

Exhibit B



Draft Final

CERCLA REPORTING TABLES AND MAPS

**FOR INVESTIGATION AREAS
NORTH IA06, WEST IA08, IA08, EAST IA08, WEST IA10N, NORTH IA11, IA12N AND
IA17N**

**DENVER FEDERAL CENTER
DENVER, COLORADO**

PREPARED FOR

**General Services Administration
Rocky Mountain Region
Denver, Colorado**

PREPARED BY

**Environmental Chemical Corporation
1746 Cole Boulevard Building 21, Suite 350
Lakewood, Colorado 80401**

**Contract No.: GS-10F-0091M
Task Order GS-P-08-11-JA-0031
WCR07 and WCR10**

September 2014



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NORTH IA11, IA12N AND IA17N**

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CERCLA TABLES and MAP

This document is for GSA distribution only. The volume is a summary table developed from letters, excerpts and maps from environmental investigation reports that were gathered from the GSA library, may not represent a total set of all investigations performed in the property transfer area, but represents the final determination. Changes that took place in extensive meetings with GSA, on the CERCLA tables, or in the most recent environmental sampling events may or may not be reflected in these documents.

ECC identified all the potential environmental impact locations (features) listed in the 1998 BOR Pre-RFI Historical Data Report that were located within the property transfer boundary and any discovered potential impact locations identified during the Remedial Facility Investigations (RFI) process. The 2002 Focused Corrective Measures Features map from Foothills Engineering (Figure 6-1) was also used as a primary source to locate the features within the property boundary.

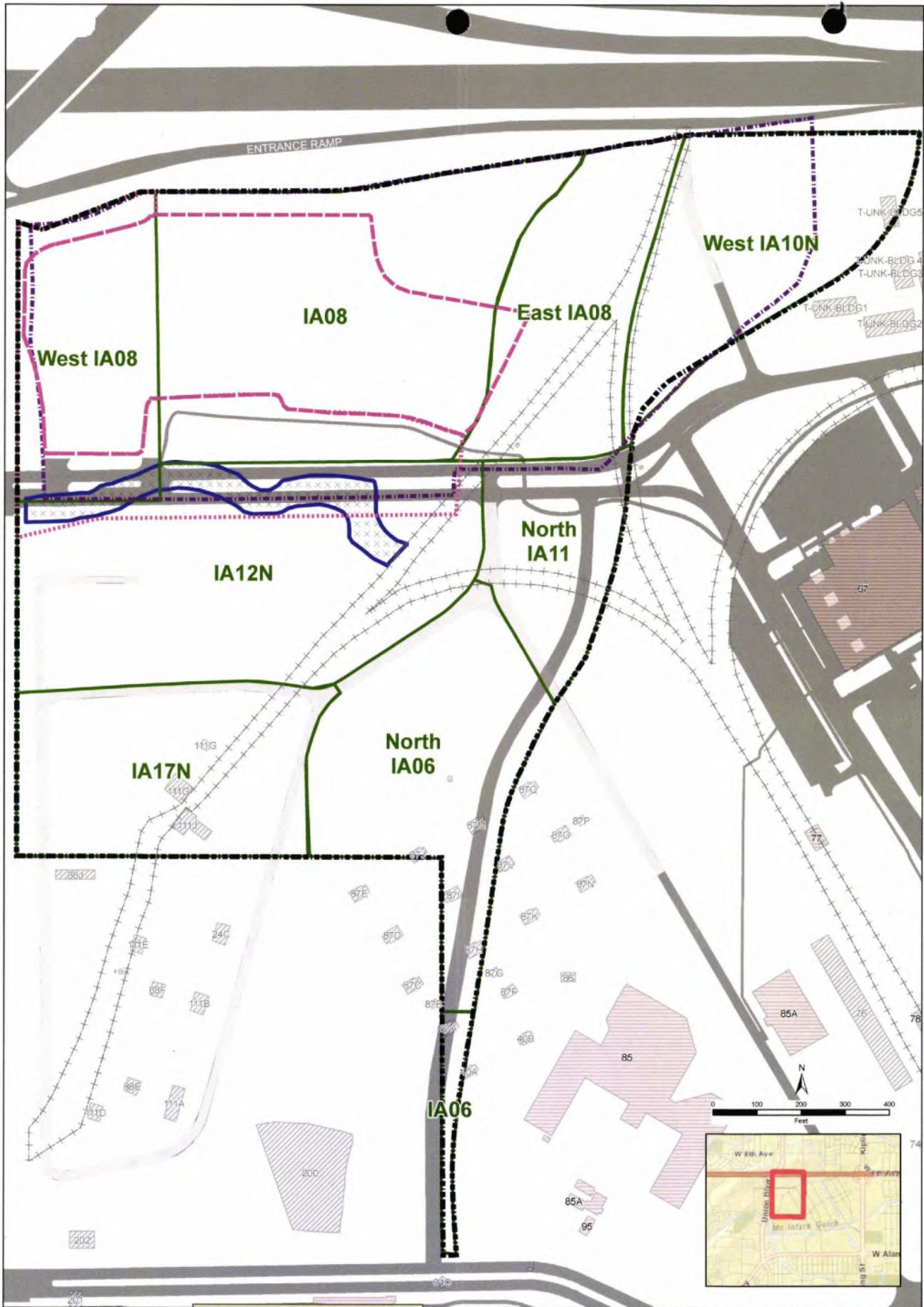
These features were identified and tracked by Investigation Area (IA) and when possible the Investigation Site (IS) the feature was associated with. An excel table (Exhibit A) for each IA was generated with each IS listed in numerical order and with the feature associated with the IS. Features in the IA not associated with an IS were listed at the end of the table. The GSA Data Base Management System (DBMS) was used via the Risk Module (screens against residential screening level criteria (SLC)) to generate Potential Contaminates of Concern (PCOCs) for each SI listed in the Exhibit A table.

ECC collected environmental investigation documents generated by GSA that covered the area of the property transfer, including Phase 1 and Phase 2 RFIs, Corrective Measures Work Plans, Corrective Measures studies, and Closure Reports. GSA provided all documented No Further Action (NFA) request and CDPHE determinations for the areas.

ECC then researched every feature and associated PCOC identified in the initial research using all available documentation. The history of the feature was reviewed and the feature then tracked through the environmental investigation record until the potential environmental impact of the feature was deemed unwarranted, unlikely, dismissed by professional judgment, or the feature or area of the feature remediated and an NFA determination granted for the area. Often the determination was collected from the text of a short section of a report and the "In and Out Table" which was a decisional interaction between GSA and CDPHE which reviewed the environmental impact of each lot within the property transfer area and determine if additional sampling/remediation was required. This determination was then documented in the Exhibit A table. Concurrently a map was generated for each IA which graphically depicts the Features, Investigation Sites, and pertinent discussion items from the Exhibit A tables.

LIST OF ACRONYMS AND ABBREVIATIONS

bgs	below ground surface
CAS	Chemical Abstracts Service
CDPHE	Colorado Department of Public Health and Environment
CA	Corrective Action
CMWP	Corrective Measures Work Plan
CO	Colorado
DFC	Denver Federal Center
DTCG	Denver Transit Construction Group
DOP	Denver Ordnance Plant
ECC	Environmental Chemical Corporation
ERO	ERO Resources Corporation
FCMS	Focused Corrective Measures Study
FEC	Foothills Engineering Company, LLC
GSA	General Services Administration, Rocky Mountain Region
GW	groundwater
IA	investigation area
IAW	in accordance with
LTM	Long-Term Monitoring
MCL	maximum contaminant level
NFA	No Further Action
NRTD	Northern Regional Transportation District
PAH	polycyclic aromatic hydrocarbon
PCOC	potential chemical of concern
PCP	pentachlorophenol
QAPP	quality assurance project plan
RA	remedial action
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
RR	Railroad
RTD	Regional Transportation District
SLC	screening level criteria
SVOC	semi-volatile organic compound
TEPH	Total Extractable Petroleum Hydrocarbons
URS	URS Corporation
UST	underground storage tank
WCR	Work Change Request



Legend

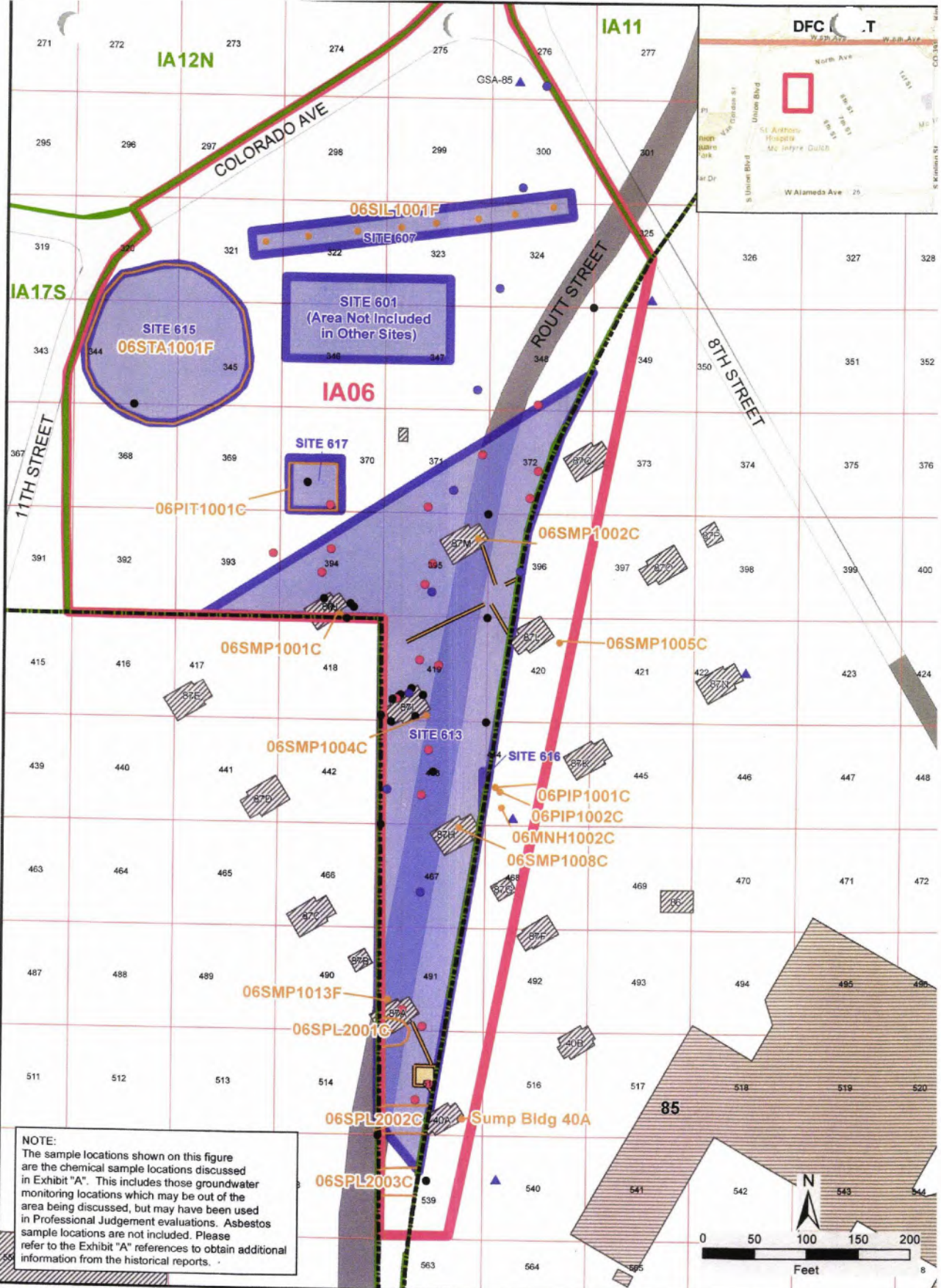
- Property Transfer Boundary
- Approximate Cover Boundary
- Maintain Existing Landfill Cover Area (see Material Handling Plan)
- Material Handling Plan Boundary
- Investigation Area
- North Avenue Landfill
- Existing Building
- Demolished Building
- Present Road or Sidewalk
- Historical Road
- Former Railroad Investigative Boundary



CERCLA Reporting
Denver Federal Center, Lakewood, Colorado

**CERCLA Reporting
Site Layout Map**

Drawn by: M Johanson	Reviewed by: P Farquhar	Project:
Date: 10/01/2014	Date: 10/01/2014	North Avenue Center, 1813
Version:	Revision Date / Initials:	State Plans Commission
	10/01/2014 MJC	1996



NOTE:
 The sample locations shown on this figure are the chemical sample locations discussed in Exhibit "A". This includes those groundwater monitoring locations which may be out of the area being discussed, but may have been used in Professional Judgement evaluations. Asbestos sample locations are not included. Please refer to the Exhibit "A" references to obtain additional information from the historical reports.

Legend	
Sample Location and Collection Date	Features
● 1996 - 2003	■ Sites
● 2004 - 2006	□ DFC Lots
● 2007 - Present	— Existing Buried Steamline
▲ Monitoring Well	— Existing Steam Vault
— Property Transfer Boundary	▒ Existing Building
— Investigation Area	▒ Demolished Building
— Area Discussed in Exhibit A Table	— Present Road or Sidewalk
	— Historical Road



CERCLA Reporting
 Denver Federal Center, Lakewood, Colorado

IA06N Features and Sample Points

Drawn by: M Johanson	Reviewed by: P Farquhar	Projection: North American Datum 1983 State Plane Colorado Central FIPS 5002 Units: Feet
Date: 01/14/2014	Date: 04/14/2014	
Version:	Revision Date / Initials: 07/14/2014 MGJ	

BIT A
NORTH IA6
Hazardous Substance Activity and Remediation

July 23, 2014

Investigation Area (IA)	Investigation Site	Denver Federal Center Pre-REFI Feature Number	Feature Description	Media ¹	CAS No.	Parameter Detections (Footnotes 7, 8, and 10)	Information on the Investigation Site or Feature	Remedial Action (RA)	NFA Achieved / Status
North IA6	601		All open spaces within IA6 not otherwise designated	SS, BH, UB, GW	asbestos*	Asbestos#	This is the list of detected analyte results produced by the release evaluation module ¹⁰ from all samples collected in surface soil, subsurface soil, and GW during the Phase 1 and Phase 2 RFI, CMWP(s) and/or the FCMS. ¹¹	The RA for this feature(s) was to implement the CMWP for Northern RTD North Expansion Areas North IA6 and IA175 developed by ECC in 2005. Work was completed and documented in the Closure Report (2006) and Closure Report Addendum (2008) developed by ECC.	YES - NFA for soil Footnote 3 and 4 YES - NFA for groundwater, Footnotes 2 & 5
					7440-38-2	Arsenic			
					50-32-8	Benzotripyrene#			
					205-99-2	Benzofluoranthene			
					7440-47-3	Chromium#			
					53-70-3	Dibenz(a,h)anthracene#			
					7439-89-6	Iron#			
7439-92-1	Lead#								
North IA6	607	06SL1001F	Prohibit utility access manholes				In 2002, GSA personnel opened the manholes and determined that the manholes were associated with former utilities and were not hazardous substance release features (Phase 1 RFI, Feedfills).	No Action required	
North IA6	613	06DFC087AF	Current and former DOP era primer storehouses, pre-dry houses, dry houses, and vacuum pump houses	SS, BH	asbestos*	Asbestos#	This is the list of detected analyte results produced by the release evaluation module ¹⁰ from all samples collected in surface soil, subsurface soil, and GW during the Phase 1 and Phase 2 RFI, CMWP(s) and/or the FCMS. ¹¹	Bunker and foundation removed - cleared debris and wrapped steam lines - approximately 100 ft of steam line left in place	YES - NFA for soil Footnote 3 YES - NFA for groundwater, Footnotes 2 & 5
		7440-38-2			Arsenic	Building and foundation removed 1996 to 1999 by a demolition project			
		56-55-3			Benzofluoranthene#	This bunker was the only remaining standing bunker in 2006 when it was removed as part of CA for North IA6 - removed bunker, building, and sump.			
		50-32-8			Benzotripyrene#	Bunker, foundation, and sump believed removed during the 1996 to 1999 demolition project - debris was left - cleared debris and removed steam lines during the IA6 CA.			
		205-99-2			Benzofluoranthene#	Bunker and foundation removed as part of a demolition project (1996 to 1999), the steam lines, debris, and sump were left - cleared debris and wrapped steam lines and left them in place			
		7440-50-8			Copper#	Building and foundation removed 1996 to 1999 by a demolition project			
		53-70-3			Dibenz(a,h)anthracene#	Building removed in the past as a construction project, part of foundation and sump remained.			
		50-57-1			Dieldrin#	Corrective action for this area included excavation of lots, grids, and portions of each for chemical and asbestos contamination. Many of the areas around the bunker foundations were excavated extensively for asbestos contamination.			
North IA6	613	06SMP1001C	Current and former DOP era primer storehouses, pre-dry houses, dry houses, and vacuum pump houses	BH	56-55-3	Benzofluoranthene #	Sumps, when found, were excavated, demolished, and debris loaded into trucks for disposal - clearance samples were collected from the bottom of the excavation, and excavation would continue until below SLC. Clearance sample analytes included the PAH suite, metals, SVOCs, and explosives. This list of chemicals were the only detects above the GSA DFC Screening Level Criteria during the clearance sampling.	87J lot 394 - no sump found during the IA6 and IA175 CA, assumed removed in 1996 to 1998 demolition project.	YES - NFA for soil Footnote 3 YES - NFA for groundwater, Footnotes 2 & 5
		50-32-8			Benzotripyrene #	87M lot 395 - no sump found during the IA6 and IA175 CA, assumed removed in 1996 to 1998 demolition project.			
		205-99-2			Benzofluoranthene#	87I lot 419 - excavated in IA6 Addendum CA in 2006			
						87L lot 420 - excavated in IA6 Addendum CA in 2006			
						87H lot 467 - no sump found during the IA6 and IA175 CA, assumed removed in 1996 to 1998 demolition project.			
						87A lot 491 - excavated in NRTD IA6 and IA175 CA in 2006			
						40A lot 515 - excavated in NRTD IA6 and IA175 CA in 2006			
						Sumps were excavated to at least the total depth of the sump and/or deeper depending on clearance sampling.			
North IA6	615	06STA1001F (320, 321, 344, 345, 368, and 369)	Former coal storage area	BH	7440-38-2	Arsenic	This is a list of analyte results produced by the release evaluation module ¹⁰ from all samples collected in surface soil and subsurface soil during the Phase 1 and Phase 2 RFI, CMWP(s) and/or the FCMS. ¹¹	No RA required - the iron and manganese at 15 ft were not caused by surface operations. (Focused CMS)	No Action Required
North IA6	616	06PIP1001C 06PIP1002C (lot 444)	Vertical steel pipes extending from the ground near 87H	SW, BH, GW	7440-38-2	Arsenic	This is the list of detected analyte results produced by the release evaluation module ¹⁰ from all samples collected in surface water, GW, and subsurface soil during the Phase 1 and Phase 2 RFI, CMWP(s) and/or the FCMS. ¹¹	These two features were well log calibration boreholes, one 500' deep and the other 125 ft deep. Both well/boreholes were abandoned as per state regulations. The vinyl chloride hit in the deeper well was treated with 30% hydrogen peroxide prior to attempting to fill the casing. The casing perforated during perforation. The borehole with the remaining casing was then grouted in (Closure Report, Well Abandonment and Silt Removal, IA-17N and IA-06, ECC, 2009).	YES - NFA for soil Footnote 4 Yes - YES - NFA for groundwater, Footnotes 2 & 5
					56-55-3	Benzofluoranthene#			
					205-99-2	Benzotripyrene #			
					50-32-8	Benzotripyrene #			
					7440-43-9	Cadmium (GW only)#			
					218-01-9	Chrysene (GW only)#			
					193-39-5	Indeno(1,2,3-cd)pyrene#			
					7439-92-1	Iron			
					7439-92-1	Lead (GW only)#			
					75-01-4	Vinyl Chloride (GW only)#			
North IA6	616	06MNH1002C (lot 444)	Unknown temporary manhole	SW, BH, GW	56-55-3	Benzofluoranthene#	This is the list of detected analyte results produced by the release evaluation module ¹⁰ from all samples collected in surface water and subsurface soil during the Phase 1 and Phase 2 RFI, CMWP(s) and/or the FCMS. ¹¹	This feature was an 18 ft deep, 18 inch diameter corrugated pipe that was excavated, removed, and backfilled (Closure Report, Well Abandonment and Silt Removal, IA-17N and IA-06, ECC, 2009).	YES - NFA for soil Footnote 4 YES - NFA for groundwater, Footnotes 2 & 5
					205-99-2	Benzofluoranthene#			
					50-32-8	Benzotripyrene #			
					218-01-9	Chrysene (SW only)#			
					193-39-5	Indeno(1,2,3-cd)pyrene (SW only) #			
					7439-92-1	Iron			
7439-92-1	Lead# (SW only)								
North IA6	617	06PT1001C	Unknown wood walled pit north of 87 series buildings	BH	7440-38-2	Arsenic	This is a list of detected analyte results registered by the release evaluation module ¹⁰ from all samples collected in subsurface soil during the Phase 1 and Phase 2 RFI. ¹¹	No RA for this lot - no exposure to a single detection of manganese at 18 feet. Lot 370 IN/OUT table - Phase 1 RFI conclusion	YES - NFA for soil Footnote 3 YES - NFA for groundwater, Footnotes 2 & 5
					7439-89-6	Iron			
					7439-92-1	Manganese#			
North IA6			Underground steam lines/vents		asbestos*	asbestos#	Munition bunkers in the area were heated by buried steam lines which were wrapped in asbestos.	The vault and steam lines in lots 4184419 and the vault and steam lines in lots 467468 were removed in 2006. The remaining 6 vaults and associated steam lines in this portion of IA6 are still present. When a bunker foundation hole was excavated, the steam lines were wrapped and left in place (see map associated with Exhibit A table for location of lines). Water removed one steam line vault and associated steam lines in lot 396 and 70 ft of wrapped gas line by Rout Street fence. Additional steam lines associated with the vault in lot 396 but the vault was left in place.	No Action Required on remaining steam lines. No NFA needed for wrapped steam lines left in ground
North IA6		06SPL2001C 06SPL2002C 06SPL2003C	Blkg. 85 solar panels				Lots 491, 515, 539 contained the remains of 3 rows of solar panels, soil suspected to be contaminated with glycol based on odor and staining.	No glycol was detected in the soil samples and glycol is not a regulated substance. All soil with any visible indication or odor of glycol was removed and disposed of with other chemically contaminated soil. The volume of glycol-contaminated soil was not tracked separately, but was probably 18 to 25 cubic yards.	YES - NFA for soil Footnote 3 YES - NFA for groundwater, Footnotes 2 & 5

North IA6			Roati Street	SS	asbestos*	asbestos# PAH#	active fill material brought onto the Roati St Construction project contained asbestos and PAHs. A Compliance Advisory was issued by CDPHE. The site was characterized based on a comparison to present day state standards and delineated both vertically and horizontally.	The RA for this feature was to excavate and remove portions of the fill placed on the site by DTCC as per the RTD Letter Work Plan dated July 25, 2011.	YES - NFA for soil Footnote 6 No action required for GW
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NOTES:

- 1 - SW - Surface water
SP - Seep water
SS - Surface soil - (Samples collected from 0 to 6 inches bgs)
UB/BH - Borehole sample (Samples collected from 6 inches bgs to top of groundwater depth)
GW - Groundwater
SE - Sediment in pond or channel
- SEE ACRONYM LIST FOR REMAINING ABBREVIATIONS
- 2 - No RA was required for groundwater or surface water in North IA6. CDPHE approval letter concurred with the RFI and CWMP reports that there is no significant POCs (all contaminants exceeding the GSA DFC SLCs) in groundwater. All contaminants (PAHs, PCB, uranium, lead, iron) occurred sporadically and were eliminated by CDPHE's professional judgment. The approved Phase 2 RFI (ECC) confirmed that none of the wells in the area exceeded the GSA QAPP SLC concentrations of sampled analytes with the exception of GSA-67 and GSA-70. These wells were added to the long term monitoring program and are not located in North IA6.
- 3 - CDPHE has issued three NFA letters for this Northern portion of IA6. The first is the Northern RTD Expansion Area Investigation Area North IA6 NFA letter dated April 7, 2009 which approved the Draft Final Closure Report Addendum and Comment Response Document and approved the NFA petition from GSA for the area in the Report.
- 4 - The second NFA letter is dated December 18, 2009 for the Investigation Area 17N and Investigation Area 06, Well Abandonment and Silo Removal Closure Report which approved the Closure Report and signified the completion of all required supplemental activities associated with the April 7, 2009 NFA letter (3).
- 5 - The third NFA letter is dated December 2, 2013 determined that the levels of hazardous constituents associated with releases from the DFC, if any, remaining in the groundwater in the Groundwater NFA Request Area do not exceed State of Colorado Basic Standards for Ground Water. Therefore a NFA has been granted for the portion of IA16-Site-Wide Ground Water that occurs under Investigation Areas 6, 12N, 17S, 17N, 8, and West IA10. The described area includes all Feature areas in North IA6
- 6 - CDPHE issued a NFA compliance return letter on November 15, 2012 stating that the Roati Street Construction Area had returned to compliance with the Act and Regulation and that the Division (CDPHE) intends to take no further action on the matters addressed in the May 9 Compliance Advisory.
- 7 - "GSA DFC Screening Level Criteria" means concentrations identified in GSA's "Quality Assurance Project Plan for the Denver Federal Center Site-Wide RCRA Facility Investigation" (June 2004) and "RFI Risk Assessment Work Plan for the Denver Federal Center" (May 2005), which were approved by the Division (CDPHE). These documents contain the 2004 human health residential risk based standards which are applicable to the Denver Federal Center. As part of their due diligence, purchasers are cautioned to research the current standards that will be applied by the State of Colorado to future work performed on the property.
- 8 - Analytes listed in the Parameter Detections column - Each analyte in this list is a detected result of all of the analytical data being run through the GSA Release Evaluation module listed as App J. If the detected results are higher than the GSA DFC Screening Level Criteria (see Footnote 7) (as per the GSA Consent Order QAPP) the analyte is marked with a # sign.
- 9 - Features listed in the DFC Pre-RFI Feature number column are discussed within the prevalent Site and IA they are associated with. The feature may extend into other sites and other IAs as well.
- 10 - Release Evaluation Module - this is a GSA developed computer program which calculates the POCs from a sampling event using the various risk assessment flow charts in the GSA Risk Assessment Work Plan.

* Asbestos found in the soils in this area was not identified as to which specific type/mineral.

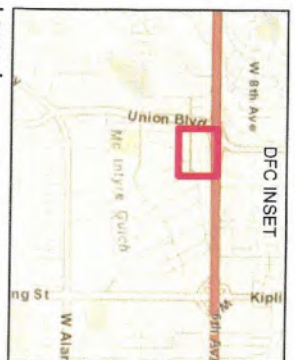
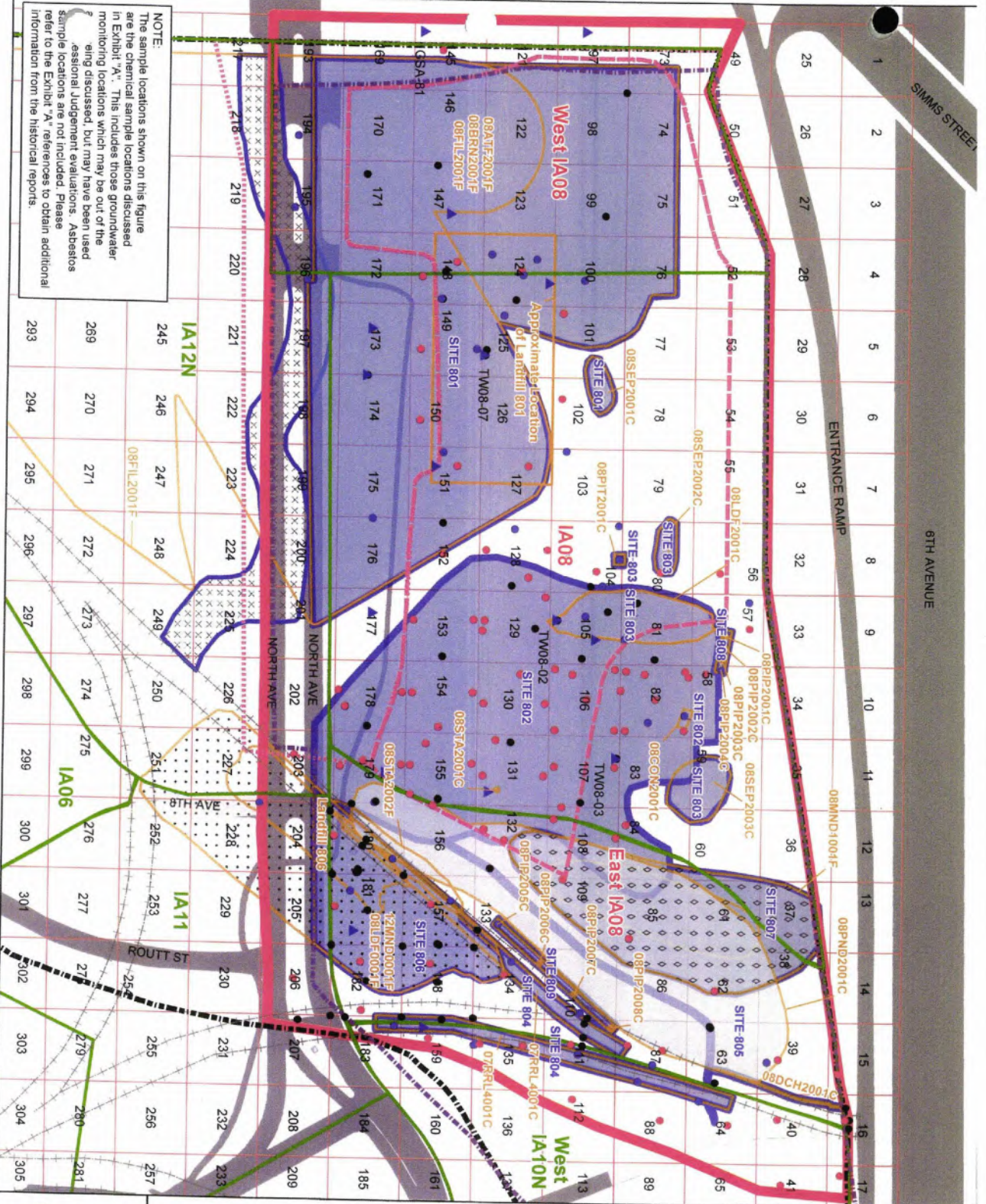
The CAS No. for the asbestos minerals are as follows:

Mineral	CAS No.
Amphibole form	1332-21-4
Chrysotile	12001-29-4
Actinolite	77538-66-4
Anorthophyllite	77536-67-5
Tremolite	77536-68-6
Amosite	12172-73-5

11 - References used to develop this table include:

- Pre-RFI Historical Data Report Addendum, U.S. Bureau of Reclamation, 1998.
- Final Report, Focused Corrective Measures Study, Denver Federal Center, FCC, October 2002
- Final Report, Phase 1 RCRA Facility Investigation of the Denver Federal Center NRTD Expansion Areas (Investigation Areas North IA6, IA7, East IA8, West IA10N, North IA10W, North IA11, IA12N, and IA17, and Quail Street Extension Alignment through IA1, South IA6, and IA12S) Revised, FCC August 2004
- Corrective Measures Design Study, NRTD Development Area, Denver Federal Center, Lakewood, Colorado, ECC July 2004b
- Draft Final Corrective Measures Work Plan, Northern RTD Expansion Areas, Investigation Areas North IA6 and IA17S, Denver Federal Center, ECC, August 2005
- Final Phase 2 RCRA Facility Investigation of the Denver Federal Center, NRTD Expansion Area (Investigation Areas North IA6, IA7, East IA8, West IA10N, North IA10W, North IA11, IA12N, and IA17, and Quail Street Extension Alignment through IA1, South IA6, and IA12S), ECC June 2006
- Draft Final Closure Report, Northern RTD Expansion Areas, Investigation Areas North IA6 and IA17S, Denver Federal Center, Lakewood, Colorado, ECC, July 2006
- Draft Final Closure Report Addendum, Northern RTD Expansion Area, Investigation Area North IA6, Denver Federal Center, Lakewood, Colorado, ECC, March 2008
- Final Corrective Measures Work Plan, NRTD North Half Expansion areas, IA7, IA8, East IA8, West IA10N, North IA11, IA12N, and IA17N, ERO February 2009
- Closure Report, Well abandonment and Silo Removal, IA-17N and IA-06, FCC, December, 2009
- Final Closure Report NRTD Implement Corrective Measures Work Plan, Northern RTD North Half Expansion Areas Investigation Areas IA11, IA12N, and IA17N Denver Federal Center, Denver, Colorado, ECC 2/11
- Sampling Workplan and Response to July 25, 2001 Correspondence, RTD Work at the Denver Federal Center, RTD East Tracks, August 23, 2011

NEW FOOTNOTE - If there is a discrepancy between Exhibit A data and the information in the various references listed above, refer to the NFA letters GSA has received for all the features and sites listed in this table and associated map.



Legend

Sample Location and Collection Date

- 2000 - 2003
- 2004 - 2006
- 2007 - Present

▲ Monitoring Well

--- Former Railroad Investigative Boundary

--- Material Handling Plan Boundary

--- Approximate Cover Boundary

--- Maintain Existing Landfill Cover Area (see Material Handling Plan)

--- Property Transfer Boundary

--- Investigation Area

--- Area Discussed in Exhibit A

--- Feature (Hillside) - Site 807

--- Feature (Landfill) - Site 805

--- Feature (Pond) - Site 805

--- Feature

--- Sites

--- North Avenue

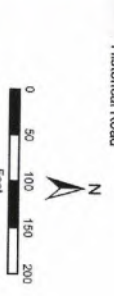
--- DFC Lots

--- Existing Building

--- Demolished Building

--- Present Road or Sidewalk

--- Historical Road



GSA Reporting
Denver Federal Center, Lakewood, Colorado

IA08 Features and Sample Points

Created by: M. Johnson	Reviewed by: F. Spitzer	Approved by: M. Johnson
Date: 01/14/2014	Date: 02/24/2014	Date: 03/04/2014
Version: 01/14/2014	Version: 02/24/2014	Version: 03/04/2014

Drawn by: M. Johnson
Checked by: M. Johnson
Scale: 1" = 100'

Document Title: "Investigative Report" - Denver Federal Center, Lakewood, Colorado

ITA
West IA08 (west side - Cold Spring Park-n-Ride) / IA08 / East IA08
Hazardous Substance Activity and Remediation

8/10/2014

Investigation Area (IA)	Investigation Site	Denver Federal Center Pre-REF Feature Number	Feature Description	Media ¹	CAS No.	Parameter Detection (Footnote 8, 9, and 11)	Information on the Investigation Site or Feature	Remedial Action (RA)	NFA Achieved / Status: (a NFA will be achieved for all of West IA08, IA08, and East IA08 when the CM cap is installed)								
West IA08	801	08AT12001F and 08AT2001F and 08BRN2001F Landfill 803 (lots 124-127 and 140-151)	Possible above ground test field, a possible dump and burn area, a landfill, and a former area of disturbed ground	SW, SS, UL, GW	adhesion *	Adhesion #	This is the list of detected analyte results produced by the release evaluation module ¹¹ from all samples collected in surface soil, subsurface soil, and GW during the Phase 1 and Phase 2 RFI, CMWP(s) and/or the PCMS. ¹² Chemicals above GSA DEC Screening Level Criteria are identified in the parameter list (in the "s" symbol) ¹ . PCOCs were identified in GSA RI fill material to a depth of 5 ft - RFI 2002. Groundwater sets - generally the PCOCs listed for GW only are a single detection from a single location. The analytes listed exceed either the Colorado GW standards or Federal MCLs. All PCOCs in groundwater were eliminated by professional judgment. Chemical contaminants were removed from consideration by CDPH professional judgment. However potential asbestos contamination remains in the area. ¹³ (Addendum NRTD CMWP In-and-Out Logs Table 2-1, ECC).	The corrective measure for the undisturbed portions of West IA08 and IA08 will include the placement of a denaturation marker (geo-textile) and a one (1) foot thick vegetative cap over most of this area. (See Note 5). Much of this area has been built up and excavated several times, most recently during RTD construction using fill from unknown off-site locations. Corrective measures included excavation of asbestos grids or portions of grids. Grid #7-2 was not excavated because of the large volume of fill placed on it from the light rail ramp. (Closure Report, Implover CMWP, ECC, 2011) Asbestos contamination has been discovered sporadically on the current surface. Due to the fact that potential chemical contamination lies at a depth of up to 10 ft below ground surface and is not a current threat to human health or the environment for surface exposure, CDPH made the determination that the waste could be left in place. In Landfill 803 PCOCs were eliminated by CDPH professional judgment with the exception of PAHs found at depth (discussions with GSA detailed in the approval letter for the CMWP for the NRTD Expansion Area, Sept 2008). Dioxin/Furan combinations are only associated with waste (lots 105, 124, 125) (Final CMWP, IRO 2006) TW08-07 had a single hit above the SLIC which was also found in groundwater (GSA e-mail Feb 3, 2014).	Pending NFA for soil - pending CM implementation YES NFA for groundwater - see Footnotes 3 and 6								
					309-052	Aluminum (GW Only)#											
					7440-36-0	Aminopyrrolidone (GW Only)#											
					7440-38-2	Arsenic#											
					7440-39-3	Barium (GW Only)#											
					56-55-1	Benzothiazolone#											
					50-12-8	Benzothiazolone#											
					205-99-2	Benzothiazolone#											
					7440-41-7	Beryllium (GW Only)#											
					319-85-7	Beta-Hexachlorocyclopentadiene#											
					117-81-7	Bis(2-ethylhexylphthalate) (GW Only)#											
					7440-43-9	Calcium (GW Only)#											
					86-74-8	Carbazole#											
					7440-47-3	Chromium (GW Only)#											
					218-01-4	Chrysene (GW Only)#											
					53-70-3	Dibenz(a,h)anthracene#											
					72-54-8	Dichlorodiphenylmethane (GW Only)#											
					50-78-7	Dichlorodiphenylmethane (GW Only)#											
					60-57-1	Dieldrin#											
					TIIF	Dioxin-Furans/TFIF											
					103-06-5	Endosulfan 1,2,3-epoxide#											
					7439-89-6	Iron#											
					7439-92-1	Lead#											
					7439-97-6	Manganese#											
					75-09-2	Methylene chloride (GW Only)#											
					7440-28-0	Thallium#											
					7440-61-1	Uranium (GW Only)#											
					IA08	801				08SP2001C (Lot 78, 79, 102) (801BH16ACPS01) (801BH16ACPS02)	Groundwater seep	UL, GW	adhesion *	Adhesion #	Lead was detected above GSA DEC Screening Level Criteria protective of groundwater in one berberide sample other 801 samples not related to seep.	The proposed corrective measure for this area of IA08 will include the placement of a denaturation marker (geo-textile) and a one (1) foot thick vegetative cap over most of this area. Chemical contaminants were removed from consideration by CDPH professional judgment. However potential asbestos contamination remains in the area. ¹³	Pending NFA for soil - pending CM implementation YES NFA for groundwater - see Footnotes 3 and 6
7439-92-1	Lead#																
IA08	802	08CO2001C (88TA2001C (lot 111) debris storage area)	Partially buried concrete debris storage area	SS, BH, GW	adhesion *	Adhesion #	This is the list of detected analyte results produced by the release evaluation module ¹¹ from all samples collected in surface soil, subsurface soil, and GW during the Phase 1 and Phase 2 RFI, CMWP(s) and/or the PCMS. ¹² Concerns were raised that non-native fill material brought onto the North of North Avenue Area may have been impacted by asbestos. A Compliance Advisory was issued by CDPH re RTD.	The proposed corrective measure for IA08 will include the placement of a denaturation marker (geo-textile) and a one (1) foot thick vegetative cap over most of this area. These portions of Site 802 not under the CM cap were not impacted by fill from RTD, showed no indication of asbestos contamination on the surface, and therefore did not require remedial action. Much of this area has been built up and excavated several times during RTD construction using fill from unknown off-site locations. Approximately 10 ft of contaminated fill above portions of sites 801 and 802. Contaminants in lots 80, 81, 131, 153, 154, 155, were removed from consideration by CDPH professional judgment. PAHs exceedances eliminated by professional judgment due to non-detect RI exceedance. PAHs and Dieldrin exceedances were eliminated by CDPH professional judgment due to RLA greater than SLICs.	Pending NFA for soil - pending CM implementation YES NFA for groundwater - see Footnotes 3 and 6								
					1197-66-1	Arsenic 125#											
					7440-38-2	Arsenic											
					7440-39-3	Barium (GW Only)#											
					56-55-1	Benzothiazolone (GW Only)#											
					50-12-8	Benzothiazolone#											
					7440-41-7	Beryllium (GW Only)#											
					319-85-7	Beta-Hexachlorocyclopentadiene#											
					7440-47-3	Chromium (GW Only)#											
					218-01-4	Chrysene (GW Only)#											
					7440-50-8	Copper (GW Only)#											
					53-70-3	Dibenz(a,h)anthracene#											
					60-57-1	Dieldrin#											
					7439-89-6	Iron#											
					7439-92-1	Lead#											
					75-09-2	Methylene chloride (GW Only)#											
					7440-28-0	Thallium#											
					7440-61-1	Uranium (GW Only)#											
					IA08	802 / 803				North of North Avenue Area (RTD stockpile laydown yard)	Imported fill containing asbestos	SS	adhesion *	Adhesion #	An asbestos survey was performed over the area and 6 grids were determined to be ACS grids. Three of the grids (177-2, 178-1, 154-7) were remediated. Three grids (155-1, 128-3, 105-2) were capped with 0.5 feet of imported soil. (LIFE Characterization report)	An asbestos survey was performed over the area and 6 grids were determined to be ACS grids. Three of the grids (177-2, 178-1, 154-7) were remediated. Three grids (155-1, 128-3, 105-2) were capped with 0.5 feet of imported soil. (LIFE Characterization report)	YES - NFA for soil, Footnote 7 No Action Required for GW
													670-20-6	1,1,1,2-Tetrachloroethane (GW Only)#			
IA08	803	Landfill 803 (lots 80, 81, 104, 105) 08SI2002C 08SI2003C 08PT2001C	Surface water seeps, disposal pits, trenches, dump, and landfill	UL, GW	670-20-6	1,1,1,2-Tetrachloroethane (GW Only)#	This is the list of detected analyte results produced by the release evaluation module ¹¹ from all samples collected in surface soil, subsurface soil, and GW during the Phase 1 and Phase 2 RFI, CMWP(s) and/or the PCMS. ¹² NPT2001C was a reinforced concrete slab lying on the ground (no evidence of contamination) (URS Phase 2 Work Plan)	The proposed corrective measure for IA08 will include the placement of a denaturation marker (geo-textile) and a one (1) foot thick vegetative cap over most of this area. The carbon tetrachloride, COC in TW08-03 was treated with oxidant and the well was abandoned. (ECC Closure Report) All other PCOCs in groundwater were eliminated by professional judgment. These portions of Site 803 not under the CM cap were not impacted by fill from RTD, showed no indication of asbestos contamination on the surface, and therefore did not require remedial action.	Pending NFA for soil - pending CM implementation YES NFA for groundwater - see Footnotes 3 and 6								
					7429-90-5	Akathion#											
					7440-38-2	Arsenic											
					7440-39-3	Barium (GW Only)#											
					56-55-1	Benzothiazolone#											
					205-99-2	Benzothiazolone#											
					207-08-9	Benzothiazolone#											
					7440-41-7	Beryllium (GW Only)#											
					117-81-7	Bis(2-ethylhexylphthalate) (GW Only)#											
					7440-43-9	Calcium (GW Only)#											
					56-53-4	Carbon tetrachloride (GW Only)#											
					7440-47-3	Chromium (GW Only)#											
					53-70-3	Dibenz(a,h)anthracene (GW Only)#											
					TIIF	Dioxin-Furans/TFIF											
					103-06-5	Endosulfan 1,2,3-epoxide (GW Only)#											
					7439-89-6	Iron#											
					7439-92-1	Lead#											
					75-09-2	Methylene chloride (GW Only)#											
					127-18-4	Tetrachloroethane (GW Only)#											
					7440-28-0	Thallium#											
7440-61-1	Uranium (GW Only)#																
IA08	803/807	08L102001C (Lot 105 and 106) (the ERD CMWP says part of the 807 stormwater pond)	Possible landfill	BH	adhesion *	Adhesion #	A geophysical survey was performed in 2006 to confirm the presence of debris or waste - no anomalies were observed.	If the feature is in Site 803, the proposed corrective measure for IA08 will include the placement of a denaturation marker (geo-textile) and a one (1) foot thick vegetative cap over most of this area. If this feature is within the 805/807 stormwater pond no action is required - see RA for Site 805.	No Action Required								
					7440-36-0	Aminopyrrolidone#											
East IA08	804	07RR14001C	Former railroad right of way Storage area	SS, BH, GW	adhesion *	Adhesion #	The rail alignments are DWP are features installed concurrently with the mainline plans, and tracks are still present in some portions of the alignment. Clean fill was placed during RTD construction over a portion of the tracks and the railroad grade in 2011. Lots 158, 159, 111, 112 and 87 were included in the ACS remediation. These lots are located within an area that was built up during RTD construction with imported fill material, therefore, many of the lots to be excavated were beneath three to 8 feet of imported fill material. The fill material was staged to the side, the lots were excavated to the prescribed depth or until clean soil of asbestos, and then backfilled. One grid in lot 87 was not excavated for asbestos because the grid was directly below the light rail line plus was under 8 ft of fill. Excavation of the area containing the historical rail alignment was stopped when the railroad ballast, edge of the railroad bed, and/or the iron rails were encountered. In-situ barium (CPH) and GSA - June 7 and 4 - 2010). The old rail line was considered the denaturation boundary for any asbestos or chemical dips in the rail alignment (e-mails between CDPH and GSA - May 29 and June 4, 2010). Portions of Lots 39 and 63 were included in the planned PAH remediation but are now covered with approximately 30 feet of fill developing the ramp to the Fish Avenue Bridge. As per agreement with CDPH, the lots were not excavated. (e-mail July 8, 2010). Instead, one soil sample was collected from 0 to 0.5 feet at the edge of the drainage area (Lot 59) that was not assessed, to determine the level of PAH contamination that remained. The results of this soil sample indicate PAH concentrations were below SLIC. Lots 87, 111 eliminated as requiring PAH CM due to storm water channel run-off from an offsite location (ERO report)	The rail alignments are DWP are features installed concurrently with the mainline plans, and tracks are still present in some portions of the alignment. Clean fill was placed during RTD construction over a portion of the tracks and the railroad grade in 2011. Lots 158, 159, 111, 112 and 87 were included in the ACS remediation. These lots are located within an area that was built up during RTD construction with imported fill material, therefore, many of the lots to be excavated were beneath three to 8 feet of imported fill material. The fill material was staged to the side, the lots were excavated to the prescribed depth or until clean soil of asbestos, and then backfilled. One grid in lot 87 was not excavated for asbestos because the grid was directly below the light rail line plus was under 8 ft of fill. Excavation of the area containing the historical rail alignment was stopped when the railroad ballast, edge of the railroad bed, and/or the iron rails were encountered. In-situ barium (CPH) and GSA - June 7 and 4 - 2010). The old rail line was considered the denaturation boundary for any asbestos or chemical dips in the rail alignment (e-mails between CDPH and GSA - May 29 and June 4, 2010). Portions of Lots 39 and 63 were included in the planned PAH remediation but are now covered with approximately 30 feet of fill developing the ramp to the Fish Avenue Bridge. As per agreement with CDPH, the lots were not excavated. (e-mail July 8, 2010). Instead, one soil sample was collected from 0 to 0.5 feet at the edge of the drainage area (Lot 59) that was not assessed, to determine the level of PAH contamination that remained. The results of this soil sample indicate PAH concentrations were below SLIC. Lots 87, 111 eliminated as requiring PAH CM due to storm water channel run-off from an offsite location (ERO report)	YES - NFA for soil YES - NFA for groundwater - see Footnotes 2, 3, 4, and 6								
					7440-36-0	Aminopyrrolidone#											
					7440-38-2	Arsenic											
					7440-39-3	Barium (GW Only)#											
					56-55-1	Benzothiazolone#											
					50-12-8	Benzothiazolone#											
					205-99-2	Benzothiazolone#											
					7440-41-7	Beryllium (GW Only)#											
					7440-47-3	Chromium (GW Only)#											
					7440-50-8	Copper#											
					53-70-3	Dibenz(a,h)anthracene#											
					60-57-1	Dieldrin#											
					7439-89-6	Iron#											
					7439-92-1	Lead#											
					75-09-2	Methylene chloride#											
					7440-28-0	Thallium#											

IT A
West IA08 (west side - Cold Spring Park-to-Ride) / IA08 / East IA08
Hazardous Substance Activity and Remediation

8/10/2014

Investigation Area (IA)	Investigation Site	Denver Federal Center Pre-RI# Feature Number	Feature Description	Media ¹	CAS No.	Parameter Detections (Footnote 8, 9, and 11)	Information on the Investigation Site or Feature	Remedial Action (RA)	NFA Achieved / Status (a NFA will be achieved for all of West IA08, IA08, and East IA08 when the CM cap is installed)
East IA08	805	08PWS2001C (RI# CMWP says this feature is in Site 807) 08DC12201C (lots 15, 36, 61, 62, 84, 85, 86, 108, 109, 112, 113, 155, 156 - lots 39 and 81 were considered full alignment (see site 804))	Sewer water detention pond and detention pond outlet	SS, UB, SE	asbestos *	Asbestos [†]	This is the list of detected analytic results produced by the release evaluation module from all samples collected in surface soil, subsurface soil, and GW during the Phase 1 and Phase 2 RI's, CMWP's and/or the PCMS ⁹ . Chemicals above GSA DFC Screening Level Criteria are identified in the parameter list with the # symbol ⁹ .	Based on discussions with CDPIE and GSA during the Nov. 14, 2007 informal meeting (reference), the vegetated area of the pond and all of the outlet is considered "out" due to contamination associated with off-site storm water runoff. Lots 15, 63, 87, 111, 113 were eliminated; the contamination was determined to be due to storm water channel run-off / roadway runoff from an off-site location (ERO in lots). Remaining contaminants were eliminated by CDPIE professional judgment and a No Further Action was issued for the area.	YES - NFA for soil YES - NFA for groundwater - see Footnotes 2, 4, and 6
					7440-76-2	Arsenic			
					56-55-3	Benz(a)anthracene [#]			
					56-32-8	Benz(a)pyrene			
					203-99-2	Benzobifluoranthene [#]			
					319-83-7	benz-Fluoranthene [#]			
					86-74-8	Carbazole			
					53-76-3	Dibenz(a,h)anthracene [#]			
					193-39-5	Indeno(1,2,3-cd)perylene [#]			
					7439-89-6	Iron			
					7430-02-1	Lead [#]			
					7782-49-2	Selenium [#]			
					7440-26-0	Thallium [#]			
East IA08	806	08S7A202F 08L100001F 12MN00001F (includes lots 158 and 182) LANDFILL 806 (lots 157, 180, 181, 203, 204, 227, 228)	Former coal storage area and landfill	SS, SB, UB, GW	asbestos *	Asbestos [†]	This is the list of detected analytic results produced by the release evaluation module ⁹ from all samples collected in surface soil, subsurface soil, and GW during the Phase 1 and Phase 2 RI's, CMWP's and/or the PCMS ⁹ . Chemicals above GSA DFC Screening Level Criteria are identified in the parameter list with the # symbol ⁹ .	Remedial action ⁹ was to excavate the landfill and all visible debris was removed and then perform confirmation sampling. 08S7A202F (storage area/feature area lot 133) eliminated due to storm water channel run-off from an off site location. Work was completed in 2010 and documented in the Closure Report (2011). Lots 158 and 182 were excavated from 1 to 2 foot depth for chemical contamination identified in the CMWP. 12MN00001F is discussed in the North IA11 Exhibit A table. Feature overlaps into the 806 landfill.	YES - NFA for soil YES - NFA for groundwater - see Footnotes 2, 4, and 6
					7440-76-0	Arsenite [#]			
					7440-76-2	Arsenic			
					56-55-3	Benz(a)anthracene [#]			
					56-32-8	Benz(a)pyrene			
					203-99-2	Benzobifluoranthene [#]			
					7440-47-3	Chromite [#]			
					216-61-0	Chrysotile [#]			
					7440-51-8	Copper [#]			
					53-76-3	Dibenz(a,h)anthracene [#]			
					66-57-1	Dieldrin [#]			
					193-39-5	Indeno(1,2,3-cd)perylene [#]			
					7439-89-6	Iron [#]			
7430-02-1	Lead [#]								
7440-26-0	Thallium [#]								
East IA08	807	08MND1001F	possible soil piles or dispersed residues				Investigation of the site included a geophysical survey which did not find any apparent anomalies; therefore, no further actions was warranted (URS RI# Work Plan).	No Action Required	
IA08	808	Tunnel (potential) 08PP2001C 08PP2002C 08PP2003C 08PP2004C	Unknown pipes and buried tunnel storage area	SW, GW	7440-39-2	Arsenic	One temporary groundwater well was drilled at the location of a possible tunnel structure from a historical photograph.	PCOC's were eliminated by CDPIE using professional judgment. The pipes were excavated and removed as part of the 2006 RI# work plan by URS. The tunnel boring demonstrated no indications of a tunnel or secret material and the groundwater results were below the SLCCs for the analysis tested. (ECC Closure Report).	Pending NFA for soil - pending CM implementation YES NFA for groundwater - see Footnotes 3 and 6
					7439-89-6	Iron			
East IA08	809	08PP2005C 08PP2006C 08PP2007C 08PP2008C	unknown pipes			Inside the RR alignment.	The pipes were excavated and removed as part of the 2006 RI# work plan by URS.	YES - NFA for soil - pending CM implementation YES - NFA for groundwater - see Footnotes 2, 4, and 6	

NOTES:

- 1 - SW - Surface water
SP - Seep water
SS - Surface soil - (Samples collected from 0 to 6 inches bgs)
UB / BI - Borehole sample (Samples collected from 6 inches bgs to top of groundwater depth)
GW - Groundwater
SE - Sediment in pond or channel
SEE ACRONYM LIST FOR REMAINING ABBREVIATIONS
- 2 - The RA for the Landfill 806 consisted of the removal of all wastes and all chemical and waste impacted soils in the landfill as required by the Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division (Division). A total of approximately 16,800 tons of contaminated soil and debris was removed. The Division issued an August 10, 2011 unrestricted land use/No Further Action (NFA) letter for the area which included Site 806. The landfill was cleaned up to approval cleanup levels for soil. (as per the GSA Consent Order QAPP) with the exceptions noted in the RA column above.
- 3 - No RA was required for groundwater or surface water in IA8 except at TW08-03. CDPIE approval letter concurred with the RI# and CMWP reports that there is no significant PCOC's (contaminants exceeding the GSA DFC SLCCs) in groundwater except for the persistent carbon tetrachloride at TW08-03 that required a one-time in-situ treatment of a chemical oxidant. All other contaminants (PAHs, arsenic, mercury, thallium, cadmium, chromium, molybdenum, beryllium, copper, uranium, lead) occurred sporadically and were eliminated by CDPIE professional judgment. The approved Phase 2 RI# (ECC) confirmed that none of the wells in the area exceeded the GSA QAPP SLCC concentrations for the NFA letter for groundwater.
- 4 - The August 10, 2011 NFA letter determined that concentrations of hazardous constituents remaining in the soil (if any) in this area of the Denver Federal Center (including East IA#) did not pose an unacceptable risk to human health or the environment since they are below the DFC residential/restricted use and protective of groundwater soil remediation objectives (as per the GSA Consent Order QAPP).
- 5 - NOTE - The September 18, 2008 CDPIE RI# and CMWP approval letter suggested GSA might want to evaluate the possibility of using an environment use restriction to prevent future human contact with the buried waste and contaminated soil in Landfills 801 / 807 / 807 because "with minor exceptions, it appears that the contaminant levels within the buried waste and subsurface contaminated soil only slightly exceed the residential/restricted use soil screening level criteria and not a source of groundwater contamination". A second consideration is that the potential for subsurface contamination on the surface is highly probable and the cover and cap will mitigate the hazard.
- 6 - NOTE - The December 2, 2013 CDPIE letter determined that the levels of hazardous constituents associated with releases from the DFC, if any, remaining in the groundwater in the Groundwater NFA Request Area do not exceed State of Colorado Basic Standards for Ground Water. Therefore a No Further Action has been granted for the portion of 1A16-Site-Wide Ground Water that occurs under Investigation Areas 612N, 17S, 17N, 8, and West IA10. The described area includes all Feature areas in West IA8, East IA8, and IA8.
- 7 - The November 15, 2012 CDPIE letter to RTD stated that the Division (CDPIE) determined that the site (including North of North Avenue area) had returned to compliance with the Act and Regulations. The Division intends to take no further action on the matters addressed in the May 9, 2011 Compliance Advisory for the area.
- 8 - "GSA DFC Screening Level Criteria" means concentrations identified in GSA's "Quality Assurance Project Plan for the Denver Federal Center Site-Wide RCRA Facility Investigation" (June 2004) and "RI# Risk Assessment Work Plan for the Denver Federal Center" (May 2005), which were approved by the Division (CDPIE). These documents contain the 2004 human health residential risk based standards which are applicable to the Denver Federal Center. As part of their due diligence, purchasers are cautioned to research the current standards that will be applied by the State of Colorado to future work performed on the property.
- 9 - Analytes listed in the Parameter Detections column - Each analytic in this list is a detected results of all of the analytical data being run through the GSA Release Evaluation module listed as App 1. If the detected result is higher than the GSA DFC Screening Level Criteria (see Footnote 8) the analytic is marked with a # sign.
- 10 - Features listed in the DFC Pre-RI# Feature number column are discussed within the present Site and IA they are associated with. The feature may extend into other sites and other IA's as well.
- 11 - Release Evaluation Module - this is a GSA developed computer program which calculates the PCOCs from a sampling event using the various risk assessment flow charts in the GSA Risk Assessment Work Plan.
- * Asbestos found in the soils in this area was not identified as to which specific type/mineral.

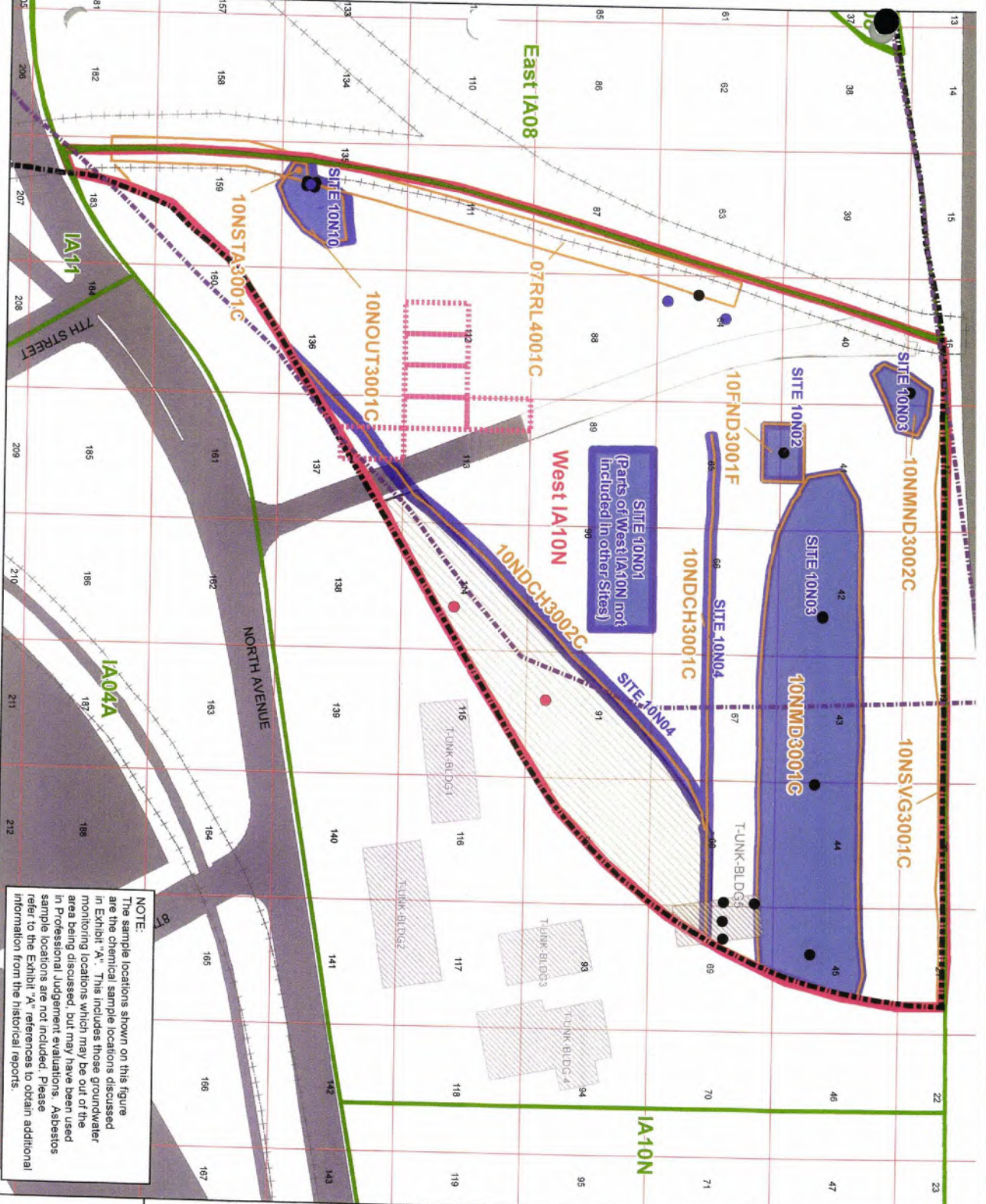
The CAS No. for the asbestos minerals are as follows:

Mineral	CAS No.
Asbestos (total)	1332-21-4
Actinolite	12001-28-4
Actinolite	77536-66-4
Anthophyllite	77536-67-5
Tremolite	77536-68-6
Amosite	12172-71-3

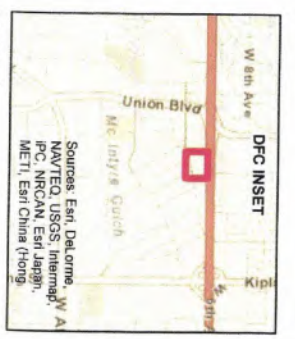
12 - References used to develop this table include:

Pre-RI# Historical Data Report Addendum, U.S. Bureau of Reclamation, 1998.
Final Report, Excavated Corrective Measures Study, Denver Federal Center, FCC, October 2002.
Investigation Area 8 Phase 1 RI# Report for the Denver Federal Center, URS, May 2004.
Final Report, Phase 1 RCRA Facility Investigation of the Denver Federal Center NRTD Expansion Areas (Investigation Areas North IA6, IA7, East IA8, West IA10N, North IA10W, North IA11, IA12N, and IA17, and Quail Street Extension Alignment through IA1, South IA6, and IA12S) Revised, FCC August 2004.
Corrective Measures Design Study, NRTD Development Area, Denver Federal Center, Lakewood, Colorado, ECC July 2004b.
Final Final Phase 2 RCRA Facility Investigation of the Denver Federal Center, NRTD Expansion Area (Investigation Areas North IA6, IA7, East IA8, West IA10N, North IA10W, North IA11, IA12N, and IA17, and Quail Street Extension Alignment through IA1, South IA6, and IA12S). ECC March 2009.
Final Report, Phase 2 RI# Work Plan for the Denver Federal Center, Investigation Area 8, URS, May 2006.
Final Final Phase 2 RCRA Facility Investigation of the Denver Federal Center, Investigation Area 08, Summit, April 2007.
Final Corrective Measures Work Plan, NRTD North Half Expansion areas, IA7, IA8, East IA8, West IA10N, North IA11, IA12N, and IA17N, 1807 February 2009.
Final Closure Report NRTD Implement Corrective Measures Work Plan, Northern RTD North Half Expansion Area Investigation Areas IA11, IA12N, and IA17N Denver Federal Center, Denver, Colorado, ECC 2011.
North of North Avenue Area Characterization, Denver Federal Center, Lakewood, CO, LT Environmental Inc., July 31, 2012.
Final Addendum Corrective Measures Work Plan, Northern RTD North Half Expansion Areas, IA7, IA8, West IA10N, North IA11, IA12N, and IA17N, ECC, September 2013.

NEW FOOTNOTE - If there is a discrepancy between Exhibit A data and the information in the various references listed above, refer to the No Further Action letters GSA has received for all the features and sites listed in this table and associated map.



NOTE:
 The sample locations shown on this figure are the chemical sample locations discussed in Exhibit "A". This includes those groundwater monitoring locations which may be out of the area being discussed, but may have been used in Professional Judgement evaluations. Asbestos sample locations are not included. Please refer to the Exhibit "A" references to obtain additional information from the historical reports.



- Legend**
- Sample Location and Collection Date**
- 2000 - 2003
 - 2004 - 2006
 - 2007 - Present
- Former Railroad Investigative Boundary
- Material Handling Plan Boundary
- Maintain Existing Landfill Cover Area (see Materials Handling Plan)
- Investigation
- Property Transfer Boundary
- Area Discussed in Exhibit A Table
- Features
- Sites
- UIP Laydown Yard
- DFC Lots
- Existing Building
- Demolished Building
- Present Road or Sidewalk
- Historical Road



CERCLA Reporting
West IA10
Features and Sample Points

Drawn by: G. Johnson	Reviewed by: P. Fragione	Project Manager: G. Johnson
Date: 07/16/2014	Date: 04/22/2014	Date: 04/22/2014
Version: 01	Version: 01	Version: 01

Denver Federal Center, Lakewood, Colorado

Contracted under CERCLA Reporting Agreement with the U.S. Environmental Protection Agency. This report was prepared by GSA under contract to the U.S. Environmental Protection Agency. The U.S. Environmental Protection Agency is not responsible for the accuracy or completeness of the information provided in this report.

E T A
West IA10N
Hazardous Substance Activity and Remediation

September 14, 2014

Investigation Area (IA)	Investigation Site	Denver Federal Center Pre RFI Feature Number	Feature Description	Media ¹	CAS No.	Parameter Detections (Footnotes 7 and 8)	Information on the Investigation Site or Feature	Remedial Action (RA)	NFA Achieved / Status	
East IA08 / West IA10N	804	07RB14001C	Former railroad right of way				See feature description listed in IA08 Exhibit table			
West IA10N	10N01	T-UNKS	Parts of West IA10N not included in other sites Area around former DOP era buildings	SS, UB, GW	7440-38-2	Asbestos#	This is the list of detected analyte results produced by the release evaluation module ¹¹ from all samples collected in surface soil, subsurface soil, and GW during the Phase I and Phase 2 RFI's, CMWP(s) and/or the FCMS ¹¹ .	Corrective action included excavation of asbestos grids for portions of grids (Closure Report, Implement CMWP, ECC, 2011). Additional inspection and excavation included in WCR07 and UIP laydown yard - see Feature Descriptions below.	No RA was required for the area around T-UNKS, only 1 PAH detected slightly above screening level (Phase 2 RFL NRTD Expansion area, 2006, ECC) The CDPHE e-mail (May 19) grants a NFA for the UNKS buildings at this time because of the soil cover. When soil disturbance activities occur with fence construction, the NFA request will be reconsidered for the immediate area of the buildings. An e-mail from CDPHE dated November 25 confirmed an NFA for the building areas.	Pending NFA for soil - pending implementation of the CMWP for SRTD Expansion area Footnote 5 YES NFA for groundwater - Footnotes 2 and 6
					56-55-3	Benz(a)anthracene#				
					50-12-8	Benzo(a)pyrene#				
					205-99-2	Benzo(b)fluoranthene#				
					53-70-3	Dibenz(a,h)anthracene#				
					193-39-5	Indeno(1,2,3-cd)pyrene#				
					7439-89-6	Iron#				
7439-92-1	Lead#									
West IA10N	10N02	10N03001E lot 41 and 65	Foundation of former DOP era building	BH	7440-38-2	Asbestos	Arsenic and lead were detected above GSA DFC Screening Level Criteria but below background in one borehole and therefore not a COC.	No RA was required for this feature (Phase 1 RFI report, Footnote/ECC)	YES NFA for soil and groundwater - Footnotes 2, 3 and 6	
					7439-89-6	Iron				
					7439-92-1	Lead				
West IA10N	10N03	10NMD3001C	Western unknown soil mound	SS, BH, SW	7440-38-2	Asbestos#	Asbestos was detected on the surface and in subsurface samples. Lead detected in 3 boreholes above the SLC protective of groundwater, but groundwater was not impacted. Arsenic and iron were detected in soil above GSA DFC Screening Level Criteria but below background and therefore not a COC. Arsenic was detected in surface water above SLC for CO Fish Ingestion Standard.	The remedial action was to excavate all of the dirt in the mound, remove and dispose of all ACS and chemical contaminated soil, and transport the remaining clean soil to the South Mounds to use a cover to build a solar array system. The soil was excavated in two phases and completed in August of 2012 (Final Soil Removal Report, ECC, Dec 2012). Disposed of 4,370 tons of contaminated soil from the north mound.	YES NFA for soil and groundwater - Footnotes 2, 3, 4, and 6	
					56-55-3	Benzo(a)pyrene#				
					7439-89-6	Iron				
					7439-92-1	Lead#				
West IA10N	10N03	10NMD3002C	small unknown soil mound near IA's northwest corner	BH	50-12-8	Benzo(a)pyrene#	Lead was detected in one borehole above SLC for protection of groundwater, but groundwater was not impacted. PAHs were considered out by professional judgement (BIO In-and-Out Table)	No RA was required, mound associated with utility vault, eliminated as a feature. (Final CMWP, ERO, 2009). The area was recently covered with many feet of fill to build the light rail bridge.	YES NFA for soil and groundwater - Footnotes 2, 3, 4, and 6	
					7439-92-1	Lead#				
West IA10N	10N04	10NDKH3001C and 10NDCH3002C	E and NE trending concrete-lined drainage ditches	UB, SE, SW	7440-38-2	Asbestos#	PAHs were detected in sediment and surface water samples above SLCs. Arsenic was detected in surface water above SLC for CO Fish Ingestion Standard. Selenium was detected in one sediment sample and lead in one borehole sample slightly above SLC for protective of groundwater.	No remedial action required. Feature area eliminated as requiring corrective action measures due to storm water run off and channel runoff from utility urban drainage.	YES NFA for soil and groundwater - Footnotes 2, 3, 4, and 6	
					56-55-3	Benzo(a)anthracene#				
					50-12-8	Benzo(a)pyrene#				
					205-99-2	Benzo(b)fluoranthene#				
					191-24-2	Benzo(g,h,i)perylene#				
					207-08-9	Benzo(k)fluoranthene#				
					218-01-9	Chrysene#				
					53-70-3	Dibenz(a,h)anthracene#				
					50-29-3	Dichlorodiphenylchloroethane#				
					193-39-5	Indeno(1,2,3-cd)pyrene#				
					7439-89-6	Iron				
					7439-92-1	Lead#				
					7782-49-2	Selenium#				
West IA10N	10N05	Lots 68, 69, 91, 92, 114, 115, 137	UIP laydown yard	SS	NOTE - no PAHs or asbestos found for the feature within transfer boundary		A WCR was developed to perform an additional round of asbestos inspections and PAH soil sampling in the UIP laydown yard area where either inspections had not been performed or areas had been covered by Impervious BIL (WCR 07, SKTD CMWP, 2012)	The WCR was for a RA for ACM/asbestos to place 6 inches of vegetative cover over the contaminated lots. The grids that were covered were outside the property transfer boundary and therefore not shown on the map or listed here.	No Action Required for soil NFA for groundwater footnotes 2 and 6	
West IA10N	10N06	Grids 112-5, 6, 7, Lot 113-1, 8 and Grids 137-2	WC007 Addendum	Asbestos#	Asbestos#		Several grids identified in the ERO CMWP appear to have not been remediated.	The RA for ACM/asbestos will be to place 6 inches of vegetative cover over the contaminated lots and maintain the existing vegetative cover over the grids IAW the Material Handling Plan	NFA pending compliance with CM from Material Handling Plan	
West IA10N	10N10	10NSVC3001C lots 17, 18, 19, 20, and 21	Stressed vegetation					Out w/ CDPHE approval - Footnotes RFI 2002	No Action Required	
West IA10N	10N10	10NOUT3001C 10NSTAD001C lot 125	Outfall and Coal Spill	UR, SS, SW, GW	7440-38-2	Asbestos	This is the list of detected analyte results produced by the release evaluation module ¹¹ from all samples collected in surface soil, subsurface soil, and GW during the Phase I and Phase 2 RFI's, CMWP(s) and/or the FCMS ¹¹ .	Coal seam excavated - clearance criteria visible removal Excesses due to RI issues eliminated by CDPHE/GSA professional judgment. Excavated small portion of lot 125 causing the coal seam.	YES NFA for soil and groundwater - Footnotes 2, 3, 4, and 6	
					50-12-8	Benzo(a)pyrene#				
					7439-89-6	Iron				
					7439-92-1	Lead				

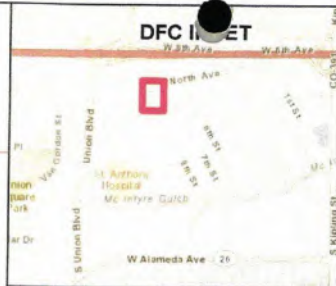
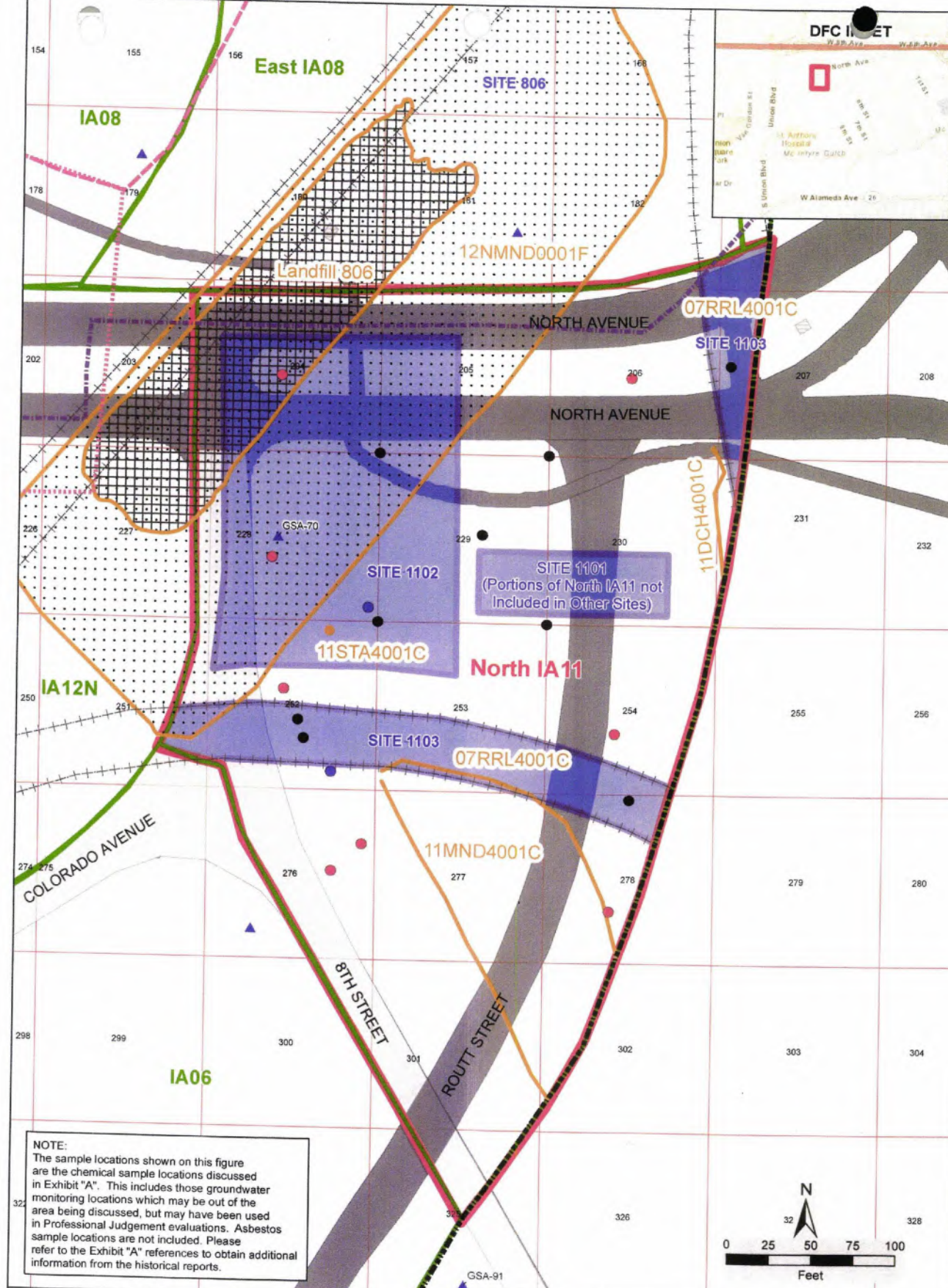
NOTES:

- SW - Surface water
SP - Seep water
SS - Surface soil - (Samples collected from 0 to 6 inches bgs)
UB / BH - Borehole sample (Samples collected from 6 inches bgs to top of groundwater depth)
GW - Groundwater
SE - Sediment in pond or channel
SIF - ACRONYM LIST FOR REMAINING ABBREVIATIONS
- No RA was required for groundwater or surface water in West IA10N. CDPHE approval letter concurred with the RFI and CMWP reports that there is no significant POCs (contaminants exceeding the GSA DFC SLCs) in groundwater. All contaminants (PAHs) occurred sporadically and were eliminated by CDPHE/GSA professional judgment. See Footnote 5 for the NFA letter for groundwater.
- The August 10, 2011 NFA letter determined that concentrations of hazardous constituents remaining in the soil (if any) in this area of the Denver Federal Center (including west section of West IA10N) did not pose an unacceptable risk to human health or the environment since they are below the DFC residential/restricted use and protective of groundwater soil remediation objectives.
- The December 18, 2012 NFA letter determined that No Further Action was required for the West IA10N Mound. Further, removal of the asbestos - contaminated soil from the West IA10N Mound completed the required remedial action within West IA10N, therefore the Division determined that No Further Action was required for West IA10N.
- The CDPHE e-mail dated May 19, 2013 which stated that the additional information provided by GSA on May 17 demonstrated that the No Further Action Determination for the area made by CDPHE in their December 18 correspondence is still valid. The e-mail also stated that CDPHE agreed that no remedial action is required at this time for the portion of West IA10N where 5 DOP era buildings were located since the asbestos contaminated soil is currently covered with soil.
- NOTE - The December 2, 2013 CDPHE letter determined that the levels of hazardous constituents associated with releases from the DFC, if any, remaining in the groundwater in the Groundwater NFA Request Area do not exceed State of Colorado Basic Standards for Ground Water. Therefore a No Further Action has been granted for the portion of IA16-Site-Wide Ground Water that occurs under Investigation Areas 6, 12N, 17S, 17N, 8, and West IA10. The described area includes all Feature areas in West IA10N.
- GSA DFC Screening Level Criteria means concentrations identified in GSA's Quality Assurance Project Plan for the Denver Federal Center Site-Wide RCRA Facility Investigation (June 2004) and RFI Risk Assessment Work Plan for the Denver Federal Center (May 2003), which were approved by the Division (CDPHE). These documents contain the 2004 human health residential risk based standards which are applicable to the Denver Federal Center. As part of their due diligence, purchasers are cautioned to research the current standards that will be applied by the State of Colorado to future work performed on the property.
- Analytes listed in the Parameter Detections column - Each analyte in this list is a detected result of all of the analytical data being run through the GSA Release Evaluation module listed as App J. If the detected results are higher than the GSA DFC Screening Level Criteria (see Footnote 7) the analyte is marked with a # sign.
- Features listed in the DFC Pre-RFI Feature number column are discussed within the prevalent Site and IA they are associated with. The feature may extend into other sites and other IAs as well.
- Release Evaluation Module - this is a GSA developed computer program which calculates the POCs from a sampling event using the various risk assessment flow charts in the GSA Risk Assessment Work Plan.
- Asbestos found in the soils in this area was not identified as to which specific type/mineral. The CAS No. for the asbestos minerals are as follows:

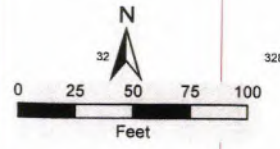
Mineral	CAS No.
Amphibole fibers	1332-21-4
Chrysotile	6301-28-4
Actinolite	7755-66-4
Anorthosite	7755-67-5
Ilmenite	7755-68-6
Asbestos	12172-73-5

11 - References used to develop this table include:

- Pre-RFI Historical Data Report Addendum, U.S. Bureau of Reclamation, 1998.
- Final Report, Focused Corrective Measures Study, Denver Federal Center, FIC, October 2002
- Investigation Area 8 Phase 1 RFI Report for the Denver Federal Center, URS, May 2004
- Final Report, Phase 1 RCRA Facility Investigation of the Denver Federal Center NRTD Expansion Areas (Investigation Areas North IA6, IA7, East IA8, West IA10N, North IA10W, North IA11, IA12N, and IA17, and Quail Street Extension Alignment through IA1, South IA6, and IA12S) Revised, ECC August 2004
- Corrective Measures Design Study, NRTD Development Area, Denver Federal Center, Lakewood, Colorado, ECC July 2004b
- Final Phase 2 RCRA Facility Investigation of the Denver Federal Center, NRTD Expansion Area Investigation Areas North IA6, IA7, East IA8, West IA10N, North IA10W, North IA11, IA12N, and IA17, and Quail Street Extension Alignment through IA1, South IA6, and IA12S), ECC March, 2006
- Final Report, Phase 2 RFI Work Plan for the Denver Federal Center, Investigation Area 8, URS, May 2006



NOTE:
 The sample locations shown on this figure are the chemical sample locations discussed in Exhibit "A". This includes those groundwater monitoring locations which may be out of the area being discussed, but may have been used in Professional Judgement evaluations. Asbestos sample locations are not included. Please refer to the Exhibit "A" references to obtain additional information from the historical reports.



Legend

Sample Location and Collection Date	Investigation Area
● 2000 - 2003	Investigation Area
● 2004 - 2006	Area Discussed in Exhibit A
● 2007 - Present	Feature
▲ Monitoring Well	Feature (Landfill 806)
--- Former Railroad Investigative Boundary (Site 1103)	Feature (12NMND0001F)
--- Material Handling Plan Boundary	Sites
--- Approximate Cover Boundary	DFC Lots
--- Maintain Existing Landscape Cover Area (See Material Handling Plan)	Existing Building
--- Property Transfer Boundary	Demolished Building
	Present Road or Sidewalk
	Historical Road

CERCLA Reporting
 Denver Federal Center, Lakewood, Colorado

North IA11 Features and Sample Points

Drawn by: M Johanson	Reviewed by: P Farquhar	Projection: North American Datum 1983 State Plane Colorado Central FIPS 5002 Units: Feet
Date: 01/14/2014	Date: 04/25/2014	
Version:	Revision Date / Initials: 07/24/2014 MGJ	

Investigation Area (IA)	Investigation Site	Denver Federal Center Pre-RFI Feature Number	Feature Description	Media ¹	CAS No.	Parameter Detections (Footnotes 7, 8 and 10)	Information on the Investigation Site or Feature	Remedial Action (RA)	NFA Achieved / Status
North IA11 and East IA8	806	12NMND0001F (discussed below) and DRU 805					A portion of this site runs through North IA11	See additional discussion of these features in the IAGS Exhibit table	
North IA11	1101	113CH4001C	undrained and lined ditch	SS, UB	7449-38-2 Arsenic 50-32-8 Benzocyclopentene 53-70-3 Dibenz(a,h)anthracene 7439-89-6 Iron		This is the list of detected analyte results produced by the release evaluation module ⁹ from all samples collected in surface soil, subsurface soil, during the Phase 1 and Phase 2 RFI's, CMWPs and/or the PCMS ¹¹ .	The north portion of the stormwater ditch is concrete lined, and has been removed from the investigation with the approval from CDPHE (Phase 1 RFI).	YES NFA for soil YES NFA for groundwater - see Footnotes 2, 3, 4, 5, and 6
North IA11	1102	12NSMND0001F	former coal storage mound and landfill	SH	arbitros* Arsenic 56-55-3 Benzocyclopentene 50-32-8 Benzocyclopentene		This is the list of detected analyte results produced by the release evaluation module ⁹ from all samples collected in surface soil, subsurface soil, during the Phase 1 and Phase 2 RFI's, CMWPs and/or the PCMS ¹¹ .	Excavated several lots in feature as part of the removal of the Site 805 landfill. Also excavated coal seam in the feature until the coal seam was outside the area of concern for the NRTD rail alignment (CDPHE e-mail 5/17/2010, Closure Report, Implement CMWP, 8/22/2011). (see also IAGS Exhibit A table) PAHs were eliminated for areas outside the landfill footprint as a COC due to the source being the road hole or by CDPHE professional judgment (from 203 to 206).	YES NFA for soil YES NFA for groundwater - see Footnotes 2, 3, 4, 5, and 6
North IA11	1102	1151A4001C	former coal storage area	SS, SH, GW	arbitros* Arsenic 7440-38-2 Arsenic 56-55-3 Benzocyclopentene (GW Only) 50-32-8 Benzocyclopentene 205-99-2 Benzofluoranthene (GW Only) 207-08-9 Benzofluoranthene (GW Only) 117-81-7 bis(2-ethylhexyl)phthalate (GW Only) 67-66-3 Chlorobenzene (GW Only) 218-01-9 Chloroethene (GW Only) 53-70-3 Dibenz(a,h)anthracene 7439-89-6 Iron 7439-92-1 Lead 7440-61-1 Uranium (GW Only) 7440-38-2 Arsenic		This is the list of detected analyte results ⁹ produced by the release evaluation module from all samples collected in surface soil, subsurface soil, and GW during the Phase 1 and Phase 2 RFI's, CMWPs and/or the PCMS ¹¹ .	Lot 229 eliminated for CMWP RA by CDPHE professional judgment. Surface PAHs in lot 252 eliminated by either railroad hauls or potential road wash - no subsurface exceedances. The well GSA 70 (lot 228) was added to the LTM program because of exceedances of PAHs and bis(2-ethylhexyl)phthalate. Further evaluation removed the well from the LTM program.	YES NFA for soil YES NFA for groundwater - see Footnotes 2, 3, 4, 5, and 6
North IA11	1103	07RR14001C	Rail lines that extend through North IA11	SS, UB	56-55-3 Benzocyclopentene 50-32-8 Benzocyclopentene 205-99-2 Benzofluoranthene 217-81-7 Dibenz(a,h)anthracene 193-39-5 Indeno(1,2,3-cd)pyrene 7439-89-6 Iron 7439-92-1 Lead		This is the list of detected analyte results produced by the release evaluation module ⁹ from all samples collected in surface soil, subsurface soil, during the Phase 1 and Phase 2 RFI's, CMWPs and/or the PCMS ¹¹ .	Concoctive measures determination for the railroad right of way is possible if the CDPHE permit (Final Phase 2 RFI) - surface PAHs associated with rail lines may be attributed to beneficial or intended use as long as deeper sample results are below SLCs for PAHs. The petroleum products were used to carry ballast that was used for wood contact.	YES NFA for soil YES NFA for groundwater - see Footnotes 2, 3, 4, 5
North IA11		11MND4001C	Storm water diversion mound					The feature was removed from the investigation with the approval from CDPHE (Phase 1 RFI) - the site was excavated from stormwater channel excavation.	No Action Required

NOTES:

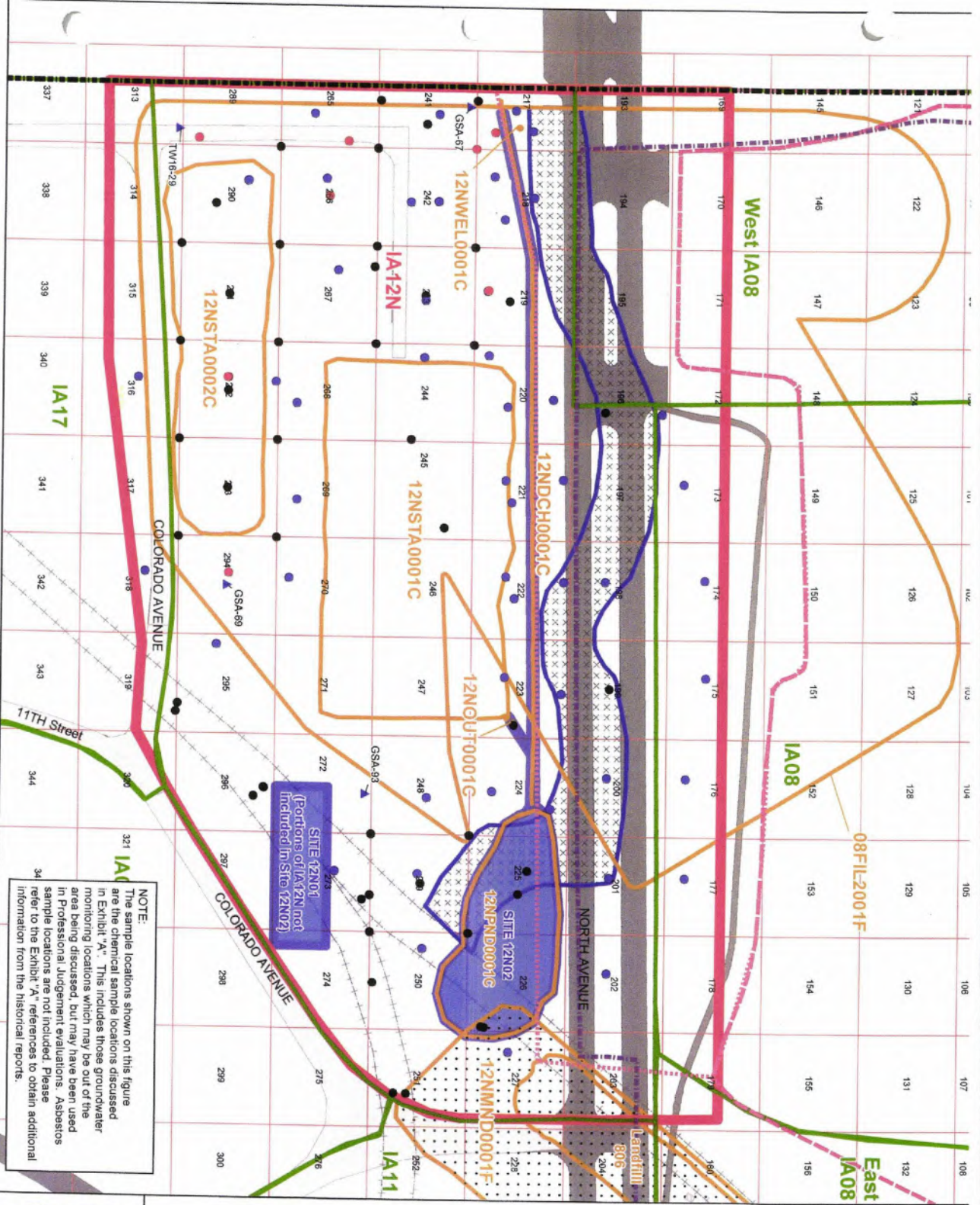
- SW - Surface water
SP - Seep water
SS - Surface soil - (Samples collected from 0 to 6 inches bgs)
UB / FH - Beachline sample (Samples collected from 6 inches bgs to top of groundwater depth)
GW - Groundwater
SH - Sediment in pond or channel
SHE ACRONYM LIST FOR REMAINING ABBREVIATIONS
- The RA for the Landfill 806 consisted of the removal of all wastes and all chemical and waste impacted soils in the landfill as required by the Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division (Division). A total of approximately 16,800 tons of contaminated soil and debris was removed. The Division issued an August 10, 2011 unrestricted land use/No Further Action (NFA) letter for the area which specifically included the portion of North IA11 that was excavated with Site 806.
- No RA was required for groundwater or surface water in North IA11. CDPHE approval letter concurred with the RFI and CMWP reports that there is no significant POCOC's constituents exceeding the GSA DFC SLCs in groundwater. All constituents (PAHs, PCB, uranium, selenium)
- The August 10, 2011 NFA letter determined that concentration of hazardous constituents resulting in the soil (if any) in this area of the Denver Federal Center (including the north west corner of North IA11) did not pose an unacceptable risk to human health or the environment since they are below the DFC residential/unrestricted use and protective of groundwater soil remediation objectives.
- The February 14, 2013 NFA letter determined the concentration of hazardous constituents remaining in the soil (if any) in the northern portion of Investigation Area 11 does not pose an unacceptable risk to human health or the environment since they are below the DFC residential/unrestricted use and protective of groundwater soil remediation objectives.
- The December 2, 2013 CDPHE NFA letter which determined that the levels of hazardous constituents associated with releases from the DFC, if any, remaining in the groundwater in the Groundwater NFA Region Area do not exceed State of Colorado Basic Standards for Ground Water. Therefore a No Further Action has been granted for the portion of IA16-Site-Wide Ground Water that Occurs Under Investigation Areas 6, 12N, 17S, 17N, 8, and West IA10. An e-mail declaration from CDPHE dated March 25th included North IA11 in the NFA determination.
- "GSA DFC Screening Level Criteria" means concentrations identified in GSA's "Quality Assurance Project Plan for the Denver Federal Center Site-Wide RCRA Facility Investigation" (June 2004) and "RFI Risk Assessment Work Plan for the Denver Federal Center" (May 2005), which were Colorado's former work performed on the property.
- Analyses listed in the Parameter Detections column - Each analyte in this list is a detected result of all of the analytical data being run through the GSA Release Evaluation module listed in App J. If the detected results are higher than the GSA DFC Screening Level Criteria (see Footnote 7) the analyte is marked with a # sign.
- Features listed in the DFC Pre-RFI Feature number column are discussed within the prevalent Site and IA they are associated with. The feature may extend into other sites and either IAs as well.
- Release Evaluation Module - This is a GSA developed computer program which calculates the PCOC's from a sampling event using the various risk assessment flow charts in the GSA Risk Assessment Work Plan.
- Arbitros found in the soils in this area was not identified as to which specific type/chemical.
- The CAS No. for the substances analyzed are as follows:

Material	CAS No.
Arbitros Form	1032-21-4
Chlordane	12719-28-8
Acrothene	7234-66-4
Anthracene	7706-67-5
Terrene	7786-69-6
Arbitros	1032-21-5

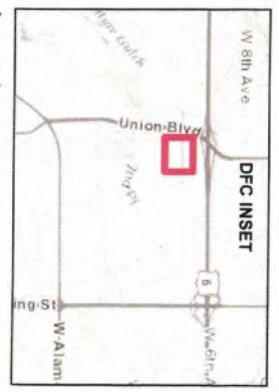
11 - References used to develop this table include:

- Pre-RFI Historical Data Report Addendum, U.S. Bureau of Reclamation, 1999.
- Final Report, Proposed Corrective Measures Study, Denver Federal Center, IEC, October 2002
- Investigation Area 8 Phase 1 RFI Report for the Denver Federal Center, URS, May 2004
- Final Report, Phase 1 RCRA Facility Investigation of the Denver Federal Center NRTD Expansion Area Investigation Areas North IA6, IA7, East IA8, West IA10N, North IA10W, North IA11, IA12N, and IA17, and Quail Street Extension Alignment through IA1, South IA6, and IA12S, ECCC, 8/22/2011
- Corrective Measures Design Study, NRTD Development Area, Denver Federal Center, Lakewood, Colorado, 8/22/2011
- Draft Final Phase 2 RCRA Facility Investigation of the Denver Federal Center, NRTD Expansion Area Investigation Areas North IA6, IA7, East IA8, West IA10N, North IA10W, North IA11, IA12N, and IA17, and Quail Street Extension Alignment through IA1, South IA6, and IA12S, ECCC, March, 2006
- Final Report, Phase 2 RFI Work Plan for the Denver Federal Center, Investigation Area 8, URS, May 2006
- Draft Final Phase 2 RCRA Facility Investigation of the Denver Federal Center, Investigation Area 8K Summit, January 2008
- Final Corrective Measures Work Plan, NRTD North Half Expansion Areas, IA7, IA8, East IA8, West IA10N, North IA11, IA12N, and IA17N, EHO February 2009
- Final Closure Report NRTD Implementation Corrective Measures Work Plan, Northern RFD North Half Expansion Areas Investigation Areas IA11, IA12N, and IA17N Denver Federal Center, Denver, Colorado, 8/22/2011

NOTE: If there is a discrepancy between Exhibit A data and the information in the various references listed above, refer to the No Further Action letters GSA has received for all the features and sites listed in this table and associated maps.



NOTE:
 The sample locations shown on this figure are the chemical sample locations discussed in Exhibit "A". This includes those groundwater monitoring locations which may be out of the area being discussed, but may have been used in Professional Judgement evaluations. Asbestos sample locations are not included. Please refer to the Exhibit "A" references to obtain additional information from the historical reports.



Legend

- Sample Location and Collection Date
 - 2000 - 2003
 - 2004 - 2006
 - 2007 - Present
- ▲ Monitoring Well
- Former Railroad Investigative Boundary
- Material Handling Plan Boundary
- Approximate Cover Boundary
- Maintain Existing Landfill Cover Area (See Material Handling Plan)
- Property Transfer Boundary
- Investigation Area
- Area Discussed in Exhibit A
- Feature
- Feature (Mound)
- Sites
- North Avenue Landfill
- DFC Lots
- Existing Building
- Demolished Building
- Present Road or Sidewalk
- Historical Road



Denver Federal Center, Lakewood, Colorado

IA12N Features and Sample Points

Drawn By: M. Johnson	Reviewed By: P. E. Reuter	Revision Number: 1.0	Revision Date: 07/11/2011
Drawn: 07/11/2011	Drawn: 07/11/2011	Revision: 07/11/2011	Revision: 07/11/2011
Project: 01742614	Project: 01742614	Project: 01742614	Project: 01742614

Prepared For: U.S. Environmental Protection Agency
 Project Name: Denver Federal Center
 Project Number: 01742614
 Revision: 1.0
 Date: 07/11/2011

IBIT A
West IA12N
Hazardous Substance Activity and Remediation

July 23, 2014

Investigation Area (IA)	Investigation Site	Denver Federal Center Pre-REFI Feature Number	Feature Description	Media ¹	CAS No.	Parameter Detections (Footnotes 7, 8, and 10)	Information on the Investigation Site or Feature	Remedial Action (RA)	NFA Achieved / Status
IA12N	part of Site 801	08FLL2001F	dump and burn area				Portions of the 801 feature extend into IA12N discussed in IA8 Exhibit.		No action required for portion of feature extending into IA12N
NORTH IA11 / IA12N	part of Site 806	12NND0001F Landfill 806	Former coal storage mound landfill 806				Portions of the 806 feature extend into IA12N discussed in IA8 Exhibit and North IA11 Exhibit	Lots 203 and 227	Yes, NFA for soil - Footnote 2 and Exhibit A, IA08 and IA11N
IA12N	12N01	12NWL0001C lot 217	apparent metal				Only visual examination required	Verified as an apparent former water level gauging station that contains soil or fill to 5 feet (ECC RFI report).	No Action Required
IA12N		North Avenue Landfill	Former drainage valley used as a landfill	BH, GW	asbestos*	asbestos#	This is the list of detected analyte results produced by the release evaluation module ¹⁰ from all samples collected in surface soil, subsurface soil, and GW during the Phase I and Phase 2 RFI's. CMWP(s) and/or the FCMS ¹¹ (north of the concrete dike parallel North Ave).	The RA for the feature is included in the landfill cover proposed for IA8 and East IA8. According to the CMWP Addendum, CDPHE has agreed that there is sufficient cover in the lot areas between the concrete drainage dike and North Avenue that additional cover is not needed.	NFA will be granted after pending RA implementation of the IA8 corrective measures. Footnote 3 YES NFA for groundwater, see Footnote 4 and 6
					56-55-3	Benzo(a)anthracene			
					50-32-8	Benzo(a)pyrene			
					205-99-2	Benzo(b)fluoranthene			
					53-70-3	Dibenz(a,h)anthracene			
					193-39-5	Indeno(1,2,3-cd)pyrene			
					75-09-2	Methylene Chloride			
					N A	THPH			
					7440-38-2	Arsenic			
					56-55-3	Benzo(a)anthracene#			
50-32-8	Benzo(a)pyrene								
205-99-2	Benzo(b)fluoranthene#								
53-70-3	Dibenz(a,h)anthracene								
7439-89-6	Indeno(1,2,3-cd)pyrene#								
7439-92-1	Lead								
7440-61-1	Uranium (GW only)								
IA12N	12N01	12NSTA0001C 12NOUT0001C All open spaces in IA12N not otherwise designated	Paved storage area and former burial and surface storage area	SS, BH, GW	asbestos*	Asbestos#	This is the list of detected analyte results produced by the release evaluation module ¹⁰ from all samples collected in surface soil, subsurface soil, and GW during the Phase I and Phase 2 RFI's. CMWP(s) and/or the FCMS ¹¹ .	The RA for this feature(s) was to implement the CMWP for Northern RTD North Hall Expansion Areas developed by ERO in 2009. Work was completed and documented in the Closure Report developed by ECC in November 2010.	Work included excavation of chemical lots or portions of chemical lots. Asbestos grids and/or portions of grids were excavated in 3 lots. Lot 249 eliminated from CMWP RA - associated with RR halo. Lot 243 eliminated from CMWP RA - associated with asphalt road halo.
					7440-38-2	Arsenic			
					56-55-3	Benzo(a)anthracene#			
					50-32-8	Benzo(a)pyrene			
					205-99-2	Benzo(b)fluoranthene#			
					53-70-3	Dibenz(a,h)anthracene			
					7439-89-6	Indeno(1,2,3-cd)pyrene#			
					7439-92-1	Lead			
					7440-61-1	Uranium (GW only)			
					IA12N	12N01			
7440-38-2	and mony# - lot 292								
56-55-3	Benzo(a)anthracene#								
50-32-8	Benzo(a)pyrene (in GW / soil)								
205-99-2	Benzo(b)fluoranthene#								
53-70-3	Dibenz(a,h)anthracene#								
193-39-5	Indeno(1,2,3-cd)pyrene#								
7439-89-6	Iron - lot 292								
7439-92-1	Lead								
IA12N	12N02	12NDX0001C and 12NPN0001C Landfill 806	Outfall and Coal Spill	BH, SW, SE			asbestos*	asbestos#	This is the list of detected analyte results produced by the release evaluation module ¹⁰ from all samples collected in surface soil, subsurface soil, and SW during the Phase I and Phase 2 RFI's. CMWP(s) and/or the FCMS ¹¹ .
					7440-38-2	Arsenic			
					56-55-3	Benzo(a)anthracene#			
					50-32-8	Benzo(a)pyrene#			
					205-99-2	Benzo(b)fluoranthene#			
					191-24-2	Benzo(g,h,i)perylene#			
					86-74-8	Carbazole#			
					218-01-9	Chrysene# (SW only)			
					53-70-3	Dibenz(a,h)anthracene#			
					193-39-5	Indeno(1,2,3-cd)pyrene#			
7439-89-6	Iron								
7439-92-1	Lead								
IA12N	12N00	no single feature	Groundwater hit in one well (GSA 67)	GW	56-55-3	Benzo(a)anthracene#	This is the list of detected analyte results produced by the release evaluation module ¹⁰ from all samples collected in surface soil, subsurface soil, and GW during the Phase I and Phase 2 RFI's. CMWP(s) and/or the FCMS ¹¹ .	Range of pentachlorophenol = 0.39 to 1.5 ug/L (apparently from an off site source) GSA 67 and surrounding wells were added to the GSA LTM program. No RA was required for the COC pentachlorophenol. Further investigation removed GSA67 from future monitoring.	
					50-32-8	Benzo(a)pyrene#			
					7440-41-7	Beryllium			
					205-99-2	Benzo(b)fluoranthene#			
					218-01-9	Chrysene#			
					193-39-5	Indeno(1,2,3-cd)pyrene			
					7439-92-1	Lead			
					87-86-5	pentachlorophenol#			
					7440-61-1	Uranium			

NOTES:

- SW - Surface water
SP - Seep water
SS - Surface soil - (Samples collected from 0 to 6 inches bgs)
UB / BH - Borehole sample (Samples collected from 6 inches bgs to top of groundwater depth)
GW - Groundwater
SH - Sediment in pond or channel

SHE ACRONYM LIST FOR REMAINING ABBREVIATIONS

- The RA for the landfill 806 consisted of the removal of all wastes and all chemical and waste impacted soils in the landfill as required by the Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division (Division). A total of approximately 16,800 tons of contaminated soil and debris was removed. The Division issued an August 10, 2011 unrestricted land use/No Further Action (NFA) letter for the area which included Site 806. The landfill was cleaned up to approved cleanup levels for soil, with the exceptions noted in the RA column above.
- The RA for the North Avenue Landfill proposed in the 2009 CMWP was to excavate the surface 6 inches for PAHs in certain lots and then excavate all visible debris after removing the fill soil placed on top of the debris. Subsequent corrective measure discussions have included the North Avenue Landfill in the remedial actions proposed for West IA8 and IA8. It was determined in discussions with CDPHE that there was sufficient vegetative, asphalt, and concrete cover in the drainage area, south of North Avenue, and north of the concrete dike that parallels North Avenue, that additional cover was not needed. (Draft Final Addendum CMWP, Northern RTD North Expansion Areas, IA7, IA8, West IA10N, North IA11, IA12N, and IA17N, August 2013)
- No RA was required for groundwater or surface water in IA12N. CDPHE approval letter concurred with the RFI and CMWP reports that there is no significant POCs (all contaminants exceeding the GSA DFC SLCs) in groundwater. All contaminants (PAHs, PCB, uranium, lead, iron) occurred sporadically and were eliminated by CDPHE/GSA professional judgment. There was a separate NFA letter for the pentachlorophenol hit in GSA 67 on April 13, 2009. The decision was based on the small size of the area of contamination, the likely source was off site, and the average concentration of the 11 samples demonstrating the COC was less than the 1ug/L Colorado Standard for pentachlorophenol.
- The August 10, 2011 NFA letter determined that the concentration of hazardous constituents remaining in the soil (if any) in this area of the Denver Federal Center (including the portion of IA12N located south of the concrete drainage dike that parallels North Avenue) did not pose an unacceptable risk to human health or the environment since they are below the DFC residential/unrestricted use and protective of groundwater remediation objectives.
- The December 2, 2013 CDPHE NFA letter which determined that the levels of hazardous constituents associated with releases from the groundwater in the Groundwater NFA Request Area do not exceed State of Colorado Basic Standards for Ground Water. Therefore a No Further Action has been granted for the portion of IA12N Site-Wide Ground Water That Occurs Under Investigation Areas 6,12N, 17S, 17N, 8, and West IA10. The described area includes all feature areas in IA12N.
- *GSA DFC Screening Level Criteria* means concentrations identified in GSA's Quality Assurance Project Plan for the Denver Federal Center Site-Wide RCRA Facility Investigation (June 2004) and "RFI Risk Assessment Work Plan for the Denver Federal Center" (May 2005), which were approved by the Division (CDPHE). These documents contain the 2004 human health residential risk based standards which are applicable to the Denver Federal Center. As part of their due diligence, purchasers are cautioned to research the current standards that will be applied by the State of Colorado to future work performed on the property.
- For analytes listed in the Parameter Detections column - Each analyte in this list is a detected result of all of the analytical data being run through the GSA Release Evaluation module listed as App J. If the detected results are higher than the GSA DFC Screening Level Criteria (see Footnote 7) the analyte is marked with a # sign.
- Features listed in the DFC Pre-REFI Feature number column are discussed within the prevalent Site and IA they are associated with. The feature may extend into other sites and other IAs as well.
- Release Evaluation Module - this is a GSA developed computer program which calculates the POCs from a sampling event using the various risk assessment flow charts in the GSA Risk Assessment Work Plan.
- Asbestos found in the soils in this area was not identified as to which specific type/mineral.
- The CAS No. for the asbestos minerals are as follows:

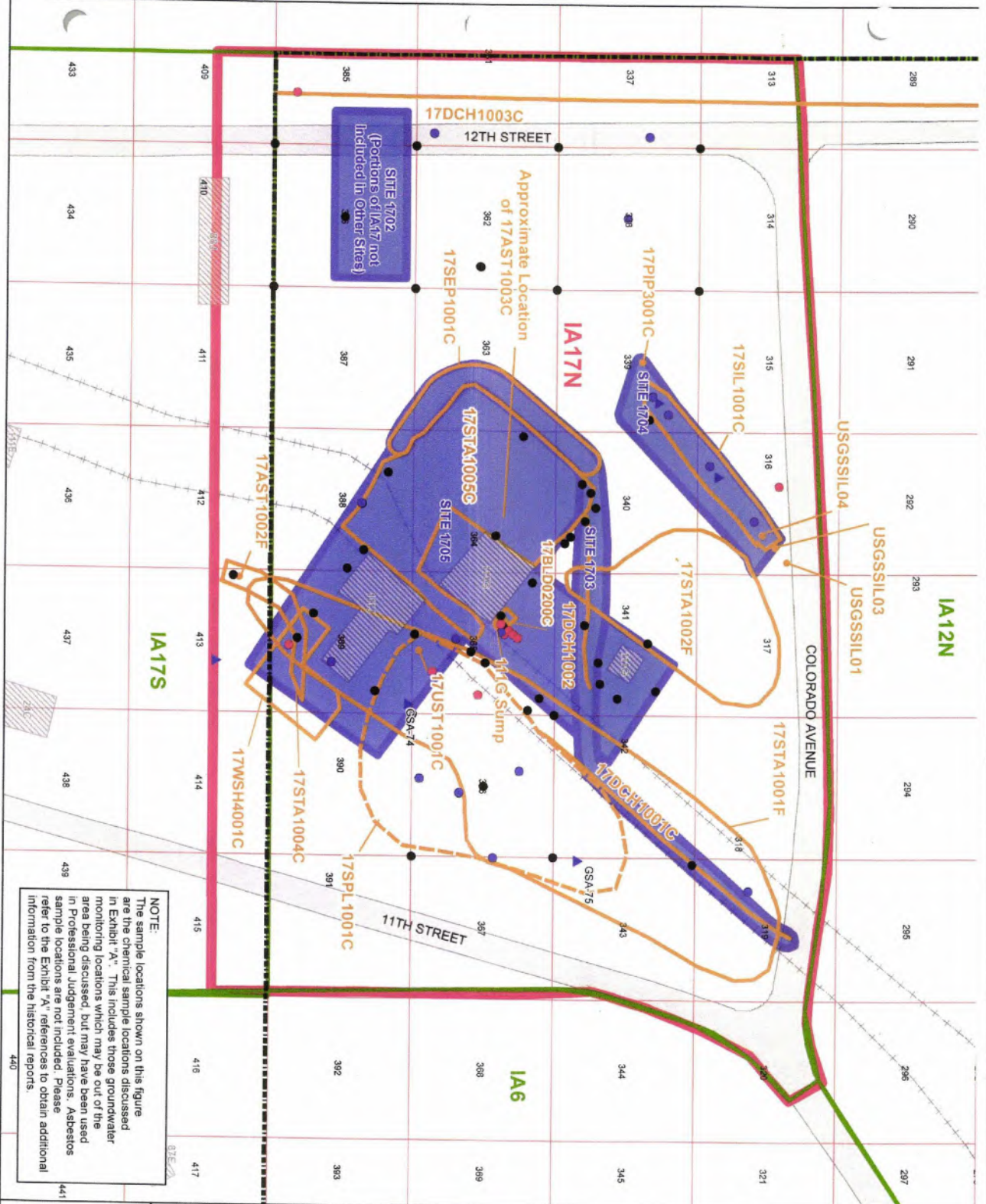
Mineral	CAS No.
Amphibole forms	1332-21-4
Crocidolite	12011-28-4
Actinolite	77536-66-4
Anthophyllite	77536-67-3
Tremolite	77536-68-6
Amosite	12172-73-5

References used to develop this table include:

- Pre-REFI Historical Data Report Addendum, U.S. Bureau of Reclamation, 1998.
- Final Report, Focused Corrective Measures Study, Denver Federal Center, EEC, October 2002

Investigation Area 8 Phase 1 RFI Report for the Denver Federal Center URS, May 2004
Final Report Phase 1 RCRA Facility Investigation of the Denver Federal Center NRTD Expansion Areas (Investigation Areas North IA5, IA7, East IA8, West IA10N, North IA10W, North IA11, IA12N, and IA17, and Quail Street Extension Alignment through IA1, South IA6, and IA12S) Revised, ECC August 2004
Corrective Measures Design Study, NRTD Development Area, Denver Federal Center, Lakewood, Colorado, ECC July 2004
Draft Final Phase 2 RCRA Facility Investigation of the Denver Federal Center, NRTD Expansion Area (Investigation Areas North IA6, IA7, East IA8, West IA10N, North IA10W, North IA11, IA12N, and IA17, and Quail Street Extension Alignment through IA1, South IA6, and IA12S) ECC March 2005
Final Report, Phase 2 RFI Work Plan for the Denver Federal Center, Investigation Area 8, URS, May 2006
Draft Final Phase 2 RCRA Facility Investigation of the Denver Federal Center, Investigation Area 08, Summit, January 2008
Final Corrective Measures Work Plan, NRTD North Half Expansion areas, IA7, IA8, East IA8, West IA10N, North IA11, IA12N, and IA17N, ERO February 2009
Final Closure Report NRTD Implement Corrective Measures Work Plan, Northern RTD North Half Expansion Areas Investigation Areas IA11, IA12N, and IA17N Denver Federal Center, Denver, Colorado, ECC 2011

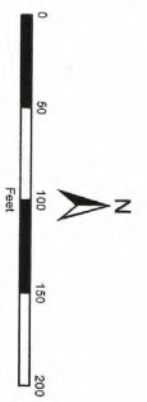
NEW FOOTNOTE - If there is a discrepancy between Exhibit A data and the information in the various references listed above, refer to the No Further Action letters GSA has received for all the features and sites listed in this table and associated map.



NOTE:
The sample locations shown on this figure are the chemical sample locations discussed in Exhibit "A". This includes those groundwater monitoring locations which may be out of the area being discussed, but may have been used in Professional Judgment evaluations. Asbestos sample locations are not included. Please refer to the Exhibit "A" references to obtain additional information from the historical reports.



Legend
Sample Location and Collection Date
 ● 2000 - 2003
 ● 2004 - 2006
 ● 2007 - Present
 ▲ Monitoring Well
 + Former Railroad Investigative Boundary
 - Property Transfer Boundary
 ▨ Investigation Area
 ▨ Area Discussed in Exhibit A
 ▨ Features
 ▨ Feature (17SPL1001C)
 ▨ Sites
 ▨ DFC Lots
 ▨ Existing Building
 ▨ Demolished Building
 ▨ Historical Road



GSA
ECPC

Denver Federal Center, Lakewood, Colorado

IA17 Features and Sample Points

Prepared By: P. Fergal
 Date: 04/14/2014

Reviewed By: M. Johnson
 Date: 01/14/2014

Project:
 Denver Federal Center, 1440
 West 6th Ave.
 Lakewood, CO 80226

Investigation Area (IA)	Investigation Site	Denver Federal Center Pre RFI Feature Number	Feature Description	Media ¹	CAS No.	Parameter Detections (Footnotes 6 and 7)	Information on the Investigation Site or Feature	Remedial Action (RA)	NFA Achieved / Status
IA 17N	1702	175TA1004C (feature description from Pre-RFI Historical Report)	All open spaces within IA17 not otherwise designated	SW, SS, BHL, GW, WW	asbestos*	Asbestos*	This is the list of detected analyte results produced by the release evaluation module ⁶ from all samples collected in surface soil, subsurface soil, and GW during the Phase 1 and Phase 2 RFI's. CMWP(s) and/or the FCMS ¹⁰ .	The RA for this feature(s) was to implement the CMWP for Northern RTD North Hall Expansion Areas developed by ERO in 2009. Work was completed and documented in the Closure Report developed by ECC in November 2010.	Yes NFA for soil, Footnotes 4 Yes NFA for groundwater, Footnotes 2 and 5
					7440-28-2	Arsenic			
					56-55-3	Benz(a)anthracene #			
					50-32-8	Benz(a)pyrene #			
					205-99-2	Benz(b)fluoranthene			
					117-81-7	Bis(2-ethylhexyl)phthalate (GW & WW)			
					218-01-9	Chrysene (WW only)			
					53-70-3	Dibenz(a,h)anthracene #			
					193-39-5	Indeno(1,2,3-cd)pyrene #			
					7439-89-6	Iron - soil sample from (GW-75)			
7439-92-1	Lead (SH and GW)								
87-86-5	Pentachlorocyclohexane (WW only)								
7440-61-1	Uranium (GW only) ¹⁰								
IA 17N	1702	175TA1001E	Former coal storage area east and west of the RR spur	SS			RA for this feature and lot was based on a coal scan associated with the lot. Feature excavated until no visible coal evident.	Yes NFA for soil, Footnotes 4 Yes NFA for groundwater, Footnotes 2 and 5	
IA 17N	1702	175TA1002F	Former coal storage area east and west of the RR spur	SS		Lot 316 Passed Screen - No identified COCs Lot 317 not investigated Lot 340 passed screen for seeps Lot 341 passed screen (Bldg 111H) (see ERO In-and Out table)	175TA1002F not excavated (surface e-SLC - ERO IN/OUT lot 340).	Yes NFA for soil, Footnotes 4 Yes NFA for groundwater, Footnotes 2 and 5	
IA 17N	1702	175PL1001C 175SH14001C (lot 389/390)	Spill traces associated with washing of drilling equipment N of Bldg 111J	SS, BHL		Feature area was a material and equipment storage area and included drilling equipment wash rock pad NE of Bldg 111J Passed Screen - No identified COCs (see ERO In-and Out table)	RA for this feature and lot was based on a coal scan associated with the lot. Feature excavated until no visible coal was evident which also included this feature.	Yes NFA for soil, Footnotes 4 Yes NFA for groundwater, Footnotes 2 and 5	
IA 17N	1702	17BLD0200C (lot 365)	Sewage lift stage north of Bldg 111G	SS, BH		This may be the same feature as the Stamp at 111G	NOTE - GSA thinks the potry lift station and grease trap was cleaned out (can not find any documentation in Footfalls or later)	Yes NFA for soil, Footnotes 4 Yes NFA for groundwater, Footnotes 2 and 5	
IA 17N	1702	17DCH1003C	Storm water drainage ditch along western DFC boundary	SS, UB	56-55-3 50-32-8 7439-89-6 7440-28-0	Benz(a)anthracene # Benz(a)pyrene # Iron (UB in GSA-78) Thallium (UB in GSA-78)	This feature was not investigated in the RFI.	No RA was required, storm water run-off (1702SS10AGPS01) from parking lot west of DFC. (GSA78)	Yes NFA for soil, Footnotes 4 Yes NFA for groundwater, Footnotes 2 and 5
IA 17N	1703	175SLP1001C (lot 340, 363, 387)	GW seep adjacent to concrete storage area W of Bldg 111J	SS, UB	7440-38-2 7439-89-6 7439-92-1	Arsenic Iron (UB) Lead	Passed Screen - No identified COCs above SLCs (see ERO In-and Out table)	No RA required.	Yes NFA for soil, Footnotes 4 Yes NFA for groundwater, Footnotes 2 and 5
IA 17N	1703	17DCH1001C and 17DCH1002C	Drainage swale extending N from 111J and drainage swale extending from 175SLP1001C to Bldg 111J	BH	50-32-8 205-99-2 53-70-3	Benz(a)pyrene # Benz(b)fluoranthene Dibenz(a,h)anthracene	This is the list of detected analyte results produced by the release evaluation module ⁶ from all samples collected in surface soil, subsurface soil, and GW during the Phase 1 and Phase 2 RFI's. CMWP(s) and/or the FCMS ¹⁰ .	RA for this feature and lot was based on a coal scan associated with the lot. Feature excavated until no coal evident.	Yes NFA for soil, Footnotes 4 Yes NFA for groundwater, Footnotes 2 and 5
IA 17N	1704	17PFP3001C 175BL1001C USB1805-2 USC5SIL01 thru 4	Silo, monolithic test blocks, and borohole: Evidence present in IA.	BH, SW	53-70-3 53-70-3 50-32-8 205-99-2 207-08-0 218-01-9 193-39-5	Bis(2-ethylhexyl)phthalate Benz(a)pyrene # Benz(b)fluoranthene Benz(k)fluoranthene Chrysene (WW only) Indeno(1,2,3-cd)pyrene #	One borohole sample collected that past screen (ERO In and Out table). Water samples collected with the fiberglass tanks the silos sat within contained PAHs. H/C table listed 4 USGS site features - only 3 present.	The RA for the 5 calibration boroholes was to excavate and remove or abandon (as per state regulations - pit capping and gravel borohole) the individual boroholes and the calibration block. The RA also included the excavation and removal of the three granite silos to Tracon Dome in Wyoming. Water from the silos was collected and disposed (Well Abandonment and Silo Removal, IA-17N and IA-6, ECC, December 2009).	Yes NFA for soil, Footnotes 3 Yes NFA for groundwater, Footnotes 2 and 5
IA 17N	1705	17UST1001C (lot 389) 17AST1003C (lot 364)	500 gal UST ¹ N of Bldg 111J New hydraulic oil AST ¹ W of Bldg 111G	BH	50-32-8 7440-28-0 7439-92-1	Benz(a)pyrene # Thallium (UB in 1705HC01A) Lead	Lot 389 - A UST that contained hydraulic oil for machinery in 111J Lot 365 - COCs associated with work at Bldg 111J, not the AST	ECC excavated the hydraulic oil UST associated with 111J in lot 389 in October of 2009. Clearance samples were collected. Probable duplicate labeling on features maps. All ASTs associated with the buildings were removed by the responsible agency and field verified.	Yes NFA for soil, Footnotes 4 Yes NFA for groundwater, Footnotes 2 and 5
IA 17N	1705	175TA1005C	Concrete storage pad W and NW of Bldg 111J	SW ¹	asbestos* 50-32-8 7439-92-1 7440-28-0	Asbestos* Benz(a)pyrene Lead Thallium	This is the list of detected analyte results produced by the release evaluation module ⁶ from all samples collected in surface soil, subsurface soil, during the Phase 1 and Phase 2 RFI's. CMWP(s) and/or the FCMS ¹⁰ .	The RA was to excavate 0 to .5 feet within Lot 388 from the break in slope of the hillside to the edge of the concrete pad as well as the perimeter of the concrete pad in lots 340 and 363.	Yes NFA for soil, Footnotes 4 Yes NFA for groundwater, Footnotes 2 and 5
IA 17N	1705	SUMP in Bldg 111G	Sump from drains inside the building	SS, BH, SP, GW	asbestos* 7440-38-2 56-55-3 50-32-8 205-99-2 7440-43-0 7440-47-3 7440-50-8 53-70-3 193-39-5 7439-92-1 7440-22-4 7782-49-2 7440-28-0 7440-61-1	Asbestos* Arsenic Benz(a)anthracene Benz(a)pyrene Benz(b)fluoranthene Cadmium Chromium Copper Bis(2-ethylhexyl)phthalate Indeno(1,2,3-cd)pyrene Lead Silver Selenium Thallium Uranium	This is the output list of detected analyte results produced by the release evaluation module ⁶ from all samples collected in surface soil, subsurface soil, and GW during the Phase 1 and Phase 2 RFI's. CMWP(s) and/or the FCMS ¹⁰ .	Sump 111G was excavated and removed. Clearance samples were collected. (Draft Final Closure Report, ECC, 2010) NOTE - This could be the same feature as 17BLD0200C (lot 365) called a sewage lift station. They are both North of Bldg 111G	Yes NFA for soil, Footnotes 4 Yes NFA for groundwater, Footnotes 2 and 5

NOTES:

- 1 - SW - Surface water
- SP - Scap water
- SS - Surface soil - (Samples collected from 0 to 6 inches bgs)
- UB / BH - Borohole sample (Samples collected from 6 inches bgs to top of ground water depth)
- GW - Groundwater
- SE - Sediment in pond or channel
- SHE ACRONYM LIST FOR REMAINING ABBREVIATIONS
- 2 - No RA was required for groundwater or surface water in IA17N. The Sept 18, 2008 COPHE approval letter concurred with the RFI and CMWP response that there is no significant POC's (all contaminants exceeding the GSA DFC SLC's) in groundwater. All contaminants (uranium, lead, iron, thallium) occurred sporadically and were eliminated by COPHE professional judgment.
- 3 - On December 18, 2009 COPHE issued an review and approval letter for the IA17N and IA6 Closure Report of Well Abandonment and Silo Removal. This letter indicated that the Closure Report constrained the completion of all required supplemental activities for Northern RTD Expansion Areas Investigation Area North IA6 for which a NFA Determination was issued in April of 2009.
- 4 - The August 10, 2011 NFA letter determined that concentration of hazardous constituents remaining in the soil (if any) in this area of the Denver Federal Center (including IA17N) did not pose an unacceptable risk to human health or the environment since they are below the DFC residential unrestricted use and protective of groundwater remediation objectives. IA17N was included in this determination.
- 5 - NOTE - The December 2, 2013 COPHE letter determined that the levels of hazardous constituents associated with releases from the DFC, if any, remaining in the groundwater in the Groundwater NFA Request Area do not exceed State of Colorado Basic Standards for Ground Water. Therefore a No Further Action has been granted for the portion of IA16-Site-Wide Ground Water that occurs under Investigation Areas 6, 12N, 17S, 17N, R, and West IA10. The described area includes all features areas in IA17N.
- 6 - GSA DFC Screening Level Criteria means concentrations identified in GSA's "Quality Assurance Project Plan for the Denver Federal Center Site-Wide RCRA Facility Investigation" (June 2004) and "RFI Risk Assessment Work Plan for the Denver Federal Center" (May 2005), which were approved by the Division COPHE. These documents contain the 2004 human health residential risk based standards which are applicable to the Denver Federal Center. As part of their due diligence, purchasers are cautioned to research the current standards that will be applied by the State of Colorado to future work performed on the property.

- 7 - For and are higher than the Parameter Detection column - Each analytic in this list is a detected results of all of the analytical data being run
 - DFC Screening Level Criteria (see Footnote 6) the analyte is marked with a # sign. x GSA Release Evaluation module listed as App J. If the detected results
- 8 - Release list, the DFC Pre-RII Feature number column are discussed within the prevalent Site and IA they are associated with. The feature may extend into other sites and other IAs as well.
- 9 - Release Evaluation Module - this is a GSA developed computer program which calculates the POCVs from a sampling event using the various risk assessment flow charts in the GSA Risk Assessment Work Plan.
- * Asbestos found in the soils in this area was not identified as to which specific type/mineral.

The CAS No. for the asbestos minerals are as follows:

Mineral	CAS No.
Amphibole fibers	1332-21-4
Chrysotile	12001-28-4
Actinolite	77496-82-1
Anthophyllite	77506-27-5
Tremolite	77536-48-6
Asbestos	12172-73-5

10 - References used to develop this table include:

- Pre-RII Historical Data Report Addendum, U.S. Bureau of Reclamation, 1998.
- Final Report, Focused Corrective Measures Study, Denver Federal Center, FERC, October 2002
- Final Report, Phase 1 RCRA Facility Investigation of the Denver Federal Center NRTD Expansion Areas (Investigation Areas North IA5, IA7, East IAR, West IA10N, North IA10W, North IA11, IA12N, and IA17, and Quail Street Extension Alignment through IA1, South IA6, and IA12S) Revised, ECC August 2004
- Corrective Measures Design Study, NRTD Development Area, Denver Federal Center, Lakewood, Colorado, ECC, July 2004b
- Final Phase 2 RCRA Facility Investigation of the Denver Federal Center, NRTD Expansion Area (Investigation Areas North IA6, IA7, East IAR, West IA10N, North IA10W, North IA11, IA12N, and IA17, and Quail Street Extension Alignment through IA1, South IA6, and IA12S), ECC June 2006
- Final Corrective Measures Work Plan, NRTD North Half Expansion areas, IA7, IAR, East IAR, West IA10N, North IA11, IA 12N, and IA17N, ERG February 2009
- Final Closure Report, Well Abandonment and Site Removal, IA17N and IA-06, Denver Federal Center, Lakewood, Colorado, ECC, December 2009
- Final Closure Report NRTD implement Corrective Measures Work Plan, Northern RTD North Half Expansion Areas Investigation Areas IA11, IA12N, And IA17N Denver Federal Center, Denver, Colorado, ECC 2011