



Department of Energy

Carlsbad Field Office
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OCT 26 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 July 1, 2016, through September 30, 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, Waste Isolation Pilot Plant Hazardous Waste Facility Number: NM4890139088-TSDF

Dear Mr. Kieling and Ms. Roberts:

The purpose of this letter is to transmit the quarterly report for the reporting period between July 1, 2016, through September 30, 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
R. Maestas, NMED *ED
C. Smith, NMED ED
J. Sales, EPA ED
CBFO M&RC

*ED denotes electronic distribution

Quarterly Status Report for the New Mexico Environment Department Administrative Orders

Reporting Period July 1, 2016, through September 30, 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.

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

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. Room-based VOC 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. Catchup bolting continues in the contaminated areas.

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 underground access prohibition in Panels 3 and 4. Previous monitoring data (prior to the 2014 events) from the Semi-Annual VOC, Hydrogen and Methane Data Summary Reports indicate that the inability to monitor 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). In September 2016, the Interim Ventilation System was turned over to operations. The additional filtered ventilation air brings the mine ventilation rate up to approximately 106,000 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:

Attachment 2, *Environmental Monitoring*, includes the new VOC monitoring data for this reporting period. Aerial photos and diagrams displaying monitoring locations are also included. Surface monitoring equipment has been deployed since February 25, 2014. Samples are being collected twice each week at the locations indicated in Attachment 2.

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 quarterly report, no derived waste was generated; however, the previous quarterly report had a typographical error in the WHB Deadline column. In accordance with the NMED letter, dated June 20, 2016, the storage extension expires on June 30, 2017, not June 16, 2017. June 16, 2017 is the deadline to submit the written proposal. Attachment 3, *Surface and Underground Derived Waste Currently in Storage at the WIPP Facility*, has been updated to reflect the storage deadline.

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:

A Class 1 Permit Modification Notification (PMN) was submitted on December 30, 2015 to update references to 40 CFR 264.56(i) and remove obsolete reporting requirements. This was deemed administratively complete by the NMED on January 27, 2016. A Class 2 Permit Modification Request to revise the RCRA Contingency Plan was approved by the NMED on September 19, 2016. However, the Class 2 Permit Modification is not effective until October 19, 2016. Attachment 4, *Status of RCRA Contingency Plan Required Activities*, is being updated to reflect the Class 1 PMN. Only information that has changed since it was last updated on September 30, 2015, is included in Attachment 4.

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, there have been no additional requirements placed upon the Waste Isolation Pilot Plant (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 the U.S. Department of Energy (DOE), as requested by Paragraph 18(f) of AO2. 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, the Permittees completed Cold Operations. Cold Operations was the phase of WIPP facility restart that involved conducting waste handling and emplacement operations with simulated waste containers. These activities will continue to be performed to maintain worker proficiency with waste handling equipment.

The Interim Ventilation System (IVS) was turned over to Operations. The additional filtered ventilation air brings the mine ventilation rate up to approximately 106,000 scfm.

Revision 8 of the Waste Acceptance Criteria (WAC) was implemented. The new WAC requires the generator site to undergo a Generator Site Technical Review and Quality Assurance audit. This audit will ensure that waste packaging, treatment and certification activities are performed under adequate controls and that waste characteristics are accurately determined and documented before certification and subsequent shipment to the WIPP facility.

Backup power was installed for the Emergency Operation Center (EOC). The diesel generator will be used to ensure emergency response capabilities are available in the event of a power loss. A photograph depicting this completed work activity is shown in Attachment 6, *Recovery-Related Work Activities*.

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:

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 as of 09/30/2016 (Current/Not Current/Other ¹)	Date of Last Inspection	Proposed Start Date (if Not Current or Other) ²	Comments
Fire Sprinkler Systems	Emergency Services	Monthly/quarterly	WP 12-FP0025 Inspecting for Deterioration, Leaks/Spills, static pressures, and removable strainers	Current	09/15/2016 (monthly)	N/A	
				Current	09/24/2016 (quarterly)	N/A	
Bulkhead in Filled Panels	Underground Operations	Monthly	Integrity and Deterioration of Accessible Areas	Current	09/14/2016	N/A	
Explosion-Isolation Walls	Underground Operations	Quarterly	PM000032 Integrity and Deterioration of Accessible Areas	Current	07/06/2016	N/A	
Fire Hoses	Emergency Services	Annually (minimum)	12-FP0031 Inspecting for Deterioration and Leaks/Spills	Current	05/09/2016	N/A	
Fire Extinguishers (Underground)	Emergency Services	Monthly	12-FP0036 Inspecting for Deterioration, Leaks/Spills, Expiration, seals, fullness, and pressure	Current	09/28/2016	N/A	
Fire Extinguishers (Surface)	Emergency Services	Monthly	12-FP0036 Inspecting for Deterioration, Leaks/Spills, Expiration, seals, fullness, and pressure	Current	09/28/2016	N/A	
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	09/30/2016	N/A	
Ambulance (Surface) and related emergency supplies and equipment	Emergency Services	Weekly	12-FP0030 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Current	09/26/2016	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status as of 09/30/2016 (Current/Not Current/Other ¹)	Date of Last Inspection	Proposed Start Date (if Not Current or Other) ²	Comments
Ambulances (Underground) and related emergency supplies and equipment	Emergency Services	Weekly	12-FP0030 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Current	09/28/2016	N/A	
Exhaust Shaft	Underground Operations	Quarterly	PM041099 Inspecting for Deterioration and Leaks/Spills	Current	08/23/2016	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	09/30/2016	N/A	
Self-Rescuers (SRs)	Underground Operations	Quarterly	WP 04-AU1026 Inspecting for Deterioration and Functionality in accordance with MSHA requirements	Current	09/27/2016	N/A	
Underground Openings—Roof Bolts and Travelways	Underground Operations	Weekly	WP 04-AU1007 Inspecting for Deterioration	Current	09/22/2016	N/A	
Waste Hoist	Underground Operations	Preoperational	WP 04-HO1003 Inspecting for Deterioration, Safety Equipment, Communication Systems, and Mechanical Operability, Leaks/Spills, in accordance with MSHA requirements	Current	09/30/2016	N/A	
MSHA Air Quality Monitor	Maintenance/ Underground Operations	Daily	WP 12-IH1828 Inspecting for Air Quality Monitoring Equipment Functional Check. Results of this inspection are logged in accordance with WP 04-AD3008.	Current	09/30/2016	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status as of 09/30/2016 (Current/Not Current/ ¹ Other)	Date of Last Inspection	Proposed Start Date (if Not Current or Other) ²	Comments
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	Other	12/17/2015	12/30/2016	This inspection could not be performed due to a qualified contractor not being available to perform the testing. The equipment has been tagged out of service until a qualified contractor is identified and a contract established. As a compensatory measure, no fuel is being stored in the underground while the fire suppression system is out of service.
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 (Electric Fire Pump)	09/26/2016 (Weekly) 03/18/2015 (Annual)	N/A	
Fire Pumps (continued)	Emergency Services	Weekly/ annually	WP 12-FP0026, WP 12-FP5113, and WP 12-FP5114 Inspecting for Deterioration, Leaks/Spills, valves, and panel lights	Current (Diesel Fire Pump)	09/26/2016 (Weekly) 03/17/2016 (Annual)	12/31/2016	During the annual inspection of the diesel fire pump on 03/02/2016, the pump was taken out of service for repair. Diesel fire pump is onsite but remains out of service pending acceptance testing and replacement of the coolant line. Compensatory measures have been established to use a fire truck to draw water from the firewater storage tank and pressurize the firewater header, if needed.
Fire and Emergency Response Trucks (Underground Fire Suppression Vehicles)	Emergency Services	Weekly	12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Current	09/28/2016	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status as of 09/30/2016 (Current/Not Current/ ¹ Other)	Date of Last Inspection	Proposed Start Date (if Not Current or Other) ²	Comments
Rescue Truck (Surface)	Emergency Services	Weekly	12-FP0030 and 12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Other	09/26/2016	N/A	During the first part of the reporting period, the unit was out of service due to maintenance. As a compensatory measure, the rescue equipment was placed onto Fire Truck #2 and was inspected as part of the Fire Truck #2 weekly inspections. The surface Rescue Truck was returned to service on 08/09/2016.
Rescue Trucks (Underground)	Emergency Services	Weekly	12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Current	09/26/2016	N/A	Rescue Truck #2 was not in use during this reporting period; however, weekly inspections were conducted. During the first part of the reporting period, the equipment from Rescue Truck #2 was located on the underground fire suppression vehicles and was inspected as part of those weekly inspections. On 08/04/2016, the equipment from Rescue Truck #2 was moved to Rescue Truck #3. Rescue Truck #3 was placed in service to replace Rescue Truck #2 and is being inspected.
Fire Hydrants	Emergency Services	Semiannual/ annually	12-FP0034 Inspecting for Deterioration and Leaks/Spills	Current	09/18/2016 (Semiannual) 09/18/2016 (Annual)	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status as of 09/30/2016 (Current/Not Current/ ¹ Other)	Date of Last Inspection	Proposed Start Date (if Not Current or Other) ²	Comments
Fire and Emergency Response Trucks (Surface Fire Trucks)	Emergency Services	Weekly	12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Current	09/27/2016 (Fire Truck #1)	N/A	Fire Truck #1: the site engine remains out of service. As a compensatory measure, the fire engine borrowed from the City of Carlsbad remains in service and is being inspected.
				Current	09/27/2016 (Fire Truck #2)	N/A	
Automatic on-board fire suppression systems	Emergency Services	Semiannual	WP 12-FP0060 Inspecting for Mechanical Operability, Deterioration	Other	11/09/2015	12/31/2016	The automatic fire suppression systems have been tagged out of service until an approved vendor can confirm the existing configuration or install new systems/parts, thus ensuring the systems can perform their intended function. Qualified fire watches have been established as compensatory measures while the systems are out of service.
Hazardous Material Response Equipment	Emergency Services	Weekly	12-FP0033 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Current	09/27/2016	N/A	Expired level A suits have not been replaced since there are no chemical hazards present at the WIPP facility which would require their use during an emergency. However, as a compensatory measure, the Permittees have mutual-aid agreements in place with Lea and Eddy counties to support a hazardous material emergency response, should the need arise. The Level B suits remain available on site.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status as of 09/30/2016 (Current/Not Current/ ¹ Other)	Date of Last Inspection	Proposed Start Date (if Not Current or Other) ²	Comments
Miners First Aid Station	Emergency Services	Quarterly	12-FP0035 Inspecting for Required Equipment	Current	07/11/2016	N/A	
Personal Protective Equipment (PPE): —Self-Contained Breathing Apparatus (SCBA)	Emergency Services	Weekly	12-FP0029 Inspecting for Deterioration and Pressure	Current (Fire Truck #2 PPE)	09/28/2016	N/A	Inspection was missed for week ending 07/17/2016. Inspection was conducted the following and all subsequent weeks. Rescue Truck #3 has taken the place of Rescue Truck #2.
				Current (Fire Truck #1 PPE)	09/28/2016	N/A	
				Current (Rescue Truck #1 PPE)	09/28/2016	N/A	
				Current (Underground Rescue Truck #3 PPE)	09/26/2016	NA	
Vehicle Siren (Surface Vehicles)	Emergency Services	Weekly	Functional Test included with inspection of the Ambulances, Fire Trucks, and Rescue Trucks	Current	09/26/2016 (Ambulance #1) 09/27/2016 (Fire Trucks #1 and #2)	N/A	Fire Truck #1 remains out of service, and the fire engine borrowed from the City of Carlsbad remains in service and is being inspected.
				Current	09/26/2016 (Rescue Truck #1)	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status as of 09/30/2016 (Current/Not Current/Other ¹)	Date of Last Inspection	Proposed Start Date (if Not Current or Other) ²	Comments
Vehicle Siren (Underground Vehicles)	Emergency Services	Weekly	Functional Test included with inspection of the Ambulances, Fire Trucks, and Rescue Trucks	Current Current	09/28/2016 (Ambulance #2 and #3) 09/26/2016 (Rescue Trucks #2 and #3)	N/A	Rescue Truck #3 was placed in service 08/04/2016 to replace Rescue Tuck #2.
Adjustable Center of Gravity Lift Fixture	Waste Handling	Preoperational	WP 05-WH1410 Inspecting for Mechanical Operability and Deterioration	Other	N/A	When waste disposal operations resume	
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	Other	N/A	When waste disposal operations resume	
Conveyance Loading Car	Waste Handling	Preoperational	WP 05-1406 Inspecting for Mechanical Operability, Deterioration, path clear of obstacles and guards in the proper place	Other	N/A	When waste disposal operations resume	
Facility Transfer Vehicle	Waste Handling	Preoperational	WP 05-WH1204 Inspecting for Mechanical Operability, Deterioration, path clear of obstacles, and guards in the proper place	Other	N/A	When waste disposal operations resume	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status as of 09/30/2016 (Current/Not Current/ ¹ Other)	Date of Last Inspection	Proposed Start Date (if Not Current or Other) 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	Other	N/A	When waste disposal operations resume	
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	Other	N/A	When waste disposal operations resume	
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	09/26/2016 (Preoperational) 09/28/2016 (Weekly)	N/A	
TRU Mixed Waste Decontamination Equipment	Waste Handling	Annually	WP 05-WH1101 Inspecting for Required Equipment	Current	12/30/2015	N/A	
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	N/A	When waste disposal operations resume	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status as of 09/30/2016 (Current/Not Current/Other ¹)	Date of Last Inspection	Proposed Start Date (if Not Current or Other) ²	Comments
TDOP Upender	Waste Handling	Preoperational	WP 05-WH1010 Inspecting for Mechanical Operability and Deterioration	Other	N/A	When waste disposal operations resume	
Waste Handling Cranes	Waste Handling	Preoperational	WP 05-WH1407 Inspecting for Mechanical Operability, Deterioration, and Leaks/Spills	Other	N/A	When waste disposal operations resume	
Push-Pull Attachment (Surface)	Waste Handling	Preoperational	WP 05-WH1401 Inspecting for Damage and Deterioration	Other	N/A	When waste disposal operations resume	
Push-Pull Attachment (Underground)	Waste Handling	Preoperational	WP 05-WH1401 Inspecting for Damage and Deterioration	Other	N/A	When waste disposal operations resume	
Trailer Jockey	Waste Handling	Preoperational	WP 05-WH1405 Inspecting for Leaks/Spills, Mechanical Operability and Deterioration	Other	N/A	When waste disposal operations resume	
Bolting Robot	Waste Handling	Preoperational	WP 05-WH1203 Mechanical Operability	Other	N/A	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	N/A	When waste disposal operations resume	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status as of 09/30/2016 (Current/Not Current/Other ¹)	Date of Last Inspection	Proposed Start Date (if Not Current or Other) ²	Comments
Payload Transfer Station	Waste Handling	Preoperational	WP 05-WH1208 Mechanical Operability, Deterioration, and Guards in proper place	Other	N/A	When waste disposal operations resume	
Monorail Hoist	Waste Handling	Preoperational	WP 05-WH1202 Mechanical Operability, and Leaks/Spills	Other	N/A	When waste disposal operations resume	
Bolting Station	Waste Handling	Preoperational	WP 05-WH1203 Mechanical Operability, Deterioration, and Guards in proper place	Other	N/A	When waste disposal operations resume	
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	09/17/2016 (#1) 09/17/2016 (#2)	N/A	
Central Monitoring System (CMS)	Facility Operations	Continuous	Automatic Self-Checking	Current	09/30/2016	N/A	
Public Address (and Intercom System) on Surface and Underground and Mine Pager Phones	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	09/29/2016	N/A	
Radio Equipment	Facility Operations	Daily	Radios are operated daily and are repaired upon failure	Current	09/30/2016	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status as of 09/30/2016 (Current/Not Current/Other ¹)	Date of Last Inspection	Proposed Start Date (if Not Current or Other) ²	Comments
Uninterruptible Power Supply (Central UPS)	Facility Operations	Daily	WP 04-ED1542 Inspecting for Mechanical Operability and Deterioration with no malfunction alarms. Results of this inspection are logged in accordance with WP 04-AD3008.	Current	09/30/2016	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	09/30/2016	N/A	
Facility Inspections (Water Diversion Bems)	Facility Engineering	Annually	WP 10-WC3008 Inspecting for Damage, Impediments to water flow, and Deterioration	Current	12/18/2015	N/A	
Eye Wash and Shower Equipment	Equipment Custodian	Weekly	WP 12-IS1832 Inspecting for Deterioration	Current (Weekly) Current (Semi-Annual)	09/28/2016 09/26/2016	N/A N/A	
Perimeter Fence, Gates, Signs	Security	Daily	PFO-008 Inspecting for Deterioration and Posted Warnings	Current	09/30/2016	N/A	
Underground—Geomechanical Instrumentation System (GIS)	Geotechnical Engineering	Monthly	WP 07-EU1301 Inspecting for Deterioration	Current	09/26/2016	N/A	Complete at accessible areas.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status as of 09/30/2016 (Current/Not Current/Other ¹)	Date of Last Inspection	Proposed Start Date (if Not Current or Other) ²	Comments
Ventilation Exhaust	Maintenance Operations	Quarterly	IC041098 Check for Deterioration and Calibration of Mine Ventilation Rate Monitoring Equipment	Other	41F30703 Fan A (11/09/2013) 41F30704 Fan B (05/20/2013) 41F30702 Fan C (12/18/2013)	No date set because the 700 fans are not used while in filtration mode.	The 700 horsepower fans have been placed out of service because the underground ventilation system is operating in filtration mode. The quarterly inspection PM has been deactivated.

1 **Current** – As of the end of the reporting period, the inspection of in-service equipment was up-to-date (any missed inspections that occurred during the reporting period are noted in the “Comments” field)

Not Current – As of the end of the reporting period, either 1) inspection of in-service equipment was delinquent or 2) emergency equipment was out-of-service, with no established compensatory measure(s)

Other – As of the end of the reporting period either 1) equipment was out-of-service (applicable compensatory measures are noted in the “Comments” field) or 2) equipment was not being used to handle TRU mixed waste

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

N/A Not Applicable

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	6/8/2016	7/2/2016	9519	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9519	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9519	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9519	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9519	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9519	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9519	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9519	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9519	D	Toluene	108-88-3	PPBV	0.4	0.2 J
CEMRC	6/8/2016	7/2/2016	9519	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9519	D	Acetone	67-64-1	PPBV		0.82 NJ
CEMRC	6/8/2016	7/2/2016	9519	D	Butane	106-97-8	PPBV		3.52 NJ
CEMRC	6/8/2016	7/2/2016	9519	D	Dichlorodifluoromethane	75-71-8	PPBV		0.48 NJ
CEMRC	6/8/2016	7/2/2016	9519	D	Nonanal	124-19-6	PPBV		0.56 NJ
CEMRC	6/8/2016	7/2/2016	9519	D	Pentane	109-66-0	PPBV		1.6 NJ
CEMRC	6/8/2016	7/2/2016	9519	D	Propane	74-98-6	PPBV		3.22 NJ
CEMRC	6/8/2016	7/2/2016	9519	D	Trichloromonofluoromethane	75-69-4	PPBV		0.44 NJ
CEMRC	6/8/2016	7/2/2016	9519	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	6/8/2016	7/2/2016	9519	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	6/8/2016	7/2/2016	9519	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	6/8/2016	7/2/2016	9519	D	1,2-Dichloroethane	107-06-2	PPTV	100	19.92 J
CEMRC	6/8/2016	7/2/2016	9519	D	Carbon Tetrachloride	56-23-5	PPTV	100	83.4 J
CEMRC	6/8/2016	7/2/2016	9519	D	Chlorobenzene	108-90-7	PPTV	100	U

Qualifiers:

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	6/8/2016	7/2/2016	9519	D	Chloroform	67-66-3	PPTV	100	15.46 J
CEMRC	6/8/2016	7/2/2016	9519	D	Methylene Chloride	75-09-2	PPTV	100	93.06 J
CEMRC	6/8/2016	7/2/2016	9519	D	Toluene	108-88-3	PPTV	100	208.92
CEMRC	6/8/2016	7/2/2016	9519	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	6/8/2016	7/2/2016	9518	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9518	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9518	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9518	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9518	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.14 J
CEMRC	6/8/2016	7/2/2016	9518	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9518	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9518	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9518	C	Toluene	108-88-3	PPBV	0.4	0.18 J
CEMRC	6/8/2016	7/2/2016	9518	C	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	6/8/2016	7/2/2016	9518	C	Acetone	67-64-1	PPBV		0.74 NJ
CEMRC	6/8/2016	7/2/2016	9518	C	Butane	106-97-8	PPBV		3.28 NJ
CEMRC	6/8/2016	7/2/2016	9518	C	Dichlorodifluoromethane	75-71-8	PPBV		0.46 NJ
CEMRC	6/8/2016	7/2/2016	9518	C	Isobutane	75-28-5	PPBV		1.78 NJ
CEMRC	6/8/2016	7/2/2016	9518	C	Nonanal	124-19-6	PPBV		0.58 NJ
CEMRC	6/8/2016	7/2/2016	9518	C	Pentane	109-66-0	PPBV		1.54 NJ
CEMRC	6/8/2016	7/2/2016	9518	C	Propane	74-98-6	PPBV		2.8 NJ
CEMRC	6/8/2016	7/2/2016	9518	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	21.64 J
CEMRC	6/8/2016	7/2/2016	9518	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	6/8/2016	7/2/2016	9518	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	6/8/2016	7/2/2016	9518	C	1,2-Dichloroethane	107-06-2	PPTV	100	22.04 J
CEMRC	6/8/2016	7/2/2016	9518	C	Carbon Tetrachloride	56-23-5	PPTV	100	144.52
CEMRC	6/8/2016	7/2/2016	9518	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	6/8/2016	7/2/2016	9518	C	Chloroform	67-66-3	PPTV	100	22.34 J
CEMRC	6/8/2016	7/2/2016	9518	C	Methylene Chloride	75-09-2	PPTV	100	91.62 J
CEMRC	6/8/2016	7/2/2016	9518	C	Toluene	108-88-3	PPTV	100	203.48
CEMRC	6/8/2016	7/2/2016	9518	C	Trichloroethylene	79-01-6	PPTV	100	32.04 J
CEMRC	6/9/2016	7/2/2016	9521	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9521	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9521	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9521	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9521	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9521	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9521	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9521	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9521	D	Toluene	108-88-3	PPBV	0.4	0.16 J
CEMRC	6/9/2016	7/2/2016	9521	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9521	D	Acetone	67-64-1	PPBV		1.2 NJ
CEMRC	6/9/2016	7/2/2016	9521	D	Butane	106-97-8	PPBV		2.1 NJ
CEMRC	6/9/2016	7/2/2016	9521	D	Dichlorodifluoromethane	75-71-8	PPBV		0.52 NJ
CEMRC	6/9/2016	7/2/2016	9521	D	Nonanal	124-19-6	PPBV		0.46 NJ
CEMRC	6/9/2016	7/2/2016	9521	D	Pentane	109-66-0	PPBV		0.9 NJ
CEMRC	6/9/2016	7/2/2016	9521	D	Propane	74-98-6	PPBV		2 NJ

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	6/9/2016	7/2/2016	9521	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	6/9/2016	7/2/2016	9521	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	6/9/2016	7/2/2016	9521	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	6/9/2016	7/2/2016	9521	D	1,2-Dichloroethane	107-06-2	PPTV	100	17.68 J
CEMRC	6/9/2016	7/2/2016	9521	D	Carbon Tetrachloride	56-23-5	PPTV	100	89.1 J
CEMRC	6/9/2016	7/2/2016	9521	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	6/9/2016	7/2/2016	9521	D	Chloroform	67-66-3	PPTV	100	13.92 J
CEMRC	6/9/2016	7/2/2016	9521	D	Methylene Chloride	75-09-2	PPTV	100	91.24 J
CEMRC	6/9/2016	7/2/2016	9521	D	Toluene	108-88-3	PPTV	100	143.44
CEMRC	6/9/2016	7/2/2016	9521	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	6/9/2016	7/2/2016	9520	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9520	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9520	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9520	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9520	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9520	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9520	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9520	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9520	C	Toluene	108-88-3	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9520	C	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	6/9/2016	7/2/2016	9520	C	Acetone	67-64-1	PPBV		1.26 NJ
CEMRC	6/9/2016	7/2/2016	9520	C	Butane	106-97-8	PPBV		2.16 NJ
CEMRC	6/9/2016	7/2/2016	9520	C	Dichlorodifluoromethane	75-71-8	PPBV		0.5 NJ
CEMRC	6/9/2016	7/2/2016	9520	C	Nonanal	124-19-6	PPBV		0.72 NJ

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	6/9/2016	7/2/2016	9520	C	Pentane	109-66-0	PPBV		0.9 NJ
CEMRC	6/9/2016	7/2/2016	9520	C	Propane	74-98-6	PPBV		1.88 NJ
CEMRC	6/9/2016	7/2/2016	9520	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	11.66 J
CEMRC	6/9/2016	7/2/2016	9520	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	6/9/2016	7/2/2016	9520	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	6/9/2016	7/2/2016	9520	C	1,2-Dichloroethane	107-06-2	PPTV	100	17.9 J
CEMRC	6/9/2016	7/2/2016	9520	C	Carbon Tetrachloride	56-23-5	PPTV	100	117.36
CEMRC	6/9/2016	7/2/2016	9520	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	6/9/2016	7/2/2016	9520	C	Chloroform	67-66-3	PPTV	100	17.36 J
CEMRC	6/9/2016	7/2/2016	9520	C	Methylene Chloride	75-09-2	PPTV	100	153.74
CEMRC	6/9/2016	7/2/2016	9520	C	Toluene	108-88-3	PPTV	100	141.3
CEMRC	6/9/2016	7/2/2016	9520	C	Trichloroethylene	79-01-6	PPTV	100	19 J
CEMRC	6/14/2016	7/8/2016	9524	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/14/2016	7/8/2016	9524	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/14/2016	7/8/2016	9524	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/14/2016	7/8/2016	9524	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/14/2016	7/8/2016	9524	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	6/14/2016	7/8/2016	9524	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/14/2016	7/8/2016	9524	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/14/2016	7/8/2016	9524	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/14/2016	7/8/2016	9524	D	Toluene	108-88-3	PPBV	0.4	0.22 J
CEMRC	6/14/2016	7/8/2016	9524	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	6/14/2016	7/8/2016	9524	D	Acetone	67-64-1	PPBV		1.82 NJ

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	6/14/2016	7/8/2016	9524	D	Butane	106-97-8	PPBV		3.34 NJ
CEMRC	6/14/2016	7/8/2016	9524	D	Dichlorodifluoromethane	75-71-8	PPBV		0.46 NJ
CEMRC	6/14/2016	7/8/2016	9524	D	Hexanal	66-25-1	PPBV		1 NJ
CEMRC	6/14/2016	7/8/2016	9524	D	Pentane	109-66-0	PPBV		1.42 NJ
CEMRC	6/14/2016	7/8/2016	9524	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	6/14/2016	7/8/2016	9524	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	6/14/2016	7/8/2016	9524	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	6/14/2016	7/8/2016	9524	D	1,2-Dichloroethane	107-06-2	PPTV	100	18.68 J
CEMRC	6/14/2016	7/8/2016	9524	D	Carbon Tetrachloride	56-23-5	PPTV	100	101.94
CEMRC	6/14/2016	7/8/2016	9524	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	6/14/2016	7/8/2016	9524	D	Chloroform	67-66-3	PPTV	100	14.2 J
CEMRC	6/14/2016	7/8/2016	9524	D	Methylene Chloride	75-09-2	PPTV	100	63.64 J
CEMRC	6/14/2016	7/8/2016	9524	D	Toluene	108-88-3	PPTV	100	221.5
CEMRC	6/14/2016	7/8/2016	9524	D	Trichloroethylene	79-01-6	PPTV	100	12.52 J
CEMRC	6/14/2016	7/8/2016	9522	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/14/2016	7/8/2016	9522	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/14/2016	7/8/2016	9522	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/14/2016	7/8/2016	9522	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/14/2016	7/8/2016	9522	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.14 J
CEMRC	6/14/2016	7/8/2016	9522	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/14/2016	7/8/2016	9522	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/14/2016	7/8/2016	9522	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/14/2016	7/8/2016	9522	C	Toluene	108-88-3	PPBV	0.4	0.18 J
CEMRC	6/14/2016	7/8/2016	9522	C	Trichloroethylene	79-01-6	PPBV	0.4	U

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	6/14/2016	7/8/2016	9522	C	Acetone	67-64-1	PPBV		0.86 NJ
CEMRC	6/14/2016	7/8/2016	9522	C	Butane	106-97-8	PPBV		3.44 NJ
CEMRC	6/14/2016	7/8/2016	9522	C	Dichlorodifluoromethane	75-71-8	PPBV		0.46 NJ
CEMRC	6/14/2016	7/8/2016	9522	C	Pentane	109-66-0	PPBV		1.46 NJ
CEMRC	6/14/2016	7/8/2016	9522	C	Propane	74-98-6	PPBV		3.12 NJ
CEMRC	6/14/2016	7/8/2016	9522	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	29.54 J
CEMRC	6/14/2016	7/8/2016	9522	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	6/14/2016	7/8/2016	9522	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	6/14/2016	7/8/2016	9522	C	1,2-Dichloroethane	107-06-2	PPTV	100	21.06 J
CEMRC	6/14/2016	7/8/2016	9522	C	Carbon Tetrachloride	56-23-5	PPTV	100	170.8
CEMRC	6/14/2016	7/8/2016	9522	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	6/14/2016	7/8/2016	9522	C	Chloroform	67-66-3	PPTV	100	19.72 J
CEMRC	6/14/2016	7/8/2016	9522	C	Methylene Chloride	75-09-2	PPTV	100	97.42 J
CEMRC	6/14/2016	7/8/2016	9522	C	Toluene	108-88-3	PPTV	100	200.02
CEMRC	6/14/2016	7/8/2016	9522	C	Trichloroethylene	79-01-6	PPTV	100	45.02 J
CEMRC	6/15/2016	7/8/2016	9526	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/15/2016	7/8/2016	9526	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/15/2016	7/8/2016	9526	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/15/2016	7/8/2016	9526	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/15/2016	7/8/2016	9526	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	6/15/2016	7/8/2016	9526	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/15/2016	7/8/2016	9526	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/15/2016	7/8/2016	9526	D	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:

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	6/15/2016	7/8/2016	9526	D	Toluene	108-88-3	PPBV	0.4	0.22 J
CEMRC	6/15/2016	7/8/2016	9526	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	6/15/2016	7/8/2016	9526	D	Acetone	67-64-1	PPBV		0.76 NJ
CEMRC	6/15/2016	7/8/2016	9526	D	Butane	106-97-8	PPBV		3.92 NJ
CEMRC	6/15/2016	7/8/2016	9526	D	Dichlorodifluoromethane	75-71-8	PPBV		0.44 NJ
CEMRC	6/15/2016	7/8/2016	9526	D	Pentane	109-66-0	PPBV		1.6 NJ
CEMRC	6/15/2016	7/8/2016	9526	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	6/15/2016	7/8/2016	9526	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	6/15/2016	7/8/2016	9526	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	6/15/2016	7/8/2016	9526	D	1,2-Dichloroethane	107-06-2	PPTV	100	18.82 J
CEMRC	6/15/2016	7/8/2016	9526	D	Carbon Tetrachloride	56-23-5	PPTV	100	90.64 J
CEMRC	6/15/2016	7/8/2016	9526	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	6/15/2016	7/8/2016	9526	D	Chloroform	67-66-3	PPTV	100	11.92 J
CEMRC	6/15/2016	7/8/2016	9526	D	Methylene Chloride	75-09-2	PPTV	100	69.6 J
CEMRC	6/15/2016	7/8/2016	9526	D	Toluene	108-88-3	PPTV	100	233.42
CEMRC	6/15/2016	7/8/2016	9526	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	6/15/2016	7/8/2016	9525	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/15/2016	7/8/2016	9525	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/15/2016	7/8/2016	9525	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/15/2016	7/8/2016	9525	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/15/2016	7/8/2016	9525	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.18 J
CEMRC	6/15/2016	7/8/2016	9525	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/15/2016	7/8/2016	9525	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/15/2016	7/8/2016	9525	C	Methylene Chloride	75-09-2	PPBV	0.4	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	6/15/2016	7/8/2016	9525	C	Toluene	108-88-3	PPBV	0.4	0.24 J
CEMRC	6/15/2016	7/8/2016	9525	C	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	6/15/2016	7/8/2016	9525	C	Acetone	67-64-1	PPBV		0.72 NJ
CEMRC	6/15/2016	7/8/2016	9525	C	Butane	106-97-8	PPBV		3.74 NJ
CEMRC	6/15/2016	7/8/2016	9525	C	Dichlorodifluoromethane	75-71-8	PPBV		0.5 NJ
CEMRC	6/15/2016	7/8/2016	9525	C	Pentane	109-66-0	PPBV		1.56 NJ
CEMRC	6/15/2016	7/8/2016	9525	C	Propane	74-98-6	PPBV		3.12 NJ
CEMRC	6/15/2016	7/8/2016	9525	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	25.94 J
CEMRC	6/15/2016	7/8/2016	9525	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	6/15/2016	7/8/2016	9525	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	6/15/2016	7/8/2016	9525	C	1,2-Dichloroethane	107-06-2	PPTV	100	18.12 J
CEMRC	6/15/2016	7/8/2016	9525	C	Carbon Tetrachloride	56-23-5	PPTV	100	165.28
CEMRC	6/15/2016	7/8/2016	9525	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	6/15/2016	7/8/2016	9525	C	Chloroform	67-66-3	PPTV	100	16.88 J
CEMRC	6/15/2016	7/8/2016	9525	C	Methylene Chloride	75-09-2	PPTV	100	92.7 J
CEMRC	6/15/2016	7/8/2016	9525	C	Toluene	108-88-3	PPTV	100	226
CEMRC	6/15/2016	7/8/2016	9525	C	Trichloroethylene	79-01-6	PPTV	100	36.6 J
CEMRC	6/22/2016	7/18/2016	9528	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/22/2016	7/18/2016	9528	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/22/2016	7/18/2016	9528	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/22/2016	7/18/2016	9528	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/22/2016	7/18/2016	9528	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	6/22/2016	7/18/2016	9528	D	Chlorobenzene	108-90-7	PPBV	0.4	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	6/22/2016	7/18/2016	9528	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/22/2016	7/18/2016	9528	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/22/2016	7/18/2016	9528	D	Toluene	108-88-3	PPBV	0.4	0.12 J
CEMRC	6/22/2016	7/18/2016	9528	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	6/22/2016	7/18/2016	9528	D	Acetone	67-64-1	PPBV		0.86 NJ
CEMRC	6/22/2016	7/18/2016	9528	D	Butane	106-97-8	PPBV		1.8 NJ
CEMRC	6/22/2016	7/18/2016	9528	D	Dichlorodifluoromethane	75-71-8	PPBV		0.52 NJ
CEMRC	6/22/2016	7/18/2016	9528	D	Isobutane	75-28-5	PPBV		0.72 NJ
CEMRC	6/22/2016	7/18/2016	9528	D	Isoprene	78-79-5	PPBV		0.76 NJ
CEMRC	6/22/2016	7/18/2016	9528	D	Pentane	109-66-0	PPBV		0.84 NJ
CEMRC	6/22/2016	7/18/2016	9528	D	Propane	74-98-6	PPBV		1.54 NJ
CEMRC	6/22/2016	7/18/2016	9528	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	6/22/2016	7/18/2016	9528	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	6/22/2016	7/18/2016	9528	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	6/22/2016	7/18/2016	9528	D	1,2-Dichloroethane	107-06-2	PPTV	100	6.88 J
CEMRC	6/22/2016	7/18/2016	9528	D	Carbon Tetrachloride	56-23-5	PPTV	100	71.4 J
CEMRC	6/22/2016	7/18/2016	9528	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	6/22/2016	7/18/2016	9528	D	Chloroform	67-66-3	PPTV	100	7.6 J
CEMRC	6/22/2016	7/18/2016	9528	D	Methylene Chloride	75-09-2	PPTV	100	58.16 J
CEMRC	6/22/2016	7/18/2016	9528	D	Toluene	108-88-3	PPTV	100	120.68
CEMRC	6/22/2016	7/18/2016	9528	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	6/22/2016	7/18/2016	9527	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/22/2016	7/18/2016	9527	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/22/2016	7/18/2016	9527	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	6/22/2016	7/18/2016	9527	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/22/2016	7/18/2016	9527	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	6/22/2016	7/18/2016	9527	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/22/2016	7/18/2016	9527	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/22/2016	7/18/2016	9527	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/22/2016	7/18/2016	9527	C	Toluene	108-88-3	PPBV	0.4	0.12 J
CEMRC	6/22/2016	7/18/2016	9527	C	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	6/22/2016	7/18/2016	9527	C	Acetone	67-64-1	PPBV		0.68 NJ
CEMRC	6/22/2016	7/18/2016	9527	C	Butane	106-97-8	PPBV		2.3 NJ
CEMRC	6/22/2016	7/18/2016	9527	C	Isobutane	75-28-5	PPBV		0.64 NJ
CEMRC	6/22/2016	7/18/2016	9527	C	Pentane	109-66-0	PPBV		0.88 NJ
CEMRC	6/22/2016	7/18/2016	9527	C	Propane	74-98-6	PPBV		1.76 NJ
CEMRC	6/22/2016	7/18/2016	9527	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	13.78 J
CEMRC	6/22/2016	7/18/2016	9527	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	6/22/2016	7/18/2016	9527	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	6/22/2016	7/18/2016	9527	C	1,2-Dichloroethane	107-06-2	PPTV	100	U
CEMRC	6/22/2016	7/18/2016	9527	C	Carbon Tetrachloride	56-23-5	PPTV	100	105.78
CEMRC	6/22/2016	7/18/2016	9527	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	6/22/2016	7/18/2016	9527	C	Chloroform	67-66-3	PPTV	100	11.98 J
CEMRC	6/22/2016	7/18/2016	9527	C	Methylene Chloride	75-09-2	PPTV	100	64.26 J
CEMRC	6/22/2016	7/18/2016	9527	C	Toluene	108-88-3	PPTV	100	124.78
CEMRC	6/22/2016	7/18/2016	9527	C	Trichloroethylene	79-01-6	PPTV	100	26.56 J
CEMRC	6/23/2016	7/18/2016	9530	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	6/23/2016	7/18/2016	9530	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/23/2016	7/18/2016	9530	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/23/2016	7/18/2016	9530	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/23/2016	7/18/2016	9530	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	6/23/2016	7/18/2016	9530	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/23/2016	7/18/2016	9530	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/23/2016	7/18/2016	9530	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/23/2016	7/18/2016	9530	D	Toluene	108-88-3	PPBV	0.4	0.14 J
CEMRC	6/23/2016	7/18/2016	9530	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	6/23/2016	7/18/2016	9530	D	Butane	106-97-8	PPBV		1.88 NJ
CEMRC	6/23/2016	7/18/2016	9530	D	Butane, 2-methyl-	78-78-4	PPBV		1.72 NJ
CEMRC	6/23/2016	7/18/2016	9530	D	Isobutane	75-28-5	PPBV		0.88 NJ
CEMRC	6/23/2016	7/18/2016	9530	D	Isoprene	78-79-5	PPBV		1.02 NJ
CEMRC	6/23/2016	7/18/2016	9530	D	Pentane	109-66-0	PPBV		0.96 NJ
CEMRC	6/23/2016	7/18/2016	9530	D	Propane	74-98-6	PPBV		1.68 NJ
CEMRC	6/23/2016	7/18/2016	9530	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	6/23/2016	7/18/2016	9530	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	6/23/2016	7/18/2016	9530	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	6/23/2016	7/18/2016	9530	D	1,2-Dichloroethane	107-06-2	PPTV	100	8.12 J
CEMRC	6/23/2016	7/18/2016	9530	D	Carbon Tetrachloride	56-23-5	PPTV	100	70.04 J
CEMRC	6/23/2016	7/18/2016	9530	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	6/23/2016	7/18/2016	9530	D	Chloroform	67-66-3	PPTV	100	8.26 J
CEMRC	6/23/2016	7/18/2016	9530	D	Methylene Chloride	75-09-2	PPTV	100	69.54 J
CEMRC	6/23/2016	7/18/2016	9530	D	Toluene	108-88-3	PPTV	100	138.04

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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	6/23/2016	7/18/2016	9530	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	6/23/2016	7/18/2016	9529	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/23/2016	7/18/2016	9529	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/23/2016	7/18/2016	9529	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/23/2016	7/18/2016	9529	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/23/2016	7/18/2016	9529	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.28 J
CEMRC	6/23/2016	7/18/2016	9529	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/23/2016	7/18/2016	9529	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/23/2016	7/18/2016	9529	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/23/2016	7/18/2016	9529	C	Toluene	108-88-3	PPBV	0.4	0.12 J
CEMRC	6/23/2016	7/18/2016	9529	C	Trichloroethylene	79-01-6	PPBV	0.4	0.14 J
CEMRC	6/23/2016	7/18/2016	9529	C	Butane	106-97-8	PPBV		1.9 NJ
CEMRC	6/23/2016	7/18/2016	9529	C	Butane, 2-methyl-	78-78-4	PPBV		1.84 NJ
CEMRC	6/23/2016	7/18/2016	9529	C	Isobutane	75-28-5	PPBV		0.84 NJ
CEMRC	6/23/2016	7/18/2016	9529	C	Pentane	109-66-0	PPBV		0.9 NJ
CEMRC	6/23/2016	7/18/2016	9529	C	Propane	74-98-6	PPBV		1.54 NJ
CEMRC	6/23/2016	7/18/2016	9529	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	60.2 J
CEMRC	6/23/2016	7/18/2016	9529	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	6/23/2016	7/18/2016	9529	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	6/23/2016	7/18/2016	9529	C	1,2-Dichloroethane	107-06-2	PPTV	100	7.78 J
CEMRC	6/23/2016	7/18/2016	9529	C	Carbon Tetrachloride	56-23-5	PPTV	100	268.7
CEMRC	6/23/2016	7/18/2016	9529	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	6/23/2016	7/18/2016	9529	C	Chloroform	67-66-3	PPTV	100	31.24 J
CEMRC	6/23/2016	7/18/2016	9529	C	Methylene Chloride	75-09-2	PPTV	100	59.18 J

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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	6/23/2016	7/18/2016	9529	C	Toluene	108-88-3	PPTV	100	134.72
CEMRC	6/23/2016	7/18/2016	9529	C	Trichloroethylene	79-01-6	PPTV	100	129.98
CEMRC	6/28/2016	7/21/2016	9532	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/28/2016	7/21/2016	9532	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/28/2016	7/21/2016	9532	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/28/2016	7/21/2016	9532	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/28/2016	7/21/2016	9532	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	6/28/2016	7/21/2016	9532	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/28/2016	7/21/2016	9532	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/28/2016	7/21/2016	9532	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/28/2016	7/21/2016	9532	D	Toluene	108-88-3	PPBV	0.4	0.24 J
CEMRC	6/28/2016	7/21/2016	9532	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	6/28/2016	7/21/2016	9532	D	Butane	106-97-8	PPBV		3.8 NJ
CEMRC	6/28/2016	7/21/2016	9532	D	Butane, 2-methyl-	78-78-4	PPBV		2.68 NJ
CEMRC	6/28/2016	7/21/2016	9532	D	Isobutane	75-28-5	PPBV		1.4 NJ
CEMRC	6/28/2016	7/21/2016	9532	D	Pentane	109-66-0	PPBV		1.84 NJ
CEMRC	6/28/2016	7/21/2016	9532	D	Pentane, 2-methyl-	107-83-5	PPBV		0.58 NJ
CEMRC	6/28/2016	7/21/2016	9532	D	Propane	74-98-6	PPBV		3.38 NJ
CEMRC	6/28/2016	7/21/2016	9532	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	6/28/2016	7/21/2016	9532	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	6/28/2016	7/21/2016	9532	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	6/28/2016	7/21/2016	9532	D	1,2-Dichloroethane	107-06-2	PPTV	100	9.66 J
CEMRC	6/28/2016	7/21/2016	9532	D	Carbon Tetrachloride	56-23-5	PPTV	100	74.32 J

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	6/28/2016	7/21/2016	9532	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	6/28/2016	7/21/2016	9532	D	Chloroform	67-66-3	PPTV	100	8.66 J
CEMRC	6/28/2016	7/21/2016	9532	D	Methylene Chloride	75-09-2	PPTV	100	47.02 J
CEMRC	6/28/2016	7/21/2016	9532	D	Toluene	108-88-3	PPTV	100	247.02
CEMRC	6/28/2016	7/21/2016	9532	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	6/28/2016	7/21/2016	9531	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	0.3 J
CEMRC	6/28/2016	7/21/2016	9531	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/28/2016	7/21/2016	9531	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/28/2016	7/21/2016	9531	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/28/2016	7/21/2016	9531	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	1.06
CEMRC	6/28/2016	7/21/2016	9531	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/28/2016	7/21/2016	9531	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/28/2016	7/21/2016	9531	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/28/2016	7/21/2016	9531	C	Toluene	108-88-3	PPBV	0.4	0.22 J
CEMRC	6/28/2016	7/21/2016	9531	C	Trichloroethylene	79-01-6	PPBV	0.4	0.56
CEMRC	6/28/2016	7/21/2016	9531	C	Butane	106-97-8	PPBV		3.72 NJ
CEMRC	6/28/2016	7/21/2016	9531	C	Butane, 2-methyl-	78-78-4	PPBV		2.92 NJ
CEMRC	6/28/2016	7/21/2016	9531	C	Dichlorodifluoromethane	75-71-8	PPBV		1.1 NJ
CEMRC	6/28/2016	7/21/2016	9531	C	Isobutane	75-28-5	PPBV		1.14 NJ
CEMRC	6/28/2016	7/21/2016	9531	C	Pentane	109-66-0	PPBV		1.64 NJ
CEMRC	6/28/2016	7/21/2016	9531	C	Pentane, 2-methyl-	107-83-5	PPBV		0.54 NJ
CEMRC	6/28/2016	7/21/2016	9531	C	Propane	74-98-6	PPBV		3.42 NJ
CEMRC	6/28/2016	7/21/2016	9531	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	294.72
CEMRC	6/28/2016	7/21/2016	9531	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	11.98 J

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	6/28/2016	7/21/2016	9531	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	6/28/2016	7/21/2016	9531	C	1,2-Dichloroethane	107-06-2	PPTV	100	10.9 J
CEMRC	6/28/2016	7/21/2016	9531	C	Carbon Tetrachloride	56-23-5	PPTV	100	1021.3
CEMRC	6/28/2016	7/21/2016	9531	C	Chlorobenzene	108-90-7	PPTV	100	10.98 J
CEMRC	6/28/2016	7/21/2016	9531	C	Chloroform	67-66-3	PPTV	100	80.48 J
CEMRC	6/28/2016	7/21/2016	9531	C	Methylene Chloride	75-09-2	PPTV	100	69.14 J
CEMRC	6/28/2016	7/21/2016	9531	C	Toluene	108-88-3	PPTV	100	220.12
CEMRC	6/28/2016	7/21/2016	9531	C	Trichloroethylene	79-01-6	PPTV	100	529.02
CEMRC	6/29/2016	7/21/2016	9535	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	6/29/2016	7/21/2016	9535	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	6/29/2016	7/21/2016	9535	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	6/29/2016	7/21/2016	9535	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	6/29/2016	7/21/2016	9535	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	6/29/2016	7/21/2016	9535	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	6/29/2016	7/21/2016	9535	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	6/29/2016	7/21/2016	9535	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	6/29/2016	7/21/2016	9535	D	Toluene	108-88-3	PPBV	0.4	0.28 J
CEMRC	6/29/2016	7/21/2016	9535	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	6/29/2016	7/21/2016	9535	D	Butane	106-97-8	PPBV		5 NJ
CEMRC	6/29/2016	7/21/2016	9535	D	Butane, 2-methyl-	78-78-4	PPBV		3.32 NJ
CEMRC	6/29/2016	7/21/2016	9535	D	Cyclopentane, methyl-	96-37-7	PPBV		0.64 NJ
CEMRC	6/29/2016	7/21/2016	9535	D	Dichlorodifluoromethane	75-71-8	PPBV		1.12 NJ
CEMRC	6/29/2016	7/21/2016	9535	D	Isobutane	75-28-5	PPBV		1.58 NJ

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	6/29/2016	7/21/2016	9535	D	Isoprene	78-79-5	PPBV		0.48 NJ
CEMRC	6/29/2016	7/21/2016	9535	D	Pentane	109-66-0	PPBV		2.42 NJ
CEMRC	6/29/2016	7/21/2016	9535	D	Pentane, 2-methyl-	107-83-5	PPBV		0.74 NJ
CEMRC	6/29/2016	7/21/2016	9535	D	Propane	74-98-6	PPBV		4.46 NJ
CEMRC	6/29/2016	7/21/2016	9535	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	6/29/2016	7/21/2016	9535	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	6/29/2016	7/21/2016	9535	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	6/29/2016	7/21/2016	9535	D	1,2-Dichloroethane	107-06-2	PPTV	100	11.34 J
CEMRC	6/29/2016	7/21/2016	9535	D	Carbon Tetrachloride	56-23-5	PPTV	100	72.62 J
CEMRC	6/29/2016	7/21/2016	9535	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	6/29/2016	7/21/2016	9535	D	Chloroform	67-66-3	PPTV	100	8.7 J
CEMRC	6/29/2016	7/21/2016	9535	D	Methylene Chloride	75-09-2	PPTV	100	52.78 J
CEMRC	6/29/2016	7/21/2016	9535	D	Toluene	108-88-3	PPTV	100	277.96
CEMRC	6/29/2016	7/21/2016	9535	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	6/29/2016	7/21/2016	9534	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.6	U
CEMRC	6/29/2016	7/21/2016	9534	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.6	U
CEMRC	6/29/2016	7/21/2016	9534	C	1,1-Dichloroethylene	75-35-4	PPBV	0.6	U
CEMRC	6/29/2016	7/21/2016	9534	C	1,2-Dichloroethane	107-06-2	PPBV	0.6	U
CEMRC	6/29/2016	7/21/2016	9534	C	Carbon Tetrachloride	56-23-5	PPBV	0.6	0.42 J
CEMRC	6/29/2016	7/21/2016	9534	C	Chlorobenzene	108-90-7	PPBV	0.6	U
CEMRC	6/29/2016	7/21/2016	9534	C	Chloroform	67-66-3	PPBV	0.6	U
CEMRC	6/29/2016	7/21/2016	9534	C	Methylene Chloride	75-09-2	PPBV	0.6	U
CEMRC	6/29/2016	7/21/2016	9534	C	Toluene	108-88-3	PPBV	0.6	0.24 J
CEMRC	6/29/2016	7/21/2016	9534	C	Trichloroethylene	79-01-6	PPBV	0.6	0.21 J

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	6/29/2016	7/21/2016	9534	C	Butane	106-97-8	PPBV		4.71 NJ
CEMRC	6/29/2016	7/21/2016	9534	C	Butane, 2-methyl-	78-78-4	PPBV		3.15 NJ
CEMRC	6/29/2016	7/21/2016	9534	C	Isobutane	75-28-5	PPBV		1.5 NJ
CEMRC	6/29/2016	7/21/2016	9534	C	Pentane	109-66-0	PPBV		2.31 NJ
CEMRC	6/29/2016	7/21/2016	9534	C	Pentane, 2-methyl-	107-83-5	PPBV		0.69 NJ
CEMRC	6/29/2016	7/21/2016	9534	C	Propane	74-98-6	PPBV		4.62 NJ
CEMRC	6/29/2016	7/21/2016	9534	C	1,1,1-Trichloroethane	71-55-6	PPTV	150	123.93 J
CEMRC	6/29/2016	7/21/2016	9534	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	6/29/2016	7/21/2016	9534	C	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	6/29/2016	7/21/2016	9534	C	1,2-Dichloroethane	107-06-2	PPTV	150	11.58 J
CEMRC	6/29/2016	7/21/2016	9534	C	Carbon Tetrachloride	56-23-5	PPTV	150	416.31
CEMRC	6/29/2016	7/21/2016	9534	C	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	6/29/2016	7/21/2016	9534	C	Chloroform	67-66-3	PPTV	150	32.73 J
CEMRC	6/29/2016	7/21/2016	9534	C	Methylene Chloride	75-09-2	PPTV	150	76.08 J
CEMRC	6/29/2016	7/21/2016	9534	C	Toluene	108-88-3	PPTV	150	249.63
CEMRC	6/29/2016	7/21/2016	9534	C	Trichloroethylene	79-01-6	PPTV	150	215.31
CEMRC	7/7/2016	7/26/2016	9539	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	7/7/2016	7/26/2016	9539	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	7/7/2016	7/26/2016	9539	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	7/7/2016	7/26/2016	9539	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	7/7/2016	7/26/2016	9539	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	7/7/2016	7/26/2016	9539	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	7/7/2016	7/26/2016	9539	D	Chloroform	67-66-3	PPBV	0.4	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	7/7/2016	7/26/2016	9539	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	7/7/2016	7/26/2016	9539	D	Toluene	108-88-3	PPBV	0.4	0.22 J
CEMRC	7/7/2016	7/26/2016	9539	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	7/7/2016	7/26/2016	9539	D	Butane	106-97-8	PPBV		3.62 NJ
CEMRC	7/7/2016	7/26/2016	9539	D	Butane, 2-methyl-	78-78-4	PPBV		2.64 NJ
CEMRC	7/7/2016	7/26/2016	9539	D	Isobutane	75-28-5	PPBV		0.88 NJ
CEMRC	7/7/2016	7/26/2016	9539	D	Isoprene	78-79-5	PPBV		1 NJ
CEMRC	7/7/2016	7/26/2016	9539	D	Pentane	109-66-0	PPBV		1.84 NJ
CEMRC	7/7/2016	7/26/2016	9539	D	Pentane, 2-methyl-	107-83-5	PPBV		0.58 NJ
CEMRC	7/7/2016	7/26/2016	9539	D	Propane	74-98-6	PPBV		3.18 NJ
CEMRC	7/7/2016	7/26/2016	9539	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	7/7/2016	7/26/2016	9539	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	7/7/2016	7/26/2016	9539	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	7/7/2016	7/26/2016	9539	D	1,2-Dichloroethane	107-06-2	PPTV	100	9.74 J
CEMRC	7/7/2016	7/26/2016	9539	D	Carbon Tetrachloride	56-23-5	PPTV	100	74.14 J
CEMRC	7/7/2016	7/26/2016	9539	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	7/7/2016	7/26/2016	9539	D	Chloroform	67-66-3	PPTV	100	7.7 J
CEMRC	7/7/2016	7/26/2016	9539	D	Methylene Chloride	75-09-2	PPTV	100	52.12 J
CEMRC	7/7/2016	7/26/2016	9539	D	Toluene	108-88-3	PPTV	100	217.06
CEMRC	7/7/2016	7/26/2016	9539	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	7/7/2016	7/26/2016	9538	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	7/7/2016	7/26/2016	9538	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	7/7/2016	7/26/2016	9538	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	7/7/2016	7/26/2016	9538	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	7/7/2016	7/26/2016	9538	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.18 J
CEMRC	7/7/2016	7/26/2016	9538	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	7/7/2016	7/26/2016	9538	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	7/7/2016	7/26/2016	9538	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	7/7/2016	7/26/2016	9538	C	Toluene	108-88-3	PPBV	0.4	0.22 J
CEMRC	7/7/2016	7/26/2016	9538	C	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	7/7/2016	7/26/2016	9538	C	Butane	106-97-8	PPBV		3.44 NJ
CEMRC	7/7/2016	7/26/2016	9538	C	Butane, 2-methyl-	78-78-4	PPBV		2.4 NJ
CEMRC	7/7/2016	7/26/2016	9538	C	Isobutane	75-28-5	PPBV		0.92 NJ
CEMRC	7/7/2016	7/26/2016	9538	C	Pentane	109-66-0	PPBV		1.7 NJ
CEMRC	7/7/2016	7/26/2016	9538	C	Pentane, 2-methyl-	107-83-5	PPBV		0.54 NJ
CEMRC	7/7/2016	7/26/2016	9538	C	Propane	74-98-6	PPBV		3.26 NJ
CEMRC	7/7/2016	7/26/2016	9538	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	27.62 J
CEMRC	7/7/2016	7/26/2016	9538	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	11.5 J
CEMRC	7/7/2016	7/26/2016	9538	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	7/7/2016	7/26/2016	9538	C	1,2-Dichloroethane	107-06-2	PPTV	100	10.6 J
CEMRC	7/7/2016	7/26/2016	9538	C	Carbon Tetrachloride	56-23-5	PPTV	100	181.54
CEMRC	7/7/2016	7/26/2016	9538	C	Chlorobenzene	108-90-7	PPTV	100	11.74 J
CEMRC	7/7/2016	7/26/2016	9538	C	Chloroform	67-66-3	PPTV	100	23.82 J
CEMRC	7/7/2016	7/26/2016	9538	C	Methylene Chloride	75-09-2	PPTV	100	51.4 J
CEMRC	7/7/2016	7/26/2016	9538	C	Toluene	108-88-3	PPTV	100	236.52
CEMRC	7/7/2016	7/26/2016	9538	C	Trichloroethylene	79-01-6	PPTV	100	65.74 J
CEMRC	7/8/2016	7/26/2016	9541	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	7/8/2016	7/26/2016	9541	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	7/8/2016	7/26/2016	9541	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	7/8/2016	7/26/2016	9541	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	7/8/2016	7/26/2016	9541	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	7/8/2016	7/26/2016	9541	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	7/8/2016	7/26/2016	9541	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	7/8/2016	7/26/2016	9541	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	7/8/2016	7/26/2016	9541	D	Toluene	108-88-3	PPBV	0.4	0.16 J
CEMRC	7/8/2016	7/26/2016	9541	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	7/8/2016	7/26/2016	9541	D	Butane	106-97-8	PPBV		4.08 NJ
CEMRC	7/8/2016	7/26/2016	9541	D	Butane, 2-methyl-	78-78-4	PPBV		2.7 NJ
CEMRC	7/8/2016	7/26/2016	9541	D	Cyclopentane, methyl-	96-37-7	PPBV		0.54 NJ
CEMRC	7/8/2016	7/26/2016	9541	D	Isobutane	75-28-5	PPBV		1.08 NJ
CEMRC	7/8/2016	7/26/2016	9541	D	Isoprene	78-79-5	PPBV		0.68 NJ
CEMRC	7/8/2016	7/26/2016	9541	D	Pentane	109-66-0	PPBV		1.98 NJ
CEMRC	7/8/2016	7/26/2016	9541	D	Pentane, 2-methyl-	107-83-5	PPBV		0.6 NJ
CEMRC	7/8/2016	7/26/2016	9541	D	Propane	74-98-6	PPBV		4 NJ
CEMRC	7/8/2016	7/26/2016	9541	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	7/8/2016	7/26/2016	9541	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	7/8/2016	7/26/2016	9541	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	7/8/2016	7/26/2016	9541	D	1,2-Dichloroethane	107-06-2	PPTV	100	10.26 J
CEMRC	7/8/2016	7/26/2016	9541	D	Carbon Tetrachloride	56-23-5	PPTV	100	75.38 J
CEMRC	7/8/2016	7/26/2016	9541	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	7/8/2016	7/26/2016	9541	D	Chloroform	67-66-3	PPTV	100	8.18 J

Qualifiers:

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Notes:

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

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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	7/8/2016	7/26/2016	9541	D	Methylene Chloride	75-09-2	PPTV	100	49.66 J
CEMRC	7/8/2016	7/26/2016	9541	D	Toluene	108-88-3	PPTV	100	176.82
CEMRC	7/8/2016	7/26/2016	9541	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	7/8/2016	7/26/2016	9540	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	7/8/2016	7/26/2016	9540	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	7/8/2016	7/26/2016	9540	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	7/8/2016	7/26/2016	9540	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	7/8/2016	7/26/2016	9540	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	7/8/2016	7/26/2016	9540	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	7/8/2016	7/26/2016	9540	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	7/8/2016	7/26/2016	9540	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	7/8/2016	7/26/2016	9540	C	Toluene	108-88-3	PPBV	0.4	0.16 J
CEMRC	7/8/2016	7/26/2016	9540	C	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	7/8/2016	7/26/2016	9540	C	Butane	106-97-8	PPBV		3.28 NJ
CEMRC	7/8/2016	7/26/2016	9540	C	Butane, 2-methyl-	78-78-4	PPBV		2.42 NJ
CEMRC	7/8/2016	7/26/2016	9540	C	Dichlorodifluoromethane	75-71-8	PPBV		1.34 NJ
CEMRC	7/8/2016	7/26/2016	9540	C	Isobutane	75-28-5	PPBV		1.04 NJ
CEMRC	7/8/2016	7/26/2016	9540	C	Pentane	109-66-0	PPBV		1.56 NJ
CEMRC	7/8/2016	7/26/2016	9540	C	Pentane, 2-methyl-	107-83-5	PPBV		0.5 NJ
CEMRC	7/8/2016	7/26/2016	9540	C	Propane	74-98-6	PPBV		3.02 NJ
CEMRC	7/8/2016	7/26/2016	9540	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	7/8/2016	7/26/2016	9540	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	7/8/2016	7/26/2016	9540	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	7/8/2016	7/26/2016	9540	C	1,2-Dichloroethane	107-06-2	PPTV	100	8.98 J

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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	7/8/2016	7/26/2016	9540	C	Carbon Tetrachloride	56-23-5	PPTV	100	92.26 J
CEMRC	7/8/2016	7/26/2016	9540	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	7/8/2016	7/26/2016	9540	C	Chloroform	67-66-3	PPTV	100	8.72 J
CEMRC	7/8/2016	7/26/2016	9540	C	Methylene Chloride	75-09-2	PPTV	100	47.78 J
CEMRC	7/8/2016	7/26/2016	9540	C	Toluene	108-88-3	PPTV	100	170.64
CEMRC	7/8/2016	7/26/2016	9540	C	Trichloroethylene	79-01-6	PPTV	100	9.98 J
CEMRC	7/12/2016	7/27/2016	9544	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9544	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9544	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9544	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9544	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9544	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9544	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9544	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9544	D	Toluene	108-88-3	PPBV	0.4	0.16 J
CEMRC	7/12/2016	7/27/2016	9544	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9544	D	Butane	106-97-8	PPBV		3.38 NJ
CEMRC	7/12/2016	7/27/2016	9544	D	Butane, 2-methyl-	78-78-4	PPBV		2.32 NJ
CEMRC	7/12/2016	7/27/2016	9544	D	Isobutane	75-28-5	PPBV		1.04 NJ
CEMRC	7/12/2016	7/27/2016	9544	D	Isoprene	78-79-5	PPBV		0.96 NJ
CEMRC	7/12/2016	7/27/2016	9544	D	Pentane	109-66-0	PPBV		1.64 NJ
CEMRC	7/12/2016	7/27/2016	9544	D	Pentane, 2-methyl-	107-83-5	PPBV		0.48 NJ
CEMRC	7/12/2016	7/27/2016	9544	D	Propane	74-98-6	PPBV		2.96 NJ

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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	7/12/2016	7/27/2016	9544	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	7/12/2016	7/27/2016	9544	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	7/12/2016	7/27/2016	9544	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	7/12/2016	7/27/2016	9544	D	1,2-Dichloroethane	107-06-2	PPTV	100	8.8 J
CEMRC	7/12/2016	7/27/2016	9544	D	Carbon Tetrachloride	56-23-5	PPTV	100	75.66 J
CEMRC	7/12/2016	7/27/2016	9544	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	7/12/2016	7/27/2016	9544	D	Chloroform	67-66-3	PPTV	100	7.86 J
CEMRC	7/12/2016	7/27/2016	9544	D	Methylene Chloride	75-09-2	PPTV	100	50.8 J
CEMRC	7/12/2016	7/27/2016	9544	D	Toluene	108-88-3	PPTV	100	168.04
CEMRC	7/12/2016	7/27/2016	9544	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	7/12/2016	7/27/2016	9542	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9542	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9542	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9542	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9542	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9542	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9542	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9542	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9542	C	Toluene	108-88-3	PPBV	0.4	0.16 J
CEMRC	7/12/2016	7/27/2016	9542	C	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	7/12/2016	7/27/2016	9542	C	Butane	106-97-8	PPBV		3.36 NJ
CEMRC	7/12/2016	7/27/2016	9542	C	Butane, 2-methyl-	78-78-4	PPBV		2.42 NJ
CEMRC	7/12/2016	7/27/2016	9542	C	Dichlorodifluoromethane	75-71-8	PPBV		0.52 NJ
CEMRC	7/12/2016	7/27/2016	9542	C	Isobutane	75-28-5	PPBV		0.94 NJ

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	7/12/2016	7/27/2016	9542	C	Pentane	109-66-0	PPBV		1.58 NJ
CEMRC	7/12/2016	7/27/2016	9542	C	Pentane, 2-methyl-	107-83-5	PPBV		0.46 NJ
CEMRC	7/12/2016	7/27/2016	9542	C	Propane	74-98-6	PPBV		2.84 NJ
CEMRC	7/12/2016	7/27/2016	9542	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	7/12/2016	7/27/2016	9542	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	13.94 J
CEMRC	7/12/2016	7/27/2016	9542	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	7/12/2016	7/27/2016	9542	C	1,2-Dichloroethane	107-06-2	PPTV	100	9.42 J
CEMRC	7/12/2016	7/27/2016	9542	C	Carbon Tetrachloride	56-23-5	PPTV	100	84.2 J
CEMRC	7/12/2016	7/27/2016	9542	C	Chlorobenzene	108-90-7	PPTV	100	11.48 J
CEMRC	7/12/2016	7/27/2016	9542	C	Chloroform	67-66-3	PPTV	100	8.52 J
CEMRC	7/12/2016	7/27/2016	9542	C	Methylene Chloride	75-09-2	PPTV	100	52.5 J
CEMRC	7/12/2016	7/27/2016	9542	C	Toluene	108-88-3	PPTV	100	173.96
CEMRC	7/12/2016	7/27/2016	9542	C	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	7/13/2016	7/27/2016	9546	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	7/13/2016	7/27/2016	9546	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	7/13/2016	7/27/2016	9546	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	7/13/2016	7/27/2016	9546	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	7/13/2016	7/27/2016	9546	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	7/13/2016	7/27/2016	9546	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	7/13/2016	7/27/2016	9546	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	7/13/2016	7/27/2016	9546	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	7/13/2016	7/27/2016	9546	D	Toluene	108-88-3	PPBV	0.4	0.18 J
CEMRC	7/13/2016	7/27/2016	9546	D	Trichloroethylene	79-01-6	PPBV	0.4	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	7/13/2016	7/27/2016	9546	D	Butane	106-97-8	PPBV		3.24 NJ
CEMRC	7/13/2016	7/27/2016	9546	D	Butane, 2-methyl-	78-78-4	PPBV		2.34 NJ
CEMRC	7/13/2016	7/27/2016	9546	D	Dichlorodifluoromethane	75-71-8	PPBV		1.34 NJ
CEMRC	7/13/2016	7/27/2016	9546	D	Isobutane	75-28-5	PPBV		1 NJ
CEMRC	7/13/2016	7/27/2016	9546	D	Isoprene	78-79-5	PPBV		0.94 NJ
CEMRC	7/13/2016	7/27/2016	9546	D	Pentane	109-66-0	PPBV		1.56 NJ
CEMRC	7/13/2016	7/27/2016	9546	D	Pentane, 2-methyl-	107-83-5	PPBV		0.48 NJ
CEMRC	7/13/2016	7/27/2016	9546	D	Propane	74-98-6	PPBV		3.18 NJ
CEMRC	7/13/2016	7/27/2016	9546	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	7/13/2016	7/27/2016	9546	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	7/13/2016	7/27/2016	9546	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	7/13/2016	7/27/2016	9546	D	1,2-Dichloroethane	107-06-2	PPTV	100	9.3 J
CEMRC	7/13/2016	7/27/2016	9546	D	Carbon Tetrachloride	56-23-5	PPTV	100	74.6 J
CEMRC	7/13/2016	7/27/2016	9546	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	7/13/2016	7/27/2016	9546	D	Chloroform	67-66-3	PPTV	100	7.8 J
CEMRC	7/13/2016	7/27/2016	9546	D	Methylene Chloride	75-09-2	PPTV	100	51.74 J
CEMRC	7/13/2016	7/27/2016	9546	D	Toluene	108-88-3	PPTV	100	176.06
CEMRC	7/13/2016	7/27/2016	9546	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	7/13/2016	7/27/2016	9545	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	7/13/2016	7/27/2016	9545	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	7/13/2016	7/27/2016	9545	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	7/13/2016	7/27/2016	9545	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	7/13/2016	7/27/2016	9545	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.22 J
CEMRC	7/13/2016	7/27/2016	9545	C	Chlorobenzene	108-90-7	PPBV	0.4	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	7/13/2016	7/27/2016	9545	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	7/13/2016	7/27/2016	9545	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	7/13/2016	7/27/2016	9545	C	Toluene	108-88-3	PPBV	0.4	0.16 J
CEMRC	7/13/2016	7/27/2016	9545	C	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	7/13/2016	7/27/2016	9545	C	Butane	106-97-8	PPBV		2.88 NJ
CEMRC	7/13/2016	7/27/2016	9545	C	Butane, 2-methyl-	78-78-4	PPBV		2.38 NJ
CEMRC	7/13/2016	7/27/2016	9545	C	Dichlorodifluoromethane	75-71-8	PPBV		1.26 NJ
CEMRC	7/13/2016	7/27/2016	9545	C	Isobutane	75-28-5	PPBV		0.98 NJ
CEMRC	7/13/2016	7/27/2016	9545	C	Pentane	109-66-0	PPBV		1.52 NJ
CEMRC	7/13/2016	7/27/2016	9545	C	Pentane, 2-methyl-	107-83-5	PPBV		0.46 NJ
CEMRC	7/13/2016	7/27/2016	9545	C	Propane	74-98-6	PPBV		3.04 NJ
CEMRC	7/13/2016	7/27/2016	9545	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	44.6 J
CEMRC	7/13/2016	7/27/2016	9545	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	7/13/2016	7/27/2016	9545	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	7/13/2016	7/27/2016	9545	C	1,2-Dichloroethane	107-06-2	PPTV	100	8.86 J
CEMRC	7/13/2016	7/27/2016	9545	C	Carbon Tetrachloride	56-23-5	PPTV	100	223.94
CEMRC	7/13/2016	7/27/2016	9545	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	7/13/2016	7/27/2016	9545	C	Chloroform	67-66-3	PPTV	100	19.72 J
CEMRC	7/13/2016	7/27/2016	9545	C	Methylene Chloride	75-09-2	PPTV	100	49.8 J
CEMRC	7/13/2016	7/27/2016	9545	C	Toluene	108-88-3	PPTV	100	166.88
CEMRC	7/13/2016	7/27/2016	9545	C	Trichloroethylene	79-01-6	PPTV	100	74.14 J
CEMRC	7/20/2016	8/3/2016	9548	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	7/20/2016	8/3/2016	9548	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	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	7/20/2016	8/3/2016	9548	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	7/20/2016	8/3/2016	9548	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	7/20/2016	8/3/2016	9548	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	7/20/2016	8/3/2016	9548	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	7/20/2016	8/3/2016	9548	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	7/20/2016	8/3/2016	9548	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	7/20/2016	8/3/2016	9548	D	Toluene	108-88-3	PPBV	0.4	0.1 J
CEMRC	7/20/2016	8/3/2016	9548	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	7/20/2016	8/3/2016	9548	D	Butane	106-97-8	PPBV		2.1 NJ
CEMRC	7/20/2016	8/3/2016	9548	D	Butane, 2-methyl-	78-78-4	PPBV		1.58 NJ
CEMRC	7/20/2016	8/3/2016	9548	D	Dichlorodifluoromethane	75-71-8	PPBV		1.48 NJ
CEMRC	7/20/2016	8/3/2016	9548	D	Isobutane	75-28-5	PPBV		0.96 NJ
CEMRC	7/20/2016	8/3/2016	9548	D	Isoprene	78-79-5	PPBV		0.52 NJ
CEMRC	7/20/2016	8/3/2016	9548	D	Pentane	109-66-0	PPBV		0.9 NJ
CEMRC	7/20/2016	8/3/2016	9548	D	Propane	74-98-6	PPBV		2.02 NJ
CEMRC	7/20/2016	8/3/2016	9548	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	7/20/2016	8/3/2016	9548	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	7/20/2016	8/3/2016	9548	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	7/20/2016	8/3/2016	9548	D	1,2-Dichloroethane	107-06-2	PPTV	100	7.22 J
CEMRC	7/20/2016	8/3/2016	9548	D	Carbon Tetrachloride	56-23-5	PPTV	100	84.86 J
CEMRC	7/20/2016	8/3/2016	9548	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	7/20/2016	8/3/2016	9548	D	Chloroform	67-66-3	PPTV	100	7.82 J
CEMRC	7/20/2016	8/3/2016	9548	D	Methylene Chloride	75-09-2	PPTV	100	44.98 J
CEMRC	7/20/2016	8/3/2016	9548	D	Toluene	108-88-3	PPTV	100	102.78

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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	7/20/2016	8/3/2016	9548	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	7/20/2016	8/3/2016	9547	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	7/20/2016	8/3/2016	9547	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	7/20/2016	8/3/2016	9547	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	7/20/2016	8/3/2016	9547	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	7/20/2016	8/3/2016	9547	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.26 J
CEMRC	7/20/2016	8/3/2016	9547	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	7/20/2016	8/3/2016	9547	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	7/20/2016	8/3/2016	9547	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	7/20/2016	8/3/2016	9547	C	Toluene	108-88-3	PPBV	0.4	0.1 J
CEMRC	7/20/2016	8/3/2016	9547	C	Trichloroethylene	79-01-6	PPBV	0.4	0.08 J
CEMRC	7/20/2016	8/3/2016	9547	C	Butane	106-97-8	PPBV		2.18 NJ
CEMRC	7/20/2016	8/3/2016	9547	C	Butane, 2-methyl-	78-78-4	PPBV		1.6 NJ
CEMRC	7/20/2016	8/3/2016	9547	C	Dichlorodifluoromethane	75-71-8	PPBV		0.48 NJ
CEMRC	7/20/2016	8/3/2016	9547	C	Isobutane	75-28-5	PPBV		0.84 NJ
CEMRC	7/20/2016	8/3/2016	9547	C	Pentane	109-66-0	PPBV		0.96 NJ
CEMRC	7/20/2016	8/3/2016	9547	C	Propane	74-98-6	PPBV		1.92 NJ
CEMRC	7/20/2016	8/3/2016	9547	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	61.38 J
CEMRC	7/20/2016	8/3/2016	9547	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	17.1 J
CEMRC	7/20/2016	8/3/2016	9547	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	7/20/2016	8/3/2016	9547	C	1,2-Dichloroethane	107-06-2	PPTV	100	8.64 J
CEMRC	7/20/2016	8/3/2016	9547	C	Carbon Tetrachloride	56-23-5	PPTV	100	262.14
CEMRC	7/20/2016	8/3/2016	9547	C	Chlorobenzene	108-90-7	PPTV	100	9.22 J
CEMRC	7/20/2016	8/3/2016	9547	C	Chloroform	67-66-3	PPTV	100	17.46 J

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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	7/20/2016	8/3/2016	9547	C	Methylene Chloride	75-09-2	PPTV	100	48.5 J
CEMRC	7/20/2016	8/3/2016	9547	C	Toluene	108-88-3	PPTV	100	106.88
CEMRC	7/20/2016	8/3/2016	9547	C	Trichloroethylene	79-01-6	PPTV	100	85 J
CEMRC	7/21/2016	8/3/2016	9550	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9550	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9550	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9550	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9550	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9550	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9550	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9550	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9550	D	Toluene	108-88-3	PPBV	0.4	0.08 J
CEMRC	7/21/2016	8/3/2016	9550	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9550	D	Butane	106-97-8	PPBV		1.74 NJ
CEMRC	7/21/2016	8/3/2016	9550	D	Dichlorodifluoromethane	75-71-8	PPBV		0.5 NJ
CEMRC	7/21/2016	8/3/2016	9550	D	Isobutane	75-28-5	PPBV		0.76 NJ
CEMRC	7/21/2016	8/3/2016	9550	D	Isoprene	78-79-5	PPBV		0.68 NJ
CEMRC	7/21/2016	8/3/2016	9550	D	Pentane	109-66-0	PPBV		0.78 NJ
CEMRC	7/21/2016	8/3/2016	9550	D	Propane	74-98-6	PPBV		1.74 NJ
CEMRC	7/21/2016	8/3/2016	9550	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	7/21/2016	8/3/2016	9550	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	7/21/2016	8/3/2016	9550	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	7/21/2016	8/3/2016	9550	D	1,2-Dichloroethane	107-06-2	PPTV	100	6.82 J

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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	7/21/2016	8/3/2016	9550	D	Carbon Tetrachloride	56-23-5	PPTV	100	87.6 J
CEMRC	7/21/2016	8/3/2016	9550	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	7/21/2016	8/3/2016	9550	D	Chloroform	67-66-3	PPTV	100	7.04 J
CEMRC	7/21/2016	8/3/2016	9550	D	Methylene Chloride	75-09-2	PPTV	100	42.74 J
CEMRC	7/21/2016	8/3/2016	9550	D	Toluene	108-88-3	PPTV	100	95.64 J
CEMRC	7/21/2016	8/3/2016	9550	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	7/21/2016	8/3/2016	9549	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9549	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9549	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9549	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9549	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.18 J
CEMRC	7/21/2016	8/3/2016	9549	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9549	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9549	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9549	C	Toluene	108-88-3	PPBV	0.4	0.1 J
CEMRC	7/21/2016	8/3/2016	9549	C	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	7/21/2016	8/3/2016	9549	C	Acetone	67-64-1	PPBV		1.6 NJ
CEMRC	7/21/2016	8/3/2016	9549	C	Butane	106-97-8	PPBV		1.9 NJ
CEMRC	7/21/2016	8/3/2016	9549	C	Isobutane	75-28-5	PPBV		0.9 NJ
CEMRC	7/21/2016	8/3/2016	9549	C	Pentane	109-66-0	PPBV		0.8 NJ
CEMRC	7/21/2016	8/3/2016	9549	C	Propane	74-98-6	PPBV		1.78 NJ
CEMRC	7/21/2016	8/3/2016	9549	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	32.68 J
CEMRC	7/21/2016	8/3/2016	9549	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	7/21/2016	8/3/2016	9549	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	7/21/2016	8/3/2016	9549	C	1,2-Dichloroethane	107-06-2	PPTV	100	7.02 J
CEMRC	7/21/2016	8/3/2016	9549	C	Carbon Tetrachloride	56-23-5	PPTV	100	178.5
CEMRC	7/21/2016	8/3/2016	9549	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	7/21/2016	8/3/2016	9549	C	Chloroform	67-66-3	PPTV	100	12.78 J
CEMRC	7/21/2016	8/3/2016	9549	C	Methylene Chloride	75-09-2	PPTV	100	45.02 J
CEMRC	7/21/2016	8/3/2016	9549	C	Toluene	108-88-3	PPTV	100	98.26 J
CEMRC	7/21/2016	8/3/2016	9549	C	Trichloroethylene	79-01-6	PPTV	100	40.42 J
CEMRC	7/26/2016	8/3/2016	9552	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	7/26/2016	8/3/2016	9552	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	7/26/2016	8/3/2016	9552	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	7/26/2016	8/3/2016	9552	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	7/26/2016	8/3/2016	9552	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	7/26/2016	8/3/2016	9552	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	7/26/2016	8/3/2016	9552	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	7/26/2016	8/3/2016	9552	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	7/26/2016	8/3/2016	9552	D	Toluene	108-88-3	PPBV	0.4	0.14 J
CEMRC	7/26/2016	8/3/2016	9552	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	7/26/2016	8/3/2016	9552	D	Butane	106-97-8	PPBV		2.88 NJ
CEMRC	7/26/2016	8/3/2016	9552	D	Butane, 2-methyl-	78-78-4	PPBV		2.22 NJ
CEMRC	7/26/2016	8/3/2016	9552	D	Dichlorodifluoromethane	75-71-8	PPBV		2.1 NJ
CEMRC	7/26/2016	8/3/2016	9552	D	Isobutane	75-28-5	PPBV		1.12 NJ
CEMRC	7/26/2016	8/3/2016	9552	D	Isoprene	78-79-5	PPBV		0.56 NJ
CEMRC	7/26/2016	8/3/2016	9552	D	Pentane	109-66-0	PPBV		1.18 NJ

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	7/26/2016	8/3/2016	9552	D	Propane	74-98-6	PPBV		2.62 NJ
CEMRC	7/26/2016	8/3/2016	9552	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	7/26/2016	8/3/2016	9552	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	7/26/2016	8/3/2016	9552	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	7/26/2016	8/3/2016	9552	D	1,2-Dichloroethane	107-06-2	PPTV	100	7.82 J
CEMRC	7/26/2016	8/3/2016	9552	D	Carbon Tetrachloride	56-23-5	PPTV	100	90.64 J
CEMRC	7/26/2016	8/3/2016	9552	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	7/26/2016	8/3/2016	9552	D	Chloroform	67-66-3	PPTV	100	7.4 J
CEMRC	7/26/2016	8/3/2016	9552	D	Methylene Chloride	75-09-2	PPTV	100	45.42 J
CEMRC	7/26/2016	8/3/2016	9552	D	Toluene	108-88-3	PPTV	100	154.34
CEMRC	7/26/2016	8/3/2016	9552	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	7/26/2016	8/3/2016	9551	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	7/26/2016	8/3/2016	9551	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	7/26/2016	8/3/2016	9551	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	7/26/2016	8/3/2016	9551	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	7/26/2016	8/3/2016	9551	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.38 J
CEMRC	7/26/2016	8/3/2016	9551	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	7/26/2016	8/3/2016	9551	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	7/26/2016	8/3/2016	9551	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	7/26/2016	8/3/2016	9551	C	Toluene	108-88-3	PPBV	0.4	0.12 J
CEMRC	7/26/2016	8/3/2016	9551	C	Trichloroethylene	79-01-6	PPBV	0.4	0.14 J
CEMRC	7/26/2016	8/3/2016	9551	C	Butane	106-97-8	PPBV		2.48 NJ
CEMRC	7/26/2016	8/3/2016	9551	C	Butane, 2-methyl-	78-78-4	PPBV		2.18 NJ
CEMRC	7/26/2016	8/3/2016	9551	C	Dichlorodifluoromethane	75-71-8	PPBV		1.28 NJ

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	7/26/2016	8/3/2016	9551	C	Isobutane	75-28-5	PPBV		0.96 NJ
CEMRC	7/26/2016	8/3/2016	9551	C	Pentane	109-66-0	PPBV		1.12 NJ
CEMRC	7/26/2016	8/3/2016	9551	C	Propane	74-98-6	PPBV		2.36 NJ
CEMRC	7/26/2016	8/3/2016	9551	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	94.52 J
CEMRC	7/26/2016	8/3/2016	9551	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	7/26/2016	8/3/2016	9551	C	1,1-Dichloroethylene	75-35-4	PPTV	100	4.94 J
CEMRC	7/26/2016	8/3/2016	9551	C	1,2-Dichloroethane	107-06-2	PPTV	100	8.44 J
CEMRC	7/26/2016	8/3/2016	9551	C	Carbon Tetrachloride	56-23-5	PPTV	100	383.02
CEMRC	7/26/2016	8/3/2016	9551	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	7/26/2016	8/3/2016	9551	C	Chloroform	67-66-3	PPTV	100	29.66 J
CEMRC	7/26/2016	8/3/2016	9551	C	Methylene Chloride	75-09-2	PPTV	100	49.06 J
CEMRC	7/26/2016	8/3/2016	9551	C	Toluene	108-88-3	PPTV	100	133.58
CEMRC	7/26/2016	8/3/2016	9551	C	Trichloroethylene	79-01-6	PPTV	100	132.44
CEMRC	7/27/2016	8/3/2016	9555	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	7/27/2016	8/3/2016	9555	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	7/27/2016	8/3/2016	9555	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	7/27/2016	8/3/2016	9555	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	7/27/2016	8/3/2016	9555	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	7/27/2016	8/3/2016	9555	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	7/27/2016	8/3/2016	9555	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	7/27/2016	8/3/2016	9555	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	7/27/2016	8/3/2016	9555	D	Toluene	108-88-3	PPBV	0.4	0.28 J
CEMRC	7/27/2016	8/3/2016	9555	D	Trichloroethylene	79-01-6	PPBV	0.4	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	7/27/2016	8/3/2016	9555	D	Butane	106-97-8	PPBV		5.1 NJ
CEMRC	7/27/2016	8/3/2016	9555	D	Butane, 2-methyl-	78-78-4	PPBV		3.58 NJ
CEMRC	7/27/2016	8/3/2016	9555	D	Cyclohexane, methyl-	108-87-2	PPBV		0.44 NJ
CEMRC	7/27/2016	8/3/2016	9555	D	Cyclopentane, methyl-	96-37-7	PPBV		0.62 NJ
CEMRC	7/27/2016	8/3/2016	9555	D	Isobutane	75-28-5	PPBV		2.12 NJ
CEMRC	7/27/2016	8/3/2016	9555	D	Pentane	109-66-0	PPBV		2.44 NJ
CEMRC	7/27/2016	8/3/2016	9555	D	Pentane, 2-methyl-	107-83-5	PPBV		0.74 NJ
CEMRC	7/27/2016	8/3/2016	9555	D	Propane	74-98-6	PPBV		4.94 NJ
CEMRC	7/27/2016	8/3/2016	9555	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	7/27/2016	8/3/2016	9555	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	7/27/2016	8/3/2016	9555	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	7/27/2016	8/3/2016	9555	D	1,2-Dichloroethane	107-06-2	PPTV	100	11.76 J
CEMRC	7/27/2016	8/3/2016	9555	D	Carbon Tetrachloride	56-23-5	PPTV	100	87.58 J
CEMRC	7/27/2016	8/3/2016	9555	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	7/27/2016	8/3/2016	9555	D	Chloroform	67-66-3	PPTV	100	8.74 J
CEMRC	7/27/2016	8/3/2016	9555	D	Methylene Chloride	75-09-2	PPTV	100	44.92 J
CEMRC	7/27/2016	8/3/2016	9555	D	Toluene	108-88-3	PPTV	100	297.16
CEMRC	7/27/2016	8/3/2016	9555	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	7/27/2016	8/3/2016	9554	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	7/27/2016	8/3/2016	9554	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	7/27/2016	8/3/2016	9554	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	7/27/2016	8/3/2016	9554	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	7/27/2016	8/3/2016	9554	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.28 J
CEMRC	7/27/2016	8/3/2016	9554	C	Chlorobenzene	108-90-7	PPBV	0.4	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	7/27/2016	8/3/2016	9554	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	7/27/2016	8/3/2016	9554	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	7/27/2016	8/3/2016	9554	C	Toluene	108-88-3	PPBV	0.4	0.32 J
CEMRC	7/27/2016	8/3/2016	9554	C	Trichloroethylene	79-01-6	PPBV	0.4	0.08 J
CEMRC	7/27/2016	8/3/2016	9554	C	Butane	106-97-8	PPBV		7.3 NJ
CEMRC	7/27/2016	8/3/2016	9554	C	Butane, 2-methyl-	78-78-4	PPBV		4.7 NJ
CEMRC	7/27/2016	8/3/2016	9554	C	Cyclohexane, methyl-	108-87-2	PPBV		0.58 NJ
CEMRC	7/27/2016	8/3/2016	9554	C	Cyclopentane, methyl-	96-37-7	PPBV		1 NJ
CEMRC	7/27/2016	8/3/2016	9554	C	Isobutane	75-28-5	PPBV		2.56 NJ
CEMRC	7/27/2016	8/3/2016	9554	C	Pentane	109-66-0	PPBV		3.34 NJ
CEMRC	7/27/2016	8/3/2016	9554	C	Pentane, 2-methyl-	107-83-5	PPBV		1.02 NJ
CEMRC	7/27/2016	8/3/2016	9554	C	Propane	74-98-6	PPBV		6.56 NJ
CEMRC	7/27/2016	8/3/2016	9554	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	68.6 J
CEMRC	7/27/2016	8/3/2016	9554	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	7/27/2016	8/3/2016	9554	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	7/27/2016	8/3/2016	9554	C	1,2-Dichloroethane	107-06-2	PPTV	100	15.52 J
CEMRC	7/27/2016	8/3/2016	9554	C	Carbon Tetrachloride	56-23-5	PPTV	100	276.86
CEMRC	7/27/2016	8/3/2016	9554	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	7/27/2016	8/3/2016	9554	C	Chloroform	67-66-3	PPTV	100	20.76 J
CEMRC	7/27/2016	8/3/2016	9554	C	Methylene Chloride	75-09-2	PPTV	100	44.28 J
CEMRC	7/27/2016	8/3/2016	9554	C	Toluene	108-88-3	PPTV	100	338
CEMRC	7/27/2016	8/3/2016	9554	C	Trichloroethylene	79-01-6	PPTV	100	92.46 J
CEMRC	8/3/2016	8/24/2016	9557	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/3/2016	8/24/2016	9557	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/3/2016	8/24/2016	9557	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/3/2016	8/24/2016	9557	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/3/2016	8/24/2016	9557	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	8/3/2016	8/24/2016	9557	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/3/2016	8/24/2016	9557	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/3/2016	8/24/2016	9557	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/3/2016	8/24/2016	9557	D	Toluene	108-88-3	PPBV	0.4	0.3 J
CEMRC	8/3/2016	8/24/2016	9557	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	8/3/2016	8/24/2016	9557	D	Butane	106-97-8	PPBV		6.88 NJ
CEMRC	8/3/2016	8/24/2016	9557	D	Butane, 2-methyl-	78-78-4	PPBV		4.1 NJ
CEMRC	8/3/2016	8/24/2016	9557	D	Cyclohexane, methyl-	108-87-2	PPBV		0.68 NJ
CEMRC	8/3/2016	8/24/2016	9557	D	Cyclopentane, methyl-	96-37-7	PPBV		0.74 NJ
CEMRC	8/3/2016	8/24/2016	9557	D	Isobutane	75-28-5	PPBV		2.04 NJ
CEMRC	8/3/2016	8/24/2016	9557	D	Pentane	109-66-0	PPBV		3.28 NJ
CEMRC	8/3/2016	8/24/2016	9557	D	Pentane, 2-methyl-	107-83-5	PPBV		0.96 NJ
CEMRC	8/3/2016	8/24/2016	9557	D	Pentane, 3-methyl-	96-14-0	PPBV		0.5 NJ
CEMRC	8/3/2016	8/24/2016	9557	D	Propane	74-98-6	PPBV		6.2 NJ
CEMRC	8/3/2016	8/24/2016	9557	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	8/3/2016	8/24/2016	9557	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	8/3/2016	8/24/2016	9557	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	8/3/2016	8/24/2016	9557	D	1,2-Dichloroethane	107-06-2	PPTV	100	14.48 J
CEMRC	8/3/2016	8/24/2016	9557	D	Carbon Tetrachloride	56-23-5	PPTV	100	96.68 J
CEMRC	8/3/2016	8/24/2016	9557	D	Chlorobenzene	108-90-7	PPTV	100	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/3/2016	8/24/2016	9557	D	Chloroform	67-66-3	PPTV	100	8.38 J
CEMRC	8/3/2016	8/24/2016	9557	D	Methylene Chloride	75-09-2	PPTV	100	42.08 J
CEMRC	8/3/2016	8/24/2016	9557	D	Toluene	108-88-3	PPTV	100	312.46
CEMRC	8/3/2016	8/24/2016	9557	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	8/3/2016	8/24/2016	9556	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/3/2016	8/24/2016	9556	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/3/2016	8/24/2016	9556	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/3/2016	8/24/2016	9556	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/3/2016	8/24/2016	9556	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.36 J
CEMRC	8/3/2016	8/24/2016	9556	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/3/2016	8/24/2016	9556	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/3/2016	8/24/2016	9556	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/3/2016	8/24/2016	9556	C	Toluene	108-88-3	PPBV	0.4	0.24 J
CEMRC	8/3/2016	8/24/2016	9556	C	Trichloroethylene	79-01-6	PPBV	0.4	0.16 J
CEMRC	8/3/2016	8/24/2016	9556	C	Butane	106-97-8	PPBV		5.7 NJ
CEMRC	8/3/2016	8/24/2016	9556	C	Butane, 2-methyl-	78-78-4	PPBV		3.96 NJ
CEMRC	8/3/2016	8/24/2016	9556	C	Cyclohexane, methyl-	108-87-2	PPBV		0.56 NJ
CEMRC	8/3/2016	8/24/2016	9556	C	Cyclopentane, methyl-	96-37-7	PPBV		0.54 NJ
CEMRC	8/3/2016	8/24/2016	9556	C	Isobutane	75-28-5	PPBV		1.6 NJ
CEMRC	8/3/2016	8/24/2016	9556	C	Pentane	109-66-0	PPBV		2.74 NJ
CEMRC	8/3/2016	8/24/2016	9556	C	Pentane, 2-methyl-	107-83-5	PPBV		0.8 NJ
CEMRC	8/3/2016	8/24/2016	9556	C	Propane	74-98-6	PPBV		5.32 NJ
CEMRC	8/3/2016	8/24/2016	9556	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	80.88 J
CEMRC	8/3/2016	8/24/2016	9556	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	19.78 J

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/3/2016	8/24/2016	9556	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	8/3/2016	8/24/2016	9556	C	1,2-Dichloroethane	107-06-2	PPTV	100	13.16 J
CEMRC	8/3/2016	8/24/2016	9556	C	Carbon Tetrachloride	56-23-5	PPTV	100	346.02
CEMRC	8/3/2016	8/24/2016	9556	C	Chlorobenzene	108-90-7	PPTV	100	15.86 J
CEMRC	8/3/2016	8/24/2016	9556	C	Chloroform	67-66-3	PPTV	100	27.58 J
CEMRC	8/3/2016	8/24/2016	9556	C	Methylene Chloride	75-09-2	PPTV	100	66.44 J
CEMRC	8/3/2016	8/24/2016	9556	C	Toluene	108-88-3	PPTV	100	253.16
CEMRC	8/3/2016	8/24/2016	9556	C	Trichloroethylene	79-01-6	PPTV	100	158.74
CEMRC	8/5/2016	8/25/2016	9559	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/5/2016	8/25/2016	9559	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/5/2016	8/25/2016	9559	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/5/2016	8/25/2016	9559	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/5/2016	8/25/2016	9559	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	8/5/2016	8/25/2016	9559	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/5/2016	8/25/2016	9559	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/5/2016	8/25/2016	9559	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/5/2016	8/25/2016	9559	D	Toluene	108-88-3	PPBV	0.4	0.12 J
CEMRC	8/5/2016	8/25/2016	9559	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	8/5/2016	8/25/2016	9559	D	Acetone	67-64-1	PPBV		0.8 NJ
CEMRC	8/5/2016	8/25/2016	9559	D	Butane	106-97-8	PPBV		2.56 NJ
CEMRC	8/5/2016	8/25/2016	9559	D	Dichlorodifluoromethane	75-71-8	PPBV		1.4 NJ
CEMRC	8/5/2016	8/25/2016	9559	D	Isobutane	75-28-5	PPBV		0.86 NJ
CEMRC	8/5/2016	8/25/2016	9559	D	Isoprene	78-79-5	PPBV		0.58 NJ

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/5/2016	8/25/2016	9559	D	Pentane	109-66-0	PPBV		1.14 NJ
CEMRC	8/5/2016	8/25/2016	9559	D	Propane	74-98-6	PPBV		2.32 NJ
CEMRC	8/5/2016	8/25/2016	9559	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	8/5/2016	8/25/2016	9559	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	8/5/2016	8/25/2016	9559	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	8/5/2016	8/25/2016	9559	D	1,2-Dichloroethane	107-06-2	PPTV	100	7.44 J
CEMRC	8/5/2016	8/25/2016	9559	D	Carbon Tetrachloride	56-23-5	PPTV	100	103.18
CEMRC	8/5/2016	8/25/2016	9559	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	8/5/2016	8/25/2016	9559	D	Chloroform	67-66-3	PPTV	100	8.38 J
CEMRC	8/5/2016	8/25/2016	9559	D	Methylene Chloride	75-09-2	PPTV	100	42.14 J
CEMRC	8/5/2016	8/25/2016	9559	D	Toluene	108-88-3	PPTV	100	123.14
CEMRC	8/5/2016	8/25/2016	9559	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	8/5/2016	8/24/2016	9558	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/5/2016	8/24/2016	9558	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/5/2016	8/24/2016	9558	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/5/2016	8/24/2016	9558	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/5/2016	8/24/2016	9558	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.2 J
CEMRC	8/5/2016	8/24/2016	9558	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/5/2016	8/24/2016	9558	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/5/2016	8/24/2016	9558	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/5/2016	8/24/2016	9558	C	Toluene	108-88-3	PPBV	0.4	0.12 J
CEMRC	8/5/2016	8/24/2016	9558	C	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	8/5/2016	8/24/2016	9558	C	Butane	106-97-8	PPBV		2.44 NJ
CEMRC	8/5/2016	8/24/2016	9558	C	Butane, 2-methyl-	78-78-4	PPBV		2 NJ

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/5/2016	8/24/2016	9558	C	Dichlorodifluoromethane	75-71-8	PPBV		0.52 NJ
CEMRC	8/5/2016	8/24/2016	9558	C	Isobutane	75-28-5	PPBV		0.8 NJ
CEMRC	8/5/2016	8/24/2016	9558	C	Pentane	109-66-0	PPBV		1.12 NJ
CEMRC	8/5/2016	8/24/2016	9558	C	Propane	74-98-6	PPBV		2.26 NJ
CEMRC	8/5/2016	8/24/2016	9558	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	38.08 J
CEMRC	8/5/2016	8/24/2016	9558	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	8/5/2016	8/24/2016	9558	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	8/5/2016	8/24/2016	9558	C	1,2-Dichloroethane	107-06-2	PPTV	100	7.9 J
CEMRC	8/5/2016	8/24/2016	9558	C	Carbon Tetrachloride	56-23-5	PPTV	100	203.58
CEMRC	8/5/2016	8/24/2016	9558	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	8/5/2016	8/24/2016	9558	C	Chloroform	67-66-3	PPTV	100	15.72 J
CEMRC	8/5/2016	8/24/2016	9558	C	Methylene Chloride	75-09-2	PPTV	100	41.62 J
CEMRC	8/5/2016	8/24/2016	9558	C	Toluene	108-88-3	PPTV	100	120.48
CEMRC	8/5/2016	8/24/2016	9558	C	Trichloroethylene	79-01-6	PPTV	100	53.82 J
CEMRC	8/9/2016	8/25/2016	9562	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/9/2016	8/25/2016	9562	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/9/2016	8/25/2016	9562	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/9/2016	8/25/2016	9562	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/9/2016	8/25/2016	9562	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	8/9/2016	8/25/2016	9562	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/9/2016	8/25/2016	9562	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/9/2016	8/25/2016	9562	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/9/2016	8/25/2016	9562	D	Toluene	108-88-3	PPBV	0.4	0.12 J

Qualifiers:

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/9/2016	8/25/2016	9562	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	8/9/2016	8/25/2016	9562	D	Acetone	67-64-1	PPBV		0.56 NJ
CEMRC	8/9/2016	8/25/2016	9562	D	Butane	106-97-8	PPBV		2.88 NJ
CEMRC	8/9/2016	8/25/2016	9562	D	Dichlorodifluoromethane	75-71-8	PPBV		1.18 NJ
CEMRC	8/9/2016	8/25/2016	9562	D	Isobutane	75-28-5	PPBV		0.92 NJ
CEMRC	8/9/2016	8/25/2016	9562	D	Isoprene	78-79-5	PPBV		0.52 NJ
CEMRC	8/9/2016	8/25/2016	9562	D	Pentane	109-66-0	PPBV		1.32 NJ
CEMRC	8/9/2016	8/25/2016	9562	D	Propane	74-98-6	PPBV		2.98 NJ
CEMRC	8/9/2016	8/25/2016	9562	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	8/9/2016	8/25/2016	9562	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	8/9/2016	8/25/2016	9562	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	8/9/2016	8/25/2016	9562	D	1,2-Dichloroethane	107-06-2	PPTV	100	7.86 J
CEMRC	8/9/2016	8/25/2016	9562	D	Carbon Tetrachloride	56-23-5	PPTV	100	104.78
CEMRC	8/9/2016	8/25/2016	9562	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	8/9/2016	8/25/2016	9562	D	Chloroform	67-66-3	PPTV	100	7.92 J
CEMRC	8/9/2016	8/25/2016	9562	D	Methylene Chloride	75-09-2	PPTV	100	37.36 J
CEMRC	8/9/2016	8/25/2016	9562	D	Toluene	108-88-3	PPTV	100	123.46
CEMRC	8/9/2016	8/25/2016	9562	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	8/9/2016	8/25/2016	9560	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/9/2016	8/25/2016	9560	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/9/2016	8/25/2016	9560	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/9/2016	8/25/2016	9560	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/9/2016	8/25/2016	9560	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.48
CEMRC	8/9/2016	8/25/2016	9560	C	Chlorobenzene	108-90-7	PPBV	0.4	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/9/2016	8/25/2016	9560	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/9/2016	8/25/2016	9560	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/9/2016	8/25/2016	9560	C	Toluene	108-88-3	PPBV	0.4	0.1 J
CEMRC	8/9/2016	8/25/2016	9560	C	Trichloroethylene	79-01-6	PPBV	0.4	0.16 J
CEMRC	8/9/2016	8/25/2016	9560	C	Acetone	67-64-1	PPBV		0.86 NJ
CEMRC	8/9/2016	8/25/2016	9560	C	Butane	106-97-8	PPBV		3 NJ
CEMRC	8/9/2016	8/25/2016	9560	C	Dichlorodifluoromethane	75-71-8	PPBV		1.38 NJ
CEMRC	8/9/2016	8/25/2016	9560	C	Isobutane	75-28-5	PPBV		0.88 NJ
CEMRC	8/9/2016	8/25/2016	9560	C	Pentane	109-66-0	PPBV		1.22 NJ
CEMRC	8/9/2016	8/25/2016	9560	C	Propane	74-98-6	PPBV		2.88 NJ
CEMRC	8/9/2016	8/25/2016	9560	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	111.98
CEMRC	8/9/2016	8/25/2016	9560	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	8/9/2016	8/25/2016	9560	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	8/9/2016	8/25/2016	9560	C	1,2-Dichloroethane	107-06-2	PPTV	100	U
CEMRC	8/9/2016	8/25/2016	9560	C	Carbon Tetrachloride	56-23-5	PPTV	100	451.98
CEMRC	8/9/2016	8/25/2016	9560	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	8/9/2016	8/25/2016	9560	C	Chloroform	67-66-3	PPTV	100	31.5 J
CEMRC	8/9/2016	8/25/2016	9560	C	Methylene Chloride	75-09-2	PPTV	100	43.22 J
CEMRC	8/9/2016	8/25/2016	9560	C	Toluene	108-88-3	PPTV	100	108.44
CEMRC	8/9/2016	8/25/2016	9560	C	Trichloroethylene	79-01-6	PPTV	100	166.9
CEMRC	8/10/2016	8/25/2016	9564	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/10/2016	8/25/2016	9564	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/10/2016	8/25/2016	9564	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/10/2016	8/25/2016	9564	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/10/2016	8/25/2016	9564	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	8/10/2016	8/25/2016	9564	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/10/2016	8/25/2016	9564	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/10/2016	8/25/2016	9564	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/10/2016	8/25/2016	9564	D	Toluene	108-88-3	PPBV	0.4	0.22 J
CEMRC	8/10/2016	8/25/2016	9564	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	8/10/2016	8/25/2016	9564	D	Butane	106-97-8	PPBV		5.42 NJ
CEMRC	8/10/2016	8/25/2016	9564	D	Butane, 2-methyl-	78-78-4	PPBV		3.64 NJ
CEMRC	8/10/2016	8/25/2016	9564	D	Cyclohexane, methyl-	108-87-2	PPBV		0.52 NJ
CEMRC	8/10/2016	8/25/2016	9564	D	Cyclopentane, methyl-	96-37-7	PPBV		0.58 NJ
CEMRC	8/10/2016	8/25/2016	9564	D	Isobutane	75-28-5	PPBV		1.72 NJ
CEMRC	8/10/2016	8/25/2016	9564	D	Pentane	109-66-0	PPBV		2.62 NJ
CEMRC	8/10/2016	8/25/2016	9564	D	Pentane, 2-methyl-	107-83-5	PPBV		0.78 NJ
CEMRC	8/10/2016	8/25/2016	9564	D	Propane	74-98-6	PPBV		5.18 NJ
CEMRC	8/10/2016	8/25/2016	9564	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	8/10/2016	8/25/2016	9564	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	8/10/2016	8/25/2016	9564	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	8/10/2016	8/25/2016	9564	D	1,2-Dichloroethane	107-06-2	PPTV	100	10.86 J
CEMRC	8/10/2016	8/25/2016	9564	D	Carbon Tetrachloride	56-23-5	PPTV	100	105.12
CEMRC	8/10/2016	8/25/2016	9564	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	8/10/2016	8/25/2016	9564	D	Chloroform	67-66-3	PPTV	100	9.58 J
CEMRC	8/10/2016	8/25/2016	9564	D	Methylene Chloride	75-09-2	PPTV	100	35.06 J
CEMRC	8/10/2016	8/25/2016	9564	D	Toluene	108-88-3	PPTV	100	239

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/10/2016	8/25/2016	9564	D	Trichloroethylene	79-01-6	PPTV	100	14.48 J
CEMRC	8/10/2016	8/25/2016	9563	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/10/2016	8/25/2016	9563	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/10/2016	8/25/2016	9563	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/10/2016	8/25/2016	9563	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/10/2016	8/25/2016	9563	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.24 J
CEMRC	8/10/2016	8/25/2016	9563	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/10/2016	8/25/2016	9563	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/10/2016	8/25/2016	9563	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/10/2016	8/25/2016	9563	C	Toluene	108-88-3	PPBV	0.4	0.24 J
CEMRC	8/10/2016	8/25/2016	9563	C	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	8/10/2016	8/25/2016	9563	C	Butane	106-97-8	PPBV		5.8 NJ
CEMRC	8/10/2016	8/25/2016	9563	C	Butane, 2-methyl-	78-78-4	PPBV		3.66 NJ
CEMRC	8/10/2016	8/25/2016	9563	C	Cyclohexane, methyl-	108-87-2	PPBV		0.56 NJ
CEMRC	8/10/2016	8/25/2016	9563	C	Cyclopentane, methyl-	96-37-7	PPBV		0.62 NJ
CEMRC	8/10/2016	8/25/2016	9563	C	Dichlorodifluoromethane	75-71-8	PPBV		1.02 NJ
CEMRC	8/10/2016	8/25/2016	9563	C	Isobutane	75-28-5	PPBV		1.8 NJ
CEMRC	8/10/2016	8/25/2016	9563	C	Pentane	109-66-0	PPBV		2.76 NJ
CEMRC	8/10/2016	8/25/2016	9563	C	Pentane, 2-methyl-	107-83-5	PPBV		0.82 NJ
CEMRC	8/10/2016	8/25/2016	9563	C	Propane	74-98-6	PPBV		5.72 NJ
CEMRC	8/10/2016	8/25/2016	9563	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	46.42 J
CEMRC	8/10/2016	8/25/2016	9563	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	8/10/2016	8/25/2016	9563	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	8/10/2016	8/25/2016	9563	C	1,2-Dichloroethane	107-06-2	PPTV	100	12.06 J

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/10/2016	8/25/2016	9563	C	Carbon Tetrachloride	56-23-5	PPTV	100	236.68
CEMRC	8/10/2016	8/25/2016	9563	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	8/10/2016	8/25/2016	9563	C	Chloroform	67-66-3	PPTV	100	14.82 J
CEMRC	8/10/2016	8/25/2016	9563	C	Methylene Chloride	75-09-2	PPTV	100	37.12 J
CEMRC	8/10/2016	8/25/2016	9563	C	Toluene	108-88-3	PPTV	100	239.58
CEMRC	8/10/2016	8/25/2016	9563	C	Trichloroethylene	79-01-6	PPTV	100	61.76 J
CEMRC	8/17/2016	8/28/2016	9566	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/17/2016	8/28/2016	9566	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/17/2016	8/28/2016	9566	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/17/2016	8/28/2016	9566	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/17/2016	8/28/2016	9566	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	8/17/2016	8/28/2016	9566	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/17/2016	8/28/2016	9566	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/17/2016	8/28/2016	9566	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/17/2016	8/28/2016	9566	D	Toluene	108-88-3	PPBV	0.4	0.16 J
CEMRC	8/17/2016	8/28/2016	9566	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	8/17/2016	8/28/2016	9566	D	Butane	106-97-8	PPBV		3.86 NJ
CEMRC	8/17/2016	8/28/2016	9566	D	Butane, 2-methyl-	78-78-4	PPBV		2.68 NJ
CEMRC	8/17/2016	8/28/2016	9566	D	Dichlorodifluoromethane	75-71-8	PPBV		1.5 NJ
CEMRC	8/17/2016	8/28/2016	9566	D	Isobutane	75-28-5	PPBV		1.12 NJ
CEMRC	8/17/2016	8/28/2016	9566	D	Pentane	109-66-0	PPBV		1.66 NJ
CEMRC	8/17/2016	8/28/2016	9566	D	Propane	74-98-6	PPBV		3.62 NJ
CEMRC	8/17/2016	8/28/2016	9566	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/17/2016	8/28/2016	9566	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	8/17/2016	8/28/2016	9566	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	8/17/2016	8/28/2016	9566	D	1,2-Dichloroethane	107-06-2	PPTV	100	12.14 J
CEMRC	8/17/2016	8/28/2016	9566	D	Carbon Tetrachloride	56-23-5	PPTV	100	105.46
CEMRC	8/17/2016	8/28/2016	9566	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	8/17/2016	8/28/2016	9566	D	Chloroform	67-66-3	PPTV	100	11.14 J
CEMRC	8/17/2016	8/28/2016	9566	D	Methylene Chloride	75-09-2	PPTV	100	50.94 J
CEMRC	8/17/2016	8/28/2016	9566	D	Toluene	108-88-3	PPTV	100	171.9
CEMRC	8/17/2016	8/28/2016	9566	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	8/17/2016	8/28/2016	9565	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	0.3 J
CEMRC	8/17/2016	8/28/2016	9565	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/17/2016	8/28/2016	9565	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/17/2016	8/28/2016	9565	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/17/2016	8/28/2016	9565	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	1.2
CEMRC	8/17/2016	8/28/2016	9565	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/17/2016	8/28/2016	9565	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/17/2016	8/28/2016	9565	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/17/2016	8/28/2016	9565	C	Toluene	108-88-3	PPBV	0.4	0.16 J
CEMRC	8/17/2016	8/28/2016	9565	C	Trichloroethylene	79-01-6	PPBV	0.4	0.52
CEMRC	8/17/2016	8/28/2016	9565	C	Acetone	67-64-1	PPBV		3.26 NJ
CEMRC	8/17/2016	8/28/2016	9565	C	Butanal	123-72-8	PPBV		0.98 NJ
CEMRC	8/17/2016	8/28/2016	9565	C	Butane	106-97-8	PPBV		3.54 NJ
CEMRC	8/17/2016	8/28/2016	9565	C	Dichlorodifluoromethane	75-71-8	PPBV		1.2 NJ
CEMRC	8/17/2016	8/28/2016	9565	C	Hexanal	66-25-1	PPBV		2 NJ

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Notes:

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/17/2016	8/28/2016	9565	C	Isobutane	75-28-5	PPBV		1.74 NJ
CEMRC	8/17/2016	8/28/2016	9565	C	Methyl vinyl ketone	78-94-4	PPBV		1.5 NJ
CEMRC	8/17/2016	8/28/2016	9565	C	Pentanal	110-62-3	PPBV		1.18 NJ
CEMRC	8/17/2016	8/28/2016	9565	C	Pentane	109-66-0	PPBV		1.58 NJ
CEMRC	8/17/2016	8/28/2016	9565	C	Propane	74-98-6	PPBV		4.14 NJ
CEMRC	8/17/2016	8/28/2016	9565	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	311.58
CEMRC	8/17/2016	8/28/2016	9565	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	18.42 J
CEMRC	8/17/2016	8/28/2016	9565	C	1,1-Dichloroethylene	75-35-4	PPTV	100	8.02 J
CEMRC	8/17/2016	8/28/2016	9565	C	1,2-Dichloroethane	107-06-2	PPTV	100	14.32 J
CEMRC	8/17/2016	8/28/2016	9565	C	Carbon Tetrachloride	56-23-5	PPTV	100	1144.34
CEMRC	8/17/2016	8/28/2016	9565	C	Chlorobenzene	108-90-7	PPTV	100	10 J
CEMRC	8/17/2016	8/28/2016	9565	C	Chloroform	67-66-3	PPTV	100	81.48 J
CEMRC	8/17/2016	8/28/2016	9565	C	Methylene Chloride	75-09-2	PPTV	100	70.68 J
CEMRC	8/17/2016	8/28/2016	9565	C	Toluene	108-88-3	PPTV	100	169.14
CEMRC	8/17/2016	8/28/2016	9565	C	Trichloroethylene	79-01-6	PPTV	100	489.2
CEMRC	8/18/2016	8/29/2016	9568	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/18/2016	8/29/2016	9568	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/18/2016	8/29/2016	9568	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/18/2016	8/29/2016	9568	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/18/2016	8/29/2016	9568	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	8/18/2016	8/29/2016	9568	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/18/2016	8/29/2016	9568	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/18/2016	8/29/2016	9568	D	Methylene Chloride	75-09-2	PPBV	0.4	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/18/2016	8/29/2016	9568	D	Toluene	108-88-3	PPBV	0.4	0.12 J
CEMRC	8/18/2016	8/29/2016	9568	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	8/18/2016	8/29/2016	9568	D	Butane	106-97-8	PPBV		3.24 NJ
CEMRC	8/18/2016	8/29/2016	9568	D	Butane, 2-methyl-	78-78-4	PPBV		2.38 NJ
CEMRC	8/18/2016	8/29/2016	9568	D	Isobutane	75-28-5	PPBV		1 NJ
CEMRC	8/18/2016	8/29/2016	9568	D	Pentane	109-66-0	PPBV		1.36 NJ
CEMRC	8/18/2016	8/29/2016	9568	D	Propane	74-98-6	PPBV		3.1 NJ
CEMRC	8/18/2016	8/29/2016	9568	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	8/18/2016	8/29/2016	9568	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	8/18/2016	8/29/2016	9568	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	8/18/2016	8/29/2016	9568	D	1,2-Dichloroethane	107-06-2	PPTV	100	9.12 J
CEMRC	8/18/2016	8/29/2016	9568	D	Carbon Tetrachloride	56-23-5	PPTV	100	103.64
CEMRC	8/18/2016	8/29/2016	9568	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	8/18/2016	8/29/2016	9568	D	Chloroform	67-66-3	PPTV	100	9.44 J
CEMRC	8/18/2016	8/29/2016	9568	D	Methylene Chloride	75-09-2	PPTV	100	44.38 J
CEMRC	8/18/2016	8/29/2016	9568	D	Toluene	108-88-3	PPTV	100	124.94
CEMRC	8/18/2016	8/29/2016	9568	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	8/18/2016	8/29/2016	9567	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	0.14 J
CEMRC	8/18/2016	8/29/2016	9567	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/18/2016	8/29/2016	9567	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/18/2016	8/29/2016	9567	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/18/2016	8/29/2016	9567	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.6
CEMRC	8/18/2016	8/29/2016	9567	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/18/2016	8/29/2016	9567	C	Chloroform	67-66-3	PPBV	0.4	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/18/2016	8/29/2016	9567	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/18/2016	8/29/2016	9567	C	Toluene	108-88-3	PPBV	0.4	0.12 J
CEMRC	8/18/2016	8/29/2016	9567	C	Trichloroethylene	79-01-6	PPBV	0.4	0.2 J
CEMRC	8/18/2016	8/29/2016	9567	C	Acetone	67-64-1	PPBV		0.84 NJ
CEMRC	8/18/2016	8/29/2016	9567	C	Butane	106-97-8	PPBV		3.8 NJ
CEMRC	8/18/2016	8/29/2016	9567	C	Dichlorodifluoromethane	75-71-8	PPBV		1.22 NJ
CEMRC	8/18/2016	8/29/2016	9567	C	Isobutane	75-28-5	PPBV		1.12 NJ
CEMRC	8/18/2016	8/29/2016	9567	C	Pentane	109-66-0	PPBV		1.6 NJ
CEMRC	8/18/2016	8/29/2016	9567	C	Propane	74-98-6	PPBV		3.9 NJ
CEMRC	8/18/2016	8/29/2016	9567	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	142
CEMRC	8/18/2016	8/29/2016	9567	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	8/18/2016	8/29/2016	9567	C	1,1-Dichloroethylene	75-35-4	PPTV	100	7.38 J
CEMRC	8/18/2016	8/29/2016	9567	C	1,2-Dichloroethane	107-06-2	PPTV	100	10.58 J
CEMRC	8/18/2016	8/29/2016	9567	C	Carbon Tetrachloride	56-23-5	PPTV	100	580.2
CEMRC	8/18/2016	8/29/2016	9567	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	8/18/2016	8/29/2016	9567	C	Chloroform	67-66-3	PPTV	100	31.74 J
CEMRC	8/18/2016	8/29/2016	9567	C	Methylene Chloride	75-09-2	PPTV	100	52.52 J
CEMRC	8/18/2016	8/29/2016	9567	C	Toluene	108-88-3	PPTV	100	135.38
CEMRC	8/18/2016	8/29/2016	9567	C	Trichloroethylene	79-01-6	PPTV	100	193.78
CEMRC	8/23/2016	8/29/2016	9570	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/23/2016	8/29/2016	9570	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/23/2016	8/29/2016	9570	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/23/2016	8/29/2016	9570	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/23/2016	8/29/2016	9570	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	8/23/2016	8/29/2016	9570	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/23/2016	8/29/2016	9570	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/23/2016	8/29/2016	9570	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/23/2016	8/29/2016	9570	D	Toluene	108-88-3	PPBV	0.4	0.1 J
CEMRC	8/23/2016	8/29/2016	9570	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	8/23/2016	8/29/2016	9570	D	Butane	106-97-8	PPBV		3.26 NJ
CEMRC	8/23/2016	8/29/2016	9570	D	Butane, 2-methyl-	78-78-4	PPBV		2.14 NJ
CEMRC	8/23/2016	8/29/2016	9570	D	Dichlorodifluoromethane	75-71-8	PPBV		1.22 NJ
CEMRC	8/23/2016	8/29/2016	9570	D	Isobutane	75-28-5	PPBV		0.9 NJ
CEMRC	8/23/2016	8/29/2016	9570	D	Pentane	109-66-0	PPBV		1.42 NJ
CEMRC	8/23/2016	8/29/2016	9570	D	Propane	74-98-6	PPBV		3.36 NJ
CEMRC	8/23/2016	8/29/2016	9570	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	8/23/2016	8/29/2016	9570	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	8/23/2016	8/29/2016	9570	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	8/23/2016	8/29/2016	9570	D	1,2-Dichloroethane	107-06-2	PPTV	100	6.88 J
CEMRC	8/23/2016	8/29/2016	9570	D	Carbon Tetrachloride	56-23-5	PPTV	100	105.58
CEMRC	8/23/2016	8/29/2016	9570	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	8/23/2016	8/29/2016	9570	D	Chloroform	67-66-3	PPTV	100	8.86 J
CEMRC	8/23/2016	8/29/2016	9570	D	Methylene Chloride	75-09-2	PPTV	100	36.7 J
CEMRC	8/23/2016	8/29/2016	9570	D	Toluene	108-88-3	PPTV	100	108.46
CEMRC	8/23/2016	8/29/2016	9570	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	8/23/2016	8/29/2016	9569	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/23/2016	8/29/2016	9569	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/23/2016	8/29/2016	9569	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/23/2016	8/29/2016	9569	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/23/2016	8/29/2016	9569	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.14 J
CEMRC	8/23/2016	8/29/2016	9569	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/23/2016	8/29/2016	9569	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/23/2016	8/29/2016	9569	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/23/2016	8/29/2016	9569	C	Toluene	108-88-3	PPBV	0.4	0.12 J
CEMRC	8/23/2016	8/29/2016	9569	C	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	8/23/2016	8/29/2016	9569	C	Butane	106-97-8	PPBV		3.38 NJ
CEMRC	8/23/2016	8/29/2016	9569	C	Butane, 2-methyl-	78-78-4	PPBV		2.14 NJ
CEMRC	8/23/2016	8/29/2016	9569	C	Dichlorodifluoromethane	75-71-8	PPBV		1.38 NJ
CEMRC	8/23/2016	8/29/2016	9569	C	Isobutane	75-28-5	PPBV		0.92 NJ
CEMRC	8/23/2016	8/29/2016	9569	C	Pentane	109-66-0	PPBV		1.48 NJ
CEMRC	8/23/2016	8/29/2016	9569	C	Propane	74-98-6	PPBV		3.34 NJ
CEMRC	8/23/2016	8/29/2016	9569	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	13.08 J
CEMRC	8/23/2016	8/29/2016	9569	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	8/23/2016	8/29/2016	9569	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	8/23/2016	8/29/2016	9569	C	1,2-Dichloroethane	107-06-2	PPTV	100	7.5 J
CEMRC	8/23/2016	8/29/2016	9569	C	Carbon Tetrachloride	56-23-5	PPTV	100	139.72
CEMRC	8/23/2016	8/29/2016	9569	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	8/23/2016	8/29/2016	9569	C	Chloroform	67-66-3	PPTV	100	11.3 J
CEMRC	8/23/2016	8/29/2016	9569	C	Methylene Chloride	75-09-2	PPTV	100	40.08 J
CEMRC	8/23/2016	8/29/2016	9569	C	Toluene	108-88-3	PPTV	100	118.28
CEMRC	8/23/2016	8/29/2016	9569	C	Trichloroethylene	79-01-6	PPTV	100	16.42 J

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/24/2016	8/29/2016	9573	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/24/2016	8/29/2016	9573	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/24/2016	8/29/2016	9573	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/24/2016	8/29/2016	9573	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/24/2016	8/29/2016	9573	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	8/24/2016	8/29/2016	9573	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/24/2016	8/29/2016	9573	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/24/2016	8/29/2016	9573	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/24/2016	8/29/2016	9573	D	Toluene	108-88-3	PPBV	0.4	0.06 J
CEMRC	8/24/2016	8/29/2016	9573	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	8/24/2016	8/29/2016	9573	D	Butane	106-97-8	PPBV		2.2 NJ
CEMRC	8/24/2016	8/29/2016	9573	D	Butane, 2-methyl-	78-78-4	PPBV		1.68 NJ
CEMRC	8/24/2016	8/29/2016	9573	D	Dichlorodifluoromethane	75-71-8	PPBV		1.72 NJ
CEMRC	8/24/2016	8/29/2016	9573	D	Isobutane	75-28-5	PPBV		0.78 NJ
CEMRC	8/24/2016	8/29/2016	9573	D	Pentane	109-66-0	PPBV		0.92 NJ
CEMRC	8/24/2016	8/29/2016	9573	D	Propane	74-98-6	PPBV		2.48 NJ
CEMRC	8/24/2016	8/29/2016	9573	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	8/24/2016	8/29/2016	9573	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	8/24/2016	8/29/2016	9573	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	8/24/2016	8/29/2016	9573	D	1,2-Dichloroethane	107-06-2	PPTV	100	7.64 J
CEMRC	8/24/2016	8/29/2016	9573	D	Carbon Tetrachloride	56-23-5	PPTV	100	102.02
CEMRC	8/24/2016	8/29/2016	9573	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	8/24/2016	8/29/2016	9573	D	Chloroform	67-66-3	PPTV	100	9.04 J

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/24/2016	8/29/2016	9573	D	Methylene Chloride	75-09-2	PPTV	100	42.14 J
CEMRC	8/24/2016	8/29/2016	9573	D	Toluene	108-88-3	PPTV	100	69.4 J
CEMRC	8/24/2016	8/29/2016	9573	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	8/24/2016	8/29/2016	9572	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/24/2016	8/29/2016	9572	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/24/2016	8/29/2016	9572	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/24/2016	8/29/2016	9572	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/24/2016	8/29/2016	9572	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.44
CEMRC	8/24/2016	8/29/2016	9572	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/24/2016	8/29/2016	9572	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/24/2016	8/29/2016	9572	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/24/2016	8/29/2016	9572	C	Toluene	108-88-3	PPBV	0.4	0.06 J
CEMRC	8/24/2016	8/29/2016	9572	C	Trichloroethylene	79-01-6	PPBV	0.4	0.14 J
CEMRC	8/24/2016	8/29/2016	9572	C	Acetone	67-64-1	PPBV		0.58 NJ
CEMRC	8/24/2016	8/29/2016	9572	C	Butane	106-97-8	PPBV		2.28 NJ
CEMRC	8/24/2016	8/29/2016	9572	C	Dichlorodifluoromethane	75-71-8	PPBV		1.94 NJ
CEMRC	8/24/2016	8/29/2016	9572	C	Isobutane	75-28-5	PPBV		0.82 NJ
CEMRC	8/24/2016	8/29/2016	9572	C	Pentane	109-66-0	PPBV		0.88 NJ
CEMRC	8/24/2016	8/29/2016	9572	C	Propane	74-98-6	PPBV		2.58 NJ
CEMRC	8/24/2016	8/29/2016	9572	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	115.26
CEMRC	8/24/2016	8/29/2016	9572	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	8/24/2016	8/29/2016	9572	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	8/24/2016	8/29/2016	9572	C	1,2-Dichloroethane	107-06-2	PPTV	100	7.88 J
CEMRC	8/24/2016	8/29/2016	9572	C	Carbon Tetrachloride	56-23-5	PPTV	100	413.56

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	8/24/2016	8/29/2016	9572	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	8/24/2016	8/29/2016	9572	C	Chloroform	67-66-3	PPTV	100	27.66 J
CEMRC	8/24/2016	8/29/2016	9572	C	Methylene Chloride	75-09-2	PPTV	100	48.9 J
CEMRC	8/24/2016	8/29/2016	9572	C	Toluene	108-88-3	PPTV	100	65.76 J
CEMRC	8/24/2016	8/29/2016	9572	C	Trichloroethylene	79-01-6	PPTV	100	147.74
CEMRC	8/31/2016	9/8/2016	9575	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/31/2016	9/8/2016	9575	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/31/2016	9/8/2016	9575	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/31/2016	9/8/2016	9575	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/31/2016	9/8/2016	9575	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	8/31/2016	9/8/2016	9575	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/31/2016	9/8/2016	9575	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/31/2016	9/8/2016	9575	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/31/2016	9/8/2016	9575	D	Toluene	108-88-3	PPBV	0.4	0.16 J
CEMRC	8/31/2016	9/8/2016	9575	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	8/31/2016	9/8/2016	9575	D	Acetone	67-64-1	PPBV		1.02 NJ
CEMRC	8/31/2016	9/8/2016	9575	D	Butane	106-97-8	PPBV		2.32 NJ
CEMRC	8/31/2016	9/8/2016	9575	D	Dichlorodifluoromethane	75-71-8	PPBV		1.82 NJ
CEMRC	8/31/2016	9/8/2016	9575	D	Isobutane	75-28-5	PPBV		1.24 NJ
CEMRC	8/31/2016	9/8/2016	9575	D	Isopropyl Alcohol	67-63-0	PPBV		3.86 NJ
CEMRC	8/31/2016	9/8/2016	9575	D	Pentane	109-66-0	PPBV		0.98 NJ
CEMRC	8/31/2016	9/8/2016	9575	D	Propane	74-98-6	PPBV		2.56 NJ
CEMRC	8/31/2016	9/8/2016	9575	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	90.44 J

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/31/2016	9/8/2016	9575	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	8/31/2016	9/8/2016	9575	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	8/31/2016	9/8/2016	9575	D	1,2-Dichloroethane	107-06-2	PPTV	100	9.86 J
CEMRC	8/31/2016	9/8/2016	9575	D	Carbon Tetrachloride	56-23-5	PPTV	100	363.42
CEMRC	8/31/2016	9/8/2016	9575	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	8/31/2016	9/8/2016	9575	D	Chloroform	67-66-3	PPTV	100	33.26 J
CEMRC	8/31/2016	9/8/2016	9575	D	Methylene Chloride	75-09-2	PPTV	100	57.06 J
CEMRC	8/31/2016	9/8/2016	9575	D	Toluene	108-88-3	PPTV	100	174.96
CEMRC	8/31/2016	9/8/2016	9575	D	Trichloroethylene	79-01-6	PPTV	100	136.48
CEMRC	8/31/2016	9/8/2016	9574	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	8/31/2016	9/8/2016	9574	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	8/31/2016	9/8/2016	9574	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	8/31/2016	9/8/2016	9574	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	8/31/2016	9/8/2016	9574	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.26 J
CEMRC	8/31/2016	9/8/2016	9574	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	8/31/2016	9/8/2016	9574	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	8/31/2016	9/8/2016	9574	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	8/31/2016	9/8/2016	9574	C	Toluene	108-88-3	PPBV	0.4	0.16 J
CEMRC	8/31/2016	9/8/2016	9574	C	Trichloroethylene	79-01-6	PPBV	0.4	0.08 J
CEMRC	8/31/2016	9/8/2016	9574	C	Butane	106-97-8	PPBV		2.6 NJ
CEMRC	8/31/2016	9/8/2016	9574	C	Butane, 2-methyl-	78-78-4	PPBV		2.04 NJ
CEMRC	8/31/2016	9/8/2016	9574	C	Dichlorodifluoromethane	75-71-8	PPBV		0.5 NJ
CEMRC	8/31/2016	9/8/2016	9574	C	Isobutane	75-28-5	PPBV		1.26 NJ
CEMRC	8/31/2016	9/8/2016	9574	C	Pentane	109-66-0	PPBV		1.06 NJ

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Notes:

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	8/31/2016	9/8/2016	9574	C	Propane	74-98-6	PPBV		2.62 NJ
CEMRC	8/31/2016	9/8/2016	9574	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	57.02 J
CEMRC	8/31/2016	9/8/2016	9574	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	11.84 J
CEMRC	8/31/2016	9/8/2016	9574	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	8/31/2016	9/8/2016	9574	C	1,2-Dichloroethane	107-06-2	PPTV	100	12.32 J
CEMRC	8/31/2016	9/8/2016	9574	C	Carbon Tetrachloride	56-23-5	PPTV	100	255.88
CEMRC	8/31/2016	9/8/2016	9574	C	Chlorobenzene	108-90-7	PPTV	100	10.26 J
CEMRC	8/31/2016	9/8/2016	9574	C	Chloroform	67-66-3	PPTV	100	23.62 J
CEMRC	8/31/2016	9/8/2016	9574	C	Methylene Chloride	75-09-2	PPTV	100	58.04 J
CEMRC	8/31/2016	9/8/2016	9574	C	Toluene	108-88-3	PPTV	100	156.16
CEMRC	8/31/2016	9/8/2016	9574	C	Trichloroethylene	79-01-6	PPTV	100	83.64 J
CEMRC	9/1/2016	9/8/2016	9577	D	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	9/1/2016	9/8/2016	9577	D	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	9/1/2016	9/8/2016	9577	D	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	9/1/2016	9/8/2016	9577	D	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	9/1/2016	9/8/2016	9577	D	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.1 J
CEMRC	9/1/2016	9/8/2016	9577	D	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	9/1/2016	9/8/2016	9577	D	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	9/1/2016	9/8/2016	9577	D	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	9/1/2016	9/8/2016	9577	D	Toluene	108-88-3	PPBV	0.4	0.1 J
CEMRC	9/1/2016	9/8/2016	9577	D	Trichloroethylene	79-01-6	PPBV	0.4	U
CEMRC	9/1/2016	9/8/2016	9577	D	Butane	106-97-8	PPBV		2.6 NJ
CEMRC	9/1/2016	9/8/2016	9577	D	Butane, 2-methyl-	78-78-4	PPBV		2.12 NJ

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/1/2016	9/8/2016	9577	D	Dichlorodifluoromethane	75-71-8	PPBV		0.48 NJ
CEMRC	9/1/2016	9/8/2016	9577	D	Isobutane	75-28-5	PPBV		1.44 NJ
CEMRC	9/1/2016	9/8/2016	9577	D	Pentane	109-66-0	PPBV		1.1 NJ
CEMRC	9/1/2016	9/8/2016	9577	D	Propane	74-98-6	PPBV		2.66 NJ
CEMRC	9/1/2016	9/8/2016	9577	D	1,1,1-Trichloroethane	71-55-6	PPTV	100	U
CEMRC	9/1/2016	9/8/2016	9577	D	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	9/1/2016	9/8/2016	9577	D	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	9/1/2016	9/8/2016	9577	D	1,2-Dichloroethane	107-06-2	PPTV	100	10.34 J
CEMRC	9/1/2016	9/8/2016	9577	D	Carbon Tetrachloride	56-23-5	PPTV	100	101.32
CEMRC	9/1/2016	9/8/2016	9577	D	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	9/1/2016	9/8/2016	9577	D	Chloroform	67-66-3	PPTV	100	11.68 J
CEMRC	9/1/2016	9/8/2016	9577	D	Methylene Chloride	75-09-2	PPTV	100	52.4 J
CEMRC	9/1/2016	9/8/2016	9577	D	Toluene	108-88-3	PPTV	100	110.64
CEMRC	9/1/2016	9/8/2016	9577	D	Trichloroethylene	79-01-6	PPTV	100	U
CEMRC	9/1/2016	9/8/2016	9576	C	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	9/1/2016	9/8/2016	9576	C	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	9/1/2016	9/8/2016	9576	C	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	9/1/2016	9/8/2016	9576	C	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	9/1/2016	9/8/2016	9576	C	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.38 J
CEMRC	9/1/2016	9/8/2016	9576	C	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	9/1/2016	9/8/2016	9576	C	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	9/1/2016	9/8/2016	9576	C	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	9/1/2016	9/8/2016	9576	C	Toluene	108-88-3	PPBV	0.4	0.16 J
CEMRC	9/1/2016	9/8/2016	9576	C	Trichloroethylene	79-01-6	PPBV	0.4	0.14 J

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

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

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	9/1/2016	9/8/2016	9576	C	Acetone	67-64-1	PPBV		0.84 NJ
CEMRC	9/1/2016	9/8/2016	9576	C	Butane	106-97-8	PPBV		2.38 NJ
CEMRC	9/1/2016	9/8/2016	9576	C	Dichlorodifluoromethane	75-71-8	PPBV		1.92 NJ
CEMRC	9/1/2016	9/8/2016	9576	C	Isobutane	75-28-5	PPBV		0.98 NJ
CEMRC	9/1/2016	9/8/2016	9576	C	Pentane	109-66-0	PPBV		0.86 NJ
CEMRC	9/1/2016	9/8/2016	9576	C	Propane	74-98-6	PPBV		2.52 NJ
CEMRC	9/1/2016	9/8/2016	9576	C	1,1,1-Trichloroethane	71-55-6	PPTV	100	90.44 J
CEMRC	9/1/2016	9/8/2016	9576	C	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	100	U
CEMRC	9/1/2016	9/8/2016	9576	C	1,1-Dichloroethylene	75-35-4	PPTV	100	U
CEMRC	9/1/2016	9/8/2016	9576	C	1,2-Dichloroethane	107-06-2	PPTV	100	9.86 J
CEMRC	9/1/2016	9/8/2016	9576	C	Carbon Tetrachloride	56-23-5	PPTV	100	363.42
CEMRC	9/1/2016	9/8/2016	9576	C	Chlorobenzene	108-90-7	PPTV	100	U
CEMRC	9/1/2016	9/8/2016	9576	C	Chloroform	67-66-3	PPTV	100	33.26 J
CEMRC	9/1/2016	9/8/2016	9576	C	Methylene Chloride	75-09-2	PPTV	100	57.06 J
CEMRC	9/1/2016	9/8/2016	9576	C	Toluene	108-88-3	PPTV	100	174.96
CEMRC	9/1/2016	9/8/2016	9576	C	Trichloroethylene	79-01-6	PPTV	100	136.48

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Attachment 3
Surface & Underground Derived Waste Currently in Storage at the WIPP Facility

Site of Origin	Shipment	Receipt Date/Time	ICV Closure Date/Time	Venting Deadline	Venting Date	WHB Deadline	Assembly	Unemplaced Containers	Waste Volume ¹ (ft ³)
SRS	SR140003	1/24/2014 12:40	1/16/2014 8:45	3/16/2014 8:45	2/1/2014 8:15	06/30/2017	SR139200	6-55G Drums	44.4
SRS	SR140003	1/24/2014 12:40	1/16/2014 8:45	3/16/2014 8:45	2/1/2014 8:15	06/30/2017	SR139201	7-55G Drums	51.8
SRS	SR140003	1/24/2014 12:40	1/16/2014 8:40	3/16/2014 8:40	2/1/2014 8:32	06/30/2017	SR139206	4-55G Drums	29.6
SRS	SR140003	1/24/2014 12:40	1/16/2014 8:40	3/16/2014 8:40	2/1/2014 8:34	06/30/2017	SR139207	7-55G Drums	51.8
LANL	LA140018	2/1/2014 1:30	1/29/2014 14:25	3/29/2014 14:25	2/1/2014 12:40	06/30/2017	LA139903	1 SWB	66.3
LANL	LA140019	2/1/2014 1:50	1/30/2014 15:20	3/30/2014 15:20	2/1/2014 14:25	06/30/2017	LA139927	1 SWB	66.3
LANL	LA140019	2/1/2014 1:50	1/30/2014 15:20	3/30/2014 15:20	2/1/2014 14:26	06/30/2017	LA139928	1 SWB	66.3
INL	IN140037	2/1/2014 21:11	1/30/2014 14:00	3/30/2014 14:00	2/2/2014 10:17	06/30/2017	IN139806	1 TDOP	160
INL	IN140037	2/1/2014 21:11	1/30/2014 14:03	3/30/2014 14:03	2/2/2014 10:24	06/30/2017	IN139814	1 TDOP	160
SRS	SR314011	1/28/2014 14:10	1/22/2014 8:30	3/22/2014 8:30	2/3/2014 12:14	06/30/2017	SR139781	1 SLB2	261
INL	IN140036	2/1/2014 22:40	1/25/2014 13:35	3/25/2014 13:35	2/3/2014 13:15	06/30/2017	IN139540	1 SWB	66.3
INL	IN140036	2/1/2014 22:40	1/25/2014 13:35	3/25/2014 13:35	2/3/2014 13:15	06/30/2017	IN139541	1 SWB	66.3
INL	IN140041	2/3/2014 7:13	1/31/2014 13:30	3/31/2014 13:30	2/3/2014 14:37	06/30/2017	IN140062	1 SWB	66.3
INL	IN140040	2/3/2014 0:17	1/31/2014 13:21	3/31/2014 13:21	2/4/2014 9:04	06/30/2017	IN140133	1 TDOP	160
INL	IN140041	2/3/2014 7:13	1/31/2014 13:40	3/31/2014 13:40	2/4/2014 9:31	06/30/2017	IN140129	1 TDOP	160
INL	IN140041	2/3/2014 7:13	1/31/2014 13:35	3/31/2014 13:35	2/4/2014 9:37	06/30/2017	IN139266	1 TDOP	160
INL	IN140040	2/3/2014 0:17	1/31/2014 13:13	3/31/2014 13:13	2/4/2014 12:22	06/30/2017	IN139593	1 SWB	66.3
INL	IN140040	2/3/2014 0:17	1/31/2014 13:16	3/31/2014 13:16	2/4/2014 12:55	06/30/2017	IN140144	1 TDOP	160
SRS	SR140004	2/1/2014 15:45	1/23/2014 10:40	3/23/2014 10:40	2/4/2014 13:51	06/30/2017	SR139755	6-55G Drums	44.4
SRS	SR140004	2/1/2014 15:45	1/23/2014 10:40	3/23/2014 10:40	2/4/2014 13:52	06/30/2017	SR139756	7-55G Drums	51.8
LANL	LA140020	2/3/2014 22:34	2/3/2014 10:00	4/3/2014 10:00	2/4/2014 16:38	06/30/2017	LA139983	1 SWB	66.3
LANL	LA140020	2/3/2014 22:34	2/3/2014 10:05	4/3/2014 10:05	2/4/2014 16:44	06/30/2017	LA139972	1 SWB	66.3
SRS	SR140004	2/1/2014 15:45	1/23/2014 10:30	3/23/2014 10:30	2/4/2014 17:50	06/30/2017	SR139767	7-55G Drums	51.8
SRS	SR140004	2/1/2014 15:45	1/23/2014 10:35	3/23/2014 10:35	2/4/2014 17:51	06/30/2017	SR139760	6-55G Drums	44.4
SRS	SR140004	2/1/2014 15:45	1/23/2014 10:30	3/23/2014 10:30	2/4/2014 17:51	06/30/2017	SR139766	4-55G Drums	29.6
SRS	SR140004	2/1/2014 15:45	1/23/2014 10:35	3/23/2014 10:35	2/4/2014 17:52	06/30/2017	SR139761	7-55G Drums	51.8
LANL	LA140020	2/3/2014 22:34	2/3/2014 10:15	4/3/2014 10:15	2/5/2014 8:34	06/30/2017	LA139965	1 SWB	66.3
LANL	LA140020	2/3/2014 22:34	2/3/2014 10:15	4/3/2014 10:15	2/5/2014 8:36	06/30/2017	LA139966	1 SWB	66.3

Site of Origin	Shipment	Receipt Date/Time	ICV Closure Date/Time	Venting Deadline	Venting Date	WHB Deadline	Assembly	Unemplaced Containers	Waste Volume ¹ (ft ³)
LANL	LA140021	2/4/2014 22:40	2/4/2014 9:35	4/4/2014 9:35	2/5/2014 9:12	06/30/2017	LA139990	1 SWB	66.3
LANL	LA140021	2/4/2014 22:40	2/4/2014 9:35	4/4/2014 9:35	2/5/2014 9:13	06/30/2017	LA139991	1 SWB	66.3
LANL	LA140021	2/4/2014 22:40	2/4/2014 9:25	4/4/2014 9:25	2/5/2014 9:32	06/30/2017	LA140008	1 SWB	66.3
INL	IN140043	2/5/2014 0:30	2/1/2014 11:30	4/1/2014 11:30	2/11/2014 9:12	06/30/2017	IN140096	1 SWB	66.3
INL	IN140043	2/5/2014 0:30	2/1/2014 11:30	4/1/2014 11:30	2/11/2014 9:13	06/30/2017	IN140097	1 SWB	66.3
LANL	LA140021	2/4/2014 22:40	2/4/2014 9:30	4/4/2014 9:30	2/11/2014 9:13	06/30/2017	LA140002	1 SWB	66.3
INL	IN140044	2/6/2014 1:09	2/3/2014 13:55	4/3/2014 13:55	2/11/2014 10:00	06/30/2017	IN139670	1 TDOP	160
INL	IN140044	2/6/2014 1:09	2/3/2014 13:52	4/3/2014 13:52	2/11/2014 10:43	06/30/2017	IN139666	1 TDOP	160
INL	IN140045	2/6/2014 1:27	2/3/2014 13:44	4/3/2014 13:44	2/11/2014 11:00	06/30/2017	IN140205	1 TDOP	160
INL	IN140045	2/6/2014 1:27	2/3/2014 13:40	4/3/2014 13:40	2/11/2014 11:02	06/30/2017	IN139923	1 TDOP	160
SRS	SR314012	1/31/2014 16:10	1/27/2014 10:48	3/27/2014 10:48	3/26/2014 9:33	06/30/2017	SR139785	1 SLB2	261
SRS	SR140005	2/5/2014 13:00	1/31/2014 12:34	3/31/2014 12:34	3/26/2014 13:19	06/30/2017	SR139977	5-55G Drums	37
SRS	SR140005	2/5/2014 13:00	1/31/2014 12:34	3/31/2014 12:34	3/26/2014 13:20	06/30/2017	SR139978	7-55G Drums	51.8
SRS	SR140005	2/5/2014 13:00	1/31/2014 12:29	3/31/2014 12:29	3/26/2014 17:04	06/30/2017	SR139996	5-55G Drums	37
SRS	SR140005	2/5/2014 13:00	1/31/2014 12:29	3/31/2014 12:29	3/26/2014 17:05	06/30/2017	SR139997	7-55G Drums	51.8
SRS	SR314013	2/1/2014 15:15	1/28/2014 10:40	3/28/2014 10:40	3/26/2014 18:30	06/30/2017	SR139789	1 SLB2	261
SRS	SR140005	2/5/2014 13:00	1/31/2014 12:23	3/31/2014 12:23	3/26/2014 18:40	06/30/2017	SR140015	5-55G Drums	37
SRS	SR140005	2/5/2014 13:00	1/31/2014 12:23	3/31/2014 12:23	3/26/2014 18:43	06/30/2017	SR140016	7-55G Drums	51.8
INL	IN140044	2/6/2014 1:09	2/3/2014 13:49	4/3/2014 13:49	3/27/2014 10:31	06/30/2017	IN136332	7-55G Drums	51.8
INL	IN140043	2/5/2014 0:30	2/1/2014 11:35	4/1/2014 11:35	3/27/2014 12:48	06/30/2017	IN140078	1 SWB	66.3
INL	IN140043	2/5/2014 0:30	2/1/2014 11:35	4/1/2014 11:35	3/27/2014 12:50	06/30/2017	IN140079	1 SWB	66.3
SRS	SR314014	2/4/2014 13:15	1/30/2014 10:30	3/30/2014 10:30	3/27/2014 14:04	06/30/2017	SR139793	1 SLB2	261
INL	IN140043	2/5/2014 0:30	2/1/2014 11:40	4/1/2014 11:40	3/27/2014 14:51	06/30/2017	IN140074	1 SWB	66.3
INL	IN140042	2/5/2014 0:34	2/1/2014 11:50	4/1/2014 11:50	3/27/2014 15:34	06/30/2017	IN140090	1 SWB	66.3
INL	IN140042	2/5/2014 0:34	2/1/2014 11:50	4/1/2014 11:50	3/27/2014 15:37	06/30/2017	IN140091	1 SWB	66.3
INL	IN140042	2/5/2014 0:34	2/1/2014 11:45	4/1/2014 11:45	3/27/2014 18:08	06/30/2017	IN140070	1 SWB	66.3
INL	IN140042	2/5/2014 0:34	2/1/2014 11:55	4/1/2014 11:55	3/27/2014 18:30	06/30/2017	IN140084	1 SWB	66.3
INL	IN140042	2/5/2014 0:34	2/1/2014 11:55	4/1/2014 11:55	3/27/2014 18:36	06/30/2017	IN140085	1 SWB	66.3

Site of Origin	Shipment	Receipt Date/Time	ICV Closure Date/Time	Venting Deadline	Venting Date	WHB Deadline	Assembly	Unemplaced Containers	Waste Volume ¹ (ft ³)
INL	IN140045	2/6/2014 1:27	2/3/2014 13:48	4/3/2014 13:48	3/27/2014 19:24	06/30/2017	IN140066	1 SWB	66.3
WIPP ²	---	6/13/2014	---	---	---	06/30/2017	WISD002 ³	1 SWB	66.3
WIPP ²	---	6/13/2014	---	---	---	06/30/2017	WISD003 ³	1 SWB	66.3
WIPP ²	---	6/13/2014	---	---	---	06/30/2017	WISD004 ³	1 SWB	66.3
WIPP ²	---	6/13/2014	---	---	---	06/30/2017	WISD005 ³	1 SWB	66.3
WIPP ²	---	6/21/2014	---	---	---	06/30/2017	WISD006 ³	1 SWB	66.3
WIPP ²	---	6/21/2014	---	---	---	06/30/2017	WISD007 ³	1 SWB	66.3
WIPP ²	---	6/24/2014	---	---	---	06/30/2017	WISD008 ³	1 SWB	66.3
WIPP ²	---	6/24/2014	---	---	---	06/30/2017	WISD009 ³	1 SWB	66.3
WIPP ²	---	6/24/2014	---	---	---	06/30/2017	WISD010 ³	1 SWB	66.3
WIPP ²	---	6/24/2014	---	---	---	06/30/2017	WISD011 ³	1 SWB	66.3
WIPP ²	---	3/1/2015	---	---	---	06/30/2017	WISD012 ³	1 SWB	66.3
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Notes:

¹55G Drum=7.4 ft³, SWB=66.3 ft³, TDOP=160 ft³, 85G Drum=11.4 ft³, 100G Drum=13.4 ft³, SLB2=261 ft³ (Permit Part 3, Section 3.3.1)

²Waste generated at the WIPP facility as a result of decontamination activities and characterized as derived waste (Permit Part 2, Section 2.3.5)

³Derived-waste container number

INL – Idaho National Laboratory

LANL – Los Alamos National Laboratory

SRS – Savannah River Site

SWB – standard waste box

SLB – standard large box

TDOP – ten-drum overpack

WHB – Waste Handling Building

Attachment 4
Status of RCRA Contingency Plan Required Activities

RCRA Contingency Plan Section	RCRA Contingency Plan Text	Applicability to the February 14, 2014, Event	Current Status/Schedule/Deviations
D-4h Post-Emergency Facility and Equipment Maintenance Reporting	The RCRA Emergency Coordinator will ensure that emergency equipment that is located or used in the affected area(s) of the facility and listed in the Contingency Plan is cleaned and ready for its intended use before operations are resumed, as specified in 20.4.1.500 NMAC (incorporating 40 CFR §264.56(h)(2)). Any equipment that cannot be decontaminated will be discarded as waste (e.g., hazardous, mixed, solid), as appropriate. The WIPP facility is committed to replacing any needed equipment or supplies that cannot be reused following an emergency. After the equipment has been cleaned, repaired, or replaced, a post-emergency facility and equipment inspection will be performed, and the results will be documented. Cleaning and decontaminating equipment will be accomplished by physically removing gross or solid residue; rinsing with water or another suitable liquid, if required; and/or washing with detergent and water. Decontamination and cleaning will be conducted in a confined area, such as a wash pad or building equipped with a floor drain and sump isolated from the environment. Care will be taken to prevent wind dispersion of particles and spray. Liquid or particulate resulting from cleaning and decontamination of equipment will be placed in clean, compatible containers. Waste produced in an emergency cleanup in the TRU mixed waste handling areas is derived waste and will be emplaced in the underground derived waste emplacement area. Waste resulting from decontamination operations elsewhere in the WIPP facility will be analyzed for hazardous waste constituents and/or hazardous waste characteristics to ensure proper management.	The applicability of the activities described in this section, as they pertain to the current implementation of the RCRA Contingency Plan, will be addressed in the WIPP Recovery Plan.	This section was changed by a Class 1 Permit Modification Notification.
D-8 Required Reports	The RCRA Emergency Coordinator, on behalf of the Permittees, will note in the operating record the time, date, and details of any incident that requires implementing this Contingency Plan. This notation will be in the facility log maintained by the CMRO. In compliance with 20.4.1.500 NMAC (incorporating 40 CFR §264.56(i)), within 15 days after the incident, the Permittees will ensure that a written report on the incident will be submitted to the Secretary of the NMED. The report will include: • The name, address, and telephone number of the Owner/Operator • The name, address, and telephone number of the facility • The date, time, and type of incident (e.g., fire, explosion or release) • The name and quantity of material(s) involved • The extent of injuries, if any • An assessment of actual or potential hazards to human health or the environment, where this is applicable • The estimated quantity and disposition of recovered material that resulted from the incident In addition to the above report, the Permittees will ensure that the ES&H Manager, or designee, submits reports to the appropriate agencies as listed in Tables D-8 and D-9.	The required activities described in this section are applicable to the current implementation of the RCRA Contingency Plan.	This report was prepared and submitted to the NMED on April 28, 2014. This section was changed in a Class 1 Permit Modification Notification.
D-8 Required Reports	In accordance with 20.4.1.500 NMAC (incorporating 40 CFR §264.56(i)), the Permittees will notify the Secretary of the NMED and EPA Region VI Administrator that the WIPP facility is in compliance with requirements for the cleanup of areas affected by the emergency and that emergency equipment used in the emergency response has been cleaned, repaired, or replaced and is fit for its intended use prior to the resumption of waste management operations	The required activities described in this section are applicable to the current implementation of the RCRA Contingency Plan.	This section was deleted in a Class 1 Permit Modification Notification.

RCRA Contingency Plan Section	RCRA Contingency Plan Text	Applicability to the February 14, 2014, Event	Current Status/Schedule/Deviations
	in affected areas. The means the WIPP facility will use to meet these requirements are described in Sections D-4e, D-4f, D-4g, and D-4h.		

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

Attachment 6
Recovery-Related Work Activities



Skeen-Whitlock Building Emergency Operations Center Backup Diesel Generator

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