



Department of Energy

Carlsbad Field Office
P. O. Box 3090
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AUG 31 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
Harold Runnels Building
1190 Saint Francis Drive, Room 4050
Santa Fe, NM 87502-5469

Subject: Monthly Report for the Reporting Period ending July 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 July 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 Ryan Flynn to Messrs. Hellstrom, Franco, Cook, and McQuinn, and as amended by the August 29, 2014 and December 9, 2014, directives from Ryan Flynn to Messrs. Franco and McQuinn and the July 15, 2015 directive from Ms. Kathryn Roberts to Messrs. Bryson and Breidenbach. This 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

Dana C. Bryson, Acting 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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*ED denotes electronic distribution

Monthly Status Report for the New Mexico Environment Department Administrative Orders

Reporting Period July 1, 2015, through July 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 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. Inspections and preventative maintenance (PM) are not required for equipment that is out of service. Because the WIPP facility has not been handling RH TRU waste, and there is no RH TRU waste being stored at the WIPP facility at this time, these pre-operational inspections do not currently apply. Prior to commencing RH TRU waste handling operations, PMs and/or inspections will be brought into a current/compliant status.

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. Pertinent elements of the WIPP Recovery Plan were integrated into the UCP as these elements pertain to the Permit-related requirements addressed by the AOs. Currently, certain monitoring activities cannot be performed due to the inaccessibility to those portions of the underground where monitoring activities occur. 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-based 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 is 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 2,800 bolts have been installed in the underground since bolting activities resumed in November 2014 and catchup bolting is 85 percent complete. Catchup bolting is now complete in the S-3310 drift between E-140 and E-300.

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 July 31, 2015, was approximately 59,878 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:

Since the submittal of the last monthly report, there has been no additional waste placed in storage in the WHB; 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 his 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 with one exception. The first quarter composite air sample taken from the WIPP Far Field location showed a result for Pu-239/240, which was above the minimum detectable concentration (MDC). The numerical value for Pu-239/240 is within historical values as indicated by sampling data prior to the 2014 February radiological event. Also, because the Am-241 value is less than MDC, this is not related to a radiological release from the WIPP site. The results are included in Attachment 3, *Environmental Monitoring*.
 - Air samples – Air samples were obtained on the dates shown in Attachment 3.
 - Groundwater samples – Groundwater samples were obtained on the dates shown in Attachment 3.
 - Surface Water & Sediment samples – Surface water and sediment samples were obtained on the dates shown in Attachment 3.
 - Biota/Fauna samples – Fauna sample was obtained on the date 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 November 30, 2014.

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, no additional requirements were placed upon the Permittees by any other state or federal agency relating to corrective actions or recovery and as a result of the incidents referenced in Paragraphs 8 and 9 of AO2, including requirements by other segments of the U.S. Department of Energy (DOE). Attachment 6, *Corrective Actions Required for Recovery*, was last updated April 30, 2015.

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(e)(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:

The independent Technical Assistance Team (TAT) confirmed that one drum in Panel 7, Room 7, from LANL was responsible for the 2014 radiological release. The report concluded that the drum contained chemically incompatible materials, ultimately leading to the release. The *overarching conclusion* is that chemically incompatible contents of Drum 68660 from LANL in combination with physical conditions (e.g., the configuration of the materials in the drum) supported exothermic chemical reactions leading to a thermal runaway; the consequent build-up of gases within the drum displaced the drum lid, venting radioactive materials and hot matter that further reacted with air or other materials outside the drum to cause the damage observed in WIPP Panel 7, Room 7.

In April 2015, the Department of Energy Office of Environmental Management (EM) released the Accident Investigation Board (AIB) Phase 2 Report related to the February 14, 2014 radiological event. The AIB concluded that the release was caused by an exothermic reaction involving the mixture of organic materials and nitrate salts in one drum that was processed at LANL in December 2013. The AIB also concluded that an underground salt haul truck fire that occurred at WIPP on February 5, 2014, did not cause or contribute to the radiological release event.

Consistent with the WIPP Recovery Plan, the focus of underground entries has been on radiological characterization and rollback, geotechnical evaluation, habitability surveys, clean up, electrical and mechanical evaluation of systems, and equipment and repairs as needed to support bolting and initial panel closure activities. In May 2015, initial closure of Panel 6 and closure of Panel 7, Room 7 were completed.

During this reporting period, no changes occurred regarding radiological characterization in Panel 7, Rooms 1-5, and the S-2520 drift; therefore, Attachment 7, *Panel 7 Recovery-Related Work* is currently reserved.

Brattice cloth and a layer of salt is being placed on the floors along the ribs from E-140/S-1950 to S-2520 and along S-2520 to the entrance of Panel 7.

During this reporting period, the new supplemental ventilation system (SVS) fan unit arrived at the WIPP facility. The SVS was briefly described in the Notification of Planned Change to the Permitted Facility provided to the NMED on April 22, 2015. Attachment 8, *Interim Ventilation System & Supplemental Ventilation System Work Activities*, depicts photographs of the new equipment and of some of the related work activities.

Additional recovery activities underground are progressing, which includes electrical distribution restoration and combustible material removal/storage. Electrical distribution restoration is 80 percent complete, and combustible material removal/storage is 100 percent complete. A Combustible Loading Control Zone has been established around the air intake shaft and starting at E-0 from N-460 to W-30 at S-700; E-140, Door (vehicle door with man door) 310 to S-700 where transient combustibles, liquid fueled vehicles, or other combustible materials cannot be parked, left unattended, or stored for any length of time. Procedural controls are exercised over combustibles taken into the underground.

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:

The Permittees submitted the Waste Isolation Pilot Plant Nitrate Salt Bearing Waste Container Isolation Plan to the NMED on May 30, 2014. On August 5, 2014, the NMED approved with comment the Permittees' proposal for the initial closure of Panel 6 and the Permittees' proposal to continue to use the mine ventilation system in filtration mode to protect public health and the environment. The Permittees updated the WIPP Nitrate Salt Bearing Waste Container Isolation Plan with Revision 1, on September 30, 2014, which addressed the NMED August 5, 2014 letter.

On March 30, 2015, the NMED provided a second letter to the Permittees which approved the proposed closure for Panel 7, Room 7, specified that the permanent closure for Panel 6 is to be approved through the 40 CFR 270.42 permit modification process, and requested an update to Revision 1 of the plan. Revision 2 of the plan, which was submitted on May 29, 2015, addresses the NMED March 30, 2015 letter.

Paragraph 23 of AO3 requests that the Permittees provide daily updates on the implementation of the Isolation Plan during pre-scheduled technical calls with NMED, and that such updates are memorialized in daily written submissions to NMED until NMED indicates otherwise. These calls began on October 7, 2014, at 3:00 p.m. daily except for weekends and holidays. Subsequently, the NMED agreed to biweekly calls, on Tuesday and Thursdays, at 3:00 pm. On July 15, 2015, The NMED ceased the technical calls; July 23, 2015 was the last technical call.

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 reserved for updates to information in the Nitrate Salt Bearing Waste Container Isolation Plan.

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	7/29/15	N/A	
Exhaust Shaft	Underground Operations	Quarterly	PM041099 Inspecting for Deterioration and Leaks/Spills	Current	5/27/15	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	7/28/15	N/A	
Self-Rescuers	Underground Operations	Quarterly	WP 04-AU1026 Inspecting for Deterioration and Functionality in accordance with MSHA requirements	Current	6/30/15	N/A	
Underground Openings—Roof Bolts and Travelways	Underground Operations	Weekly	WP 04-AU1007 Inspecting for Deterioration	Current	7/30/15	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	7/27/15	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	5/13/15	N/A	
Bulkhead in Filled Panels	Underground Operations	Monthly	Integrity and Deterioration of Accessible Areas	Not Current	7/23/15	N/A	Access prohibited to Panels 3 and 4. Inspections on a Panel 6 bulkhead are not current for July. A subsequent inspection was conducted in August.
MSHA Air Quality Monitor	Maintenance/ Underground Operations	Daily	WP 12-IH1828 Inspecting for Air Quality Monitoring Equipment Functional Check	Current	7/31/15		
Ambulances (Surface) and related emergency supplies and equipment	Emergency Services	Weekly	12-FP0030 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Current	7/26/15	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 Ambulance on Site	7/25/15	N/A	There are two underground ambulances on the equipment list, but one is still awaiting arrival to the site. Pre-operational inspections are being performed on the other ambulance.
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	7/31/15	N/A	
Fire Extinguishers (Underground)	Emergency Services	Monthly	12-FP0036 Inspecting for Deterioration, Leaks/Spills, Expiration, seals, fullness, and pressure	Current	7/31/15	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) 7/20/15 – 7/31/15: (Annual)	N/A	
Fire Pumps	Emergency Services	Weekly/ annually	WP 12-FP0026 Inspecting for Deterioration, Leaks/Spills, valves, and panel lights	Current	7/20/15	N/A	
Fire Sprinkler Systems	Emergency Services	Monthly/ quarterly	WP 12-FP0025 Inspecting for Deterioration, Leaks/Spills, static pressures, and removable strainers	Current	7/20/15, 7/21/15, 7/22/15	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	7/24/15, 7/25/15	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 vehicle on site.	7/26/15	N/A	There are 8 underground fire suppression vehicles on the equipment list. Seven are awaiting arrival to the site. Weekly inspections have been performed on the single underground fire suppression vehicle currently on-site.
Hazardous Material Response Equipment	Emergency Services	Weekly	12-FP0033 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Current	7/21/15	N/A	
Miners First Aid Station	Emergency Services	Quarterly	12-FP0035 Inspecting for Required Equipment	Current	7/1/15	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	7/23/15, 7/24/15, 7/25/15, 7/26/15	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.
Rescue Truck (Surface)	Emergency Services	Weekly	12-FP0030 and 12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Current	7/23/15	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
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 anticipated for October 2015. Pre-operational inspections are not being performed on the on-site rescue truck because the inspection procedure is being revised to address specific requirements for this vehicle. WP-FP0030 is expected for issue in August 2015. Because the rescue truck is currently not operating, underground emergency response compensatory measures including fire and medical, have been implemented.
Vehicle Siren (Surface Vehicles)	Emergency Services	Weekly	Functional Test included with inspection of the Ambulances, Fire Trucks, and Rescue Trucks	Current	7/23/15, 7/24/15, 7/25/15, 7/26/15	N/A	
Vehicle Siren (Underground Vehicles)	Emergency Services	Weekly	Functional Test included with inspection of the Ambulances, Fire Trucks, and Rescue Trucks	Current/ U/G Ambulance Only	7/25/15	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	7/26/15 (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 Mechanical Operability, Deterioration, and area around transporter clear of obstacles	Current	2/5/14	When waste disposal operations resume	Equipment not in use due to the fire and radiological events.
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)	When waste disposal operations resume	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 Mechanical Operability, Deterioration, and On board fire suppression system	Current	6/12/15 (41-H-009) 7/8/15 (41-H-013) 6/10/15 (41-H-051) 7/25/15 (41-H-012D) 7/25/15 (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 Mechanical Operability, Deterioration, and On board fire suppression system	Current	5/20/15 (52-H-126)	When waste disposal operations resume	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	7/22/15 (Weekly) 7/26/15 (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) 7/26/15 (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	5/23/15 (41-T-160A) 5/23/15 (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 Mechanical Operability and Deterioration	Current	7/21/15 (41-H-151B) 7/16/15 (41-H-151A) 7/10/15 (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	5/19/15 (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	7/26/15 (#1) 7/26/15 (#2)	N/A	
Central Monitoring System (CMS)	Facility Operations	Continuous	Automatic Self-Checking	Current	7/31/15	N/A	
Mine Pager Phones (between surface and underground)	Facility Operations	Monthly	WP 04-PC3017 Testing of PA and Underground Alarms and Mine Page Phones at essential locations	Current	7/30/15	N/A	
Mine Pager Phones (underground)	Facility Operations	Monthly	WP 04-PC3017 Testing of PA and Underground Alarms and Mine Page Phones at essential locations	Current	7/30/15	N/A	
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	7/30/15	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	7/30/15	N/A	
Radio Equipment	Facility Operations	Daily	Radios are operated daily and are repaired upon failure	Current	7/31/15	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
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	7/31/15	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	7/31/15	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	7/27/15-7/30/15	N/A	
Eye Wash and Shower Equipment (Underground)	Equipment Custodian	Weekly	WP 12-IS1832 Inspecting for Deterioration	Current	7/25/15	N/A	
Perimeter Fence, Gates, Signs	Security	Daily	PF0-008 Inspecting for Deterioration and Posted Warnings	Current	7/31/15	N/A	
Underground—Geomechanical Instrumentation System (GIS)	Geotechnical Engineering	Monthly	WP 07-EU1301 Inspecting for Deterioration	Current	7/28/15	N/A	Complete at accessible areas.

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
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)	N/A	The 700 horsepower fans are not in use because underground ventilation system is operating in filtration mode.

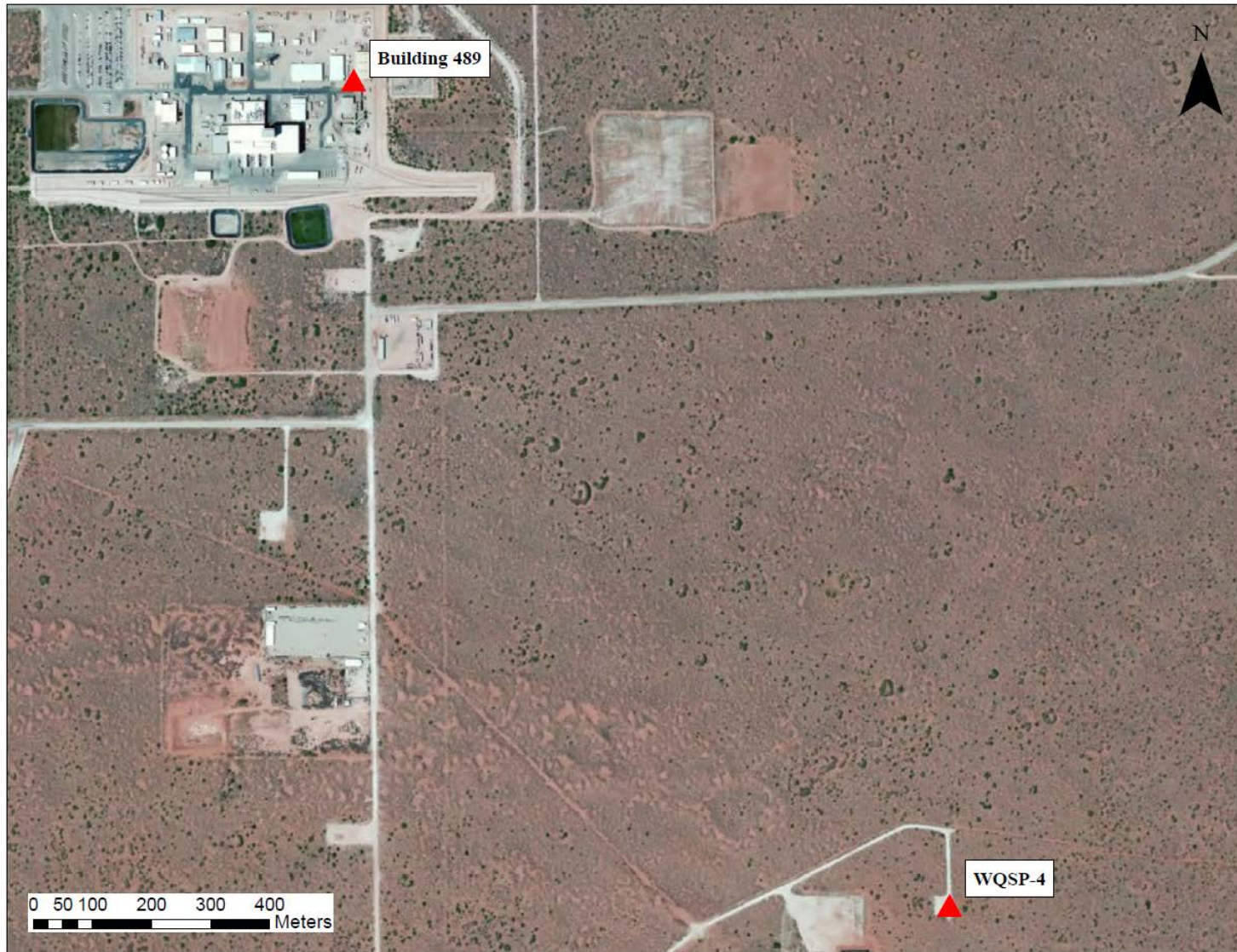
¹ Routine inspections are proposed to begin with resumption of normal operations.

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 & Data
- Radiological Monitoring Maps & Data
 - Air samples
 - Groundwater samples
 - Surface water & sediment samples
 - Biota/Fauna sample



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	5/6/2015	5/18/2015	9256	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.26 J
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Butane	106-97-8	PPBV		4.26 NJ
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		1.82 NJ
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Isobutane	75-28-5	PPBV		2.38 NJ
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Pentane	109-66-0	PPBV		2.36 NJ
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Pentane, 2-methyl-	107-83-5	PPBV		0.66 NJ
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Propane	74-98-6	PPBV		4.18 NJ
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	61.42 J
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	93.4 J
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Toluene	108-88-3	PPTV	200	264.02
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Chloroform	67-66-3	PPTV	200	10.54 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

PPBV = parts per billion 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	5/6/2015	5/18/2015	9256	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	19.68 J
CEMRC	5/6/2015	5/18/2015	9256	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	11.14 J
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.3	U
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.3	0.135 J
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.3	0.255 J
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.3	U
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Butane	106-97-8	PPBV		4.26 NJ
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Cyclohexane, methyl-	108-87-2	PPBV		0.405 NJ
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		0.555 NJ
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.385 NJ
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Pentane	109-66-0	PPBV		2.37 NJ
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		0.69 NJ
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Pentane, 3-methyl-	96-14-0	PPBV		0.39 NJ
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Propane	74-98-6	PPBV		3.96 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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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	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	150	58.02 J
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	150	157.19
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	150	21.9 J
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Toluene	108-88-3	PPTV	150	268.34
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Chloroform	67-66-3	PPTV	150	14.84 J
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	22.25 J
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	150	19.95 J
CEMRC	5/6/2015	5/18/2015	9258	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	150	87.92 J
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.18 J
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	Butane	106-97-8	PPBV		2.8 NJ
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	Isobutane	75-28-5	PPBV		1.52 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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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	5/7/2015	5/18/2015	9259	WQSP-4	Pentane	109-66-0	PPBV		1.58 NJ
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	Propane	74-98-6	PPBV		2.52 NJ
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	59.52 J
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	98.96 J
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	Toluene	108-88-3	PPTV	200	181 J
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	Chloroform	67-66-3	PPTV	200	11.16 J
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	13.7 J
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	17.76 J
CEMRC	5/7/2015	5/18/2015	9259	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	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	5/7/2015	5/18/2015	9260	Building 489 Air Intake	Butane	106-97-8	PPBV		2.62 NJ
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	Isobutane	75-28-5	PPBV		1.44 NJ
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	Pentane	109-66-0	PPBV		1.5 NJ
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	Propane	74-98-6	PPBV		2.5 NJ
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	56.8 J
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	153.32 J
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	15.24 J
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	166.5 J
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	14.4 J
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	16 J
CEMRC	5/7/2015	5/18/2015	9260	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	27.82 J
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.3	U
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.3	U
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Toluene	108-88-3	PPBV	0.3	U
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U

Qualifiers:

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

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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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PPTV = parts per trillion by volume

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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	5/12/2015	5/18/2015	9261	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.3	U
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Acetone	67-64-1	PPBV		0.435 NJ
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Butane	106-97-8	PPBV		1.395 NJ
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Isobutane	75-28-5	PPBV		0.945 NJ
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Nonanal	124-19-6	PPBV		0.795 NJ
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Pentane	109-66-0	PPBV		0.765 NJ
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Propane	74-98-6	PPBV		1.395 NJ
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Methylene Chloride	75-09-2	PPTV	150	60.53 J
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	150	93.45 J
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	150	U
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Toluene	108-88-3	PPTV	150	90.75 J
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Chloroform	67-66-3	PPTV	150	12.35 J
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	150	17.01 J
CEMRC	5/12/2015	5/18/2015	9261	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	150	U
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.92
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Chlorobenzene	108-90-7	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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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	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	U
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	0.36 J
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	1,1,1,2,2,3,3-Heptafluoro-3-methoxypropane	375-03-1	PPBV		3.1 NJ
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Butane	106-97-8	PPBV		2.48 NJ
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Isobutane	75-28-5	PPBV		1.32 NJ
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Nonanal	124-19-6	PPBV		0.78 NJ
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Pentane	109-66-0	PPBV		1.28 NJ
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Propane	74-98-6	PPBV		2.42 NJ
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	78.36 J
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	1051.44
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	165.42 J
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	113.34 J
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	79.32 J
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	18.32 J
CEMRC	5/12/2015	5/18/2015	9262	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	393.68

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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	5/13/2015	5/18/2015	9263	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	Toluene	108-88-3	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	Butane	106-97-8	PPBV		2.56 NJ
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	Isobutane	75-28-5	PPBV		1.42 NJ
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	Pentane	109-66-0	PPBV		1.42 NJ
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	Propane	74-98-6	PPBV		2.5 NJ
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	63.4 J
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	96.2 J
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	Toluene	108-88-3	PPTV	200	169.96 J
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	Chloroform	67-66-3	PPTV	200	12 J
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	17.96 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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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	5/13/2015	5/18/2015	9263	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.92
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	0.38 J
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	Butane	106-97-8	PPBV		2.68 NJ
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	Isobutane	75-28-5	PPBV		1.54 NJ
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	Pentane	109-66-0	PPBV		1.42 NJ
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	Propane	74-98-6	PPBV		2.7 NJ
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	75.24 J
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	1038.1
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	119.88 J
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	170.28 J
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	93.42 J
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U

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(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	5/13/2015	5/18/2015	9264	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	17.72 J
CEMRC	5/13/2015	5/18/2015	9264	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	406.72
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.28 J
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	Butane	106-97-8	PPBV		5.08 NJ
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		2.44 NJ
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	Isobutane	75-28-5	PPBV		2.78 NJ
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	Pentane	109-66-0	PPBV		2.28 NJ
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	Propane	74-98-6	PPBV		3.9 NJ
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	64.84 J
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	105.34 J
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	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	5/20/2015	6/4/2015	9265	WQSP-4	Toluene	108-88-3	PPTV	200	303.42
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	Chloroform	67-66-3	PPTV	200	12.9 J
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	27.18 J
CEMRC	5/20/2015	6/4/2015	9265	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	10.46 J
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.18 J
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.3 J
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Butane	106-97-8	PPBV		4.28 NJ
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		0.48 NJ
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.36 NJ
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Pentane	109-66-0	PPBV		2.42 NJ
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Propane	74-98-6	PPBV		3.84 NJ
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	67.2 J

Qualifiers:

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

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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

PPBV = parts per billion 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	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	180.9 J
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	28.82 J
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	324.96
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	17.7 J
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	29.44 J
CEMRC	5/20/2015	6/4/2015	9266	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	35 J
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.3	U
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.3	U
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Toluene	108-88-3	PPBV	0.3	0.18 J
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.3	U
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Acetone	67-64-1	PPBV		0.405 NJ
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Butane	106-97-8	PPBV		3.63 NJ
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		0.48 NJ

Qualifiers:

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

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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

PPBV = parts per billion 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	5/21/2015	6/4/2015	9268	WQSP-4	Isobutane	75-28-5	PPBV		2.115 NJ
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Pentane	109-66-0	PPBV		1.86 NJ
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Propane	74-98-6	PPBV		3.6 NJ
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Methylene Chloride	75-09-2	PPTV	150	74.45 J
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	150	92.51 J
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	150	U
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Toluene	108-88-3	PPTV	150	181.56
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Chloroform	67-66-3	PPTV	150	15.11 J
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	150	26.25 J
CEMRC	5/21/2015	6/4/2015	9268	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	150	U
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	U
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	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).

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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

PPBV = parts per billion 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	5/21/2015	6/4/2015	9269	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	Acetone	67-64-1	PPBV		0.62 NJ
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	Butane	106-97-8	PPBV		1.16 NJ
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	Pentane	109-66-0	PPBV		0.58 NJ
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	Propane	74-98-6	PPBV		1.34 NJ
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	71.7 J
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	93.04 J
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	113.96 J
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	15.18 J
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	18.84 J
CEMRC	5/21/2015	6/4/2015	9269	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	10.62 J
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.3	U
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.3	U
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Toluene	108-88-3	PPBV	0.3	0.315
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U

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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.

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

PPTV = parts per trillion by volume

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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	5/27/2015	6/4/2015	9270	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.3	U
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Acetone	67-64-1	PPBV		0.51 NJ
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Butane	106-97-8	PPBV		4.92 NJ
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		2.1 NJ
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Cyclohexane, methyl-	108-87-2	PPBV		0.435 NJ
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		0.555 NJ
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Isobutane	75-28-5	PPBV		2.685 NJ
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Nonanal	124-19-6	PPBV		0.57 NJ
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Pentane	109-66-0	PPBV		2.775 NJ
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Pentane, 2-methyl-	107-83-5	PPBV		0.795 NJ
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Propane	74-98-6	PPBV		4.065 NJ
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Methylene Chloride	75-09-2	PPTV	150	73.11 J
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	150	85.44 J
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	150	U
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Toluene	108-88-3	PPTV	150	332.93
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Chloroform	67-66-3	PPTV	150	14.42 J
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	150	31.64 J
CEMRC	5/27/2015	6/4/2015	9270	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	150	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

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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	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.56
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.4
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	0.2 J
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Butane	106-97-8	PPBV		6.9 NJ
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		2.9 NJ
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Cyclohexane, methyl-	108-87-2	PPBV		0.66 NJ
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		1.1 NJ
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Isobutane	75-28-5	PPBV		3.78 NJ
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Pentane	109-66-0	PPBV		3.68 NJ
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		1.02 NJ
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Propane	74-98-6	PPBV		7.28 NJ
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	82.76 J
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	542.54
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	72.98 J
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	413.5

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	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	62.78 J
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	38.9 J
CEMRC	5/27/2015	6/4/2015	9271	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	193.12 J
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.24 J
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Acetone	67-64-1	PPBV		0.76 NJ
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Butane	106-97-8	PPBV		3.2 NJ
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Isobutane	75-28-5	PPBV		1.78 NJ
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Nonanal	124-19-6	PPBV		0.6 NJ
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Pentane	109-66-0	PPBV		1.72 NJ
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Propane	74-98-6	PPBV		3.1 NJ
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	64.74 J

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.

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

PPTV = parts per trillion by volume

PPBV = parts per billion 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	5/28/2015	6/4/2015	9272	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	87.5 J
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Toluene	108-88-3	PPTV	200	242.66
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Chloroform	67-66-3	PPTV	200	11.94 J
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	24 J
CEMRC	5/28/2015	6/4/2015	9272	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.42
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.28 J
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	0.12 J
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Acetone	67-64-1	PPBV		0.48 NJ
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Butane	106-97-8	PPBV		3.8 NJ
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.08 NJ
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Pentane	109-66-0	PPBV		2.06 NJ

Qualifiers:

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

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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

PPBV = parts per billion 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	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Propane	74-98-6	PPBV		3.74 NJ
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	69.92 J
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	416.66
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	53.86 J
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	283.96
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	48.24 J
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	27.2 J
CEMRC	5/28/2015	6/4/2015	9273	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	126.4 J
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.3	U
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.3	U
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Toluene	108-88-3	PPBV	0.3	0.21 J
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.3	U
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Acetone	67-64-1	PPBV		0.645 NJ

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.

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

PPTV = parts per trillion by volume

PPBV = parts per billion by volume

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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	6/3/2015	6/9/2015	9274	WQSP-4	Butane	106-97-8	PPBV		2.73 NJ
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Isobutane	75-28-5	PPBV		1.59 NJ
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Nonanal	124-19-6	PPBV		1.095 NJ
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Pentane	109-66-0	PPBV		1.53 NJ
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Pentane, 2-methyl-	107-83-5	PPBV		0.405 NJ
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Propane	74-98-6	PPBV		2.355 NJ
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Methylene Chloride	75-09-2	PPTV	150	61.77 J
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	150	89.15 J
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	150	U
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Toluene	108-88-3	PPTV	150	230.57
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Chloroform	67-66-3	PPTV	150	13.17 J
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	150	19.8 J
CEMRC	6/3/2015	6/9/2015	9274	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	150	U
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.22 J
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.26 J
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	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

PPBV = parts per billion 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	6/3/2015	6/9/2015	9276	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Acetone	67-64-1	PPBV		0.68 NJ
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Butane	106-97-8	PPBV		3.1 NJ
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Isobutane	75-28-5	PPBV		1.78 NJ
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Pentane	109-66-0	PPBV		1.68 NJ
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Propane	74-98-6	PPBV		3.08 NJ
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	71.84 J
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	203.44
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	25.2 J
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	262.96
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	22.86 J
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	21.66 J
CEMRC	6/3/2015	6/9/2015	9276	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	43.94 J
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	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.

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

PPTV = parts per trillion by volume

PPBV = parts per billion 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	6/4/2015	6/9/2015	9277	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.2 J
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	Acetone	67-64-1	PPBV		0.54 NJ
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	Butane	106-97-8	PPBV		2.34 NJ
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	Isobutane	75-28-5	PPBV		1.32 NJ
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	Pentane	109-66-0	PPBV		1.3 NJ
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	Propane	74-98-6	PPBV		2.46 NJ
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	64.3 J
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	85.12 J
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	Toluene	108-88-3	PPTV	200	208.92
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	Chloroform	67-66-3	PPTV	200	12.12 J
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	18.86 J
CEMRC	6/4/2015	6/9/2015	9277	WQSP-4	Trichloroethylene (1)	79-01-6	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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* A value will not appear in the MRL column for TICs.

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PPTV = parts per trillion by volume

PPBV = parts per billion 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	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.22 J
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.22 J
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Acetone	67-64-1	PPBV		0.52 NJ
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Butane	106-97-8	PPBV		2.5 NJ
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Isobutane	75-28-5	PPBV		1.38 NJ
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Pentane	109-66-0	PPBV		1.36 NJ
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Propane	74-98-6	PPBV		2.5 NJ
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	67.66 J
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	220.98
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	26.16 J
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	218.68
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	24.08 J
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	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

PPBV = parts per billion 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	6/4/2015	6/9/2015	9278	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	19.36 J
CEMRC	6/4/2015	6/9/2015	9278	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	49.9 J
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.38 J
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	Butane	106-97-8	PPBV		4.8 NJ
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		0.5 NJ
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	Isobutane	75-28-5	PPBV		2.54 NJ
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	Pentane	109-66-0	PPBV		2.72 NJ
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	Propane	74-98-6	PPBV		4.56 NJ
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	61.04 J
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	90.44 J
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	Toluene	108-88-3	PPTV	200	398.96

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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	6/10/2015	6/12/2015	9279	WQSP-4	Chloroform	67-66-3	PPTV	200	12.04 J
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	24.66 J
CEMRC	6/10/2015	6/12/2015	9279	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.2 J
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.38 J
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Acetone	67-64-1	PPBV		0.5 NJ
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Butane	106-97-8	PPBV		4.4 NJ
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.3 NJ
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Pentane	109-66-0	PPBV		2.46 NJ
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		0.66 NJ
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Propane	74-98-6	PPBV		4.08 NJ
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	62.72 J

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

PPBV = parts per billion 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	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	190.98 J
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	23.86 J
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	377.14
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	20.42 J
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	22.36 J
CEMRC	6/10/2015	6/12/2015	9280	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	39.6 J
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	Toluene	108-88-3	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	Acetone	67-64-1	PPBV		0.56 NJ
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	Butane	106-97-8	PPBV		1.7 NJ
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	Isobutane	75-28-5	PPBV		0.96 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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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	6/11/2015	6/12/2015	9281	WQSP-4	Pentane	109-66-0	PPBV		0.88 NJ
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	Propane	74-98-6	PPBV		1.76 NJ
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	67.96 J
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	96.46 J
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	Toluene	108-88-3	PPTV	200	158.32 J
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	Chloroform	67-66-3	PPTV	200	12.22 J
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	17.12 J
CEMRC	6/11/2015	6/12/2015	9281	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	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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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	6/11/2015	6/12/2015	9282	Building 489 Air Intake	Acetone	67-64-1	PPBV		0.56 NJ
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	Butane	106-97-8	PPBV		1.7 NJ
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	Pentane	109-66-0	PPBV		0.84 NJ
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	Propane	74-98-6	PPBV		1.7 NJ
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	63.62 J
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	108.4 J
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	7.92 J
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	153.72 J
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	15.18 J
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	16.84 J
CEMRC	6/11/2015	6/12/2015	9282	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	8.94 J

Qualifiers:

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Notes:

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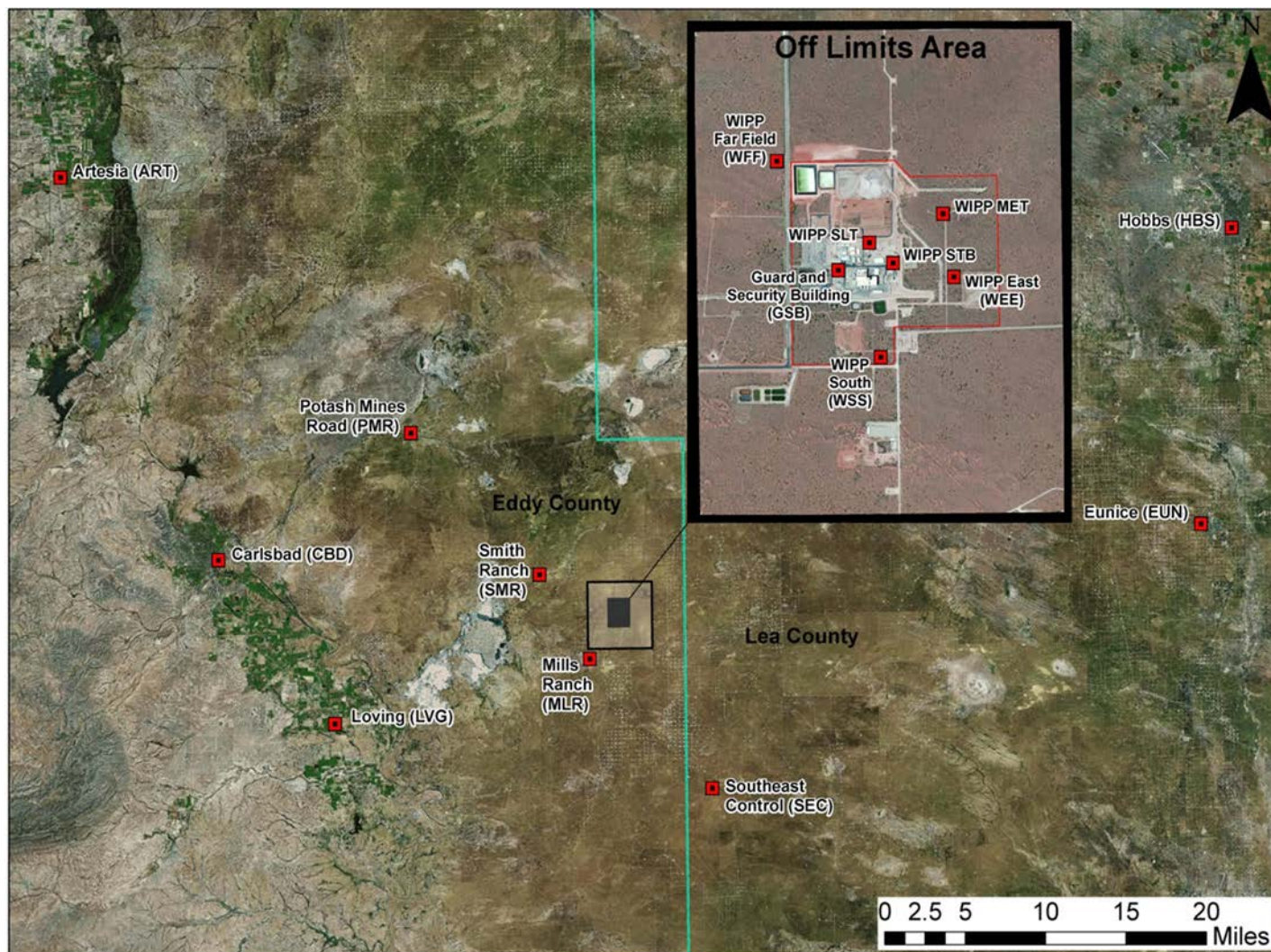
* A value will not appear in the MRL column for TICs.

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Air Sampling Locations

Environmental Monitoring & Hydrology Airborne

Location	Sample ID Number	WIPP Labs Radiochemistry		
		Am-241 (dpm/sample)	Pu-238 (dpm/sample)	Pu-239/240 (dpm/sample)
WIPP Far Field (WFF) 1st Quarter 2015	AL-WFF...(Composite 13 samples)	Below MDC	Below MDC	1.51E-01
WIPP East (WEE) 1st Quarter 2015	AL-WEE...(Composite 13 samples)	Below MDC	Below MDC	Below MDC
WIPP East (WEE) (Dup) 1st Quarter 2015	AL-WEE...(Composite 13 samples)	Below MDC	Below MDC	Below MDC
WIPP South (WSS) 1st Quarter 2015	AL-WSS...(Composite 13 samples)	Below MDC	Below MDC	Below MDC
Mills Ranch (MLR) 1st Quarter 2015	AL-MLR...(Composite 13 samples)	Below MDC	Below MDC	Below MDC
Southeast Control (SEC) 1st Quarter 2015	AL-SEC...(Composite 13 samples)	Below MDC	Below MDC	Below MDC
Carlsbad (CBD) 1st Quarter 2015	AL-CBD...(Composite 13 samples)	Below MDC	Below MDC	Below MDC
Smith Ranch (SMR) 1st Quarter 2015	AL-SMR...(Composite 13 samples)	Below MDC	Below MDC	Below MDC

Note: Shaded cells in the table represent samples identified as a detectable concentration.

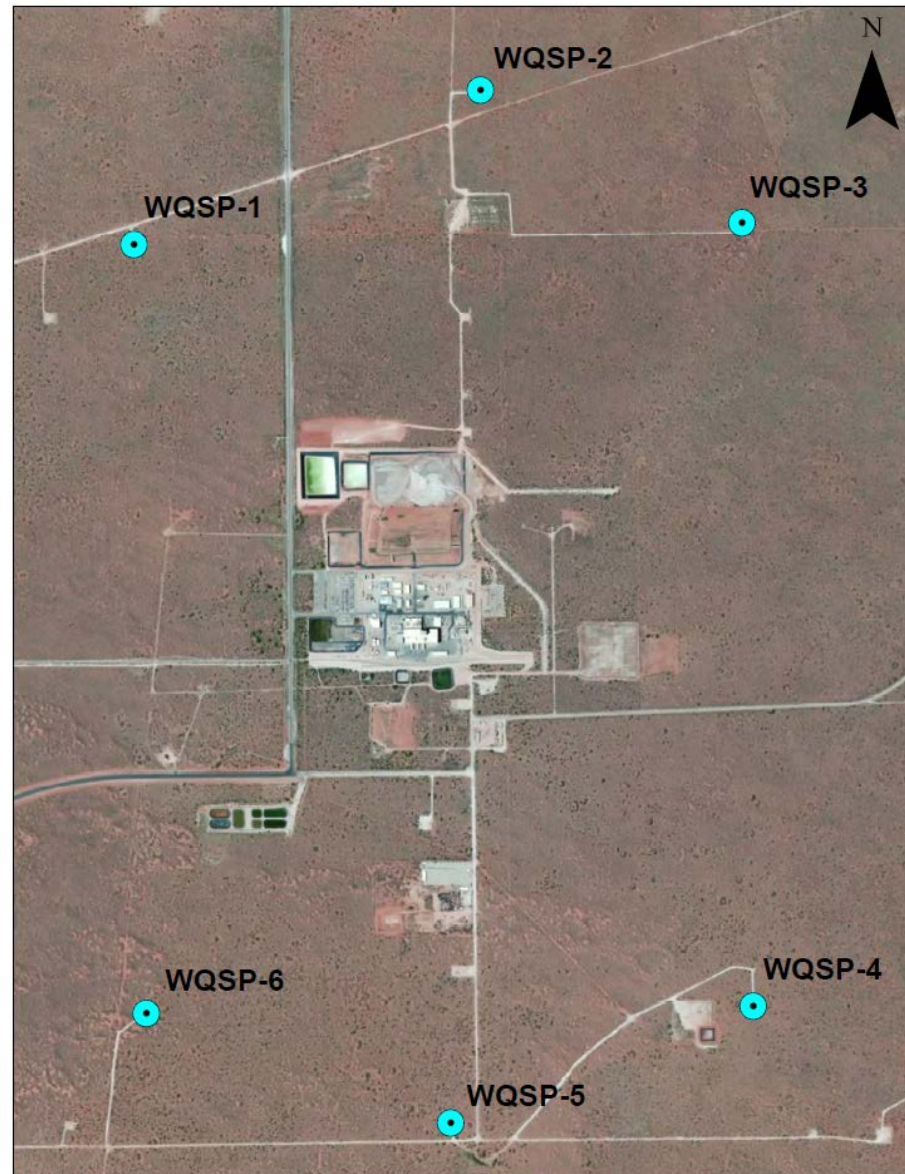
Minimum detectable concentration (MDC) corresponds to the lowest concentration measurement that can be detected by the laboratory instrumentation.

MDC ranges are:

MDC Am-241 (dpm/sample): 1.89E-02 to 5.05E-01

MDC Pu-238 (dpm/sample): 1.89E-02 to 1.57E+01

MDC Pu-239/240 (dpm/sample): 1.70E-02 to 5.94E-01



Groundwater Sampling Location

Environmental Monitoring & Hydrology Groundwater Sampling

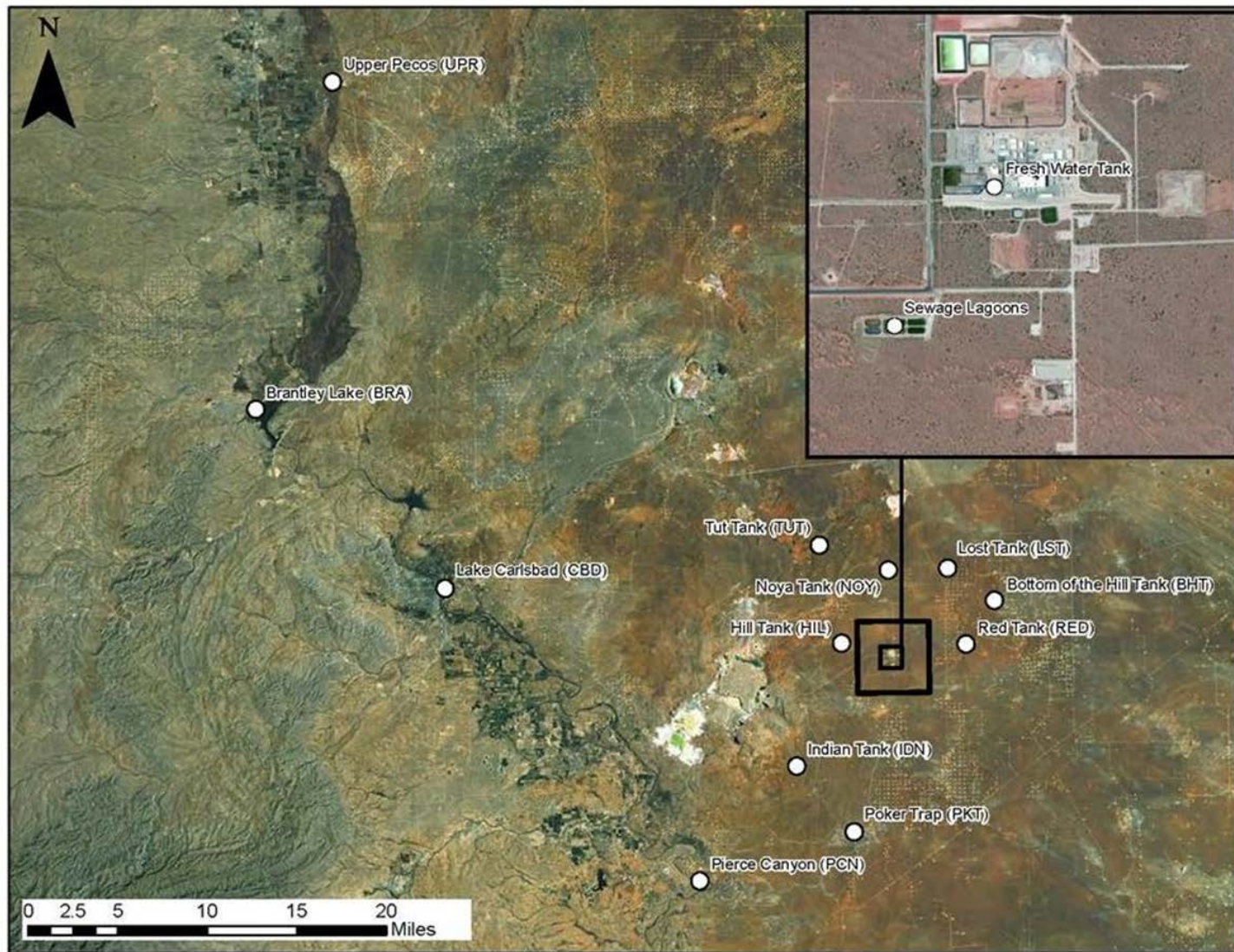
Location	Sample ID Number	Sample Date	WIPP Labs Radiochemistry		
			Am-241 (dpm/L)	Pu-238 (dpm/L)	Pu-239/240 (dpm/L)
WQSP-5	GW-WQ5-C-R37-N8	5/27/2015	Below MDC	Below MDC	Below MDC
WQSP-5 (Duplicate)	GW-WQ5-C-R37-N8D	5/27/2015	Below MDC	Below MDC	Below MDC
Field Blank	GW-BU5-C-R37-N9	5/27/2015	Below MDC	Below MDC	Below MDC

MDC ranges are:

MDC Am-241 (dpm/L): 4.21E-02 to 1.59E-01

MDC Pu-238 (dpm/L): 3.01E-02 to 9.66E-02

MDC Pu-239/240 (dpm/L): 2.59E-02 to 8.94E-02



Surface Water & Sediment Sampling Locations

Environmental Monitoring & Hydrology Surface Water Sampling

Location	Sample ID Number	Sample Date	WIPP Labs Radiochemistry		
			Am-241 (dpm/L)	Pu-238 (dpm/L)	Pu-239/240 (dpm/L)
Red Tank	WS-RED-20150430-1.1	4/30/2015	Below MDC	Below MDC	Below MDC
Poker Trap	WS-PKT-20150505-1.1	5/5/2015	Below MDC	Below MDC	Below MDC
Bottom of the Hill Tank	WS-BHT-20150505-1.1	5/5/2015	Below MDC	Below MDC	Below MDC
Lost Tank	WS-LST-20150505-1.1	5/5/2015	Below MDC	Below MDC	Below MDC
Noya Tank	WS-NOY-20150528-1.1	5/28/2015	Below MDC	Below MDC	Below MDC
Noya Tank Dup	WS-COY-20150528-1.1	5/28/2015	Below MDC	Below MDC	Below MDC
Tut Tank	WS-TUT-20150528-1.1	5/28/2015	Below MDC	Below MDC	Below MDC
Coyote Well (Field Blank)	WS-COW-20150529-1.1	5/29/2015	Below MDC	Below MDC	Below MDC

MDC ranges are:

MDC Am-241 (dpm/L): 4.34E-02 to 1.51E-01

MDC Pu-238 (dpm/L): 2.84E-02 to 1.16E-01

MDC Pu-239/240 (dpm/L): 2.79E-02 to 1.24E-01

Environmental Monitoring & Hydrology Sediment Sampling

Location	Sample ID Number	Sample Date	WIPP Labs Radiochemistry		
			Am-241 (dpm/g)	Pu-238 (dpm/g)	Pu-239/240 (dpm/g)
Noya Tank	SB-NOY-20150528-1.2	5/28/2015	Below MDC	Below MDC	Below MDC
Noya Tank (Dup)	SB-NOY-20150528-2.2	5/28/2015	Below MDC	Below MDC	Below MDC
Tut Tank	SB-TUT-20150528-1.1	5/28/2015	Below MDC	Below MDC	Below MDC
Lost Tank	SB-LST-20150528-1.1	5/28/2015	Below MDC	Below MDC	Below MDC
Bottom of the Hill Tank	SB-BHT-20150528-1.1	5/28/2015	Below MDC	Below MDC	Below MDC

MDC ranges are:

MDC Am-241 (dpm/g): 3.11E-02 to 5.00E-02

MDC Pu-238 (dpm/g): 1.63E-02 to 4.49E-02

MDC Pu-239/240 (dpm/g): 2.96E-02 to 3.94E-02

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 Deer/Sample of Opportunity	BD-SOO-20150415-1.1	4/15/2015	Below MDC	Below MDC	Below MDC

MDCs ranges are:

MDC Am-241 (dpm/g): 2.01E-02 to 5.01E-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 November 30, 2014]

Attachment 6
Corrective Actions Required for Recovery (reserved)
[Last updated April 30, 2015]

Attachment 7
Panel 7 Recovery-Related Work (reserved)
[Last updated June 30, 2015]

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



Interim Ventilation System Concrete Pad Completed



Supplemental Ventilation System Fan Unit



Supplemental Ventilation System Fan Unit

Attachment 9
WIPP Nitrate Salt Bearing Waste Container Isolation Plan
Information Required by Administrative Order 3 (reserved)