal		11/5/2015	0.43 U	0.21 U	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	NA	0.21 U	0.13 U	0.43 U	0.13 U	0.21 U	0.21 U	NA	0.21 U	NA
	TMW49042015	Normal		4/9/2015	0.43 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	0.16 U	0.43 U	0.16 U	0.16 U	0.16 U	NA	0.16 U	NA

Notes:

[a] EPA Regional Screening Levels, (Formerly Human Health Medium Specific Screening Levels) (EPA, 2017).

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 historical data are presented.

µg/L = microgram(s) per liter

CAS = Chemical Abstracts Service (registry number)

EPA = U.S. Environmental Protection Agency

J = analyte was positively identified; reported value is estimated.

NA = not analyzed

NE = not established

R = rejected during validation; 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 July through December 2016 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	14[a]
BGMW01	BGMW01102016	Normal	North Alluvial	11/2/2016	0.010 U
	BGMW01042016	Normal	North Alluvial	4/15/2016	0.010 UJ
	BGMW01102015	Normal	North Alluvial	11/5/2015	0.010 U
	BGMW01042015	Normal	North Alluvial	4/2/2015	0.020 U
BGMW02	BGMW02102016	Normal	North Alluvial	11/2/2016	0.48 J
	BGMW02042016	Normal	North Alluvial	4/14/2016	0.39 J
	BGMW02102015	Normal	North Alluvial	11/5/2015	0.45
	BGMW02042015	Normal	North Alluvial	4/2/2015	0.51
BGMW03	BGMW03102016	Normal	North Alluvial	10/28/2016	0.015 J
	BGMW03042016	Normal	North Alluvial	4/8/2016	0.019 J
	BGMW03102015	Normal	North Alluvial	10/30/2015	0.055
	BGMW03042015	Normal	North Alluvial	4/1/2015	0.14
MW01	MW01102016	Normal	North Alluvial	10/27/2016	0.010 U
	MW01042016	Normal	North Alluvial	4/6/2016	0.010 U
	MW01102015	Normal	North Alluvial	10/28/2015	0.010 U
	MW01042015	Normal	North Alluvial	4/1/2015	0.020 U
MW02	MW02102016	Normal	North Alluvial	10/27/2016	0.10
	MW02042016	Normal	North Alluvial	4/6/2016	0.10
	MW02102015	Normal	North Alluvial	10/28/2015	0.11
	MW02042015	Normal	North Alluvial	4/2/2015	0.096
MW03	MW03042015	Normal	North Alluvial	11/3/2016	0.010 U
	MW03042016	Normal	North Alluvial	4/12/2016	0.010 U
	MW03102015	Normal	North Alluvial	10/30/2015	0.010 U
	MW03042015	Normal	North Alluvial	4/3/2015	0.0073 J
MW18D	MW18D042015	Normal	North Alluvial	10/28/2016	0.010 U
	MW18D042016	Normal	North Alluvial	4/12/2016	0.010 U
	MW18D102015	Normal	North Alluvial	11/2/2015	0.010 UJ
	MW18D042015	Normal	North Alluvial	4/8/2015	0.0092 J
MW20	MW20102016	Normal	North Alluvial	11/4/2016	0.23 J
	MW20042016	Normal	North Alluvial	4/11/2016	0.23
	MW20102015	Normal	North Alluvial	11/2/2015	0.27 J
	DMW20102015	Duplicate	North Alluvial	11/2/2015	0.26 J
	MW20042015	Normal	North Alluvial	4/3/2015	0.31 J
MW22D	MW22D102016	Normal	North Alluvial	10/28/2016	0.82
	MW22D042016	Normal	North Alluvial	4/11/2016	0.53
	MW22D102015	Normal	North Alluvial	11/2/2015	0.45 J
	MW22D042015	Normal	North Alluvial	4/6/2015	0.45 J
MW22S	MW22S102016	Well dry this event			
	MW22S042016	Normal	North Alluvial	4/11/2016	0.058
	MW22S102015	Normal	North Alluvial	10/29/2015	0.053
	MW22S042015	Normal	North Alluvial	4/2/2015	0.068

TABLE 5-4

Summary of Perchlorate Analytical Detections (Page 2 of 6)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier+ A48:E100	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	Perchlorate (µg/L) CAS 14797-73-0 EPA Method 6860
				Regulatory Limits	14[a]
MW23	MW23102016	Normal	North Alluvial	10/27/2016	0.010 U
	MW23042016	Normal	North Alluvial	4/7/2016	0.010 U
	DMW23042016	Duplicate	North Alluvial	4/7/2016	0.010 U
	MW23102015	Normal	North Alluvial	11/6/2015	0.010 U
	DMW23102015	Duplicate	North Alluvial	11/6/2015	0.010 U
	MW23042015	Normal	North Alluvial	4/7/2015	0.020 U
	DMW23042015	Duplicate	North Alluvial	4/7/2015	0.020 U
MW24	MW24102016	Normal	North Alluvial	10/26/2016	0.010 U
	DMW24102016	Duplicate	North Alluvial	10/26/2016	0.010 U
	MW24042016	Normal	North Alluvial	4/6/2016	0.010 U
	DMW24042016	Duplicate	North Alluvial	4/6/2016	0.010 U
	MW24102015	Normal	North Alluvial	11/5/2015	0.010 U
	MW24042015	Normal	North Alluvial	4/6/2015	0.020 U
	DMW24042015	Duplicate	North Alluvial	4/6/2015	0.020 U
SMW01	SMW01102016	Normal	North Alluvial	11/2/2016	0.010 U
	SMW01042016	Normal	North Alluvial	4/8/2016	0.010 U
	SMW011102015	Normal	North Alluvial	11/3/2015	0.010 U
	SMW01042015	Normal	North Alluvial	4/8/2015	4.0 U
TMW01	TMW01102016	Normal	North Alluvial	10/31/2016	**290**
	TMW01042016	Normal	North Alluvial	4/8/2016	**130 J**
	TMW01102015	Normal	North Alluvial	11/4/2015	**240**
	TMW01042015	Normal	North Alluvial	4/7/2015	**290**
TMW03	TMW03102016	Normal	North Alluvial	10/31/2016	0.78
	TMW03042016	Normal	North Alluvial	4/8/2016	0.62 J
	TMW03102015	Normal	North Alluvial	11/4/2015	0.65
	TMW03042015	Normal	North Alluvial	4/9/2015	0.72
TMW04	TMW04102016	Normal	North Alluvial	11/3/2016	0.31
	TMW04042016	Normal	North Alluvial	4/13/2016	0.35
	TMW04102015	Normal	North Alluvial	11/4/2015	0.28
	TMW04042015	Normal	North Alluvial	4/9/2015	0.32
TMW08	TMW08102016	Normal	North Alluvial	11/1/2016	0.010 U
	DTW08102016	Duplicate	North Alluvial	11/1/2016	0.010 U
	TMW08042016	Normal	North Alluvial	4/12/2016	0.010 U
	TMW08102015	Normal	North Alluvial	11/5/2015	0.010 U
	TMW08042015	Normal	North Alluvial	4/8/2015	2.0 U
TMW10	TMW10102016	Normal	North Alluvial	11/2/2016	0.010 U
	TMW10042016	Normal	North Alluvial	4/12/2016	0.010 U
	TMW10102015	Normal	North Alluvial	11/4/2015	0.010 U
	TMW10042015	Normal	North Alluvial	4/7/2015	0.020 U
TMW11	TMW11102016	Normal	North Alluvial	11/3/2016	0.13
	DTW11102016	Duplicate	North Alluvial	11/3/2016	0.13
	TMW11042016	Normal	North Alluvial	4/11/2016	0.13
	TMW11102015	Normal	North Alluvial	11/4/2015	0.13
	TMW11042015	Normal	North Alluvial	4/8/2015	0.15
TMW13	TMW13102016	Normal	North Alluvial	11/1/2016	0.10
	TMW13042016	Normal	North Alluvial	4/12/2016	0.10
	TMW13102015	Normal	North Alluvial	11/4/2015	0.08
	TMW13042015	Normal	North Alluvial	4/9/2015	0.081

TABLE 5-4

Summary of Perchlorate Analytical Detections (Page 3 of 6)

Groundwater Periodic Monitoring Report July through December 2016 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	14[a]
TMW15	TMW15102016	Normal	North Alluvial	11/2/2016	0.13 J
	TMW15042016	Normal	North Alluvial	4/13/2016	0.12
	DTW15042016	Duplicate	North Alluvial	4/13/2016	0.13
	TMW15102015	Normal	North Alluvial	11/6/2015	0.11
	DTW15102015	Duplicate	North Alluvial	11/6/2015	0.12
	TMW15042015	Normal	North Alluvial	4/8/2015	0.14
	DTW15042015	Duplicate	North Alluvial	4/8/2015	0.14
TMW21	TMW21102016	Normal	North Alluvial	10/27/2016	0.010 U
	TMW21042016	Normal	North Alluvial	4/11/2016	0.010 U
	TMW21102015	Normal	North Alluvial	10/29/2015	0.010 U
	TMW21042015	Normal	North Alluvial	4/3/2015	0.0083 J
TMW22	TMW22102016	Normal	North Alluvial	10/27/2016	0.14
	TMW22042016	Normal	North Alluvial	4/8/2016	0.010 J
	TMW22102015	Normal	North Alluvial	10/29/2015	0.018 J
	TMW22042015	Normal	North Alluvial	4/1/2015	0.021 J
TMW23	TMW23102016	Normal	North Alluvial	10/28/2016	0.043 J
	TMW23042016	Normal	North Alluvial	4/8/2016	0.015 J
	TMW23102015	Normal	North Alluvial	10/30/2015	0.036 J
	TMW23042015	Normal	North Alluvial	4/1/2015	0.076
TMW24	TMW24102016	Normal	North Alluvial	11/3/2016	0.010 U
	TMW24042016	Normal	North Alluvial	4/15/2016	0.010 UJ
	TMW24102015	Normal	North Alluvial	11/6/2015	0.010 U
	TMW24042015	Normal	North Alluvial	4/8/2015	4.0 U
TMW26	TMW26102016	Normal	North Alluvial	11/1/2016	0.010 U
	TMW26042016	Normal	North Alluvial	4/8/2016	0.010 U
	TMW26102015	Normal	North Alluvial	10/30/2015	0.010 U
	DTW26102015	Duplicate	North Alluvial	10/30/2015	0.010 U
	TMW26042015	Normal	North Alluvial	4/7/2015	0.020 U
	DTW26042015	Duplicate	North Alluvial	4/7/2015	0.020 U
TMW27	TMW27102016	Normal	North Alluvial	11/3/2016	0.010 U
	TMW27042016	Normal	North Alluvial	4/8/2016	0.010 U
	TMW27102015	Normal	North Alluvial	10/30/2015	0.010 U
	TMW27042015	Normal	North Alluvial	4/7/2015	0.020 U
TMW29	TMW29102016	Normal	North Alluvial	10/28/2016	0.082
	TMW29042016	Normal	North Alluvial	4/7/2016	0.078
	TMW29102015	Normal	North Alluvial	10/28/2015	0.061
	TMW29042015	Normal	North Alluvial	4/3/2015	0.092 J
TMW31S	TMW31S102016	Normal	North Alluvial	10/27/2016	**470**
	TMW31S042016	Normal	North Alluvial	4/6/2016	**490**
	TMW31S102015	Normal	North Alluvial	10/29/2015	**670**
	TMW31S042015	Normal	North Alluvial	4/2/2015	**480**
TMW34	TMW34102016	Normal	North Alluvial	11/1/2016	0.38
	TMW34042016	Normal	North Alluvial	4/12/2016	0.33
	DTW34042016	Duplicate	North Alluvial	4/12/2016	0.31
	TMW34102015	Normal	North Alluvial	11/3/2015	0.27
	DTW34102015	Duplicate	North Alluvial	11/3/2015	0.27
	TMW34042015	Normal	North Alluvial	4/3/2015	0.30 J
	DTW34042015	Duplicate	North Alluvial	4/3/2015	0.30 J

TABLE 5-4

Summary of Perchlorate Analytical Detections (Page 4 of 6)

Groundwater Periodic Monitoring Report July through December 2016 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	**14[a]**
TMW35	TMW35102016	Normal	North Alluvial	10/31/2016	0.064
	DTW35102016	Duplicate	North Alluvial	10/31/2016	0.067
	TMW35042016	Normal	North Alluvial	4/11/2016	0.034 J
	TMW35102015	Normal	North Alluvial	11/2/2015	0.054 J
	TMW35042015	Normal	North Alluvial	4/3/2015	0.061 J
TMW39S	TMW39S102016	Normal	North Alluvial	10/27/2016	**660**
	TMW39S042016	Normal	North Alluvial	4/6/2016	**640**
	TMW39S102015	Normal	North Alluvial	10/29/2015	**600**
	TMW39S042015	Normal	North Alluvial	4/1/2015	**670**
TMW40S	TMW40S102016	Well dry this event			
	TMW40S042016	Normal	North Alluvial	4/11/2016	2.2
	TMW40S102015	Normal	North Alluvial	10/30/2015	2.3
	TMW40S042015	Normal	North Alluvial	4/2/2015	4.0
TMW41	TMW41102016	Normal	North Alluvial	10/27/2016	4.4
	TMW41042016	Normal	North Alluvial	4/7/2016	6.1
	TMW41102015	Normal	North Alluvial	10/29/2015	4.2
	TMW41042015	Normal	North Alluvial	4/1/2015	4.3
TMW43	TMW43102016	Normal	North Alluvial	11/3/2016	0.010 U
	DTW43102016	Duplicate	North Alluvial	11/3/2016	0.010 U
	TMW43042016	Normal	North Alluvial	4/13/2016	0.010 U
	DTW43042016	Duplicate	North Alluvial	4/13/2016	0.010 U
	TMW43102015	Normal	North Alluvial	11/3/2015	0.010 U
	DTW43102015	Duplicate	North Alluvial	11/3/2015	0.010 U
	TMW43042015	Normal	North Alluvial	4/10/2015	0.020 U
	DTW43042015	Duplicate	North Alluvial	4/10/2015	0.020 U
TMW44	TMW44102016	Normal	North Alluvial	10/27/2016	0.020 J
	TMW44042016	Normal	North Alluvial	4/8/2016	0.038 J
	TMW44102015	Normal	North Alluvial	10/29/2015	0.012 J
	TMW44042015	Normal	North Alluvial	4/1/2015	0.037 U
TMW45	TMW45102016	Normal	North Alluvial	11/4/2016	0.010 U
	DTW45102016	Duplicate	North Alluvial	11/4/2016	0.010 U
	TMW45042016	Normal	North Alluvial	4/14/2016	0.010 U
	TMW45102015	Normal	North Alluvial	11/3/2015	0.010 U
	TMW45042015	Normal	North Alluvial	4/9/2015	0.020 U
TMW46	TMW46102016	Normal	North Alluvial	10/28/2016	0.30
	TMW46042016	Normal	North Alluvial	4/7/2016	0.28
	TMW46102015	Normal	North Alluvial	10/29/2015	0.26
	TMW46042015	Normal	North Alluvial	4/2/2015	0.37
TMW47	TMW47102016	Normal	North Alluvial	11/4/2016	0.010 U
	TMW47042016	Normal	North Alluvial	4/14/2016	0.010 U
	TMW47102015	Normal	North Alluvial	11/5/2015	0.0086 J
	TMW47042015	Normal	North Alluvial	4/10/2015	0.020 U
TMW02	TMW02102016	Normal	North Bedrock	11/1/2016	3.3
	TMW02042016	Normal	North Bedrock	4/13/2016	3.0
	TMW02102015	Normal	North Bedrock	11/3/2015	2.8
	TMW02042015	Normal	North Bedrock	4/9/2015	3.3

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Summary of Perchlorate Analytical Detections (Page 5 of 6)

Groundwater Periodic Monitoring Report July through December 2016 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	14[a]
TMW16	TMW16102016	Normal	North Bedrock	10/28/2016	0.010 U
	TMW16042016	Normal	North Bedrock	4/7/2016	0.010 U
	TMW16102015	Normal	North Bedrock	10/28/2015	0.0078 J
	TMW16042015	Normal	North Bedrock	4/1/2015	0.020 J
TMW17	TMW17102016	Normal	North Bedrock	11/4/2016	0.010 U
	TMW17042016	Normal	North Bedrock	4/15/2016	0.010 UJ
	TMW17102015	Normal	North Bedrock	11/3/2015	0.010 U
	TMW17042015	Normal	North Bedrock	4/7/2015	0.020 U
TMW18	TMW18102016	Normal	North Bedrock	10/28/2016	0.010 U
	TMW18042016	Normal	North Bedrock	4/7/2016	0.010 U
	TMW18102015	Normal	North Bedrock	10/29/2015	0.010 U
	TMW18042015	Normal	North Bedrock	4/1/2015	0.061
TMW19	TMW19102016	Normal	North Bedrock	10/28/2016	0.0082 J
	DTW19102016	Duplicate	North Bedrock	10/28/2016	0.010 U
	TMW19042016	Normal	North Bedrock	4/7/2016	0.010 U
	TMW19102015	Normal	North Bedrock	10/28/2015	0.010 U
	TMW19042015	Normal	North Bedrock	4/1/2015	0.020 U
TMW30	TMW30102016	Normal	North Bedrock	10/26/2016	**1100**
	TMW30042016	Normal	North Bedrock	4/7/2016	**1100**
	TMW30102015	Normal	North Bedrock	10/29/2015	**930**
	TMW30042015	Normal	North Bedrock	4/1/2015	**1400**
TMW31D	TMW31D102016	Normal	North Bedrock	10/31/2016	**1300**
	DTW31D102016	Duplicate	North Bedrock	10/31/2016	**1600**
	TMW31D042016	Normal	North Bedrock	4/13/2016	**980**
	DTW31D042016	Duplicate	North Bedrock	4/13/2016	**970**
	TMW31D102015	Normal	North Bedrock	11/5/2015	**1200**
	DTW31D102015	Duplicate	North Bedrock	11/5/2015	**1500**
	TMW31D042015	Normal	North Bedrock	4/6/2015	**1300 J**
TMW32	TMW32102016	Normal	North Bedrock	11/2/2016	**490 J**
	TMW32042016	Normal	North Bedrock	4/13/2016	**330**
	TMW32102015	Normal	North Bedrock	11/5/2015	**200**
	TMW32042015	Normal	North Bedrock	4/9/2015	**320**
TMW36	TMW36102016	Normal	North Bedrock	10/27/2016	0.010 U
	TMW36042016	Normal	North Bedrock	4/7/2016	0.010 U
	TMW36102015	Normal	North Bedrock	10/28/2015	0.010 U
	TMW36042015	Normal	North Bedrock	4/1/2015	0.020 U
TMW37	TMW37102016	Normal	North Bedrock	10/27/2016	0.010 U
	TMW37042016	Normal	North Bedrock	4/7/2016	0.010 U
	TMW37102015	Normal	North Bedrock	10/28/2015	0.010 U
	TMW37042015	Normal	North Bedrock	4/1/2015	0.020 U
TMW38	TMW38102016	Normal	North Bedrock	11/4/2016	0.010 U
	TMW38042016	Normal	North Bedrock	4/14/2016	0.010 U
	TMW38102015	Normal	North Bedrock	11/6/2015	0.013 J
	TMW38042015	Normal	North Bedrock	4/8/2015	0.0060 J

TABLE 5-4

Summary of Perchlorate Analytical Detections (Page 6 of 6)

Groundwater Periodic Monitoring Report July through December 2016 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	**14[a]**
TMW39D	TMW39D102016	Normal	North Bedrock	10/31/2016	**460**
	TMW39D042016	Normal	North Bedrock	4/12/2016	6.1
	TMW39D102015	Normal	North Bedrock	11/4/2015	**49**
	TMW39D042015	Normal	North Bedrock	4/6/2015	**34 J**
	DTW39D042015	Duplicate	North Bedrock	4/6/2015	**32 J**
TMW40D	TMW40D102016	Normal	North Bedrock	10/31/2016	**290**
	TMW40D042016	Normal	North Bedrock	4/12/2016	**250**
	TMW40D102015	Normal	North Bedrock	11/3/2015	**260**
	TMW40D042015	Normal	North Bedrock	4/9/2015	**260**
TMW48	TMW48102016	Normal	North Bedrock	11/1/2016	**1000**
	TMW48042016	Normal	North Bedrock	4/12/2016	**880**
	TMW48102015	Normal	North Bedrock	11/4/2015	**1000**
	TMW48042015	Normal	North Bedrock	4/6/2015	**1200 J**
TMW49	TMW49102016	Normal	North Bedrock	11/2/2016	**1000 J**
	TMW49042016	Normal	North Bedrock	4/14/2016	**730 J**
	TMW49102015	Normal	North Bedrock	11/5/2015	**1100**
	TMW49042015	Normal	North Bedrock	4/9/2015	**1100**

Notes:

[a] Regional Screening Level, Residential Tapwater is 14 µg/L (EPA, 2017).

Bold indicates analyte was positively detected above regulatory limits.

µg/L = microgram(s) per liter

CAS = Chemical Abstracts Service (registry number)

EPA = U.S. Environmental Protection Agency

J = analyte was positively identified; reported value is estimated.

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 5-5

Summary of Volatile Organic Compound Analytical Detections (Page 1 of 7)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8260C (µg/L)											
					1,1,1-Trichloroethane CAS 71-55-6	1,1-Dichloroethane CAS 75-34-3	1,2,3-Trichlorobenzene CAS 87-61-6	1,2-Dichloroethane CAS 107-06-2	2-Butanone CAS 78-93-3	Acetone CAS 67-64-1	Carbon disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Methyl tert-butyl ether CAS 1634-04-4	Methylene chloride CAS 75-09-2	Toluene CAS 108-88-3
					Regulatory Limit											
					60[a]	25[a]	7[c]	5[b]	5600[c]	14000[c]	810[c]	80[b]	190[c]	140[c]	5[b]	750[a]
BGMW01	BGMW01102016	Normal	North Alluvial	11/2/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	2.6 J	10 J	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	BGMW01042016	Normal	North Alluvial	4/15/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	2.4 J	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	BGMW01102015	Normal	North Alluvial	11/5/2015	0.40 U	0.80 U	0.40 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	BGMW01042015	Normal	North Alluvial	4/2/2015	0.20 U	0.40 U	0.80 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
BGMW02	BGMW02102016	Normal	North Alluvial	11/2/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	3.0 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	BGMW02042016	Normal	North Alluvial	4/14/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	BGMW02102015	Normal	North Alluvial	11/5/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	BGMW02042015	Normal	North Alluvial	4/2/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
MW01	MW01102016	Normal	North Alluvial	10/27/2016	1.0 U	1.0 U	2.0 UJ	1.6 J	3.3 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	MW01042016	Normal	North Alluvial	4/6/2016	0.40 U	0.80 U	0.80 U	1.9	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.29 J	0.80 U	0.40 U
	MW01102015	Normal	North Alluvial	10/28/2015	0.40 U	0.80 U	0.80 U	1.6	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	MW01042015	Normal	North Alluvial	4/1/2015	0.20 U	0.40 U	0.40 U	1.6	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
MW02	MW02102016	Normal	North Alluvial	10/27/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	2.4 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	MW02042016	Normal	North Alluvial	4/6/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	MW02102015	Normal	North Alluvial	10/28/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	MW02042015	Normal	North Alluvial	4/1/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
MW03	MW03102016	Normal	North Alluvial	11/3/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	2.3 J	1.0 U
	MW03042016	Normal	North Alluvial	4/12/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	MW03102015	Normal	North Alluvial	10/30/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	MW03042015	Normal	North Alluvial	4/3/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
MW18D	MW18D102016	Normal	North Alluvial	10/28/2016	1.0 UJ	1.0 UJ	2.0 UJ	**100 J**	5.0 UJ	10 UJ	1.0 UJ	1.0 UJ	2.0 UJ	2.0 UJ	5.0 UJ	1.0 UJ
	MW18D042016	Normal	North Alluvial	4/12/2016	0.40 UJ	0.80 UJ	0.80 UJ	**97 J**	4.0 UJ	6.4 UJ	1.6 UJ	0.40 UJ	0.80 UJ	0.80 UJ	0.80 UJ	0.40 UJ
	MW18D102015	Normal	North Alluvial	11/2/2015	0.40 UJ	0.80 UJ	0.80 UJ	**95 J**	4.0 UJ	5.4 UJ	1.6 UJ	0.40 UJ	0.80 UJ	0.80 UJ	0.80 UJ	0.40 UJ
	MW18D042015	Normal	North Alluvial	4/8/2015	0.20 U	0.40 U	0.40 U	**100**	3.2 UJ	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U

TABLE 5-5

Summary of Volatile Organic Compound Analytical Detections (Page 2 of 7)

Groundwater Periodic Monitoring Report July through December 2016 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	1,2,3-Trichlorobenzene CAS 87-61-6	1,2-Dichloroethane CAS 107-06-2	2-Butanone CAS 78-93-3	Acetone CAS 67-64-1	Carbon disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Methyl tert-butyl ether CAS 1634-04-4	Methylene chloride CAS 75-09-2	Toluene CAS 108-88-3
					Regulatory Limit											
					60[a]	25[a]	7[c]	5[b]	5600[c]	14000[c]	810[c]	80[b]	190[c]	140[c]	5[b]	750[a]
MW20	MW20102016	Normal	North Alluvial	11/4/2016	1.0 U	1.0 U	2.0 U	2.6 J	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	MW20042016	Normal	North Alluvial	4/11/2016	0.40 U	0.80 U	0.80 U	4	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	DMW20102015	Duplicate	North Alluvial	11/2/2015	0.40 U	0.80 U	0.80 U	**7**	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	MW20102015	Normal	North Alluvial	11/2/2015	0.40 U	0.80 U	0.80 U	**8.4**	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	MW20042015	Normal	North Alluvial	4/3/2015	0.20 U	0.40 U	0.40 U	**5.3**	3.2 U	1.9 J	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
MW22D	MW22D102016	Normal	North Alluvial	10/28/2016	1.0 U	1.0 U	2.0 UJ	0.59 J	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	MW22D042016	Normal	North Alluvial	4/11/2016	0.40 U	0.80 U	0.80 U	0.78 J	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	MW22D102015	Normal	North Alluvial	11/2/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	MW22D042015	Normal	North Alluvial	4/6/2015	0.20 U	0.40 U	0.40 U	1.1	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
MW22S	MW22S102016	Normal	North Alluvial	10/2016	Well dry this event											
	MW22S042016	Normal	North Alluvial	4/6/2016	3.5	0.49 J	0.80 U	0.74 J	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	MW22S102015	Normal	North Alluvial	10/28/2015	2.4	0.46 J	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	MW22S042015	Normal	North Alluvial	4/2/2015	1.9	0.68 J	0.40 U	0.68 J	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
MW23	MW23102016	Normal	North Alluvial	10/27/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	2.4 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	MW23042016	Normal	North Alluvial	4/7/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	DMW23042016	Duplicate	North Alluvial	4/7/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.35 U	0.40 U
	MW23102015	Normal	North Alluvial	11/6/2015	0.40 U	0.80 U	0.23 J	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	DMW23102015	Duplicate	North Alluvial	11/6/2015	0.40 U	0.80 U	0.80 UJ	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	MW23042015	Normal	North Alluvial	4/7/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
	DMW23042015	Duplicate	North Alluvial	4/7/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
SMW01	SMW01102016	Normal	North Alluvial	11/2/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	3.9 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	SMW01042016	Normal	North Alluvial	4/8/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	SMW011102015	Normal	North Alluvial	11/3/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	SMW01042015	Normal	North Alluvial	4/8/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U

TABLE 5-5

Summary of Volatile Organic Compound Analytical Detections (Page 3 of 7)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

					EPA Method 8260C (µg/L)												
					1,1,1-Trichloroethane CAS 71-55-6	1,1-Dichloroethane CAS 75-34-3	1,2,3-Trichlorobenzene CAS 87-61-6	1,2-Dichloroethane CAS 107-06-2	2-Butanone CAS 78-93-3	Acetone CAS 67-64-1	Carbon disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Methyl tert-butyl ether CAS 1634-04-4	Methylene chloride CAS 75-09-2	Toluene CAS 108-88-3
					Regulatory Limit												
Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	60[a]	25[a]	7[c]	5[b]	5600[c]	14000[c]	810[c]	80[b]	190[c]	140[c]	5[b]	750[a]
TMW04	TMW04102016	Normal	North Alluvial	11/3/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	2.5 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW04042016	Normal	North Alluvial	4/13/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	5.1 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW04102015	Normal	North Alluvial	11/4/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW04042015	Normal	North Alluvial	4/9/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	3.9 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
TMW10	TMW10102016	Normal	North Alluvial	11/2/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	3.3 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW10042016	Normal	North Alluvial	4/12/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW10102015	Normal	North Alluvial	11/4/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW10042015	Normal	North Alluvial	4/7/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
TMW11	TMW11102016	Normal	North Alluvial	11/3/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	2.2 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	DTW11102016	Duplicate	North Alluvial	11/3/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW11042016	Normal	North Alluvial	4/11/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW11102015	Normal	North Alluvial	11/4/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW11042015	Normal	North Alluvial	4/8/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
TMW15	TMW15102016	Normal	North Alluvial	11/2/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	3.3 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW15042016	Normal	North Alluvial	4/13/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	7.1 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	DTW15042016	Duplicate	North Alluvial	4/13/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	7.7 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW15102015	Normal	North Alluvial	11/6/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	DTW15102015	Duplicate	North Alluvial	11/6/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW15042015	Normal	North Alluvial	4/8/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
	DTW15042015	Duplicate	North Alluvial	4/8/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
TMW21	TMW21102016	Normal	North Alluvial	10/27/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	2.4 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW21042016	Normal	North Alluvial	4/11/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW21102015	Normal	North Alluvial	10/29/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW21042015	Normal	North Alluvial	4/3/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U

TABLE 5-5

Summary of Volatile Organic Compound Analytical Detections (Page 4 of 7)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8260C (µg/L)											
					1,1,1-Trichloroethane CAS 71-55-6	1,1-Dichloroethane CAS 75-34-3	1,2,3-Trichlorobenzene CAS 87-61-6	1,2-Dichloroethane CAS 107-06-2	2-Butanone CAS 78-93-3	Acetone CAS 67-64-1	Carbon disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Methyl tert-butyl ether CAS 1634-04-4	Methylene chloride CAS 75-09-2	Toluene CAS 108-88-3
					Regulatory Limit											
					60[a]	25[a]	7[c]	5[b]	5600[c]	14000[c]	810[c]	80[b]	190[c]	140[c]	5[b]	750[a]
TMW22	TMW22102016	Normal	North Alluvial	10/27/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	2.9 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW22042016	Normal	North Alluvial	4/8/2016	0.40 UJ	0.80 UJ	0.80 UJ	0.40 UJ	4.0 UJ	6.4 UJ	1.6 UJ	0.40 UJ	0.80 UJ	0.80 UJ	0.32 UJ	0.40 UJ
	TMW22102015	Normal	North Alluvial	10/29/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW22042015	Normal	North Alluvial	4/1/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
TMW24	TMW24102016	Normal	North Alluvial	11/3/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW24042016	Normal	North Alluvial	4/15/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW24102015	Normal	North Alluvial	11/6/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.2 J	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW24042015	Normal	North Alluvial	4/8/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
TMW27	TMW27102016	Normal	North Alluvial	11/3/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	2.3 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW27042016	Normal	North Alluvial	4/8/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW27102015	Normal	North Alluvial	10/30/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW27042015	Normal	North Alluvial	4/7/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
TMW28	TMW28102016	Normal	North Alluvial	11/3/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	3.0 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW28042016	Normal	North Alluvial	4/11/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW28102015	Normal	North Alluvial	11/3/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW28042015	Normal	North Alluvial	4/7/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
TMW33	TMW33102016	Normal	North Alluvial	10/28/2016	1.0 U	1.0 U	2.0 UJ	**41 J**	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW33042016	Normal	North Alluvial	4/7/2016	0.40 U	0.80 U	0.80 U	**38**	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.36 U	0.40 U
	TMW33102015	Normal	North Alluvial	10/30/2015	0.40 U	0.80 U	0.80 U	**39**	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.61 U	0.40 U
	TMW33042015	Normal	North Alluvial	4/2/2015	0.20 U	0.40 U	0.40 U	**35**	3.2 U	3.0 J	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
TMW34	TMW34102016	Normal	North Alluvial	11/1/2016	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW34042016	Normal	North Alluvial	4/12/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	DTW34042016	Duplicate	North Alluvial	4/12/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	4.5 J	1.6 U	0.40 U	0.80 U	0.80 U	0.44 U	0.40 U

TABLE 5-5

Summary of Volatile Organic Compound Analytical Detections (Page 5 of 7)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

					EPA Method 8260C (µg/L)											
					1,1,1-Trichloroethane CAS 71-55-6	1,1-Dichloroethane CAS 75-34-3	1,2,3-Trichlorobenzene CAS 87-61-6	1,2-Dichloroethane CAS 107-06-2	2-Butanone CAS 78-93-3	Acetone CAS 67-64-1	Carbon disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Methyl tert-butyl ether CAS 1634-04-4	Methylene chloride CAS 75-09-2	Toluene CAS 108-88-3
					Regulatory Limit											
Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	60[a]	25[a]	7[c]	5[b]	5600[c]	14000[c]	810[c]	80[b]	190[c]	140[c]	5[b]	750[a]
TMW34	TMW34102015	Normal	North Alluvial	11/3/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	DTW34102015	Duplicate	North Alluvial	11/3/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW34042015	Normal	North Alluvial	4/3/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 UJ	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
	DTW34042015	Duplicate	North Alluvial	4/3/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	1.9 J	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
TMW35	TMW35102016	Normal	North Alluvial	10/31/2016	1.0 U	1.0 U	2.0 U	1.8 J	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	DTW35102016	Duplicate	North Alluvial	10/31/2016	1.0 U	1.0 U	2.0 U	2.0 J	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW35042016	Normal	North Alluvial	4/11/2016	0.40 U	0.80 U	0.24 J	1.5	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW35102015	Normal	North Alluvial	11/2/2015	0.40 U	0.80 U	0.80 U	1.7	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW35042015	Normal	North Alluvial	4/3/2015	0.20 U	0.40 U	0.40 U	1.8	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
TMW40S	TMW40S102016	Normal	North Alluvial	10/2016	Well dry this event											
	TMW40S042016	Normal	North Alluvial	4/7/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 J	0.80 U	0.80 U	1.4 U	0.40 U
	TMW40S102015	Normal	North Alluvial	10/28/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.41 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW40S042015	Normal	North Alluvial	4/2/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.66 J	0.80 U	0.40 U	0.72 U	0.40 U
TMW41	TMW41102016	Normal	North Alluvial	10/27/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	3.4 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW41042016	Normal	North Alluvial	4/7/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW41102015	Normal	North Alluvial	10/29/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW41042015	Normal	North Alluvial	4/1/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
TMW43	TMW43102016	Normal	North Alluvial	11/3/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	2.7 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	DTW43102016	Duplicate	North Alluvial	11/3/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	2.6 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW43042016	Normal	North Alluvial	4/13/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	11 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 UJ	0.40 U
	DTW43042016	Duplicate	North Alluvial	4/13/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	9.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW43102015	Normal	North Alluvial	11/3/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	DTW43102015	Duplicate	North Alluvial	11/3/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW43042015	Normal	North Alluvial	4/10/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.43 U	0.40 U
	DTW43042015	Duplicate	North Alluvial	4/10/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.46 U	0.40 U

TABLE 5-5

Summary of Volatile Organic Compound Analytical Detections (Page 6 of 7)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8260C (µg/L)											
					1,1,1-Trichloroethane CAS 71-55-6	1,1-Dichloroethane CAS 75-34-3	1,2,3-Trichlorobenzene CAS 87-61-6	1,2-Dichloroethane CAS 107-06-2	2-Butanone CAS 78-93-3	Acetone CAS 67-64-1	Carbon disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Methyl tert-butyl ether CAS 1634-04-4	Methylene chloride CAS 75-09-2	Toluene CAS 108-88-3
					Regulatory Limit											
					60[a]	25[a]	7[c]	5[b]	5600[c]	14000[c]	810[c]	80[b]	190[c]	140[c]	5[b]	750[a]
TMW47	TMW47102016	Normal	North Alluvial	11/4/2016	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	10 U	3.6 J	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW47042016	Normal	North Alluvial	4/14/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	0.89 J	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW47102015	Normal	North Alluvial	11/5/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.7 J	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW47042015	Normal	North Alluvial	4/10/2015	0.40 U	0.80 U	0.80 U	0.40 U	3.2 U	6.4 U	0.65 J	0.40 U	0.80 U	0.40 U	0.45 U	0.40 U
TMW14A	TMW14A102016	Normal	North Bedrock	11/3/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	5.0 U	10 U	0.71 J	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW14A042016	Normal	North Bedrock	4/14/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	0.64 J	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW14A102015	Normal	North Bedrock	11/3/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	0.83 J	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW14A042015	Normal	North Bedrock	4/8/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
TMW16	TMW16102016	Normal	North Bedrock	10/28/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW16042016	Normal	North Bedrock	4/7/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.40 U	1.2 U
	TMW16102015	Normal	North Bedrock	10/28/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW16042015	Normal	North Bedrock	4/1/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.20 J
TMW17	TMW17102016	Normal	North Bedrock	11/4/2016	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW17042016	Normal	North Bedrock	4/15/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.1 J	0.40 U	0.36 J	0.80 U	0.80 U	0.40 U
	TMW17102015	Normal	North Bedrock	11/3/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	3.9	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW17042015	Normal	North Bedrock	4/7/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	2.5	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
TMW18	TMW18102016	Normal	North Bedrock	10/28/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW18042016	Normal	North Bedrock	4/7/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.45 U	0.40 U
	TMW18102015	Normal	North Bedrock	10/29/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.18 J
	TMW18042015	Normal	North Bedrock	4/1/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	4.9 J	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	1.7
TMW19	TMW19102016	Normal	North Bedrock	10/28/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	DTW19102016	Duplicate	North Bedrock	10/28/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW19042016	Normal	North Bedrock	4/7/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.46 U	0.54 U
	TMW19102015	Normal	North Bedrock	10/28/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.38 J
	TMW19042015	Normal	North Bedrock	4/1/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.39 J

TABLE 5-5

Summary of Volatile Organic Compound Analytical Detections (Page 7 of 7)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well Identifier	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8260C (µg/L)											
					1,1,1-Trichloroethane CAS 71-55-6	1,1-Dichloroethane CAS 75-34-3	1,2,3-Trichlorobenzene CAS 87-61-6	1,2-Dichloroethane CAS 107-06-2	2-Butanone CAS 78-93-3	Acetone CAS 67-64-1	Carbon disulfide CAS 75-15-0	Chloroform CAS 67-66-3	Chloromethane CAS 74-87-3	Methyl tert-butyl ether CAS 1634-04-4	Methylene chloride CAS 75-09-2	Toluene CAS 108-88-3
					Regulatory Limit											
					60[a]	25[a]	7[c]	5[b]	5600[c]	14000[c]	810[c]	80[b]	190[c]	140[c]	5[b]	750[a]
TMW32	TMW32102016	Normal	North Bedrock	11/2/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	3.6 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW32042016	Normal	North Bedrock	4/13/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	4.7 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW32102015	Normal	North Bedrock	11/5/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW32042015	Normal	North Bedrock	4/9/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	3.1 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
TMW37	TMW37102016	Normal	North Bedrock	10/27/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	3.0 J
	TMW37042016	Normal	North Bedrock	4/7/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.44 U	0.38 U
	TMW37102015	Normal	North Bedrock	10/28/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW37042015	Normal	North Bedrock	4/1/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.28 J
TMW38	TMW38102016	Normal	North Bedrock	11/4/2016	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW38042016	Normal	North Bedrock	4/14/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.3 J	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW38102015	Normal	North Bedrock	11/6/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	2.6	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW38042015	Normal	North Bedrock	4/8/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	6.4 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	0.40 U
TMW49	TMW49102016	Normal	North Bedrock	11/2/2016	1.0 U	1.0 U	2.0 UJ	1.0 U	3.6 J	10 U	1.0 U	1.0 U	2.0 U	2.0 U	5.0 U	1.0 U
	TMW49042016	Normal	North Bedrock	4/14/2016	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW49102015	Normal	North Bedrock	11/5/2015	0.40 U	0.80 U	0.80 U	0.40 U	4.0 U	6.4 U	1.6 U	0.40 U	0.80 U	0.80 U	0.80 U	0.40 U
	TMW49042015	Normal	North Bedrock	4/9/2015	0.20 U	0.40 U	0.40 U	0.40 U	3.2 U	3.8 U	0.80 U	0.20 U	0.80 U	0.40 U	0.80 U	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 Regional Screening Levels (formerly Human Health Medium Specific Screening Levels) (EPA, 2017).

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 historical data are presented.

µg/L = microgram(s) per liter

CAS = Chemical Abstracts Service (registry number)

EPA = U.S. Environmental Protection Agency

J = analyte was positively identified; reported value is estimated

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 1 of 6)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

					EPA Method 8015C (µg/L)		EPA Method 8270C (µg/L)																	
					Diesel Range Organics CAS DRO	Gasoline Range Organics CAS GRO	1,2-Diphenylhydrazine CAS 122-66-7	2,4-Dinitrophenol CAS 51-28-5	4-Nitrophenol CAS 100-02-7	Acenaphthene CAS 83-32-9	Acetophenone CAS 98-86-2	Benzo(a)anthracene CAS 56-55-3	Benzoic acid CAS 65-85-0	Benzyl alcohol CAS 100-51-6	Bis(2-ethylhexyl) phthalate CAS 117-81-7	Dibenzofuran CAS 132-64-9	Diethyl phthalate CAS 84-66-2	Dimethyl phthalate CAS 131-11-3	Fluoranthene CAS 206-44-0	Fluorene CAS 86-73-7	Isophorone CAS 78-59-1	Phenanthrene CAS 85-01-8	Pyrene CAS 129-00-0
	Sample	Sample	Groundwater	Sample	Regulatory Limit																			
Well ID	Identifier	Type	Zone	Date	NE	NE	0.78[c]	39[c]	NE	530[c]	1900[c]	0.3[c]	75000[c]	2000[c]	6[b]	7.9[c]	15000[c]	NE	800[c]	290[c]	780[c]	NE	120[c]
BGMW02	BGMW02102016	Normal	North Alluvial	11/2/2016	NA	NA	0.56 U	33 U	4.4 U	1.1 U	0.55 U	1.1 U	33 U	0.55 U	2.2 U	1.1 U	1.1 U	0.55 U	0.55 U	1.1 U	0.55 U	1.1 U	1.1 U
	BGMW02042016	Normal	North Alluvial	4/14/2016	NA	NA	0.57 U	34 U	4.5 U	1.1 U	0.56 U	1.1 U	16 J	0.56 U	2.2 U	1.1 U	1.1 U	0.56 U	0.56 U	1.1 U	0.56 U	1.1 U	1.1 U
	BGMW02102015	Normal	North Alluvial	11/5/2015	NA	NA	0.49 U	29 U	3.9 U	0.98 U	4.9 U	0.98 U	29 U	0.49 U	2.0 U	0.98 U	0.98 U	0.49 U	0.49 U	0.98 U	0.49 U	0.98 U	0.98 U
	BGMW02042015	Normal	North Alluvial	4/2/2015	NA	NA	1.0 U	21 U	10 U	1.0 U	5.2 U	1.0 U	52 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
BGMW03	BGMW03102016	Normal	North Alluvial	10/28/2016	NA	NA	0.54 U	32 U	4.2 U	1.1 U	0.53 U	1.1 U	32 U	0.53 U	2.1 U	1.1 U	1.1 U	0.53 U	0.53 U	1.1 U	0.53 U	1.1 U	1.1 U
	BGMW03042016	Normal	North Alluvial	4/8/2016	NA	NA	0.50 U	30 U	4.0 U	1.0 U	0.50 U	1.0 U	30 U	0.50 U	2.0 U	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U
	BGMW03102015	Normal	North Alluvial	10/30/2015	NA	NA	0.52 U	31 U	4.1 U	1.0 U	5.1 U	1.0 U	12 J	0.37 J	2.1 U	1.0 U	1.0 U	0.51 U	0.51 U	1.0 U	0.51 U	1.0 U	1.0 U
	BGMW03042015	Normal	North Alluvial	4/1/2015	NA	NA	1.0 U	20 U	10 U	1.0 U	5.1 U	1.0 U	51 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
FW31	FW31102016	Normal	North Alluvial	10/26/2016	NA	NA	0.54 U	32 U	4.3 U	1.1 U	0.53 U	1.1 U	32 U	0.53 U	1.1 J	1.1 U	1.1 U	0.53 U	0.53 U	1.1 U	0.53 U	1.1 U	1.1 U
	FW31042016	Normal	North Alluvial	4/7/2016	NA	NA	0.52 U	31 U	4.1 U	1.0 U	0.51 U	1.0 U	31 U	0.51 U	2.1 U	1.0 U	1.0 U	0.51 U	0.51 U	1.0 U	0.51 U	1.0 U	1.0 U
	FW3112015	Normal	North Alluvial	11/2/2015	NA	NA	0.52 U	31 U	4.1 U	1.0 U	5.1 U	1.0 U	31 U	0.51 U	2.0 U	1.0 U	1.0 U	0.51 U	0.51 U	1.0 U	0.51 U	1.0 U	1.0 U
	FW31042015	Normal	North Alluvial	4/1/2015	NA	NA	1.0 U	21 U	10 U	1.0 U	5.2 U	1.0 U	52 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW01	MW01102016	Normal	North Alluvial	10/27/2016	54 J	25 U	NA																
	MW01042016	Normal	North Alluvial	4/6/2016	160 U	100 U	NA																
	MW01102015	Normal	North Alluvial	10/28/2015	120 U	25 U	NA																
	MW01042015	Normal	North Alluvial	4/1/2015	300	20 U	NA																
MW02	MW02102016	Normal	North Alluvial	10/28/2016	52 U	25 U	NA																
	MW02042016	Normal	North Alluvial	4/6/2016	87 U	100 U	NA																
	MW02102015	Normal	North Alluvial	10/28/2015	480 U	25 U	NA																
	MW02042015	Normal	North Alluvial	4/1/2015	810	71	NA																
MW03	MW03102016	Normal	North Alluvial	11/3/2016	34 J	25 U	NA																
	MW03042016	Normal	North Alluvial	4/12/2016	44 U	100 UJ	NA																
	MW03102015	Normal	North Alluvial	10/30/2015	140 U	25 U	NA																
	MW03042015	Normal	North Alluvial	4/3/2015	55 J	20 U	NA																
MW18D	MW18D102016	Normal	North Alluvial	10/28/2016	61 U	24 J	NA																
	MW18D042016	Normal	North Alluvial	4/12/2016	64 U	69 J	NA																
	MW18D102015	Normal	North Alluvial	11/2/2015	510	39 J	NA																
	MW18D042015	Normal	North Alluvial	4/8/2015	1100	54 J	NA																
MW20	MW20102016	Normal	North Alluvial	11/4/2016	53 J	25 U	0.55 U	32 U	4.3 U	1.1 U	0.54 U	1.1 U	32 U	0.54 U	2.2 U	1.1 U	1.1 U	0.54 U	0.54 U	1.1 U	0.54 U	1.1 U	1.1 U
	MW20042016	Normal	North Alluvial	4/11/2016	48 J	100 U	0.54 U	32 U	4.3 U	1.1 U	0.54 U	1.1 U	32 U	0.54 U	0.71 J	1.1 U	1.1 U	0.54 U	0.54 U	1.1 U	0.54 U	1.1 U	1.1 U
	MW20102015	Normal	North Alluvial	11/2/2015	130 U	25 U	0.26 J	34 U	4.1 U	1.1 U	0.29 UJ	1.1 U	34 U	0.43 UJ	1.6 J	1.1 U	1.1 U	0.26 J	0.22 J	1.1 U	0.28 J	1.1 U	1.1 U
	DMW20102015	Duplicate	North Alluvial	11/2/2015	130 U	25 U	0.98 U	20 U	4.5 U	0.98 U	4.9 U	0.98 U	49 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
	MW20042015	Normal	North Alluvial	4/3/2015	77 J	20 U	1.0 U	21 U	9.8 U	1.0 UJ	5.2 U	1.0 UJ	52 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ

TABLE 5-6

Summary of Semivolatile Organic Compounds and Total Petroleum Hydrocarbons Analytical Results (Page 2 of 6)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well ID	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8015C (µg/L)		EPA Method 8270C (µg/L)																
					Diesel Range Organics CAS DRO	Gasoline Range Organics CAS GRO	1,2-Diphenylhydrazine CAS 122-66-7	2,4-Dinitrophenol CAS 51-28-5	4-Nitrophenol CAS 100-02-7	Acenaphthene CAS 83-32-9	Acetophenone CAS 98-86-2	Benzo(a)anthracene CAS 56-55-3	Benzoic acid CAS 65-85-0	Benzyl alcohol CAS 100-51-6	Bis(2-ethylhexyl) phthalate CAS 117-81-7	Dibenzofuran CAS 132-64-9	Diethyl phthalate CAS 84-66-2	Dimethyl phthalate CAS 131-11-3	Fluoranthene CAS 206-44-0	Fluorene CAS 86-73-7	Isophorone CAS 78-59-1	Phenanthrene CAS 85-01-8	Pyrene CAS 129-00-0
					Regulatory Limit																		
					NE	NE	0.78[c]	39[c]	NE	530[c]	1900[c]	0.3[c]	75000[c]	2000[c]	6[b]	7.9[c]	15000[c]	NE	800[c]	290[c]	780[c]	NE	120[c]
MW22D	MW22D102016	Normal	North Alluvial	10/28/2016	51 U	25 U	0.51 U	30 U	4.0 U	1.0 U	0.50 U	1.0 U	30 U	0.50 U	2.0 U	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U
	MW22D042016	Normal	North Alluvial	4/11/2016	41 J	100 U	0.58 U	34 U	4.6 U	1.1 U	0.57 U	1.1 U	34 U	0.57 U	2.3 U	1.1 U	1.1 U	0.57 U	0.57 U	1.1 U	0.57 U	1.1 U	1.1 U
	MW22D102015	Normal	North Alluvial	11/2/2015	72 J	25 U	0.52 U	31 U	4.2 U	1.0 U	5.2 U	1.0 U	31 U	0.52 U	2.1 U	1.0 U	1.0 U	0.52 U	0.52 U	1.0 U	0.52 U	1.0 U	1.0 U
	MW22D042015	Normal	North Alluvial	4/6/2015	44 J	20 U	1.0 U	20 U	10 U	1.0 U	5.1 U	1.0 U	51 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW22S	MW22S042016	Normal	North Alluvial	10/2016	Well dry this event																		
	MW22S042016	Normal	North Alluvial	4/7/2016	110 U	100 U	0.54 U	32 U	4.3 U	1.1 U	5.4 U	1.1 U	32 U	0.54 U	1.6 J	1.1 U	1.1 U	0.54 U	0.54 U	1.1 U	0.54 U	1.1 U	1.1 U
	MW22S102015	Normal	North Alluvial	11/2/2015	160 J	25 U	1.0 U	20 U	4.3 U	1.0 U	5.0 U	1.0 U	50 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	MW22S042015	Normal	North Alluvial	4/1/2015	250 J	20 U	1.1 U	21 U	10 U	1.1 UJ	5.4 U	1.1 UJ	54 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 UJ	1.1 UJ	1.1 U	1.1 UJ	1.1 UJ
MW23	MW23102016	Normal	North Alluvial	10/27/2016	NA	NA	0.51 U	30 U	4.0 U	1.0 U	0.50 U	1.0 U	30 U	0.50 U	1.3 J	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U
	MW23042016	Normal	North Alluvial	4/7/2016	NA	NA	0.50 U	30 U	3.9 U	0.98 U	0.49 U	0.98 U	30 U	0.49 U	0.70 J	0.98 U	0.98 U	0.49 U	0.49 U	0.98 U	0.49 U	0.98 U	0.98 U
	DMW23042016	Duplicate	North Alluvial	4/7/2016	NA	NA	0.51 U	31 U	4.1 U	1.0 U	0.51 U	1.0 U	31 U	0.51 U	2.0 U	1.0 U	1.0 U	0.51 U	0.51 U	1.0 U	0.51 U	1.0 U	1.0 U
	MW23102015	Normal	North Alluvial	11/6/2015	NA	NA	0.51 U	30 U	4.0 U	1.0 U	5.1 U	1.0 U	11 J	0.48 J	0.63 J	1.0 U	1.0 U	0.51 U	0.51 U	1.0 U	0.51 U	1.0 U	1.0 U
	DMW23102015	Duplicate	North Alluvial	11/6/2015	NA	NA	0.52 U	31 U	4.1 U	1.0 U	5.1 U	1.0 U	11 J	0.32 J	2.1 UJ	1.0 U	1.0 U	0.51 U	0.51 U	1.0 U	0.51 U	1.0 U	1.0 U
	MW23042015	Normal	North Alluvial	4/7/2015	NA	NA	1.0 UJ	20 U	10 U	1.0 UJ	5.0 UJ	1.0 U	50 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U
	DMW23042015	Duplicate	North Alluvial	4/7/2015	NA	NA	0.35 J	19 U	9.7 U	0.38 J	0.41 J	0.97 U	48 U	0.31 J	0.74 J	0.39 J	0.43 J	0.97 U	0.32 J	0.34 J	0.97 U	0.37 J	0.97 U
MW24	MW24102016	Normal	North Alluvial	10/26/2016	NA	NA	0.51 U	30 U	4.0 U	1.0 U	0.50 U	1.0 U	30 U	0.50 U	2.0 U	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U
	DMW24102016	Duplicate	North Alluvial	10/26/2016	NA	NA	0.49 U	29 U	3.9 U	0.98 U	0.49 U	0.98 U	29 U	0.49 U	1.0 J	0.98 U	0.98 U	0.49 U	0.49 U	0.98 U	0.49 U	0.98 U	0.98 U
	MW24042016	Normal	North Alluvial	4/6/2016	NA	NA	0.49 U	29 U	3.9 U	0.97 U	0.48 U	0.97 U	29 U	0.48 U	1.9 U	0.97 U	0.97 U	0.48 U	0.48 U	0.97 U	0.48 U	0.97 U	0.97 U
	DMW24042016	Duplicate	North Alluvial	4/6/2016	NA	NA	0.49 U	29 U	3.8 U	0.96 U	0.48 U	0.96 U	29 U	0.48 U	1.9 U	0.96 U	0.96 U	0.48 U	0.48 U	0.96 U	0.48 U	0.96 U	0.96 U
	MW24102015	Normal	North Alluvial	11/5/2015	NA	NA	0.50 U	30 U	3.9 U	0.99 U	4.9 U	0.99 U	30 U	0.49 U	2.0 U	0.99 U	0.99 U	0.49 U	0.49 U	0.99 U	0.49 U	0.99 U	0.99 U
	MW24042015	Normal	North Alluvial	4/6/2015	NA	NA	1.0 U	20 U	10 U	1.0 U	5.0 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	DMW24042015	Duplicate	North Alluvial	4/6/2015	NA	NA	1.0 U	20 U	10 U	1.0 U	5.1 U	1.0 U	51 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
SMW01	SMW01102016	Normal	North Alluvial	11/2/2016	NA	NA	0.55 U	33 U	4.4 U	1.1 U	0.55 U	1.1 U	33 U	0.55 U	2.2 U	1.1 U	1.1 U	0.55 U	0.55 U	1.1 U	0.55 U	1.1 U	1.1 U
	SMW01042016	Normal	North Alluvial	4/8/2016	NA	NA	0.55 U	33 U	4.4 U	1.1 U	0.54 U	1.1 U	19 J	0.54 U	2.2 U	1.1 U	1.1 U	0.54 U	0.54 U	1.1 U	0.54 U	1.1 U	1.1 U
	SMW011102015	Normal	North Alluvial	11/3/2015	NA	NA	0.52 U	31 U	4.2 U	1.0 U	5.2 U	1.0 U	31 U	0.52 U	2.1 U	1.0 U	1.0 U	0.52 U	0.52 U	1.0 U	0.52 U	1.0 U	1.0 U
	SMW01042015	Normal	North Alluvial	4/8/2015	NA	NA	1.0 U	20 U	10 U	1.0 U	5.1 U	1.0 U	51 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TMW03	TMW03102016	Normal	North Alluvial	10/31/2016	NA	NA	0.55 U	**40 J**	24 J	1.1 U	0.54 U	1.1 U	12 U	0.54 U	2.2 U	1.1 U	1.1 U	0.54 U	0.54 U	1.1 U	0.36 J	1.1 U	1.1 U
	TMW03042016	Normal	North Alluvial	4/8/2016	NA	NA	0.52 U	**48 J**	4.1 U	1.0 U	0.52 U	1.0 U	31 U	0.52 U	2.1 U	1.0 U	1.0 U	0.52 U	0.52 U	1.0 U	0.52 U	1.0 U	1.0 U
	TMW03102015	Normal	North Alluvial	11/4/2015	NA	NA	0.56 U	28 J	4.5 U	1.1 U	5.6 U	1.1 U	33 U	0.56 U	2.2 U	1.1 U	1.1 U	0.56 U	0.56 U	1.1 U	0.56 U	1.1 U	1.1 U
	TMW03042015	Normal	North Alluvial	4/9/2015	NA	NA	NA																

TABLE 5-6

Summary of Semivolatile Organic Compounds and Total Petroleum Hydrocarbons Analytical Results (Page 3 of 6)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well ID	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8015C (µg/L)		EPA Method 8270C (µg/L)																
					Diesel Range Organics CAS DRO	Gasoline Range Organics CAS GRO	1,2-Diphenylhydrazine CAS 122-66-7	2,4-Dinitrophenol CAS 51-28-5	4-Nitrophenol CAS 100-02-7	Acenaphthene CAS 83-32-9	Acetophenone CAS 98-86-2	Benzo(a)anthracene CAS 56-55-3	Benzoic acid CAS 65-85-0	Benzyl alcohol CAS 100-51-6	Bis(2-ethylhexyl) phthalate CAS 117-81-7	Dibenzofuran CAS 132-64-9	Diethyl phthalate CAS 84-66-2	Dimethyl phthalate CAS 131-11-3	Fluoranthene CAS 206-44-0	Fluorene CAS 86-73-7	Isophorone CAS 78-59-1	Phenanthrene CAS 85-01-8	Pyrene CAS 129-00-0
					Regulatory Limit																		
					NE	NE	0.78[c]	39[c]	NE	530[c]	1900[c]	0.3[c]	75000[c]	2000[c]	6[b]	7.9[c]	15000[c]	NE	800[c]	290[c]	780[c]	NE	120[c]
TMW04	TMW04102016	Normal	North Alluvial	11/3/2016	NA	NA	0.54 U	32 U	4.3 U	1.1 U	0.53 U	1.1 U	32 U	0.53 U	2.1 U	1.1 U	1.1 U	0.53 U	0.53 U	1.1 U	0.53 U	1.1 U	1.1 U
	TMW04042016	Normal	North Alluvial	4/13/2016	NA	NA	0.55 U	33 U	4.3 U	1.1 U	0.54 U	1.1 U	33 U	0.54 U	2.2 U	1.1 U	1.1 U	0.54 U	0.54 U	1.1 U	0.54 U	1.1 U	1.1 U
	TMW04102015	Normal	North Alluvial	11/4/2015	NA	NA	0.54 U	32 U	4.3 U	1.1 U	5.3 U	1.1 U	32 U	0.53 U	2.1 U	1.1 U	1.1 U	0.53 U	0.53 U	1.1 U	0.53 U	1.1 U	1.1 U
	TMW04042015	Normal	North Alluvial	4/9/2015	NA	NA	1.0 U	21 U	10 U	1.0 U	5.2 U	1.0 U	52 U	1.0 U	1.0 U	1.0 U	0.52 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TMW07	TMW07102016	Normal	North Alluvial	10/27/2016	NA	NA	0.52 U	31 U	4.1 U	1.0 U	0.52 U	1.0 U	31 U	0.52 U	2.3 J	1.0 U	1.0 U	0.52 U	0.52 U	1.0 U	0.52 U	1.0 U	1.0 U
	TMW07042016	Normal	North Alluvial	4/8/2016	NA	NA	0.53 U	31 U	4.2 U	1.0 U	0.52 U	1.0 U	31 U	0.52 U	1.1 J	1.0 U	1.0 U	0.52 U	0.52 U	1.0 U	0.52 U	1.0 U	1.0 U
	TMW07102015	Normal	North Alluvial	10/30/2015	NA	NA	0.48 U	28 U	3.8 U	0.95 U	4.7 U	0.95 U	11 J	0.47 U	4.3 J	0.95 U	0.95 U	0.47 U	0.47 U	0.95 U	0.47 U	0.95 U	0.95 U
	TMW07042015	Normal	North Alluvial	4/1/2015	NA	NA	0.99 U	20 U	9.9 U	0.99 U	5.0 U	0.99 U	50 U	0.99 U	2.1 J	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
TMW08	TMW08102016	Normal	North Alluvial	11/1/2016	39 J	25 U	NA																
	DTW08102016	Duplicate	North Alluvial	11/1/2016	37 J	25 U	NA																
	TMW08042016	Normal	North Alluvial	4/12/2016	50 U	100 UJ	NA																
	TMW08102015	Normal	North Alluvial	11/5/2015	110 U	25 U	NA																
	TMW08042015	Normal	North Alluvial	4/8/2015	66 J	20 UJ	NA																
TMW22	TMW22102016	Normal	North Alluvial	10/27/2016	NA	NA	0.55 U	33 U	4.4 U	1.1 U	0.54 U	1.1 U	33 U	0.54 U	1.9 J	1.1 U	1.1 U	0.54 U	0.54 U	1.1 U	0.54 U	1.1 U	1.1 U
	TMW22042016	Normal	North Alluvial	4/8/2016	NA	NA	0.52 U	11 J	4.1 U	1.0 U	0.52 U	1.0 U	31 U	0.52 U	0.78 J	1.0 U	1.0 U	0.52 U	0.52 U	1.0 U	0.52 U	1.0 U	1.0 U
	TMW22102015	Normal	North Alluvial	10/29/2015	NA	NA	0.53 U	25 J	4.2 U	1.0 U	5.2 U	1.0 U	12 J	0.52 U	2.1 U	1.0 U	1.0 U	0.52 U	0.52 U	1.0 U	0.52 U	1.0 U	1.0 U
	TMW22042015	Normal	North Alluvial	4/1/2015	NA	NA	0.97 U	11 J	9.7 U	0.97 U	4.9 U	0.97 U	49 U	0.97 U	1.9 J	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U
TMW31S	TMW31S102016	Normal	North Alluvial	10/27/2016	NA	NA	0.50 U	30 U	4.0 U	0.99 U	0.50 U	0.99 U	30 U	0.50 U	1.1 J	0.99 U	0.99 U	0.50 U	0.50 U	0.99 U	0.50 U	0.99 U	0.99 U
	TMW31S042016	Normal	North Alluvial	4/6/2016	NA	NA	0.55 U	33 U	4.4 U	1.1 U	0.54 U	1.1 U	33 U	0.54 U	2.2 U	1.1 U	1.1 U	0.54 U	0.54 U	1.1 U	0.54 U	1.1 U	1.1 U
	TMW31S102015	Normal	North Alluvial	10/29/2015	NA	NA	0.49 U	29 U	3.9 U	0.97 U	4.8 U	0.97 U	29 U	0.48 U	1.9 U	0.97 U	0.97 U	0.48 U	0.48 U	0.97 U	0.48 U	0.97 U	0.97 U
	TMW31S042015	Normal	North Alluvial	4/2/2015	NA	NA	0.96 U	19 U	9.6 U	0.96 U	4.8 U	0.96 U	48 UJ	0.96 U	0.96 U	0.96 U	0.96 U	0.20 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U
TMW33	TMW33102016	Normal	North Alluvial	10/28/2016	62 U	25 UJ	0.51 U	30 U	4.0 U	1.0 U	0.50 U	1.0 U	30 U	0.50 U	2.0 U	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U
	TMW33042016	Normal	North Alluvial	4/7/2016	85 U	100 U	0.50 U	30 U	4.0 U	1.0 U	0.50 U	1.0 U	30 U	0.50 U	2.0 U	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U
	TMW33102015	Normal	North Alluvial	10/30/2015	100 J	14 J	0.49 UJ	29 UJ	3.9 UJ	0.98 UJ	4.9 UJ	0.98 UJ	10 J	0.49 UJ	2.0 UJ	0.98 UJ	0.98 UJ	0.49 UJ	0.49 UJ	0.98 UJ	0.49 UJ	0.98 UJ	0.98 UJ
	TMW33042015	Normal	North Alluvial	4/2/2015	79 J	20 U	0.28 U	20 U	10 U	1.0 U	5.0 U	1.0 U	50 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TMW34	TMW34102016	Normal	North Alluvial	11/1/2016	120 U	25 U	NA																
	TMW34042016	Normal	North Alluvial	4/12/2016	130 U	100 UJ	NA																
	DTW34042016	Duplicate	North Alluvial	4/12/2016	130 U	100 UJ	NA																
	TMW34102015	Normal	North Alluvial	11/3/2015	130 U	25 U	NA																
	DTW34102015	Duplicate	North Alluvial	11/3/2015	140 U	25 U	NA																
	TMW34042015	Normal	North Alluvial	4/3/2015	150 J	20 U	NA																
	DTW34042015	Duplicate	North Alluvial	4/3/2015	65 J	20 U	NA																

TABLE 5-6

Summary of Semivolatile Organic Compounds and Total Petroleum Hydrocarbons Analytical Results (Page 4 of 6)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well ID	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8015C (µg/L)		EPA Method 8270C (µg/L)																
					Diesel Range Organics CAS DRO	Gasoline Range Organics CAS GRO	1,2-Diphenylhydrazine CAS 122-66-7	2,4-Dinitrophenol CAS 51-28-5	4-Nitrophenol CAS 100-02-7	Acenaphthene CAS 83-32-9	Acetophenone CAS 98-86-2	Benzo(a)anthracene CAS 56-55-3	Benzoic acid CAS 65-85-0	Benzyl alcohol CAS 100-51-6	Bis(2-ethylhexyl) phthalate CAS 117-81-7	Dibenzofuran CAS 132-64-9	Diethyl phthalate CAS 84-66-2	Dimethyl phthalate CAS 131-11-3	Fluoranthene CAS 206-44-0	Fluorene CAS 86-73-7	Isophorone CAS 78-59-1	Phenanthrene CAS 85-01-8	Pyrene CAS 129-00-0
					Regulatory Limit																		
					NE	NE	0.78[c]	39[c]	NE	530[c]	1900[c]	0.3[c]	75000[c]	2000[c]	6[b]	7.9[c]	15000[c]	NE	800[c]	290[c]	780[c]	NE	120[c]
TMW35	TMW35102016	Normal	North Alluvial	10/31/2016	51 J	25 U	0.55 U	32 U	4.3 U	1.1 U	0.54 U	1.1 U	20 U	0.54 U	2.2 U	1.1 U	1.1 U	0.54 U	0.54 U	1.1 U	0.54 U	1.1 U	1.1 U
	DTW35102016	Duplicate	North Alluvial	10/31/2016	49 J	25 U	0.55 U	33 U	4.4 U	1.1 U	0.55 U	1.1 U	21 U	0.55 U	2.2 U	1.1 U	1.1 U	0.55 U	0.55 U	1.1 U	0.55 U	1.1 U	1.1 U
	TMW35042016	Normal	North Alluvial	4/11/2016	39 J	100 U	0.40 J	31 U	4.2 U	0.46 J	0.36 J	1.0 U	31 U	0.36 J	2.1 U	0.50 J	0.46 J	0.45 J	0.46 J	0.47 J	0.38 J	0.57 J	0.46 J
	TMW35102015	Normal	North Alluvial	11/2/2015	76 J	25 U	0.51 U	30 U	4.0 U	1.0 U	5.1 U	1.0 U	30 U	0.51 U	2.0 U	1.0 U	1.0 U	0.51 U	0.51 U	1.0 U	0.51 U	1.0 U	1.0 U
	TMW35042015	Normal	North Alluvial	4/3/2015	69 J	20 U	1.0 U	20 U	10 U	1.0 U	5.1 U	1.0 U	51 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TMW39S	TMW39S102016	Normal	North Alluvial	10/27/2016	NA	NA	0.51 U	30 U	4.0 U	1.0 U	0.50 U	1.0 U	30 U	0.50 U	1.1 J	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U
	TMW39S042016	Normal	North Alluvial	4/6/2016	NA	NA	0.51 U	30 U	4.1 U	1.0 U	0.51 U	1.0 U	10 J	0.51 U	2.0 U	1.0 U	1.0 U	0.51 U	0.51 U	1.0 U	0.51 U	1.0 U	1.0 U
	TMW39S102015	Normal	North Alluvial	10/29/2015	NA	NA	0.51 U	30 U	4.0 U	1.0 U	5.0 U	1.0 U	30 U	0.50 U	2.0 U	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U
	TMW39S042015	Normal	North Alluvial	4/1/2015	NA	NA	1.0 U	21 U	10 U	1.0 U	5.1 U	1.0 U	51 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TMW40S	TMW40S102016	Normal	North Alluvial	10/2016	Well dry this event																		
	TMW40S042016	Normal	North Alluvial	4/11/2016	NA	NA	0.51 U	16 J	4.0 U	1.0 U	0.50 U	1.0 U	30 U	0.50 U	2.0 U	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U
	TMW40S102015	Normal	North Alluvial	10/29/2015	NA	NA	0.53 U	19 J	4.2 U	1.0 U	5.2 U	1.0 U	31 U	0.52 U	2.1 U	1.0 U	1.0 U	0.52 U	0.52 U	1.0 U	0.52 U	1.0 U	1.0 U
	TMW40S042015	Normal	North Alluvial	4/1/2015	NA	NA	1.0 U	15 J	10 U	1.0 U	5.2 U	1.0 U	52 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TMW41	TMW41102016	Normal	North Alluvial	10/27/2016	NA	NA	0.53 U	32 U	4.2 U	1.1 U	0.53 U	1.1 U	32 U	0.53 U	1.0 J	1.1 U	1.1 U	0.53 U	0.53 U	1.1 U	0.53 U	1.1 U	1.1 U
	TMW41042016	Normal	North Alluvial	4/7/2016	NA	NA	0.57 U	34 U	4.5 U	1.1 U	0.56 U	1.1 U	34 U	0.56 U	1.1 J	1.1 U	1.1 U	0.56 U	0.56 U	1.1 U	0.56 U	1.1 U	1.1 U
	TMW41102015	Normal	North Alluvial	10/29/2015	NA	NA	0.52 U	31 U	4.1 U	1.0 U	5.1 U	1.0 U	12 J	0.51 U	2.0 U	1.0 U	1.0 U	0.51 U	0.51 U	1.0 U	0.51 U	1.0 U	1.0 U
	TMW41042015	Normal	North Alluvial	4/1/2015	NA	NA	0.99 U	20 U	9.9 U	0.99 U	5.0 U	0.99 U	50 U	0.99 U	1.0 J	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
TMW43	TMW43102016	Normal	North Alluvial	11/3/2016	NA	NA	0.54 U	32 U	4.2 U	1.1 U	0.53 U	1.1 U	32 U	0.53 U	2.1 U	1.1 U	1.1 U	0.53 U	0.53 U	1.1 U	0.53 U	1.1 U	1.1 U
	DTW43102016	Duplicate	North Alluvial	11/3/2016	NA	NA	0.54 U	32 U	4.2 U	1.1 U	0.53 U	1.1 U	32 U	0.53 U	2.1 U	1.1 U	1.1 U	0.53 U	0.53 U	1.1 U	0.53 U	1.1 U	1.1 U
	TMW43042016	Normal	North Alluvial	4/13/2016	NA	NA	0.48 U	29 U	3.8 U	0.95 U	0.48 U	0.95 U	29 U	0.48 U	1.9 U	0.95 U	0.95 U	0.48 U	0.48 U	0.95 U	0.48 U	0.95 U	0.95 U
	DTW43042016	Duplicate	North Alluvial	4/13/2016	NA	NA	0.51 U	30 U	4.0 U	1.0 U	0.50 U	1.0 U	30 U	0.50 U	2.0 U	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	0.21 J	0.26 J	1.0 U
	TMW43102015	Normal	North Alluvial	11/3/2015	NA	NA	0.50 U	30 U	3.9 U	0.98 U	4.9 U	0.98 U	30 U	0.30 J	2.0 U	0.98 U	0.98 U	0.49 UJ	0.49 UJ	0.98 U	0.49 UJ	0.98 UJ	0.98 U
	DTW43102015	Duplicate	North Alluvial	11/3/2015	NA	NA	0.51 U	30 U	4.0 U	1.0 U	5.0 U	1.0 U	30 U	0.50 UJ	2.0 U	1.0 U	1.0 U	0.23 J	0.21 J	1.0 U	0.21 J	0.26 J	1.0 U
	TMW43042015	Normal	North Alluvial	4/10/2015	NA	NA	1.1 U	22 U	11 U	1.1 U	5.4 U	1.1 U	54 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
	DTW43042015	Duplicate	North Alluvial	4/10/2015	NA	NA	0.97 U	19 U	9.7 U	0.97 U	4.9 U	0.97 U	49 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U
TMW44	TMW44102016	Normal	North Alluvial	10/27/2016	NA	NA	0.52 U	31 U	4.2 U	1.0 U	0.52 U	1.0 U	31 U	0.52 U	2.2 J	1.0 U	1.0 U	0.52 U	0.52 U	1.0 U	0.52 U	1.0 U	1.0 U
	TMW44042016	Normal	North Alluvial	4/8/2016	NA	NA	0.54 U	32 U	4.3 U	1.1 U	0.54 U	1.1 U	32 U	0.54 U	2.2 U	1.1 U	1.1 U	0.54 U	0.54 U	1.1 U	0.54 U	1.1 U	1.1 U
	TMW44102015	Normal	North Alluvial	10/29/2015	NA	NA	0.48 U	29 U	3.8 U	0.95 U	4.8 U	0.95 U	11 J	0.48 U	1.9 U	0.95 U	0.95 U	0.48 U	0.48 U	0.95 U	0.48 U	0.95 U	0.95 U
	TMW44042015	Normal	North Alluvial	4/1/2015	NA	NA	1.0 U	10 J	10 U	1.0 U	5.0 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TMW45	TMW45102016	Normal	North Alluvial	11/4/2016	NA	NA	0.54 U	32 U	4.3 U	1.1 U	0.54 U	1.1 U	32 U	0.54 U	2.1 U	1.1 U	1.1 U	0.54 U	0.54 U	1.1 U	0.54 U	1.1 U	1.1 U
	DTW45102016	Duplicate	North Alluvial	11/4/2016	NA	NA	0.54 U	32 U	4.3 U	1.1 U	0.54 U	1.1 U	32 U	0.54 U	2.3 J	1.1 U	1.1 U	0.54 U	0.54 U	1.1 U	0.54 U	1.1 U	1.1 U
	TMW45042016	Normal	North Alluvial	4/14/2016	NA	NA	0.58 U	35 U	4.6 U	1.2 U	0.58 U	1.2 U	12 J	0.58 U	2.3 U	1.2 U	1.2 U	0.58 U	0.58 U	1.2 U	0.58 U	1.2 U	1.2 U
	TMW45102015	Normal	North Alluvial	11/3/2015	NA	NA	0.53 U	32 U	4.2 U	1.1 U	5.3 U	1.1 U	32 U	0.53 U	2.1 U	1.1 U	1.1 U	0.53 U	0.53 U	1.1 U	0.53 U	1.1 U	1.1 U
	TMW45042015	Normal	North Alluvial	4/9/2015	NA	NA	1.0 U	21 U	10 U	1.0 U	5.2 U	1.0 U	10 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

TABLE 5-6

Summary of Semivolatile Organic Compounds and Total Petroleum Hydrocarbons Analytical Results (Page 5 of 6)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well ID	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8015C (µg/L)		EPA Method 8270C (µg/L)																	
					Diesel Range Organics CAS DRO	Gasoline Range Organics CAS GRO	1,2-Diphenylhydrazine CAS 122-66-7	2,4-Dinitrophenol CAS 51-28-5	4-Nitrophenol CAS 100-02-7	Acenaphthene CAS 83-32-9	Acetophenone CAS 98-86-2	Benzo(a)anthracene CAS 56-55-3	Benzoic acid CAS 65-85-0	Benzyl alcohol CAS 100-51-6	Bis(2-ethylhexyl) phthalate CAS 117-81-7	Dibenzofuran CAS 132-64-9	Diethyl phthalate CAS 84-66-2	Dimethyl phthalate CAS 131-11-3	Fluoranthene CAS 206-44-0	Fluorene CAS 86-73-7	Isophorone CAS 78-59-1	Phenanthrene CAS 85-01-8	Pyrene CAS 129-00-0
					Regulatory Limit																			
					NE	NE	0.78[c]	39[c]	NE	530[c]	1900[c]	0.3[c]	75000[c]	2000[c]	6[b]	7.9[c]	15000[c]	NE	800[c]	290[c]	780[c]	NE	120[c]
TMW46	TMW46102016	Normal	North Alluvial	10/28/2016	NA	NA	0.57 U	34 U	4.5 U	1.1 U	0.56 U	1.1 U	34 U	0.56 U	2.2 U	1.1 U	1.1 U	0.56 U	0.56 U	1.1 U	0.56 U	1.1 U	1.1 U
	TMW46042016	Normal	North Alluvial	4/7/2016	NA	NA	0.60 U	35 U	4.7 U	1.2 U	0.59 U	1.2 U	35 U	0.59 U	0.84 J	1.2 U	1.2 U	0.59 U	0.59 U	1.2 U	0.59 U	1.2 U	1.2 U
	TMW46102015	Normal	North Alluvial	10/29/2015	NA	NA	0.52 U	31 U	4.1 U	1.0 U	5.1 U	1.0 U	31 U	0.51 U	2.0 U	1.0 U	1.0 U	0.51 U	0.51 U	1.0 U	0.51 U	1.0 U	1.0 U
	TMW46042015	Normal	North Alluvial	4/2/2015	NA	NA	1.0 U	20 U	10 U	1.0 U	5.0 U	1.0 U	50 UJ	1.0 U	1.0 U	1.0 U	1.0 U	0.24 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TMW14A	TMW14A102016	Normal	North Bedrock	11/3/2016	NA	NA	0.53 U	31 U	4.2 U	1.0 U	0.52 U	1.0 U	31 U	0.52 U	2.1 U	1.0 U	1.0 U	0.52 U	0.52 U	1.0 U	0.52 U	1.0 U	1.0 U
	TMW14A042016	Normal	North Bedrock	4/14/2016	NA	NA	0.55 U	33 U	4.4 U	1.1 U	0.54 U	1.1 U	33 U	0.54 U	2.2 U	1.1 U	0.44 J	0.54 U	0.54 U	1.1 U	0.54 U	1.1 U	1.1 U
	TMW14A102015	Normal	North Bedrock	11/3/2015	NA	NA	0.51 U	31 U	4.1 U	1.0 U	5.1 U	1.0 U	31 U	0.51 U	2.0 U	1.0 U	1.0 U	0.51 U	0.51 U	1.0 U	0.51 U	1.0 U	1.0 U
	TMW14A042015	Normal	North Bedrock	4/8/2015	NA	NA	1.0 U	21 U	10 U	1.0 U	5.2 U	1.0 U	52 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TMW16	TMW16102016	Normal	North Bedrock	10/28/2016	NA	NA	0.57 U	34 U	4.5 U	1.1 U	0.56 U	1.1 U	34 U	0.56 U	2.3 U	1.1 U	1.1 U	0.56 U	0.56 U	1.1 U	0.56 U	1.1 U	1.1 U
	TMW16042016	Normal	North Bedrock	4/7/2016	NA	NA	0.48 U	29 U	3.8 U	0.95 U	0.48 U	0.95 U	29 U	0.48 U	1.9 U	0.95 U	0.95 U	0.48 U	0.48 U	0.95 U	0.48 U	0.95 U	0.95 U
	TMW16102015	Normal	North Bedrock	10/28/2015	NA	NA	0.51 U	30 U	4.0 U	1.0 U	0.24 J	1.0 U	30 U	0.50 U	2.0 U	1.0 U	0.98 J	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U
	TMW16042015	Normal	North Bedrock	4/1/2015	NA	NA	1.0 U	20 U	10 U	1.0 U	5.1 U	1.0 U	51 U	1.0 U	0.71 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TMW18	TMW18102016	Normal	North Bedrock	10/28/2016	NA	NA	0.53 U	31 U	4.2 U	1.0 U	0.54 U	1.0 U	31 U	0.52 U	2.1 J	1.0 U	1.0 U	0.52 U	0.52 U	1.0 U	0.52 U	1.0 U	1.0 U
	TMW18042016	Normal	North Bedrock	4/7/2016	NA	NA	0.51 U	30 U	4.0 U	1.0 U	2.9 U	1.0 U	30 U	0.51 U	2.7 J	1.0 U	1.0 U	0.51 U	0.51 U	1.0 U	0.51 U	1.0 U	1.0 U
	TMW18102015	Normal	North Bedrock	10/29/2015	NA	NA	0.51 U	30 U	4.0 U	1.0 U	0.71 J	1.0 U	30 U	0.50 U	**6.2 J**	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U
	TMW18042015	Normal	North Bedrock	4/1/2015	NA	NA	1.0 U	20 U	10 U	1.0 U	1.2 J	1.0 U	50 U	1.0 U	**8.1 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TMW19	TMW19102016	Normal	North Bedrock	10/28/2016	NA	NA	0.53 U	31 U	4.2 U	1.0 U	0.52 U	1.0 U	31 U	0.52 U	2.1 U	1.0 U	1.0 U	0.52 U	0.52 U	1.0 U	0.52 U	1.0 U	1.0 U
	DTW19102016	Duplicate	North Bedrock	10/28/2016	NA	NA	0.56 U	33 U	4.4 U	1.1 U	0.55 U	1.1 U	33 U	0.55 U	2.2 U	1.1 U	1.1 U	0.55 U	0.55 U	1.1 U	0.55 U	1.1 U	1.1 U
	TMW19042016	Normal	North Bedrock	4/7/2016	NA	NA	0.49 U	29 U	3.9 U	0.98 U	0.49 U	0.98 U	29 U	0.49 U	**9.2 J**	0.98 U	0.98 U	0.49 U	0.49 U	0.98 U	0.49 U	0.98 U	0.98 U
	TMW19102015	Normal	North Bedrock	10/28/2015	NA	NA	0.50 U	30 U	3.9 U	0.99 U	1.3 J	0.99 U	30 U	0.49 U	2.0 U	0.99 U	0.87 J	0.49 U	0.49 U	0.99 U	0.49 U	0.99 U	0.99 U
	TMW19042015	Normal	North Bedrock	4/1/2015	NA	NA	0.99 U	20 U	9.9 U	0.99 U	1.4 J	0.99 U	49 U	0.99 U	1.0 J	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U
TMW30	TMW30102016	Normal	North Bedrock	10/27/2016	NA	NA	0.51 U	30 U	4.0 U	1.0 U	0.50 U	1.0 U	30 U	0.50 U	1.9 J	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U
	TMW30042016	Normal	North Bedrock	4/7/2016	NA	NA	0.58 U	34 U	4.6 U	1.1 U	0.57 U	1.1 U	34 U	0.57 U	1.1 J	1.1 U	1.1 U	0.57 U	0.57 U	1.1 U	0.57 U	1.1 U	1.1 U
	TMW30102015	Normal	North Bedrock	10/29/2015	NA	NA	0.52 U	31 U	4.1 U	1.0 U	5.1 U	1.0 U	31 U	0.51 U	2.1 U	1.0 U	1.0 U	0.51 U	0.51 U	1.0 U	0.51 U	1.0 U	1.0 U
	TMW30042015	Normal	North Bedrock	4/1/2015	NA	NA	1.0 U	21 U	10 U	1.0 U	5.1 U	1.0 U	51 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
TMW31D	TMW31D102016	Normal	North Bedrock	10/31/2016	NA	NA	0.50 U	29 U	3.9 U	0.98 U	0.49 U	0.98 U	29 U	0.49 U	0.82 J	0.98 U	0.98 U	0.49 U	0.49 U	0.98 U	0.49 U	0.98 U	0.98 U
	DTW31D102016	Duplicate	North Bedrock	10/31/2016	NA	NA	0.51 U	30 U	4.0 U	1.0 U	0.50 U	1.0 U	13 U	0.50 U	2.0 U	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U
	TMW31D042016	Normal	North Bedrock	4/13/2016	NA	NA	0.55 U	32 U	4.3 U	1.1 U	0.54 U	1.1 U	32 U	0.54 U	2.2 U	1.1 U	1.1 U	0.54 U	0.54 U	1.1 U	0.54 U	1.1 U	1.1 U
	DTW31D042016	Duplicate	North Bedrock	4/13/2016	NA	NA	0.58 U	35 U	4.6 U	1.2 U	0.58 U	1.2 U	35 U	0.58 U	2.3 U	1.2 U	1.2 U	0.58 U	0.58 U	1.2 U	0.58 U	1.2 U	1.2 U

TABLE 5-6

Summary of Semivolatile Organic Compounds and Total Petroleum Hydrocarbons Analytical Results (Page 6 of 6)

Groundwater Periodic Monitoring Report July through December 2016 Fort Wingate Depot Activity

Well ID	Sample Identifier	Sample Type	Groundwater Zone	Sample Date	EPA Method 8015C (µg/L)		EPA Method 8270C (µg/L)																
					Diesel Range Organics CAS DRO	Gasoline Range Organics CAS GRO	1,2-Diphenylhydrazine CAS 122-66-7	2,4-Dinitrophenol CAS 51-28-5	4-Nitrophenol CAS 100-02-7	Acenaphthene CAS 83-32-9	Acetophenone CAS 98-86-2	Benzo(a)anthracene CAS 56-55-3	Benzoic acid CAS 65-85-0	Benzyl alcohol CAS 100-51-6	Bis(2-ethylhexyl) phthalate CAS 117-81-7	Dibenzofuran CAS 132-64-9	Diethyl phthalate CAS 84-66-2	Dimethyl phthalate CAS 131-11-3	Fluoranthene CAS 206-44-0	Fluorene CAS 86-73-7	Isophorone CAS 78-59-1	Phenanthrene CAS 85-01-8	Pyrene CAS 129-00-0
					Regulatory Limit																		
					NE	NE	0.78[c]	39[c]	NE	530[c]	1900[c]	0.3[c]	75000[c]	2000[c]	6[b]	7.9[c]	15000[c]	NE	800[c]	290[c]	780[c]	NE	120[c]
TMW31D	TMW31D102015	Normal	North Bedrock	11/5/2015	NA	NA	0.52 U	31 U	4.1 U	1.0 U	5.2 U	1.0 U	31 U	0.52 U	2.1 U	1.0 U	1.0 U	0.52 U	0.52 U	1.0 U	0.52 U	1.0 U	1.0 U
	DTW31D102015	Duplicate	North Bedrock	11/5/2015	NA	NA	0.54 U	32 U	4.3 U	1.1 U	5.3 U	1.1 U	32 U	0.53 U	2.1 U	1.1 U	1.1 U	0.53 U	0.53 U	1.1 U	0.53 U	1.1 U	1.1 U
	TMW31D042015	Normal	North Bedrock	4/6/2015	NA	NA	0.37 J	19 U	9.5 U	0.31 J	4.8 U	**0.46 J**	48 U	0.95 U	0.95 U	0.34 J	0.55 J	0.95 U	0.36 J	0.37 J	0.95 U	0.44 J	0.38 J
TMW36	TMW36102016	Normal	North Bedrock	10/27/2016	NA	NA	0.51 U	30 U	4.0 U	1.0 U	0.50 U	1.0 U	30 U	0.50 U	4.4 J	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U
	TMW36042016	Normal	North Bedrock	4/7/2016	NA	NA	0.50 U	30 U	4.0 U	0.99 U	0.49 U	0.99 U	30 U	0.49 U	2.0 U	0.99 U	0.99 U	0.49 U	0.49 U	0.99 U	0.49 U	0.99 U	0.99 U
	TMW36102015	Normal	North Bedrock	10/28/2015	NA	NA	0.55 U	33 U	4.4 U	1.1 U	0.47 J	1.1 U	33 U	0.54 U	2.2 U	1.1 U	1.1 U	0.54 U	0.54 U	1.1 U	0.54 U	1.1 U	1.1 U
	TMW36042015	Normal	North Bedrock	4/1/2015	NA	NA	0.95 U	19 U	9.5 U	0.95 U	4.8 U	0.95 U	48 U	0.95 U	0.87 J	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U
TMW37	TMW37102016	Normal	North Bedrock	10/27/2016	NA	NA	0.52 U	31 U	4.1 U	1.0 U	0.52 U	1.0 U	31 U	0.52 U	1.1 J	1.0 U	1.0 U	0.52 U	0.52 U	1.0 U	0.52 U	1.0 U	1.0 U
	TMW37042016	Normal	North Bedrock	4/7/2016	NA	NA	0.51 U	30 U	4.0 U	1.0 U	0.50 U	1.0 U	30 U	0.50 U	2.0 U	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	0.50 U	1.0 U	1.0 U
	TMW37102015	Normal	North Bedrock	10/28/2015	NA	NA	0.53 U	32 U	4.2 U	1.1 U	5.3 U	1.1 U	32 U	0.53 U	2.1 U	1.1 U	1.1 U	0.53 U	0.53 U	1.1 U	0.53 U	1.1 U	1.1 U
	TMW37042015	Normal	North Bedrock	4/1/2015	NA	NA	0.96 U	19 U	9.6 U	0.96 U	0.40 J	0.96 U	48 U	0.96 U	2.4 J	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U
TMW38	TMW38102016	Normal	North Bedrock	11/4/2016	NA	NA	0.53 U	32 U	4.2 U	1.1 U	0.53 U	1.1 U	32 U	0.53 U	2.1 U	1.1 U	1.1 U	0.53 U	0.53 U	1.1 U	0.53 U	1.1 U	1.1 U
	TMW38042016	Normal	North Bedrock	4/14/2016	NA	NA	0.52 U	31 U	4.1 U	1.0 U	0.51 U	1.0 U	31 U	0.51 U	3.0 J	1.0 U	1.0 U	0.51 U	0.51 U	1.0 U	0.51 U	1.0 U	1.0 U
	TMW38102015	Normal	North Bedrock	11/6/2015	NA	NA	0.52 U	31 U	4.1 U	1.0 U	5.2 U	1.0 U	11 J	0.52 U	2.1 U	1.0 U	1.0 U	0.52 U	0.52 U	1.0 U	0.52 U	1.0 U	1.0 U
	TMW38042015	Normal	North Bedrock	4/8/2015	NA	NA	1.1 U	22 U	11 U	1.1 U	5.6 U	1.1 U	56 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 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 Regional Screening Levels, (formerly Human Health Medium Specific Screening Levels) (EPA, 2017).

Bold indicates analyte was positively detected above regulatory limits.

If no detection occurred for total petroleum hydrocarbons or semivolatile organic compounds in the past four events, no non-detect or historical data are presented. Anomalous detections in April 2016 at TMW35 not depicted for chlorophenols and polyaromatic hydrocarbons, which were not detected in any other samples.

µg/L = microgram(s) per liter

CAS = Chemical Abstracts Service (registry number)

DRO = diesel range organic compounds

EPA = U.S. Environmental Protection Agency

GRO = gasoline range organic compounds

NA = not analyzed

NE = not established

J = analyte was positively identified; reported value is estimated.

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 7)
Groundwater Periodic Monitoring Report July through December 2016 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	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																					
					50[b]	6[b]	10[b]	1,000[a]	4[b]	5[b]	NE	50[a]	50[a]	1,000[a]	300[b]	50[a]	NE	50[b]	200[a]	NE	50[a]	50[a]	NE	2[b]	86[c]	5,000[b]	2[a]
BGMW01	BGMW01102016	Normal	North Alluvial	11/2/2016	70 U	1.0 U	0.68 J	15	0.30 U	1.0 U	39000	1.8 U	0.26 J	1.1 J	85 U	0.70 U	23000	**180**	1.2 J	400 J	2.0 U	0.10 U	830000	0.20 U	1.3 J	3.4 J	0.080 U
	BGMW01042016	Normal	North Alluvial	4/15/2016	70 U	1.0 U	0.80 J	16	0.30 U	1.0 U	42000	1.8 U	0.29 J	1.3 J	85 U	0.70 U	23000	**170**	1.6 J	1500 U	2.0 U	0.10 U	520000	0.20 U	1.7 J	3.4 U	0.080 U
	BGMW01102015	Normal	North Alluvial	11/5/2015	150 U	1.0 U	0.74 J	14	0.30 U	1.0 U	38000	1.8 U	0.30 J	1.8 U	25 J	0.70 U	23000	**160**	1.7 J	670 J	2.0 U	0.055 J	750000	0.20 U	1.4 J	8.0 U	0.080 U
	BGMW01042015	Normal	North Alluvial	4/2/2015	31 U	0.60 U	0.73 J	16	0.24 U	0.40 U	51000 J	1.5 U	0.29 J	1.5 U	30 U	0.50 U	24000	**150**	2.1 J	540 J	2.0 U	0.10 U	790000	0.20 U	2.8 J	6.0 U	0.080 U
BGMW02	BGMW02102016	Normal	North Alluvial	11/2/2016	**68 J**	1.0 U	0.70 J	16	0.30 U	1.0 U	77000	1.8 U	0.11 J	0.91 J	42 J	0.70 U	110000	**63**	1.1 J	540 J	**65**	0.10 U	1000000	0.20 U	6.6	5.8 J	0.080 U
	BGMW02042016	Normal	North Alluvial	4/14/2016	70 U	1.0 U	0.87 J	16	0.30 U	1.0 U	83000	1.8 U	0.066 J	0.90 J	85 U	0.70 U	110000	**75**	0.57 J	1600 U	**67**	0.10 U	980000	0.20 U	6.6	8.0 U	0.080 U
	BGMW02102015	Normal	North Alluvial	11/5/2015	150 U	1.0 U	0.92 J	17	0.30 U	1.0 U	89000	1.8 U	0.20 U	1.4 J	50 U	0.70 U	120000	**71**	1.2 J	930 J	**66**	0.10 U	980000	0.20 U	6.6	2.0 J	0.080 U
	BGMW02042015	Normal	North Alluvial	4/2/2015	31 U	0.60 U	0.79 J	16	0.24 U	0.40 U	91000 J	1.5 U	0.071 J	0.79 J	55 J	0.50 U	120000	**72**	0.90 U	670 J	**67**	0.10 U	1000000	0.20 U	6.3	6.0 U	0.080 U
BGMW03	BGMW03102016	Normal	North Alluvial	10/28/2016	70 U	1.0 U	1.5 J	27	0.30 U	1.0 U	82000	1.8 U	0.21 J	1.4 J	85 U	0.70 U	18000	31	1.8 U	2100 J	30	0.10 U	760000	0.20 U	9.1	2.3 U	0.080 U
	BGMW03042016	Normal	North Alluvial	4/8/2016	**230 J**	1.0 U	1.1 J	36	0.30 U	1.0 U	97000	0.73 J	0.34 J	1.3 J	150	0.19 J	19000	**58**	0.86 J	3300	23	0.10 UJ	710000	0.20 U	6.9	2.3 J	0.080 U
	BGMW03102015	Normal	North Alluvial	10/30/2015	70 U	1.0 U	2.3 J	23	0.30 U	1.0 U	55000	0.61 J	0.18 J	3.3	85 U	0.70 U	13000	11 J	1.4 J	1900 J	38	0.10 U	760000	0.20 U	12	8.0 U	0.027 J
	BGMW03042015	Normal	North Alluvial	4/1/2015	31 U	0.60 U	2.1 J	28 J	0.24 U	0.40 U	63000	1.5 U	0.19 J	3.5	30 UJ	0.50 U	14000	24	0.89 J	1700 J	38	0.10 U	690000	0.20 U	12	2.3 J	0.080 U
FW31	FW31102016	Normal	North Alluvial	10/26/2016	70 U	1.0 U	6.4	11	0.30 U	1.0 U	6000	0.51 J	0.20 U	2.0 J	85 U	0.43 J	2400	1.1 J	1.0 U	1500 J	2.0 U	0.10 U	520000 J	0.20 U	9.7	4.1 U	0.080 U
	FW31042016	Normal	North Alluvial	4/7/2016	70 U	0.74 U	6.8	13 J	0.16 J	1.0 U	6600	0.72 J	0.20 U	1.4 J	85 U	0.70 U	2300	1.2 U	0.46 J	1500 J	2.0 U	0.10 U	540000	0.17 U	11	2.6 U	0.080 U
	FW3112015	Normal	North Alluvial	11/2/2015	**51 J**	1.0 U	6.5	15	0.30 U	1.0 U	7100	0.59 J	0.20 U	0.73 J	37 J	0.37 J	2400	4	0.55 U	1600 J	2.0 U	0.10 U	480000	0.20 U	11	3.1 J	0.080 U
	FW31042015	Normal	North Alluvial	4/1/2015	31 U	0.51 J	8.3	11 J	0.17 J	0.40 U	6700	0.77 J	0.058 J	1.0 J	30 U	0.50 U	2400	0.43 U	0.90 U	1700 J	2.0 U	0.61 J	500000	0.22 J	12	6.0 U	0.080 U
FW35	FW35102016	Normal	North Alluvial	10/2016	Well was dry and not sampled this event																					
	FW35042016	Normal	North Alluvial	4/2016	Well was dry and not sampled this event																					
	FW35102015	Normal	North Alluvial	10/2015	Well was dry and not sampled this event																					
	FW35042015	Normal	North Alluvial	4/2/2015	31 U	0.60 U	1.0 U	18	0.24 U	0.40 U	330000 J	1.5 U	0.70 J	3.7	260	0.50 U	120000	**450**	1.4 J	720 J	2.0 U	0.10 U	59000	0.20 U	1.9 J	4.6 J	0.080 U
MW01	MW01102016	Normal	North Alluvial	10/27/2016	41 J	1.0 U	0.43 J	17	0.30 U	1.0 U	35000	1.8 U	0.20 U	1.3 J	85 U	0.70 U	8000	2.9 J	0.68 J	320 J	18	0.10 U	1100000 J	0.20 U	1.8 J	7.1 J	0.080 U
	MW01042016	Normal	North Alluvial	4/6/2016	**1800**	1.0 U	0.61 J	29	0.083 J	1.0 U	38000	1.1 J	0.44 J	2	**990**	0.55 J	8500	29 J	1.5 J	1300 J	18	0.10 U	1100000	0.20 U	3.0 J	12 J	0.080 U
	MW01102015	Normal	North Alluvial	10/28/2015	**5400**	1.0 U	1.2 J	59	0.36 J	1.0 U	37000	3.4 J	1.4	3.3	**3200**	2.0 J	9900	**110**	3.7	1900 J	17	0.10 U	940000	0.20 U	7.9	24	0.080 U
	MW01042015	Normal	North Alluvial	4/1/2015	**510**	0.60 U	0.58 J	21 J	0.24 U	0.40 U	34000	0.76 J	0.19 J	2.1	**330**	0.27 J	8000	26	0.92 J	690 J	19	0.10 U	880000	0.20 U	2.6 J	13 J	0.080 U
MW02	MW02102016	Normal	North Alluvial	10/27/2016	29 J	1.0 U	1.0 U	36	0.30 U	1.0 U	130000	1.8 U	0.071 J	2.7	85 U	0.24 J	30000	1.9 J	0.54 J	600 J	16	0.10 U	470000 J	0.20 U	1.2 J	27	0.080 U
	MW02042016	Normal	North Alluvial	4/6/2016	**130 J**	1.0 U	1.0 U	32	0.30 U	1.0 U	130000	1.8 U	0.087 J	0.81 J	75 J	0.70 U	31000	4.9 J	1.0 U	910 J	15	0.10 U	450000	0.20 U	0.95 J	20	0.080 U
	MW02102015	Normal	North Alluvial	10/28/2015	70 U	1.0 U	1.0 U	35	0.30 U	1.0 U	130000	1.8 U	0.20 U	2	85 U	0.70 U	32000	4.4	0.56 J	930 J	15	0.10 U	410000	0.20 U	0.76 J	23	0.080 U
	MW02042015	Normal	North Alluvial	4/1/2015	36 J	0.60 U	1.0 U	29 J	0.24 U	0.40 U	130000	0.50 J	0.11 J	1.2 J	34 J	0.50 U	30000	30	0.83 J	910 J	17	0.10 U	380000	0.066 J	1.3 J	38	0.080 U
MW03	MW03102016	Normal	North Alluvial	11/3/2016	70 U	0.91 J	0.33 J	9.3	0.30 U	1.0 U	57000	1.8 U	0.13 J	1.5 J	85 U	0.70 U	10000	45	1.5 J	940 J	26	0.061 J	1100000	0.074 J	1.3 J	5.2 J	0.080 U
	MW03042016	Normal	North Alluvial	4/12/2016	70 U	1.0 U	1.0 U	8.7	0.30 U	1.0 U	58000	1.8 U	0.092 J	0.92 J	85 U	0.70 U	11000	46	0.85 J	450 J	23	0.10 U	1100000	0.20 U	1.5 J	2.7 J	0.080 U
	MW03102015	Normal	North Alluvial	10/30/2015	70 U	1.0 U	0.38 J	7.8	0.30 U	1.0 U	56000	1.8 U	0.086 J	1.2 J	85 U	0.70 U	11000	47 J	0.43 J	500 J	22	0.10 U	1100000	0.20 U	1.1 J	4.5 J	0.080 U
	MW03042015	Normal	North Alluvial	4/3/2015	31 U	0.60 U	0.38 J	8.5	0.24 U	0.40 U	54000	1.5 U	0.11 J	0.91 J	30 U	0.50 U	11000	43	0.72 J	780 J	24	0.10 U	1200000	0.20 U	0.92 J	4.7 J	0.080 U
MW18D	MW18D102016	Normal	North Alluvial	10/28/2016	25 J	0.78 J	1.2 J	18	0.30 U	1.0 U	61000	1.8 U	0.72 J	3.4	85 U	0.34 J	16000	**610**	3.0 U	670 J	2.1 U	0.10 U	2200000	0.20 U	23	280	0.080 U
	MW18D042016	Normal	North Alluvial	4/12/2016	**100 J**	0.67 J	1.4 J	18	0.30 U	1.0 U	66000	1.8 U	1.1	4.3	65 J	1.2 J	17000	**670**	2.7 J	870 J	2.0 U	0.10 U	1900000	0.20 U	22	51	0.080 U
	MW18D102015	Normal	North Alluvial	11/2/2015	70 U	0.92 J	1.7 J	17	0.30 U	1.0 U	72000	1.8 U	0.78 J	1.8 J	23 J	0.70 U	19000	**580**	3.2 U	1700 J	0.82 J	0.039 U	2000000	0.20 U	36	110 J	0.080 U
	MW18D042015	Normal	North Alluvial	4/8/2015	49 J	0.51 J	0.78 J	23	0.24 U	0.40 U	76000	1.5 U	0.97 J	1.3 J	63 J	0.31 J	19000	**680**	3.3	1600 J	0.74 J	0.034 J	2000000	0.089 U	13	16 J	0.080 U
MW20	MW20102016	Normal	North Alluvial	11/4/2016	70 UJ	1.0 U	1.0 U	16	0.30 U	1.0 U	310000	1.8 U	1.4	6	53 J	0.70 U	60000	**1700**	3.5	4100 J	**61**	0.10 U	3700000	0.20 U	0.65 J	120	0.035 U
	MW20042016	Normal	North Alluvial	4/11/2016	70 U	1.0 U	1.0 U	15	0.30 U	1.0 U	330000	1.8 U	1.4	2.3	85 U	0.70 U	70000	**1800**	3.3	1800 J	**65**	0.10 U	3700000	0.20 U	0.68 U	100	0.080 U
	MW20102015	Normal	North Alluvial	11/2/2015	70 U	1.0 U	1.0 U	15	0.30 U	1.0 U	330000	1.8 U	1.4	2	22 J	0.70 U	76000	**1700**	3.3 U	3800	**75**	0.10 U	4100000	0.20 U	2.0 U	80 J	0.080 U
	DMW20102015	Duplicate	North Alluvial	11/2/2015	70 U	1.0 U	0.43 J	16	0.15 J	1.0 U	310000	1.8 U	1.4	2.2	85 UJ	0.70 U	71000	**1700**	3.2 U	3700	**74**	0.10 U	3800000	0.058 U	0.60 J	84 J	0.080 U
	MW20042015	Normal	North Alluvial	4/3/2015	31 U	0.60 U	0.42 J	15	0.24 U	0.40 U	310000	1.5 U	1.6	2.6	30 U	0.50 U	69000	**1900**	3.5	2500 J	**89**	0.038 J	4200000	0.20 U	1.0 U	120	0.080 U

TABLE 5-7

Summary of Dissolved Metals Analytical Detections (Page 2 of 7)

Groundwater Periodic Monitoring Report July through December 2016 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	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																					
					50[b]	6[b]	10[b]	1,000[a]	4[b]	5[b]	NE	50[a]	50[a]	1,000[a]	300[b]	50[a]	NE	50[b]	200[a]	NE	50[a]	50[a]	NE	2[b]	86[c]	5,000[b]	2[a]
MW22D	MW22D102016	Normal	North Alluvial	10/28/2016	70 U	1.0 U	0.34 J	12	0.30 U	1.0 U	82000	1.8 U	0.21 J	1.3 J	85 U	0.70 U	16000	**140**	1.4 U	410 J	42	0.10 U	1200000	0.20 U	1.5 J	14 U	0.080 U
	MW22D042016	Normal	North Alluvial	4/11/2016	70 U	1.0 U	0.33 J	11	0.30 U	1.0 U	83000	1.8 U	0.17 J	0.85 J	85 U	0.70 U	17000	**130**	0.53 J	490 J	40	0.10 U	1000000	0.20 U	1.4 U	30	0.080 U
	MW22D102015	Normal	North Alluvial	11/2/2015	70 U	1.0 U	1.0 U	10	0.30 U	1.0 U	89000	1.8 U	0.18 J	1.0 J	22 J	0.70 U	17000	**130**	0.98 U	720 J	38	0.10 U	1200000	0.20 U	1.2 J	7.4 J	0.080 U
	MW22D042015	Normal	North Alluvial	4/6/2015	31 U	0.60 U	0.45 J	10	0.24 U	0.40 U	73000	1.5 U	0.19 J	1.5 U	30 U	0.50 U	16000	**120**	0.91 J	460 J	38	0.10 U	1100000	0.20 U	1.2 J	120 J	0.080 U
MW22S	MW22S102016	Normal	North Alluvial	10/2016	Well was dry and not sampled this event																					
	MW22S042016	Normal	North Alluvial	4/13/2016	**370**	1.0 U	1.0 J	16	0.30 U	1.0 U	85000	0.66 J	0.18 J	3.7	290 J	0.95 J	20000	21 J	1.5 J	910 J	28	0.10 U	980000	0.20 U	2.1 J	13 J	0.080 U
	MW22S102015	Normal	North Alluvial	10/29/2015	**120 J**	0.76 J	0.59 J	11	0.30 U	1.0 U	86000	1.8 U	0.36 J	3	77 J	1.7 J	19000	**61**	1.8 J	1300 J	26	0.10 J	960000	0.084 J	2.1 J	8.3 J	0.080 U
	MW22S042015	Normal	North Alluvial	4/8/2015	**2700**	0.60 U	0.95 J	39	0.085 J	0.40 U	99000	1.3 J	0.66 J	3.6	**1300**	1.7 J	22000	44	1.8 J	1300 J	24	0.10 U	900000	0.087 U	3.7 J	7.5 J	0.080 U
MW23	MW23102016	Normal	North Alluvial	10/27/2016	70 U	1.0 U	1.1 J	180	0.30 U	1.0 U	11000	1.8 U	0.59 J	0.85 J	22 J	0.70 U	5100	**68**	1.4 J	1200 J	1.5 J	0.10 U	480000 J	0.20 U	3.8 J	3.5 J	0.080 U
	MW23042016	Normal	North Alluvial	4/7/2016	**210 J**	1.0 U	0.95 J	200 J	0.30 U	1.0 U	12000	1.8 U	0.60 J	1.8 U	220	0.70 U	5600	**65**	1.5 J	1300 J	2.0 U	0.10 U	530000	0.20 U	3.4 J	2.0 U	0.080 U
	DMW23042016	Duplicate	North Alluvial	4/7/2016	**460**	1.0 U	1.2 J	210 J	0.30 U	1.0 U	12000	1.8 U	0.75 J	0.71 J	**300**	0.22 J	5400	**69**	1.6 J	1300 J	0.75 J	0.10 U	470000	0.20 U	4.2 J	2.1 U	0.080 U
	MW23102015	Normal	North Alluvial	11/6/2015	**79 J**	1.0 U	1.2 J	140 J	0.30 U	1.0 U	10000	1.8 U	1.2	1.7 J	57 J	0.24 J	4200	**83**	2.2 J	1400	2.0 U	0.10 U	490000	0.20 U	13	8.0 U	0.080 U
	DMW23102015	Duplicate	North Alluvial	11/6/2015	150 UJ	1.0 U	1.2 J	140 J	0.10 J	1.0 U	10000	1.8 U	1.1	2.1	29 J	0.70 U	4400	**79**	2.9 J	1600	2.0 U	0.10 U	490000	0.20 U	8.5	2.0 J	0.080 U
	MW23042015	Normal	North Alluvial	4/7/2015	31 UJ	0.60 U	0.94 J	130	0.24 U	0.40 U	11000	1.5 U	1.1	1.3 J	30 UJ	0.50 U	4700	**82**	3.1	1500 J	1.4 UJ	0.10 UJ	470000 J	0.20 UJ	6.7	3.9 J	0.080 U
	DMW23042015	Duplicate	North Alluvial	4/7/2015	**68 J**	0.60 U	1.1 J	130	0.24 U	0.40 U	10000	1.5 U	0.99 J	1.2 J	47 J	0.50 U	4500	**78**	2.2 J	1600 J	2.0 UJ	0.033 J	460000 J	0.059 J	7.5	6.0 UJ	0.080 U
MW24	MW24102016	Normal	North Alluvial	10/26/2016	70 U	1.0 U	0.73 J	290	0.30 U	1.0 U	28000	1.8 U	0.059 J	1.8 U	**1700 J**	0.70 U	11000	**430 J**	1.0 U	880 J	2.0 U	0.10 U	280000 J	0.20 U	0.70 U	8.0 U	0.080 U
	DMW24102016	Duplicate	North Alluvial	10/26/2016	70 U	1.0 U	0.85 J	280	0.25 J	1.0 U	29000	1.8 U	0.13 J	1.8 U	**1700 J**	0.70 U	11000	**420 J**	1.0 U	840 J	2.0 U	0.10 U	290000 J	0.096 U	0.66 U	8.0 U	0.080 U
	MW24042016	Normal	North Alluvial	4/6/2016	70 U	1.0 U	0.72 J	270	0.30 U	1.0 U	35000	1.8 U	0.067 J	1.8 U	**1800**	0.70 U	11000	**440 J**	1.0 U	1100 J	2.0 U	0.10 U	270000	0.20 U	0.65 J	8.0 U	0.080 U
	DMW24042016	Duplicate	North Alluvial	4/6/2016	21 J	1.0 U	0.72 J	280	0.30 U	1.0 U	32000	1.8 U	0.070 J	1.8 U	**1600**	0.70 U	11000	**420 J**	0.60 J	1100 J	2.0 U	0.10 U	270000	0.20 U	0.62 J	8.0 U	0.080 U
	MW24102015	Normal	North Alluvial	11/5/2015	150 U	1.0 U	0.78 J	300	0.30 U	1.0 U	33000	1.8 U	0.20 U	1.8 U	**1800**	0.70 U	11000	**450**	1.0 U	1200	2.0 U	0.10 U	260000	0.20 U	2.0 U	8.0 U	0.080 U
	MW24042015	Normal	North Alluvial	4/6/2015	31 U	0.60 U	0.65 J	290	0.24 U	0.40 U	32000	1.5 U	0.056 J	1.5 U	**1900**	0.50 U	11000	**450**	0.90 U	790 J	2.0 U	0.10 U	260000	0.20 U	0.56 J	4.3 J	0.080 U
	DMW24042015	Duplicate	North Alluvial	4/6/2015	31 U	0.60 U	0.60 J	290	0.24 U	0.40 U	30000	1.5 U	0.065 J	1.5 U	**1900**	0.50 U	11000	**440**	0.90 U	790 J	2.0 U	0.10 U	270000	0.20 U	1.0 UJ	6.0 UJ	0.080 U
SMW01	SMW01102016	Normal	North Alluvial	11/2/2016	70 U	1.0 U	1.1 J	34	0.30 U	1.0 U	30000	1.8 U	0.17 J	1.3 J	85 U	0.70 U	10000	47	2.4 J	940 U	1.2 U	0.10 U	960000	0.20 U	2.8 J	12 J	0.080 U
	SMW01042016	Normal	North Alluvial	4/8/2016	70 U	1.0 U	1.0 J	32	0.30 U	1.0 U	34000	1.8 U	0.17 J	1.8 U	91 J	0.70 U	11000	**92**	1.8 J	830 J	2.0 U	0.10 UJ	950000	0.20 U	2.1 J	8.0 U	0.080 U
	SMW011102015	Normal	North Alluvial	11/3/2015	150 U	0.44 J	1.1 J	36	0.30 U	1.0 U	35000	1.8 U	0.10 J	1.3 J	50 U	0.70 U	11000	**67**	1.6 J	860 J	2.0 U	0.10 U	890000	0.20 U	2.3 J	3.7 J	0.080 U
	SMW01042015	Normal	North Alluvial	4/8/2015	**87 J**	0.52 J	0.89 J	30	0.24 U	0.40 U	30000	1.5 U	0.28 J	1.5 U	64 J	0.50 U	9900	**130**	1.7 J	630 J	2.0 U	0.10 U	790000	0.20 U	2.0 J	2.9 J	0.080 U
TMW01	TMW01102016	Normal	North Alluvial	10/31/2016	70 U	1.0 U	0.69 J	11	0.30 U	1.0 U	100000	1.8 U	0.060 J	4	85 U	0.70 U	19000	8.9	0.48 J	270 J	6	0.10 U	580000	0.20 U	13	8.0 U	0.080 U
	TMW01042016	Normal	North Alluvial	4/8/2016	70 U	1.0 U	0.71 J	11	0.30 U	1.0 U	110000	1.8 U	0.20 U	5.8	85 U	0.70 U	19000	8.7	0.44 J	620 J	5.6	0.10 UJ	590000	0.20 U	12	8.0 U	0.080 U
	TMW01102015	Normal	North Alluvial	11/4/2015	150 U	0.62 J	0.76 J	11	0.27 J	1.0 U	120000	0.64 J	0.12 J	6.8	50 U	0.70 U	20000	9.9	1.1 J	630 J	5.4	0.040 J	560000	0.10 J	13	2.5 J	0.080 U
	TMW01042015	Normal	North Alluvial	4/7/2015	31 U	0.60 U	0.88 J	12	0.24 U	0.40 U	110000	0.52 J	0.10 U	8.4	30 U	0.50 U	19000	11	0.36 J	670 J	5.7	0.10 U	550000 J	0.20 U	13	6.0 U	0.080 U
TMW03	TMW03102016	Normal	North Alluvial	10/31/2016	19 J	1.0 U	0.49 J	13	0.30 U	1.0 U	47000	1.8 U	0.071 J	1.8 U	85 U	0.70 U	10000	4.9	1.3 J	370 J	**55**	0.10 U	990000	0.20 U	2.0 J	8.5 J	0.080 U
	TMW03042016	Normal	North Alluvial	4/8/2016	70 U	0.55 J	0.54 J	12	0.33 J	1.0 U	50000	1.8 U	0.10 J	0.73 J	85 U	0.70 U	11000	4.9	0.38 J	1100 J	**56**	0.10 UJ	960000	0.074 J	2.0 J	9.0 J	0.080 U
	TMW03102015	Normal	North Alluvial	11/4/2015	150 U	1.0 U	0.45 J	12	0.30 U	1.0 U	51000	1.8 U	0.064 J	0.96 J	50 U	0.70 U	11000	5.1	1.1 J	990 J	**51**	0.10 U	930000	0.20 U	2.3 J	8.7 J	0.080 U
	TMW03042015	Normal	North Alluvial	4/9/2015	31 U	0.60 U	0.63 J	13	0.24 U	0.40 U	49000	1.5 U	0.10 U	1.0 J	30 U	0.50 U	12000	5.4	0.49 J	860 J	**54**	0.10 U	970000	0.20 U	1.8 J	7.7 J	0.080 U
TMW04	TMW04102016	Normal	North Alluvial	11/3/2016	70 U	1.0 U	1.0 J	7.5	0.30 U	1.0 U	32000	2.6 J	0.20 U	0.83 J	85 U	0.70 U	5600	0.31 J	1.0 U	1700 J	**88**	0.10 U	890000	0.20 U	16	3.8 J	0.032 U
	TMW04042016	Normal	North Alluvial	4/13/2016	70 U	1.0 U	1.1 J	7.3	0.082 J	1.0 U	33000	2.2 J	0.20 U	1.8 U	85 U	0.70 U	6400	0.47 J	0.40 J	970 J	**89**	0.10 U	960000	0.20 U	16	5.1 J	0.080 U
	TMW04102015	Normal	North Alluvial	11/4/2015	150 U	1.0 U	0.86 J	7.6	0.30 U	1.0 U	31000	2.4 J	0.20 U	0.90 J	50 U	0.70 U	5500	0.36 J	0.71 J	1200	**82**	0.10 U	880000	0.20 U	16	4.1 J	0.080 U
	TMW04042015	Normal	North Alluvial	4/9/2015	31 U	0.60 U	0.80 J	7.7	0.24 U	0.40 U	31000	1.5 J	0.10 U	1.1 J	30 U	0.50 U	6000	0.90 U	0.31 J	980 J	**74**	0.10 U	890000	0.069 J	14	3.3 J	0.080 U
TMW06	TMW06102016	Normal	North Alluvial	10/31/2016	24 J	1.0 U	0.84 J	14	0.30 U	1.0 U	32000	1.8 U	0.055 J	1.7 J	85 U	0.70 U	7000	30	0.98 J	280 J	2.0 U	0.10 U	970000	0.20 U	3.1 J	2.3 J	0.080 U
	TMW06042016	Normal	North Alluvial	4/12/2016	70 U	1.0 U	0.86 J	15	0.30 U	1.0 U	34000	1.8 U	0.20 U	2.6	85 U	0.70 U	7500	23	0.53 J	410 J	1.3 J	0.10 U	900000	0.20 U	2.8 J	8.0 U	0.080 U
	TMW06102015	Normal	North Alluvial	11/4/2015	150 U	1.0 U	0.80 J	13	0.30 U	1.0 U	35000	0.66 J	0.054 J	2.8	50 U	0.70 U	7600	31	0.81 J	710 J	1.4 J	0.10 U	910000	0.20 U	3.1 J	3.9 J	0.080 U
	TMW06042015	Normal	North Alluvial	4/9/2015	31 U	0.60 U	0.94 J	18	0.24 U	0.40 U	34000	0.57 J	0.10 U	2.5	30 U	0.50 U	8000	19	0.65 J	640 J	1.5 J	0.10 U	920000	0.20 U	3.4 J	3.5 J	0.080 U

TABLE 5-7
Summary of Dissolved Metals Analytical Detections (Page 3 of 7)
Groundwater Periodic Monitoring Report July through December 2016 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	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																					
					50[b]	6[b]	10[b]	1,000[a]	4[b]	5[b]	NE	50[a]	50[a]	1,000[a]	300[b]	50[a]	NE	50[b]	200[a]	NE	50[a]	50[a]	NE	2[b]	86[c]	5,000[b]	2[a]
TMW07	TMW07102016	Normal	North Alluvial	10/27/2016	70 U	1.0 U	1.6 J	20	0.30 U	1.0 U	52000	1.8 U	0.63 J	0.89 J	33 J	0.70 U	9300	**380**	3.4	4700 J	1.2 J	0.10 U	1300000 J	0.20 U	2.1 J	13 J	0.080 U
	TMW07042016	Normal	North Alluvial	4/8/2016	70 U	1.0 U	1.6 J	20	0.30 U	1.0 U	44000	1.8 U	0.30 J	1.8 U	85 U	0.70 U	8000	**270**	1.3 J	12000	2.0 U	0.10 UJ	1300000	0.20 U	1.0 J	8.0 U	0.080 U
	TMW07102015	Normal	North Alluvial	10/30/2015	70 U	1.0 U	2.1 J	24	0.30 U	1.0 U	38000	1.8 U	0.37 J	0.64 J	85 U	0.70 U	7800	**200 J**	2.4 J	12000	2.0 U	0.10 U	1200000	0.20 U	1.5 J	3.2 J	0.080 U
	TMW07042015	Normal	North Alluvial	4/1/2015	31 U	0.60 U	1.1 J	21 J	0.24 U	0.40 U	56000	1.5 U	0.65 J	0.64 J	39 J	0.50 U	9800	**380**	2.3 J	5700	2.0 U	0.10 U	1200000	0.20 U	4.2 J	4.1 J	0.080 U
TMW08	TMW08102016	Normal	North Alluvial	11/1/2016	70 UJ	1.0 U	0.48 J	11	0.30 U	1.0 U	240000	14 J	0.59 J	3.2	85 U	0.70 U	64000	**410**	2.0 J	7100	42	0.033 J	3500000 J	0.20 U	1.8 J	4.7 J	0.080 U
	DTW08102016	Duplicate	North Alluvial	11/1/2016	70 UJ	1.0 U	0.40 J	11	0.30 U	1.0 U	220000	0.59 J	0.60 J	2.4	85 U	0.70 U	61000	**400**	1.3 J	6800	43	0.10 U	3700000 J	0.20 U	1.0 J	5.8 J	0.080 U
	TMW08042016	Normal	North Alluvial	4/12/2016	70 U	1.0 U	0.42 J	11	0.30 U	1.0 U	240000	1.8 U	0.54 J	3.4	**320**	0.70 U	69000	**370**	1.5 J	2300 J	41	0.10 U	4100000	0.20 U	1.4 J	5.2 J	0.080 U
	TMW08102015	Normal	North Alluvial	11/5/2015	150 U	1.0 U	0.47 J	10	0.30 U	1.0 U	250000	1.8 U	0.46 J	2.4	140	0.70 U	73000	**330**	2.1 J	3800	35	0.041 J	4200000	0.20 U	1.3 J	6.3 J	0.080 U
	TMW08042015	Normal	North Alluvial	4/8/2015	31 U	0.60 U	0.37 J	11	0.24 U	0.40 U	220000	1.5 U	0.48 J	1.4 J	57 J	0.50 U	66000	**300**	1.5 J	3600	36	0.10 U	3900000	0.20 U	1.0 U	6.5 J	0.080 U
TMW10	TMW10102016	Normal	North Alluvial	11/2/2016	**600**	1.0 U	0.65 J	22	0.30 U	1.0 U	69000	0.70 J	0.21 J	9.2	**340**	0.31 J	17000	48	1.4 J	700 J	1.0 U	0.10 U	2000000	0.20 U	3.7 J	2.9 J	0.080 U
	TMW10042016	Normal	North Alluvial	4/12/2016	70 U	1.0 U	0.58 J	16	0.30 U	1.0 U	73000	1.8 U	0.20 U	4.6	85 U	0.70 U	17000	13	1.1 J	720 J	2.0 U	0.10 U	1800000	0.20 U	3.0 J	2.6 J	0.080 U
	TMW10102015	Normal	North Alluvial	11/4/2015	150 U	1.0 U	0.55 J	16	0.30 U	1.0 U	74000	1.8 U	0.20 U	17	50 U	0.70 U	17000	9.3	1.3 J	1500	2.0 U	0.10 U	1800000	0.20 U	3.1 J	2.2 J	0.080 U
	TMW10042015	Normal	North Alluvial	4/7/2015	31 U	0.60 U	0.75 J	18	0.24 U	0.40 U	75000	1.5 U	0.10 U	15	30 U	0.50 U	18000	13	1.0 J	1300 J	2.0 U	0.10 U	1800000 J	0.20 U	2.6 J	6.0 U	0.080 U
TMW11	TMW11102016	Normal	North Alluvial	11/3/2016	70 U	1.0 U	0.36 J	25	0.30 U	1.0 U	21000	1.0 J	0.20 U	0.96 J	85 U	0.70 U	3300	1.1 J	1.2 J	890 J	14	0.10 U	610000	0.20 U	4.0 J	3.5 J	0.080 U
	DTW11102016	Duplicate	North Alluvial	11/3/2016	70 U	1.0 U	1.0 U	26	0.30 U	1.0 U	21000	1.2 J	0.20 U	1.8 J	25 J	0.70 U	3400	0.84 J	0.63 J	1100 J	14	0.10 U	620000	0.20 U	4.3 J	5.2 J	0.030 U
	TMW11042016	Normal	North Alluvial	4/11/2016	**1200**	1.0 U	0.45 J	26	0.30 U	1.0 U	18000	2.1 J	0.24 J	1.8 U	**580**	0.26 J	3400	12	0.98 J	720 J	15	0.10 U	560000	0.20 U	3.4 U	4.6 J	0.080 U
	TMW11102015	Normal	North Alluvial	11/5/2015	150 U	1.0 U	0.48 J	30	0.30 U	1.0 U	23000	1.6 J	0.20 U	0.85 J	50 U	0.70 U	3900	4.8	1.6 J	670 J	14	0.10 U	660000	0.20 U	3.7 J	2.9 J	0.080 U
	TMW11042015	Normal	North Alluvial	4/8/2015	**83 J**	0.60 U	1.0 U	21	0.24 U	0.40 U	16000	1.4 J	0.10 U	1.5 U	43 J	0.50 U	3000	7.1	0.90 U	770 J	13	0.10 U	510000	0.051 U	1.6 J	3.1 J	0.080 U
TMW13	TMW13102016	Normal	North Alluvial	11/1/2016	70 UJ	1.0 U	1.0 U	18	0.30 U	1.0 U	27000	0.64 J	0.20 U	0.60 J	85 U	0.70 U	4800	1.9 J	0.76 J	1600 J	12	0.10 U	570000 J	0.20 U	2.5 J	8.0 U	0.080 U
	TMW13042016	Normal	North Alluvial	4/12/2016	70 U	1.0 U	1.0 U	18	0.30 U	1.0 U	27000	0.59 J	0.20 U	1.8 U	85 U	0.70 U	4900	0.95 U	1.0 U	490 J	11	0.10 U	560000	0.20 U	2.4 J	8.0 U	0.080 U
	TMW13102015	Normal	North Alluvial	11/4/2015	150 U	1.2 J	1.0 U	17	0.30 U	1.0 U	27000	0.69 J	0.20 U	1.8 U	50 U	0.70 U	4900	0.95 U	0.40 J	810 J	11	0.10 U	550000	0.20 U	3.3 J	2.2 J	0.080 U
	TMW13042015	Normal	North Alluvial	4/9/2015	31 U	0.60 U	1.0 U	17	0.24 U	0.40 U	26000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	5100	0.90 U	0.90 U	810 J	9.9	0.10 U	520000	0.20 U	2.7 J	6.0 U	0.080 U
TMW15	TMW15102016	Normal	North Alluvial	11/2/2016	70 U	1.0 U	1.0 U	22	0.30 U	1.0 U	18000	0.75 J	0.20 U	1.8 U	85 U	0.70 U	3400	0.31 U	0.72 J	400 J	13	0.10 U	570000	0.20 U	1.9 J	6.5 J	0.080 U
	TMW15042016	Normal	North Alluvial	4/13/2016	70 U	1.0 U	1.0 U	22	0.30 U	1.0 U	20000	1.6 J	0.20 U	0.56 J	85 U	0.70 U	3900	0.95 U	0.41 J	630 J	13	0.10 U	600000	0.20 U	1.8 J	6.2 J	0.080 U
	DTW15042016	Duplicate	North Alluvial	4/13/2016	70 U	1.0 U	1.0 U	22	0.30 U	1.0 U	20000	1.1 J	0.20 U	1.8 U	85 U	0.70 U	3900	0.95 U	1.0 U	580 J	13	0.10 U	590000	0.20 U	1.9 J	7.1 J	0.080 U
	TMW15102015	Normal	North Alluvial	11/6/2015	150 U	1.0 U	1.0 U	24 J	0.30 U	1.0 U	21000	0.99 J	0.25 J	1.8 U	50 U	0.70 U	3900	0.95 U	1.0 U	720 J	13	0.10 U	580000	0.20 U	1.9 J	6.6 J	0.080 U
	DTW15102015	Duplicate	North Alluvial	11/6/2015	150 U	1.0 U	0.35 J	24 J	0.30 U	1.0 U	21000	0.89 J	0.20 U	0.80 J	50 U	0.70 U	3900	0.95 U	0.46 J	720 J	13	0.10 U	570000	0.20 U	1.5 J	7.7 J	0.080 U
	TMW15042015	Normal	North Alluvial	4/8/2015	31 U	0.60 U	1.0 U	24	0.24 U	0.40 U	19000	0.91 J	0.10 U	1.5 U	30 UJ	0.50 U	3600	0.90 U	0.90 U	810 J	14	0.10 U	550000	0.20 U	1.2 J	6.2 J	0.080 U
	DTW15042015	Duplicate	North Alluvial	4/8/2015	31 U	0.60 U	1.0 U	26	0.24 U	0.40 U	19000	0.93 J	0.10 U	1.5 U	46 J	0.50 U	3600	0.90 U	0.90 U	730 J	14	0.10 U	550000	0.20 U	1.1 J	7.8 J	0.080 U
TMW21	TMW21102016	Normal	North Alluvial	10/27/2016	20 J	1.0 U	0.68 J	16	0.30 U	1.0 U	31000	1.8 U	0.088 J	1.7 J	85 U	0.70 U	6600	**57**	0.55 J	660 J	3.9 J	0.10 U	660000 J	0.20 U	2.1 J	4.0 J	0.080 U
	TMW21042016	Normal	North Alluvial	4/11/2016	**3900**	0.93 J	1.6 J	38	0.26 J	1.0 U	36000	3.8 J	1.1	7.7	**2300**	1.3 J	7700	**56**	2.5 J	1500 J	4.4 J	0.051 J	630000	0.085 J	7.1 U	7.4 J	0.080 U
	TMW21102015	Normal	North Alluvial	10/29/2015	**1300**	1.0 U	8.9	480	2.9	0.36 J	33000	24	13	52	**890**	17	7500	**900**	26	1200 J	2.7 J	0.36 J	660000	0.31 J	50	87	0.080 U
	TMW21042015	Normal	North Alluvial	4/3/2015	**17000 J**	1.6 J	4.0 J	190	0.92 J	0.40 U	35000	9.4 J	4.9	23	**13000 J**	6.7	11000	**360**	10	4200	3.0 J	0.18 J	680000	0.22 J	22	37	0.080 U
TMW22	TMW22102016	Normal	North Alluvial	10/27/2016	**210 J**	1.0 U	0.83 J	23	0.30 U	1.0 U	34000	2.3 J	0.13 J	4.4	150	0.54 J	10000	6.6	2.2 J	680 J	4.1 J	0.10 U	870000 J	0.20 U	5.3 J	11 J	0.080 U
	TMW22042016	Normal	North Alluvial	4/8/2016	**4900**	1.0 U	1.3 J	61	0.21 J	1.0 U	36000	3.4 J	0.95 J	2.1	**2300**	0.94 J	12000	**51**	3.6	2100 J	2.3 J	0.10 UJ	850000	0.20 U	9.2	8.3 J	0.080 U
	TMW22102015	Normal	North Alluvial	10/29/2015	70 U	1.0 U	0.97 J	20	0.30 U	1.0 U	35000	0.53 J	0.11 J	1.3 J	85 U	0.70 U	11000	21	1.4 J	1000 J	2.8 J	0.10 U	910000	0.20 U	5.1 J	8.0 U	0.080 U
	TMW22042015	Normal	North Alluvial	4/1/2015	**200 J**	0.60 U	0.98 J	17 J	0.24 U	0.40 U	35000	1.4 J	0.13 J	1.5 J	120	0.50 U	11000	13	0.61 J	1100 J	3.1 J	0.10 U	780000	0.20 U	5.4 J	6.5 J	0.080 U
TMW23	TMW23102016	Normal	North Alluvial	10/28/2016	70 U	1.0 U	1.1 J	19	0.30 U	1.0 U	17000	1.5 J	0.065 J	1.1 J	85 U	0.70 U	4300	3.7	1.4 U	490 J	1.3 U	0.10 U	810000	0.20 U	2.9 J	5.1 U	0.080 U
	TMW23042016	Normal	North Alluvial	4/8/2016	**1000**	1.0 U	0.93 J	20	0.30 U	1.0 U	36000	0.75 J	0.20 J	0.80 J	**590**	0.44 J	11000	21	0.83 J	1200 J	2.7 J	0.10 UJ	780000	0.20 U	4.4 J	2.5 J	0.080 U
	TMW23102015	Normal	North Alluvial	10/30/2015	**370**	1.0 U	1.7 J	71	0.20 J	1.0 U	19000	4.2 J	1.2	2.7	240	1.4 J	5200	**81 J**	2.8 J	920 J	2.0 U	0.10 U	820000	0.20 U	8.6	8.2 J	0.080 U
	TMW23042015	Normal	North Alluvial	4/1/2015	45 J	0.60 U	1.0 J	18 J	0.24 U	0.40 U	18000	0.82 J	0.058 J	1.7 J	32 J	0.50 U	4600	8.2	0.78 J	750 J	2.0 U	0.10 U	760000	0.20 U	2.7 J	2.9 J	0.080 U

TABLE 5-7

Summary of Dissolved Metals Analytical Detections (Page 4 of 7)

Groundwater Periodic Monitoring Report July through December 2016 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	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																						
					50[b]	6[b]	10[b]	1,000[a]	4[b]	5[b]	NE	50[a]	50[a]	1,000[a]	300[b]	50[a]	NE	50[b]	200[a]	NE	50[a]	50[a]	NE	2[b]	86[c]	5,000[b]	2[a]
TMW24	TMW24102016	Normal	North Alluvial	11/3/2016	70 U	1.0 U	1.2 J	39	0.30 U	1.0 U	39000	1.8 U	0.21 J	1.1 J	56 J	0.70 U	9200	**150**	1.6 J	1700 J	2.0 U	0.10 U	1000000	0.20 U	1.7 J	3.1 J	0.080 U
	TMW24042016	Normal	North Alluvial	4/15/2016	70 U	1.0 U	1.3 J	38	0.087 J	1.0 U	36000	1.8 U	0.27 J	1.8 U	59 U	0.70 U	8900	**150**	1.3 J	1800 U	2.0 U	0.10 U	760000	0.20 U	1.9 J	8.0 U	0.080 U
	TMW24102015	Normal	North Alluvial	11/6/2015	150 U	1.0 U	1.1 J	39 J	0.30 U	1.0 U	37000	1.8 U	0.22 J	0.71 J	49 J	0.70 U	9500	**140**	2.1 J	730 J	2.0 U	0.10 U	1000000	0.20 U	1.9 J	4.8 J	0.080 U
	TMW24042015	Normal	North Alluvial	4/8/2015	34 J	0.60 U	1.1 J	40	0.24 U	0.40 U	34000	1.5 U	0.26 J	1.5 U	69 J	0.50 U	8700	**140**	0.84 J	990 J	2.0 U	0.10 U	940000	0.20 U	1.0 J	2.4 J	0.080 U
TMW25	TMW25102016	Normal	North Alluvial	11/1/2016	23 J	1.0 U	0.64 J	12	0.30 U	1.0 U	52000	5.0 J	0.23 J	1.5 J	41 J	0.70 U	10000	**220**	1.6 J	1500 J	0.94 J	0.080 J	890000 J	0.20 U	3.9 J	8.0 U	0.080 U
	TMW25042016	Normal	North Alluvial	4/13/2016	20 J	1.0 U	0.59 J	11	0.30 U	1.0 U	52000	1.8 U	0.092 J	1.0 J	30 J	0.70 U	11000	**98 J**	1.4 J	580 J	2.0 U	0.077 J	930000	0.20 U	3.6 J	4.3 J	0.080 U
	TMW25102015	Normal	North Alluvial	11/4/2015	150 U	1.0 U	0.52 J	10	0.30 U	1.0 U	55000	1.8 U	0.10 J	1.2 J	50 U	0.70 U	11000	**83**	1.1 J	910 J	2.0 U	0.10 U	880000	0.20 U	3.8 J	4.1 J	0.080 U
	TMW25042015	Normal	North Alluvial	4/7/2015	31 U	0.60 U	0.70 J	12	0.24 U	0.40 U	51000	1.5 U	0.060 J	0.84 J	30 U	0.50 U	11000	**90**	0.90 J	590 J	1.8 U	0.10 U	830000 J	0.20 U	3.7 J	6.0 U	0.080 U
TMW26	TMW26102016	Normal	North Alluvial	11/1/2016	19 J	0.83 J	1.3 J	18	0.30 U	1.0 U	18000	1.8 UJ	0.30 J	2.3	25 J	0.70 U	6500	**110**	3	770 J	2.0 U	0.036 J	840000 J	0.20 U	3.4 J	8.0 U	0.080 U
	TMW26042016	Normal	North Alluvial	4/8/2016	29 J	1.0 U	1.1 J	17	0.30 U	1.0 U	19000	1.8 U	0.22 J	1.8 J	85 U	0.41 J	6700	**110**	2.0 J	920 J	2.0 U	0.10 UJ	850000	0.20 U	3.2 J	8.0 U	0.080 U
	TMW26102015	Normal	North Alluvial	10/30/2015	70 U	1.0 U	1.2 J	19	0.30 UJ	1.0 U	18000	1.8 U	0.27 J	2.2	85 UJ	0.70 U	7300	**120 J**	1.8 J	390 J	2.0 U	0.10 UJ	870000	0.20 U	3.5 J	8.0 U	0.032 J
	DTW26102015	Duplicate	North Alluvial	10/30/2015	70 U	1.0 U	1.3 J	18	0.083 J	1.0 U	18000	1.8 U	0.32 J	2.2	24 J	0.70 U	7400	**120 J**	4.1 J	690 J	2.0 U	0.037 UJ	890000	0.20 U	3.5 J	8.0 U	0.032 J
	TMW26042015	Normal	North Alluvial	4/7/2015	31 U	0.60 U	1.4 J	18	0.24 U	0.40 U	19000	1.5 U	0.28 J	1.8 J	30 U	0.50 U	7500	**120**	2.2 J	750 J	2.0 U	0.10 U	870000 J	0.20 U	3.4 J	6.0 UJ	0.080 U
	DTW26042015	Duplicate	North Alluvial	4/7/2015	31 U	0.60 U	1.3 J	18	0.24 U	0.40 U	18000	1.5 U	0.24 J	1.7 J	30 U	0.50 U	7100	**110**	1.8 J	680 J	2.0 U	0.10 U	810000 J	0.20 U	3.5 J	2.4 J	0.080 U
TMW27	TMW27102016	Normal	North Alluvial	11/3/2016	70 U	1.0 U	**21**	120	0.30 U	1.0 U	25000	1.8 U	0.18 J	1.8 U	**510**	0.70 U	6200	**550**	1.3 J	980 J	2.0 U	0.10 U	350000	0.20 U	2.0 U	6.0 J	0.028 U
	TMW27042016	Normal	North Alluvial	4/8/2016	70 U	1.0 U	**20**	120	0.30 U	1.0 U	24000	1.8 U	0.15 J	1.8 U	**560**	0.70 U	6100	**540**	0.42 J	790 J	2.0 U	0.10 UJ	350000	0.20 U	0.53 J	8.0 U	0.080 U
	TMW27102015	Normal	North Alluvial	10/30/2015	70 U	1.0 U	**20**	110	0.30 U	1.0 U	24000	1.8 U	0.16 J	1.8 U	**540**	0.70 U	6700	**560 J**	0.50 J	630 J	2.0 U	0.10 U	370000	0.20 U	0.51 J	8.0 U	0.080 U
	TMW27042015	Normal	North Alluvial	4/7/2015	31 U	0.40 J	**20**	130	0.24 U	0.40 U	25000	1.5 U	0.17 J	1.5 U	**550**	0.50 U	6500	**560**	0.62 J	650 J	1.2 U	0.073 J	340000 J	0.20 U	1.0 U	6.0 U	0.080 U
TMW28	TMW28102016	Normal	North Alluvial	11/3/2016	70 U	1.0 U	1.0 U	57	0.30 U	1.0 U	110000	1.8 U	0.15 J	1.8 U	**350**	0.70 U	34000	**430**	1.4 J	1800 J	2.0 U	0.10 U	340000	0.20 U	0.85 J	2.2 J	0.027 U
	TMW28042016	Normal	North Alluvial	4/11/2016	70 U	1.0 U	1.0 U	53	0.30 U	1.0 U	110000	1.8 U	0.12 J	1.8 U	130	0.70 U	34000	**410**	0.77 J	1300 J	2.0 U	0.10 U	340000	0.20 U	0.98 U	4.2 J	0.080 U
	TMW28102015	Normal	North Alluvial	11/3/2015	150 U	1.0 U	1.0 U	53	0.30 U	1.0 U	100000	1.8 U	0.090 J	1.8 U	**370**	0.70 U	31000	**380**	0.46 J	1200	2.0 U	0.10 U	330000	0.20 U	1.4 J	8.0 U	0.080 U
	TMW28042015	Normal	North Alluvial	4/7/2015	31 U	1.2 J	1.0 U	79	0.24 U	0.40 U	130000	1.5 U	0.15 J	1.5 U	**510**	0.50 U	41000	**550**	0.53 J	1500 J	1.6 U	0.058 J	340000 J	0.14 J	0.51 J	6.0 U	0.080 U
TMW29	TMW29102016	Normal	North Alluvial	10/28/2016	18 J	1.0 U	0.94 J	17	0.30 U	1.0 U	36000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	6900	2.6 J	0.78 U	810 J	19	0.10 U	600000	0.20 U	4.8 J	3.1 U	0.080 U
	TMW29042016	Normal	North Alluvial	4/7/2016	**4400**	0.47 U	1.7 J	62 J	0.27 J	1.0 U	41000	3.8 J	1.3	2.2	**3000**	1.6 J	8000	**53**	3.2	1900 J	23	0.10 U	610000	0.20 U	9.9	9.3 U	0.080 U
	TMW29102015	Normal	North Alluvial	10/28/2015	**4400**	1.0 U	1.7 J	54	0.39 J	1.0 U	42000	3.7 J	1.4	2.6	**2500**	1.8 J	9000	**92**	3.8	2200 J	19	0.10 U	600000	0.20 U	9.6	8.8 J	0.080 U
	TMW29042015	Normal	North Alluvial	4/3/2015	**180 J**	0.62 J	1.4 J	7.9	0.24 U	0.40 U	37000	0.85 J	0.090 J	0.79 J	110 J	0.50 U	7500	21	1.0 J	1300 J	21	0.10 U	620000	0.20 U	5.4 J	2.8 J	0.080 U
TMW31S	TMW31S102016	Normal	North Alluvial	10/27/2016	**770**	0.99 J	0.34 J	21	0.30 U	1.0 U	110000	1.5 J	0.22 J	2.9	**370**	1.0 J	21000	36	1.7 J	810 J	10	0.10 U	610000 J	0.20 U	3.1 J	9.4 J	0.080 U
	TMW31S042016	Normal	North Alluvial	4/6/2016	**160 J**	0.95 U	1.0 U	16	0.30 U	1.0 U	120000	1.4 J	0.085 J	0.74 J	72 J	0.70 U	20000	20 J	0.52 J	760 J	10	0.10 U	540000	0.20 U	2.2 J	3.1 J	0.080 U
	TMW31S102015	Normal	North Alluvial	10/29/2015	70 U	1.0 U	1.0 U	15	0.30 U	1.0 U	120000	1.5 J	0.20 U	1.6 J	27 J	0.70 U	22000	31	0.36 J	800 J	8.8	0.10 U	590000	0.20 U	2.1 J	8.0 U	0.080 U
	TMW31S042015	Normal	North Alluvial	4/2/2015	**15000**	0.60 U	0.67 J	120	0.51 J	0.40 U	120000 J	6.9 J	3.1	2.7	**6200**	3.2	23000	**450**	6.8	2200 J	7.5	0.10 U	520000	0.069 J	12	18 J	0.080 U
TMW33	TMW33102016	Normal	North Alluvial	10/28/2016	**50 J**	1.0 U	0.70 J	18	0.30 U	1.0 U	97000	0.61 J	0.18 J	3	34 U	0.70 U	27000	**160**	2.8 U	700 J	1.6 U	0.10 U	2600000	0.20 U	4.0 J	4.0 U	0.080 U
	TMW33042016	Normal	North Alluvial	4/7/2016	**340**	1.0 U	0.74 J	21 J	0.12 J	1.0 U	110000	0.77 J	0.29 J	3.4	230	0.18 J	27000	**200**	2.2 J	1600 J	2.0 U	0.10 U	2200000	0.20 U	4.3 J	4.6 U	0.080 U
	TMW33102015	Normal	North Alluvial	10/30/2015	**81 J**	1.0 U	0.99 J	31	0.30 U	1.0 U	100000	1.5 J	0.67 J	3.3	77 J	1.2 J	31000	**510 J**	2.6 J	2000 J	2.0 U	0.085 U	2500000	0.20 U	5.0 J	7.6 J	0.052 J
	TMW33042015	Normal	North Alluvial	4/2/2015	31 U	0.46 J	0.93 J	19	0.28 J	0.40 U	110000 J	1.5 U	0.18 J	1.5 J	30 U	0.81 J	28000	**110**	1.5 J	1200 J	0.82 J	0.055 J	3000000	0.14 J	3.4 J	2.0 J	0.080 U
TMW34	TMW34102016	Normal	North Alluvial	11/1/2016	70 UJ	1.0 U	0.40 J	11	0.30 U	1.0 U	120000	5.9 J	0.14 J	1.2 J	85 U	0.70 U	24000	**140**	1.2 J	1800 J	**120**	0.10 U	1300000 J	0.20 U	1.3 J	8.0 U	0.080 U
	TMW34042016	Normal	North Alluvial	4/12/2016	70 U	1.0 U	1.0 U	13	0.30 U	1.0 U	130000	1.8 U	0.094 J	0.99 J	85 U	0.70 U	27000	**140**	0.50 J	890 J	**120**	0.10 U	1400000	0.20 U	1.3 J	8.0 U	0.080 U
	DTW34042016	Duplicate	North Alluvial	4/12/2016	70 U	1.0 U	1.0 U	14	0.30 U	1.0 U	120000	1.8 U	0.10 J	0.86 J	85 U	0.70 U	26000	**130**	0.50 J	870 J	**120**	0.10 U	1300000	0.20 U	1.0 J	8.0 U	0.080 U
	TMW34102015	Normal	North Alluvial	11/3/2015	150 U	1.0 U	1.0 UJ	11	0.30 U	1.0 U	130000	1.8 U	0.11 J	0.74 J	50 U	0.70 U	27000	**140**	0.59 J	1600	**110**	0.10 U	1400000	0.20 U	1.5 J	8.0 U	0.080 U
	DTW34102015	Duplicate	North Alluvial	11/3/2015	150 U	1.0 U	0.33 J	11	0.30 U	1.0 U	130000	1.8 U	0.11 J	1.8 UJ	50 U	0.70 U	27000	**150**	0.48 J	1600	**110**	0.10 U	1400000	0.20 U	1.3 J	8.0 U	0.080 U
	TMW34042015	Normal	North Alluvial	4/3/2015	31 U	0.60 U	1.0 U	13	0.24 U	0.40 U	120000	0.75 J	0.16 J	0.74 J	30 U	0.50 U	25000	**120**	0.62 J	1100 J	**120**	0.034 J	1500000	0.060 J	1.3 J	6.0 U	0.080 U
	DTW34042015	Duplicate	North Alluvial	4/3/2015	31 U	0.60 U	0.47 J	12	0.24 U	0.40 U	110000	1.5 U	0.094 J	0.62 J	30 U	0.50 U	24000	**130**	0.66 J	1100 J	**120**	0.10 U	1400000	0.20 U	1.0 J	6.0 U	0.080 U

TABLE 5-7
Summary of Dissolved Metals Analytical Detections (Page 5 of 7)
Groundwater Periodic Monitoring Report July through December 2016 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	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																					
					50[b]	6[b]	10[b]	1,000[a]	4[b]	5[b]	NE	50[a]	50[a]	1,000[a]	300[b]	50[a]	NE	50[b]	200[a]	NE	50[a]	50[a]	NE	2[b]	86[c]	5,000[b]	2[a]
TMW35	TMW35102016	Normal	North Alluvial	10/31/2016	29 J	1.0 U	0.50 J	12	0.30 U	1.0 U	76000	1.8 U	0.19 J	1.2 J	22 J	0.70 U	14000	**150**	1.0 J	370 J	16	0.10 U	1200000	0.20 U	2.1 J	2.0 J	0.080 U
	DTW35102016	Duplicate	North Alluvial	10/31/2016	70 U	1.0 U	0.51 J	12	0.30 U	1.0 U	77000	1.8 U	0.18 J	1.7 J	85 U	0.70 U	15000	**150**	1.0 J	400 J	16	0.10 U	1300000	0.20 U	2.0 J	9.6 J	0.080 U
	TMW35042016	Normal	North Alluvial	4/11/2016	70 U	0.47 J	0.50 J	12	0.25 J	1.0 U	80000	1.8 U	0.15 J	2.3	85 U	0.70 U	15000	**140**	0.86 J	570 J	19	0.10 U	1100000	0.20 U	2.0 U	3.2 J	0.080 U
	TMW35102015	Normal	North Alluvial	11/2/2015	70 U	1.0 U	0.35 J	11	0.30 U	1.0 U	80000	1.8 U	0.17 J	1.5 J	36 J	0.70 U	15000	**130**	1.2 U	920 J	19	0.10 U	1200000	0.20 U	1.9 J	8.0 UJ	0.080 U
	TMW35042015	Normal	North Alluvial	4/3/2015	31 U	0.60 U	0.62 J	11	0.24 U	0.40 U	79000	1.5 U	0.12 J	1.2 J	30 U	0.50 U	15000	**150**	0.95 J	810 J	25	0.038 J	1300000	0.20 U	1.9 J	6.0 U	0.080 U
TMW39S	TMW39S102016	Normal	North Alluvial	10/27/2016	**350**	0.40 J	0.50 J	18	0.30 U	1.0 U	71000	1.8 J	0.13 J	3.5	170	1.3 J	15000	7.1	1.4 J	810 J	11	0.10 U	900000 J	0.20 U	4.0 J	8.2 J	0.080 U
	TMW39S042016	Normal	North Alluvial	4/6/2016	**14000**	1.0 U	1.1 J	120	0.33 J	1.0 U	87000	8.8 J	2.7	4.3	**7200**	3.2	20000	**210 J**	6.5	3400	12	0.072 J	1000000	0.061 J	14	15 J	0.080 U
	TMW39S102015	Normal	North Alluvial	10/29/2015	70 U	1.0 U	0.36 J	13	0.30 U	1.0 U	75000	1.8 J	0.20 U	1.2 J	85 U	0.70 U	17000	2.1 J	0.34 J	1200 J	11	0.10 U	940000	0.20 U	3.4 J	8.0 U	0.080 U
	TMW39S042015	Normal	North Alluvial	4/1/2015	30 J	0.60 U	0.53 J	15 J	0.24 U	0.40 U	75000	2.3 J	0.10 U	1.0 J	24 J	0.50 U	16000	2.7 J	0.90 U	940 J	11	0.10 U	840000	0.062 J	3.5 J	6.0 U	0.080 U
TMW40S	TMW40S102016	Normal	North Alluvial	10/2016	Well dry this event																					
	TMW40S042016	Normal	North Alluvial	4/11/2016	**2900**	0.42 J	**11**	55	0.28 J	1.0 U	64000	1.6 J	0.52 J	1.0 J	**1300**	2.8 J	11000	**57**	1.6 J	850 J	**68**	0.10 U	990000	0.20 U	41	19 J	0.080 U
	TMW40S102015	Normal	North Alluvial	10/28/2015	**25000**	1.0 U	**15**	330	3.4	1.0 U	83000	10	4.4	8.5	**12000**	25	18000	**500**	11	3000	**54**	0.048 J	1000000	0.089 J	50	170	0.027 J
	TMW40S042015	Normal	North Alluvial	4/2/2015	**17000**	0.60 U	**14**	270	2.1	0.40 U	80000 J	7.1 J	3.2	5.7	**8100**	19	15000	**330**	7.7	1800 J	**50**	0.10 U	1000000	0.066 J	42	130	0.080 U
TMW41	TMW41102016	Normal	North Alluvial	10/27/2016	70 U	1.0 U	0.43 J	10	0.30 U	1.0 U	16000	2.1 J	0.20 U	1.4 J	85 U	0.68 J	3900	0.64 J	0.88 J	790 J	1.9 J	0.10 U	930000 J	0.20 U	6.4	4.2 J	0.080 U
	TMW41042016	Normal	North Alluvial	4/7/2016	**350**	1.0 U	0.50 J	14 J	0.11 J	1.0 U	15000	1.7 J	0.093 J	0.68 J	210	0.70 U	3500	4.2	0.70 J	840 J	1.1 J	0.10 U	780000	0.20 U	6.5	3.2 U	0.080 U
	TMW41102015	Normal	North Alluvial	10/29/2015	70 U	1.0 U	0.73 J	11	0.30 U	1.0 U	16000	1.4 J	0.20 U	0.74 J	85 U	0.70 U	3900	0.34 J	1.0 U	1100 J	1.3 J	0.054 J	930000	0.20 U	6.3	8.0 U	0.080 U
	TMW41042015	Normal	North Alluvial	4/1/2015	22 J	1.3 J	0.54 J	11 J	0.24 U	0.40 U	16000	2.2 J	0.10 U	0.83 J	30 U	0.18 J	3800	0.48 J	0.90 U	860 J	1.6 J	0.064 J	810000	0.15 J	7.1	6.0 U	0.080 U
TMW43	TMW43102016	Normal	North Alluvial	11/3/2016	70 U	1.0 U	1.0 U	20	0.30 U	1.0 U	36000	1.8 U	0.089 J	0.85 J	42 J	0.70 U	6100	**51**	0.34 J	1700 J	6.7	0.10 U	570000	0.20 U	1.8 J	3.0 J	0.027 U
	DTW43102016	Duplicate	North Alluvial	11/3/2016	70 U	1.0 U	1.0 U	19	0.30 U	1.0 U	36000	1.8 U	0.11 J	1.1 J	85 U	0.70 U	6200	**50**	0.44 J	1600 J	6.7	0.10 U	580000	0.20 U	1.7 J	3.8 J	0.030 U
	TMW43042016	Normal	North Alluvial	4/13/2016	70 U	1.0 U	1.0 U	18	0.30 U	1.0 U	34000	1.8 U	0.077 J	1.8 U	85 U	0.70 U	6600	47 J	1.0 U	940 J	6.6	0.10 U	600000	0.20 U	2.2 J	8.0 U	0.080 U
	DTW43042016	Duplicate	North Alluvial	4/13/2016	70 U	0.53 J	1.0 U	18	0.13 J	1.0 U	35000	1.8 U	0.12 J	1.8 U	85 U	0.70 U	6900	49 J	1.0 U	970 J	6.3	0.10 U	620000	0.13 J	2.0 J	8.0 U	0.080 U
	TMW43102015	Normal	North Alluvial	11/3/2015	150 U	0.60 J	1.0 U	20	0.30 U	1.0 U	38000	1.8 U	0.086 J	1.3 J	50 U	0.70 U	6600	**50**	0.99 J	1000	6.3	0.087 J	600000	0.069 J	3.8 J	3.2 J	0.080 U
	DTW43102015	Duplicate	North Alluvial	11/3/2015	150 U	1.0 UJ	1.0 U	20	0.30 U	1.0 U	38000	1.8 U	0.095 J	1.3 J	50 U	0.70 U	6700	**51**	1.3 J	1400	6	0.12 J	600000	0.099 J	4.2 J	2.3 J	0.080 U
	TMW43042015	Normal	North Alluvial	4/10/2015	31 U	0.60 U	1.0 U	20	0.24 UJ	0.40 U	35000	1.5 U	0.096 J	1.5 U	30 U	0.50 U	6900	49	0.38 J	1000 J	5.8	0.10 UJ	570000	0.057 J	4.4 J	6.0 U	0.080 U
	DTW43042015	Duplicate	North Alluvial	4/10/2015	31 U	0.60 U	1.0 U	21	0.11 J	0.40 U	37000	1.5 U	0.094 J	1.5 U	30 U	0.50 U	7200	49	0.32 J	1100 J	6.2	0.14 J	580000	0.13 J	4.2 J	6.0 U	0.080 U
TMW44	TMW44102016	Normal	North Alluvial	10/27/2016	**92 J**	1.0 U	0.81 J	17	0.30 U	1.0 U	34000	1.8 U	0.064 J	2.9	64 J	0.35 J	11000	3.8	1.4 J	510 J	2.9 J	0.10 U	790000 J	0.20 U	4.2 J	5.9 J	0.080 U
	TMW44042016	Normal	North Alluvial	4/8/2016	**130 J**	1.0 U	1.1 J	21	0.098 J	1.0 U	18000	0.73 J	0.096 J	1.1 J	72 J	0.70 U	4500	5.2	0.89 J	1100 J	2.0 U	0.10 UJ	810000	0.20 U	2.8 J	8.0 U	0.080 U
	TMW44102015	Normal	North Alluvial	10/29/2015	70 U	1.0 U	1.1 J	13	0.30 U	1.0 U	36000	1.8 U	0.20 U	1.3 J	85 U	0.70 U	12000	7.7	1.0 U	800 J	2.0 J	0.10 U	820000	0.20 U	3.8 J	8.0 U	0.080 U
	TMW44042015	Normal	North Alluvial	4/1/2015	**64 J**	0.60 U	0.88 J	15 J	0.24 U	0.40 U	36000	1.5 U	0.067 J	1.0 J	44 J	0.50 U	11000	14	0.90 U	580 J	2.2 J	0.10 U	710000	0.20 U	4.2 J	3.8 U	0.080 U
TMW45	TMW45102016	Normal	North Alluvial	11/4/2016	70 UJ	1.0 U	0.85 J	68	0.30 U	1.0 U	29000	0.88 J	0.057 J	1.8 J	23 J	0.70 U	7100	17	1.7 J	1400 J	0.92 J	0.10 U	960000	0.20 U	4.2 J	8.0 U	0.048 U
	DTW45102016	Duplicate	North Alluvial	11/4/2016	70 UJ	1.0 U	0.98 J	70	0.30 U	1.0 U	30000	1.8 U	0.20 U	1.7 J	85 U	0.70 U	7200	18	1.2 J	1600 J	1.0 J	0.10 U	970000	0.20 U	4.2 J	8.0 U	0.080 U
	TMW45042016	Normal	North Alluvial	4/14/2016	70 U	1.0 U	0.93 J	69	0.30 U	1.0 U	29000	1.8 U	0.065 J	2	85 U	0.70 U	7000	26	0.97 J	1800 U	0.76 J	0.10 U	740000	0.20 U	4.1 J	4.9 U	0.080 U
	TMW45102015	Normal	North Alluvial	11/3/2015	150 U	1.0 U	1.1 J	68	0.30 U	1.0 U	31000	1.8 U	0.086 J	2.9	50 U	0.70 U	7800	**52**	1.4 J	1300	2.0 U	0.10 U	960000	0.20 U	4.2 J	8.0 U	0.080 U
	TMW45042015	Normal	North Alluvial	4/9/2015	31 U	0.60 U	0.85 J	78	0.24 U	0.40 U	30000	1.5 U	0.10 U	1.8 J	30 U	0.50 U	8200	37	1.2 J	1100 J	2.0 U	0.10 U	920000	0.20 U	4.0 J	6.0 U	0.080 U
TMW46	TMW46102016	Normal	North Alluvial	10/28/2016	70 U	1.0 U	1.0 U	9.4	0.30 U	1.0 U	74000	1.8 U	0.065 J	1.8 U	32 U	0.70 U	17000	0.85 J	0.79 U	320 J	**120**	0.10 U	1300000	0.20 U	2.7 J	8.0 U	0.080 U
	TMW46042016	Normal	North Alluvial	4/7/2016	**300**	1.0 U	1.0 U	15 J	0.30 U	1.0 U	74000	0.71 J	0.14 J	1.1 J	210	0.18 J	16000	4.5	0.63 J	700 J	**110**	0.10 U	1100000	0.20 U	2.8 J	2.7 U	0.080 U
	TMW46102015	Normal	North Alluvial	10/29/2015	70 U	1.0 U	0.36 J	10	0.30 U	1.0 U	72000	1.8 U	0.20 U	1.2 J	85 U	0.70 U	18000	0.71 J	0.37 J	830 J	**110**	0.10 U	1300000	0.20 U	2.4 J	8.0 U	0.080 U
	TMW46042015	Normal	North Alluvial	4/2/2015	31 U	1.4 J	0.50 J	9.2	0.11 J	0.40 U	74000 J	1.5 U	0.10 J	1.3 J	30 U	0.50 U	17000	0.31 J	0.90 U	450 J	**100**	0.045 J	1200000	0.079 J	2.3 J	6.0 U	0.080 U
TMW47	TMW47102016	Normal	North Alluvial	11/4/2016	70 UJ	1.0 U	0.65 J	13	0.16 J	1.0 U	6600	0.68 J	0.17 J	0.67 J	23 J	0.70 U	660	40	0.68 J	1800 J	1.6 J	0.037 J	570000	0.13 J	0.84 J	2.1 J	0.080 U
	TMW47042016	Normal	North Alluvial	4/14/2016	20 J	1.0 U	0.39 J	14	0.30 U	1.0 U	6100	1.8 U	0.080 J	1.8 U	26 UJ	0.70 U	630	45	0.63 J	2000 U	2.0 U	0.10 U	410000	0.20 U	2.0 U	8.0 U	0.080 U
	TMW47102015	Normal	North Alluvial	11/5/2015	150 U	1.0 U	0.52 J	14	0.30 U	1.0 U	6300	1.8 U	0.087 J	1.8 U	50 U	0.70 U	690	40	0.60 J	1100	2.0 U	0.10 U	550000	0.20 U	0.89 J	8.0 U	0.080 U
	TMW47042015	Normal	North Alluvial	4/10/2015	31 U	0.60 U	1.0 U	14	0.24 U	0.40 U	6400	1.5 U	0.072 J	1.5 U	27 J	0.50 U	750	40	0.90 U	1200 J	2.0 U	0.10 U	570000	0.20 U	1.0 U	6.0 U	0.080 U

TABLE 5-7

Summary of Dissolved Metals Analytical Detections (Page 6 of 7)

Groundwater Periodic Monitoring Report July through December 2016 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	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																					
					50[b]	6[b]	10[b]	1,000[a]	4[b]	5[b]	NE	50[a]	50[a]	1,000[a]	300[b]	50[a]	NE	50[b]	200[a]	NE	50[a]	50[a]	NE	2[b]	86[c]	5,000[b]	2[a]
TMW02	TMW02102016	Normal	North Bedrock	11/1/2016	70 UJ	1.0 U	1.1 J	8.6	0.30 U	1.0 U	23000	0.66 J	0.054 J	0.63 J	85 U	0.70 U	2600	0.89 J	0.61 J	2700 J	**81**	0.10 U	1100000 J	0.20 U	42	8.0 U	0.080 U
	TMW02042016	Normal	North Bedrock	4/13/2016	70 U	1.0 U	1.2 J	8.3	0.30 U	1.0 U	23000	0.52 J	0.20 U	1.8 U	85 U	0.70 U	2900	0.95 U	1.0 U	1800 J	**79**	0.10 U	1100000	0.20 U	44	2.2 J	0.080 U
	TMW02102015	Normal	North Bedrock	11/3/2015	150 U	1.0 U	0.39 J	11	0.30 U	1.0 U	24000	1.8 U	0.16 J	0.63 J	50 U	0.70 U	2800	**150**	0.51 J	1700	**120**	0.10 U	1100000	0.20 U	1.4 J	8.0 U	0.080 U
	TMW02042015	Normal	North Bedrock	4/9/2015	31 U	0.60 U	1.2 J	10	0.24 U	0.40 U	23000	1.5 U	0.10 U	1.2 J	30 U	0.50 U	3000	0.31 U	0.50 J	2000 J	**72**	0.10 U	1100000	0.20 U	44	6.0 U	0.080 U
TMW14A	TMW14A102016	Normal	North Bedrock	11/3/2016	70 U	1.0 U	0.54 J	17	0.30 U	1.0 U	3300	1.8 U	0.064 J	0.65 J	85 U	0.70 U	370 J	10	1.1 J	1200 J	2.0 U	0.10 U	430000	0.20 U	2.0 U	6.3 J	0.028 U
	TMW14A042016	Normal	North Bedrock	4/14/2016	18 J	1.0 U	0.55 J	18	0.30 U	1.0 U	3200	1.8 U	0.20 U	1.8 U	85 U	0.70 U	360 J	12	0.45 J	1500 U	2.0 U	0.10 U	360000	0.20 U	2.0 U	8.0 U	0.080 U
	TMW14A102015	Normal	North Bedrock	11/3/2015	150 U	1.0 U	0.34 J	18	0.30 U	1.0 U	3400	1.8 U	0.20 U	1.8 U	50 U	0.70 U	380 J	13	0.63 J	990 J	2.0 U	0.10 U	430000	0.20 U	2.0 U	8.0 U	0.080 U
	TMW14A042015	Normal	North Bedrock	4/8/2015	31 U	1.2 J	0.52 J	16	0.24 U	0.40 U	3200	1.5 U	0.10 U	1.5 U	26 J	0.50 U	390 J	10	0.90 U	780 J	2.0 U	0.033 J	410000	0.17 U	1.0 U	6.0 U	0.080 U
TMW16	TMW16102016	Normal	North Bedrock	10/28/2016	70 U	0.77 J	1.0 U	14	0.30 U	1.0 U	3700	1.8 U	0.14 J	1.8 U	23 U	0.70 U	380 J	2.6 J	5.2	610 J	0.80 U	0.10 U	460000	0.058 J	12	8.0 U	0.080 U
	TMW16042016	Normal	North Bedrock	4/7/2016	**280 J**	1.0 U	1.0 U	16 J	0.30 U	1.0 U	3800	13	0.92 J	0.96 J	280	0.70 U	430 J	16	45	690 J	1.2 J	0.10 U	420000	0.20 U	8.7	5.7 U	0.080 U
	TMW16102015	Normal	North Bedrock	10/28/2015	**67 J**	1.0 U	0.46 J	16	0.30 U	1.0 U	4000	0.65 J	0.11 J	0.86 J	41 J	0.70 U	440 J	8.5	4	590 J	2.0 U	0.055 J	470000	0.20 U	17	7.1 J	0.080 U
	TMW16042015	Normal	North Bedrock	4/1/2015	**93 J**	0.60 U	0.49 J	15 J	0.24 U	0.40 U	4000	1.4 J	0.20 J	1.1 J	52 J	0.50 U	430 J	6.6	5.8	720 J	2.0 U	0.10 U	420000	0.20 U	20	6.3 J	0.080 U
TMW17	TMW17102016	Normal	North Bedrock	11/4/2016	**55 J**	1.0 U	1.0 U	14	0.30 U	0.58 J	3600	1.8 U	0.20 U	1.8 U	85 U	0.70 U	450 J	9.8	0.54 J	1200 J	2.0 U	0.10 U	430000	0.20 U	2.0 U	8.0 U	0.067 U
	TMW17042016	Normal	North Bedrock	4/15/2016	**74 J**	1.0 U	1.0 U	15	0.30 U	1.0 U	3600	1.8 U	0.20 U	1.8 U	85 U	0.70 U	490 J	9	0.85 J	1400 U	2.0 U	0.10 U	320000	0.20 U	2.0 U	2.6 U	0.080 U
	TMW17102015	Normal	North Bedrock	11/3/2015	**69 J**	1.0 U	1.0 U	13	0.30 U	1.0 U	3700	1.8 U	0.20 U	1.8 U	22 J	0.70 U	470 J	9.3	1.0 U	1100	2.0 U	0.10 U	420000	0.20 U	2.0 U	8.0 U	0.080 U
	TMW17042015	Normal	North Bedrock	4/7/2015	**110 J**	0.60 U	1.0 U	15	0.24 U	0.40 U	5700	1.5 U	0.10 U	1.5 U	32 J	0.23 J	520	14	1.0 J	1100 J	2.0 U	0.10 U	400000 J	0.20 U	1.0 U	44	0.080 U
TMW18	TMW18102016	Normal	North Bedrock	10/28/2016	**72 J**	1.0 U	0.64 J	13	0.30 U	1.0 U	6100	1.8 U	0.20 U	1.8 U	85 U	0.70 U	950	5	1.0 U	3100	0.93 U	0.10 U	690000	0.20 U	8.3	8.0 U	0.080 U
	TMW18042016	Normal	North Bedrock	4/7/2016	**90 J**	1.0 U	1.0 U	17 J	0.30 U	1.0 U	6900	1.8 U	0.20 U	1.8 U	35 J	0.21 J	1200	6.9	1.0 U	3200	0.93 J	0.10 U	700000	0.20 U	3.9 J	3.4 U	0.080 U
	TMW18102015	Normal	North Bedrock	10/29/2015	70 U	1.0 U	0.61 J	14	0.30 U	1.0 U	16000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	3900	3.8	1.0 U	970 J	2.0 U	0.10 U	930000	0.20 U	7.1	8.0 U	0.080 U
	TMW18042015	Normal	North Bedrock	4/1/2015	**100 J**	0.60 U	2.8 J	12 J	0.24 U	0.40 U	6300	1.0 J	0.10 U	1.5 J	29 J	0.84 J	840	2.3 J	0.47 J	3400	2.0 U	0.034 J	640000	0.20 U	25	2.2 J	0.080 U
TMW19	TMW19102016	Normal	North Bedrock	10/28/2016	**210 J**	1.0 U	1.0 U	7.2	0.30 U	1.0 U	9200	1.8 U	0.10 J	1.8 U	95 U	0.70 U	1000	13	2.3 U	910 J	0.92 U	0.10 U	690000	0.20 U	8.8	8.3 U	0.080 U
	DTW19102016	Duplicate	North Bedrock	10/28/2016	**400**	1.0 U	1.0 U	7.9	0.30 U	1.0 U	9000	1.8 U	0.13 J	1.8 U	170	0.24 J	1000	14	2.5 U	930 J	0.80 U	0.10 U	700000	0.20 U	8.9	9.4 U	0.080 U
	TMW19042016	Normal	North Bedrock	4/7/2016	**1000**	1.0 U	1.0 U	10 J	0.30 U	1.0 U	11000	1.5 J	0.38 J	1.4 J	**690**	0.47 J	1300	33	8.5	1200 J	1.2 J	0.055 J	670000	0.20 U	3.9 J	43	0.080 U
	TMW19102015	Normal	North Bedrock	10/28/2015	**2400**	1.0 U	0.91 J	19	0.28 J	1.0 U	11000	4.6 J	1.1	17	**1100**	1.3 J	1700	**56**	28	1500 J	2.0 U	0.14 J	710000	0.20 U	5.1 J	62	0.080 U
	TMW19042015	Normal	North Bedrock	4/1/2015	**100 J**	0.60 U	1.0 U	8.4 J	0.24 U	0.40 U	9600	1.5 U	0.10 U	1.5 U	63 J	0.50 U	1000	13	1.2 J	1100 J	2.0 U	0.10 U	640000	0.20 U	6.8	2.7 J	0.080 U
TMW30	TMW30102016	Normal	North Bedrock	10/26/2016	70 U	1.0 U	0.67 J	9.6	0.30 U	1.0 U	48000	1.8 U	0.17 J	2.5 J	34 J	0.34 J	11000	15 J	2.0 U	980 J	6.9	0.10 U	510000 J	0.075 U	9.3	12 U	0.080 U
	TMW30042016	Normal	North Bedrock	4/7/2016	**180 J**	1.0 U	0.75 J	11 J	0.30 U	1.0 U	57000	0.56 J	0.090 J	1.0 J	140	0.21 J	11000	5.7	0.58 J	920 J	7.4	0.10 U	460000	0.20 U	13	4.3 U	0.080 U
	TMW30102015	Normal	North Bedrock	10/29/2015	70 U	1.0 U	0.87 J	7.9	0.30 U	1.0 U	52000	1.8 U	0.10 J	2.5	85 U	0.70 U	11000	3.7	0.64 J	1000 J	6.5	0.10 U	440000	0.20 U	13	5.0 J	0.080 U
	TMW30042015	Normal	North Bedrock	4/1/2015	23 J	0.60 U	0.92 J	8.6 J	0.24 U	0.40 U	58000	1.5 U	0.10 U	1.4 J	30 U	0.19 J	12000	0.72 J	0.90 U	870 J	7.9	0.14 J	420000	0.055 J	15	6.0 U	0.080 U
TMW31D	TMW31D102016	Normal	North Bedrock	10/31/2016	70 U	1.0 U	0.37 J	8.7	0.30 U	1.0 U	65000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	11000	2.1 J	0.40 J	1400 J	8.6	0.10 U	600000	0.20 U	6.6	16 J	0.080 U
	DTW31D102016	Duplicate	North Bedrock	10/31/2016	70 U	1.0 U	0.46 J	8.7	0.30 U	1.0 U	65000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	11000	2.1 J	0.31 J	1400 J	8.3	0.10 U	560000	0.20 U	6.8	15 J	0.080 U
	TMW31D042016	Normal	North Bedrock	4/13/2016	70 U	1.0 U	0.48 J	8.4	0.30 U	1.0 U	64000	1.8 U	0.20 U	0.61 J	27 J	0.70 U	12000	2.8 J	0.46 J	1700 J	8.1	0.10 U	590000	0.20 U	6.3	17 J	0.080 U
	DTW31D042016	Duplicate	North Bedrock	4/13/2016	70 U	1.0 U	0.33 J	9.5	0.30 U	1.0 U	63000	1.8 U	0.20 U	0.85 J	85 U	0.70 U	12000	2.2 J	0.94 J	1700 J	8.5	0.10 U	580000	0.20 U	6.3	17 J	0.080 U
	TMW31D102015	Normal	North Bedrock	11/5/2015	150 U	1.0 U	0.50 J	10	0.30 U	1.0 U	66000	1.8 U	0.065 J	1.3 J	50 U	0.70 U	11000	2.4 J	1.4 J	1600	7.5	0.054 J	550000	0.052 J	7	19 J	0.080 U
	DTW31D102015	Duplicate	North Bedrock	11/5/2015	150 U	1.0 U	0.40 J	10	0.30 U	1.0 U	69000	1.8 U	0.072 J	1.6 J	50 U	0.70 U	12000	2.7 J	1.2 J	1700	7.6	0.10 U	540000	0.20 U	7.1	19 J	0.080 U
	TMW31D042015	Normal	North Bedrock	4/6/2015	31 U	1.8 J	0.46 J	8.9	0.24 U	0.40 U	54000	1.5 U	0.10 J	1.2 J	30 U	0.50 U	9300	2.6 J	0.51 J	1200 J	8.1	0.034 J	560000	0.12 J	5.6 J	19 J	0.080 U
TMW32	TMW32102016	Normal	North Bedrock	11/2/2016	22 J	0.50 J	1.6 J	7.1	0.30 U	1.0 U	9900	1.8 U	0.061 J	1.8 U	85 U	0.70 U	1100	26	0.56 J	980 J	3.7 U	0.10 U	730000	0.20 U	2.1 J	2.2 J	0.080 U
	TMW32042016	Normal	North Bedrock	4/13/2016	70 U	0.48 J	1.6 J	7.7	0.30 U	1.0 U	10000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	1200	27 J	1.1 J	1200 J	3.4 J	0.084 J	740000	0.20 U	2.0 J	8.0 U	0.080 U
	TMW32102015	Normal	North Bedrock	11/5/2015	150 U	1.0 U	1.4 J	8	0.30 U	1.0 U	11000	1.8 U	0.055 J	1.8 U	50 U	0.70 U	1200	29	0.60 J	1300	3.2 J	0.10 U	720000	0.20 U	2.4 J	3.5 J	0.080 U
	TMW32042015	Normal	North Bedrock	4/9/2015	19 J	0.60 U	1.1 J	8.6	0.24 U	0.40 U	11000	1.5 U	0.10 U	0.58 J	30 U	0.50 U	1300	29	0.84 J	1300 J	3.2 J	0.10 U	710000	0.20 U	3.0 J	4.2 J	0.080 U
TMW36	TMW36102016	Normal	North Bedrock	10/27/2016	70 U	1.0 U	1.0 U	6.7	0.30 U	1.0 U	8600	1.8 U	0.10 J	0.89 J	85 U	0.70 U	960	12	3.2	950 J	1.4 J	0.10 U	700000 J	0.20 U	2.8 J	6.2 J	0.080 U
	TMW36042016	Normal	North Bedrock	4/7/2016	**58 J**	1.0 U	1.0 U	7.4 J	0.30 U	1.0 U	8700	1.6 J	0.34 J	1.8 U	49 J	0.70 U	880	20	17	950 J	0.75 J	0.10 U	640000	0.20 U	1.2 J	12 U	0.080 U
	TMW36102015	Normal	North Bedrock	10/28/2015	70 U	1.0 U	1.0 U	8.3	0.30 U	1.0 U	8600	0.70 J	0.18 J	1.8 U	85 U	0.36 J	960	15	4.5	1100 J	2.0 U	0.10 U	680000	0.20 U	1.9 J	15 J	0.080 U
	TMW36042015	Normal	North Bedrock	4/1/2015	31 U	0.60 U	1.0 U	8.4 J	0.24 U	0.40 U	8700	1.5 U	0.066 J	1.5 U	30 U	0.50 U	910	15	1.1 J	1000 J	2.0 U	0.10 U	620000	0.20 U	2.4 J	6.5 J	0.080 U

TABLE 5-7
Summary of Dissolved Metals Analytical Detections (Page 7 of 7)
Groundwater Periodic Monitoring Report July through December 2016 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)
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					Regulatory Limits																					
					50[b]	6[b]	10[b]	1,000[a]	4[b]	5[b]	NE	50[a]	50[a]	1,000[a]	300[b]	50[a]	NE	50[b]	200[a]	NE	50[a]	50[a]	NE	2[b]	86[c]	5,000[b]	2[a]
TMW37	TMW37102016	Normal	North Bedrock	10/27/2016	**110 J**	0.47 J	0.44 J	9.1	0.14 J	1.0 U	5400	2.7 J	0.23 J	0.61 J	86 J	0.49 J	600	7.3	8.3	650 J	1.6 J	0.034 J	540000 J	0.11 J	4.3 J	21	0.080 U
	TMW37042016	Normal	North Bedrock	4/7/2016	35 J	1.0 U	1.0 U	11 J	0.30 U	1.0 U	6300	0.95 J	0.15 J	1.8 U	25 J	0.70 U	650	9	6.4	740 J	2.0 U	0.10 U	580000	0.20 U	2.8 J	8.9 U	0.080 U
	TMW37102015	Normal	North Bedrock	10/28/2015	**65 J**	1.0 U	0.39 J	9.3	0.30 U	1.0 U	6000	0.67 J	0.20 J	1.8 U	56 J	0.39 J	720	14	6.2	930 J	2.0 U	0.10 U	570000	0.20 U	3.7 J	15 J	0.080 U
	TMW37042015	Normal	North Bedrock	4/1/2015	31 U	0.60 U	0.73 J	12 J	0.24 U	0.40 U	5600	1.5 U	0.057 J	1.5 U	30 U	0.50 U	630	7.5	1.9 J	890 J	2.0 U	0.10 U	520000	0.20 U	14	3.6 J	0.080 U
TMW38	TMW38102016	Normal	North Bedrock	11/4/2016	70 UJ	1.0 U	0.60 J	14	0.30 U	1.0 U	16000	1.8 U	0.088 J	1.8 U	85 J	0.70 U	1700	**86**	0.81 J	2100 J	2.0 U	0.10 U	880000	0.20 U	2.0 U	8.0 U	0.080 U
	TMW38042016	Normal	North Bedrock	4/14/2016	70 U	0.68 J	0.70 J	14	0.30 U	1.0 U	12000	1.8 U	0.11 J	1.8 U	76 UJ	0.70 U	1400	**84**	0.64 J	2700 J	2.0 U	0.10 U	630000	0.20 U	2.0 U	8.0 U	0.080 U
	TMW38102015	Normal	North Bedrock	11/6/2015	**140 J**	0.60 J	0.68 J	24 J	0.30 U	1.0 U	20000	1.8 U	0.14 J	1.8 U	130	0.70 U	2200	**130**	0.92 J	1900	2.0 U	0.085 J	940000	0.084 J	0.84 J	15 J	0.080 U
	TMW38042015	Normal	North Bedrock	4/8/2015	**210 J**	0.60 U	0.62 J	19	0.24 U	0.40 U	9200	1.5 U	0.12 J	1.5 U	130	0.24 J	1200	**57**	0.57 J	1200 J	2.0 U	0.10 U	610000	0.20 U	1.4 J	4.8 J	0.080 U
TMW39D	TMW39D102016	Normal	North Bedrock	10/31/2016	18 J	1.0 U	1.0 U	9.1	0.30 U	1.0 U	35000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	5500	37	0.80 J	1300 J	3.1 U	0.10 U	670000	0.20 U	2.0 J	2.1 J	0.080 U
	TMW39D042016	Normal	North Bedrock	4/12/2016	70 U	1.0 U	1.0 U	8	0.30 U	1.0 U	18000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	1800	**53**	1.0 U	1200 J	2.0 U	0.10 U	750000	0.20 U	2.0 U	8.0 U	0.080 U
	TMW39D102015	Normal	North Bedrock	11/4/2015	**420**	1.0 U	1.0 U	11	0.30 U	1.0 U	25000	0.51 J	0.21 J	1.0 J	210	0.70 U	3100	**57**	1.7 J	1700	0.95 J	0.10 U	710000	0.20 U	1.9 J	5.4 J	0.080 U
	TMW39D042015	Normal	North Bedrock	4/6/2015	31 UJ	0.62 J	0.33 J	11	0.24 U	0.40 U	55000	1.5 U	0.10 U	1.5 U	30 UJ	0.50 U	9400	11	0.90 U	1400 J	4.8 J	0.10 U	600000	0.20 U	3.1 J	6.0 UJ	0.080 U
	DTW39D042015	Duplicate	North Bedrock	4/6/2015	19 J	0.60 UJ	1.0 UJ	11	0.24 U	0.40 U	53000	1.5 U	0.10 U	1.5 U	34 J	0.50 U	9300	12	0.90 U	1400 J	4.4 J	0.10 U	610000	0.20 U	3.2 J	2.1 J	0.080 U
TMW40D	TMW40D102016	Normal	North Bedrock	10/31/2016	70 U	1.0 U	0.44 J	9.1	0.30 U	1.0 U	14000	1.8 U	0.067 J	1.8 U	85 U	0.70 U	1800	**50**	0.63 J	1100 J	3.9 U	0.10 U	720000	0.20 U	2.9 J	5.3 J	0.080 U
	TMW40D042016	Normal	North Bedrock	4/12/2016	70 U	1.0 U	1.0 U	10	0.30 U	1.0 U	15000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	2000	**52**	1.0 U	1200 J	3.3 J	0.10 U	730000	0.20 U	3.0 J	2.5 J	0.080 U
	TMW40D102015	Normal	North Bedrock	11/3/2015	150 U	1.0 U	0.43 J	9.3	0.30 U	1.0 U	16000	1.8 U	0.067 J	7.2	50 U	0.70 U	2000	**55**	0.99 J	1600	3.1 J	0.10 U	740000	0.20 U	2.9 J	2.5 J	0.080 U
	TMW40D042015	Normal	North Bedrock	4/9/2015	31 U	0.60 U	0.37 J	10	0.24 U	0.40 U	15000	1.5 U	0.075 J	1.5 U	30 U	0.50 U	2100	**52**	0.72 J	1300 J	3.1 J	0.10 U	680000	0.20 U	2.7 J	4.6 J	0.080 U
TMW48	TMW48102016	Normal	North Bedrock	11/1/2016	70 UJ	1.0 U	0.74 J	11	0.30 U	1.0 U	66000	6.5 J	0.082 J	1.9 J	85 U	0.70 U	11000	**55**	1.2 J	1500 J	6.4	0.10 U	580000 J	0.20 U	3.7 J	11 J	0.080 U
	TMW48042016	Normal	North Bedrock	4/12/2016	70 U	1.0 U	0.67 J	11	0.30 U	1.0 U	63000	1.8 U	0.20 U	0.75 J	85 U	0.70 U	11000	38	1.0 U	1200 J	6.2	0.10 U	570000	0.20 U	3.3 J	11 J	0.080 U
	TMW48102015	Normal	North Bedrock	11/4/2015	150 U	1.0 U	0.53 J	11	0.30 U	1.0 U	70000	1.8 U	0.20 U	1.7 J	50 U	0.70 U	13000	39	1.2 J	1500	6.4	0.10 U	570000	0.20 U	3.9 J	12 J	0.080 U
	TMW48042015	Normal	North Bedrock	4/6/2015	31 U	0.60 U	0.72 J	11	0.24 U	0.40 U	79000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	16000	24	0.64 J	1100 J	7.5	0.10 U	550000	0.20 U	5.7 J	11 J	0.080 U
TMW49	TMW49102016	Normal	North Bedrock	11/2/2016	70 U	1.0 U	0.51 J	11	0.30 U	1.0 U	75000	0.57 J	0.20 U	1.4 J	85 U	0.70 U	14000	1.8 J	1.1 J	1400 J	20	0.10 U	600000	0.20 U	12	12 J	0.080 U
	TMW49042016	Normal	North Bedrock	4/14/2016	70 U	1.0 U	0.55 J	11	0.30 U	1.0 U	72000	0.79 J	0.20 U	1.0 J	85 U	0.70 U	12000	0.49 J	0.42 J	2400 J	22	0.10 U	450000	0.20 U	11	7.4 U	0.080 U
	TMW49102015	Normal	North Bedrock	11/5/2015	150 U	0.94 J	0.62 J	12	0.30 U	1.0 U	79000	0.69 J	0.055 J	1.7 J	50 U	0.70 U	13000	0.69 J	0.74 J	1600	21	0.093 J	590000	0.084 J	11	8.1 J	0.080 U
	TMW49042015	Normal	North Bedrock	4/9/2015	31 U	0.60 U	0.57 J	14	0.24 U	0.40 U	81000	1.5 U	0.10 U	1.3 J	30 U	0.50 U	15000	0.90 U	0.31 J	1600 J	19	0.10 U	560000	0.20 U	12	6.8 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 Regional Screening Levels, (formerly Human Health Medium Specific Screening Levels) (EPA, 2017).

Bold indicates analyte was positively detected above regulatory limits.

µg/L = microgram(s) per liter

CAS = Chemical Abstracts Service (registry number)

EPA = U.S. Environmental Protection Agency

J = analyte was positively identified; reported value is estimated.

NE = not established

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.

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TABLE 5-8
Summary of Total Metals Analytical Detections (Page 1 of 7)
Groundwater Periodic Monitoring Report July through December 2016 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	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																				
					50[b]	6[b]	10[b]	1,000[a]	4[b]	5[b]	NE	50[a]	50[a]	1,000[a]	300[b]	50[a]	NE	50[b]	200[a]	NE	50[a]	50[a]	NE	2[b]	86[c]	5,000[b]	2[a]
BGMW01	BGMW01102016	Normal	North Alluvial	11/2/2016	**100 J**	1.0 U	0.90 J	16 J	0.30 U	1.0 U	41000	1.8 U	0.28 U	1.8 U	81 J	0.70 U	23000	**200**	1.0 J	900 J	2.0 U	0.47 J	780000	0.20 U	1.5 U	8.0 U	0.080 U
	BGMW01042016	Normal	North Alluvial	4/15/2016	**90 J**	1.0 U	0.70 J	16	0.30 U	1.0 U	39000	1.8 U	0.32 J	0.59 J	60 J	0.70 U	22000	**170**	1.6 J	820 J	2.0 U	0.10 U	630000	0.20 U	1.9 J	2.0 J	0.080 U
	BGMW01102015	Normal	North Alluvial	11/5/2015	**57 J**	1.0 U	0.79 J	16	0.30 U	1.0 U	36000	1.9 J	0.27 J	1.1 J	38 J	0.19 J	22000	**160**	1.2 J	770 J	2.0 U	0.10 U	750000	0.20 U	2.2 J	3.2 J	0.080 U
	BGMW01042015	Normal	North Alluvial	4/2/2015	58 U	0.60 U	0.77 J	17	0.24 U	0.40 U	46000	1.5 U	0.31 J	1.5 U	57 U	0.50 U	24000	**160**	2.2 U	490 J	2.0 U	0.10 U	700000	0.20 U	2.0 J	6.0 U	0.080 U
BGMW02	BGMW02102016	Normal	North Alluvial	11/2/2016	**130 J**	1.0 U	0.80 J	17 J	0.30 U	1.0 U	84000	0.92 J	0.086 U	1.3 J	93 J	0.70 U	110000	**82**	0.52 J	1800 J	**68**	0.10 U	970000	0.20 U	7.4 U	8.0 U	0.080 U
	BGMW02042016	Normal	North Alluvial	4/14/2016	**69 J**	1.0 U	0.88 J	18	0.30 U	1.0 U	75000	1.8 U	0.091 J	0.98 J	50 J	0.70 U	100000	**85**	0.61 J	1000 J	**71**	0.10 U	770000 J	0.20 U	7.5	8.0 U	0.080 U
	BGMW02102015	Normal	North Alluvial	11/5/2015	**240**	1.0 U	0.93 J	17	0.30 U	1.0 U	88000	1.8 U	0.10 J	1.1 J	130	0.70 U	120000	**73**	0.81 J	910 J	**66**	0.070 J	1000000	0.20 U	7.1	2.5 J	0.080 U
	BGMW01102013	Normal	North Alluvial	4/2/2015	**130 J**	0.60 U	0.69 J	20	0.24 U	0.40 U	85000	1.5 U	0.12 J	0.81 J	82 J	0.18 J	110000	**120**	0.57 J	590 J	**79**	0.036 J	860000	0.066 U	6.4	2.1 J	0.080 U
BGMW03	BGMW03102016	Normal	North Alluvial	10/28/2016	**9900**	1.0 U	2.6 J	110	0.57 J	1.0 U	86000	4.6 J	2.2	5.5	**5100**	4.5	19000	**190**	3.3	5600	29	0.034 J	690000	0.11 J	19	21	0.080 U
	BGMW03042016	Normal	North Alluvial	4/8/2016	**460**	1.0 U	1.4 J	38	0.30 U	1.0 U	94000 J	1.3 J	0.47 J	2.9	**380**	0.31 J	19000	**69**	1.0 J	2600 J	23	0.037 J	690000	0.20 U	8.3	4.6 J	0.080 U
	BGMW03102015	Normal	North Alluvial	10/30/2015	**11000**	1.0 U	3.2 J	150	0.74 J	1.0 U	92000	5.5 J	3.1	6.1	**7800**	7	19000	**240 J**	3.8	5200	30	0.046 U	720000	0.16 U	20	29	0.038 J
	BGMW03042015	Normal	North Alluvial	4/1/2015	**1100 J**	0.60 U	2.1 J	38 J	0.11 J	0.40 U	66000	0.88 J	0.48 J	3	**770**	0.74 J	15000	43	0.97 J	2200 J	37	0.10 U	710000	0.20 U	13	5.2 J	0.080 U
FW31	FW31102016	Normal	North Alluvial	10/26/2016	**1400**	1.0 U	6.5	47	0.30 U	1.0 U	6700	1.5 J	0.40 J	0.86 J	**650 J**	0.49 J	2700	36 J	0.73 J	1900 J	2.0 U	0.10 UJ	520000 J	0.20 U	12	6.1 J	0.080 U
	FW31042016	Normal	North Alluvial	4/7/2016	**3800 J**	1.0 U	7	120 J	0.19 J	1.0 U	7400	4.7 J	1.2	2.7	**1300 J**	1.6 J	3100	**120**	3.9	2700 J	2.0 U	0.079 J	490000	0.20 U	14	14 U	0.080 U
	FW3112015	Normal	North Alluvial	11/2/2015	**980**	1.0 U	7.1	57	0.30 U	1.0 U	6900	2.2 J	0.46 J	1.0 J	**780**	0.66 J	2800	48	1.4 J	2300 UJ	2.0 U	0.14 U	640000 U	0.052 U	11	6.2 J	0.080 U
	FW31042015	Normal	North Alluvial	4/1/2015	**1300 J**	0.54 J	7	56 J	0.11 J	0.40 U	7300	2.0 U	0.57 J	1.1 J	590 U	0.64 U	2800	40	1.6 U	2000 J	2.0 U	0.11 J	490000	0.25 J	13	6.5 U	0.080 U
FW35	FW35102016	Normal	North Alluvial	10/2016	Well was dry and was not sampled this event																						
	FW35042016	Normal	North Alluvial	4/2016	Well was dry and was not sampled this event																						
	FW35102015	Normal	North Alluvial	10/2015	Well was dry and was not sampled this event																						
	FW35042015	Normal	North Alluvial	4/2/2015	**21000**	0.60 U	2.5 J	410	1.1	0.40 U	350000	11	5	12	**9700**	7.7	120000	**630**	11	3000	1.1 J	0.14 J	650000	0.15 U	21	230	0.080 U
MW01	MW01102016	Normal	North Alluvial	10/27/2016	**5500**	1.0 U	1.2 J	65	0.23 J	1.0 U	37000	3.7 J	1.4	2.4	**3100**	2.1 J	8600	**120**	3.3	2100 J	17	0.10 U	940000 J	0.20 U	7.8	26	0.080 U
	MW01042016	Normal	North Alluvial	4/6/2016	**1200 J**	1.0 U	0.72 J	28	0.30 U	1.0 U	35000	1.1 J	0.34 J	1.6 J	**630 J**	0.45 J	8400	28 J	1.3 J	620 J	17	0.10 U	950000	0.20 U	2.6 U	13 J	0.080 U
	MW01102015	Normal	North Alluvial	10/28/2015	**4000 J**	1.0 U	1.2 J	62	0.16 J	1.0 U	36000	2.7 J	1.2	2.2	**2400**	1.7 J	8800	**140**	2.6 U	1500 J	19	0.10 U	940000	0.20 U	6.1	28	0.027 J
	MW01042015	Normal	North Alluvial	4/1/2015	**12000 J**	0.60 U	2.5 J	130 J	0.53 J	0.40 U	39000	7.6 J	3.3	5.4	**6500**	4.5	10000	**250**	6.9	2500 J	19	0.10 U	880000	0.11 J	15	60	0.080 U
MW02	MW02102016	Normal	North Alluvial	10/27/2016	**7000**	1.0 U	1.4 J	120	0.49 J	1.0 U	140000	5.3 J	2.3	2.8	**4400**	3.6	32000	**310**	4.6	2300 J	16	0.10 U	440000 J	0.058 J	11	81	0.080 U
	MW02042016	Normal	North Alluvial	4/6/2016	**710 J**	1.0 U	1.0 U	40	0.30 U	1.0 U	130000	1.0 J	0.21 J	1.9 J	**410 J**	0.33 J	32000	27 J	0.83 J	740 J	15	0.10 U	430000	0.20 U	1.8 U	25	0.080 U
	MW02102015	Normal	North Alluvial	10/28/2015	**3700 J**	1.0 U	1.0 J	100	0.20 J	1.0 U	130000	3.0 J	1.2	1.8 J	**2700**	2.0 J	31000	**190**	2.8 U	1700 J	16	0.10 U	380000	0.20 U	6	52	0.080 U
	MW02042015	Normal	North Alluvial	4/1/2015	**9200 J**	0.60 U	1.6 J	130 J	0.38 J	0.57 J	130000	4.7 J	2.5	3.7	**4200**	3.3	30000	**290**	5.6	1800 J	18	0.10 U	390000	0.069 J	9.9	110	0.080 U
MW03	MW03102016	Normal	North Alluvial	11/3/2016	70 U	1.0 U	0.42 J	11	0.30 U	1.0 U	56000	1.8 U	0.12 U	2	67 J	0.70 U	10000	47	0.81 J	2100 J	25	0.10 U	1100000	0.20 U	1.0 U	4.7 J	0.080 U
	MW03042016	Normal	North Alluvial	4/12/2016	70 U	1.0 U	1.0 U	9	0.30 U	1.0 U	58000	0.53 J	0.12 J	0.67 J	85 U	0.70 U	11000	48	0.69 J	430 J	24	0.10 U	1100000	0.20 U	1.0 J	6.0 U	0.080 U
	MW03102015	Normal	North Alluvial	10/30/2015	70 U	1.0 U	0.40 J	9.6	0.30 U	1.0 U	55000	1.8 U	0.085 J	1.8 U	85 U	0.70 U	11000	45 J	0.35 J	790 J	22	0.10 U	1200000	0.20 U	0.63 J	4.0 J	0.080 U
	MW03042015	Normal	North Alluvial	4/3/2015	31 U	0.60 UJ	0.37 J	9.2	0.24 U	0.40 U	56000	1.5 U	0.10 J	0.69 J	51 J	0.50 U	11000	46	0.50 J	800 J	23	0.10 U	1200000	0.20 U	1.6 J	5.4 J	0.080 U
MW18D	MW18D102016	Normal	North Alluvial	10/28/2016	**2500**	0.80 J	1.8 J	48	0.13 J	1.0 U	70000	3.0 J	1.6	6.6	**1400**	5.2	18000	**590**	4.2	2600 J	1.3 U	0.089 J	2100000	0.20 U	24	420	0.080 U
	MW18D042016	Normal	North Alluvial	4/12/2016	**1800**	0.73 J	1.7 J	46	0.30 U	1.0 U	76000	1.4 J	1.6	4.7	**1100**	1.7 J	19000	**680**	3.8	1300 J	2.0 U	0.10 U	2100000	0.20 U	19	180	0.080 U
	MW18D102015	Normal	North Alluvial	11/2/2015	**4500**	1.3 U	2.4 J	94	0.29 J	0.32 J	72000	6.6 J	2.4	13	**3300**	7.8	19000	**740**	6.8	3300 UJ	2.0 U	0.27 J	1900000	0.089 U	50	800	0.037 J
	MW18D042015	Normal	North Alluvial	4/8/2015	**26000**	0.75 U	5.5	250	1.2	0.89 J	100000	17	7.8	36	**16000**	19	25000	**1000**	18	5900	1.1 J	0.25 J	2000000	0.28 U	49	1700	0.089 J
MW20	MW20102016	Normal	North Alluvial	11/4/2016	70 UJ	1.0 U	1.0 U	15	0.30 U	1.0 U	330000	1.8 U	1.2	2.1	51 J	0.70 U	63000 J	**1300**	3	3900 J	**51**	0.073 J	3800000	0.20 U	2.0 U	95	0.042 J
	MW20042016	Normal	North Alluvial	4/11/2016	70 U	1.0 U	1.0 U	16	0.15 U	1.0 U	320000	1.8 U	1.3	1.9 J	38 J	0.70 U	71000	**1800**	2.9 J	1700 J	**67**	0.033 J	3700000	0.20 U	0.63 J	100	0.080 U
	MW20102015	Normal	North Alluvial	11/2/2015	70 U	1.0 U	1.0 U	16	0.30 UJ	1.0 U	340000	1.8 UJ	1.3	2	49 J	0.70 U	70000	**1800**	3.3	4600 UJ	**68**	0.036 UJ	4100000 J	0.20 UJ	2.0 U	97	0.080 U
	DMW20102015	Duplicate	North Alluvial	11/2/2015	70 U	1.0 U	1.0 U	15	0.38 J	1.0 U	330000	0.65 J	1.4	2.5	52 J	0.70 U	74000	**1800**	3	5600 UJ	**70**	0.10 UJ	4400000	0.096 UJ	2.0 U	98	0.080 U
	MW20042015	Normal	North Alluvial	4/3/2015	31 U	0.60 UJ	1.0 U	15	0.24 U	0.40 U	330000	1.5 U	1.2	2	24 J	0.50 U	71000	**1700**	3.1	2900 J	**72**	0.047 J	4400000	0.20 U	1.0 U	91	0.080 U

TABLE 5-8

Summary of Total Metals Analytical Detections (Page 2 of 7)

Groundwater Periodic Monitoring Report July through December 2016 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	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																					
					50[b]	6[b]	10[b]	1,000[a]	4[b]	5[b]	NE	50[a]	50[a]	1,000[a]	300[b]	50[a]	NE	50[b]	200[a]	NE	50[a]	50[a]	NE	2[b]	86[c]	5,000[b]	2[a]
MW22D	MW22D102016	Normal	North Alluvial	10/28/2016	70 U	1.0 U	1.0 U	11	0.30 U	1.0 U	83000	1.8 U	0.21 J	1.8 U	85 U	0.70 U	16000	**130**	0.70 J	890 U	41	0.10 U	1100000	0.20 U	1.4 J	13 J	0.080 U
	MW22D042016	Normal	North Alluvial	4/11/2016	70 U	1.0 U	0.43 J	11	0.30 U	1.0 U	84000	1.8 U	0.17 J	1.8 U	85 U	0.70 U	17000	**120**	0.59 J	480 J	39	0.10 U	1100000	0.20 U	1.5 J	30	0.080 U
	MW22D102015	Normal	North Alluvial	11/2/2015	70 U	1.0 U	1.0 U	11	0.30 U	1.0 U	90000	1.8 U	0.17 J	0.96 J	85 U	0.70 U	17000	**150**	1.1 J	1200 UJ	38	0.10 U	1400000	0.20 U	0.94 J	9.0 J	0.080 U
	MW22D042015	Normal	North Alluvial	4/6/2015	31 U	0.60 U	1.0 U	11	0.24 U	0.40 U	79000	1.5 U	0.13 J	1.1 J	30 U	0.50 U	16000	**130**	0.72 J	450 J	39	0.10 U	1100000	0.062 U	0.94 J	10 J	0.080 U
MW22S	MW22S102016	Normal	North Alluvial	10/2016	Well was dry and was not sampled this event																					
	MW22S042016	Normal	North Alluvial	4/12/2016	**1300**	0.52 J	1.1 J	40	0.15 J	1.0 U	87000	2.1 J	0.49 J	4	**780**	3.9	20000	**54**	2.0 J	830 J	27	0.13 J	930000	0.20 U	3.3 J	21	0.080 U
	MW22S102015	Normal	North Alluvial	10/30/2015	**33000**	1.0 U	8.5	460	2.4	1.0 U	110000	13	7.7	13	**16000**	30	28000	**640 J**	14	4500	26	0.18 J	1000000	0.28 J	25	57	0.058 J
	MW22S042015	Normal	North Alluvial	4/6/2015	**12000**	0.64 J	3.5 J	140	0.96 J	0.40 U	99000	6.1 J	3.1	6.7	**6900**	13	23000	**250**	6.8	1900 J	24	0.22 J	900000	0.22 U	13	25	0.080 U
MW23	MW23102016	Normal	North Alluvial	10/27/2016	**420**	1.0 U	1.2 J	170	0.30 U	1.0 U	12000	0.58 J	0.84 J	0.94 J	250	0.33 J	5200	**70**	1.4 J	1700 J	0.86 U	0.038 J	480000 J	0.20 U	5.0 J	2.4 J	0.080 U
	MW23042016	Normal	North Alluvial	4/7/2016	**2400 J**	1.0 U	1.1 J	150 J	0.11 J	1.0 U	12000	1.7 J	1.1	3.5	**870 J**	0.77 J	5100	**87**	2.6 J	2100 J	2.0 U	0.10 U	480000	0.20 U	8.6	5.0 U	0.080 U
	DMW23042016	Duplicate	North Alluvial	4/7/2016	**1900 J**	1.0 U	1.1 J	160 J	0.30 U	1.0 U	12000	1.7 J	1.1	3.1	**760 J**	0.70 J	5100	**86**	2.5 J	2300 J	2.0 U	0.10 U	350000	0.050 J	7.4	6.1 U	0.080 U
	MW23102015	Normal	North Alluvial	11/6/2015	**1300**	1.0 U	1.1 J	150 J	0.12 J	1.0 U	12000	0.94 J	1.1	0.79 J	**640**	0.51 J	5300	**88**	2.2 J	1800	2.0 U	0.068 J	490000	0.20 UJ	6.1 J	5.2 J	0.080 U
	DMW23102015	Duplicate	North Alluvial	11/6/2015	**2300**	1.0 U	1.3 J	150 J	0.22 J	1.0 U	11000	1.5 J	1.3	2.0 J	**1100**	0.81 J	4800	**87**	2.6 J	2200	2.0 U	0.10 UJ	500000	0.10 J	12 J	4.8 J	0.080 U
	MW23042015	Normal	North Alluvial	4/7/2015	**1800 J**	0.60 U	1.3 J	160	0.24 U	0.40 U	11000	2.7 J	1.4	1.8 J	**1000**	0.81 J	5300	**100**	3.5	1800 J	2.0 U	0.48 J	480000	0.20 U	7.3	4.8 J	0.080 U
	DMW23042015	Duplicate	North Alluvial	4/7/2015	**1500 J**	0.60 U	1.2 J	150	0.15 J	0.40 U	11000	2.0 J	1.4	1.4 J	**810**	0.73 J	5300	**95**	3.5	1700 J	0.86 J	0.26 J	480000	0.090 J	6.9	4.0 J	0.080 U
MW24	MW24102016	Normal	North Alluvial	10/26/2016	**62 J**	1.0 U	0.67 J	300	0.30 U	1.0 U	31000	1.8 U	0.059 J	1.8 U	**1900 J**	0.70 U	11000	**430 J**	1.0 U	1000 J	2.0 U	0.10 UJ	260000 J	0.20 U	1.2 U	8.0 U	0.080 U
	DMW24102016	Duplicate	North Alluvial	10/26/2016	**58 J**	1.0 U	0.65 J	290	0.30 U	1.0 U	31000	1.8 U	0.078 J	1.8 U	**1800 J**	0.70 U	10000	**450 J**	1.0 U	1000 J	2.0 U	0.089 J	260000 J	0.20 U	1.1 U	8.0 U	0.080 U
	MW24042016	Normal	North Alluvial	4/6/2016	**94 J**	1.0 U	0.75 J	300	0.30 U	1.0 U	32000	1.8 U	0.081 J	1.8 U	**1900 J**	0.70 U	11000	**470 J**	0.52 J	890 J	2.0 U	0.10 U	270000	0.20 U	2.0 U	3.3 J	0.080 U
	DMW24042016	Duplicate	North Alluvial	4/6/2016	**89 J**	1.0 U	0.78 J	280	0.30 U	1.0 U	31000	1.8 U	0.073 J	1.8 U	**1800 J**	0.70 U	10000	**450 J**	0.49 J	850 J	2.0 U	0.10 U	260000	0.20 U	2.0 U	2.3 J	0.080 U
	MW24102015	Normal	North Alluvial	11/5/2015	**520**	1.0 U	0.73 J	300	0.30 U	1.0 U	33000	0.55 J	0.13 J	1.8 U	**2000**	0.26 J	11000	**420**	1.1 J	1300	2.0 U	0.10 U	270000	0.20 U	1.2 J	2.0 J	0.080 U
	MW24042015	Normal	North Alluvial	4/6/2015	23 J	0.60 U	0.53 J	290	0.24 U	0.40 U	30000	1.5 U	0.10 U	1.5 U	**1900**	0.38 J	11000	**470**	0.90 U	810 J	2.0 U	0.10 U	260000	0.20 U	1.0 U	6.0 U	0.080 U
	DMW24042015	Duplicate	North Alluvial	4/6/2015	21 J	0.60 U	0.81 J	290	0.24 U	0.40 U	31000	1.5 U	0.066 J	1.5 U	**1800**	0.50 U	10000	**470**	0.90 U	740 J	2.0 U	0.10 U	260000	0.20 U	0.67 J	2.8 J	0.080 U
SMW01	SMW01102016	Normal	North Alluvial	11/2/2016	43 J	1.0 U	1.2 J	38 J	0.30 U	1.0 U	32000	2.4 J	0.47 U	1.6 J	58 J	0.70 U	10000	**240**	2.2 J	1300 J	2.0 U	0.10 U	930000	0.20 U	3.0 U	2.5 J	0.080 U
	SMW01042016	Normal	North Alluvial	4/8/2016	70 U	0.57 J	1.4 J	34	0.30 U	1.0 U	33000 J	1.8 U	0.23 J	0.77 J	23 J	0.70 U	11000	**130**	1.6 J	360 J	2.0 U	0.14 J	860000	0.20 U	2.4 J	8.0 U	0.080 U
	SMW011102015	Normal	North Alluvial	11/3/2015	150 U	1.0 U	0.88 J	37	0.30 U	1.0 U	34000	1.8 U	0.36 J	1.4 J	27 J	0.70 U	11000	**180**	2.0 J	590 J	2.0 U	0.10 U	870000	0.20 U	2.7 J	2.1 J	0.080 UJ
	SMW01042015	Normal	North Alluvial	4/8/2015	20 J	0.60 U	1.0 J	32	0.24 U	0.40 U	30000	1.5 U	0.30 J	1.5 U	30 U	0.50 U	9700	**150**	2.5 J	590 J	2.0 U	0.10 U	790000	0.20 U	1.6 J	6.0 U	0.080 U
TMW01	TMW01102016	Normal	North Alluvial	10/31/2016	70 U	1.0 U	0.74 J	12	0.30 U	1.0 U	110000	0.60 J	0.20 U	4.6	85 U	0.70 U	20000	8.4	1.0 U	970 J	5.3	0.10 U	530000 J	0.20 U	12	8.0 U	0.080 U
	TMW01042016	Normal	North Alluvial	4/8/2016	70 U	0.71 J	0.83 J	12	0.11 U	1.0 U	110000 J	1.8 U	0.20 U	6.4	85 U	0.70 U	18000	9.7	1.0 U	390 J	4.9 J	0.10 U	570000	0.10 U	12	8.0 U	0.080 U
	TMW01102015	Normal	North Alluvial	11/4/2015	150 U	1.0 U	0.94 J	12	0.30 U	1.0 U	110000	0.90 J	0.071 J	6.7	50 U	0.70 U	20000	11	1.0 U	570 J	5.4	0.10 U	560000	0.19 U	13	8.0 U	0.080 U
	TMW01042015	Normal	North Alluvial	4/7/2015	31 U	0.60 U	0.87 J	14	0.24 U	0.40 U	96000	0.54 J	0.10 U	8.9	30 U	0.50 U	19000	12	0.31 J	510 J	6.7	0.10 U	580000	0.20 U	12	6.0 U	0.080 U
TMW03	TMW03102016	Normal	North Alluvial	10/31/2016	46 J	0.58 J	0.60 J	13	0.30 U	1.0 U	51000	9.8 J	0.093 J	1.2 J	52 J	0.70 U	11000	6.9	0.56 J	720 J	**53**	0.10 U	920000 J	0.20 U	2.4 J	10 J	0.080 U
	TMW03042016	Normal	North Alluvial	4/8/2016	70 U	1.0 U	0.52 J	13	0.11 U	1.0 U	49000 J	1.8 U	0.20 U	0.58 J	85 U	0.70 U	10000	4.7	1.0 U	610 J	**55**	0.10 U	940000	0.20 U	2.2 J	9.7 J	0.080 U
	TMW03102015	Normal	North Alluvial	11/4/2015	150 U	1.0 U	0.56 J	13	0.30 U	1.0 U	50000	0.71 J	0.081 J	1.0 J	20 J	0.70 U	11000	6.7	1.0 U	750 J	**59**	0.10 U	970000	0.084 U	2.2 J	10 J	0.080 U
	TMW03042015	Normal	North Alluvial	4/9/2015	31 U	0.60 U	0.52 J	12	0.24 U	0.40 U	49000	1.5 U	0.089 J	1.5 U	30 U	0.50 U	11000	4.9	0.90 U	510 J	**59**	0.10 U	890000 J	0.20 U	1.9 J	3.4 J	0.080 U
TMW04	TMW04102016	Normal	North Alluvial	11/3/2016	70 U	1.0 U	1.0 J	8.9	0.30 U	1.0 U	33000	3.3 J	0.20 U	0.96 J	36 J	5.9	5600	0.66 J	1.0 U	1400 J	**86**	0.10 U	920000	0.20 U	15	3.0 J	0.033 J
	TMW04042016	Normal	North Alluvial	4/13/2016	70 U	1.0 U	1.2 J	7.9	0.30 U	1.0 U	31000	2.2 J	0.20 U	1.8 U	27 J	0.70 U	5600	0.35 J	1.0 U	1200 J	**90**	0.10 U	690000	0.20 U	15	2.8 J	0.080 U
	TMW04102015	Normal	North Alluvial	11/4/2015	150 U	1.0 U	0.96 J	8.3	0.30 U	1.0 U	30000	2.2 J	0.057 J	1.1 J	50 U	0.70 U	5600	0.95 U	1.0 U	1100	**88**	0.10 U	910000	0.20 U	16	2.3 J	0.080 U
	TMW04042015	Normal	North Alluvial	4/9/2015	31 U	0.60 U	1.3 J	7	0.24 U	0.40 U	32000	1.9 J	0.10 U	1.5 U	54 J	0.50 U	5900	0.40 J	0.90 U	750 J	**84**	0.10 U	830000 J	0.067 U	16	5.1 J	0.080 U
TMW06	TMW06102016	Normal	North Alluvial	10/31/2016	**52 J**	1.0 U	0.87 J	14	0.30 U	1.0 U	34000	0.62 J	0.080 J	3.2	45 J	0.70 U	8100	**56**	1.1 J	1200 J	1.2 J	0.18 J	850000 J	0.20 U	2.8 J	3.2 J	0.080 U
	TMW06042016	Normal	North Alluvial	4/12/2016	22 J	1.0 U	0.74 J	15	0.30 U	1.0 U	35000	1.8 U	0.056 J	3	85 U	0.70 U	7700	31	1.0 J	380 J	0.96 J	0.083 J	920000	0.20 U	2.7 J	4.1 U	0.080 U
	TMW06102015	Normal	North Alluvial	11/4/2015	150 U	1.0 U	1.0 J	15	0.30 U	1.0 U	34000	0.78 J	0.073 J	2.4	27 J	0.70 U	7700	37	0.48 J	660 J	1.3 J	0.10 U	940000	0.20 U	3.1 J	8.0 U	0.080 U
	TMW06042015	Normal	North Alluvial	4/9/2015	24 J	0.60 U	0.74 J	16	0.24 U	0.40 U	34000	1.5 U	0.067 J	1.8 J	24 J	0.50 U	7900	22	0.90 U	430 J	1.8 J	0.10 U	820000 J	0.20 U	2.9 J	2.0 J	0.080 U

TABLE 5-8
Summary of Total Metals Analytical Detections (Page 3 of 7)
Groundwater Periodic Monitoring Report July through December 2016 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	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																					
					50[b]	6[b]	10[b]	1,000[a]	4[b]	5[b]	NE	50[a]	50[a]	1,000[a]	300[b]	50[a]	NE	50[b]	200[a]	NE	50[a]	50[a]	NE	2[b]	86[c]	5,000[b]	2[a]
TMW07	TMW07102016	Normal	North Alluvial	10/27/2016	**130 J**	0.61 J	2.0 J	23	0.30 U	1.0 U	54000	1.8 J	0.77 J	1.8 U	**340**	0.70 U	9200	**390**	4.5	6500	0.98 U	0.10 U	1300000 J	0.20 U	2.6 J	3.0 J	0.080 U
	TMW07042016	Normal	North Alluvial	4/8/2016	**830**	1.0 U	2.2 J	29	0.30 U	1.0 U	42000 J	2.3 J	0.52 J	2.6	**780**	0.40 J	7800	**260**	2.1 J	11000	2.0 U	0.25 J	1100000	0.20 U	2.0 J	4.3 J	0.080 U
	TMW07102015	Normal	North Alluvial	10/30/2015	**1500**	1.0 U	2.7 J	48	0.30 U	1.0 U	41000	4.5 J	0.89 J	3.9	**1100**	0.76 J	7900	**240 J**	4.4	12000	2.0 U	0.39 J	1300000	0.20 U	4.3 J	16 J	0.080 U
	TMW07042015	Normal	North Alluvial	4/1/2015	**860 J**	0.40 J	1.3 J	30 J	0.24 U	0.40 U	57000	1.6 J	0.91 J	0.57 J	**720**	0.58 J	9900	**370**	2.9 J	5500	2.0 U	0.060 J	1200000	0.20 U	6.3	5.4 J	0.080 U
TMW08	TMW08102016	Normal	North Alluvial	11/1/2016	70 U	1.0 U	0.35 J	9.7	0.30 U	1.0 U	230000	1.8 U	0.59 J	1.9 J	**1100**	0.70 U	73000	**340**	1.6 J	6200	39	0.10 U	3900000	0.20 U	1.5 J	9.8 U	0.080 U
	DTW08102016	Duplicate	North Alluvial	11/1/2016	20 J	1.0 U	1.0 U	9	0.30 U	1.0 U	250000	1.8 U	0.57 J	1.9 J	**1500**	0.70 U	72000	**340**	1.5 J	8100	45	0.10 U	4100000	0.20 U	1.9 J	9.8 U	0.080 U
	TMW08042016	Normal	North Alluvial	4/12/2016	49 J	1.0 U	0.43 J	11	0.30 U	1.0 U	250000	0.56 J	0.47 J	1.6 J	**1200**	0.70 U	72000	**370**	1.6 J	2200 J	43	0.10 U	4100000	0.20 U	1.8 J	9.1 U	0.080 U
	TMW08102015	Normal	North Alluvial	11/5/2015	**77 J**	1.0 U	0.61 J	11	0.30 U	1.0 U	230000	1.8 U	0.50 J	1.5 J	**2500**	0.70 U	70000	**350**	1.3 J	3800	38	0.10 U	4100000	0.20 U	3.1 J	12 J	0.080 U
	TMW08042015	Normal	North Alluvial	4/8/2015	37 J	0.60 U	0.38 J	9.3	0.24 U	0.40 U	240000	1.5 U	0.32 J	2	**2200**	0.50 U	68000	**300**	1.4 J	3600	37	0.039 J	3900000	0.20 U	1.1 J	15 J	0.080 U
TMW10	TMW10102016	Normal	North Alluvial	11/2/2016	**3700 J**	0.51 J	1.4 J	64 J	0.31 J	1.0 U	70000	7.8 J	1.1	63	**2300**	2.1 J	16000	**580**	3.7	2300 J	2.0 U	0.36 J	1700000	0.067 J	7.2 U	10 J	0.080 U
	TMW10042016	Normal	North Alluvial	4/12/2016	70 U	1.0 U	0.52 J	17	0.30 U	1.0 U	73000	0.91 J	0.20 U	5.1	85 U	0.70 U	17000	14	0.84 J	670 J	2.0 U	0.10 U	1900000	0.20 U	3.0 J	2.4 U	0.080 U
	TMW10102015	Normal	North Alluvial	11/4/2015	150 U	1.0 U	0.58 J	18	0.30 U	1.0 U	70000	1.4 J	0.20 U	26	50 U	0.70 U	17000	12	0.67 J	1200	2.0 U	0.091 J	1800000	0.085 U	3.2 J	8.0 U	0.080 U
	TMW10042015	Normal	North Alluvial	4/7/2015	31 U	0.60 U	0.65 J	18	0.24 U	0.40 U	67000	1.5 U	0.10 U	15	30 U	0.50 U	18000	13	0.89 J	1100 J	1.1 J	0.10 U	1800000	0.20 U	2.4 J	6.0 U	0.080 U
TMW11	TMW11102016	Normal	North Alluvial	11/3/2016	**8700**	1.0 U	0.86 J	48	0.30 J	1.0 U	24000	7.2 J	1.9	1.4 J	**3800**	2.1 J	5300	**61**	3.6	2400 J	13	0.098 J	630000	0.056 J	12 U	13 J	0.027 J
	DTW11102016	Duplicate	North Alluvial	11/3/2016	**10000**	1.0 U	1.1 J	60	0.33 J	1.0 U	25000	8.9 J	2.3	2.2	**4600**	2.9 J	5700	**82**	5.3	2700 J	13	0.17 J	630000	0.058 J	14	17 J	0.028 J
	TMW11042016	Normal	North Alluvial	4/11/2016	**2100**	1.0 U	0.47 J	29	0.11 U	1.0 U	20000	2.4 J	0.47 J	1.8 U	**1000**	0.50 J	3800	27	1.5 J	970 J	14	0.037 J	580000	0.20 U	4.7 J	6.6 J	0.080 U
	TMW11102015	Normal	North Alluvial	11/4/2015	**1700**	1.0 U	0.70 J	34	0.30 U	1.0 U	24000	3.2 J	0.36 J	3.6	**1400**	0.72 J	4200	42	2.1 J	1200	14	2.5 J	680000	0.20 U	6.5	16 J	0.080 U
	TMW11042015	Normal	North Alluvial	4/8/2015	**1800**	0.55 U	1.0 U	26	0.24 U	0.40 U	16000	2.2 J	0.29 J	1.5 U	**880**	0.38 J	3400	17	1.1 J	1100 J	14	0.10 U	520000	0.20 U	3.3 J	5.8 J	0.080 U
TMW13	TMW13102016	Normal	North Alluvial	11/1/2016	70 U	1.0 U	1.0 U	16	0.30 U	1.0 U	26000	0.61 J	0.20 U	1.7 J	85 U	0.70 U	5100	0.77 U	1.0 U	2000 J	13	0.10 U	530000	0.20 U	2.7 J	2.9 U	0.080 U
	TMW13042016	Normal	North Alluvial	4/12/2016	70 U	1.0 U	1.0 U	19	0.30 U	1.0 U	24000	0.69 J	0.20 U	1.8 U	85 U	0.70 U	4600	0.61 J	1.0 U	460 J	11	0.10 U	530000	0.058 U	2.9 J	8.0 U	0.080 U
	TMW13102015	Normal	North Alluvial	11/4/2015	150 U	1.0 U	1.0 U	19	0.30 U	1.0 U	26000	0.66 J	0.20 U	0.68 J	50 U	0.70 U	4800	0.74 U	1.0 U	760 J	11	0.16 J	550000	0.24 U	2.6 J	8.0 U	0.080 U
	TMW13042015	Normal	North Alluvial	4/9/2015	31 U	0.60 U	1.0 U	17	0.24 U	0.40 U	27000	0.57 J	0.10 U	1.5 U	30 U	0.50 U	5200	0.63 J	0.90 U	550 J	12	0.10 U	510000 J	0.20 U	2.4 J	6.0 U	0.080 U
TMW15	TMW15102016	Normal	North Alluvial	11/2/2016	70 UJ	1.0 U	1.0 U	22 J	0.30 U	1.0 U	20000	0.92 J	0.20 U	1.8 U	85 U	0.70 U	3500	0.42 J	1.0 U	1200 J	13	0.10 U	560000	0.20 U	1.9 U	5.6 J	0.080 U
	TMW15042016	Normal	North Alluvial	4/13/2016	70 U	1.0 U	1.0 U	22	0.30 U	1.0 U	19000	0.92 J	0.20 U	1.8 U	85 U	0.70 U	3400	0.95 U	1.0 U	800 J	12	0.10 U	420000	0.20 U	1.6 J	4.2 J	0.080 U
	DTW15042016	Duplicate	North Alluvial	4/13/2016	70 U	1.0 U	1.0 U	21	0.30 U	1.0 U	19000	0.96 J	0.20 U	1.8 U	85 U	0.70 U	3400	0.95 U	1.0 U	710 J	13	0.10 U	430000	0.056 J	1.8 J	5.5 J	0.080 U
	TMW15102015	Normal	North Alluvial	11/6/2015	150 U	1.0 U	1.0 U	24 J	0.30 UJ	1.0 U	21000	0.89 J	0.20 U	1.8 U	41 J	0.70 U	3800	1.5 J	1.0 UJ	700 J	13	0.051 J	570000	0.20 U	1.9 J	7.8 J	0.080 U
	DTW15102015	Duplicate	North Alluvial	11/6/2015	150 U	1.0 U	1.0 U	23 J	0.11 J	1.0 U	21000	0.92 J	0.20 U	1.8 U	27 J	0.70 U	3800	1.1 J	0.30 J	830 J	13	0.10 UJ	570000	0.20 U	2.2 J	6.9 J	0.080 U
	TMW15042015	Normal	North Alluvial	4/8/2015	31 U	0.60 U	1.0 U	24	0.24 U	0.40 U	19000	0.92 J	0.10 U	1.5 U	30 U	0.50 U	3700	0.53 J	0.90 U	740 J	14	0.10 U	560000	0.20 U	1.2 J	6.7 J	0.080 U
	DTW15042015	Duplicate	North Alluvial	4/8/2015	26 J	0.60 U	1.0 U	23	0.24 U	0.40 U	19000	1.0 J	0.10 U	1.5 U	30 U	0.50 U	3600	0.63 J	0.90 U	740 J	14	0.10 U	550000	0.20 U	1.5 J	7.2 J	0.080 U
TMW21	TMW21102016	Normal	North Alluvial	10/27/2016	**8700**	1.0 U	2.6 J	110	0.57 J	1.0 U	37000	6.1 J	2.7	10	**5300**	3.5	8600	**220**	5.5	2800 J	3.9 J	0.056 J	620000 J	0.073 J	14	18 J	0.080 U
	TMW21042016	Normal	North Alluvial	4/11/2016	**34000**	1.0 U	7.4	410	2.2	1.0 U	50000	20	11	37	**22000**	15	15000	**570**	20	6200 J	4.1 J	0.25 J	620000	0.22 J	40	64	0.080 U
	TMW21102015	Normal	North Alluvial	10/29/2015	**38000**	1.0 U	9.5	510	2.4	0.28 J	54000	19	11	49	**25000**	17	17000	**840**	22	6900	2.8 J	0.36 J	700000	0.25 J	43	73	0.060 J
	TMW21042015	Normal	North Alluvial	4/3/2015	**24000 J**	1.3 J	6.4	340	1.8	0.40 U	43000	16	8.7	49	**17000 J**	11	13000	**750**	20	5200	3.2 J	0.26 J	630000	0.29 J	35	88	0.080 U
TMW22	TMW22102016	Normal	North Alluvial	10/27/2016	**1700**	1.3 J	1.1 J	51	0.14 J	1.0 U	38000	4.2 J	0.52 J	1.7 J	**930**	0.52 J	11000	37	2.6 J	1700 J	4.2 J	0.10 U	870000 J	0.054 J	7.9	6.1 J	0.080 U
	TMW22042016	Normal	North Alluvial	4/8/2016	**140 J**	1.0 U	1.0 J	21	0.30 U	1.0 U	33000 J	0.78 J	0.076 J	1.2 J	80 J	0.70 U	10000	7.1	0.63 J	720 J	1.9 J	0.10 U	770000	0.20 U	4.8 J	3.7 J	0.080 U
	TMW22102015	Normal	North Alluvial	10/29/2015	**3100**	0.70 J	1.2 J	60	0.22 J	1.0 U	36000	2.8 J	0.72 J	1.3 J	**1400**	0.97 J	12000	**56**	2.7 J	1600 J	2.9 J	0.12 J	920000	0.099 J	7.6	14 J	0.080 U
	TMW22042015	Normal	North Alluvial	4/1/2015	**530 J**	0.60 U	0.90 J	28 J	0.24 U	0.40 U	35000	1.9 J	0.25 J	0.91 J	290	1.2 J	11000	28	1.1 J	910 J	2.8 J	0.10 U	820000	0.20 U	6.2	11 J	0.080 U
TMW23	TMW23102016	Normal	North Alluvial	10/28/2016	**2100**	1.0 U	1.2 J	41	0.087 J	1.0 U	18000	3.6 J	0.52 J	1.7 J	**1200**	0.63 J	4800	41	2.0 J	1600 J	1.8 U	0.10 U	750000	0.20 U	5.7 J	5.9 J	0.080 U
	TMW23042016	Normal	North Alluvial	4/8/2016	**560**	1.0 U	1.2 J	24	0.30 U	1.0 U	18000 J	1.3 J	0.14 J	0.87 J	**320**	0.70 U	4600	9.2	0.67 J	640 J	2.0 U	0.10 U	710000	0.20 U	2.7 J	2.2 J	0.080 U
	TMW23102015	Normal	North Alluvial	10/30/2015	**4500**	1.0 U	1.8 J	81	0.21 J	1.0 U	20000	4.0 J	1.1	1.8 J	**2500**	1.4 J	5800	**83 J**	2.8 J	1800 J	2.0 U	0.035 U	870000	0.20 U	7.5	13 J	0.080 U
	TMW23042015	Normal	North Alluvial	4/1/2015	**1800 J**	0.60 U	1.4 J	42 J	0.24 U	0.40 U	17000	2.8 J	0.69 J	1.5 J	**1100**	0.80 J	4600	36	1.8 J	1000 J	2.0 U	0.10 U	730000	0.20 U	6.1	7.2 J	0.080 U

TABLE 5-8

Summary of Total Metals Analytical Detections (Page 4 of 7)

Groundwater Periodic Monitoring Report July through December 2016 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	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																						
					50[b]	**6[b]**	**10[b]**	**1,000[a]**	**4[b]**	**5[b]**	**NE**	**50[a]**	**50[a]**	**1,000[a]**	**300[b]**	**50[a]**	**NE**	**50[b]**	**200[a]**	**NE**	**50[a]**	**50[a]**	**NE**	**2[b]**	**86[c]**	**5,000[b]**	**2[a]**
TMW24	TMW24102016	Normal	North Alluvial	11/3/2016	70 U	1.0 U	1.2 J	38	0.30 U	1.0 U	37000	1.8 U	0.20 U	0.69 J	58 J	0.70 U	8600	**150**	0.84 J	1500 J	2.0 U	0.10 U	980000	0.20 U	2.2 U	8.0 U	0.080 U
	TMW24042016	Normal	North Alluvial	4/15/2016	35 J	0.47 J	1.2 J	38	0.35 J	1.0 U	34000	1.8 U	0.28 J	0.89 J	65 J	0.70 U	8200	**150**	1.2 J	950 J	2.0 U	0.044 U	770000	0.052 J	2.0 J	2.5 J	0.080 U
	TMW24102015	Normal	North Alluvial	11/6/2015	**630**	1.0 U	1.2 J	43 J	0.30 U	1.0 U	36000	0.78 J	0.29 J	4.9	**420**	0.34 J	9200	**140**	1.4 J	1000	2.0 U	0.13 J	1000000	0.20 U	3.2 J	6.2 J	0.080 U
	TMW24042015	Normal	North Alluvial	4/8/2015	27 J	0.60 U	1.4 J	38	0.24 U	0.40 U	34000	1.5 U	0.27 J	0.57 J	63 J	0.50 U	8500	**140**	1.0 J	930 J	2.0 U	0.10 U	930000	0.20 U	1.1 J	6.0 U	0.080 U
TMW25	TMW25102016	Normal	North Alluvial	11/1/2016	**64 J**	1.0 U	0.49 J	11	0.30 U	1.0 U	50000	1.8 U	0.36 J	0.98 J	87 J	0.70 U	11000	**280**	0.79 J	2000 J	2.0 U	0.27 J	860000	0.20 U	3.8 J	5.9 U	0.080 U
	TMW25042016	Normal	North Alluvial	4/13/2016	**140 J**	1.0 U	0.83 J	18	0.30 U	1.0 U	49000	1.8 U	1.3	1.3 J	**410 J**	0.41 J	9800	**1100 J**	1.8 J	890 J	2.0 U	1.0 J	630000	0.20 U	5.7 J	22	0.080 U
	TMW25102015	Normal	North Alluvial	11/4/2015	**340**	1.0 U	3.4 J	58	0.30 U	1.0 U	58000	1.9 J	6.9	3.8	**4700**	1.8 J	11000	**6200**	9.3	570 J	2.0 U	1.6 J	890000	0.20 U	25	200	0.080 U
	TMW25042015	Normal	North Alluvial	4/7/2015	**300 J**	0.60 U	0.83 J	15	0.24 U	0.40 U	47000	1.5 U	0.46 J	0.65 J	**310**	0.18 J	11000	**340**	1.2 J	640 J	2.0 U	0.10 U	830000	0.20 U	4.3 J	5.4 J	0.080 U
TMW26	TMW26102016	Normal	North Alluvial	11/1/2016	**690**	0.45 J	1.3 J	27	0.30 U	1.0 U	18000	0.68 J	0.37 J	3.1	**350**	0.28 U	7300	**110**	2.3 J	880 J	2.0 U	0.10 U	810000	0.053 J	4.5 J	6.3 U	0.080 U
	TMW26042016	Normal	North Alluvial	4/8/2016	**270 J**	1.0 U	1.0 J	22	0.083 U	1.0 U	19000 J	1.8 U	0.30 J	2.3	140	0.70 U	7000	**110**	1.8 J	520 J	2.0 U	0.10 U	840000	0.20 U	3.9 J	2.1 J	0.080 U
	TMW26102015	Normal	North Alluvial	10/30/2015	**270 J**	1.0 U	1.2 J	24	0.30 U	1.0 U	18000	1.8 U	0.32 J	1.6 J	130	0.70 U	6900	**120 J**	1.9 J	690 J	2.0 U	0.10 U	890000	0.20 U	3.8 J	8.0 U	0.028 J
	DTW26102015	Duplicate	North Alluvial	10/30/2015	**260 J**	1.0 U	0.94 J	22	0.30 U	1.0 U	18000	1.8 U	0.31 J	1.7 J	130	0.70 U	7200	**110 J**	1.9 J	590 J	2.0 U	0.046 J	950000	0.20 U	3.6 J	8.0 U	0.080 U
	TMW26042015	Normal	North Alluvial	4/7/2015	**250 J**	0.60 U	1.3 J	22	0.24 U	0.40 U	16000	1.5 U	0.35 J	2.3	120	0.50 U	6800	**110**	2.1 J	680 J	1.2 J	0.10 U	770000	0.20 U	3.4 J	2.6 J	0.080 U
	DTW26042015	Duplicate	North Alluvial	4/7/2015	**330 J**	0.60 U	1.2 J	22	0.24 U	0.40 U	17000	1.5 U	0.38 J	2.2	180	0.50 U	7400	**120**	2.5 J	700 J	0.75 J	0.10 U	930000	0.20 U	3.9 J	6.0 U	0.080 U
TMW27	TMW27102016	Normal	North Alluvial	11/3/2016	39 J	1.0 U	**22**	120	0.30 U	1.0 U	24000	1.8 U	0.15 U	1.8 U	**570**	0.70 U	5900	**560**	0.60 J	900 J	2.0 U	0.10 U	330000	0.20 U	0.55 U	98	0.028 J
	TMW27042016	Normal	North Alluvial	4/8/2016	70 U	1.0 U	**22**	130	0.30 U	1.0 U	21000 J	1.8 U	0.13 J	1.8 U	**500**	0.70 U	5400	**550**	1.0 U	460 J	2.0 U	0.10 U	290000	0.20 U	2.0 U	4.1 J	0.080 U
	TMW27102015	Normal	North Alluvial	10/30/2015	70 U	1.0 U	**21**	140	0.30 U	1.0 U	24000	1.8 U	0.21 J	1.8 U	**580**	0.70 U	6400	**570 J**	0.64 J	690 J	2.0 U	0.10 U	370000	0.20 U	2.0 U	4.3 J	0.080 U
	TMW27042015	Normal	North Alluvial	4/7/2015	31 U	0.47 J	**21**	120	0.24 U	0.40 U	23000	1.5 U	0.16 J	1.5 U	**1100**	0.50 U	6400	**580**	0.68 J	650 J	2.0 U	0.10 U	390000	0.20 U	1.0 U	5.6 J	0.080 U
TMW28	TMW28102016	Normal	North Alluvial	11/3/2016	70 U	1.0 U	1.0 U	54	0.30 U	1.0 U	100000	3.5 J	0.17 U	1.8 U	**340**	0.70 U	30000	**410**	0.38 J	1600 J	2.0 U	0.10 U	340000	0.20 U	1.2 U	4.0 J	0.027 J
	TMW28042016	Normal	North Alluvial	4/11/2016	27 J	1.0 U	1.0 U	51	0.11 U	1.0 U	110000	1.8 U	0.12 J	1.8 U	**400**	0.70 U	33000	**370**	1.0 U	1300 J	2.0 U	0.10 U	340000	0.20 U	1.2 J	28	0.080 U
	TMW28102015	Normal	North Alluvial	11/3/2015	150 U	1.0 U	1.0 U	60	0.30 U	1.0 U	110000	1.8 U	0.099 J	1.8 U	**370**	0.70 U	32000	**430**	1.0 U	1300	2.0 U	0.10 U	340000	0.20 U	0.78 J	2.4 J	0.080 U
	TMW28042015	Normal	North Alluvial	4/7/2015	31 U	1.2 J	1.0 U	79	0.24 U	0.40 U	120000	1.5 U	0.15 J	1.5 U	**490**	0.50 U	39000	**530**	0.54 J	1300 J	2.0 U	0.050 U	430000	0.13 J	0.66 J	3.3 J	0.080 U
TMW29	TMW29102016	Normal	North Alluvial	10/28/2016	**7100**	1.0 U	1.8 J	72	0.26 J	1.0 U	41000	4.7 J	1.6	1.9 J	**3500**	1.9 J	8600	**80**	3.9	2800 J	20	0.10 U	580000	0.20 U	12	12 J	0.080 U
	TMW29042016	Normal	North Alluvial	4/7/2016	**5800 J**	0.73 J	1.9 J	76 J	0.22 J	1.0 U	43000	4.7 J	1.3	2.3	**2800 J**	1.7 J	8400	**78**	3.4	2500 J	20	0.10 U	400000	0.20 U	10	13 U	0.080 U
	TMW29102015	Normal	North Alluvial	10/28/2015	**6500 J**	1.0 U	2.2 J	82	0.29 J	1.0 U	43000	4.6 J	1.6	2.1	**4000**	3.1	8800	**110**	4.5	2400 J	19	0.10 U	560000	0.051 U	10	14 J	0.080 U
	TMW29042015	Normal	North Alluvial	4/3/2015	**6400 J**	0.41 J	2.1 J	99	0.41 J	0.40 U	43000	7.1 J	2.1	3.7	**3900 J**	2.4 J	9100	**130**	6.2	2500 J	20	0.080 J	620000	0.083 J	13	14 J	0.080 U
TMW31S	TMW31S102016	Normal	North Alluvial	10/27/2016	**880**	0.73 J	0.34 J	23	0.30 U	1.0 U	110000	2.0 J	0.32 J	1.8 U	**420**	0.35 J	20000	43	0.97 J	930 J	11	0.10 U	550000 J	0.20 U	3.3 J	4.3 J	0.080 U
	TMW31S042016	Normal	North Alluvial	4/6/2016	**1700 J**	0.68 J	0.47 J	32	0.13 J	1.0 U	110000	2.9 J	0.49 J	1.3 J	**790 J**	0.65 J	21000	**52 J**	1.5 J	790 J	9.2	0.038 J	540000	0.065 J	4.3 J	7.8 J	0.080 U
	TMW31S102015	Normal	North Alluvial	10/29/2015	**5100**	1.0 U	0.60 J	78	0.17 J	1.0 U	110000	4.6 J	1.5	1.2 J	**2200**	2.9 J	22000	**130**	3.3	1400 J	9.5	0.10 U	570000	0.20 U	7.3	11 J	0.080 U
	TMW31S042015	Normal	North Alluvial	4/2/2015	**67000**	0.60 U	3.4 J	660	3.2	0.40 U	170000	34	17	15	**27000**	20	36000	**1300**	37	6200	8.4	0.10 J	580000	0.27 U	57	100	0.080 U
TMW33	TMW33102016	Normal	North Alluvial	10/28/2016	**4700**	1.0 U	1.4 J	75	0.23 J	1.0 U	100000	4.5 J	1.7	6	**2900**	2.5 J	29000	**410**	5.3	3600	2.0 U	0.10 U	2400000	0.053 J	9.4	11 J	0.080 U
	TMW33042016	Normal	North Alluvial	4/7/2016	**7000 J**	1.0 U	1.8 J	110 J	0.38 J	1.0 U	110000	7.3 J	2.6	5.5	**3400 J**	2.6 J	28000	**820**	7.2	4500	2.0 U	0.047 J	2300000	0.053 J	13	15 U	0.080 U
	TMW33102015	Normal	North Alluvial	10/30/2015	**840**	1.0 U	1.0 J	36	0.13 J	1.0 U	100000	1.5 J	0.64 J	2.5	**580**	1.1 J	29000	**470 J**	2.7 J	2900 J	2.0 U	0.049 U	2600000	0.20 U	4.7 J	7.5 J	0.043 J
	TMW33042015	Normal	North Alluvial	4/2/2015	**5500**	0.44 J	1.5 J	90	0.44 J	0.40 U	94000	3.9 J	1.5	6.7	**3100**	2.5 J	25000	**480**	4.1	2100 J	0.88 J	0.11 J	1900000	0.18 U	10	13 J	0.080 U
TMW34	TMW34102016	Normal	North Alluvial	11/1/2016	**230 J**	1.0 U	1.0 U	14	0.30 U	1.0 U	120000	1.8 U	0.54 J	1.0 J	140	0.70 U	27000	**300**	0.66 J	1900 J	**110**	0.23 J	1300000	0.20 U	1.5 J	3.3 U	0.080 U
	TMW34042016	Normal	North Alluvial	4/12/2016	70 U	1.0 U	1.0 U	11	0.30 U	1.0 U	130000	1.8 U	0.17 J	1.8 U	85 U	0.70 U	28000	**140**	0.59 J	910 J	**120**	0.10 U	1400000	0.20 U	1.1 J	8.0 U	0.080 U
	DTW34042016	Duplicate	North Alluvial	4/12/2016	18 J	1.0 U	0.36 J	12	0.30 U	1.0 U	130000	1.8 U	0.16 J	0.86 J	85 U	0.70 U	27000	**140**	0.62 J	860 J	**120**	0.10 U	1400000	0.20 U	1.3 J	2.9 U	0.080 U
	TMW34102015	Normal	North Alluvial	11/3/2015	150 U	1.0 U	1.0 U	12	0.30 U	1.0 U	130000	1.8 U	0.16 J	1.8 U	50 U	0.70 U	27000	**160**	0.61 J	1300	**110**	0.10 U	1400000	0.20 U	1.5 J	8.0 U	0.080 UJ
	DTW34102015	Duplicate	North Alluvial	11/3/2015	150 U	1.0 U	1.0 U	12	0.30 U	1.0 U	130000	1.8 U	0.19 J	0.56 J	50 U	0.70 U	27000	**150**	0.51 J	1400	**110**	0.10 U	1400000	0.20 U	1.4 J	8.0 U	0.080 UJ
	TMW34042015	Normal	North Alluvial	4/3/2015	31 U	0.60 UJ	1.0 U	11	0.24 U	0.40 U	110000	1.5 U	0.18 J	0.97 J	30 U	0.50 UJ	24000	**150**	0.50 J	1100 J	**110**	0.10 U	1400000	0.092 J	1.5 J	3.5 J	0.080 U
	DTW34042015	Duplicate	North Alluvial	4/3/2015	31 U	0.60 UJ	1.0 U	12	0.24 U	0.40 U	110000	1.5 U	0.24 J	0.85 J	30 U	0.22 J	24000	**210**	0.62 J	1200 J	**110**	0.10 U	1400000	0.20 UJ	1.3 J	2.4 J	0.080 U

TABLE 5-8
Summary of Total Metals Analytical Detections (Page 5 of 7)
Groundwater Periodic Monitoring Report July through December 2016 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	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																					
					50[b]	6[b]	10[b]	1,000[a]	4[b]	5[b]	NE	50[a]	50[a]	1,000[a]	300[b]	50[a]	NE	50[b]	200[a]	NE	50[a]	50[a]	NE	2[b]	86[c]	5,000[b]	2[a]
TMW35	TMW35102016	Normal	North Alluvial	10/31/2016	70 U	1.0 U	0.41 J	12	0.30 U	1.0 U	82000	0.60 J	0.18 J	1.3 J	85 U	0.70 U	16000	**150**	0.81 J	1400 J	15	0.10 U	1100000 J	0.20 U	1.8 J	8.0 U	0.080 U
	DTW35102016	Duplicate	North Alluvial	10/31/2016	70 U	1.0 U	0.51 J	11	0.30 U	1.0 U	80000	1.8 UJ	0.17 J	1.2 J	85 U	0.70 U	16000	**150**	0.89 J	950 J	16	0.10 U	1100000 J	0.20 U	1.8 J	19 J	0.080 U
	TMW35042016	Normal	North Alluvial	4/11/2016	70 U	1.0 U	0.59 J	12	0.14 U	1.0 U	79000	1.8 U	0.15 J	0.99 J	85 U	0.70 U	15000	**140**	0.65 J	530 J	20	0.033 J	1200000	0.20 U	2.1 J	8.0 U	0.080 U
	TMW35102015	Normal	North Alluvial	11/2/2015	70 U	1.0 U	0.43 J	11	0.30 U	1.0 U	77000	1.8 U	0.18 J	1.4 J	85 U	0.70 U	15000	**160**	0.71 J	980 UJ	20	0.10 U	1400000	0.20 U	2.0 J	8.0 U	0.080 U
	TMW35042015	Normal	North Alluvial	4/3/2015	31 U	0.60 UJ	0.65 J	11	0.24 U	0.40 U	83000	1.5 U	0.15 J	1.1 J	54 J	0.50 U	16000	**180**	0.76 J	880 J	23	0.10 U	1300000	0.20 U	2.4 J	6.0 U	0.080 U
TMW39S	TMW39S102016	Normal	North Alluvial	10/27/2016	**1900**	1.0 U	0.59 J	40	0.10 J	1.0 U	73000	3.6 J	0.58 J	1.0 J	**1100**	0.86 J	15000	41	1.5 J	1600 J	12	0.10 U	840000 J	0.20 U	6.5	5.6 J	0.080 U
	TMW39S042016	Normal	North Alluvial	4/6/2016	**3800 J**	0.73 J	0.89 J	60	0.30 U	1.0 U	76000	5.2 J	0.81 J	2.1	**1900 J**	1.7 J	18000	**73 J**	2.3 J	1500 J	11	0.041 J	890000	0.20 U	7.2	8.9 J	0.080 U
	TMW39S102015	Normal	North Alluvial	10/29/2015	**9900**	1.0 U	1.2 J	160	0.47 J	1.0 U	84000	8.2 J	2.6	3.8	**4800**	3.4	19000	**240**	5.1	2600 J	10	0.091 J	960000	0.069 J	14	18 J	0.080 U
	TMW39S042015	Normal	North Alluvial	4/1/2015	**7300 J**	0.60 U	1.2 J	99 J	0.34 J	0.40 U	81000	6.8 J	1.7	2.4	**3300**	1.9 J	18000	**130**	4.4	1900 J	11	0.10 U	850000	0.11 J	11	11 J	0.080 U
TMW40S	TMW40S102016	Normal	North Alluvial	10/2016	Well was dry and was not sampled this event																					
	TMW40S042016	Normal	North Alluvial	4/8/2016	**6200**	1.0 U	**13**	99	0.65 J	1.0 U	66000 J	2.7 J	1.2	2.3	**3100**	5.3	11000	**130**	2.7 J	1300 J	**61**	0.053 J	970000	0.11 U	40	42	0.080 U
	TMW40S102015	Normal	North Alluvial	10/28/2015	**59000 J**	1.0 U	**23**	**1000**	**9.8**	0.70 J	120000	20	11	18	**34000**	**75**	27000	**1400**	25	4900	**54**	0.33 U	960000	0.23 U	65	480	0.053 J
	TMW40S042015	Normal	North Alluvial	4/1/2015	**120000 J**	0.60 U	**30**	**1800 J**	**15**	0.72 J	140000	42	23	33	**49000**	**100**	37000	**2200**	48	6500	**56**	0.22 J	980000	0.39 J	**97**	760	0.027 J
TMW41	TMW41102016	Normal	North Alluvial	10/27/2016	**490**	1.0 U	0.49 J	14	0.30 U	1.0 U	16000	2.9 J	0.20 J	1.8 U	240	0.19 J	3800	6.7	0.68 J	1400 J	2.4 U	0.10 U	850000 J	0.20 U	7.9	2.9 J	0.080 U
	TMW41042016	Normal	North Alluvial	4/7/2016	**560 J**	1.0 U	0.54 J	12 J	0.30 U	1.0 U	16000	2.3 J	0.11 J	0.74 J	210 J	0.70 U	3600	4.6	0.63 U	1100 J	1.2 J	0.10 U	670000	0.20 U	6.4	5.1 U	0.080 U
	TMW41102015	Normal	North Alluvial	10/29/2015	**500**	1.0 U	0.53 J	16	0.30 U	1.0 U	15000	1.8 J	0.14 J	1.8 U	220	1.8 J	3900	6.7	0.49 J	1300 J	1.4 J	0.070 J	920000	0.20 U	7.5	5.4 J	0.080 U
	TMW41042015	Normal	North Alluvial	4/1/2015	**360 J**	1.5 J	0.61 J	13 J	0.24 U	0.40 U	15000	2.0 J	0.10 J	1.5 U	190	0.23 J	3600	5.5	0.90 U	870 J	1.4 J	0.10 UJ	790000	0.18 J	7.5	5.5 J	0.080 U
TMW43	TMW43102016	Normal	North Alluvial	11/3/2016	47 J	1.0 U	1.0 U	19	0.30 U	1.0 U	35000	0.92 J	0.20 U	1.8 U	27 J	0.70 U	6000	**55**	1.0 U	1000 J	5.7	0.10 U	580000	0.20 U	1.9 U	2.3 J	0.035 J
	DTW43102016	Duplicate	North Alluvial	11/3/2016	26 J	1.0 U	1.0 U	19	0.30 U	1.0 U	36000	1.8 U	0.092 U	1.8 U	26 J	0.70 U	6000	**53**	1.0 U	1200 J	5.9	0.10 U	580000	0.20 U	1.6 U	3.0 J	0.027 J
	TMW43042016	Normal	North Alluvial	4/13/2016	70 U	1.0 U	1.0 U	18	0.30 U	1.0 U	33000	1.8 U	0.068 J	1.8 U	85 U	0.70 U	5900	48 J	1.0 U	940 J	6.1	0.10 U	440000	0.20 U	1.8 J	2.6 J	0.080 U
	DTW43042016	Duplicate	North Alluvial	4/13/2016	70 U	0.47 J	1.0 U	19	0.30 U	1.0 U	33000	1.8 U	0.088 J	1.8 U	85 U	0.70 U	5800	48 J	1.0 U	1200 J	6.3	0.091 J	430000	0.12 J	1.8 J	2.2 J	0.080 U
	TMW43102015	Normal	North Alluvial	11/3/2015	150 U	1.1 J	1.0 U	20	0.30 U	1.0 U	35000	1.8 U	0.15 J	1.8 U	50 U	0.70 U	6400	48	1.0 U	920 J	6.2	0.037 U	580000	0.051 J	1.5 J	8.0 U	**3.3 J**
	DTW43102015	Duplicate	North Alluvial	11/3/2015	150 U	0.43 J	1.0 U	19	0.26 J	1.0 U	35000	1.8 U	0.16 J	1.8 U	50 U	0.70 U	6500	49	0.53 J	1100	6.7	0.033 U	580000	0.14 J	1.9 J	8.0 U	0.080 UJ
	TMW43042015	Normal	North Alluvial	4/10/2015	**200 J**	0.60 U	1.0 U	20	0.24 U	0.40 U	34000	1.5 U	0.095 J	1.5 U	140	0.50 U	6500	**54**	0.90 U	790 J	5.7	0.10 U	590000	0.13 J	1.5 J	2.1 J	0.080 U
	DTW43042015	Duplicate	North Alluvial	4/10/2015	41 J	0.60 U	1.0 U	19	0.23 J	0.40 U	30000	1.5 U	0.12 J	1.5 U	25 J	0.50 U	6100	**51**	0.90 U	800 J	6.4	0.10 U	510000	0.13 J	1.6 J	6.0 U	0.080 U
TMW44	TMW44102016	Normal	North Alluvial	10/27/2016	**4400**	1.0 U	1.7 J	73	0.35 J	1.0 U	36000	3.7 J	1.9	1.9 J	**3000**	3.6	11000	**190**	2.8 J	2000 J	3.4 U	0.10 U	720000 J	0.074 J	11	15 J	0.080 U
	TMW44042016	Normal	North Alluvial	4/8/2016	**710**	1.0 U	0.85 J	21	0.30 U	1.0 U	34000 J	0.68 J	0.18 J	1.2 J	**380**	0.29 J	11000	**79**	1.4 J	610 J	2.1 J	0.10 U	700000	0.20 U	4.2 J	3.8 J	0.080 U
	TMW44102015	Normal	North Alluvial	10/29/2015	**4700**	1.0 U	1.5 J	62	0.24 J	1.0 U	38000	3.0 J	1.8	1.5 J	**2600**	1.8 J	13000	**330**	2.8 J	1700 J	2.0 J	0.042 J	800000	0.050 J	9.1	10 J	0.027 J
	TMW44042015	Normal	North Alluvial	4/1/2015	**16000 J**	0.60 U	3.5 J	170 J	0.69 J	0.40 U	45000	9.7 J	6.1	7.8	**8500**	6.5	14000	**820**	8.6	2900 J	2.3 J	0.10 U	700000	0.17 J	22	25	0.080 U
TMW45	TMW45102016	Normal	North Alluvial	11/4/2016	**160 J**	0.77 J	0.91 J	68	0.30 U	1.0 U	31000	1.8 U	0.20 J	1.7 J	110	0.36 J	7300 J	**110**	1.1 J	1400 J	0.87 J	0.046 J	980000	0.056 U	4.3 J	8.0 U	0.030 J
	DTW45102016	Duplicate	North Alluvial	11/4/2016	**170 J**	1.0 U	0.98 J	66	0.30 U	1.0 U	28000	1.8 U	0.23 J	1.8 J	120	0.70 U	6700 J	**120**	1.1 J	1400 J	0.83 J	0.058 J	900000	0.20 U	3.9 J	8.0 U	0.028 J
	TMW45042016	Normal	North Alluvial	4/14/2016	**82 J**	1.0 U	1.1 J	74	0.30 U	1.0 U	26000	1.1 J	0.27 J	1.7 J	59 J	0.70 U	6600	**180**	2.0 J	990 J	0.76 J	0.10 U	770000 J	0.20 U	4.7 J	8.0 U	0.080 U
	TMW45102015	Normal	North Alluvial	11/3/2015	**79 J**	1.0 U	1.0 J	72	0.30 U	1.0 U	29000	0.52 J	0.20 J	2	43 J	0.70 U	7500	**170**	1.4 J	1000	0.70 J	0.059 U	910000	0.20 U	4.2 J	8.0 U	0.080 UJ
	TMW45042015	Normal	North Alluvial	4/9/2015	**55 J**	0.60 U	0.95 J	66	0.24 U	0.40 U	31000	1.5 U	0.15 J	1.3 J	34 J	0.50 U	8000	**150**	1.3 J	680 J	1.1 J	0.051 J	830000 J	0.20 U	3.7 J	6.0 U	0.080 U
TMW46	TMW46102016	Normal	North Alluvial	10/28/2016	**7000**	1.0 U	1.1 J	130	0.30 J	1.0 U	80000	4.7 J	2	3.3	**4200**	3.2	18000	**130**	3.1	2000 J	**120**	0.056 J	1200000	0.062 J	9.6	22	0.080 U
	TMW46042016	Normal	North Alluvial	4/7/2016	**5700 J**	1.0 U	1.2 J	98 J	0.28 J	1.0 U	83000	3.7 J	1.6	4.4	**2600 J**	2.4 J	18000	**100**	2.4 J	2900 J	**110**	0.10 U	1200000	0.20 U	8.3	11 U	0.080 U
	TMW46102015	Normal	North Alluvial	10/29/2015	**8000**	1.0 U	1.9 J	190	0.74 J	1.0 U	85000	5.5 J	2.8	4.7	**5300**	4.7	19000	**200**	3.8	2500 J	**110**	0.042 J	1300000	0.11 J	12	18 J	0.052 J
	TMW46042015	Normal	North Alluvial	4/2/2015	**4900**	1.2 J	0.88 J	70	0.20 J	0.40 U	76000	2.4 J	1.1	2.8	**2200**	2.0 J	18000	**67**	1.8 J	1200 J	**110**	0.058 J	1200000	0.13 U	5.8 J	15 J	0.080 U
TMW47	TMW47102016	Normal	North Alluvial	11/4/2016	70 UJ	1.0 U	0.48 J	12	0.12 J	1.0 U	6300	1.8 U	0.092 J	0.78 J	27 J	0.70 U	630 J	33	1.0 U	1300 J	1.0 J	0.10 U	550000	0.081 U	2.0 U	2.3 J	0.080 U
	TMW47042016	Normal	North Alluvial	4/14/2016	19 J	1.0 U	0.47 J	13	0.30 U	1.0 U	5700	1.8 U	0.066 J	0.63 J	44 J	0.70 U	600	41	1.0 U	1100 J	2.0 U	0.10 U	420000 J	0.20 U	0.75 J	8.0 U	0.080 U
	TMW47102015	Normal	North Alluvial	11/5/2015	150 U	1.0 U	0.68 J	13	0.30 U	1.0 U	6200	1.8 U	0.20 U	0.60 J	20 J	0.70 U	700	45	0.33 J	1200	2.0 U	0.10 U	560000	0.20 U	1.0 J	8.0 U	0.080 U
	TMW47042015	Normal	North Alluvial	4/10/2015	23 J	0.60 U	1.0 U	15	0.24 U	0.40 U	4400	1.5 U	0.10 U	1.1 J	31 J	0.50 U	550	42	0.38 J	800 J	2.0 U	0.10 U	410000	0.20 U	1.0 J	3.0 J	0.080 U

TABLE 5-8

Summary of Total Metals Analytical Detections (Page 6 of 7)

Groundwater Periodic Monitoring Report July through December 2016 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	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																					
					50[b]	6[b]	10[b]	1,000[a]	4[b]	5[b]	NE	50[a]	50[a]	1,000[a]	300[b]	50[a]	NE	50[b]	200[a]	NE	50[a]	50[a]	NE	2[b]	86[c]	5,000[b]	2[a]
TMW02	TMW02102016	Normal	North Bedrock	11/1/2016	70 U	1.0 U	1.1 J	7.8	0.30 U	1.0 U	23000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	2800	0.52 U	1.0 U	3000	**79**	0.10 U	1000000	0.20 U	38	8.0 U	0.080 U
	TMW02042016	Normal	North Bedrock	4/13/2016	70 U	1.0 U	1.1 J	8.3	0.30 U	1.0 U	20000	0.60 J	0.20 U	1.8 U	85 U	0.70 U	2400	0.38 J	1.0 U	1800 J	**79**	0.10 U	880000	0.20 U	40	8.0 U	0.080 U
	TMW02102015	Normal	North Bedrock	11/3/2015	150 U	1.0 U	1.1 J	8.5	0.30 U	1.0 U	23000	0.64 J	0.20 U	1.8 U	20 J	0.70 U	2800	1.0 J	1.0 U	1900	**78**	0.10 U	1100000	0.20 U	42	2.0 J	0.080 UJ
	TMW02042015	Normal	North Bedrock	4/9/2015	18 J	0.60 U	0.87 J	6.8	0.24 U	0.40 U	23000	0.52 J	0.10 U	1.5 U	30 U	0.50 U	2800	0.44 J	0.90 U	1300 J	**67**	0.10 U	960000 J	0.20 U	36	6.0 U	0.080 U
TMW14A	TMW14A102016	Normal	North Bedrock	11/3/2016	**140 J**	1.0 U	0.57 J	20	0.30 U	1.0 U	3400	1.1 J	0.097 U	1.2 J	180	0.70 U	410 J	25	0.37 J	1400 J	2.0 U	0.10 U	430000	0.20 U	2.0 U	3.8 J	0.028 J
	TMW14A042016	Normal	North Bedrock	4/14/2016	28 J	1.0 U	0.39 J	19	0.30 U	1.0 U	3100	1.8 U	0.20 U	1.7 J	31 J	0.70 U	340 J	13	0.50 J	820 J	2.0 U	0.10 U	400000 J	0.20 U	2.0 U	8.0 U	0.080 U
	TMW14A102015	Normal	North Bedrock	11/3/2015	150 U	1.0 U	1.0 U	18	0.30 U	1.0 U	3300	1.8 U	0.20 U	1.3 J	28 J	0.70 U	380 J	14	0.39 J	800 J	2.0 U	0.10 U	440000	0.20 U	2.0 U	7.5 J	0.080 UJ
	TMW14A042015	Normal	North Bedrock	4/8/2015	19 J	1.0 U	0.63 J	15	0.24 U	0.40 U	3300	1.5 U	0.10 U	1.5 U	26 J	0.50 U	390 J	11	0.30 J	790 J	2.0 U	0.10 U	410000	0.12 U	1.0 U	6.0 U	0.080 U
TMW16	TMW16102016	Normal	North Bedrock	10/28/2016	**890**	1.0 U	1.0 U	18	0.30 U	1.0 U	3700	1.9 J	0.31 J	1.3 J	**420**	0.31 J	560	6.7	8.2	1100 U	1.1 U	0.12 J	420000	0.20 U	13	13 J	0.080 U
	TMW16042016	Normal	North Bedrock	4/7/2016	**4700 J**	1.0 U	1.1 J	61 J	0.16 J	1.0 U	12000	11	2.1	4.6	**1500 J**	1.1 J	2100	**140**	67	2500 J	1.0 J	1.2 J	480000	0.20 U	11	37	0.080 U
	TMW16102015	Normal	North Bedrock	10/28/2015	**1900 J**	1.0 U	0.75 J	34	0.30 U	1.0 U	4500	2.8 J	0.72 U	2.7	**1200**	1.0 U	970	27	6.4	1000 J	2.0 U	0.59 J	420000	0.27 U	14	18 J	0.038 J
	TMW16042015	Normal	North Bedrock	4/1/2015	**1900 J**	0.60 U	0.61 J	34 J	0.24 U	0.40 U	4500	4.2 J	0.68 J	4.5	**920**	0.79 J	950	23	8.7	1000 J	2.0 U	0.43 J	440000	0.20 U	23	20	0.080 U
TMW17	TMW17102016	Normal	North Bedrock	11/4/2016	**160 J**	1.0 U	1.0 U	14	0.30 U	1.0 U	3800	1.8 U	0.059 J	1.1 J	80 J	0.70 J	470 J	13	0.35 J	1000 J	2.0 U	0.10 U	420000	0.20 U	0.52 J	54	0.080 U
	TMW17042016	Normal	North Bedrock	4/15/2016	**170 J**	1.0 U	1.0 U	15	0.30 U	1.0 U	3500	1.8 U	0.075 J	1.1 J	62 J	0.84 J	460 J	14	0.40 J	960 J	2.0 U	0.052 U	430000	0.20 U	0.77 J	55	0.080 U
	TMW17102015	Normal	North Bedrock	11/3/2015	**260**	1.0 U	1.0 U	15	0.30 U	1.0 U	3700	0.61 J	0.074 J	1.3 J	110	0.90 J	530	16	0.84 J	910 J	2.0 U	0.044 U	420000	0.20 U	0.84 J	110	0.080 UJ
	TMW17042015	Normal	North Bedrock	4/7/2015	**510 J**	0.60 U	0.37 J	19	0.24 U	0.40 U	6200	1.0 J	0.17 J	2.4	250	2.0 J	660	27	1.8 J	990 J	1.2 J	0.40 J	510000	0.20 U	1.2 J	600	0.080 U
TMW18	TMW18102016	Normal	North Bedrock	10/28/2016	**180 J**	1.0 U	0.54 J	14	0.30 U	1.0 U	6600	1.8 U	0.20 U	0.67 J	90 J	0.39 J	1100	7.7	0.36 J	3600	1.1 U	0.094 J	680000	0.20 U	6	2.6 J	0.080 U
	TMW18042016	Normal	North Bedrock	4/7/2016	**400 J**	1.0 U	2.4 J	16 J	0.30 U	1.0 U	6700	1.3 J	0.088 J	0.90 J	130 J	0.34 J	1000	8	0.59 U	4000	0.81 J	0.58 J	470000	0.20 U	13	3.7 U	0.080 U
	TMW18102015	Normal	North Bedrock	10/29/2015	**210 J**	1.0 U	1.0 U	18	0.30 U	1.0 U	7000	1.8 U	0.20 U	1.6 J	140	0.43 J	1200	7.4	0.35 J	3700	2.0 U	0.10 U	750000	0.20 U	3.9 J	2.8 J	0.080 U
	TMW18042015	Normal	North Bedrock	4/1/2015	**440 J**	0.60 U	2.0 J	19 J	0.24 U	0.40 U	7100	0.92 J	0.11 J	3.3	200	0.75 J	1100	8	0.64 J	3600	2.0 U	0.25 J	670000	0.20 U	12	7.8 J	0.080 U
TMW19	TMW19102016	Normal	North Bedrock	10/28/2016	**660**	1.0 U	0.36 J	8.9	0.30 U	1.0 U	9300	1.1 J	0.19 J	1.0 J	**330**	0.33 J	1100	18	3.7	1400 J	1.1 U	0.074 J	650000	0.20 U	7.6	19 J	0.080 U
	DTW19102016	Duplicate	North Bedrock	10/28/2016	**630**	1.0 U	1.0 U	8.3	0.30 U	1.0 U	9900	1.5 J	0.21 J	1.1 J	270	0.31 J	1100	17	3.9	1500 J	0.95 U	0.065 J	680000	0.20 U	7.1	22	0.080 U
	TMW19042016	Normal	North Bedrock	4/7/2016	**3600 J**	1.0 U	0.58 J	20 J	0.080 J	1.0 U	13000	3.3 J	0.76 J	2.1	**1500 J**	0.95 J	2000	**71**	2.9 J	2200 J	2.0 U	1.6 J	610000	0.20 U	4.5 J	10 U	0.080 U
	TMW19102015	Normal	North Bedrock	10/28/2015	**880 J**	1.0 U	0.36 J	9	0.20 J	1.0 U	9700	1.1 J	0.27 U	0.99 J	**380**	0.42 U	1200	24	3.3	1100 J	2.0 U	0.14 U	670000	0.14 U	7.7	7.7 J	0.080 U
	TMW19042015	Normal	North Bedrock	4/1/2015	**1200 J**	0.60 U	0.33 J	12 J	0.12 J	0.40 U	10000	0.86 J	0.34 J	0.68 J	**620**	0.59 J	1300	23	4.2	1200 J	2.0 U	0.40 J	680000	0.20 U	6.9	7.1 J	0.080 U
TMW30	TMW30102016	Normal	North Bedrock	10/26/2016	**1900**	1.0 U	1.0 J	28	0.084 J	1.0 U	53000	1.9 J	0.58 J	2.8 J	**1400 J**	1.4 J	11000	27 J	1.5 J	1700 J	7.1	0.080 J	470000 J	0.20 U	16	18 J	0.080 U
	TMW30042016	Normal	North Bedrock	4/7/2016	**3400 J**	0.50 J	1.2 J	42 J	0.16 J	1.0 U	56000	3.0 J	0.93 J	3.6	**2200 J**	2.2 J	11000	48	2.4 J	2000 J	7.1	0.19 J	450000	0.055 J	18	30	0.080 U
	TMW30102015	Normal	North Bedrock	10/29/2015	**460**	1.0 U	0.79 J	13	0.30 U	1.0 U	49000	1.6 J	0.21 J	1.4 J	**330**	0.52 J	11000	8.3	0.92 J	1100 J	6.5	0.23 J	460000	0.20 U	13	9.6 J	0.030 J
	TMW30042015	Normal	North Bedrock	4/1/2015	**500 J**	0.60 U	1.0 J	16 J	0.088 J	0.40 U	58000	0.90 J	0.24 J	0.88 J	**460**	0.56 J	12000	9.5	0.40 J	940 J	8.5	0.10 U	440000	0.060 J	16	9.3 J	0.080 U
TMW31D	TMW31D102016	Normal	North Bedrock	10/31/2016	70 U	1.0 U	0.40 J	8.2	0.30 U	1.0 U	70000	1.7 J	0.056 J	0.72 J	85 U	0.70 U	13000	2.3 J	0.39 J	2100 J	7.6	0.10 U	540000 J	0.20 U	6.8	16 J	0.080 U
	DTW31D102016	Duplicate	North Bedrock	10/31/2016	70 U	1.0 U	0.48 J	8.7	0.30 U	1.0 U	67000	1.8 UJ	0.062 J	0.57 J	85 U	0.70 U	12000	1.9 J	0.31 J	2000 J	7.8	0.10 U	520000 J	0.20 U	6.8	15 J	0.080 U
	TMW31D042016	Normal	North Bedrock	4/13/2016	70 U	1.0 U	1.0 U	8.5	0.30 U	1.0 U	64000	0.59 J	0.20 U	0.92 J	85 U	0.70 U	11000	1.8 J	0.51 J	2000 J	7.9	0.10 U	430000	0.20 U	6.7	18 J	0.080 U
	DTW31D042016	Duplicate	North Bedrock	4/13/2016	70 U	1.0 U	0.45 J	8.7	0.30 U	1.0 U	60000	0.63 J	0.20 U	0.62 J	85 U	0.70 U	10000	2.8 J	0.45 J	1800 J	7.7	0.10 U	370000	0.20 U	6.7	17 J	0.080 U
	TMW31D102015	Normal	North Bedrock	11/5/2015	150 U	1.0 U	0.52 J	9	0.30 U	1.0 U	62000	1.8 U	0.062 J	1.8 UJ	50 U	0.70 U	11000	2.1 J	0.41 J	1600	7.3	0.10 U	530000	0.20 U	6.3	18 J	0.080 U
	DTW31D102015	Duplicate	North Bedrock	11/5/2015	150 U	1.0 U	0.40 J	8.3	0.30 U	1.0 U	66000	1.8 U	0.20 UJ	0.57 J	50 U	0.70 U	11000	2.8 J	0.45 J	1600	7.2	0.10 U	550000	0.20 U	6.6	19 J	0.080 U
	TMW31D042015	Normal	North Bedrock	4/6/2015	31 U	0.40 J	0.51 J	9.8	0.24 U	0.40 U	45000	1.5 U	0.064 J	1.5 J	30 U	0.50 U	8300	3.6	0.31 J	1100 J	7.7	0.10 U	570000	0.075 U	5.8 J	19 J	0.080 U
TMW32	TMW32102016	Normal	North Bedrock	11/2/2016	70 UJ	0.56 J	1.6 J	6.8 J	0.30 U	1.0 U	12000	1.8 U	0.077 U	0.64 J	85 U	0.70 U	1200	27	0.51 J	2000 J	3.8 J	0.10 U	750000	0.20 U	1.7 U	2.3 J	0.080 U
	TMW32042016	Normal	North Bedrock	4/13/2016	70 U	0.42 J	1.8 J	7.8	0.30 U	1.0 U	11000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	1100	29 J	0.44 J	1400 J	3.6 J	0.039 J	530000	0.20 U	2.0 J	3.7 J	0.080 U
	TMW32102015	Normal	North Bedrock	11/5/2015	150 U	0.42 J	1.5 J	7.9	0.30 U	1.0 U	11000	1.8 U	0.20 U	1.8 U	50 U	0.70 U	1100	28	0.39 J	1300	3.4 J	0.10 U	720000	0.20 U	2.3 J	3.8 J	0.080 U
	TMW32042015	Normal	North Bedrock	4/9/2015	**800**	0.60 U	1.4 J	13	0.24 U	0.40 U	11000	1.5 U	0.31 J	0.61 J	**380**	0.51 J	1400	34	1.9 J	960 J	3.7 J	0.066 J	650000 J	0.20 U	3.3 J	21	0.080 U
TMW36	TMW36102016	Normal	North Bedrock	10/27/2016	**200 J**	1.0 U	1.0 U	8.4	0.30 U	1.0 U	8700	1.1 J	0.23 J	0.67 J	120	0.62 J	910	13	4.1	1100 J	1.2 U	0.073 J	650000 J	0.20 U	2.7 J	19 J	0.080 U
	TMW36042016	Normal	North Bedrock	4/7/2016	**850 J**	1.0 U	1.2 J	12 J	0.080 J	1.0 U	9800	11	0.79 J	2.7	**540 J**	2.5 J	1200	39	19	1800 J	2.0 U	0.37 J	640000	0.20 U	3.6 J	65	0.080 U
	TMW36102015	Normal	North Bedrock	10/28/2015	**250 J**	1.0 U	1.0 U	11	0.12 J	1.0 U	8100	12	0.35 U	0.89 J	210	0.91 U	930	28	7	1100 J	2.0 U	0.28 U	620000	0.063 U	3.2 J	25	0.080 U
	TMW36042015	Normal	North Bedrock	4/1/2015	**650 J**	0.60 U	0.45 J	12 J	0.096 J	0.40 U	8800	0.83 J	0.28 J	2.1	**360**	1.8 J	1000	19	1.5 J	1100 J	2.0 U	0.45 J	660000	0.20 U	3.4 J	58	0.080 U

TABLE 5-8
Summary of Total Metals Analytical Detections (Page 7 of 7)
Groundwater Periodic Monitoring Report July through December 2016 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	Vanadium CAS 7440-62-2	Zinc CAS 7440-66-6	Mercury CAS 7439-97-6
					Regulatory Limits																					
					50[b]	6[b]	10[b]	1,000[a]	4[b]	5[b]	NE	50[a]	50[a]	1,000[a]	300[b]	50[a]	NE	50[b]	200[a]	NE	50[a]	50[a]	NE	2[b]	86[c]	5,000[b]	2[a]
TMW37	TMW37102016	Normal	North Bedrock	10/27/2016	**500**	1.0 U	0.49 J	14	0.30 U	1.0 U	5800	2.8 J	0.36 J	1.1 J	**390**	1.7 J	690	11	9.4	1300 J	0.75 U	0.86 J	530000 J	0.10 J	4.8 J	64	0.080 U
	TMW37042016	Normal	North Bedrock	4/7/2016	**3400 J**	1.0 U	0.97 J	35 J	0.11 J	1.0 U	12000	36	2.4	4.4	**1800 J**	6.2	1800	**80**	99	2200 J	2.0 U	1.3 J	540000	0.20 U	11	260	0.080 U
	TMW37102015	Normal	North Bedrock	10/28/2015	**510 J**	1.0 U	0.48 J	13	0.094 J	1.0 U	7100	3.6 J	0.51 U	1.5 J	**420**	1.7 J	860	29	16	1000 J	2.0 U	0.44 J	580000	0.054 U	3.0 J	66	0.080 U
	TMW37042015	Normal	North Bedrock	4/1/2015	**380 J**	0.60 U	0.68 J	15 J	0.24 U	0.40 U	5300	1.3 J	0.20 J	1.1 J	240	1.3 J	630	12	2.8 J	840 J	2.0 U	0.058 J	510000	0.20 U	16	53	0.080 U
TMW38	TMW38102016	Normal	North Bedrock	11/4/2016	70 UJ	1.0 U	0.53 J	14	0.30 U	1.0 U	17000	1.8 U	0.091 J	1.8 U	110	0.70 U	1800 J	**74**	1.0 U	2000 J	2.0 U	0.044 J	890000	0.20 U	2.0 U	8.0 U	0.027 J
	TMW38042016	Normal	North Bedrock	4/14/2016	42 J	0.55 J	0.60 J	18	0.30 U	1.0 U	16000	1.8 U	0.11 J	1.8 U	210 J	0.70 U	1800	**110**	1.0 U	1700 J	2.0 U	0.10 U	770000 J	0.20 U	2.0 U	4.5 J	0.080 U
	TMW38102015	Normal	North Bedrock	11/6/2015	**4400**	0.47 J	1.3 J	44 J	0.20 J	1.0 U	17000	3.8 J	1.4	3.6	**3600**	2.1 J	2700	**150**	3.8	2800	2.0 U	0.15 J	870000	0.11 J	11	360	0.080 U
	TMW38042015	Normal	North Bedrock	4/8/2015	**1700**	0.60 U	1.0 J	30	0.24 U	0.40 U	9600	1.6 J	0.66 J	2.1	**1500**	1.1 J	1600	**72**	1.5 J	1600 J	2.0 U	0.10 U	620000	0.071 U	9.3	160	0.080 U
TMW39D	TMW39D102016	Normal	North Bedrock	10/31/2016	70 U	1.0 U	1.0 U	7.9	0.30 U	1.0 U	22000	2.7 J	0.20 U	1.8 U	85 U	0.70 U	2700	49	1.0 U	1900 J	0.97 J	0.10 U	700000 J	0.20 U	0.57 J	8.0 U	0.080 U
	TMW39D042016	Normal	North Bedrock	4/12/2016	**55 J**	0.55 J	1.0 U	7.9	0.30 U	1.0 U	18000	1.8 U	0.20 U	1.8 U	36 J	0.70 U	1900	**55**	1.0 U	1300 J	2.0 U	0.10 U	740000	0.10 U	2.0 U	8.0 U	0.080 U
	TMW39D102015	Normal	North Bedrock	11/4/2015	150 U	1.0 U	1.0 U	9.9	0.30 U	1.0 U	20000	1.8 U	0.20 U	1.8 U	50 U	0.70 U	2100	**58**	1.0 U	1400	2.0 U	0.10 U	730000	0.20 U	2.0 U	8.0 U	0.080 U
	TMW39D042015	Normal	North Bedrock	4/6/2015	31 U	0.60 U	1.0 U	9.4	0.24 U	0.40 U	19000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	2200	**58**	0.90 U	1200 J	2.0 U	0.10 U	720000	0.20 U	0.58 J	6.0 U	0.080 U
	DTW39D042015	Duplicate	North Bedrock	4/6/2015	31 U	0.60 U	1.0 U	7.2	0.24 U	0.40 U	19000	1.5 U	0.10 U	1.5 U	30 U	0.50 U	2200	**55**	0.90 U	1100 J	2.0 U	0.10 U	730000	0.20 U	1.0 U	6.0 U	0.080 U
TMW40D	TMW40D102016	Normal	North Bedrock	10/31/2016	70 U	1.0 U	0.46 J	9.8	0.30 U	1.0 U	15000	5.1 J	0.056 J	0.70 J	85 U	0.70 U	2100	**51**	1.0 U	1800 J	3.5 J	0.10 U	700000 J	0.20 U	3.0 J	9.2 J	0.080 U
	TMW40D042016	Normal	North Bedrock	4/12/2016	70 U	1.0 U	0.51 J	9.7	0.30 U	1.0 U	15000	1.8 U	0.068 J	1.8 U	85 U	0.70 U	2000	**52**	1.0 U	1100 J	3.3 J	0.10 U	730000	0.20 U	2.8 J	4.6 U	0.080 U
	TMW40D102015	Normal	North Bedrock	11/3/2015	150 U	1.0 U	0.42 J	10	0.30 U	1.0 U	14000	1.8 U	0.071 J	0.72 J	50 U	0.70 U	1900	**53**	1.0 U	1200	3.5 J	0.10 U	690000	0.20 U	3.4 J	4.1 J	0.080 UJ
	TMW40D042015	Normal	North Bedrock	4/9/2015	28 J	0.60 U	0.41 J	12	0.24 U	0.40 U	15000	1.5 U	0.065 J	1.5 U	30 U	0.50 U	2000	**55**	0.90 U	1100 J	3.3 J	0.10 U	650000 J	0.20 U	2.9 J	4.1 J	0.080 U
TMW48	TMW48102016	Normal	North Bedrock	11/1/2016	70 U	1.0 U	0.53 J	10	0.30 U	1.0 U	64000	1.8 U	0.20 U	0.85 J	85 U	0.70 U	12000	41	0.36 J	1800 J	6.1	0.10 U	590000	0.20 U	2.9 J	12 U	0.080 U
	TMW48042016	Normal	North Bedrock	4/12/2016	70 U	1.0 U	0.44 J	11	0.30 U	1.0 U	77000	1.8 U	0.20 U	1.8 U	85 U	0.70 U	15000	39	0.42 J	1400 J	7.3	0.10 U	560000	0.20 U	4.9 J	10 U	0.080 U
	TMW48102015	Normal	North Bedrock	11/4/2015	150 U	1.0 U	0.61 J	11	0.30 U	1.0 U	76000	1.8 U	0.20 U	0.79 J	50 U	0.70 U	15000	33	1.0 U	1500	7.3	0.10 U	550000	0.20 U	5.3 J	7.8 J	0.080 U
	TMW48042015	Normal	North Bedrock	4/6/2015	31 U	0.60 U	0.74 J	12	0.24 U	0.40 U	58000	1.5 U	0.10 U	0.96 J	30 U	0.50 U	11000	34	0.59 J	1300 J	6.5	0.10 U	590000	0.20 U	3.2 J	12 J	0.080 U
TMW49	TMW49102016	Normal	North Bedrock	11/2/2016	49 J	1.0 U	0.60 J	11 J	0.30 U	1.0 U	66000	3.6 J	0.20 U	1.4 J	85 U	0.70 U	11000	1.7 J	0.65 J	2600 J	24	0.10 U	670000	0.20 U	11 U	5.9 J	0.080 U
	TMW49042016	Normal	North Bedrock	4/14/2016	**300**	1.0 U	0.56 J	17	0.30 U	1.0 U	61000	1.7 J	0.22 J	1.6 J	120 J	0.42 J	11000	8.3	5.2	1700 J	23	0.20 U	470000 J	0.20 U	11	8.8 J	0.080 U
	TMW49102015	Normal	North Bedrock	11/5/2015	150 U	1.0 U	0.56 J	11	0.30 U	1.0 U	67000	0.92 J	0.20 U	1.3 J	20 J	0.21 J	12000	3.2 J	1.1 J	1700	22	0.10 U	620000	0.20 U	10	7.8 J	0.080 U
	TMW49042015	Normal	North Bedrock	4/9/2015	31 U	0.60 U	0.78 J	11	0.24 U	0.40 U	64000	0.54 J	0.088 J	1.1 J	89 J	0.18 J	11000	0.55 J	1.5 J	1500 J	24	0.066 J	670000 J	0.084 U	11	4.5 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 Regional Screening Levels (Formerly Human Health Medium Specific Screening Levels) (EPA, 2017)

Bold indicates analyte was positively detected above regulatory limits.

µg/L = microgram(s) per liter

CAS = Chemical Abstracts Service (registry number)

EPA = U.S. Environmental Protection Agency

J = analyte was positively identified; reported value is estimated.

N/A = not analyzed

NE = not established

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.

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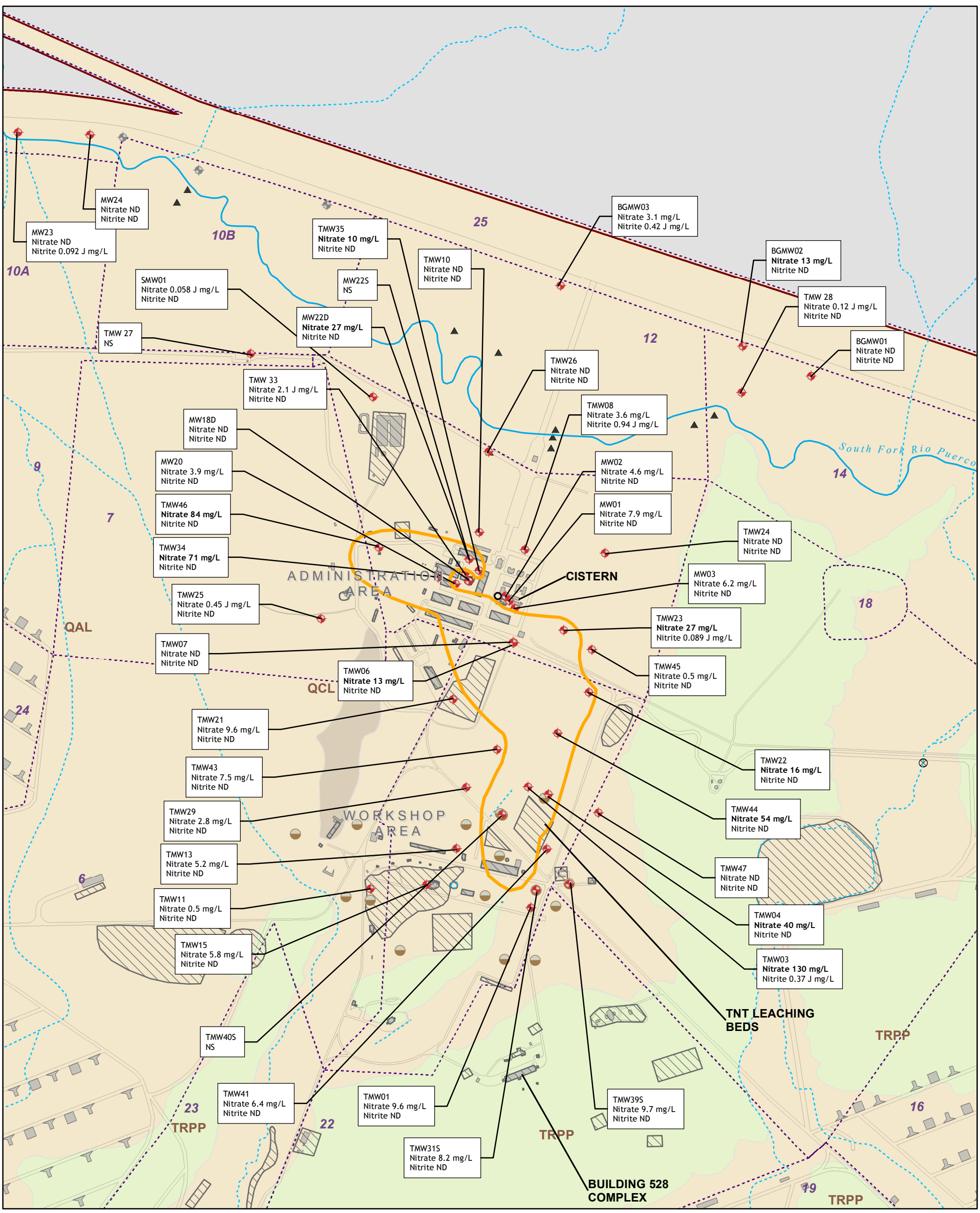

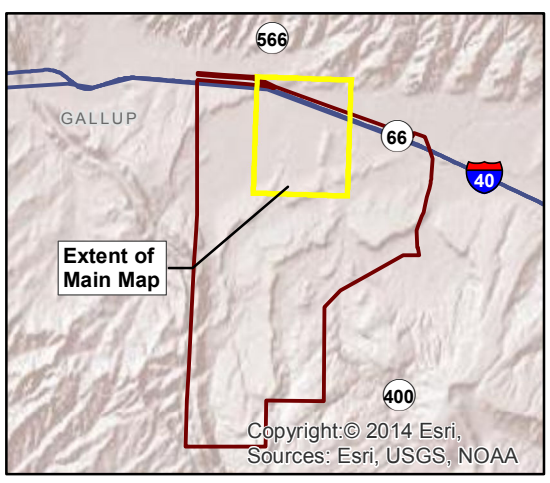

State Plane Coordinate System, New Mexico West, North American Datum 1983, US Feet.

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

Legend

- Alluvial Monitoring Well
- Bedrock Monitoring Well
- Piezometer
- Abandoned Well
- Dry Well
- Water Supply Well 69
- Nitrate 110 mg/L — Bold data indicate analytical detection above the regulatory limit
- Building
- 10A — Property Transfer Parcel
- Fort Wingate Installation Boundary

October 2016 Isoconcentration Contour

- Nitrate (10 mg/L)*

Surface Geology

- QAL — QAL - Quaternary Alluvial Deposits
- QCL — QCL - Quaternary Colluvial and Gravel Deposits
- TRPP — TRPP - Petrified Forest Formation, Painted Desert Member
- Arroyo
- Stream
- AOC and SWMU

FIGURE 5-1
Fall 2016 Northern Area Nitrate and Nitrite Concentrations in Alluvial Groundwater

Groundwater Periodic Monitoring Report for July to December 2016
Fort Wingate Depot Activity, McKinley County, New Mexico

Notes:
*New Mexico Water Quality Control Commission Standard
AOC = area of concern
J = analyte was positively identified; reported value is estimated
mg/L = milligram(s) per liter
ND = not detected
NS = not sampled
SWMU = solid waste management unit
TNT = 2,4,6-Trinitrotoluene

0 500 1,000 1,500 2,000 ft
0 100 200 300 400 500 m

N

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ADMINISTRATION AREA

WORKSHOP AREA

CISTERN

TNT LEACHING BEDS

BUILDING 528 COMPLEX

TMW32
Nitrate 2 mg/L
Nitrite 0.40 J mg/L

TMW02
Nitrate 90 mg/L
Nitrite ND

TMW36
Nitrate ND
Nitrite ND

TMW38
Nitrate ND
Nitrite ND

TMW18
Nitrate ND
Nitrite ND

TMW40D
Nitrate 2.1 mg/L
Nitrite 0.20 J mg/L

TMW19
Nitrate NS
Nitrite NS

TMW16
Nitrate NS
Nitrite NS

TMW39D
Nitrate 1.4 mg/L
Nitrite ND

TMW17
Nitrate ND
Nitrite ND

TMW31D
Nitrate 15 mg/L
Nitrite ND

TMW48
Nitrate 13 mg/L
Nitrite 0.065 J mg/L

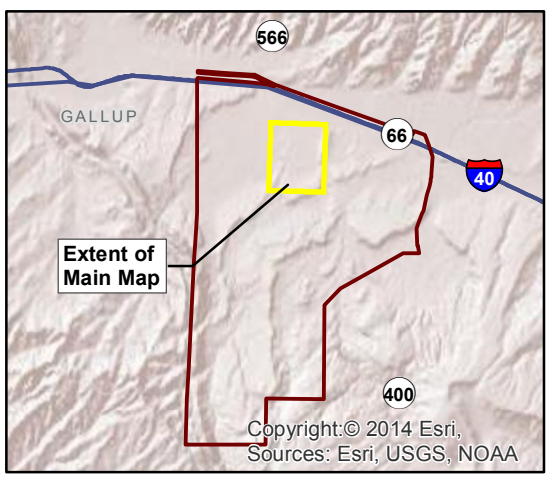
TMW14A
Nitrate 0.10 J mg/L
Nitrite ND

TMW37
Nitrate ND
Nitrite ND

TMW30
Nitrate 15 mg/L
Nitrite ND

TMW49
Nitrate 5.5 mg/L
Nitrite ND

QAL
QCL
TRPP
7
6
23
22
19



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.

Legend

- Alluvial Monitoring Well
- Bedrock Monitoring Well
- Dry Well
- Water Supply Well 69
- Nitrate 16 mg/L — Bold data indicate analytical detection above the regulatory limit
- 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
- Arroyo
- AOC and SWMU

October 2016 Isoconcentration Contours

- Nitrate (10 mg/L)*

FIGURE 5-2
Fall 2016 Northern Area Nitrate and Nitrite Concentrations in Bedrock Groundwater

Groundwater Periodic Monitoring Report for July to December 2016
Fort Wingate Depot Activity, McKinley County, New Mexico

Notes:
*New Mexico Water Quality Control Commission Standard
AOC = area of concern
J = analyte was positively identified; reported value is estimated
mg/L = milligram(s) per liter
ND = not detected
NS = not sampled
SWMU = solid waste management unit
TNT = 2,4,6-Trinitrotoluene

0 375 750 1,125 1,500 ft
0 75 150 225 300 375 m

N

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MW24
Method 8330B ND
Method 6860 ND

MW23
Method 8330B ND
Method 6860 ND

SMW01
Method 8330B ND
Method 6860 ND

TMW 27
Method 8330B NS
Method 6860 ND

MW22S
NS

MW22D
Method 8330B ND
Perchlorate 0.82 µg/L

TMW35
Method 8330B NS
Perchlorate 0.067 µg/L

TMW10
Method 8330B ND
Method 6860 ND

BGMW03
Method 8330B ND
Perchlorate 0.015 J µg/L

BGMW02
Method 8330B ND
Perchlorate 0.48 J µg/L

TMW 28
Method 8330B NS
Method 6860 NS

BGMW01
Method 8330B ND
Method 6860 ND

TMW 33
Method 8330B NS
Method 6860 NS

TMW26
Method 8330B ND
Method 6860 ND

TMW08
Method 8330B NS
Method 6860 ND

MW18D
Method 8330B ND
Method 6860 ND

MW20
Method 8330B ND
Perchlorate 0.23 J µg/L

TMW46
Method 8330B ND
Perchlorate 0.30 µg/L

TMW34
Method 8330B NS
Perchlorate 0.38 µg/L

TMW25
Method 8330B ND
Method 6860 NS

TMW07
HMX 0.22 J µg/L
Method 6860 NS

MW02
Method 8330B ND
Perchlorate 0.10 µg/L

MW01
Method 8330B ND
Method 6860 ND

TMW24
Method 8330B ND
Method 6860 ND

MW03
Method 8330B ND
Method 6860 ND

TMW23
1,3,5-Trinitrobenzene 3.0 J µg/L
1,3-Dinitrobenzene 3.4 J µg/L
2-Amino-4,6-Dinitrotoluene 0.23 J µg/L
RDX 67 µg/L
Perchlorate 0.043 J µg/L

TMW06
Method 8330B ND
Method 6860 NS

TMW45
Method 8330B ND
Method 6860 ND

TMW21
Method 8330B ND
Method 6860 ND

TMW43
RDX 3.9 µg/L
HMX 0.35 J µg/L
Method 6860 ND

TMW22
3-Nitrotoluene 0.91 J µg/L
Perchlorate 0.14 µg/L

TMW29
Method 8330B ND
Perchlorate 0.082 µg/L

TMW44
2,4-Dinitrotoluene 0.24 J µg/L
3-Nitrotoluene 3.9 J µg/L
RDX 0.42 J µg/L
Perchlorate 0.020 J µg/L

TMW13
Method 8330B NS
Perchlorate 0.10 µg/L

TMW47
4-Amino-2,6-dinitrotouene 0.32 J µg/L
HMX 0.68 µg/L
Method 6860 ND

TMW11
Method 8330B ND
Perchlorate 0.13 µg/L

TMW15
Method 8330B ND
Perchlorate 0.13 J µg/L

TMW04
HMX 19 J µg/L
Perchlorate 0.31 µg/L

TMW40S
NS

TMW03
RDX 490 µg/L
Perchlorate 0.78 µg/L

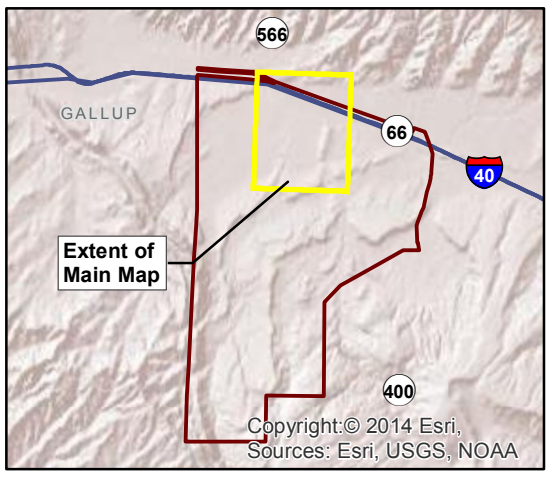
TMW41
Method 8330B ND
Perchlorate 4.4 µg/L

TMW01
Method 8330B ND
Perchlorate 290 µg/L

TMW31S
2,6-Dinitrotoluene 0.22 J µg/L
Perchlorate 470 µg/L

TMW39S
Method 8330B ND
Perchlorate 660 µg/L

ADMINISTRATION AREA
WORKSHOP AREA
CISTERN
TNT LEACHING BEDS
BUILDING 528 COMPLEX
South Fork Rio Puerco
QAL
QCL
TRPP
10A
10B
9
7
24
6
23
25
12
14
18
16
22
19



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.

Legend

- Alluvial Monitoring Well
- Bedrock Monitoring Well
- Piezometer
- Abandoned Well
- Dry Well
- Water Supply Well 69
- Perchlorate 300 µg/L — Bold data indicate analytical detection above the regulatory limit
- 10A — Building
- 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
- Arroyo
- Stream
- AOC and SWMU

October 2016 Isoconcentration Contour

- Perchlorate (14 µg/L)
- RDX (7 µg/L)

FIGURE 5-3
Fall 2016 Northern Area Explosives and Perchlorate Concentrations in Alluvial Groundwater

Groundwater Periodic Monitoring Report for July to December 2016
Fort Wingate Depot Activity, McKinley County, New Mexico

Notes:
AOC = area of concern
J = analyte was positively identified; reported value is estimated
ND = not detected
NS = not sampled
SWMU = solid waste management unit
TNT = 2,4,6-Trinitrotoluene
µg/L = microgram(s) per liter

0 500 1,000 1,500 2,000 ft
0 100 200 300 400 500 m

N

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ADMINISTRATION AREA

CISTERN

TMW32
Method 8330B ND
Perchlorate 490 J µg/L

TMW02
4-Amino-2,6-dinitrotouene 0.25 J µg/L
Perchlorate 3.3 µg/L

TMW36
Method 8330B ND
Method 6860 ND

TMW38
4-Amino-2,6-dinitrotouene 0.13 J µg/L
Method 6860 ND

TMW18
Method 8330B ND
Method 6860 ND

TMW40D
Method 8330B ND
Perchlorate 290 µg/L

TMW19
Method 8330B ND
Perchlorate 0.0082 J µg/L

WORKSHOP AREA

TNT LEACHING BEDS

TMW16
Method 8330B ND
Method 6860 ND

TMW39D
Method 8330B ND
Perchlorate 460 µg/L

TMW17
Method 8330B NS
Method 6860 ND

TMW31D
Method 8330B ND
Perchlorate 1600 µg/L

TMW14A
Method 8330B ND
Method 6860 NS

TMW48
Method 8330B ND
Perchlorate 1000 µg/L

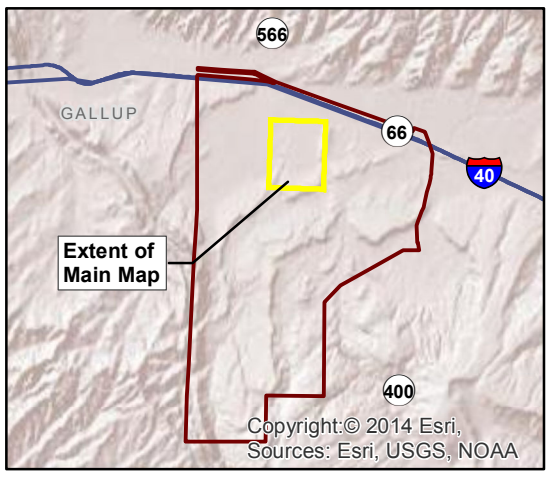
TMW37
Method 8330B ND
Method 6860 ND

TMW30
Method 8330B ND
Perchlorate 1100 µg/L

TMW49
Method 8330B ND
Perchlorate 1000 J µg/L

BUILDING 528 COMPLEX

QAL
QCL
TRPP
7
6
23
22
19



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.

Legend

- Alluvial Monitoring Well
- Bedrock Monitoring Well
- Dry Well
- Dry Bedrock Boreholes
- Water Supply Well 69
- Perchlorate 300 µg/L — Bold data indicate analytical detection above the regulatory limit
- 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
- Arroyo
- AOC and SWMU

October 2016 Isoconcentration Contour

- Perchlorate (14 µg/L)

FIGURE 5-4
Fall 2016 Northern Area Explosives and Perchlorate Concentrations in Bedrock Groundwater

Groundwater Periodic Monitoring Report for July to December 2016
Fort Wingate Depot Activity, McKinley County, New Mexico

Notes:
AOC = area of concern
J = analyte was positively identified; reported value is estimated
ND = not detected
NS = not sampled
SWMU = solid waste management unit
TNT = 2,4,6-Trinitrotoluene
µg/L = microgram(s) per liter

0 375 750 1,125 1,500 ft
0 75 150 225 300 375 m
N

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MW23
2-Butanone 2.4 J µg/L
Bis(2-ethylhexyl) phthalate 1.3 J µg/L

MW24
Method 8260 ND
Bis(2-ethylhexyl) phthalate 1.0 J µg/L

TMW 27
2-Butanone 2.3 J µg/L
Method 8270 NS

SMW01
2-Butanone 3.9 J µg/L
Method 8270 ND

BGMW03
Method 8260 ND
Method 8270 ND

BGMW02
2-Butanone 3.0 J µg/L
Method 8270 ND

TMW 28
2-Butanone 3.0 J µg/L
Method 8270 NS

BGMW01
2-Butanone 2.6 J µg/L
Acetone 10 J µg/L
Method 8270 ND

TMW10
2-Butanone 3.3 J µg/L
Method 8270 NS

TMW26
Method 8260 ND
Method 8270 NS

MW02
2-Butanone 2.4 J µg/L
Method 8270 NS
Method 8015 ND

MW22S
NS

TMW08
Method 8260 ND
Method 8270 NS
Diesel Range Organics 39 J µg/L

MW22D
1,2-Dichloroethane 0.59 J µg/L
Method 8270 ND
Method 8015 ND

MW01
1,2-Dichloroethane 1.6 J µg/L
2-Butanone 3.3 J µg/L
Bis(2-ethylhexyl) phthalate 1.1 J µg/L
Diesel Range Organics 54 J µg/L

MW03
Methylene chloride 2.3 J µg/L
Method 8270 NS
Diesel Range Organics 34 J µg/L

TMW35
1,2-Dichloroethane 2.0 J µg/L
Method 8270 ND
Diesel Range Organics 51 J µg/L

TMW24
Method 8260 ND
Method 8270 NS

TMW46
Method 8260 ND
Method 8270 ND

TMW07
Method 8260 ND
Bis(2-ethylhexyl) phthalate 2.3 J µg/L

TMW 33
1,2-Dichloroethane 41 J µg/L
Method 8270 ND
Method 8015 ND

TMW23
Method 8260 ND
Method 8270 NS

TMW34
Method 8260 ND
Method 8270 NS
Method 8015 ND

TMW06
Method 8260 ND
Method 8270 ND

TMW25
Method 8260 ND
Method 8270 NS

TMW45
Method 8260 ND
Bis(2-ethylhexyl) pthlalate 2.3 J µg/L

MW20
1,2-Dichloroethane 2.6 J µg/L
Method 8270 ND
Diesel Range Organics 53 J µg/L

TMW21
2-Butanone 2.4 J µg/L
Method 8270 NS

TMW22
2-Butanone 2.9 J µg/L
Bis(2-ethylhexyl) pthlalate 1.9 J µg/L

MW18D
1,2-Dichloroethane 100 J µg/L
Method 8270 NS
Gasoline Range Organics 24 J µg/L

TMW44
Method 8260 ND
Bis(2-ethylhexyl) pthlalate 2.2 J µg/L

TMW43
2-Butanone 2.7 J µg/L
Method 8270 ND

TMW47
Carbon disulfide 3.6 J µg/L
Method 8270 ND

TMW29
Method 8260 ND
Method 8270 NS

TMW04
2-Butanone 2.5 J µg/L
Method 8270 ND

TMW13
Method 8260 ND
Method 8270 NS

TMW03
Method 8260 ND
2,4-Dinitrophenol 40 J µg/L
4-Nitrophenol 24 J µg/L
Isophorone 0.36 J µg/L

TMW11
2-Butanone 2.2 J µg/L
Method 8270 NS

TMW15
2-Butanone 3.3 J µg/L
Method 8270 ND

TMW40S
NS

TMW39S
Method 8260 ND
Bis(2-ethylhexyl) phthalate 1.1 J µg/L

TMW41
2-Butanone 3.4 J µg/L
Bis(2-ethylhexyl) pthlalate 1.0 J µg/L

TMW31S
Method 8260 ND
Bis(2-ethylhexyl) pthlalate 1.1 J µg/L

TMW01
Method 8260 ND
Method 8270 NS

ADMINISTRATION AREA
WORKSHOP AREA
CISTERN
TNT LEACHING BEDS
BUILDING 528 COMPLEX
QAL
TRPP
10A
10B
25
12
14
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16
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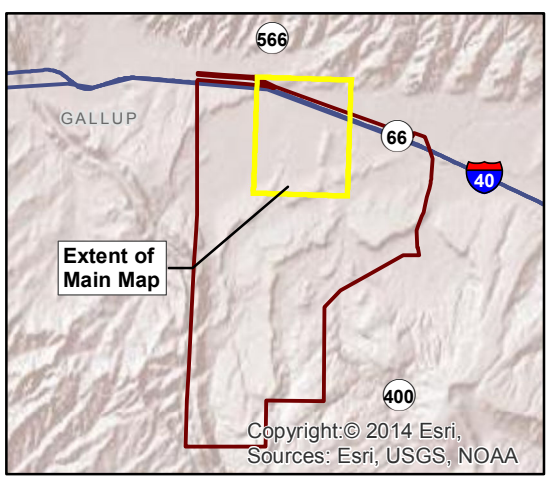

State Plane Coordinate System, New Mexico West, North American Datum 1983, US Feet.

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

Legend

- Alluvial Monitoring Well
- Bedrock Monitoring Well
- Piezometer
- Abandoned Well
- Dry Well
- Water Supply Well 69
- 1,2-DCA 93 Bold data indicate analytical detection above the regulatory limit
- 10A Property Transfer Parcel
- Building
- Fort Wingate Installation Boundary
- Arroyo
- Stream
- AOC and SWMU
- **October 2016 Isoconcentration Contour**
- 1,2-DCA (5 µg/L)

Surface Geology

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

Abbreviations and Acronyms:
AOC = area of concern, ND = not detected, NS = not sampled, SVOC = semivolatile organic compound, SWMU = solid waste management unit, TNT = 2,4,6-Trinitrotoluene, TPH = total petroleum hydrocarbons, VOC = volatile organic compound, µg/L = microgram(s) per liter

Notes:
Laboratory data flag J = analyte was positively identified; reported value is estimated
1) No VOCs or SVOCs were detected at Well FW31 (FW31 is located approximatley 4,800 feet southeast of map view).
2) Organochlorine pesticides (by Method SW8081A) were not detected in any monitoring well.
3) Only wells adjacent to the former fueling facility and newly installed wells were analyzed for total petroleum hydrocarbons. For list of wells, see Table 2-1.
4) 2-butanone detections at numerous wells were anomalous in October 2016 (see Table 5-6)

FIGURE 5-5
Fall 2016 Northern Area VOC, SVOC, and TPH Concentrations in Alluvial Groundwater

Groundwater Periodic Monitoring Report for July to December 2016

Fort Wingate Depot Activity, McKinley County, New Mexico

0 500 1,000 1,500 2,000 ft

0 100 200 300 400 500 m

N

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ADMINISTRATION AREA

7

CISTERN

TMW32
2-Butanone 3.6 J µg/L
Method 8270 ND

QCL

TMW38
Method 8260 ND
Method 8270 ND

TMW02
Method 8260 ND
Method 8270 NS

TMW36
Method 8260 ND
Bis(2-ethylhexyl) phthalate 4.4 J µg/L

QAL

TMW18
Method 8260 ND
Bis(2-ethylhexyl) phthalate 2.1 J µg/L

6

TMW40D
Method 8260 ND
Method 8270 ND

TMW19
Method 8260 ND
Method 8270 ND

TNT LEACHING BEDS

WORKSHOP AREA

TMW39D
Method 8260 ND
Method 8270 ND

TMW16
Method 8260 ND
Method 8270 ND

TMW31D
Method 8260 ND
Bis(2-ethylhexyl) phthalate 0.82 J µg/L

TRPP

TMW17
Method 8260 ND
Method 8270 NS

TMW48
Method 8260 ND
Method 8270 ND

TMW14A
Carbon disulfide 0.71 J µg/L
Method 8270 ND

TRPP

TMW37
Toluene 3.0 J µg/L
Bis(2-ethylhexyl) phthalate 1.1 J µg/L

TMW30
Method 8260 ND
Bis(2-ethylhexyl) phthalate 1.9 J µg/L

TMW49
2-Butanone 3.6 J µg/L
Method 8270 ND

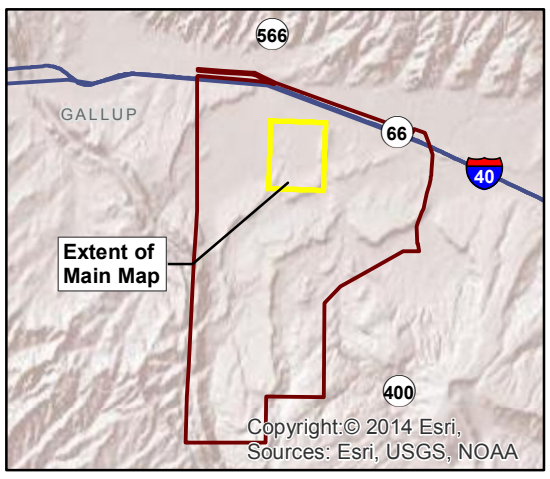
23

TRPP

22

BUILDING 528 COMPLEX

19



Legend

- 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
- Building
- 10A — Property Transfer Parcel
- Fort Wingate Installation Boundary
- Arroyo
- AOC and SWMU

Surface Geology

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

FIGURE 5-6
Fall 2016 Northern Area VOC, SVOC and TPH Concentrations in Bedrock Groundwater

Groundwater Periodic Monitoring Report for July to December 2016

Fort Wingate Depot Activity, McKinley County, New Mexico

0 375 750 1,125 1,500 ft

0 75 150 225 300 375 m

N

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.

Abreviations and Acronyms:
AOC = area of concern, ND = not detected, NS = not sampled, SVOC = semivolatile organic compound, SWMU = solid waste management unit, TNT = 2,4,6-Trinitrotoluene, TPH = total petroleum hydrocarbons, VOC = volatile organic compound, µg/L = microgram(s) per liter

Notes:
J = analyte was positively identified; reported value is estimated
Organochlorine pesticides (by Method SW8081A) were not detected in any monitoring well. For list of wells, see Table 2-1.

6.0 Summary and Recommendations

6.1 Summary

Two groundwater elevation surveys and one groundwater sampling event were performed during the monitoring period from July through December 2016. Groundwater elevation surveys were conducted July 13, 2016, and October 24 and 25, 2016. The groundwater sampling event for the reporting period was performed from October 24 to November 4, 2016.

Shallow groundwater in the Northern Area of FWDA is present in both the unconsolidated alluvium and bedrock. The groundwater flow direction in the alluvium is from potentiometric highs in the east, north, and south toward a potentiometric low west of the Administration Area. A small groundwater mound is present in the Administration Area near monitoring wells MW01, MW02, and MW03. This groundwater mound has been previously attributed to a leaking water storage cistern in the Administration Area. The cistern is no longer in service. Hydraulic gradients ranged from 0.003 ft/ft to 0.03 ft/ft in the alluvial groundwater unit. Groundwater in the bedrock appears to flow radially to a potentiometric low south of monitoring well TMW32 in the eastern portion of the Workshop Area and to the west in the western portion of the Workshop Area, with an interpreted geologic structural feature impeding flow between the two areas. Hydraulic gradients in the bedrock unit were approximately 0.005 ft/ft to 0.006 ft/ft in the Workshop Area. The groundwater elevation in the bedrock groundwater unit is slightly higher than in the alluvial groundwater unit and exists under hydraulically confined conditions under most of the Northern Area. The confining unit for the bedrock aquifer is missing in the vicinity of monitoring wells TMW30 and TMW48.

Nitrate, perchlorate, explosives, one VOC, one SVOC, and metals were detected in groundwater samples at concentrations above the cleanup or regulatory screening levels. Six groundwater contaminant plumes have been identified in the Northern Area: two nitrate plumes, one in the alluvial groundwater unit and one in the bedrock groundwater unit; two perchlorate plumes, one in the alluvial groundwater unit and one in the bedrock groundwater unit; an explosives plume in the alluvial groundwater unit; and a 1,2-dichloroethane plume in the alluvial groundwater unit.

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

The highest perchlorate concentrations were detected in groundwater samples from the bedrock groundwater unit in the Workshop Area. The northern boundary of the bedrock perchlorate plume has not been defined. The alluvial perchlorate plume is located in the same vicinity as the bedrock plume. Historical releases of perchlorate-containing materials at the Building 528 Complex (SWMU 27) are believed to be the common source of both plumes in the alluvial and bedrock groundwater units.

RDX is the primary explosive compound of interest. This compound is consistently detected at concentrations above the RSL in the Workshop and eastern Administration Areas. The explosives plume in the alluvial groundwater unit appears to originate from the TNT Leaching Beds (SWMU 1) in the Workshop Area.

Groundwater concentrations of explosive compounds (primarily RDX) attenuate to levels below the screening criteria within 2,500 feet downgradient of the TNT Leaching Beds (SWMU 1).

One VOC was detected in groundwater samples at concentrations above cleanup standards. The compound 1,2-dichloroethane was historically used as a gasoline additive and degreasing solvent. The 1,2-dichloroethane plume in the alluvial groundwater unit is limited to a group of wells near a former fueling facility (SWMU 45, Building 6) in the Administration Area. Groundwater samples collected from four alluvial monitoring wells had concentrations above the EPA MCL of 5 µg/L. No other VOCs were detected above cleanup standards or regulatory screening levels. The SVOC 2,4-dinitrophenol was detected at concentrations above the RSL. This detection is associated with the RDX plume and is attributed to degradation of explosives compounds. The detections of bis(2-ethylhexyl) phthalate are likely attributable to sampling and laboratory contamination.

Dissolved aluminum, arsenic, iron, manganese, and selenium were detected above regulatory screening levels in multiple groundwater samples. Because background groundwater concentrations have not been accepted for FWDA, it cannot clearly be demonstrated whether the detected concentrations are a result of natural conditions or anthropogenic sources of contamination.

Additional delineation and investigation for groundwater plumes at FWDA are planned. A Supplemental RFI Work Plan was submitted to NMED in December 2016 and is currently in regulatory review. The Supplemental RFI proposes locations for additional groundwater monitoring wells necessary to further delineate the alluvial and bedrock groundwater contaminant plumes and to provide background data.

6.2 Recommendations

Based on a review of the monitoring activities and results, several recommendations were developed to optimize the groundwater monitoring program at FWDA. The following recommendations are made for future monitoring events:

- Remove alluvial aquifer monitoring wells MW18S from the monitoring program and abandon the well. This well has been dry for the last eight water level monitoring events. Removal of this well from the current FWDA monitoring network will be included in the 2018 Periodic Monitoring Work Plan in accordance with the NMED approval letter dated September 12, 2016 (NMED, 2016).
- Suspend groundwater sampling activities at dry monitoring wells or wells containing less than 1 foot of saturated well screen. This protocol will be incorporated into the 2018 Periodic Monitoring Work Plan in accordance with the NMED approval letter dated September 12, 2016 (NMED, 2016).
- Abandon well FW35 and remove it from the GWMP. Historical analytical detections at this location are not indicative of groundwater impacts (Appendix D). This well has been dry for the last five water level monitoring events.

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