



Department of Energy
 Carlsbad Field Office
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NOV 24 2015

Mr. John E. Kieling, Bureau Chief
 Hazardous Waste Bureau
 New Mexico Environment Department
 2905 Rodeo Park Drive East, Building 1
 Santa Fe, NM 87508-6303

Ms. Kathryn Roberts, Director
 Resource Protection Division
 New Mexico Environment Department
 Harold Runnels Building
 1190 Saint Francis Drive, Room 4050
 Santa Fe, NM 87502-5469

Subject: Monthly Report for the Reporting Period Ending October 31, 2015, as Required by NMED Administrative Orders dated February 27, 2014 and May 12, 2014, as Amended by NMED Directives dated August 29, 2014, December 9, 2014, and July 15, 2015

Dear Mr. Kieling and Ms. Roberts:

The purpose of this letter is to transmit the monthly report for the reporting period ending October 31, 2015, as required by the February 27, 2014, and May 12, 2014, Administrative Orders, issued under the authority of the New Mexico Hazardous Waste Act § 74-4-13 from Mr. Ryan Flynn to Messrs. Hellstrom, Franco, Cook, and McQuinn, and as amended by the August 29, 2014 and December 9, 2014, directives from Mr. Ryan Flynn to Messrs. Franco and McQuinn and the July 15, 2015 directive from Ms. Kathryn Roberts to Messrs. Bryson and Breidenbach. The paper copy of the report is enclosed along with a compact disc containing the electronic version of the report.

We certify under penalty of law that this document and all attachments were prepared under our direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on our inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of our knowledge and belief, true, accurate, and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions, please contact Mr. George T. Basabilvazo at (575) 234-7488.

Sincerely,

Original Signatures on File

Todd Shrader, Manager
 Carlsbad Field Office

Philip J. Breidenbach, Project Manager
 Nuclear Waste Partnership LLC

Enclosure

cc: w/enclosure

R. Maestas, NMED *ED
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Monthly Status Report for the New Mexico Environment Department Administrative Orders

Reporting Period October 1, 2015, through October 31, 2015

Introduction

The New Mexico Environment Department (NMED) issued two Administrative Orders (AOs) to provide requirements for monitoring and reporting to the NMED concerning the status of recovery from two events. On February 5, 2014, a vehicle fire occurred in the Waste Isolation Pilot Plant (WIPP) underground, resulting in temporary suspension of normal operations and waste shipments from generator sites. On February 14, 2014, while the fire investigation was still underway, a radiological event occurred in the WIPP underground facility.

The first administrative order (AO1) issued on February 27, 2014, addressed above-ground compliance, and required a weekly report to be submitted with regard to surface-related requirements of the Permit. On May 12, 2014, a second administrative order (AO2) was issued to address, in part, Permit-required activities that cannot currently be performed due to restriction on access to the underground. The second administrative order changed the reporting period from weekly to biweekly, with additional information required to supplement the information required by AO1. A directive from the Secretary of the NMED was issued on August 29, 2014, which amended the reporting frequency from biweekly to monthly for reporting required under AO1 and AO2 with the submittal being due to NMED no later than the 15th of the month for activities conducted during the previous month. A new directive from the Secretary of the NMED was issued on December 9, 2014, which amended the submittal frequency for this report. The new due date for the monthly submittal shall be the last day of the subsequent month for activities conducted during the previous month.

On May 20, 2014, NMED issued a third administrative order (AO3) requiring the submittal of a WIPP Nitrate Salt Bearing Waste Container Isolation Plan. The order prescribed that updates be provided on the plan's implementation via technical calls and written updates. On July 15, 2015, NMED issued a letter describing modification to the May 20, 2014, administrative order and amendment to the reporting requirements pertaining to all CY 2014 administrative orders. Initial closure of Panel 6 and closure of Panel 7, Room 7 were completed in accordance with the plan; therefore, the technical calls and written updates memorializing those calls have ceased pursuant to the July 15, 2015, letter from the NMED.

This report serves to fulfill the monitoring and reporting requirements set forth by AO1, AO2, and AO3 as amended by the NMED directives dated August 29, 2014, December 9, 2014, and July 15, 2015. In accordance with Paragraph 18(a) of AO2, subsequent reports will identify new information since the previous reporting period. The following sections combine the information required by the three orders and provide references to the respective paragraphs from AO1, AO2, and AO3.

1.0 Status of Permit-related surface and underground inspections for this reporting period, as requested per Paragraph 14(a) of AO1 and Paragraphs 18(c) and 18(e)(iii) of AO2, including the accessibility for personnel performing these Permit-required activities per Paragraph 18(e)(i) of AO2 and the status of recovery activities per Paragraph 18(e)(ii) of AO2:

Attachment 1, *Surface and Underground Inspections*, shows the current status of each Permit-required inspection, including accessibility of underground equipment for personnel performing the inspections. The Permit-related inspection list was taken from Permit Attachment E, Table E-1.

2.0 Status of Permit-related monitoring activities for this reporting period, as requested per Paragraph 14(a) of AO1 and Paragraph 18(c) of AO2, including the accessibility for personnel performing these Permit-required activities per Paragraph 18(e)(i) of AO2 and the status of recovery activities per Paragraph 18(e)(ii) of AO2:

In accordance with Paragraph 17(a) of AO2, and a subsequent letter from the NMED dated September 24, 2014, the Permittees submitted a revised draft of the underground compliance plan (UCP) on October 30, 2014, for NMED's review and comment. The UCP contains a compliance schedule including a proposed timeline, including dates, for achieving underground recovery and attaining compliance with these Permit-required activities. A status of these activities, as described in future updates to the UCP, will be reflected in the monthly reports, as required by Paragraph 18(c) of AO2.

Volatile Organic Compound (VOC) Monitoring

Repository VOC monitoring activities (required by Permit Part 4, Section 4.6.2, including Table 4.6.2.3, and associated requirements in Attachment N) including room-based VOC monitoring activities (required by Permit Part 4, Sections 4.4.3 and 4.6.3, Tables 4.4.1 and 4.6.3.2, and associated requirements in Attachment N) are not currently being performed due to radioactive contamination.

Surface VOC monitoring is being conducted in lieu of underground monitoring during recovery operations utilizing portable passive air sampling kits. Surface monitoring is being performed to assure that the Permit environmental performance standards (i.e., carcinogenic and non-carcinogenic risk due to VOC emissions from the disposed waste) for surface non-waste workers are satisfied. Samples are being collected twice each week at one location on-site and one location off-site. The two monitoring locations, which are 24-hour VOC samples, are collected on the surface near the Training Building and at an off-site location (WQSP-4) approximately a mile southeast of the Training Building. These samples are used to quantify VOC exposure to a receptor (surface worker) in the Training Building. The sample on-site and the sample at location WQSP-4 are used to quantify VOC concentrations in the ambient air. In accordance with Paragraph 19 of AO2, the Permittees began monitoring for trichloroethylene as a target analyte on May 12, 2014.

Disposal room VOC monitoring is not being conducted in the underground as stated above. This does not pose a threat to underground waste workers because waste handling is not underway in the underground. Disposal room monitoring will be restarted prior to resuming waste emplacement activities.

Geomechanical Monitoring

The purpose of geomechanical monitoring is to confirm the structural integrity of the underground repository. Geomechanical monitoring data are transmitted electronically via remote instruments located in Room 6 of Panel 7 in accordance with Permit Part 4, Section 4.6.1, associated requirements in Attachment A2-5b(2), and Attachment E, Table E-2. More than 4,500 bolts have been installed in the underground since bolting activities resumed in November 2014, and catchup bolting is approximately 85 percent complete.

Hydrogen and Methane Monitoring

Hydrogen and methane monitoring activities (required by Permit Part 4, Section 4.6.5 and associated requirements in Attachment N1) are not currently being performed due to radioactive contamination. This does not pose a threat to underground waste workers because underground activities are not underway in the vicinity of Panels 3 and 4. Hydrogen and methane monitoring will be addressed during recovery.

Mine Ventilation Rate Monitoring

Mine ventilation rate monitoring activities (required by Permit Part 4, Section 4.6.4 and associated requirements of Permit Attachment O) are currently being performed. However, due to reduced air flow in the underground because of operating in filtration mode, the minimum running annual average ventilation rate set forth by the Permit cannot be maintained. Pursuant to the Nitrate Salt Bearing Waste Container Isolation Plan, Revision 2, Section 3, high-efficiency particulate air (HEPA) filtration of underground exhaust air is continuing. The ventilation system has been operating in filtration mode since February 14, 2014, with a flow rate of approximately 60,000 standard cubic feet per minute (SCFM). The calculated running annual average ventilation flow rate as of October 31, 2015, was 59,864 SCFM. Surface VOC monitoring is being used to ensure the reduced flow rate does not pose a threat to the surface non-waste worker.

3.0 Summary of waste shipment information and any other relevant records that document the site of origin, volumes and receipt dates of TRU waste that is currently located at the facility WHB and parking area unit, as requested per Paragraph 14(c) of AO1, and information specifying the deadlines for each individual waste assembly as it relates to AO1, as requested per Paragraph 14(d) of AO1:

Waste is currently being stored in the Waste Handling Building (WHB). Since the submittal of the last monthly report, there has been no additional waste placed in storage in the WHB, and there were no changes to the storage deadlines during this reporting period. Therefore, Attachment 2, *TRU Mixed Waste Currently in Storage at the WIPP Facility*, is currently reserved. Attachment 2 was last updated June 30, 2015.

4.0 Location of any environmental monitoring equipment, including the identification of whether they are stationary, mobile, or permanent. This includes, but is not limited to, VOC monitoring stations, radiological monitoring stations, meteorological monitoring, surface water monitoring, vegetation sampling. The reports shall include dates of deployment and sampling, and all data that has been produced by these monitoring stations for this reporting period, as requested per Paragraph 14(f) of AO1:

See Attachment 3, *Environmental Monitoring*, which includes tables with the locations of environmental monitoring equipment (including identification whether they are stationary, mobile, or permanent) and new data for this reporting period. Aerial photos and diagrams displaying monitoring locations are included. The following briefly describes the monitoring information in Attachment 3, *Environmental Monitoring*.

- VOC monitoring stations – Portable surface monitoring equipment has been deployed since February 25, 2014. Samples are being collected twice each week at the locations indicated in Attachment 3. The results are included in Attachment 3, *Environmental Monitoring*.
- Radiological monitoring – During this reporting period, monitoring results were below minimum detectable concentrations. The results are included in Attachment 3, *Environmental Monitoring*.
 - Biota/Fauna samples – Fauna samples were obtained on the dates shown in Attachment 3.

5.0 Updates on activities performed pursuant to the Underground Derived Waste Storage Plan, including a description of any surface and underground derived waste produced, whether the derived waste is mixed or non-mixed, the contents, container type, container location, total container count, and approximate volume of derived waste per container, as requested per Paragraph 14(i) of AO1 and Paragraph 18(d) of AO2:

In accordance with Paragraph 17(b) of AO2, the draft *Underground Derived Waste Storage Plan (UDWSP)* was submitted to the NMED by June 26, 2014 for review and comment. On December 2, 2014, NMED provided comments on the UDWSP and notified the Permittees that the draft UDWSP had been approved. The Permittees addressed the comments, incorporated changes and resubmitted the UDWSP to NMED on January 6, 2015. Since the submittal of the last monthly report, no additional derived waste was generated; therefore, Attachment 4, *Surface and Underground Derived Waste Currently in Storage at the WIPP Facility*, is currently reserved. Attachment 4 was last updated June 30, 2015.

- 6.0 The current status of activities required by the RCRA Contingency Plan, Permit Attachment D, including identification of applicable sections of the Contingency Plan, the schedule for actions required under the Contingency Plan, and any deviations from any Contingency Plan requirements, as requested per Paragraph 18(b) of AO2. Non-applicable sections shall also be identified and explanations shall be provided as to why such sections do not apply:**

There has been no change in the status of the RCRA Contingency Plan implementation since the submittal of the last monthly report. Attachment 5, *Status of RCRA Contingency Plan Required Activities*, was last updated September 30, 2015.

- 7.0 The monthly report shall include the submission of a list containing all additional requirements placed upon the WIPP by any state or federal agency relating to corrective actions or recovery and as a result of the incidents referenced in Paragraphs 8 and 9 of the May 12, 2014, Administrative Order, including requirements by other segments of DOE, as requested by Paragraph 18(f) of AO2:**

During this reporting period, the Department of Energy (DOE) independent Office of Enterprise Assessments (EA) issued a letter dated October 15, 2015 titled *Office of Enterprise Assessments Operational Analysis of Safety Trends at the Waste Isolation Pilot Plant, May 2014 – May 2015*. EA analyzed the performance of major maintenance tasks, the implementation of safety program elements, and WIPP Occurrence Reporting and Processing System (ORPS) reports. Attachment 6, *Corrective Actions Required for Recovery*, lists the recommendations from the EA report.

- 8.0 The Permittees shall provide documentation of the “as found” condition of Panel 7, including relevant photographs of the waste, as requested per Paragraph 18(i) of AO2:**

On May 20, 2015, isolation of nitrate salt bearing waste containers was completed with the closure of Panel 7, Room 7. This action item is complete; therefore, status updates are no longer required.

- 9.0 The Permittees shall provide documentation of the “as found” condition of Panel 6 partial closure system, including relevant photographs, as requested per Paragraph 18(j) of AO2:**

WIPP personnel completed the initial closure of Panel 6 in May 2015. This action item is complete; therefore, status updates are no longer required.

- 10.0 The Permittees shall provide a status of recovery-related activities relative to the underground per Paragraph 18(ii) of AO2 and a summary of recovery-related work performed in Panel 7, including relevant photographs, as requested per Paragraph 18(k) of AO2:**

During this reporting period, progress has continued on the Interim Ventilation System (IVS). Both the power distribution center and the two-fan/filter units have now been installed. Attachment 8, *Interim Ventilation System & Supplemental Ventilation System Equipment and Work Activities*, shows photographs of the IVS work progress.

During this reporting period, progress continued on contamination mitigation in Panel 7, Rooms 1-5, and the S-2520 drift. An updated radiological rollback map is shown in Attachment 7, *Panel 7 & Other Recovery-Related Work*.

As the Permittees continue to conduct recovery-related activities, additional descriptions will be provided in subsequent reports.

11.0 The Permittees shall submit a WIPP Nitrate Salt Bearing Waste Container Isolation Plan per Paragraph 22(a) of AO3. The plan shall contain a detailed proposal for the expedited closure of Panel 6 per Paragraph 22(a)(i) of AO3 and the expedited closure of Panel 7, Room 7 per Paragraph 22(a)(iii) of AO3:

On May 20, 2015, isolation of nitrate salt bearing waste containers was completed with the closure of Panel 7, Room 7. WIPP personnel also completed the initial closure of Panel 6 in May 2015. Initial closure of Panel 6, and closure of Panel 7, Room 7 were completed in accordance with the plan. Any written updates to information in the Plan will be provided with the existing monthly report in accordance with an NMED letter dated July 15, 2015. Attachment 9, *WIPP Nitrate Salt Bearing Waste Container Isolation Plan Information Required by Administrative Order 3*, is currently reserved, and was last updated on September 30, 2015.

Attachment 1
Surface and Underground Inspections

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Air Intake Shaft Hoist	Underground Operations	Preoperational	WP 04-HO1004 Inspecting for Deterioration, Safety Equipment, Communication Systems, and Mechanical Operability in accordance with Mine Safety and Health Administration (MSHA) requirements	Current	10/28/15	N/A	
Exhaust Shaft	Underground Operations	Quarterly	PM041099 Inspecting for Deterioration and Leaks/Spills	Current	9/14/15	N/A	
Salt Handling Shaft Hoist	Underground Operations	Preoperational	WP 04-HO1002 Inspecting for Deterioration, Safety Equipment, Communication Systems, and Mechanical Operability in accordance with MSHA requirements	Current	10/28/15	N/A	
Self-Rescuers	Underground Operations	Quarterly	WP 04-AU1026 Inspecting for Deterioration and Functionality in accordance with MSHA requirements	Current	9/30/15	N/A	
Underground Openings—Roof Bolts and Travelways	Underground Operations	Weekly	WP 04-AU1007 Inspecting for Deterioration	Current	10/27/15	N/A	
Waste Hoist	Underground Operations	Preoperational	WP 04-HO1003 Inspecting for Deterioration, Safety Equipment, Communication Systems, and Mechanical Operability, Leaks/Spills, in accordance with MSHA requirements	Current	10/26/15	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Explosion-Isolation Walls	Underground Operations	Quarterly	Integrity and Deterioration of Accessible Areas	Current	10/8/15	N/A	
Bulkhead in Filled Panels	Underground Operations	Monthly	Integrity and Deterioration of Accessible Areas	Current	10/8/15	N/A	
MSHA Air Quality Monitor	Maintenance/ Underground Operations	Daily	WP 12-IH1828 Inspecting for Air Quality Monitoring Equipment Functional Check	Current	10/31/15	N/A	
Ambulances (Surface) and related emergency supplies and equipment	Emergency Services	Weekly	12-FP0030 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Current	10/25/15	N/A	
Ambulances (Underground) and related emergency supplies and equipment	Emergency Services	Weekly	12-FP0030 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Current For in-service ambulance #2	10/31/15	11/30/15	The underground ambulance #2 is in service. Underground ambulance #3 arrived at the WIPP site on August 20, 2015. The new ambulance is awaiting procedural changes prior to starting inspections. It is expected to go into service in November 2015.
Fire Detection and Alarm System (Underground)	Emergency Services	Semiannually	12-FP0027 Inspecting for Deterioration, Operability of indicator lights and, underground fuel station dry chemical suppression system. Inspection is per NFPA 17	Current	7/1/15	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Fire Extinguishers (Surface)	Emergency Services	Monthly	12-FP0036 Inspecting for Deterioration, Leaks/Spills, Expiration, seals, fullness, and pressure	Current	10/31/15	N/A	
Fire Extinguishers (Underground)	Emergency Services	Monthly	12-FP0036 Inspecting for Deterioration, Leaks/Spills, Expiration, seals, fullness, and pressure	Current	10/31/15	N/A	
Fire Hoses	Emergency Services	Annually (minimum)	12-FP0031 Inspecting for Deterioration and Leaks/Spills	Current	2/28/15	N/A	
Fire Hydrants	Emergency Services	Semiannual/ annually	12-FP0034 Inspecting for Deterioration and Leaks/Spills	Current	3/28/15: (Semiannual) 8/1/15 – 8/6/15: (Annual)	N/A	
Fire Pumps	Emergency Services	Weekly/ annually	WP 12-FP0026 Inspecting for Deterioration, Leaks/Spills, valves, and panel lights	Current	10/26/15	N/A	
Fire Sprinkler Systems	Emergency Services	Monthly/ quarterly	WP 12-FP0025 Inspecting for Deterioration, Leaks/Spills, static pressures, and removable strainers	Current	10/26/15, 10/27/15, 10/28/15,	N/A	
Fire and Emergency Response Trucks (Surface Fire Trucks)	Emergency Services	Weekly	12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Current	10/29/15, 10/30/15	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Fire and Emergency Response Trucks (Underground Fire Suppression Vehicles)	Emergency Services	Weekly	12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Current for two vehicles on site.	10/31/15	11/30/15	There are 8 underground fire suppression vehicles on the equipment list. Weekly inspections have been performed on two vehicles, which are currently in-service. The other underground fire suppression vehicles are pending.
Automatic on-board fire suppression systems	Emergency Services	Semiannual	WP 12-FP0060 Inspecting for Mechanical Operability, Deterioration	Current	9/30/15	N/A	The manual fire suppression systems on certain vehicles, such as waste handling equipment in the underground and on the surface, have been replaced with automatic on-board fire suppression systems.
Hazardous Material Response Equipment	Emergency Services	Weekly	12-FP0033 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Current	10/27/15	N/A	
Miners First Aid Station	Emergency Services	Quarterly	12-FP0035 Inspecting for Required Equipment	Current	9/30/15	N/A	
Personal Protective Equipment (not otherwise contained in emergency vehicles or issued to individuals): —Self-Contained Breathing Apparatus	Emergency Services	Weekly	12-FP0029 Inspecting for Deterioration and Pressure	Current	10/31/15	N/A	Self-Contained Breathing Apparatuses are currently located on the emergency vehicles and weekly inspections are being performed as related emergency supplies and equipment are updated.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Rescue Truck (Surface)	Emergency Services	Weekly	12-FP0030 and 12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Current	10/29/15	N/A	
Rescue Trucks (Underground)	Emergency Services	Weekly	12-FP0030 and 12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Not Current for truck on site.	2/8/14	11/30/15	There are two underground rescue trucks on the equipment list, but one is still awaiting arrival to the site. The arrival of the second rescue truck is pending. Because the on-site rescue truck is currently not operating, underground emergency response compensatory measures have been implemented including fire and medical.
Vehicle Siren (Surface Vehicles)	Emergency Services	Weekly	Functional Test included with inspection of the Ambulances, Fire Trucks, and Rescue Trucks	Current	10/29/15, 10/30/15, 10/31/15	N/A	
Vehicle Siren (Underground Vehicles)	Emergency Services	Weekly	Functional Test included with inspection of the Ambulances, Fire Trucks, and Rescue Trucks	Current/	10/24/15	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Adjustable Center of Gravity Lift Fixture	Waste Handling	Preoperational	WP 05-WH1410 Inspecting for Mechanical Operability and Deterioration	Current	10/25/15 (41-T-037) 10/23/14 (41-T-038) 7/10/15 (41-T-032) 4/13/15 (41-T-036)	N/A	
Contact-Handled (CH) TRU Underground Transporter	Waste Handling	Preoperational	WP 05-WH1603 Inspecting for Leaks/Spills, Mechanical Operability, Deterioration, and area around transporter clear of obstacles	Current	7/23/15 (52-H-008A)	N/A	One of three transporters is now in service. This is a pre-operational check needed only prior to use. This transporter is in the uncontaminated area of the mine.
Conveyance Loading Car	Waste Handling	Preoperational	WP 05-1406 Inspecting for Mechanical Operability, Deterioration, path clear of obstacles and guards in the proper place	Current	7/13/15 (41-H-018)	N/A	This is a pre-operational inspection and is not needed for daily operations. Pre-operational inspection performed for training.
Facility Transfer Vehicle	Waste Handling	Preoperational	WP 05-WH1204 Inspecting for Mechanical Operability, Deterioration, path clear of obstacles, and guards in the proper place	Current	7/14/15 (41-H-020A) 7/10/15 (41-H-020B)	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Forklifts Used for Waste Handling (Electric and Diesel forklifts, Push-Pull Attachment) on Surface	Waste Handling	Preoperational	WP 05-WH1201, WP 05-WH1207, WP 05-WH1401, WP 05-WH1402, WP 05-WH1403, and WP 05-WH1412 Inspecting for Leaks/Spills, Mechanical Operability, Deterioration, and On board fire suppression system	Current	7/09/15 (41-H-009) 7/8/15 (41-H-013) 6/10/15 (41-H-051) 9/7/15 (41-H-012D) 10/25/15 (41-H-012E) 5/23/15 (74-H-010B)	N/A	
Forklifts Used for Waste Handling (Electric and Diesel forklifts, Push-Pull Attachment) in Underground	Waste Handling	Preoperational	WP 05-WH1201, WP 05-WH1207, WP 05-WH1401, WP 05-WH1402, WP 05-WH1403, and WP 05-WH1412 Inspecting for Leaks/Spills, Mechanical Operability, Deterioration, and On board fire suppression system	Current	5/20/15 (52-H-126)	N/A	One 6-ton forklift in the underground is now in service in Panel 7. The inspection was completed as shown as pre-operational. Other forklifts are not in use due to the fire and radiological event.
Surface TRU Mixed Waste Handling Area	Waste Handling	Preoperational or Weekly	WP 05-WH1101 Inspecting for Deterioration, Leaks/Spills, Required Aisle Space, Posted Warnings, Communication Systems, Container Condition, and Floor coating integrity	Current	10/21/15 (Weekly) 10/25/15 (Daily)	N/A	
TRU Mixed Waste Decontamination Equipment	Waste Handling	Annually	WP 05-WH1101 Inspecting for Required Equipment	Current	12/30/14	N/A	Annual 2014 Inspection. This is an annual inspection and not needed for daily operation.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Underground TRU Mixed Waste Disposal Area	Waste Handling	Preoperational	WP 05-WH1810 Inspecting for Deterioration, Leaks/Spills, mine pager phones, equipment, unobstructed access, signs, debris, and ventilation	Current	2/5/14	When waste disposal operations resume	Waste handling operations are suspended therefore preoperational inspections are not being performed.
TDOP Upender	Waste Handling	Preoperational	WP 05-WH1010 Inspecting for Mechanical Operability and Deterioration	Current	10/9/13	When waste disposal operations resume	No change. This is a pre-operational inspection and is not needed for daily operations.
Waste Handling Cranes	Waste Handling	Preoperational	WP 05-WH1407 Inspecting for Mechanical Operability, Deterioration, and Leaks/Spills	Current	1/6/15 (41-T-151A) 7/7/15 (41-T-151B) 7/23/15 (41-T-151C) 10/25/15 (41-T-151D)	N/A	There are four cranes, but the pre-operational inspections were only performed on the cranes listed. The other crane will be inspected prior to use.
Push-Pull Attachment (Surface)	Waste Handling	Preoperational	WP 05-WH1401 Inspecting for Damage and Deterioration	Current	7/08/15 (41-T-160A) 9/1/15 (41-T-160B)	N/A	
Push-Pull Attachment (Underground)	Waste Handling	Preoperational	WP 05-WH1401 Inspecting for Damage and Deterioration	Current	2/5/14	When waste disposal operations resume	Equipment not in use due to the fire and radiological events. The preoperational inspection was completed for training purposes and in support of preventive maintenance only. Inspection not intended for daily operations.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Trailer Jockey	Waste Handling	Preoperational	WP 05-WH1405 Inspecting for Leaks/Spills, Mechanical Operability and Deterioration	Current	10/25/15 (41-H-151A) 10/21/15 (41-H-151B) 9/27/15 (41-H-046)	N/A	There are three trailer jockeys. Inspections are only performed if the equipment is used on the shift.
Bolting Robot	Waste Handling	Preoperational	WP 05-WH1203 Mechanical Operability	Current	6/29/12	When waste disposal operations resume	Equipment not in use due to the fire and radiological events. The preoperational inspection was completed for training purposes and in support of preventive maintenance only. Inspection not intended for daily operations.
Yard Transfer Vehicle	Waste Handling	Preoperational	WP 05-WH1205 Mechanical Operability, clear of obstacles and Guards in proper place	Current	7/29/14 (41-H-021A) 7/21/15 (41-H-021B)	N/A	
Payload Transfer Station	Waste Handling	Preoperational	WP 05-WH1208 Mechanical Operability, Deterioration, and Guards in proper place	Current	12/16/14 (41-Z-041)	N/A	
Monorail Hoist	Waste Handling	Preoperational	WP 05-WH1202 Mechanical Operability, and Leaks/Spills	Current	8/07/15 (41-H-027)	N/A	
Bolting Station	Waste Handling	Preoperational	WP 05-WH1203 Mechanical Operability, Deterioration, and Guards in proper place	Current	3/23/15 (41-T-053A) (41-T-054A)	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Backup Power Supply Diesel Generators	Facility Operations	Monthly	WP 04-ED1301 Inspecting for Mechanical Operability and Leaks/Spills by starting and operating both generators. Results of this inspection are logged in accordance with WP 04-AD3008.	Current	10/24/15 (#1) 10/24/15 (#2)	N/A	
Central Monitoring System (CMS)	Facility Operations	Continuous	Automatic Self-Checking	Current	10/31/15	N/A	
Mine Pager Phones (between surface and underground)	Facility Operations	Monthly (see comment)	WP 04-PC3017 Testing of PA and Underground Alarms and Mine Page Phones at essential locations	Current	10/29/15	N/A	Mine pager phones in non-essential locations are not routinely inspected. Many are used in day-to-day operations. They are used until they fail, at which time they are repaired. Mine pager phones are used routinely by Underground Operations.
Mine Pager Phones (underground)	Facility Operations	Monthly (see comment)	WP 04-PC3017 Testing of PA and Underground Alarms and Mine Page Phones at essential locations	Current	10/29/15	N/A	Mine pager phones in non-essential locations are not routinely inspected. Many are used in day-to-day operations. They are used until they fail, at which time they are repaired. Mine pager phones are used routinely by Underground Operations.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Public Address (and Intercom System) on Surface	Facility Operations	Monthly	WP 04-PC3017 Testing of PA and Underground Alarms and Mine Page Phones at essential locations Systems operated in test mode	Current	10/29/15	N/A	
Public Address (and Intercom System) in Underground	Facility Operations	Monthly	WP 04-PC3017 Testing of PA and Underground Alarms and Mine Page Phones at essential locations Systems operated in test mode	Current	10/29/15	N/A	
Radio Equipment	Facility Operations	Daily	Radios are operated daily and are repaired upon failure	Current	10/31/15	N/A	
Uninterruptible Power Supply (Central UPS)	Facility Operations	Daily	WP 04-ED1542 Inspecting for Mechanical Operability and Deterioration with no malfunction alarms. Results of this inspection are logged in accordance with WP 04- AD3008.	Current	10/31/15	N/A	
Water Tank Level	Facility Operations	Daily	SDD-WD00 Inspecting for Deterioration, and water levels. Results of this inspection are logged in accordance with WP 04-AD3008.	Current	10/31/15	N/A	
Facility Inspections (Water Diversion Berms)	Facility Engineering	Annually	WP 10-WC3008 Inspecting for Damage, Impediments to water flow, and Deterioration	Current	9/7/14	N/A	
Eye Wash and Shower Equipment (Surface)	Equipment Custodian	Weekly	WP 12-IS1832 Inspecting for Deterioration	Current	10/26/15-10/30/15	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Eye Wash and Shower Equipment (Underground)	Equipment Custodian	Weekly	WP 12-IS1832 Inspecting for Deterioration	Current	10/26/15- 10/30/15	N/A	
Perimeter Fence, Gates, Signs	Security	Daily	PF0-008 Inspecting for Deterioration and Posted Warnings	Current	10/31/15	N/A	
Underground— Geomechanical Instrumentation System (GIS)	Geotechnical Engineering	Monthly	WP 07-EU1301 Inspecting for Deterioration	Current	10/27/15	N/A	Complete at accessible areas.
Ventilation Exhaust	Maintenance Operations	Quarterly	IC041098 Check for Deterioration and Calibration of Mine Ventilation Rate Monitoring Equipment	Not Current	41F30703 Fan A (11/9/13) 41F30704 Fan B (5/20/13) 41F30702 Fan C (12/18/13)	No date set because the 700 fans are not used while in filtration mode.	The 700 horsepower fans are not in use because underground ventilation system is operating in filtration mode.

¹ Routine inspections are proposed to begin with resumption of normal operations.

Attachment 2
TRU Mixed Waste Currently in Storage at the WIPP Facility (reserved)
[Last updated June 30, 2015]

Attachment 3
Environmental Monitoring

Attachment 3 contains the following environmental monitoring information:

- VOC Monitoring Map & Validated VOC Data
- Radiological Monitoring Maps & Data
 - Validated biota/fauna sample data



VOC Sampling Locations

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.28 J
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Acetone	67-64-1	PPBV		0.68 NJ
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Butane	106-97-8	PPBV		4 NJ
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Isobutane	75-28-5	PPBV		2.3 NJ
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Pentane	109-66-0	PPBV		2.4 NJ
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Propane	74-98-6	PPBV		4.32 NJ
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	58.76 J
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	94.14 J
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Toluene	108-88-3	PPTV	200	290.06
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Chloroform	67-66-3	PPTV	200	14 J
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U

Qualifiers:

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

PPTV = parts per trillion by volume

PPMV = parts per million by volume

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	31.36 J
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	22.38 J
CEMRC	8/19/2015	9/1/2015	9324	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.5
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.2 J
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	0.16 J
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Acetone	67-64-1	PPBV		0.62 NJ
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Butane	106-97-8	PPBV		3.58 NJ
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Isobutane	75-28-5	PPBV		1.96 NJ
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Pentane	109-66-0	PPBV		2.02 NJ
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		0.48 NJ
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Propane	74-98-6	PPBV		3.82 NJ
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	60.24 J
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	522.72
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	93.08 J

Qualifiers:

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

PPTV = parts per trillion by volume

PPMV = parts per million by volume

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	216.3
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	54.04 J
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	21.36 J
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	18.5 J
CEMRC	8/19/2015	9/1/2015	9325	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	173.44 J
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.1 J
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	Acetone	67-64-1	PPBV		0.52 NJ
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	Butane	106-97-8	PPBV		1.54 NJ
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	Pentane	109-66-0	PPBV		0.7 NJ
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	Propane	74-98-6	PPBV		1.94 NJ
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	64.16 J

Qualifiers:

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

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PPMV = parts per million by volume

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	100.14 J
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	Toluene	108-88-3	PPTV	200	111.98 J
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	Chloroform	67-66-3	PPTV	200	16.26 J
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	12 J
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	15.92 J
CEMRC	8/20/2015	9/1/2015	9326	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.6	U
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.6	0.51 J
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.6	U
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.6	U
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.6	0.12 J
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.6	U
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.6	U
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.6	U
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.6	U
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.6	0.15 J
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	Butane	106-97-8	PPBV		1.86 NJ
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	Pentane	109-66-0	PPBV		0.78 NJ
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	Propane	74-98-6	PPBV		2.61 NJ

Qualifiers:

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	300	76.2 J
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	300	529.17
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	300	126.21 J
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	300	U
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	Toluene	108-88-3	PPTV	300	114.9 J
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	Chloroform	67-66-3	PPTV	300	43.29 J
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	300	U
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	300	U
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	300	17.64 J
CEMRC	8/20/2015	9/1/2015	9327	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	300	165.84 J
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.12 J
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.24 J
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Acetone	67-64-1	PPBV		0.98 NJ
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Butane	106-97-8	PPBV		3.36 NJ

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Hexanal	66-25-1	PPBV		0.68 NJ
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Isobutane	75-28-5	PPBV		2.24 NJ
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Pentane	109-66-0	PPBV		1.82 NJ
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Propane	74-98-6	PPBV		3.7 NJ
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	44.84 J
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	123.98 J
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Toluene	108-88-3	PPTV	200	248.44
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Chloroform	67-66-3	PPTV	200	13.68 J
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	13.62 J
CEMRC	8/26/2015	9/1/2015	9328	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	12.88 J
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.68
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	0.12 J
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.26 J
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

PPTV = parts per trillion by volume

PPMV = parts per million by volume

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	0.22 J
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Butane	106-97-8	PPBV		4.3 NJ
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		0.5 NJ
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.26 NJ
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Pentane	109-66-0	PPBV		2.44 NJ
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Propane	74-98-6	PPBV		4.24 NJ
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	49.24 J
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	670.58
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	122.74 J
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	254.86
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	65.48 J
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	17.36 J
CEMRC	8/26/2015	9/1/2015	9330	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	241.56
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.4

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Notes:

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Acetone	67-64-1	PPBV		0.54 NJ
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Butane	106-97-8	PPBV		5.22 NJ
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Isobutane	75-28-5	PPBV		2.76 NJ
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Nonanal	124-19-6	PPBV		0.56 NJ
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Pentane	109-66-0	PPBV		3 NJ
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Propane	74-98-6	PPBV		5.16 NJ
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	45.46 J
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	93.46 J
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Toluene	108-88-3	PPTV	200	401.32
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Chloroform	67-66-3	PPTV	200	11.68 J
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	18.24 J
CEMRC	8/27/2015	9/1/2015	9331	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.6	U

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Notes:

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.6	0.66
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.6	U
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.6	U
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.6	0.42 J
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.6	U
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.6	U
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.6	U
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.6	U
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.6	0.21 J
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Butane	106-97-8	PPBV		6.96 NJ
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		2.61 NJ
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Isobutane	75-28-5	PPBV		3.66 NJ
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Pentane	109-66-0	PPBV		3.72 NJ
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Propane	74-98-6	PPBV		7.56 NJ
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	300	61.65 J
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	300	664.53
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	300	110.4 J
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	300	U
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Toluene	108-88-3	PPTV	300	394.47
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Chloroform	67-66-3	PPTV	300	69.78 J
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	300	U
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	300	U
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	300	23.37 J

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/27/2015	9/1/2015	9332	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	300	236.4 J
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.2 J
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	Butane	106-97-8	PPBV		3.78 NJ
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	Isobutane	75-28-5	PPBV		2.1 NJ
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	Pentane	109-66-0	PPBV		1.78 NJ
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	Propane	74-98-6	PPBV		3.5 NJ
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	51.34 J
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	94.94 J
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	Toluene	108-88-3	PPTV	200	208.6
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	Chloroform	67-66-3	PPTV	200	11.98 J
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	19.48 J
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	16.2 J
CEMRC	9/2/2015	9/4/2015	9333	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	7.62 J
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.6	U
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.6	0.24 J
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.6	U
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.6	U
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.6	0.24 J
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.6	U
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.6	U
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.6	U
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.6	U
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.6	U
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	Butane	106-97-8	PPBV		4.2 NJ
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.28 NJ
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	Pentane	109-66-0	PPBV		1.8 NJ
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	Propane	74-98-6	PPBV		4.35 NJ
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	300	64.41 J
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	300	287.79 J
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	300	47.34 J
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	300	U
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	Toluene	108-88-3	PPTV	300	254.82 J

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analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	Chloroform	67-66-3	PPTV	300	25.89 J
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	300	U
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	300	U
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	300	18.84 J
CEMRC	9/2/2015	9/4/2015	9334	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	300	65.31 J
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.22 J
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	Butane	106-97-8	PPBV		4.2 NJ
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	Isobutane	75-28-5	PPBV		2.32 NJ
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	Pentane	109-66-0	PPBV		2.02 NJ
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	Propane	74-98-6	PPBV		3.82 NJ
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	55.14 J
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	101.8 J
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U

Qualifiers:

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NJ = Presumptive evidence of the presence of the compound at an estimated quantity; only used for tentatively identified compounds (TICs).

Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

PPTV = parts per trillion by volume

PPMV = parts per million by volume

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	Toluene	108-88-3	PPTV	200	222.6
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	Chloroform	67-66-3	PPTV	200	12.4 J
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	17.34 J
CEMRC	9/3/2015	9/4/2015	9335	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.22 J
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.22 J
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Acetone	67-64-1	PPBV		0.62 NJ
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Butane	106-97-8	PPBV		4.3 NJ
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.32 NJ
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Pentane	109-66-0	PPBV		2.04 NJ
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Propane	74-98-6	PPBV		3.06 NJ

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

PPTV = parts per trillion by volume

PPMV = parts per million by volume

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	54.56 J
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	228.08
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	35.24 J
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	232.02
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	26.06 J
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	37.3 J
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	19.82 J
CEMRC	9/3/2015	9/5/2015	9336	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	52.76 J
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.32 J
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	Butane	106-97-8	PPBV		3.86 NJ
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	Isobutane	75-28-5	PPBV		2.16 NJ

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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PPTV = parts per trillion by volume

PPMV = parts per million by volume

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	Pentane	109-66-0	PPBV		2.26 NJ
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	Propane	74-98-6	PPBV		3.92 NJ
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	47.5 J
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	99.18 J
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	Toluene	108-88-3	PPTV	200	324.4
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	Chloroform	67-66-3	PPTV	200	10.84 J
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	21.02 J
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	17.84 J
CEMRC	9/9/2015	9/21/2015	9337	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.6	U
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.6	0.9
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.6	0.21 J
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.6	U
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.6	0.3 J
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.6	U
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.6	U
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.6	U
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.6	U
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.6	0.3 J

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

PPTV = parts per trillion by volume

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	Butane	106-97-8	PPBV		4.68 NJ
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.61 NJ
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	Pentane	109-66-0	PPBV		2.61 NJ
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	Propane	74-98-6	PPBV		5.79 NJ
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	300	63.36 J
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	300	896.73
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	300	228.93 J
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	300	U
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	Toluene	108-88-3	PPTV	300	318.54
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	Chloroform	67-66-3	PPTV	300	61.8 J
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	300	U
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	300	U
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	300	U
CEMRC	9/9/2015	9/21/2015	9339	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	300	334.05
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.3 J
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

PPTV = parts per trillion by volume

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Acetone	67-64-1	PPBV		0.64 NJ
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Butane	106-97-8	PPBV		5.34 NJ
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Cyclohexane, methyl-	108-87-2	PPBV		0.5 NJ
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		0.66 NJ
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Isobutane	75-28-5	PPBV		3.06 NJ
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Pentane	109-66-0	PPBV		2.96 NJ
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Pentane, 2-methyl-	107-83-5	PPBV		0.74 NJ
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Propane	74-98-6	PPBV		5.78 NJ
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	44.7 J
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	92.44 J
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Toluene	108-88-3	PPTV	200	310.14
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Chloroform	67-66-3	PPTV	200	10.92 J
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	10.92 J
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	23.94 J
CEMRC	9/10/2015	9/21/2015	9340	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	1.1

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Notes:

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	0.2 J
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.32 J
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	0.38 J
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Acetone	67-64-1	PPBV		0.7 NJ
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Butane	106-97-8	PPBV		4.8 NJ
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		0.52 NJ
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.88 NJ
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Pentane	109-66-0	PPBV		2.6 NJ
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Propane	74-98-6	PPBV		5.1 NJ
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	66.22 J
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	1127.62
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	212.76
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	337.02
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	104.4 J
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	20.84 J

Qualifiers:

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

PPTV = parts per trillion by volume

PPMV = parts per million by volume

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/10/2015	9/21/2015	9341	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	414.8
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.6	U
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.6	U
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.6	U
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.6	U
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	Toluene	108-88-3	PPBV	0.6	U
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	Chloroform	67-66-3	PPBV	0.6	U
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.6	U
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.6	U
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.6	U
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.6	U
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	Butane	106-97-8	PPBV		1.92 NJ
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	Pentane	109-66-0	PPBV		0.72 NJ
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	Propane	74-98-6	PPBV		2.16 NJ
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	Methylene Chloride	75-09-2	PPTV	300	73.41 J
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	300	102.72 J
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	300	U
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	Chlorobenzene	108-90-7	PPTV	300	U
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	Toluene	108-88-3	PPTV	300	89.34 J
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	Chloroform	67-66-3	PPTV	300	16.98 J
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	300	U
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	300	33.36 J

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	300	17.85 J
CEMRC	9/16/2015	9/23/2015	9342	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	300	U
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.14 J
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.08 J
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Acetone	67-64-1	PPBV		0.48 NJ
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Butane	106-97-8	PPBV		1.64 NJ
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Dichlorodifluoromethane	75-71-8	PPBV		0.5 NJ
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Pentane	109-66-0	PPBV		0.64 NJ
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Propane	74-98-6	PPBV		1.84 NJ
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	60.8 J
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	137.56 J
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	13.82 J
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	86.96 J

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	16.12 J
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	12.94 J
CEMRC	9/16/2015	9/23/2015	9343	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	15.56 J
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.1 J
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Acetone	67-64-1	PPBV		0.5 NJ
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Butane	106-97-8	PPBV		2.28 NJ
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Isobutane	75-28-5	PPBV		1.32 NJ
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Pentane	109-66-0	PPBV		1.02 NJ
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Propane	74-98-6	PPBV		2.26 NJ
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	50.66 J
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	95.26 J

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

PPTV = parts per trillion by volume

PPMV = parts per million by volume

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Toluene	108-88-3	PPTV	200	106.78 J
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Chloroform	67-66-3	PPTV	200	11.54 J
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	13.74 J
CEMRC	9/17/2015	9/23/2015	9344	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.3	U
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.3	0.12 J
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.3	0.12 J
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.3	U
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Acetone	67-64-1	PPBV		1.02 NJ
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Butane	106-97-8	PPBV		1.965 NJ
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Dichlorodifluoromethane	75-71-8	PPBV		0.39 NJ
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Hexanal	66-25-1	PPBV		1.275 NJ
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Isobutane	75-28-5	PPBV		1.8 NJ

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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PPTV = parts per trillion by volume

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Nonanal	124-19-6	PPBV		0.645 NJ
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Pentane	109-66-0	PPBV		0.915 NJ
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Propane	74-98-6	PPBV		2.04 NJ
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	150	52.28 J
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	150	135.27 J
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	150	14.27 J
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Toluene	108-88-3	PPTV	150	127.59 J
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Chloroform	67-66-3	PPTV	150	16.46 J
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	150	15.2 J
CEMRC	9/17/2015	9/23/2015	9345	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	150	17.42 J
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.3	U
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.3	0.105 J
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Toluene	108-88-3	PPBV	0.3	0.195 J
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.3	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.3	U
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Acetone	67-64-1	PPBV		0.705 NJ
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Butane	106-97-8	PPBV		2.52 NJ
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Dichlorodifluoromethane	75-71-8	PPBV		0.39 NJ
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Hexanal	66-25-1	PPBV		0.405 NJ
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Isobutane	75-28-5	PPBV		1.755 NJ
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Nonanal	124-19-6	PPBV		0.495 NJ
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Pentane	109-66-0	PPBV		1.245 NJ
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Propane	74-98-6	PPBV		2.49 NJ
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Methylene Chloride	75-09-2	PPTV	150	57.78 J
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	150	106.47 J
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	150	6.21 J
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Toluene	108-88-3	PPTV	150	197.81
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Chloroform	67-66-3	PPTV	150	16.44 J
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	150	16.91 J
CEMRC	9/23/2015	9/28/2015	9346	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	150	5.06 J
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.12 J
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).

U = Compound not detected above the MDL.

NJ = Presumptive evidence of the presence of the compound at an estimated quantity; only used for tentatively identified compounds (TICs).

Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

PPTV = parts per trillion by volume

PPMV = parts per million by volume

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.16 J
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	Butane	106-97-8	PPBV		2.7 NJ
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	Isobutane	75-28-5	PPBV		1.5 NJ
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	Pentane	109-66-0	PPBV		1.14 NJ
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	Propane	74-98-6	PPBV		2.76 NJ
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	57.02 J
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	121.02 J
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	10.26 J
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	171.56 J
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	14.28 J
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	14.74 J
CEMRC	9/23/2015	9/28/2015	9348	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	11.14 J
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U

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Notes:

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.18 J
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Acetone	67-64-1	PPBV		0.56 NJ
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Butane	106-97-8	PPBV		5.14 NJ
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Cyclopropane, ethyl-	1191-96-4	PPBV		0.54 NJ
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Isobutane	75-28-5	PPBV		2.76 NJ
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Pentane	109-66-0	PPBV		2.46 NJ
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Propane	74-98-6	PPBV		4.8 NJ
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	63.46 J
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	111.34 J
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Toluene	108-88-3	PPTV	200	193.68 J
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Chloroform	67-66-3	PPTV	200	15.04 J
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	27.12 J
CEMRC	9/24/2015	9/28/2015	9349	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.94
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	0.12 J
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.2 J
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	0.3 J
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Acetone	67-64-1	PPBV		0.76 NJ
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Butane	106-97-8	PPBV		5.24 NJ
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Cyclopropane, ethyl-	1191-96-4	PPBV		0.56 NJ
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.92 NJ
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Nonanal	124-19-6	PPBV		0.82 NJ
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Pentane	109-66-0	PPBV		2.46 NJ
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Propane	74-98-6	PPBV		3.72 NJ
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	79.96 J
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	940.16
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	147.68 J

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	210.2
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	94.54 J
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	28.64 J
CEMRC	9/24/2015	9/28/2015	9350	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	316.04
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.3 J
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Acetone	67-64-1	PPBV		0.72 NJ
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Butane	106-97-8	PPBV		5.24 NJ
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Isobutane	75-28-5	PPBV		2.86 NJ
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Pentane	109-66-0	PPBV		2.64 NJ
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Propane	74-98-6	PPBV		5.42 NJ

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Notes:

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analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	63.66 J
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	89.08 J
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Toluene	108-88-3	PPTV	200	291.58
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Chloroform	67-66-3	PPTV	200	15.22 J
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	25.26 J
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	21.92 J
CEMRC	9/30/2015	10/13/2015	9351	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	8.7 J
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.68
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	0.12 J
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.38 J
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	0.24 J
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Acetone	67-64-1	PPBV		0.66 NJ
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Butane	106-97-8	PPBV		6.46 NJ
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Isobutane	75-28-5	PPBV		3.36 NJ

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Pentane	109-66-0	PPBV		3.28 NJ
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		0.76 NJ
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Propane	74-98-6	PPBV		6.96 NJ
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	73.04 J
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	632.24
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	134 J
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	361.64
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	54.44 J
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	23.66 J
CEMRC	9/30/2015	10/13/2015	9352	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	208.64
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.36 J
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).

U = Compound not detected above the MDL.

NJ = Presumptive evidence of the presence of the compound at an estimated quantity; only used for tentatively identified compounds (TICs).

Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

PPTV = parts per trillion by volume

PPMV = parts per million by volume

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Acetone	67-64-1	PPBV		0.56 NJ
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Butane	106-97-8	PPBV		5.34 NJ
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Isobutane	75-28-5	PPBV		2.82 NJ
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Pentane	109-66-0	PPBV		2.84 NJ
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Propane	74-98-6	PPBV		5.24 NJ
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	55.66 J
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	93.14 J
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Toluene	108-88-3	PPTV	200	332.44
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Chloroform	67-66-3	PPTV	200	14.38 J
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	19.08 J
CEMRC	10/1/2015	10/13/2015	9353	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.46
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.28 J
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U

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Notes:

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	0.16 J
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Acetone	67-64-1	PPBV		0.82 NJ
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Butane	106-97-8	PPBV		4.76 NJ
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.52 NJ
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Nonanal	124-19-6	PPBV		0.56 NJ
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Pentane	109-66-0	PPBV		2.5 NJ
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Propane	74-98-6	PPBV		4.76 NJ
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	59.6 J
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	451.3
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	92.46 J
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	275.3
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	44.46 J
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	10.78 J
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	18.8 J
CEMRC	10/1/2015	10/13/2015	9354	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	159.72 J

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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Environmental Monitoring & Hydrology Biota Sampling – Fauna

Tissue Type/Location	Sample ID Number	Sample Date	WIPP Labs Radiochemistry		
			Am-241 (dpm/g)	Pu-238 (dpm/g)	Pu-239/240 (dpm/g)
Biotic Fish/Carlsbad	BF-CBD-20150821-1.1	8/21/2015	Below MDC	Below MDC	Below MDC

MDCs ranges are:

MDC Am-241 (dpm/g): 2.01E-02 to 5.60E-02

MDC Pu-238 (dpm/g): 1.27E-02 to 2.60E-02

MDC Pu-239/240 (dpm/g): 8.63E-03 to 2.52E-02

Attachment 4
Surface & Underground Derived Waste Currently in Storage at the WIPP Facility (reserved)
[Last updated June 30, 2015]

Attachment 5
Status of RCRA Contingency Plan Required Activities (reserved)
[Last updated September 30, 2015]

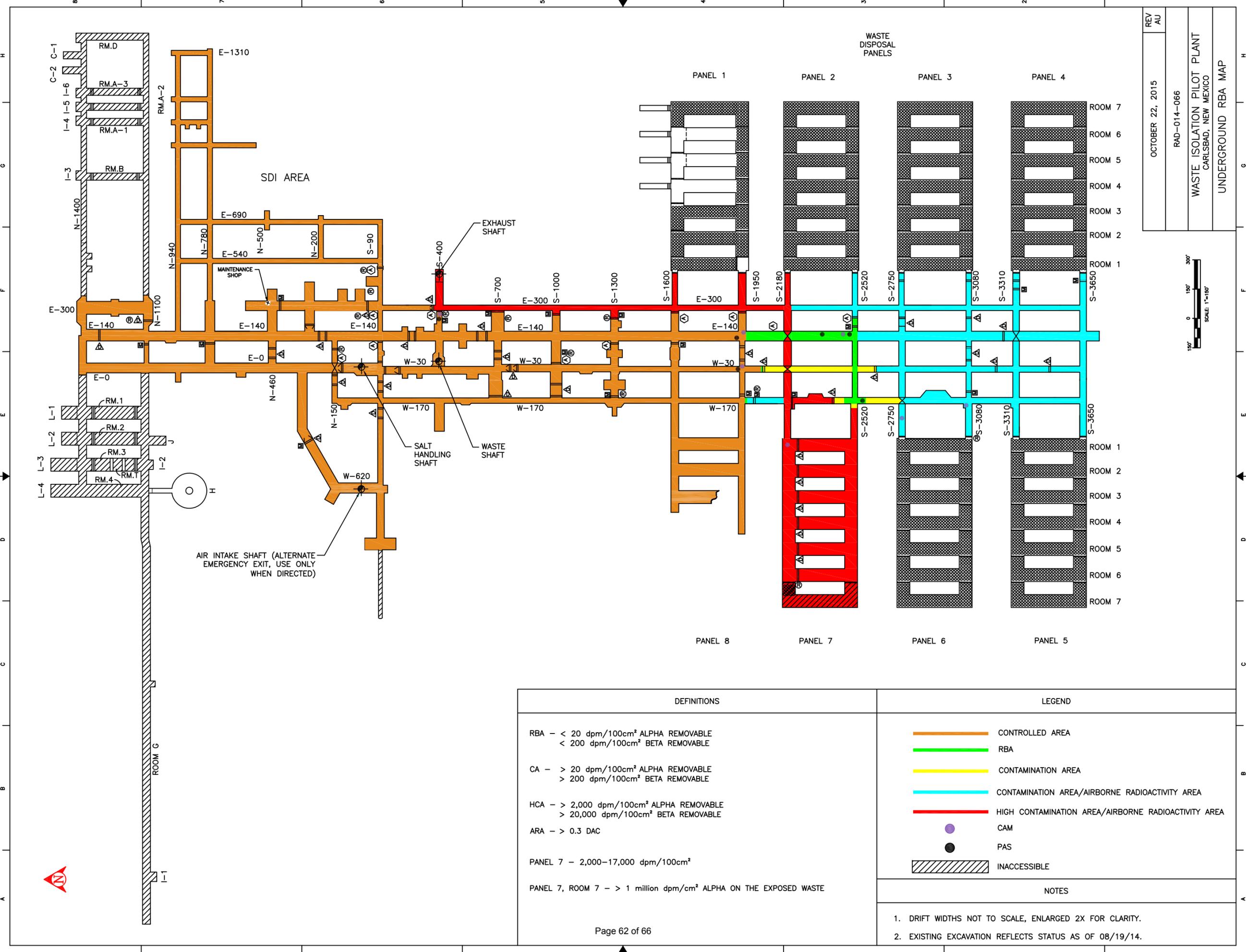
Attachment 6
Corrective Actions Required for Recovery

Recommendations

Office of Enterprise Assessments Operational Analysis of Safety Trends at the Waste Isolation Pilot Plant, May 2014 – May 2015 Report

1. Senior contractor and Federal line management should refocus and sustain efforts to improve the conduct of operations, contractor assurance, and safety culture at the site to reduce the potential for a serious incident at WIPP.
2. NWP, in conjunction with EM and CBFO, should continue to establish a fully activity-based, resource-loaded recovery schedule for WIPP that fully reflects the complex set of activities and corrective actions necessary for safe restart. Effective communications with employees will be essential as the new schedule is established.
3. CBFO and NWP should continue to closely monitor safety performance and, if needed, take additional actions to address any identified negative trends.

Attachment 7
Panel 7 & Other Recovery-Related Work



REV	NO.	DATE
AU		
OCTOBER 22, 2015		
RAD-014-066		
WASTE ISOLATION PILOT PLANT		
CARLSBAD, NEW MEXICO		
UNDERGROUND RBA MAP		



DEFINITIONS
RBA - < 20 dpm/100cm ² ALPHA REMOVABLE < 200 dpm/100cm ² BETA REMOVABLE
CA - > 20 dpm/100cm ² ALPHA REMOVABLE > 200 dpm/100cm ² BETA REMOVABLE
HCA - > 2,000 dpm/100cm ² ALPHA REMOVABLE > 20,000 dpm/100cm ² BETA REMOVABLE
ARA - > 0.3 DAC
PANEL 7 - 2,000-17,000 dpm/100cm ²
PANEL 7, ROOM 7 - > 1 million dpm/cm ² ALPHA ON THE EXPOSED WASTE

LEGEND
CONTROLLED AREA
RBA
CONTAMINATION AREA
CONTAMINATION AREA/AIRBORNE RADIOACTIVITY AREA
HIGH CONTAMINATION AREA/AIRBORNE RADIOACTIVITY AREA
CAM
PAS
INACCESSIBLE

NOTES
1. DRIFT WIDTHS NOT TO SCALE, ENLARGED 2X FOR CLARITY.
2. EXISTING EXCAVATION REFLECTS STATUS AS OF 08/19/14.

Attachment 8
Interim Ventilation System & Supplemental Ventilation System
Equipment and Work Activities



Installed IVS Fan/Filter Units



IVS Power Distribution Center

Attachment 9
WIPP Nitrate Salt Bearing Waste Container Isolation Plan
Information Required by Administrative Order 3 (reserved)
[Last updated September 30, 2015]