Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221

APR 29 2016

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

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

Subject: Quarterly Report for the Reporting Period between January 1, 2016, through March 31, 2016, 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, July 15, 2015, and February 26, 2016

Dear Mr. Kieling and Ms. Roberts:

The purpose of this letter is to transmit the quarterly report for the reporting period between January 1, 2016, through March 31, 2016, as required by the February 27, 2014, and May 12, 2014, Administrative Orders issued under the authority of the New Mexico Hazardous Waste Act § 74-4-13 from Mr. Ryan Flynn to Messrs. Hellstrom, Franco, Cook, and McQuinn, and as amended by the August 29, 2014, and December 9, 2014, directives from Mr. Ryan Flynn to Messrs. Franco and McQuinn, the July 15, 2015, directive from Ms. Kathryn Roberts to Messrs. Bryson and Breidenbach and the February 26, 2016, directive from Ms. Kathryn Roberts to Messrs. Shrader and Breidenbach. The paper copy of the report is enclosed along with a compact disc containing the electronic version of the report.

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

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

Sincerely,
Original Signatures on File

Todd Shrader, Manager
Carlsbad Field Office

Philip J. Breidenbach, Project Manager
Nuclear Waste Partnership LLC

Enclosure

cc: w/enclosure
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Quarterly Status Report for the New Mexico Environment Department Administrative Orders

Reporting Period January 1, 2016, through March 31, 2016

Introduction

This report serves to fulfill the monitoring and reporting requirements set forth by Administrative Orders, AO1, AO2, and AO3, as amended by the NMED directives dated August 29, 2014, December 9, 2014, July 15, 2015, and February 26, 2016. 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, *List of Surface and Underground Inspections*, shows the current status of each Permit-required inspection. The list is sorted so that the "Not Current" rows appear at the beginning of the table.

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:

Volatile Organic Compound (VOC) Monitoring

On January 8, 2016, the NMED approved a modification to the Permit to change the underground Repository VOC monitoring program locations to the surface. This change incorporates the monitoring practices put in place after February 2014, which included changes to sampling duration and sampling equipment. In addition, trichloroethylene was added as a Permit-required target analyte. This change became effective on February 10, 2016. Surface monitoring is 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 non-waste surface workers are satisfied in accordance with the revised Permit.

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 (VOC-C) and at an off-site location (VOC-D) approximately a mile southeast of the Training Building.

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 in the underground due to radioactive contamination. This does not pose a threat to underground waste workers because waste handling is not underway in the underground. Disposal room monitoring is planned to commence when underground waste emplacement operations resume.

Geomechanical Monitoring

The purpose of geomechanical monitoring is to confirm the structural integrity of the underground repository. Geomechanical monitoring data are transmitted electronically via remote instruments located in Room 6 of Panel 7 in accordance with Permit Part 4, Section 4.6.1, associated requirements in Attachment A2-5b(2), and Attachment E, Table E-2. More than 5,400 bolts have been installed in the underground since bolting activities resumed in November 2014, and catchup bolting is approximately 85 percent complete.

Hydrogen and Methane Monitoring

Hydrogen and methane monitoring activities (required by Permit Part 4, Section 4.6.5 and associated requirements in Attachment N1) are not currently being performed due to radioactive contamination. Previous monitoring data from the Semi-Annual VOC, Hydrogen and Methane Data Summary Reports indicate that this does not pose a threat to underground waste workers.

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. 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). Surface VOC monitoring indicates that the reduced flow rate does not pose a threat to the non-waste surface worker.

3.0 Location of environmental monitoring equipment. The reports shall include dates of sampling, and all data that has been produced by these monitoring stations for this reporting period, as requested per Paragraph 14(f) of AO1:

See Attachment 2, *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 2, *Environmental Monitoring*.

VOC monitoring stations – Surface monitoring equipment has been deployed since February 25, 2014. Samples are being collected twice each week at the locations indicated in Attachment 2. The results are included in Attachment 2, *Environmental Monitoring*.

4.0 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:

Since the submittal of the last report, no derived waste was generated; therefore, Attachment 3, *Surface and Underground Derived Waste Currently in Storage at the WIPP Facility,* is currently reserved. Attachment 3 was last updated June 30, 2015.

5.0 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 report. Attachment 4, *Status of RCRA Contingency Plan Required Activities*, was last updated September 30, 2015.

6.0 The 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, DOE issued a Preliminary Notice of Violation (PNOV) to Nuclear Waste Partnership (NWP) for violations of DOE worker safety and health and nuclear safety requirements as a result of the incidents referenced in Paragraphs 8 and 9 of AO2. Issuance of these PNOVs marks the completion of DOE's investigations and enforcement process regarding two events in 2014 at the WIPP facility. The NWP PNOV did not result in any additional requirements placed upon the WIPP facility relating to the corrective actions for the February 2014 incidents. Attachment 5, *Corrective Actions*, is currently reserved.

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

During this reporting period, as a result of radiological risk mitigation efforts, the requirements for respiratory protection were lifted for a significant portion of the WIPP underground. The change in respiratory protection requirements applies to all areas south of S-2520 drift and represents a significant milestone in the contamination mitigation efforts. An updated radiological rollback map is shown in Attachment 6*, Recovery-Related Work Activities*, which depicts the down-posted area.

During this reporting period, the Permittees completed the tie in of the new interim ventilation system (IVS) to the ductwork for the existing underground ventilation system. Photographs depicting the work activities are shown in Attachment 6*, Recovery-Related Work Activities.*

Beginning on February 22, 2016, a safety pause was declared at the WIPP facility in response to air quality issues in two remote areas of the underground and an extensive investigation commenced. Based on the findings from the investigation, improvements were made to procedures and processes to help ensure that workers entering low airflow areas with potential poor air quality continue to be adequately protected. Emphasis has been on increasing ventilation to low airflow work areas in advance of planned activities. The safety pause was lifted in March 2016 and work in these areas has resumed.

A new underground Wireless Notification and Tracking System (WNTS) was installed in March 2016 at WIPP that allows for two-way radio communication for both talk and text, audible and flashing alarms and allows personnel to immediately signal the Central Monitoring Room (CMR) in the event of an emergency. It also provides real-time tracking of all personnel entering the WIPP underground.

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

On May 20, 2015, isolation of nitrate salt bearing waste containers was completed with the closure of Panel 7, Room 7. WIPP personnel also completed the initial closure of Panel 6 in May 2015. Any written updates to information in the Plan will be provided with the existing quarterly report in accordance with NMED letters dated July 15, 2015, and February 26, 2016. Attachment 7, *WIPP Nitrate Salt Bearing Waste Container Isolation Plan Information Required by Administrative Order 3*, is currently reserved, and was last updated on November 30, 2015.

Attachment 1
List of Surface and Underground Inspections

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/Not Current/ Other[1])	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[2]	Comments
Bulkhead in Filled Panels	Underground Operations	Monthly	Integrity and Deterioration of Accessible Areas	Current Not Current (see comments)	3/16/16	4/30/16	Inspections in Panel 6 and Panel 7 are current. Access limitations have prevented inspections in Panels 3 & 4. Inspections for Panel 3 and Panel 4 were last performed in March 2015.
Explosion-Isolation Walls	Underground Operations	Quarterly	Integrity and Deterioration of Accessible Areas	Not Current (see comments)	12/18/15	6/30/16	Inspections are not current due to access control.
Fire Hoses	Emergency Services	Annually (minimum)	12-FP0031 Inspecting for Deterioration and Leaks/Spills	Not Current (see comments)	2/28/15	6/30/16	This inspection did not occur as scheduled due to procedure WP 12-FP0031 being revised to address the use of new equipment for testing the hoses. The revised procedure has been issued; however, the diesel fire pump went out of service, thereby preventing the testing. Compensatory measures are being developed to allow pressure testing of the fire hoses and are expected to be in place within 60 days.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/Not Current/ Other[1])	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[2]	Comments
Fire Extinguishers (Underground)	Emergency Services	Monthly	12-FP0036 Inspecting for Deterioration, Leaks/Spills, Expiration, seals, fullness, and pressure	Current Not Current (see comments)	3/31/16	4/30/16	Inspections of surface fixed and mobile fire extinguishers are current. Not all fixed and mobile extinguishers in the underground were inspected in March due to the safety stand-down regarding air quality issues. The date of the last inspection for all extinguishers was 2/28/16.
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	3/29/16	N/A	
Ambulance (Surface) and related emergency supplies and equipment	Emergency Services	Weekly	12-FP0030 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Other	3/27/16	N/A	The inspection for the week of 1/24/16 was not performed because the ambulance unit was sent off-site for repairs. During this period, compensatory measures were put in place by designating the surface rescue truck as the backup ambulance. The inspection is current as of 3/27/16.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/Not Current/ Other[1])	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[2]	Comments
Ambulances (Underground) and related emergency supplies and equipment	Emergency Services	Weekly	12-FP0030 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Other	3/26/16	N/A	The weekly inspection on 3/12/16 was not performed because personnel access was restricted to the underground during a safety stand-down regarding air quality issues. This inspection is current as of 3/26/16.
Exhaust Shaft	Underground Operations	Quarterly	PM041099 Inspecting for Deterioration and Leaks/Spills	Current	2/3/16	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	3/29/16	N/A	
Self-Rescuers	Underground Operations	Quarterly	WP 04-AU1026 Inspecting for Deterioration and Functionality in accordance with MSHA requirements	Current	3/31/16	N/A	
Underground Openings—Roof Bolts and Travelways	Underground Operations	Weekly	WP 04-AU1007 Inspecting for Deterioration	Current	3/31/16	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/Not Current/ Other[1])	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[2]	Comments
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	3/28/16	N/A	
MSHA Air Quality Monitor	Maintenance/ Underground Operations	Daily	WP 12-IH1828 Inspecting for Air Quality Monitoring Equipment Functional Check	Current	3/31/16	N/A	
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	12/17/15	N/A	
Fire Pumps	Emergency Services	Weekly/ annually	WP 12-FP0026, WP 12-FP5113, and WP 12-FP5114 Inspecting for Deterioration, Leaks/Spills, valves, and panel lights	Current Other	3/21/16 (Weekly) 3/18/15 (Annual) 2/29/16 (Weekly) 3/2/16 (Annual)	6/30/16	Inspections performed on the electric fire pump are current. During the annual inspection of the diesel fire pump on 3/2/16, the pump was taken out of service for repair. Compensatory measures are in place to address the diesel fire pump being out of service.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/Not Current/ Other[1])	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[2]	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	Other	3/27/16	N/A	The weekly inspection on 3/12/16 was not performed because personnel access was restricted to the underground during a safety stand-down regarding air quality issues. This inspection is current as of 3/27/16.
Fire Extinguishers (Surface)	Emergency Services	Monthly	12-FP0036 Inspecting for Deterioration, Leaks/Spills, Expiration, seals, fullness, and pressure	Current	3/31/16	N/A	
Rescue Truck (Surface)	Emergency Services	Weekly	12-FP0030 and 12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Other	3/31/16	N/A	Unit is out of service due to maintenance. Compensatory measure is that the rescue equipment has been placed onto Fire Truck # 2 (2015 Rosenbauer) until the unit is repaired and is being inspected weekly.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/Not Current/ Other[1])	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[2]	Comments
Rescue Trucks (Underground)	Emergency Services	Weekly	12-FP0030 and 12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Other	2/8/14	6/30/16	Rescue Truck # 2 is out of service. Underground emergency response compensatory measures have been implemented including fire and medical related measures. The underground fire suppression vehicles are being used for fire suppression. Associated tools and equipment will be transferred to Rescue Truck # 3 once it has been placed into service.
Fire Hydrants	Emergency Services	Semiannual/ annually	12-FP0034 Inspecting for Deterioration and Leaks/Spills	Current	3/25/16: (Semiannual) 8/1/15 – 8/6/15: (Annual)	N/A	
Fire Sprinkler Systems	Emergency Services	Monthly/ quarterly	WP 12-FP0025 Inspecting for Deterioration, Leaks/Spills, static pressures, and removable strainers	Current	3/31/16 (monthly) 2/19/16 (quarterly)	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	Other	3/25/16, 3/26/16	N/A	Fire Truck # 1 (1995 Seagrave) is out of service. Compensatory measure is that the firefighting equipment has been placed onto Carlsbad # 5 fire engine and is being inspected on weekly basis.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/Not Current/ Other[1])	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[2]	Comments
Automatic on-board fire suppression systems	Emergency Services	Semiannual	WP 12-FP0060 Inspecting for Mechanical Operability, Deterioration	Current	11/6/15	N/A	
Hazardous Material Response Equipment	Emergency Services	Weekly	12-FP0033 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Current	3/29/16	N/A	
Miners First Aid Station	Emergency Services	Quarterly	12-FP0035 Inspecting for Required Equipment	Current	3/30/16	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	3/31/16	N/A	Self-Contained Breathing Apparatuses are currently located on the emergency vehicles and weekly inspections are being performed.
Vehicle Siren (Surface Vehicles)	Emergency Services	Weekly	Functional Test included with inspection of the Ambulances, Fire Trucks, and Rescue Trucks	Current	3/25/16, 3/26/16, 3/27/16	N/A	
Vehicle Siren (Underground Vehicles)	Emergency Services	Weekly	Functional Test included with inspection of the Ambulances, Fire Trucks, and Rescue Trucks	Current	3/27/16	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/Not Current/ Other[1])	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[2]	Comments
Adjustable Center of Gravity Lift Fixture	Waste Handling	Preoperational	WP 05-WH1410 Inspecting for Mechanical Operability and Deterioration	Current	3/20/16 (41-T-037) 10/23/14 (41-T-038) 12/14/15 (41-T-032) 4/13/15 (41-T-036)	N/A	
Contact-Handled (CH) TRU Underground Transporter	Waste Handling	Preoperational	WP 05-WH1603 Inspecting for Leaks/Spills, Mechanical Operability, Deterioration, and area around transporter clear of obstacles	Current	7/23/15 (52-H-008A)	N/A	
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	3/2/16 (41-H-018)	N/A	
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	2/9/16 (41-H-020A) 3/3/16 (41-H-020B)	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/Not Current/ Other[1])	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[2]	Comments
Forklifts Used for Waste Handling (Electric and Diesel forklifts, Push-Pull Attachment) on Surface	Waste Handling	Preoperational	WP 05-WH1201, WP 05-WH1207, WP 05-WH1401, WP 05-WH1402, WP 05-WH1403, and WP 05-WH1412 Inspecting for Leaks/Spills, Mechanical Operability, Deterioration, and On board fire suppression system	Current	2/9/16 (41-H-009) 2/10/16 (41-H-013) 2/8/15 (41-H-051) 3/20/16 (41-H-012D) 2/10/16 (41-H-012E) 3/11/16 (74-H-010B)	N/A	
Forklifts Used for Waste Handling (Electric and Diesel forklifts, Push-Pull Attachment) in Underground	Waste Handling	Preoperational	WP 05-WH1201, WP 05-WH1207, WP 05-WH1401, WP 05-WH1402, WP 05-WH1403, and WP 05- WH1412 Inspecting for Leaks/Spills, Mechanical Operability, Deterioration, and On board fire suppression system	Current	1/12/16 (52-H-126)	N/A	
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	3/16/16 (Weekly) 3/31/16 (Daily)	N/A	
TRU Mixed Waste Decontamination Equipment	Waste Handling	Annually	WP 05-WH1101 Inspecting for Required Equipment	Current	12/30/15	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/Not Current/ Other[1])	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[2]	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	Other	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	Other	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	Other	1/6/15 (41-T-151A) 7/7/15 (41-T-151B) 7/23/15 (41-T-151C) 3/20/16 (41-T-151D)	N/A	
Push-Pull Attachment (Surface)	Waste Handling	Preoperational	WP 05-WH1401 Inspecting for Damage and Deterioration	Other	7/08/15 (41-T-160A) 3/15/16 (41-T-160B)	N/A	
Push-Pull Attachment (Underground)	Waste Handling	Preoperational	WP 05-WH1401 Inspecting for Damage and Deterioration	Other	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/ Other[1])	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[2]	Comments
Trailer Jockey	Waste Handling	Preoperational	WP 05-WH1405 Inspecting for Leaks/Spills, Mechanical Operability and Deterioration	Other	3/15/16 (41-H-151A) 11/19/15 (41-H-151B) 11/22/15 (41-H-046)	N/A	
Bolting Robot	Waste Handling	Preoperational	WP 05-WH1203 Mechanical Operability	Other	6/29/12	When waste disposal operations resume	
Yard Transfer Vehicle	Waste Handling	Preoperational	WP 05-WH1205 Mechanical Operability, clear of obstacles and Guards in proper place	Other	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	Other	12/16/14 (41-Z-041)	N/A	
Monorail Hoist	Waste Handling	Preoperational	WP 05-WH1202 Mechanical Operability, and Leaks/Spills	Other	3/3/16 (41-H-027)	N/A	
Bolting Station	Waste Handling	Preoperational	WP 05-WH1203 Mechanical Operability, Deterioration, and Guards in proper place	Other	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/ Other[1])	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[2]	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	3/2/16 (#1) 3/2/16 (#2)	N/A	
Central Monitoring System (CMS)	Facility Operations	Continuous	Automatic Self-Checking	Current	3/31/16	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	3/28/16	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	3/28/16	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	3/28/16	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/Not Current/ Other[1])	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[2]	Comments
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	3/28/16	N/A	
Radio Equipment	Facility Operations	Daily	Radios are operated daily and are repaired upon failure	Current	3/31/16	N/A	
Uninterruptible Power Supply (Central UPS)	Facility Operations	Daily	WP 04-ED1542 Inspecting for Mechanical Operability and Deterioration with no malfunction alarms. Results of this inspection are logged in accordance with WP 04- AD3008.	Current	3/31/16	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	3/31/16	N/A	
Facility Inspections (Water Diversion Berms)	Facility Engineering	Annually	WP 10-WC3008 Inspecting for Damage, Impediments to water flow, and Deterioration	Current	12/18/15	N/A	
Eye Wash and Shower Equipment (Surface)	Equipment Custodian	Weekly	WP 12-IS1832 Inspecting for Deterioration	Current	3/25/16-3/29/16	N/A	
Eye Wash and Shower Equipment (Underground)	Equipment Custodian	Weekly	WP 12-IS1832 Inspecting for Deterioration	Current	3/25/16-3/29/16	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/Not Current/ Other[1])	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)[2]	Comments
Perimeter Fence, Gates, Signs	Security	Daily	PF0-008 Inspecting for Deterioration and Posted Warnings	Current	3/31/16	N/A	
Underground—Geomechanical Instrumentation System (GIS)	Geotechnical Engineering	Monthly	WP 07-EU1301 Inspecting for Deterioration	Current	3/26/16	N/A	Complete at accessible areas.
Ventilation Exhaust	Maintenance Operations	Quarterly	IC041098 Check for Deterioration and Calibration of Mine Ventilation Rate Monitoring Equipment	Other	41F30703 Fan A (11/9/13) 41F30704 Fan B (5/20/13) 41F30702 Fan C (12/18/13)	No date set because the 700 fans are not used while in filtration mode.	The 700 horsepower fans are not in use because underground ventilation system is operating in filtration mode.

1 "Other" indicates that the inspection was current at the end of the reporting period but an inspection was not performed sometime during the period or the inspection is not being performed because the equipment was not in service during the time period. See the comment column.

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

Attachment 2
Environmental Monitoring

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	11/4/2015	11/13/2015	9373	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	Chloroform	67-66-3	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	Toluene	108-88-3	PPBV	0.6	0.15 J
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	Butane	106-97-8	PPBV		2.67 NJ
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	Isobutane	75-28-5	PPBV		1.5 NJ
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	Pentane	109-66-0	PPBV		1.5 NJ
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	Propane	74-98-6	PPBV		3.33 NJ
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	300	U
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	300	U
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	300	U
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	300	20.82 J
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	300	88.56 J
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	Chlorobenzene	108-90-7	PPTV	300	U
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	Chloroform	67-66-3	PPTV	300	15.54 J
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	Methylene Chloride	75-09-2	PPTV	300	64.02 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.
PPMV = parts per million by volume
PPTV = parts per trillion 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	11/4/2015	11/13/2015	9373	WQSP-4	Toluene	108-88-3	PPTV	300	166.47 J
CEMRC	11/4/2015	11/13/2015	9373	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	300	35.7 J
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.6	0.15 J
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.6	U
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	Butane	106-97-8	PPBV		2.73 NJ
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	Pentane	109-66-0	PPBV		1.5 NJ
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	Propane	74-98-6	PPBV		3.48 NJ
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	300	U
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	300	U
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	300	U
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	300	22.47 J
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	300	129.21 J
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	300	U
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	Chloroform	67-66-3	PPTV	300	18.09 J

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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.

PPMV = parts per million by volume

PPTV = parts per trillion 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	11/4/2015	11/13/2015	9374	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	300	58.53 J
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	Toluene	108-88-3	PPTV	300	165.63 J
CEMRC	11/4/2015	11/13/2015	9374	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	300	25.38 J
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.16 J
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Butane	106-97-8	PPBV		3.72 NJ
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		1.82 NJ
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		0.46 NJ
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Isobutane	75-28-5	PPBV		2.06 NJ
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Pentane	109-66-0	PPBV		2.3 NJ
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Propane	74-98-6	PPBV		4.02 NJ
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	1,1-Dichloroethylene	75-35-4	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.

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

PPMV = parts per million by volume

PPTV = parts per trillion 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	11/5/2015	11/14/2015	9376	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	24.28 J
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	102.5 J
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Chloroform	67-66-3	PPTV	200	15.56 J
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	60.66 J
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Toluene	108-88-3	PPTV	200	170.56 J
CEMRC	11/5/2015	11/14/2015	9376	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.12 J
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.16 J
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	Butane	106-97-8	PPBV		3.28 NJ
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	Isobutane	75-28-5	PPBV		1.78 NJ
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	Pentane	109-66-0	PPBV		1.92 NJ
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	Propane	74-98-6	PPBV		3.52 NJ
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	12.72 J

Qualifiers:

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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.

PPMV = parts per million by volume

PPTV = parts per trillion 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	11/5/2015	11/14/2015	9377	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	22.9 J
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	128.64 J
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	16.14 J
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	59.5 J
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	149.9 J
CEMRC	11/5/2015	11/14/2015	9377	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	18.72 J
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.2 J
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	Butane	106-97-8	PPBV		5.58 NJ
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		2.3 NJ
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	Isobutane	75-28-5	PPBV		3.08 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.

PPMV = parts per million by volume

PPTV = parts per trillion 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	11/11/2015	11/18/2015	9378	WQSP-4	Pentane	109-66-0	PPBV		2.86 NJ
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	Propane	74-98-6	PPBV		5.28 NJ
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	25.34 J
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	88.3 J
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	Chloroform	67-66-3	PPTV	200	13.86 J
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	66.3 J
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	Toluene	108-88-3	PPTV	200	222.2
CEMRC	11/11/2015	11/18/2015	9378	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.6	U
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.6	U
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.6	U
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.6	U
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.6	U
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.6	U
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.6	U
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.6	U
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.6	0.24 J
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.6	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.

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

PPMV = parts per million by volume

PPTV = parts per trillion 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	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Butane	106-97-8	PPBV		6.06 NJ
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		2.46 NJ
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Isobutane	75-28-5	PPBV		3.3 NJ
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Pentane	109-66-0	PPBV		2.88 NJ
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Propane	74-98-6	PPBV		6.57 NJ
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	300	16.68 J
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	300	U
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	300	U
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	300	26.28 J
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	300	135.36 J
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	300	U
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Chloroform	67-66-3	PPTV	300	16.74 J
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	300	64.44 J
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Toluene	108-88-3	PPTV	300	236.37 J
CEMRC	11/11/2015	11/18/2015	9379	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	300	24.6 J
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.6	U
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.6	U
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.6	U
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.6	U
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.6	U
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.6	U
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	Chloroform	67-66-3	PPBV	0.6	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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PPMV = parts per million by volume

PPTV = parts per trillion 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	11/12/2015	11/19/2015	9380	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.6	U
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	Toluene	108-88-3	PPBV	0.6	0.12 J
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.6	U
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	Butane	106-97-8	PPBV		2.34 NJ
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		1.02 NJ
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	Isobutane	75-28-5	PPBV		1.26 NJ
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	Propane	74-98-6	PPBV		2.88 NJ
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	300	U
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	300	U
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	300	U
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	300	18.45 J
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	300	97.8 J
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	Chlorobenzene	108-90-7	PPTV	300	U
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	Chloroform	67-66-3	PPTV	300	19.23 J
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	Methylene Chloride	75-09-2	PPTV	300	70.86 J
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	Toluene	108-88-3	PPTV	300	133.95 J
CEMRC	11/12/2015	11/19/2015	9380	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	300	U
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 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.

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

PPMV = parts per million by volume

PPTV = parts per trillion 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	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.24 J
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Butane	106-97-8	PPBV		3.56 NJ
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		1.92 NJ
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Isobutane	75-28-5	PPBV		1.94 NJ
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Pentane	109-66-0	PPBV		1.58 NJ
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Propane	74-98-6	PPBV		3.94 NJ
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	22.6 J
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	91.08 J
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	17.12 J
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	64.32 J
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	246.14
CEMRC	11/12/2015	11/19/2015	9381	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U

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Notes:

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

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PPMV = parts per million by volume

PPTV = parts per trillion 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	11/18/2015	11/30/2015	9382	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.1 J
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	Butane	106-97-8	PPBV		6.06 NJ
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		2.44 NJ
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		0.6 NJ
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	Pentane	109-66-0	PPBV		2.84 NJ
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	Propane	74-98-6	PPBV		6 NJ
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	27.4 J
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	85.44 J
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	Chloroform	67-66-3	PPTV	200	15.2 J
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	65.18 J
CEMRC	11/18/2015	11/30/2015	9382	WQSP-4	Toluene	108-88-3	PPTV	200	106.86 J
CEMRC	11/18/2015	11/30/2015	9382	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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PPTV = parts per trillion 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	11/18/2015	11/30/2015	9384	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.6	U
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.6	U
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.6	U
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.6	U
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.6	U
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.6	U
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.6	U
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.6	U
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.6	0.15 J
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.6	U
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Butane	106-97-8	PPBV		10.56 NJ
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		3.99 NJ
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		0.99 NJ
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Isobutane	75-28-5	PPBV		6.03 NJ
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Pentane	109-66-0	PPBV		4.77 NJ
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Propane	74-98-6	PPBV		12.69 NJ
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	300	U
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	300	U
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	300	U
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	300	40.35 J
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	300	91.47 J
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	300	U
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Chloroform	67-66-3	PPTV	300	15.84 J

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Notes:

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

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	300	68.43 J
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Toluene	108-88-3	PPTV	300	152.49 J
CEMRC	11/18/2015	11/30/2015	9384	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	300	U
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.1 J
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	Butane	106-97-8	PPBV		3.54 NJ
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		1.46 NJ
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	Isobutane	75-28-5	PPBV		2.08 NJ
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	Pentane	109-66-0	PPBV		1.4 NJ
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	Propane	74-98-6	PPBV		4.08 NJ
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	21.6 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.

PPMV = parts per million by volume

PPTV = parts per trillion 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	11/19/2015	11/30/2015	9385	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	91.54 J
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	Chloroform	67-66-3	PPTV	200	14.68 J
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	62.74 J
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	Toluene	108-88-3	PPTV	200	95.44 J
CEMRC	11/19/2015	11/30/2015	9385	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.1 J
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Butane	106-97-8	PPBV		3.54 NJ
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		1.42 NJ
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.18 NJ
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Pentane	109-66-0	PPBV		1.42 NJ
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Propane	74-98-6	PPBV		4.08 NJ
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	U

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).
U = Compound not detected above the MDL.
NJ = Presumptive evidence of the presence of the compound at an estimated quantity; only used for tentatively identified compounds (TICs).

Notes:

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

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

PPMV = parts per million by volume

PPTV = parts per trillion 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	11/19/2015	11/30/2015	9386	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	19.6 J
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	85.6 J
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	15.12 J
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	60.42 J
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	102.54 J
CEMRC	11/19/2015	11/30/2015	9386	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	U

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).
U = Compound not detected above the MDL.
NJ = Presumptive evidence of the presence of the compound at an estimated quantity; only used for tentatively identified compounds (TICs).

Notes:

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

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

PPMV = parts per million by volume

PPTV = parts per trillion 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	11/24/2015	12/7/2015	9387	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.26 J
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	Butane	106-97-8	PPBV		6.62 NJ
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		2.8 NJ
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	Isobutane	75-28-5	PPBV		3.7 NJ
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	Pentane	109-66-0	PPBV		2.92 NJ
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	Propane	74-98-6	PPBV		5.16 NJ
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	39.04 J
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	26.28 J
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	81.4 J
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	19.44 J
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	Chloroform	67-66-3	PPTV	200	16.08 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.

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	11/24/2015	12/7/2015	9387	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	60.02 J
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	Toluene	108-88-3	PPTV	200	243.68
CEMRC	11/24/2015	12/7/2015	9387	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	9.44 J
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.14 J
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.28 J
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Butane	106-97-8	PPBV		7.42 NJ
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		3.12 NJ
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Isobutane	75-28-5	PPBV		4.1 NJ
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Pentane	109-66-0	PPBV		3.26 NJ
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Propane	74-98-6	PPBV		6.14 NJ
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	16.42 J
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	24.08 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.

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

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	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	141.28 J
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	11.92 J
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	20.92 J
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	63.18 J
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	284.06
CEMRC	11/24/2015	12/7/2015	9388	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	29.24 J
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.32 J
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Butane	106-97-8	PPBV		8.06 NJ
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		3.34 NJ
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Cyclohexane, methyl-	108-87-2	PPBV		0.54 NJ
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		0.48 NJ
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Isobutane	75-28-5	PPBV		4.54 NJ
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Pentane	109-66-0	PPBV		3.74 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.

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

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	11/25/2015	12/7/2015	9389	WQSP-4	Pentane, 2-methyl-	107-83-5	PPBV		0.82 NJ
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Propane	74-98-6	PPBV		6.22 NJ
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	29.02 J
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	31.9 J
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	95.18 J
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	18.1 J
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Chloroform	67-66-3	PPTV	200	16.44 J
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	65.42 J
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Toluene	108-88-3	PPTV	200	300.54
CEMRC	11/25/2015	12/7/2015	9389	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.18 J
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.36 J
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	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.

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

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	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Butane	106-97-8	PPBV		8.1 NJ
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		3.62 NJ
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Cyclohexane, methyl-	108-87-2	PPBV		0.56 NJ
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		0.52 NJ
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Isobutane	75-28-5	PPBV		4.68 NJ
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Pentane	109-66-0	PPBV		3.72 NJ
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Propane	74-98-6	PPBV		6.86 NJ
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	21.64 J
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	24.66 J
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	31.52 J
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	170.54 J
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	14.9 J
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	26.88 J
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	64.42 J
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	346.26
CEMRC	11/25/2015	12/7/2015	9390	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	71.74 J
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.12 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.

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

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	12/2/2015	12/14/2015	9391	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.4
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Butane	106-97-8	PPBV		10.1 NJ
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		4.42 NJ
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Cyclohexane, methyl-	108-87-2	PPBV		0.72 NJ
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		1.18 NJ
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Isobutane	75-28-5	PPBV		5.44 NJ
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Pentane	109-66-0	PPBV		5.22 NJ
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Pentane, 2-methyl-	107-83-5	PPBV		1.36 NJ
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Propane	74-98-6	PPBV		8.66 NJ
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	53.84 J
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	45.48 J
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	115.4 J
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	31.08 J
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Chloroform	67-66-3	PPTV	200	17.16 J
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	103.64 J
CEMRC	12/2/2015	12/14/2015	9391	WQSP-4	Toluene	108-88-3	PPTV	200	378.12
CEMRC	12/2/2015	12/14/2015	9391	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.

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

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	12/2/2015	12/14/2015	9392	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.6	U
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.6	U
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.6	U
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.6	U
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.6	U
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.6	U
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.6	U
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.6	U
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.6	0.3 J
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.6	U
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Butane	106-97-8	PPBV		11.01 NJ
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		4.59 NJ
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		1.08 NJ
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Isobutane	75-28-5	PPBV		5.94 NJ
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Pentane	109-66-0	PPBV		5.22 NJ
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Propane	74-98-6	PPBV		11.1 NJ
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	300	U
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	300	U
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	300	U
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	300	43.02 J
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	300	117.42 J
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	300	U
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Chloroform	67-66-3	PPTV	300	16.8 J

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Notes:

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

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

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	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	300	124.05 J
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Toluene	108-88-3	PPTV	300	315.6
CEMRC	12/2/2015	12/14/2015	9392	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	300	U
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.28 J
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Butane	106-97-8	PPBV		7.78 NJ
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		3.24 NJ
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Cyclohexane, methyl-	108-87-2	PPBV		0.6 NJ
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		0.68 NJ
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Isobutane	75-28-5	PPBV		4.26 NJ
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Pentane	109-66-0	PPBV		4.24 NJ
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Pentane, 2-methyl-	107-83-5	PPBV		1.06 NJ
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Propane	74-98-6	PPBV		6.4 NJ
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	1,1,1-Trichloroethane	71-55-6	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.

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

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	12/3/2015	12/14/2015	9394	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	13.52 J
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	37.2 J
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	91.62 J
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	14.2 J
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Chloroform	67-66-3	PPTV	200	16.2 J
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	98.74 J
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Toluene	108-88-3	PPTV	200	271.54
CEMRC	12/3/2015	12/14/2015	9394	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.18 J
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	0.12 J
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.3 J
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Butane	106-97-8	PPBV		8.04 NJ
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		3.36 NJ
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Cyclohexane, methyl-	108-87-2	PPBV		0.64 NJ
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		0.82 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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* A value will not appear in the MRL column for TICs.

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	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Isobutane	75-28-5	PPBV		4.42 NJ
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Pentane	109-66-0	PPBV		4.26 NJ
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		1.04 NJ
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Propane	74-98-6	PPBV		7.34 NJ
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	26.66 J
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	34.8 J
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	184.8 J
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	20.42 J
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	134.8 J
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	292.2
CEMRC	12/3/2015	12/14/2015	9395	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	38.6 J
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.6	U
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.6	U
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.6	U
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.6	U
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.6	U
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.6	U
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Chloroform	67-66-3	PPBV	0.6	U
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.6	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.

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	12/9/2015	12/14/2015	9396	WQSP-4	Toluene	108-88-3	PPBV	0.6	0.3 J
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.6	U
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Butane	106-97-8	PPBV		9.3 NJ
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		3.78 NJ
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		0.87 NJ
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Isobutane	75-28-5	PPBV		5.04 NJ
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Pentane	109-66-0	PPBV		4.35 NJ
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Propane	74-98-6	PPBV		9.24 NJ
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	300	U
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	300	U
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	300	U
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	300	33.57 J
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	300	130.26 J
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Chlorobenzene	108-90-7	PPTV	300	U
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Chloroform	67-66-3	PPTV	300	16.59 J
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Methylene Chloride	75-09-2	PPTV	300	79.11 J
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Toluene	108-88-3	PPTV	300	309.63
CEMRC	12/9/2015	12/14/2015	9396	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	300	U
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	0.12 J
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	12/9/2015	12/14/2015	9397	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).
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.

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	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.6
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.22 J
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	0.2 J
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Butane	106-97-8	PPBV		8.2 NJ
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		3.3 NJ
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Cyclohexane, methyl-	108-87-2	PPBV		0.54 NJ
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		0.84 NJ
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Isobutane	75-28-5	PPBV		4.62 NJ
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Pentane	109-66-0	PPBV		4 NJ
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		0.98 NJ
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Propane	74-98-6	PPBV		7.34 NJ
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	122.22 J
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	34.66 J
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	569.36
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	44.44 J
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	72.78 J
CEMRC	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	236.92

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.

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

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	12/9/2015	12/14/2015	9397	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	203.08
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.12 J
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.26 J
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Butane	106-97-8	PPBV		9.1 NJ
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		3.74 NJ
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Cyclohexane, methyl-	108-87-2	PPBV		0.68 NJ
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		1.06 NJ
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Isobutane	75-28-5	PPBV		5.06 NJ
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Pentane	109-66-0	PPBV		4.5 NJ
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Propane	74-98-6	PPBV		8.2 NJ
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	200	36.82 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.

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

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	12/10/2015	12/15/2015	9398	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	200	112.94 J
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Chloroform	67-66-3	PPTV	200	16.16 J
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Methylene Chloride	75-09-2	PPTV	200	67.38 J
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Toluene	108-88-3	PPTV	200	274.82
CEMRC	12/10/2015	12/15/2015	9398	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.28 J
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.34 J
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	0.08 J
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Butane	106-97-8	PPBV		10.56 NJ
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		4.18 NJ
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Cyclohexane, methyl-	108-87-2	PPBV		0.82 NJ
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		1.12 NJ
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Isobutane	75-28-5	PPBV		5.94 NJ
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Pentane	109-66-0	PPBV		5.16 NJ
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Propane	74-98-6	PPBV		9.46 NJ

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.

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

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	12/10/2015	12/15/2015	9399	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	33.3 J
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	43.42 J
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	277.98
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	35.64 J
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	67.2 J
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	333.92
CEMRC	12/10/2015	12/15/2015	9399	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	91.04 J
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.3	0.09 J
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.3	U
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Toluene	108-88-3	PPBV	0.3	0.09 J
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.3	U
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Butane	106-97-8	PPBV		2.265 NJ
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		1.185 NJ

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.

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	12/16/2015	1/4/2016	9400	WQSP-4	Dichlorodifluoromethane	75-71-8	PPBV		0.375 NJ
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Isobutane	75-28-5	PPBV		1.245 NJ
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Pentane	109-66-0	PPBV		1.275 NJ
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Propane	74-98-6	PPBV		2.115 NJ
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	75	U
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	75	22.68 J
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	75	U
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	75	21.11 J
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	75	93.96
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Chlorobenzene	108-90-7	PPTV	75	12.3 J
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Chloroform	67-66-3	PPTV	75	16.68 J
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Methylene Chloride	75-09-2	PPTV	75	64.35 J
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Toluene	108-88-3	PPTV	75	93.38
CEMRC	12/16/2015	1/4/2016	9400	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	75	6.65 J
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Methylene Chloride	75-09-2	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.

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	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.1 J
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Butane	106-97-8	PPBV		2.68 NJ
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		1.42 NJ
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Isobutane	75-28-5	PPBV		1.48 NJ
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Pentane	109-66-0	PPBV		1.48 NJ
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Propane	74-98-6	PPBV		2.8 NJ
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	100	20.78 J
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	100	92.42 J
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Chloroform	67-66-3	PPTV	100	16.92 J
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	100	65.5 J
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Toluene	108-88-3	PPTV	100	102.92
CEMRC	12/16/2015	1/4/2016	9402	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	100	U
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.3	0.075 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.

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	12/17/2015	1/4/2016	9403	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.3	U
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Toluene	108-88-3	PPBV	0.3	0.15 J
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.3	U
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Butane	106-97-8	PPBV		4.56 NJ
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		1.98 NJ
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		0.405 NJ
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Isobutane	75-28-5	PPBV		2.67 NJ
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Pentane	109-66-0	PPBV		2.475 NJ
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Pentane, 2-methyl-	107-83-5	PPBV		0.69 NJ
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Propane	74-98-6	PPBV		4.575 NJ
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	75	U
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	75	U
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	75	U
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	75	23.03 J
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	75	85.89
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Chlorobenzene	108-90-7	PPTV	75	U
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Chloroform	67-66-3	PPTV	75	16.22 J
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Methylene Chloride	75-09-2	PPTV	75	64.64 J
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Toluene	108-88-3	PPTV	75	157.46
CEMRC	12/17/2015	1/4/2016	9403	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	75	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.

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	12/17/2015	1/4/2016	9404	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.16 J
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Butane	106-97-8	PPBV		5.3 NJ
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		2.44 NJ
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.98 NJ
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Pentane	109-66-0	PPBV		2.84 NJ
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		0.74 NJ
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Propane	74-98-6	PPBV		5.5 NJ
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	100	22.84 J
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	100	100.86
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Chloroform	67-66-3	PPTV	100	16.86 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.

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

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	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	100	60.72 J
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Toluene	108-88-3	PPTV	100	164.08
CEMRC	12/17/2015	1/4/2016	9404	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	100	10.16 J
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.22 J
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	Butane	106-97-8	PPBV		5.62 NJ
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		0.52 NJ
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	Isobutane	75-28-5	PPBV		3.24 NJ
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	Pentane	109-66-0	PPBV		2.78 NJ
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	Propane	74-98-6	PPBV		5.14 NJ
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	100	26.04 J

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.

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

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	12/22/2015	1/15/2016	9405	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	100	92.72 J
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	Chloroform	67-66-3	PPTV	100	15.74 J
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	Methylene Chloride	75-09-2	PPTV	100	60.56 J
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	Toluene	108-88-3	PPTV	100	227.6
CEMRC	12/22/2015	1/15/2016	9405	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	100	U
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.3 J
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.28 J
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	Butane	106-97-8	PPBV		5.36 NJ
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	Pentane	109-66-0	PPBV		2.62 NJ
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	Propane	74-98-6	PPBV		5.1 NJ
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	100	45.52 J
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	100	U

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).
U = Compound not detected above the MDL.
NJ = Presumptive evidence of the presence of the compound at an estimated quantity; only used for tentatively identified compounds (TICs).

Notes:

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

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

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	12/22/2015	1/15/2016	9406	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	100	29.32 J
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	100	305.1
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	Chloroform	67-66-3	PPTV	100	34.88 J
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	100	65.82 J
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	Toluene	108-88-3	PPTV	100	294.52
CEMRC	12/22/2015	1/15/2016	9406	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	100	91.14 J
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	Toluene	108-88-3	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	Butane	106-97-8	PPBV		2.1 NJ
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	Dichlorodifluoromethane	75-71-8	PPBV		0.46 NJ
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	Isobutane	75-28-5	PPBV		1.2 NJ
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	Propane	74-98-6	PPBV		2.08 NJ
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	100	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.

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	12/23/2015	1/15/2016	9407	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	16.02 J
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	100	19.78 J
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	100	97.56 J
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	Chloroform	67-66-3	PPTV	100	15.22 J
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	Methylene Chloride	75-09-2	PPTV	100	63.32 J
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	Toluene	108-88-3	PPTV	100	73.74 J
CEMRC	12/23/2015	1/15/2016	9407	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	100	U
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.08 J
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	Butane	106-97-8	PPBV		2.24 NJ
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	Dichlorodifluoromethane	75-71-8	PPBV		0.5 NJ
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	Pentane	109-66-0	PPBV		0.84 NJ
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	Propane	74-98-6	PPBV		2.3 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.

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	12/23/2015	1/15/2016	9408	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	14.34 J
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	100	22.18 J
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	100	116.76
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	Chloroform	67-66-3	PPTV	100	16.46 J
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	100	64.28 J
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	Toluene	108-88-3	PPTV	100	90.16 J
CEMRC	12/23/2015	1/15/2016	9408	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	100	7.68 J
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.3	0.075 J
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.3	U
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Toluene	108-88-3	PPBV	0.3	0.3
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.3	U
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Acetone	67-64-1	PPBV		1.005 NJ
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Butane	106-97-8	PPBV		6.555 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.

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

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	1/6/2016	1/25/2016	9409	WQSP-4	Dichlorodifluoromethane	75-71-8	PPBV		0.405 NJ
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Ethanol	64-17-5	PPBV		0.915 NJ
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Isobutane	75-28-5	PPBV		4.23 NJ
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Pentane	109-66-0	PPBV		2.76 NJ
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Pentane, 2-methyl-	107-83-5	PPBV		0.69 NJ
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Propane	74-98-6	PPBV		4.965 NJ
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	75	U
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	75	31.61 J
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	75	U
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	75	29.09 J
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	75	80.9
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Chlorobenzene	108-90-7	PPTV	75	16.67 J
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Chloroform	67-66-3	PPTV	75	17.42 J
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Methylene Chloride	75-09-2	PPTV	75	77.96
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Toluene	108-88-3	PPTV	75	312.68
CEMRC	1/6/2016	1/25/2016	9409	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	75	7.92 J
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.16 J
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).
U = Compound not detected above the MDL.
NJ = Presumptive evidence of the presence of the compound at an estimated quantity; only used for tentatively identified compounds (TICs).

Notes:

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

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

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	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.48
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Acetone	67-64-1	PPBV		0.52 NJ
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Butane	106-97-8	PPBV		9.08 NJ
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Ethanol	64-17-5	PPBV		0.48 NJ
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Isobutane	75-28-5	PPBV		5.16 NJ
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Pentane	109-66-0	PPBV		3.74 NJ
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		0.92 NJ
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Propane	74-98-6	PPBV		8.32 NJ
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	100	23.26 J
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	100	31.84 J
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	100	176.9
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	100	16.56 J
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Chloroform	67-66-3	PPTV	100	25.62 J
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	100	85.7 J
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Toluene	108-88-3	PPTV	100	515.3
CEMRC	1/6/2016	1/25/2016	9410	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	100	44.02 J
CEMRC	1/7/2016	1/25/2016	9411	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.

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

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	1/7/2016	1/25/2016	9411	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.22 J
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	Butane	106-97-8	PPBV		7.12 NJ
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		3.14 NJ
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	Isobutane	75-28-5	PPBV		3.96 NJ
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	Pentane	109-66-0	PPBV		2.96 NJ
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	Propane	74-98-6	PPBV		6.54 NJ
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	12.98 J
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	100	25.78 J
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	100	93.04 J
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	Chloroform	67-66-3	PPTV	100	16.4 J
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	Methylene Chloride	75-09-2	PPTV	100	74.18 J
CEMRC	1/7/2016	1/25/2016	9411	WQSP-4	Toluene	108-88-3	PPTV	100	222.14

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.

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	1/7/2016	1/25/2016	9411	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	100	U
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.26 J
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Butane	106-97-8	PPBV		8.24 NJ
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		3.66 NJ
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		0.48 NJ
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Isobutane	75-28-5	PPBV		4.58 NJ
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Pentane	109-66-0	PPBV		3.46 NJ
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Propane	74-98-6	PPBV		7.1 NJ
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	100	27.96 J
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	100	104.3

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.

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	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Chloroform	67-66-3	PPTV	100	17.6 J
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	100	78.96 J
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Toluene	108-88-3	PPTV	100	250.06
CEMRC	1/7/2016	1/25/2016	9412	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	100	9.92 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.

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	1/12/2016	1/25/2016	9414	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.44
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Butane	106-97-8	PPBV		15.08 NJ
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		7 NJ
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Cyclohexane, methyl-	108-87-2	PPBV		0.84 NJ
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		1.86 NJ
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Cyclopropane, ethyl-	1191-96-4	PPBV		0.64 NJ
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Isobutane	75-28-5	PPBV		8.38 NJ
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Pentane	109-66-0	PPBV		6.24 NJ
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Pentane, 2-methyl-	107-83-5	PPBV		1.66 NJ
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Propane	74-98-6	PPBV		12.22 NJ
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	100	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.

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	1/12/2016	1/25/2016	9414	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	100	53.84 J
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	100	88.04 J
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Chloroform	67-66-3	PPTV	100	16.12 J
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Methylene Chloride	75-09-2	PPTV	100	74.2 J
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Toluene	108-88-3	PPTV	100	445.92
CEMRC	1/12/2016	1/25/2016	9414	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	100	U
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.32 J
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Butane	106-97-8	PPBV		11.26 NJ
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		5.26 NJ
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Cyclohexane, methyl-	108-87-2	PPBV		0.6 NJ
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		1.06 NJ
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Isobutane	75-28-5	PPBV		6.28 NJ
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Pentane	109-66-0	PPBV		4.52 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.

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

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	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		1.18 NJ
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Propane	74-98-6	PPBV		9.7 NJ
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	100	39.32 J
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	100	105.42
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Chloroform	67-66-3	PPTV	100	16.38 J
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	100	72.52 J
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Toluene	108-88-3	PPTV	100	342.4
CEMRC	1/12/2016	1/25/2016	9413	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	100	10.94 J
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.5
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	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.

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

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	1/13/2016	1/25/2016	9417	WQSP-4	Butane	106-97-8	PPBV		13.86 NJ
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		6.5 NJ
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Cyclohexane, methyl-	108-87-2	PPBV		1.02 NJ
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		1.2 NJ
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Cyclopropane, ethyl-	1191-96-4	PPBV		0.54 NJ
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Isobutane	75-28-5	PPBV		7.9 NJ
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Pentane	109-66-0	PPBV		6.34 NJ
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Pentane, 2-methyl-	107-83-5	PPBV		1.8 NJ
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Propane	74-98-6	PPBV		12.04 NJ
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	100	45.48 J
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	100	85.3 J
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Chloroform	67-66-3	PPTV	100	13.98 J
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Methylene Chloride	75-09-2	PPTV	100	70.44 J
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Toluene	108-88-3	PPTV	100	527.38
CEMRC	1/13/2016	1/25/2016	9417	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	100	U
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	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.

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

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	1/13/2016	1/25/2016	9416	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.38 J
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.58
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	0.12 J
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Butane	106-97-8	PPBV		14.46 NJ
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		6.74 NJ
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Cyclohexane, methyl-	108-87-2	PPBV		1.1 NJ
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		1.46 NJ
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Cyclopropane, ethyl-	1191-96-4	PPBV		0.52 NJ
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Isobutane	75-28-5	PPBV		8.2 NJ
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Pentane	109-66-0	PPBV		6.56 NJ
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		1.92 NJ
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Propane	74-98-6	PPBV		12.1 NJ
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	100	60.58 J
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	100	47.26 J
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	100	392.9
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Chloroform	67-66-3	PPTV	100	45.42 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.

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

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	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	100	83.16 J
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Toluene	108-88-3	PPTV	100	581.48
CEMRC	1/13/2016	1/25/2016	9416	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	100	149.68
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.18 J
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Butane	106-97-8	PPBV		5.18 NJ
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		2.62 NJ
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Dichlorodifluoromethane	75-71-8	PPBV		0.48 NJ
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Isobutane	75-28-5	PPBV		2.68 NJ
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Pentane	109-66-0	PPBV		2.1 NJ
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Propane	74-98-6	PPBV		4.2 NJ
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	100	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.

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

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	1/20/2016	1/29/2016	9419	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	100	24.28 J
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	100	98.28 J
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Chloroform	67-66-3	PPTV	100	16.52 J
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Methylene Chloride	75-09-2	PPTV	100	84.82 J
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Toluene	108-88-3	PPTV	100	206.2
CEMRC	1/20/2016	1/29/2016	9419	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	100	25.14 J
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.32 J
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.24 J
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Butane	106-97-8	PPBV		4.94 NJ
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		2.64 NJ
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Dichlorodifluoromethane	75-71-8	PPBV		0.48 NJ
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.62 NJ
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Pentane	109-66-0	PPBV		1.98 NJ
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Propane	74-98-6	PPBV		4.2 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.

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	1/20/2016	1/29/2016	9418	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	100	73.28 J
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	100	26.6 J
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	100	336.48
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	100	12.16 J
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Chloroform	67-66-3	PPTV	100	28.1 J
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	100	106.14
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Toluene	108-88-3	PPTV	100	235.08
CEMRC	1/20/2016	1/29/2016	9418	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	100	95.46 J
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.12 J
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Butane	106-97-8	PPBV		3.62 NJ
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		1.82 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.

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

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	1/21/2016	1/29/2016	9421	WQSP-4	Dichlorodifluoromethane	75-71-8	PPBV		0.5 NJ
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Isobutane	75-28-5	PPBV		2 NJ
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Pentane	109-66-0	PPBV		1.32 NJ
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Propane	74-98-6	PPBV		3.12 NJ
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	100	23.08 J
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	100	110.76
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Chloroform	67-66-3	PPTV	100	17.3 J
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Methylene Chloride	75-09-2	PPTV	100	84.62 J
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Toluene	108-88-3	PPTV	100	130.74
CEMRC	1/21/2016	1/29/2016	9421	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	100	7.5 J
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Methylene Chloride	75-09-2	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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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.

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	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.14 J
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Butane	106-97-8	PPBV		3.66 NJ
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		1.86 NJ
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Dichlorodifluoromethane	75-71-8	PPBV		0.48 NJ
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.08 NJ
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Pentane	109-66-0	PPBV		1.38 NJ
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Propane	74-98-6	PPBV		3.02 NJ
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	100	23.2 J
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	100	101.34
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Chloroform	67-66-3	PPTV	100	16.92 J
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	100	82.94 J
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Toluene	108-88-3	PPTV	100	146.72
CEMRC	1/21/2016	1/29/2016	9420	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	100	8.3 J
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	1,2-Dichloroethane	107-06-2	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.

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

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	1/26/2016	1/29/2016	9424	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.1 J
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	Butane	106-97-8	PPBV		4.54 NJ
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		2.38 NJ
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	Dichlorodifluoromethane	75-71-8	PPBV		0.48 NJ
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	Pentane	109-66-0	PPBV		1.82 NJ
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	Propane	74-98-6	PPBV		3.42 NJ
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	100	25.34 J
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	100	92.34 J
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	Chloroform	67-66-3	PPTV	100	13.86 J
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	Methylene Chloride	75-09-2	PPTV	100	76.64 J
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	Toluene	108-88-3	PPTV	100	100.14
CEMRC	1/26/2016	1/29/2016	9424	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	100	U
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	0.12 J

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.

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

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	1/26/2016	1/29/2016	9422	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.62
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	U
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	0.18 J
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	Butane	106-97-8	PPBV		1.9 NJ
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		1.04 NJ
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	Dichlorodifluoromethane	75-71-8	PPBV		0.52 NJ
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	Propane	74-98-6	PPBV		1.74 NJ
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	100	137.4
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	100	18.3 J
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	100	612.86
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	Chloroform	67-66-3	PPTV	100	46.34 J
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	100	85.46 J
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	Toluene	108-88-3	PPTV	100	63.32 J
CEMRC	1/26/2016	1/29/2016	9422	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	100	192.5

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.

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	1/27/2016	1/29/2016	9426	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Toluene	108-88-3	PPBV	0.4	0.12 J
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Butane	106-97-8	PPBV		3.68 NJ
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		1.9 NJ
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Dichlorodifluoromethane	75-71-8	PPBV		0.54 NJ
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Isobutane	75-28-5	PPBV		2.02 NJ
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Pentane	109-66-0	PPBV		1.18 NJ
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Propane	74-98-6	PPBV		3.36 NJ
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	100	22.96 J
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	100	104.12
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Chlorobenzene	108-90-7	PPTV	100	U

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).
U = Compound not detected above the MDL.
NJ = Presumptive evidence of the presence of the compound at an estimated quantity; only used for tentatively identified compounds (TICs).

Notes:

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

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

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	1/27/2016	1/29/2016	9426	WQSP-4	Chloroform	67-66-3	PPTV	100	16.26 J
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Methylene Chloride	75-09-2	PPTV	100	87.4 J
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Toluene	108-88-3	PPTV	100	116.86
CEMRC	1/27/2016	1/29/2016	9426	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	100	U
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.16 J
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Butane	106-97-8	PPBV		4.84 NJ
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		2.32 NJ
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Dichlorodifluoromethane	75-71-8	PPBV		0.54 NJ
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.7 NJ
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Pentane	109-66-0	PPBV		1.72 NJ
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Propane	74-98-6	PPBV		4.54 NJ
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U

Qualifiers:

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Notes:

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	100	26.2 J
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	100	110.94
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Chloroform	67-66-3	PPTV	100	18.06 J
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	100	82.84 J
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Toluene	108-88-3	PPTV	100	149.52
CEMRC	1/27/2016	1/29/2016	9425	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	100	U

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).
U = Compound not detected above the MDL.
NJ = Presumptive evidence of the presence of the compound at an estimated quantity; only used for tentatively identified compounds (TICs).

Notes:

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

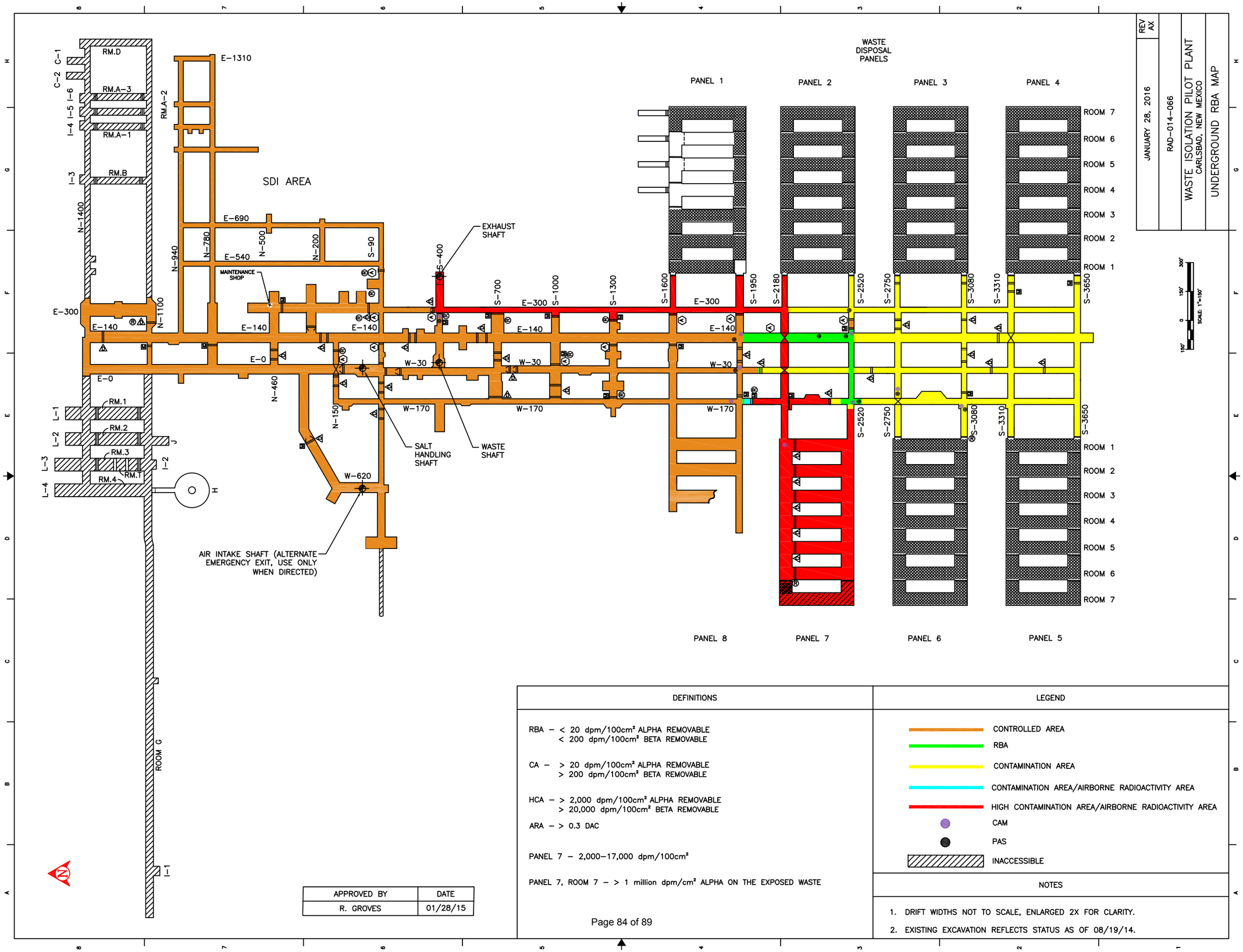
* A value will not appear in the MRL column for TICs.

Attachment 3
Surface & Underground Derived Waste Currently in Storage at the WIPP Facility (reserved)
[Last updated June 30, 2015]

Attachment 4
Status of RCRA Contingency Plan Required Activities (reserved)
[Last updated September 30, 2015]

Attachment 5
Corrective Actions (reserved)
[Last updated October 31, 2015]

Attachment 6
Recovery-Related Work Activities



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JANUARY 28, 2016

RAD-014-066

WASTE ISOLATION PILOT PLANT
CARLSBAD, NEW MEXICO

UNDERGROUND RBA MAP

APPROVED BY	DATE
R. GROVES	01/28/15

DEFINITIONS
RBA – < 20 dpm/100cm² ALPHA REMOVABLE < 200 dpm/100cm² BETA REMOVABLE
CA – > 20 dpm/100cm² ALPHA REMOVABLE > 200 dpm/100cm² BETA REMOVABLE
HCA – > 2,000 dpm/100cm² ALPHA REMOVABLE > 20,000 dpm/100cm² BETA REMOVABLE
ARA – > 0.3 DAC
PANEL 7 – 2,000–17,000 dpm/100cm²
PANEL 7, ROOM 7 – > 1 million dpm/cm² ALPHA ON THE EXPOSED WASTE

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

NOTES

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

IVS Ductwork Installation Progress

IVS Ductwork Installation Progress

IVS Ductwork Installation Progress

IVS Ductwork Installation Progress

Attachment 7
WIPP Nitrate Salt Bearing Waste Container Isolation Plan
Information Required by Administrative Order 3 (reserved)
[Last updated November 30, 2015]