



September 27, 2023

New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Closure Request  
RDX Federal 21 #041 & #042  
Incident Numbers nAPP2305933356 & nAPP2320173651  
Eddy County, New Mexico**

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of WPX Energy Permian, LLC (WPX), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the RDX Federal 21 #041 & #042 (Site) in Unit M, Section 21, Township 26 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the Site assessment, excavation, and soil sampling activities was to address waste-containing soil resulting from two releases of crude oil and produced water at the Site. Based on the excavation activities and analytical results from the soil sampling events, WPX is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Numbers nAPP2305933356 and nAPP2320173651.

## **SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Eddy County, New Mexico (32.0223007°, -103.8916702°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On February 20, 2023, high fluid levels sent approximately 1 barrel (bbl) of crude oil to the flare. The majority of the fluid was consumed by a fire at the base of the flare. A small volume of fluid misted the vegetation off-pad south of the flare. WPX reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on February 28, 2023. The release was assigned Incident Number nAPP2305933356.

On July 20, 2023, a flow line below ground level developed a leak causing 17 bbls of produced water to release to the pad surface and the caliche road off-pad. WPX reported the release to the NMOCD on a Form C-141 on July 31, 2023. The release was assigned Incident Number nAPP2320173651.

Since these two releases occurred in the vicinity of each other on the same well pad, WPX addressed the two releases together and below is a summary of remedial actions completed to address both releases.

## SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization for both releases, see Appendix A. Potential Site receptors are identified on Figure 1.

The closest permitted groundwater well with depth to groundwater data is WPX well RDX Federal Com 21-43, located approximately 0.3 miles east of the Site. The well had a reported depth to groundwater greater than 105 feet below ground surface (bgs) and a total depth of 110 feet bgs. There are no regional or Site-specific hydrological conditions, such as shallow surface water, karst features, wetlands, or vegetation that suggest the Site is conducive to shallow groundwater. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well record is included in Appendix B.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 0.23 miles northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the pasture area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.

## SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On March 30, 2023, Site assessment activities were conducted to evaluate the RDX Federal 21 #041 release extent based on information provided on the Form C-141 and visual observations. Four preliminary assessment soil samples (SS01 through SS04) were collected around the release extent from the ground surface (0 feet bgs) to assess the lateral extent and one borehole (SS05) was advanced via hand auger within the release extent to assess the vertical extent. The pothole was advanced to a depth 0.5 feet bgs. The borehole and delineation soil sample locations are depicted on Figure 2.

On August 14, 2023, Site assessment activities were conducted to evaluate the RDX Federal 21 #042 release extent based on information provided on the Form C-141 and visual observations. Seven preliminary assessment soil samples (SS01 through SS07) were collected around the release extent at the ground surface (depth of 0 feet bgs) to assess the lateral extent of the release.

The preliminary soil samples from the two incidents were field screened for TPH using PetroFLAG® and chloride using the Mohr titration method. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figures 2 and 3, respectively.

All soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Envirotech Analytical Laboratory (Envirotech) in Farmington, New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for all Site assessment soil samples from the two releases indicated all COC concentrations were in compliance with the Closure Criteria; however, second depths within the release extent were still required for the RDX Federal 21 #042 release. The lateral extent of the release for RDX Federal 21 #041 was defined by soil samples SS01 through SS04, and the vertical extent of the release was defined by soil sample SS05. The lateral extent of the release for RDX Federal 21 #042 was defined by soil samples SS01 through SS07.

## DELINEATION AND EXCAVATION SOIL SAMPLING ACTIVITIES

Beginning on August 14, 2023, Ensolum personnel were at the Site to oversee delineation activities of RDX Federal 21 #042. Two boreholes (PH01 and PH02) were advanced via backhoe within the release extent to assess the vertical extent of the release. Delineation soil samples were collected from each pothole at depths ranging from 1-foot to 3 feet bgs. Soil from the potholes was field screened for TPH and chloride. Field screening results and observations for the potholes were logged on lithologic soil sampling logs, which are included in Appendix C. The pothole and delineation soil sample locations are depicted on Figure 3.

Laboratory analytical results for the delineation soil samples collected from potholes PH01 and PH02 indicated all COC concentrations were compliant with the Closure Criteria and compliant with the reclamation standards in samples collected in the off-pad road area from the top 4 feet of the subsurface.

Upon completion of delineation activities, identified waste-containing soil was excavated from the release areas as indicated by visible staining, laboratory analytical results for the preliminary soil samples, and field screening results for the delineation soil samples. Excavation activities were performed using a backhoe and transport vehicles. The excavation occurred on-pad, in the pasture area south of the pad, and across the road southwest of the pad. To direct excavation activities, soil was screened for TPH and chloride. The excavation was completed to depths ranging from 0.5-feet to 4 feet bgs. Photographic documentation of the excavation activities is included in Appendix D.

Following removal of waste-containing soil, 5-point composite soil samples were collected at least every 200 square feet from the floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples from the two excavations included:

- RDX Federal 21 #041: Floor soil samples FS01 through FS21 collected at depths ranging from 0.5 feet to 4 feet bgs. Sidewall soil samples SW05 and SW06 at depths ranging from the ground surface to 1-foot bgs and 2 feet bgs, respectively.
- RDX Federal 21 #042: Floor soil samples FS22 through FS48 collected at depths ranging from 0.5 feet to 4 feet bgs. Sidewall soil samples SW01 through SW04 and SW07 collected at depths ranging from the ground surface to 4 feet bgs.

The excavation extents and excavation soil sample locations are presented on Figures 4 and 5, respectively.

Laboratory analytical results for excavation sidewall samples SW01 through SW04, SW07 and excavation floor samples FS01 through FS06 and FS08 through FS48 indicated all COC concentrations were compliant with the Closure Criteria and compliant with the reclamation requirement. Chloride concentrations in floor soil sample FS07 and sidewall soil sample SW06 exceeded the reclamation requirement and as such, additional waste-containing soil was excavated and the resampled locations indicated all COC concentrations were compliant with the Closure Criteria and reclamation requirement. Laboratory analytical results are summarized in Tables 2 through 4 and laboratory analytical reports are included as Appendix E.

The RDX Federal 21 #041 excavation area measured approximately 4,267 square feet. A total of approximately 140 cubic yards of waste-containing soil was removed during the excavation. The soil was transported and properly disposed of at the R360 Red Bluff Facility in New Mexico. The RDX Federal 21 #042 excavation area measured approximately 5,097 square feet. A total of approximately 400 cubic yards of waste-containing soil was removed during the excavation. The soil was transported and properly disposed of at the R360 Antelope Draw Facility in New Mexico.

## CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the February 2022 flare fire and the July 2023 release of produced water. Laboratory analytical results for the excavation soil samples, collected from the final excavation extents, indicated all COC concentrations were compliant with the Site Closure Criteria and compliant with the reclamation requirement, where applicable. Based on soil sample analytical results, no further remediation was required. WPX will backfill the excavations with material purchased locally and recontour the Site to match existing Site conditions. The disturbed pasture area will be re-seeded with an approved BLM seed mixture.

Excavation of waste-containing soil has mitigated adverse effects at this Site. Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. WPX believes these remedial actions are protective of human health, the environment, and groundwater. As such, WPX respectfully requests closure for Incident Numbers nAPP2305933356 and nAPP2320173651.

If you have any questions or comments, please contact Ms. Ashley Giovengo at (575) 988-0055 or [agiovengo@ensolum.com](mailto:agiovengo@ensolum.com).

Sincerely,  
**Ensolum, LLC**



Ashley Giovengo  
Senior Engineer



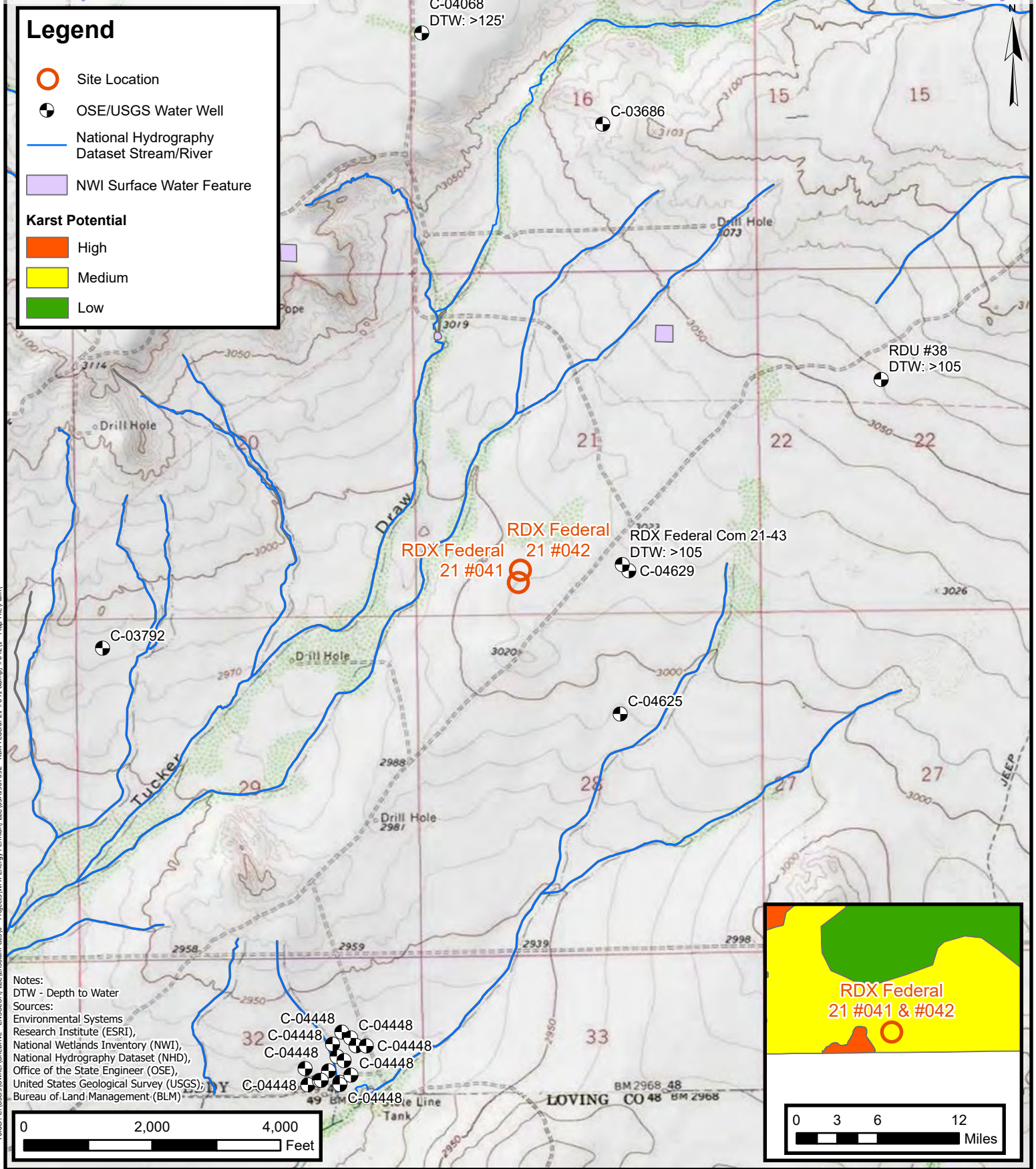
Daniel R. Moir, PG  
Senior Managing Geologist

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations (RDX Federal 21 #041)
Figure 3	Delineation Soil Sample Locations (RDX Federal 21 #042)
Figure 4	Excavation Soil Sample Locations (RDX Federal 21 #041)
Figure 5	Excavation Soil Sample Locations (RDX Federal 21 #042)
Table 1	Delineation Soil Samples (RDX Federal 21 #041 & 42)
Table 2	Confirmation Soil Samples (RDX Federal 21 #041)
Table 3	Confirmation Soil Samples (RDX Federal 21 #042)
Table 4	Confirmation Sidewall Soil Samples (RDX Federal 21 #041 & #042)
Appendix A	Form C-141
Appendix B	Referenced Well Records
Appendix C	Lithologic Soil Sampling Logs
Appendix D	Photographic Log
Appendix E	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix F	NMOCD Correspondence



FIGURES



## Site Receptor Map

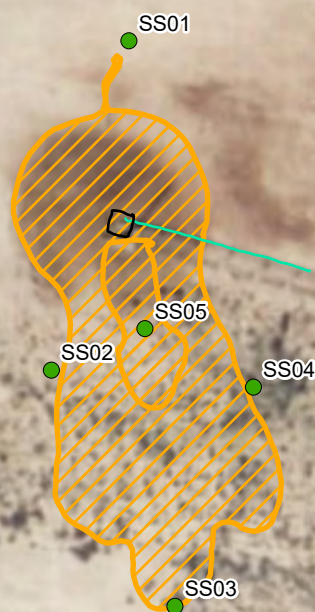
WPX Energy Permian, LLC  
RDX Federal 21 #041 & #042  
Incident Number: nAPP2305933356 & nAPP2320173651  
Unit M, Section 21, Township 26S, Range 30E  
Eddy County, New Mexico

FIGURE

1

**Legend**

- Delineation Soil Sample in Compliance with Closure Criteria
- Flare Line
- Flare
- Release Extent



Notes:  
Sample ID @ Depth Below Ground Surface.

0 25 50 100  
Feet

Sources: Environmental Systems Research Institute (ESRI)



## Delineation Soil Sample Locations

WPX Energy Permian, LLC  
RDX Federal 21 #041  
Incident Number: nAPP2305933356  
Unit M, Section 21, Township 26S, Range 30E  
Eddy County, New Mexico

**FIGURE**  
**2**






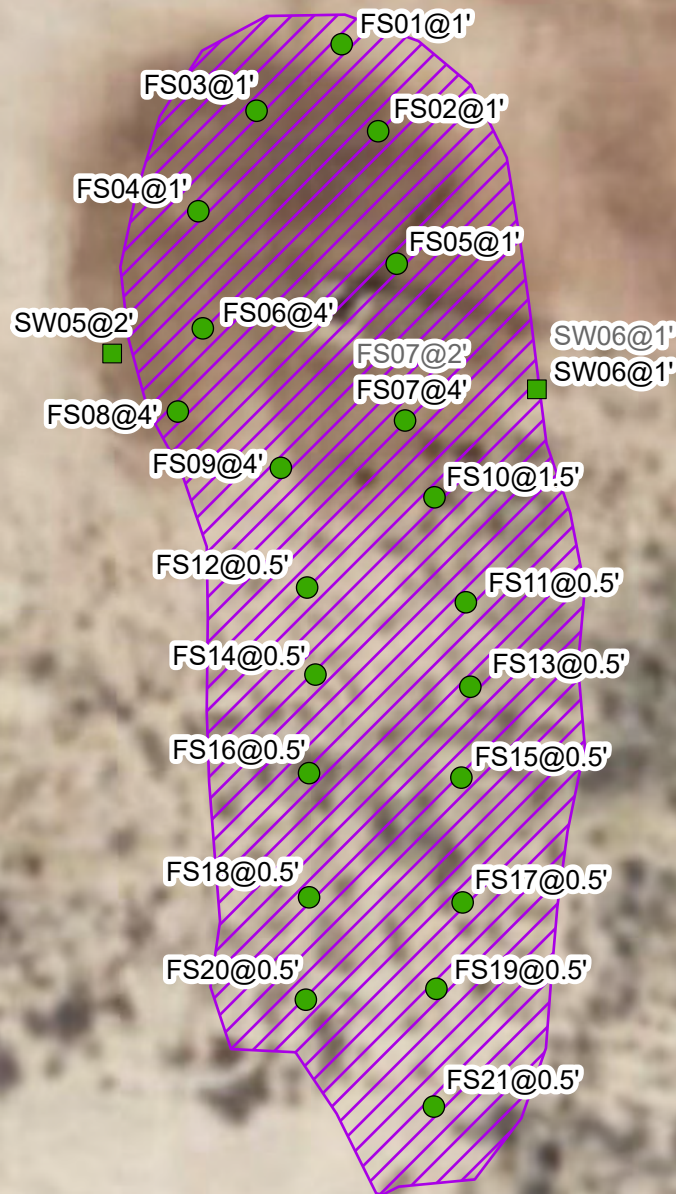
## Delineation Soil Sample Locations

RDX Federal 21 #042  
WPX Energy Permian, LLC  
Incident Number: nAPP2320173651  
Unit M, Sec 21, T26S, R30E  
Eddy County, New Mexico

FIGURE  
**3**

## Legend

-  Excavation Extent
-  Excavation Floor  
Samples in Compliance  
with NMOCD Closure  
Criteria
-  Excavation Sidewall  
Samples in Compliance  
with NMOCD Closure  
Criteria

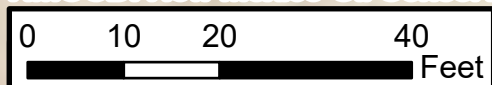


### Notes:

Sample ID @ Depth Below Grade Surface in Feet

Sample ID in Grey Indicate Sample was Removed  
during Excavation Activities

NMOCD: New Mexico Oil Conservation Division



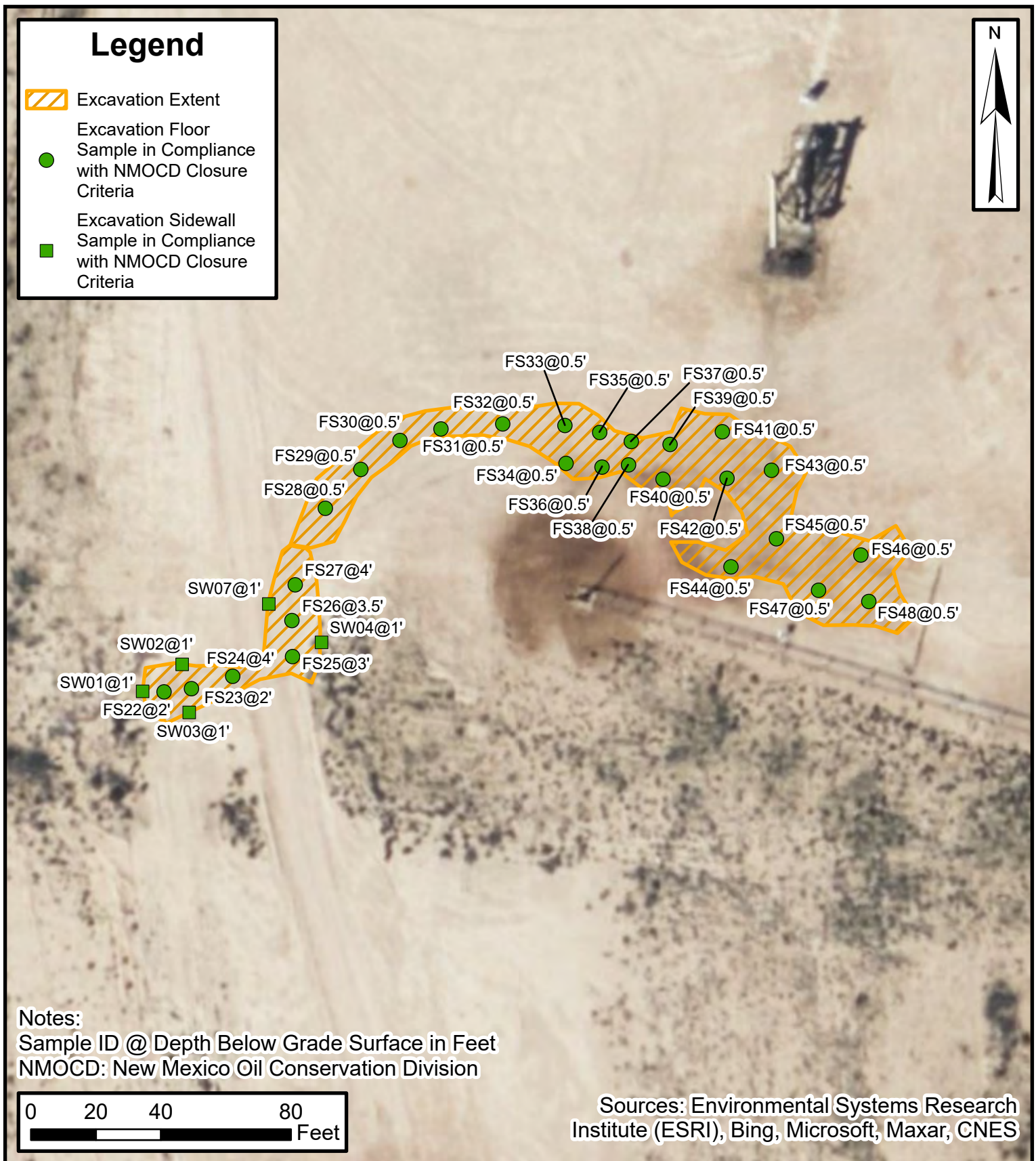
Sources: Environmental Systems Research  
Institute (ESRI), Bing, Microsoft, Maxar, CNES



## Confirmation Soil Sample Locations

RDX Federal 21 #041  
WPX Energy Permian, LLC  
Incident Number: nAPP2305933356  
Unit M, Sec 21, T26S, R30E  
Eddy County, New Mexico

FIGURE  
**4**



## Confirmation Soil Sample Locations

RDX Federal 21 #042  
 WPX Energy Permian, LLC  
 Incident Number: nAPP2320173651  
 Unit M, Sec 21, T26S, R30E  
 Eddy County, New Mexico

FIGURE  
**5**



TABLES



**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**RDX Federal 21 #041 & RDX Federal 21 #042**  
**WPX Energy Permian, LLC**  
**Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Soil Samples (RDX Federal 21 #041)										
SS01	03/30/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	250
SS02	03/30/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	<40.0
SS03	03/30/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	<40.0
SS04	03/30/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	<40.0
SS05	03/30/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	<40.0
Delineation Soil Samples (RDX Federal 21 #042)										
SS01	08/14/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	191
SS02B	08/14/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	186
SS03A	08/14/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	145
SS04	08/14/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	268
SS05	08/14/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	201
SS06	08/14/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	215
SS07	08/14/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	27.7
Delineation Pothole Soil Samples (RDX Federal 21 #042)										
PH01	08/14/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	742
PH01	08/14/2023	3	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	567
PH02	08/14/2023	3	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	69.1

## Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



**TABLE 2**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**RDX Federal 21 #041 & RDX Federal 21 #042**  
**WPX Energy Permian, LLC**  
**Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Confirmation Soil Samples (RDX Federal 21 #041)										
FS01	08/15/2023	1	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	1,030
FS02	08/15/2023	1	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	1,150
FS03	08/15/2023	1	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	2,760
FS04	08/15/2023	1	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	1,560
FS05	08/15/2023	1	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	2,250
FS06	08/18/2023	4	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	372
FS07	08/16/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	917
FS07	09/06/2023	4	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	353
FS08	08/18/2023	4	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	359
FS09	08/18/2023	4	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	494.0
FS10	08/15/2023	1.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	598
FS11	08/15/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	89.7
FS12	08/15/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	<40.0
FS13	08/15/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	21.4
FS14	08/15/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	<40.0
FS15	08/15/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	<40.0
FS16	08/15/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	<40.0
FS17	08/15/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	<40.0
FS18	08/15/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	<40.0
FS19	08/15/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	<40.0
FS20	08/15/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	<40.0
FS21	08/15/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	109

## Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



**TABLE 3**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**RDx Federal 21 #041 & RDx Federal 21 #042**  
**WPX Energy Permian, LLC**  
**Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Confirmation Soil Samples (RDx Federal 21 #042)										
FS22	08/15/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	113
FS23	08/15/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	382
FS24	08/16/2023	4	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	329
FS25	08/17/2023	3	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	447
FS26	08/17/2023	3.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	364
FS27	08/17/2023	4	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	392
FS28	08/18/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	6,600
FS29	08/18/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	4,520
FS30	08/18/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	1,730
FS31	08/18/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	9,100
FS32	08/18/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	9,990
FS33	08/18/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	16,400
FS34	08/18/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	6,870
FS35	08/18/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	4,940
FS36	08/18/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	3,040
FS37	08/18/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	2,040
FS38	08/18/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	2,200
FS39	08/18/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	5,380
FS40	08/18/2023	0.5	<0.025	<0.025	<20.0	27.0	<50.0	27.0	27.0	6,730

## Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

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ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



**TABLE 3 CONT'D**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**RDX Federal 21 #041 & RDX Federal 21 #042**  
**WPX Energy Permian, LLC**  
**Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>2,500</b>	<b>20,000</b>
<b>Confirmation Soil Samples (RDX Federal 21 #042)</b>										
FS41	08/18/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	4,780
FS42	08/18/2023	0.5	<0.025	<0.025	<20.0	30.8	<50.0	30.8	30.8	6,110
FS43	08/18/2023	0.5	<0.025	<0.025	<20.0	463	337	463	800	6,500
FS44	08/18/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	7,630
FS45	08/18/2023	0.5	<0.025	<0.025	<20.0	108	78.5	108	187	18,600
FS46	08/18/2023	0.5	<0.025	<0.025	<20.0	94.3	85.0	94.0	179.3	538
FS47	08/18/2023	0.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	18,700

## Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



**TABLE 4**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**RDX Federal 21 #041 & RDX Federal 21 #042**  
**WPX Energy Permian, LLC**  
**Eddy County, New Mexico**

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Confirmation Sidewall Soil Samples (RDX Federal 21 #042)										
SW01	08/15/2023	1	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	220
SW02	08/16/2023	1	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	260
SW03	08/15/2023	1	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	98.4
SW04	08/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	38.2
SW07	08/17/2023	1	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	50.5
Confirmation Sidewall Soil Samples (RDX Federal 21 #041)										
SW05	08/18/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	400
SW06	08/16/2023	1	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	841
SW06	09/06/2023	1	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	88.8

## Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



APPENDIX A

Form C-141

---

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	nAPP2305933356
District RP	
Facility ID	
Application ID	

## Responsible Party

Responsible Party WPX Energy Permain, LLC	OGRID 246289
Contact Name Jim Raley	Contact Telephone 575-689-7597
Contact email Jim.Raley@dmn.com	Incident # (assigned by OCD) nAPP2305933356
Contact mailing address 5315 Buena Vista Drive, Carlsbad, NM 88220	

## Location of Release Source

Latitude 32.0223007 Longitude -103.8916702  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: RDX FEDERAL 21 #041	Site Type Oil Well
Date Release Discovered: 02/20/2023	API# (if applicable) 30-015-41269

Unit Letter	Section	Township	Range	County
M	21	26S	30E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

## Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 1	Volume Recovered (bbls) 0
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: The treater high leveled and sent approx.. 1 bbl of oil to flare. Majority of fluids were consumed by fire, a small fire developed at base of flare. Light misting occurred on vegetation off pad.


$$bbl\ estimate = \frac{saturated\ soil\ volume\ (ft^3)}{4.21(bbl\ equivalent)} * estimated\ soil\ porosity(\%) + recovered\ fluids\ (bbl)$$

Incident ID	nAPP2305933356
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Small fire developed at base of flare from fluids.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Email to Mike Bratcher and Rosa Romero on 02/27/2023	

### Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:          
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.  Printed Name: <u>Jim Raley</u> Title: <u>Environmental Professional</u>  Signature: <u></u> Date: <u>2/28/2023</u>  email: <u>jim.raley@dvn.com</u> Telephone: <u>575-689-7597</u>
<b><u>OCD Only</u></b>  Received by: <u>Jocelyn Harimon</u> Date: <u>02/28/2023</u>

Incident ID	nAPP2305933356
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>105</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	nAPP2305933356
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: James Raley Title: Environmental Professional

Signature:  Date: 09/21/2023

email: jim.raley@dvn.com Telephone: 575-689-7597

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	nAPP2305933356
District RP	
Facility ID	
Application ID	

## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: James Raley Title: Environmental Professional

Signature:  Date: 09/21/2023

email: jim.raley@dvn.com Telephone: 575-689-7597

### OCD Only

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	nAPP2320173651
District RP	
Facility ID	
Application ID	

## Responsible Party

Responsible Party WPX Energy Permian, LLC	OGRID 246289
Contact Name Jim Raley	Contact Telephone 575-689-7597
Contact email Jim.Raley@dmn.com	Incident # (assigned by OCD) nAPP2320173651
Contact mailing address 5315 Buena Vista Drive, Carlsbad, NM 88220	

## Location of Release Source

Latitude \_32.0224686\_ Longitude \_\_\_\_-103.889541\_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: RDX FEDERAL 21 #042	Site Type Oil Well
Date Release Discovered: 7/20/2023	API# (if applicable) 30-015-40643

Unit Letter	Section	Township	Range	County
N	21	26S	30E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

## Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 17	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: Below ground flowline developed leak. Allowing for approx. 17 bbls of produced water to impact pad surface.


$$bbl\ estimate = \frac{saturated\ soil\ volume\ (ft^3)}{4.21(bbl\ equivalent)} * estimated\ soil\ porosity(\%) + recovered\ fluids\ (bbl)$$

Incident ID	nAPP2320173651
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.  Printed Name: <u>Jim Raley</u> Title: <u>Environmental Professional</u>  Signature: <u></u> Date: <u>7/31/2023</u>  email: <u>jim.raley@dvn.com</u> Telephone: <u>575-689-7597</u>
<b><u>OCD Only</u></b>  Received by: _____ Date: _____

Incident ID	nAPP2320173651
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>105</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	nAPP2320173651
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: James Raley Title: Environmental Professional

Signature:  Date: 09/21/2023

email: jim.raley@dnv.com Telephone: 575-689-7597

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	nAPP2320173651
District RP	
Facility ID	
Application ID	

## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: James Raley Title: Environmental Professional

Signature:  Date: 09/21/2023

email: jim.raley@dvn.com Telephone: 575-689-7597

### OCD Only

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.


Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_



## APPENDIX B

### Well Record


 <b>HRL COMPLIANCE SOLUTIONS</b>							BORING LOG/MONITORING WELL COMPLETION DIAGRAM					
							Boring/Well Number: MW-1		Location: RDX Federal Com 21-43			
							Date: 12/9/2020		Client: WPX Energy			
Drilling Method: Air Rotary		Sampling Method: None		Logged By: J. Linn, P.G.			Drilled By: Talon LPE					
Gravel Pack Type: 10/20 Sand		Gravel Pack Depth Interval: 3 Bags		Seal Type: None		Seal Depth Interval: None		Latitude: 32.022571				
Casing Type: PVC		Diameter: 2-inch		Depth Interval: 0-100 feet bgs		Boring Total Depth (ft. BGS): 110		Longitude: -103.884371				
Screen Type: PVC		Slot: 0.010-inch		Diameter: 2-inch		Depth Interval: 100 - 105 ft		Well Total Depth (ft. BGS): 105				
								Depth to Water (ft. BTOC): > 105				
								DTW Date: 12/16/2020				
Depth Interval (ft)	Recovery (ft)	Plasticity	Moisture	Odor	Staining	PID (ppm)	USCS	Sample ID	Lithology/Remarks	Well Completion		
0	NM	L	D	N	N	NM	SP	NS	Pale orange to tan poorly graded fine sand			
5												
10												
15												
20	NM	H	D	N	N	NM	CL	NS	Pale orange/tan/pale red clay, dry, with silt, fine sand, and minor caliche			
25	NM	L	D	N	N	NM	SP	NS	Pale orange to pale red poorly graded fine sand			
30												
35												
40												
45	NM	L	D	N	N	NM	SP	NS	Golden yellow poorly graded fine sand with minor silt and clay			
50												
55												
60												
65	NM	L	D	N	N	NM	SP	NS	Pale orange to pale red poorly graded fine sand with minor silt/clay			
70												
75												
80	NM	M	D	N	N	NM	SC	NS	Buff to orange color fine sand with medium sand and clay			
85												
90												
95	NM	H	D	N	N	NM	CL	NS	Brown orange clay with silt and fine sand			
100	NM	H	D	N	N	NM	SC	NS	Golden yellow and buff colored clay with fine sand - TD Boring: 110' BGS; Sand 110' - 105' BGS			
105												




## APPENDIX C

### Lithologic Soil Sampling Logs

---

								Sample Name: PH01		Date: 8/14/23	
								Site Name: RDX Federal 21 #042			
								Incident Number: nAPP2320173651			
								Job Number: 03A1987093			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Cole Burton		Method:	
Coordinates: 32.02229, -103.88968								Hole Diameter: 3'		Total Depth: 3'	
Comments: Field screening conducted with the MOHR titration method for chloride. Chloride test performed with 1:1 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
M			Y	PH01	0	0	CCHE	Caliche, Light brown, Staining, Odor			
D			N	PH01	1	1	CCHE	Caliche, Light brown, Some sand, No staining			
D	600		N	PH01	2	2	SP-SM	Sand w/ some silt, Light brown, Poorly graded			
D	550		N	PH01	3	3	SP-SM	SAA			
Total Depth 3'											

								Sample Name: PH02		Date: 8/14/23	
								Site Name: RDX Federal 21 #042			
								Incident Number: nAPP2320173651			
								Job Number: 03A1987093			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Cole Burton		Method:	
Coordinates: 32.02216, -103.89000								Hole Diameter: 3'		Total Depth: 3'	
Comments: Field screening conducted with the MOHR titration method for chloride. Chloride test performed with 1:1 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
M			Y	PH02	0	0	CCHE	Caliche, Light brown, Staining, Odor			
M			N	PH02	1	1	SP-SM	Sand w/ some silt, Light brown, Poorly graded			
M			N	PH02	2	2	SP-SM	SAA			
D	200		N	PH02	3	3	SP-SM	SAA			
Total Depth 3'											



## APPENDIX D

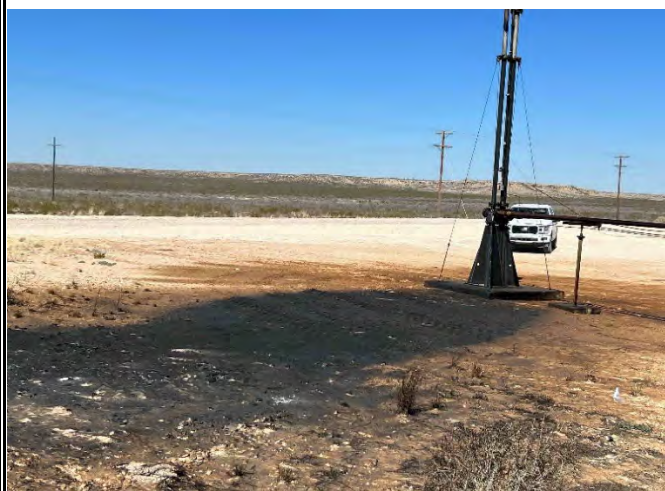
### Photographic Log

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## Photographic Log

WPX Energy Permian, LLC  
RDX Federal 21 #041 & #042  
nAPP2305933356 & nAPP2320173651



Photograph 1 Date: 2/23/2023  
Description: Flare fire.  
View: Northwest



Photograph 2 Date: 2/23/2023  
Description: Flare fire.  
View: North



Photograph 3 Date: 8/14/2023  
Description: 2nd release extent.  
View: South

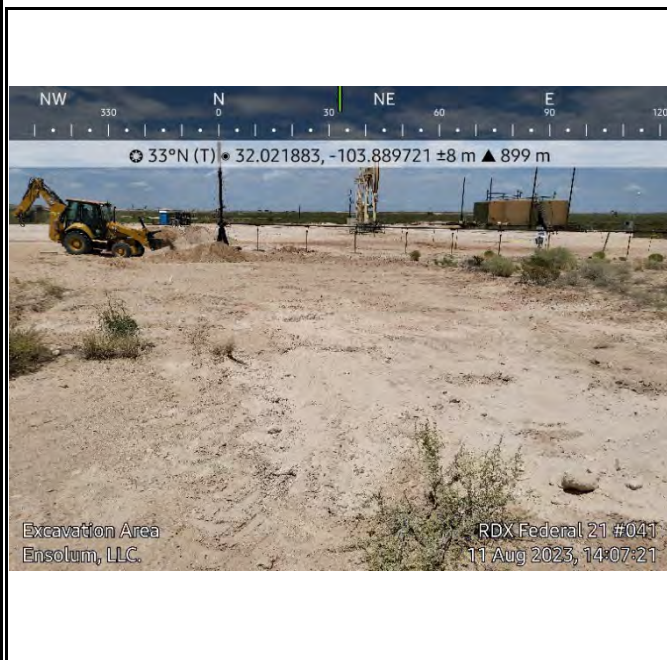


Photograph 4 Date: 8/14/2023  
Description: Release extent in lease road.  
View: West



# Photographic Log

WPX Energy Permian, LLC  
RDX Federal 21 #041 & #042  
nAPP2305933356 & nAPP2320173651



Photograph 1

Date: 8/11/2023

Description: Scrape of flare fire.

View: North



Photograph 2

Date: 8/11/2023

Description: Scrape of flare fire.

View: West

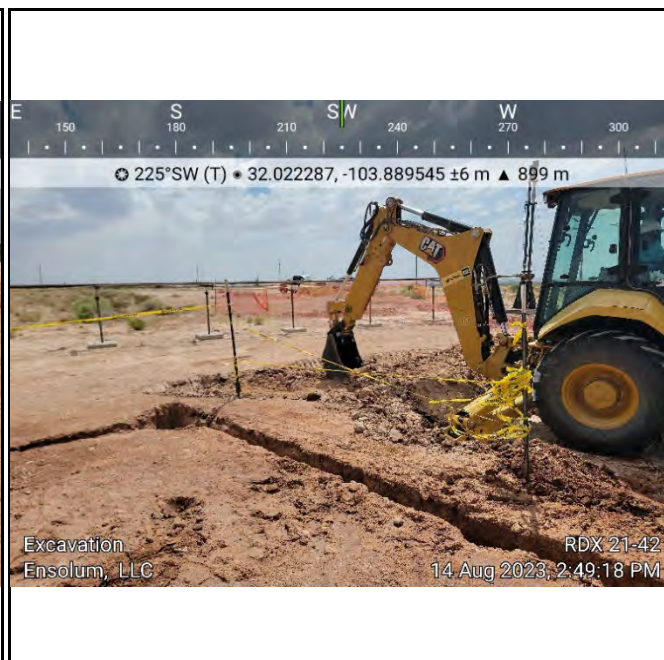


Photograph 3

Date: 8/14/2023

Description: Spotting lines on pad.

View: West



Photograph 4

Date: 8/14/23

Description: Excavation north of flare.

View: Southwest



# Photographic Log

WPX Energy Permian, LLC  
RDX Federal 21 #041 & #042  
nAPP2305933356 & nAPP2320173651



Photograph 1 Date: 8/15/2023  
Description: Excavation south of flare.  
View: East



Photograph 2 Date: 8/15/2023  
Description: Excavation south of lease road.  
View: North



Photograph 3 Date: 8/16/2023  
Description: Excavation across lease road.  
View: East

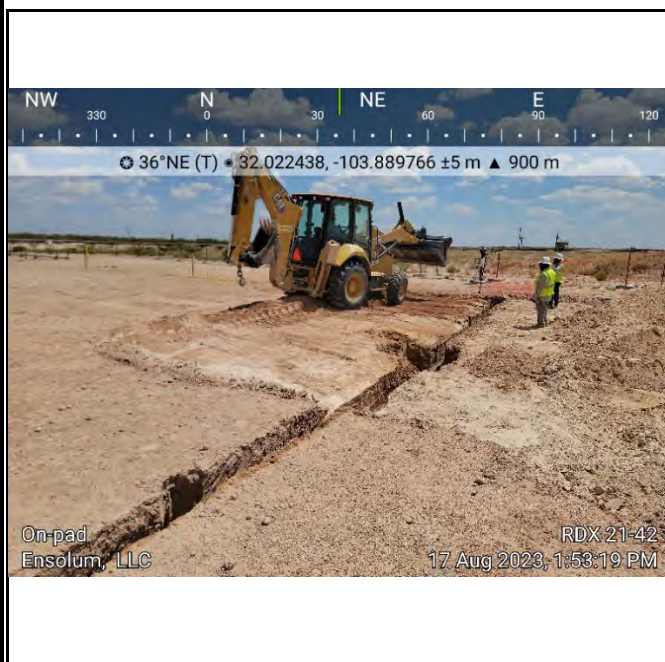


Photograph 4 Date: 8/17/2023  
Description: Partial backfill to allow truck access.  
View: Southwest



# Photographic Log

WPX Energy Permian, LLC  
RDX Federal 21 #041 & #042  
nAPP2305933356 & nAPP2320173651



Photograph 1 Date: 8/17/2023  
Description: Excavation north of flare  
View: Northeast



Photograph 2 Date: 8/18/2023  
Description: Excavation extent west of flare.  
View: Southeast



Photograph 3 Date: 9/6/2023  
Description: Excavation under flare.  
View: Northeast



Photograph 4 Date: 9/6/2023  
Description: Excavation under flare.  
View: South



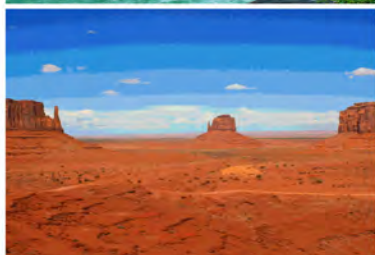
## APPENDIX E

### Laboratory Analytical Reports & Chain-of-Custody Documentation

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Report to:

Jerrod Inskeep



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Devon Energy - Carlsbad

Project Name: RDX Federal 21 #041

Work Order: E304001

Job Number: 01058-0007

Received: 4/3/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
4/6/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 4/6/23

Jerrod Inskeep  
6488 7 Rivers Hwy  
Artesia, NM 88210



Project Name: RDX Federal 21 #041  
Workorder: E304001  
Date Received: 4/3/2023 8:00:00AM

Jerrod Inskeep,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 4/3/2023 8:00:00AM, under the Project Name: RDX Federal 21 #041.

The analytical test results summarized in this report with the Project Name: RDX Federal 21 #041 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

## Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SS01-0'	5
SS02-0'	6
SS03-0'	7
SS04-0'	8
SS05-0.5'	9
BG01-1'	10
QC Summary Data	11
QC - Volatile Organic Compounds by EPA 8260B	11
QC - Nonhalogenated Organics by EPA 8015D - GRO	12
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	13
QC - Anions by EPA 300.0/9056A	14
Definitions and Notes	15
Chain of Custody etc.	16

Sample Summary

Devon Energy - Carlsbad	Project Name:	RDX Federal 21 #041	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Jerrod Inskeep	04/06/23 13:59

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS01-0'	E304001-01A	Soil	03/30/23	04/03/23	Glass Jar, 2 oz.
SS02-0'	E304001-02A	Soil	03/30/23	04/03/23	Glass Jar, 2 oz.
SS03-0'	E304001-03A	Soil	03/30/23	04/03/23	Glass Jar, 2 oz.
SS04-0'	E304001-04A	Soil	03/30/23	04/03/23	Glass Jar, 2 oz.
SS05-0.5'	E304001-05A	Soil	03/30/23	04/03/23	Glass Jar, 2 oz.
BG01-1'	E304001-06A	Soil	03/30/23	04/03/23	Glass Jar, 2 oz.



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Jerrod Inskeep

**Reported:**  
4/6/2023 1:59:10PM

SS01-0'

E304001-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313098
Benzene	ND	0.0250	1	04/03/23	04/04/23	
Ethylbenzene	ND	0.0250	1	04/03/23	04/04/23	
Toluene	ND	0.0250	1	04/03/23	04/04/23	
o-Xylene	ND	0.0250	1	04/03/23	04/04/23	
p,m-Xylene	ND	0.0500	1	04/03/23	04/04/23	
Total Xylenes	ND	0.0250	1	04/03/23	04/04/23	
Surrogate: Bromofluorobenzene	91.3 %	70-130		04/03/23	04/04/23	
Surrogate: 1,2-Dichloroethane-d4	95.5 %	70-130		04/03/23	04/04/23	
Surrogate: Toluene-d8	104 %	70-130		04/03/23	04/04/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313098
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/03/23	04/04/23	
Surrogate: Bromofluorobenzene	91.3 %	70-130		04/03/23	04/04/23	
Surrogate: 1,2-Dichloroethane-d4	95.5 %	70-130		04/03/23	04/04/23	
Surrogate: Toluene-d8	104 %	70-130		04/03/23	04/04/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2314032
Diesel Range Organics (C10-C28)	ND	25.0	1	04/05/23	04/05/23	
Oil Range Organics (C28-C36)	ND	50.0	1	04/05/23	04/05/23	
Surrogate: n-Nonane	105 %	50-200		04/05/23	04/05/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2314020
Chloride	250	20.0	1	04/04/23	04/04/23	



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Jerrod Inskeep

**Reported:**  
4/6/2023 1:59:10PM

SS02-0'

E304001-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313098
Benzene	ND	0.0250	1	04/03/23	04/04/23	
Ethylbenzene	ND	0.0250	1	04/03/23	04/04/23	
Toluene	ND	0.0250	1	04/03/23	04/04/23	
o-Xylene	ND	0.0250	1	04/03/23	04/04/23	
p,m-Xylene	ND	0.0500	1	04/03/23	04/04/23	
Total Xylenes	ND	0.0250	1	04/03/23	04/04/23	
Surrogate: Bromofluorobenzene	90.3 %	70-130		04/03/23	04/04/23	
Surrogate: 1,2-Dichloroethane-d4	96.9 %	70-130		04/03/23	04/04/23	
Surrogate: Toluene-d8	104 %	70-130		04/03/23	04/04/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313098
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/03/23	04/04/23	
Surrogate: Bromofluorobenzene	90.3 %	70-130		04/03/23	04/04/23	
Surrogate: 1,2-Dichloroethane-d4	96.9 %	70-130		04/03/23	04/04/23	
Surrogate: Toluene-d8	104 %	70-130		04/03/23	04/04/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2314032
Diesel Range Organics (C10-C28)	ND	25.0	1	04/05/23	04/05/23	
Oil Range Organics (C28-C36)	ND	50.0	1	04/05/23	04/05/23	
Surrogate: n-Nonane	101 %	50-200		04/05/23	04/05/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2314020
Chloride	ND	40.0	2	04/04/23	04/04/23	



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Jerrod Inskeep

**Reported:**  
4/6/2023 1:59:10PM

SS03-0'

E304001-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313098
Benzene	ND	0.0250	1	04/03/23	04/04/23	
Ethylbenzene	ND	0.0250	1	04/03/23	04/04/23	
Toluene	ND	0.0250	1	04/03/23	04/04/23	
o-Xylene	ND	0.0250	1	04/03/23	04/04/23	
p,m-Xylene	ND	0.0500	1	04/03/23	04/04/23	
Total Xylenes	ND	0.0250	1	04/03/23	04/04/23	
Surrogate: Bromofluorobenzene	89.4 %	70-130		04/03/23	04/04/23	
Surrogate: 1,2-Dichloroethane-d4	95.7 %	70-130		04/03/23	04/04/23	
Surrogate: Toluene-d8	103 %	70-130		04/03/23	04/04/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313098
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/03/23	04/04/23	
Surrogate: Bromofluorobenzene	89.4 %	70-130		04/03/23	04/04/23	
Surrogate: 1,2-Dichloroethane-d4	95.7 %	70-130		04/03/23	04/04/23	
Surrogate: Toluene-d8	103 %	70-130		04/03/23	04/04/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2314032
Diesel Range Organics (C10-C28)	ND	25.0	1	04/05/23	04/05/23	
Oil Range Organics (C28-C36)	ND	50.0	1	04/05/23	04/05/23	
Surrogate: n-Nonane	114 %	50-200		04/05/23	04/05/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2314020
Chloride	ND	20.0	1	04/04/23	04/04/23	



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Jerrod Inskeep

**Reported:**  
4/6/2023 1:59:10PM

SS04-0'

E304001-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313098
Benzene	ND	0.0250	1	04/03/23	04/04/23	
Ethylbenzene	ND	0.0250	1	04/03/23	04/04/23	
Toluene	ND	0.0250	1	04/03/23	04/04/23	
o-Xylene	ND	0.0250	1	04/03/23	04/04/23	
p,m-Xylene	ND	0.0500	1	04/03/23	04/04/23	
Total Xylenes	ND	0.0250	1	04/03/23	04/04/23	
Surrogate: Bromofluorobenzene	90.6 %	70-130		04/03/23	04/04/23	
Surrogate: 1,2-Dichloroethane-d4	95.8 %	70-130		04/03/23	04/04/23	
Surrogate: Toluene-d8	104 %	70-130		04/03/23	04/04/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313098
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/03/23	04/04/23	
Surrogate: Bromofluorobenzene	90.6 %	70-130		04/03/23	04/04/23	
Surrogate: 1,2-Dichloroethane-d4	95.8 %	70-130		04/03/23	04/04/23	
Surrogate: Toluene-d8	104 %	70-130		04/03/23	04/04/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2314032
Diesel Range Organics (C10-C28)	ND	25.0	1	04/05/23	04/05/23	
Oil Range Organics (C28-C36)	ND	50.0	1	04/05/23	04/05/23	
Surrogate: n-Nonane	113 %	50-200		04/05/23	04/05/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2314020
Chloride	ND	20.0	1	04/04/23	04/04/23	



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Jerrod Inskeep

**Reported:**  
4/6/2023 1:59:10PM

SS05-0.5'

E304001-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313098
Benzene	ND	0.0250	1	04/03/23	04/04/23	
Ethylbenzene	ND	0.0250	1	04/03/23	04/04/23	
Toluene	ND	0.0250	1	04/03/23	04/04/23	
o-Xylene	ND	0.0250	1	04/03/23	04/04/23	
p,m-Xylene	ND	0.0500	1	04/03/23	04/04/23	
Total Xylenes	ND	0.0250	1	04/03/23	04/04/23	
Surrogate: Bromofluorobenzene	89.8 %	70-130		04/03/23	04/04/23	
Surrogate: 1,2-Dichloroethane-d4	97.1 %	70-130		04/03/23	04/04/23	
Surrogate: Toluene-d8	103 %	70-130		04/03/23	04/04/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313098
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/03/23	04/04/23	
Surrogate: Bromofluorobenzene	89.8 %	70-130		04/03/23	04/04/23	
Surrogate: 1,2-Dichloroethane-d4	97.1 %	70-130		04/03/23	04/04/23	
Surrogate: Toluene-d8	103 %	70-130		04/03/23	04/04/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2314032
Diesel Range Organics (C10-C28)	ND	25.0	1	04/05/23	04/05/23	
Oil Range Organics (C28-C36)	ND	50.0	1	04/05/23	04/05/23	
Surrogate: n-Nonane	113 %	50-200		04/05/23	04/05/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2314020
Chloride	ND	100	5	04/04/23	04/05/23	



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Jerrod Inskeep

**Reported:**  
4/6/2023 1:59:10PM

BG01-1'

E304001-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313098
Benzene	ND	0.0250	1	04/03/23	04/04/23	
Ethylbenzene	ND	0.0250	1	04/03/23	04/04/23	
Toluene	ND	0.0250	1	04/03/23	04/04/23	
o-Xylene	ND	0.0250	1	04/03/23	04/04/23	
p,m-Xylene	ND	0.0500	1	04/03/23	04/04/23	
Total Xylenes	ND	0.0250	1	04/03/23	04/04/23	
Surrogate: Bromofluorobenzene	90.5 %	70-130		04/03/23	04/04/23	
Surrogate: 1,2-Dichloroethane-d4	98.0 %	70-130		04/03/23	04/04/23	
Surrogate: Toluene-d8	104 %	70-130		04/03/23	04/04/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313098
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/03/23	04/04/23	
Surrogate: Bromofluorobenzene	90.5 %	70-130		04/03/23	04/04/23	
Surrogate: 1,2-Dichloroethane-d4	98.0 %	70-130		04/03/23	04/04/23	
Surrogate: Toluene-d8	104 %	70-130		04/03/23	04/04/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2314032
Diesel Range Organics (C10-C28)	ND	25.0	1	04/05/23	04/05/23	
Oil Range Organics (C28-C36)	ND	50.0	1	04/05/23	04/05/23	
Surrogate: n-Nonane	111 %	50-200		04/05/23	04/05/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2314020
Chloride	ND	20.0	1	04/04/23	04/04/23	



## QC Summary Data

Devon Energy - Carlsbad	Project Name:	RDX Federal 21 #041	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Jerrod Inskeep	4/6/2023 1:59:10PM

## Volatile Organic Compounds by EPA 8260B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2313098-BLK1)

Prepared: 04/03/23 Analyzed: 04/03/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.476		0.500		95.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.489		0.500		97.7	70-130			
Surrogate: Toluene-d8	0.514		0.500		103	70-130			

## LCS (2313098-BS1)

Prepared: 04/03/23 Analyzed: 04/03/23

Benzene	2.30	0.0250	2.50		92.0	70-130			
Ethylbenzene	2.47	0.0250	2.50		98.6	70-130			
Toluene	2.38	0.0250	2.50		95.3	70-130			
o-Xylene	2.50	0.0250	2.50		99.9	70-130			
p,m-Xylene	4.93	0.0500	5.00		98.6	70-130			
Total Xylenes	7.43	0.0250	7.50		99.0	70-130			
Surrogate: Bromofluorobenzene	0.511		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.494		0.500		98.7	70-130			
Surrogate: Toluene-d8	0.510		0.500		102	70-130			

## Matrix Spike (2313098-MS1)

Source: E303162-01

Prepared: 04/03/23 Analyzed: 04/03/23

Benzene	2.24	0.0250	2.50	ND	89.7	48-131			
Ethylbenzene	2.39	0.0250	2.50	ND	95.4	45-135			
Toluene	2.31	0.0250	2.50	ND	92.3	48-130			
o-Xylene	2.41	0.0250	2.50	ND	96.4	43-135			
p,m-Xylene	4.74	0.0500	5.00	ND	94.8	43-135			
Total Xylenes	7.15	0.0250	7.50	ND	95.3	43-135			
Surrogate: Bromofluorobenzene	0.500		0.500		99.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.507		0.500		101	70-130			
Surrogate: Toluene-d8	0.504		0.500		101	70-130			

## Matrix Spike Dup (2313098-MSD1)

Source: E303162-01

Prepared: 04/03/23 Analyzed: 04/03/23

Benzene	2.25	0.0250	2.50	ND	90.0	48-131	0.378	23	
Ethylbenzene	2.44	0.0250	2.50	ND	97.6	45-135	2.26	27	
Toluene	2.35	0.0250	2.50	ND	94.2	48-130	2.04	24	
o-Xylene	2.46	0.0250	2.50	ND	98.5	43-135	2.16	27	
p,m-Xylene	4.87	0.0500	5.00	ND	97.4	43-135	2.71	27	
Total Xylenes	7.33	0.0250	7.50	ND	97.8	43-135	2.52	27	
Surrogate: Bromofluorobenzene	0.507		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.501		0.500		100	70-130			
Surrogate: Toluene-d8	0.506		0.500		101	70-130			



## QC Summary Data

Devon Energy - Carlsbad	Project Name:	RDX Federal 21 #041	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Jerrold Inskeep	4/6/2023 1:59:10PM

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2313098-BLK1)

Prepared: 04/03/23 Analyzed: 04/03/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.476		0.500		95.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.489		0.500		97.7	70-130			
Surrogate: Toluene-d8	0.514		0.500		103	70-130			

## LCS (2313098-BS2)

Prepared: 04/03/23 Analyzed: 04/03/23

Gasoline Range Organics (C6-C10)	45.3	20.0	50.0		90.5	70-130			
Surrogate: Bromofluorobenzene	0.501		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.492		0.500		98.3	70-130			
Surrogate: Toluene-d8	0.496		0.500		99.2	70-130			

## Matrix Spike (2313098-MS2)

Source: E303162-01

Prepared: 04/03/23 Analyzed: 04/03/23

Gasoline Range Organics (C6-C10)	49.4	20.0	50.0	ND	98.8	70-130			
Surrogate: Bromofluorobenzene	0.497		0.500		99.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.498		0.500		99.6	70-130			
Surrogate: Toluene-d8	0.503		0.500		101	70-130			

## Matrix Spike Dup (2313098-MSD2)

Source: E303162-01

Prepared: 04/03/23 Analyzed: 04/03/23

Gasoline Range Organics (C6-C10)	48.2	20.0	50.0	ND	96.5	70-130	2.33	20	
Surrogate: Bromofluorobenzene	0.503		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.509		0.500		102	70-130			
Surrogate: Toluene-d8	0.507		0.500		101	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	RDX Federal 21 #041	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Jerrold Inskeep	4/6/2023 1:59:10PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2314032-BLK1)					Prepared: 04/05/23 Analyzed: 04/05/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	58.5		50.0		117	50-200			

LCS (2314032-BS1)					Prepared: 04/05/23 Analyzed: 04/05/23				
Diesel Range Organics (C10-C28)	273	25.0	250		109	38-132			
Surrogate: n-Nonane	48.3		50.0		96.6	50-200			

Matrix Spike (2314032-MS1)					Source: E304013-09		Prepared: 04/05/23 Analyzed: 04/05/23		
Diesel Range Organics (C10-C28)	279	25.0	250	ND	112	38-132			
Surrogate: n-Nonane	43.7		50.0		87.5	50-200			

Matrix Spike Dup (2314032-MSD1)					Source: E304013-09		Prepared: 04/05/23 Analyzed: 04/05/23		
Diesel Range Organics (C10-C28)	287	25.0	250	ND	115	38-132	2.62	20	
Surrogate: n-Nonane	48.4		50.0		96.7	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	RDX Federal 21 #041	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Jerrod Inskeep	4/6/2023 1:59:10PM

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2314020-BLK1)					Prepared: 04/04/23 Analyzed: 04/04/23				
Chloride	ND	20.0							
LCS (2314020-BS1)					Prepared: 04/04/23 Analyzed: 04/04/23				
Chloride	246	20.0	250		98.3	90-110			
Matrix Spike (2314020-MS1)					Source: E304001-01		Prepared: 04/04/23 Analyzed: 04/04/23		
Chloride	490	20.0	250	250	95.9	80-120			
Matrix Spike Dup (2314020-MSD1)					Source: E304001-01		Prepared: 04/04/23 Analyzed: 04/04/23		
Chloride	525	20.0	250	250	110	80-120	7.02	20	

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Devon Energy - Carlsbad	Project Name:	RDX Federal 21 #041	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Jerrod Inskeep	04/06/23 13:59

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



## Project Information

## Chain of Custody

Page 1 of 1

Client: Devon		Bill To		Lab Use Only		TAT		EPA Program	
Project: RDX Federal 21 #041		Attention: Jim Raley		Lab WO# E304001		Job Number 01058-0007		1D 2D 3D Standard	
Project Manager: Jerrod Inskeep		Address: 5315 Buena Vista Dr						CWA SDWA	
Address: 1224 Standpipe Rd		City, State, Zip: Calsbad, NM 88220						RCRA	
Phone: 505-382-1211		Phone: 575-689-7597							
Email: jerrrod.inskeep@wescominc.com		Email: jim.raley@dmn.com							
Report due by:									

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	Remarks
10:07	3/30/23	Soil	1 Jar	SS01 - 0'	1							X		
10:13	3/30/23	Soil	1 Jar	SS02 - 0'	2							X		
10:17	3/30/23	Soil	1 Jar	SS03 - 0'	3							X		
10:23	3/30/23	Soil	1 Jar	SS04 - 0'	4							X		
10:34	3/30/23	Soil	1 Jar	SS05 - 0.5'	5							X		
9:53	3/30/23	Soil	1 Jar	BG01 - 1'	6							X		

Additional Instructions: Kept on ice, Please CC: cole.burton@wescominc.com, shar.harvester@wescominc.com, jim.raley@dmn.com, jerrrod.inskeep@wescominc.com, iason.iohnsen@wescominc.com, iustin.wenner@wescominc.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C 4
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

## Envirotech Analytical Laboratory

Printed: 4/3/2023 9:35:23AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Devon Energy - Carlsbad	Date Received:	04/03/23 08:00	Work Order ID:	E304001
Phone:	(575) 748-0176	Date Logged In:	04/03/23 09:29	Logged In By:	Alexa Michaels
Email:	jerrold.inskeep@wescom.com	Due Date:	04/07/23 17:00 (4 day TAT)		

**Chain of Custody (COC)**

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: Courier**Comments/Resolution****Sample Turn Around Time (TAT)**

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

**Sample Preservation**

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab:

**Client Instruction**

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Ensolum, LLC

Project Name: RDX Federal 21 #041

Work Order: E308112

Job Number: 01058-0007

Received: 8/16/2023

Revision: 2

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/24/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 8/24/23



Ashley Giovengo  
3122 National Parks Hwy  
Carlsbad, NM 88220

Project Name: RDX Federal 21 #041  
Workorder: E308112  
Date Received: 8/16/2023 8:05:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/16/2023 8:05:00AM, under the Project Name: RDX Federal 21 #041.

The analytical test results summarized in this report with the Project Name: RDX Federal 21 #041 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

## Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
PH01 - 3'	5
QC Summary Data	6
QC - Volatile Organic Compounds by EPA 8260B	6
QC - Nonhalogenated Organics by EPA 8015D - GRO	7
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	8
QC - Anions by EPA 300.0/9056A	9
Definitions and Notes	10
Chain of Custody etc.	11

Sample Summary

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	08/24/23 11:05

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
PH01 - 3'	E308112-01A	Soil	08/14/23	08/16/23	Glass Jar, 2 oz.



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/24/2023 11:05:45AM

## PH01 - 3'

## E308112-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333040
Benzene	ND	0.0250	1	08/16/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/16/23	08/18/23	
Toluene	ND	0.0250	1	08/16/23	08/18/23	
o-Xylene	ND	0.0250	1	08/16/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/16/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/16/23	08/18/23	
Surrogate: Bromofluorobenzene	100 %	70-130		08/16/23	08/18/23	
Surrogate: 1,2-Dichloroethane-d4	99.0 %	70-130		08/16/23	08/18/23	
Surrogate: Toluene-d8	101 %	70-130		08/16/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333040
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/16/23	08/18/23	
Surrogate: Bromofluorobenzene	100 %	70-130		08/16/23	08/18/23	
Surrogate: 1,2-Dichloroethane-d4	99.0 %	70-130		08/16/23	08/18/23	
Surrogate: Toluene-d8	101 %	70-130		08/16/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333057
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/22/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/22/23	
Surrogate: n-Nonane	102 %	50-200		08/17/23	08/22/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333063
Chloride	567	200	10	08/17/23	08/17/23	



## QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/24/2023 11:05:45AM

## Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

## Blank (2333040-BLK1)

Prepared: 08/16/23 Analyzed: 08/18/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.502		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.493		0.500		98.6	70-130			
Surrogate: Toluene-d8	0.502		0.500		100	70-130			

## LCS (2333040-BS1)

Prepared: 08/16/23 Analyzed: 08/18/23

Benzene	2.58	0.0250	2.50		103	70-130			
Ethylbenzene	2.42	0.0250	2.50		96.9	70-130			
Toluene	2.51	0.0250	2.50		101	70-130			
o-Xylene	2.56	0.0250	2.50		102	70-130			
p,m-Xylene	5.04	0.0500	5.00		101	70-130			
Total Xylenes	7.60	0.0250	7.50		101	70-130			
Surrogate: Bromofluorobenzene	0.519		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.503		0.500		101	70-130			
Surrogate: Toluene-d8	0.512		0.500		102	70-130			

## Matrix Spike (2333040-MS1)

Source: E308111-05

Prepared: 08/16/23 Analyzed: 08/18/23

Benzene	2.69	0.0250	2.50	ND	108	48-131			
Ethylbenzene	2.55	0.0250	2.50	ND	102	45-135			
Toluene	2.62	0.0250	2.50	ND	105	48-130			
o-Xylene	2.70	0.0250	2.50	ND	108	43-135			
p,m-Xylene	5.30	0.0500	5.00	ND	106	43-135			
Total Xylenes	8.00	0.0250	7.50	ND	107	43-135			
Surrogate: Bromofluorobenzene	0.514		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.476		0.500		95.1	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			

## Matrix Spike Dup (2333040-MSD1)

Source: E308111-05

Prepared: 08/16/23 Analyzed: 08/18/23

Benzene	2.59	0.0250	2.50	ND	104	48-131	3.77	23	
Ethylbenzene	2.44	0.0250	2.50	ND	97.5	45-135	4.61	27	
Toluene	2.52	0.0250	2.50	ND	101	48-130	3.74	24	
o-Xylene	2.65	0.0250	2.50	ND	106	43-135	1.66	27	
p,m-Xylene	5.18	0.0500	5.00	ND	104	43-135	2.23	27	
Total Xylenes	7.84	0.0250	7.50	ND	104	43-135	2.04	27	
Surrogate: Bromofluorobenzene	0.519		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.500		0.500		99.9	70-130			
Surrogate: Toluene-d8	0.507		0.500		101	70-130			



## QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/24/2023 11:05:45AM

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2333040-BLK1)

Prepared: 08/16/23 Analyzed: 08/18/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.502		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.493		0.500		98.6	70-130			
Surrogate: Toluene-d8	0.502		0.500		100	70-130			

## LCS (2333040-BS2)

Prepared: 08/16/23 Analyzed: 08/18/23

Gasoline Range Organics (C6-C10)	53.8	20.0	50.0		108	70-130			
Surrogate: Bromofluorobenzene	0.499		0.500		99.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.457		0.500		91.3	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

## Matrix Spike (2333040-MS2)

Source: E308111-05

Prepared: 08/16/23 Analyzed: 08/18/23

Gasoline Range Organics (C6-C10)	55.7	20.0	50.0	ND	111	70-130			
Surrogate: Bromofluorobenzene	0.523		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.480		0.500		96.0	70-130			
Surrogate: Toluene-d8	0.514		0.500		103	70-130			

## Matrix Spike Dup (2333040-MSD2)

Source: E308111-05

Prepared: 08/16/23 Analyzed: 08/18/23

Gasoline Range Organics (C6-C10)	56.9	20.0	50.0	ND	114	70-130	2.20	20	
Surrogate: Bromofluorobenzene	0.512		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.479		0.500		95.7	70-130			
Surrogate: Toluene-d8	0.517		0.500		103	70-130			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/24/2023 11:05:45AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2333057-BLK1)					Prepared: 08/17/23 Analyzed: 08/18/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	49.0		50.0		97.9	50-200			

LCS (2333057-BS1)					Prepared: 08/17/23 Analyzed: 08/18/23				
Diesel Range Organics (C10-C28)	240	25.0	250		96.2	38-132			
Surrogate: n-Nonane	46.4		50.0		92.9	50-200			

Matrix Spike (2333057-MS1)					Source: E308115-03		Prepared: 08/17/23 Analyzed: 08/18/23		
Diesel Range Organics (C10-C28)	231	25.0	250	ND	92.2	38-132			
Surrogate: n-Nonane	40.0		50.0		80.1	50-200			

Matrix Spike Dup (2333057-MSD1)					Source: E308115-03		Prepared: 08/17/23 Analyzed: 08/18/23		
Diesel Range Organics (C10-C28)	236	25.0	250	ND	94.5	38-132	2.39	20	
Surrogate: n-Nonane	42.3		50.0		84.6	50-200			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/24/2023 11:05:45AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2333063-BLK1)					Prepared: 08/17/23 Analyzed: 08/17/23				
Chloride	ND	20.0							
LCS (2333063-BS1)					Prepared: 08/17/23 Analyzed: 08/17/23				
Chloride	265	20.0	250		106	90-110			
Matrix Spike (2333063-MS1)					Source: E308112-01		Prepared: 08/17/23 Analyzed: 08/17/23		
Chloride	802	200	250	567	93.8	80-120			
Matrix Spike Dup (2333063-MSD1)					Source: E308112-01		Prepared: 08/17/23 Analyzed: 08/17/23		
Chloride	798	200	250	567	92.2	80-120	0.503	20	

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Ensolum, LLC	Project Name:	RDX Federal 21 #041	
3122 National Parks Hwy	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	08/24/23 11:05

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: Ensolum, LLC.					Bill To		Lab Use Only				TAT				EPA Program			
Project: RDX Federal 28 #041					Attention: Jim Raley		Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA		
Project Manager: Ashley Giovengo					Address: 5315 Buena Vista Dr		E308112		01058-0007					x				
Address: 3122 National Parks Hwy					City, State, Zip: Carlsbad NM, 88220		Analysis and Method										RCRA	
City, State, Zip: Carlsbad NM, 88220					Phone: (575)689-7597		TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	State				
Email: agiovengo@ensolum.com					Email: jim.raley@dvn.com									NM	CO	UT	AZ	TX
Report due by:														x				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number										Remarks			
11:30	8/14/2023	Soil	1 Jar	PH01 - 3'	1										Do not run unless PH01 - 2' is > 100TPH or 600 Cl			

Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, jim.raley@dvn.com, chamilton@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.						Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.					
Sampled by: <i>Carmel Ann Parker</i>						Lab Use Only					
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Received on ice: <i>Y</i> N			
<i>Carmel Ann Parker</i>		8/15/23	10:50 AM	<i>Carmel Ann Parker</i>		8/15/23	10:50				
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	T1 T2 T3			
<i>Carmel Ann Parker</i>		8-15-23	1645	<i>Mike Mc</i>		8-15-23	1830				
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	AVG Temp °C			
<i>Mike Mc</i>		8/16/23	0130	<i>Carth Man</i>		8/16/23	8:05	4			
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other						Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA					
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.											



envirotech

## Envirotech Analytical Laboratory

Printed: 8/16/2023 3:34:14PM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Ensolum, LLC	Date Received:	08/16/23 08:05	Work Order ID:	E308112
Phone:	(575) 988-0055	Date Logged In:	08/15/23 15:48	Logged In By:	Caitlin Mars
Email:	a.giovengo@ensolum.com	Due Date:	08/22/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

COC Remarks: E308112-01A Sample ID PH01-3 ( Do not run unless E308115-10A Sample ID PH01-2 is >100 TPH or 600 Cl ) This workorder will be on hold until results for E308115-10A are available to review.

Signature of client authorizing changes to the COC or sample disposition.

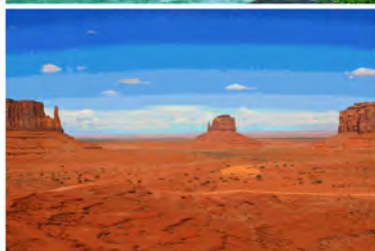
Date



envirotech Inc.

Page 69 of 264

Report to:  
Ashley Giovengo



5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Ensolum, LLC

Project Name: RDX Federal 21 #041

Work Order: E308127

Job Number: 01058-0007

Received: 8/17/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/22/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 8/22/23



Ashley Giovengo  
3122 National Parks Hwy  
Carlsbad, NM 88220

Project Name: RDX Federal 21 #041  
Workorder: E308127  
Date Received: 8/17/2023 8:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/17/2023 8:00:00AM, under the Project Name: RDX Federal 21 #041.

The analytical test results summarized in this report with the Project Name: RDX Federal 21 #041 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

## Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	5
Sample Data	6
FS01 - 1'	6
FS02 - 1'	7
FS03 - 1'	8
FS04 - 1'	9
FS05 - 1'	10
FS10 - 1.5'	11
FS11 - .5'	12
FS12 - .5'	13
FS13 - .5'	14
FS14 - .5'	15
FS15 - .5'	16
FS16 - .5'	17
FS17 - .5'	18
FS18 - .5'	19
FS19 - .5'	20
FS20 - .5'	21
FS21 - .5'	22
QC Summary Data	23
QC - Volatile Organics by EPA 8021B	23
QC - Nonhalogenated Organics by EPA 8015D - GRO	24

Table of Contents (continued)

QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	25
QC - Anions by EPA 300.0/9056A	26
Definitions and Notes	27
Chain of Custody etc.	28

## Sample Summary

Ensolum, LLC 3122 National Parks Hwy Carlsbad NM, 88220	Project Name: RDX Federal 21 #041 Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 08/22/23 16:05
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS01 - 1'	E308127-01A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS02 - 1'	E308127-02A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS03 - 1'	E308127-03A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS04 - 1'	E308127-04A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS05 - 1'	E308127-05A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS10 - 1.5'	E308127-06A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS11 - .5'	E308127-07A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS12 - .5'	E308127-08A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS13 - .5'	E308127-09A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS14 - .5'	E308127-10A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS15 - .5'	E308127-11A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS16 - .5'	E308127-12A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS17 - .5'	E308127-13A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS18 - .5'	E308127-14A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS19 - .5'	E308127-15A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS20 - .5'	E308127-16A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS21 - .5'	E308127-17A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:05:57PM

## FS01 - 1'

## E308127-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
Surrogate: 4-Bromochlorobenzene-PID	95.1 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	91.8 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/17/23	
Surrogate: n-Nonane	109 %	50-200		08/17/23	08/17/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	1030	400	20	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:05:57PM

## FS02 - 1'

## E308127-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.5 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.8 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/17/23	
<i>Surrogate: n-Nonane</i>						
	101 %	50-200		08/17/23	08/17/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	1150	400	20	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:05:57PM

FS03 - 1'

E308127-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.9 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.5 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/17/23	
<i>Surrogate: n-Nonane</i>						
	105 %	50-200		08/17/23	08/17/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	2760	400	20	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:05:57PM

FS04 - 1'

E308127-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.5 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.2 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/17/23	
<i>Surrogate: n-Nonane</i>						
	99.7 %	50-200		08/17/23	08/17/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	1560	100	5	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:05:57PM

FS05 - 1'

E308127-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.2 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.6 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/17/23	
<i>Surrogate: n-Nonane</i>						
	104 %	50-200		08/17/23	08/17/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	2250	400	20	08/17/23	08/20/23	



Sample Data

Ensolum, LLC 3122 National Parks Hwy Carlsbad NM, 88220	Project Name: RDX Federal 21 #041 Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/22/2023 4:05:57PM
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FS10 - 1.5'  
E308127-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.4 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.0 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	105 %	50-200		08/17/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	598	200	10	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:05:57PM

FS11 - .5'

E308127-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.8 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.1 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	107 %	50-200		08/17/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	89.7	40.0	2	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:05:57PM

FS12 - .5'

E308127-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.5 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	93.6 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	106 %	50-200		08/17/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	ND	40.0	2	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:05:57PM

FS13 - .5'

E308127-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.5 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.0 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	105 %	50-200		08/17/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	21.4	20.0	1	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:05:57PM

FS14 - .5'

E308127-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.6 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.5 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	106 %	50-200		08/17/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	ND	40.0	2	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:05:57PM

FS15 - .5'

E308127-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.1 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.2 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	106 %	50-200		08/17/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	ND	20.0	1	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:05:57PM

FS16 - .5'

E308127-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
Surrogate: 4-Bromochlorobenzene-PID	95.4 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.7 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/18/23	
Surrogate: n-Nonane	107 %	50-200		08/17/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	ND	40.0	2	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:05:57PM

FS17 - .5'

E308127-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.4 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.3 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	105 %	50-200		08/17/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	ND	40.0	2	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:05:57PM

FS18 - .5'

E308127-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.0 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.4 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	103 %	50-200		08/17/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	ND	40.0	2	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:05:57PM

FS19 - .5'

E308127-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.9 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	89.8 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	106 %	50-200		08/17/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	ND	100	5	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:05:57PM

FS20 - .5'

E308127-16

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.1 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.9 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	108 %	50-200		08/17/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	ND	100	5	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:05:57PM

FS21 - .5'

E308127-17

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.5 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.8 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333054
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	108 %	50-200		08/17/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333066
Chloride	109	40.0	2	08/17/23	08/20/23	



## QC Summary Data

Ensolum, LLC 3122 National Parks Hwy Carlsbad NM, 88220	Project Name: RDX Federal 21 #041 Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/22/2023 4:05:57PM
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## Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2333056-BLK1)

Prepared: 08/17/23 Analyzed: 08/18/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.59		8.00		94.9	70-130			

## LCS (2333056-BS1)

Prepared: 08/17/23 Analyzed: 08/18/23

Benzene	5.32	0.0250	5.00		106	70-130			
Ethylbenzene	5.23	0.0250	5.00		105	70-130			
Toluene	5.30	0.0250	5.00		106	70-130			
o-Xylene	5.24	0.0250	5.00		105	70-130			
p,m-Xylene	10.6	0.0500	10.0		106	70-130			
Total Xylenes	15.9	0.0250	15.0		106	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.56		8.00		94.5	70-130			

## Matrix Spike (2333056-MS1)

Source: E308127-02

Prepared: 08/17/23 Analyzed: 08/18/23

Benzene	5.21	0.0250	5.00	ND	104	54-133			
Ethylbenzene	5.10	0.0250	5.00	ND	102	61-133			
Toluene	5.18	0.0250	5.00	ND	104	61-130			
o-Xylene	5.12	0.0250	5.00	ND	102	63-131			
p,m-Xylene	10.4	0.0500	10.0	ND	104	63-131			
Total Xylenes	15.5	0.0250	15.0	ND	103	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.53		8.00		94.2	70-130			

## Matrix Spike Dup (2333056-MSD1)

Source: E308127-02

Prepared: 08/17/23 Analyzed: 08/18/23

Benzene	4.83	0.0250	5.00	ND	96.7	54-133	7.47	20	
Ethylbenzene	4.77	0.0250	5.00	ND	95.5	61-133	6.56	20	
Toluene	4.83	0.0250	5.00	ND	96.6	61-130	7.06	20	
o-Xylene	4.76	0.0250	5.00	ND	95.2	63-131	7.26	20	
p,m-Xylene	9.73	0.0500	10.0	ND	97.3	63-131	6.29	20	
Total Xylenes	14.5	0.0250	15.0	ND	96.6	63-131	6.61	20	
Surrogate: 4-Bromochlorobenzene-PID	7.68		8.00		96.0	70-130			



## QC Summary Data

Ensolum, LLC 3122 National Parks Hwy Carlsbad NM, 88220	Project Name: RDX Federal 21 #041 Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/22/2023 4:05:57PM
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## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2333056-BLK1)

Prepared: 08/17/23 Analyzed: 08/18/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.35		8.00		91.9	70-130			

## LCS (2333056-BS2)

Prepared: 08/17/23 Analyzed: 08/18/23

Gasoline Range Organics (C6-C10)	49.8	20.0	50.0		99.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.24		8.00		90.5	70-130			

## Matrix Spike (2333056-MS2)

Source: E308127-02

Prepared: 08/17/23 Analyzed: 08/18/23

Gasoline Range Organics (C6-C10)	46.8	20.0	50.0	ND	93.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.38		8.00		92.2	70-130			

## Matrix Spike Dup (2333056-MSD2)

Source: E308127-02

Prepared: 08/17/23 Analyzed: 08/18/23

Gasoline Range Organics (C6-C10)	50.0	20.0	50.0	ND	100	70-130	6.68	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.36		8.00		91.9	70-130			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 4:05:57PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2333054-BLK1)					Prepared: 08/17/23 Analyzed: 08/17/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	53.5		50.0		107	50-200			

LCS (2333054-BS1)					Prepared: 08/17/23 Analyzed: 08/17/23				
Diesel Range Organics (C10-C28)	244	25.0	250		97.7	38-132			
Surrogate: n-Nonane	52.8		50.0		106	50-200			

Matrix Spike (2333054-MS1)				Source: E308127-01		Prepared: 08/17/23 Analyzed: 08/17/23			
Diesel Range Organics (C10-C28)	262	25.0	250	ND	105	38-132			
Surrogate: n-Nonane	53.6		50.0		107	50-200			

Matrix Spike Dup (2333054-MSD1)				Source: E308127-01		Prepared: 08/17/23 Analyzed: 08/17/23			
Diesel Range Organics (C10-C28)	258	25.0	250	ND	103	38-132	1.30	20	
Surrogate: n-Nonane	52.0		50.0		104	50-200			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 4:05:57PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2333066-BLK1)					Prepared: 08/17/23 Analyzed: 08/20/23				
Chloride	ND	20.0							
LCS (2333066-BS1)					Prepared: 08/17/23 Analyzed: 08/20/23				
Chloride	243	20.0	250		97.4	90-110			
Matrix Spike (2333066-MS1)					Source: E308127-01		Prepared: 08/17/23 Analyzed: 08/20/23		
Chloride	1300	400	250	1030	107	80-120			
Matrix Spike Dup (2333066-MSD1)					Source: E308127-01		Prepared: 08/17/23 Analyzed: 08/20/23		
Chloride	1260	400	250	1030	90.1	80-120	3.21	20	

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Ensolum, LLC	Project Name:	RDX Federal 21 #041	
3122 National Parks Hwy	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	08/22/23 16:05

- ND      Analyte NOT DETECTED at or above the reporting limit
- NR      Not Reported
- RPD      Relative Percent Difference
- DNI      Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: Ensolum, LLC.					Bill To		Lab Use Only				TAT				EPA Program		
Project: RDX Federal 21 #041					Attention: Jim Raley		Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA	
Project Manager: Ashley Giovengo					Address: 5315 Buena Vista Dr		E308127		D058-0007					x			
Address: 3122 National Parks Hwy					City, State, Zip: Carlsbad NM, 88220		Analysis and Method								RCRA		
City, State, Zip: Carlsbad NM, 88220					Phone: (575)689-7597		TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	State			
Email: agiovengo@ensolum.com					Email: jim.raley@dvn.com									NM	CO	UT	AZ
Report due by:																	
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number										Remarks		
11:21	8/15/2023	Soil	1 Jar	FS01 - 1'	1												
11:17	8/15/2023	Soil	1 Jar	FS02 - 1'	2												
11:15	8/15/2023	Soil	1 Jar	FS03 - 1'	3												
11:13	8/15/2023	Soil	1 Jar	FS04 - 1'	4												
12:23	8/15/2023	Soil	1 Jar	FS05 - 1	5												
11:01	8/15/2023	Soil	1 Jar	FS10 - 1.5'	6												
9:47	8/15/2023	Soil	1 Jar	FS11 - .5'	7												
9:45	8/15/2023	Soil	1 Jar	FS12 - .5'	8												
9:55	8/15/2023	Soil	1 Jar	FS13 - .5'	9												
9:51	8/15/2023	Soil	1 Jar	FS14 - .5'	10												
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, jim.raley@dvn.com, chamilton@ensolum.com																	
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.											Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.						
Sampled by:																	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Lab Use Only									
		08/16/23	1800			8/16/23	1000	Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N									
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	T1 T2 T3									
		8/16/23	1715			8/17/23	8:00										
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	AVG Temp °C 4									
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other											Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA						
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																	



Client: Ensolum, LLC.					Bill To		Lab Use Only						TAT				EPA Program			
Project: RDX Federal 21 #041					Attention: Jim Raley		Lab WO#		Job Number				1D	2D	3D	Standard	CWA	SDWA		
Project Manager: Ashley Giovengo					Address: 5315 Buena Vista Dr		E308127		010580007							x				
Address: 3122 National Parks Hwy					City, State, Zip: Carlsbad NM, 88220		Analysis and Method													RCRA
City, State, Zip: Carlsbad NM, 88220					Phone: (575)689-7597		TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	State						
Phone: 575-988-0055					Email: jim.raley@dv.com									NM	CO	UT	AZ	TX		
Email: agiovengo@ensolum.com																				
Report due by:																				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number												Remarks			
10:00	8/15/2023	Soil	1 Jar	FS15 - .5'	11								x							
10:03	8/15/2023	Soil	1 Jar	FS16 - .5'	12								x							
10:07	8/15/2023	Soil	1 Jar	FS17 - .5'	13								x							
10:10	8/15/2023	Soil	1 Jar	FS18 - .5'	14								x							
10:21	8/15/2023	Soil	1 Jar	FS19 - .5'	15								x							
10:27	8/15/2023	Soil	1 Jar	FS20 - .5'	16								x							
10:27	8/15/2023	Soil	1 Jar	FS21 - .5'	17								x							
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, jim.raley@dv.com, chamilton@ensolum.com																				
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.												Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.								
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Lab Use Only												
		08/16/23	10:00			8/16/23	10:00	Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	T1 T2 T3												
		8/16/23	17:15			8/17/23	8:00													
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	AVG Temp °C 4												
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other												Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA								
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																				



## Envirotech Analytical Laboratory

Printed: 8/17/2023 9:45:24AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Ensolum, LLC	Date Received:	08/17/23 08:00	Work Order ID:	E308127
Phone:	(575) 988-0055	Date Logged In:	08/16/23 17:07	Logged In By:	Caitlin Mars
Email:	a.giovengo@ensolum.com	Due Date:	08/23/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

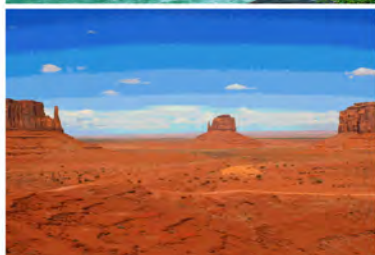
Date



envirotech Inc.

Report to:

Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Ensolum, LLC

Project Name: RDX Federal 21 #041

Work Order: E308156

Job Number: 01058-0007

Received: 8/22/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/25/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 8/25/23

Ashley Giovengo  
3122 National Parks Hwy  
Carlsbad, NM 88220



Project Name: RDX Federal 21 #041  
Workorder: E308156  
Date Received: 8/22/2023 8:15:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/22/2023 8:15:00AM, under the Project Name: RDX Federal 21 #041.

The analytical test results summarized in this report with the Project Name: RDX Federal 21 #041 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

## Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
FS06 - 4'	5
FS08 - 4'	6
FS09 - 4'	7
SW05 - 2'	8
QC Summary Data	9
QC - Volatile Organics by EPA 8021B	9
QC - Nonhalogenated Organics by EPA 8015D - GRO	10
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	11
QC - Anions by EPA 300.0/9056A	12
Definitions and Notes	13
Chain of Custody etc.	14

Sample Summary

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	08/25/23 10:34

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS06 - 4'	E308156-01A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS08 - 4'	E308156-02A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS09 - 4'	E308156-03A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
SW05 - 2'	E308156-04A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/25/2023 10:34:22AM

## FS06 - 4'

## E308156-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334019
Benzene	ND	0.0250	1	08/22/23	08/23/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/23/23	
Toluene	ND	0.0250	1	08/22/23	08/23/23	
o-Xylene	ND	0.0250	1	08/22/23	08/23/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/23/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/23/23	
Surrogate: 4-Bromochlorobenzene-PID	90.0 %	70-130		08/22/23	08/23/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334019
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/23/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	84.0 %	70-130		08/22/23	08/23/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2334041
Diesel Range Organics (C10-C28)	ND	25.0	1	08/23/23	08/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/23/23	08/24/23	
Surrogate: n-Nonane	97.2 %	50-200		08/23/23	08/24/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334029
Chloride	372	200	10	08/22/23	08/22/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/25/2023 10:34:22AM

FS08 - 4'

E308156-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334019
Benzene	ND	0.0250	1	08/22/23	08/23/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/23/23	
Toluene	ND	0.0250	1	08/22/23	08/23/23	
o-Xylene	ND	0.0250	1	08/22/23	08/23/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/23/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/23/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.2 %	70-130		08/22/23	08/23/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334019
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/23/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	83.7 %	70-130		08/22/23	08/23/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2334041
Diesel Range Organics (C10-C28)	ND	25.0	1	08/23/23	08/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/23/23	08/24/23	
<i>Surrogate: n-Nonane</i>						
	93.5 %	50-200		08/23/23	08/24/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334029
Chloride	359	200	10	08/22/23	08/22/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/25/2023 10:34:22AM

FS09 - 4'

E308156-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334019
Benzene	ND	0.0250	1	08/22/23	08/23/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/23/23	
Toluene	ND	0.0250	1	08/22/23	08/23/23	
o-Xylene	ND	0.0250	1	08/22/23	08/23/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/23/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/23/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.4 %	70-130		08/22/23	08/23/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334019
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/23/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	83.6 %	70-130		08/22/23	08/23/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2334041
Diesel Range Organics (C10-C28)	ND	25.0	1	08/23/23	08/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/23/23	08/24/23	
<i>Surrogate: n-Nonane</i>						
	90.0 %	50-200		08/23/23	08/24/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334029
Chloride	494	400	20	08/22/23	08/22/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/25/2023 10:34:22AM

SW05 - 2'

E308156-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334019
Benzene	ND	0.0250	1	08/22/23	08/23/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/23/23	
Toluene	ND	0.0250	1	08/22/23	08/23/23	
o-Xylene	ND	0.0250	1	08/22/23	08/23/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/23/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/23/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	91.1 %	70-130		08/22/23	08/23/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334019
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/23/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	84.3 %	70-130		08/22/23	08/23/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2334041
Diesel Range Organics (C10-C28)	ND	25.0	1	08/23/23	08/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/23/23	08/24/23	
<i>Surrogate: n-Nonane</i>						
	96.3 %	50-200		08/23/23	08/24/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334029
Chloride	400	200	10	08/22/23	08/22/23	



## QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/25/2023 10:34:22AM

## Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2334019-BLK1)

Prepared: 08/22/23 Analyzed: 08/22/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.24		8.00		90.5	70-130			

## LCS (2334019-BS1)

Prepared: 08/22/23 Analyzed: 08/22/23

Benzene	4.93	0.0250	5.00		98.5	70-130			
Ethylbenzene	4.72	0.0250	5.00		94.4	70-130			
Toluene	4.91	0.0250	5.00		98.3	70-130			
o-Xylene	4.84	0.0250	5.00		96.9	70-130			
p,m-Xylene	9.75	0.0500	10.0		97.5	70-130			
Total Xylenes	14.6	0.0250	15.0		97.3	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.26		8.00		90.8	70-130			

## Matrix Spike (2334019-MS1)

Source: E308148-01

Prepared: 08/22/23 Analyzed: 08/23/23

Benzene	4.86	0.0250	5.00	ND	97.2	54-133			
Ethylbenzene	4.66	0.0250	5.00	ND	93.1	61-133			
Toluene	4.86	0.0250	5.00	ND	97.1	61-130			
o-Xylene	4.77	0.0250	5.00	ND	95.4	63-131			
p,m-Xylene	9.62	0.0500	10.0	ND	96.2	63-131			
Total Xylenes	14.4	0.0250	15.0	ND	96.0	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.23		8.00		90.3	70-130			

## Matrix Spike Dup (2334019-MSD1)

Source: E308148-01

Prepared: 08/22/23 Analyzed: 08/23/23

Benzene	4.74	0.0250	5.00	ND	94.8	54-133	2.48	20	
Ethylbenzene	4.53	0.0250	5.00	ND	90.6	61-133	2.77	20	
Toluene	4.73	0.0250	5.00	ND	94.6	61-130	2.66	20	
o-Xylene	4.66	0.0250	5.00	ND	93.2	63-131	2.32	20	
p,m-Xylene	9.37	0.0500	10.0	ND	93.7	63-131	2.68	20	
Total Xylenes	14.0	0.0250	15.0	ND	93.5	63-131	2.56	20	
Surrogate: 4-Bromochlorobenzene-PID	7.25		8.00		90.6	70-130			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/25/2023 10:34:22AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2334019-BLK1) Prepared: 08/22/23 Analyzed: 08/22/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.86		8.00		85.7	70-130			

LCS (2334019-BS2) Prepared: 08/22/23 Analyzed: 08/23/23

Gasoline Range Organics (C6-C10)	44.0	20.0	50.0		88.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.92		8.00		86.5	70-130			

Matrix Spike (2334019-MS2) Source: E308148-01 Prepared: 08/22/23 Analyzed: 08/23/23

Gasoline Range Organics (C6-C10)	43.6	20.0	50.0	ND	87.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.92		8.00		86.6	70-130			

Matrix Spike Dup (2334019-MSD2) Source: E308148-01 Prepared: 08/22/23 Analyzed: 08/23/23

Gasoline Range Organics (C6-C10)	44.0	20.0	50.0	ND	88.0	70-130	0.946	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.89		8.00		86.2	70-130			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/25/2023 10:34:22AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2334041-BLK1) Prepared: 08/23/23 Analyzed: 08/23/23

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	58.5		50.0		117	50-200			

LCS (2334041-BS1) Prepared: 08/23/23 Analyzed: 08/24/23

Diesel Range Organics (C10-C28)	248	25.0	250		99.4	38-132			
Surrogate: n-Nonane	48.2		50.0		96.3	50-200			

Matrix Spike (2334041-MS1) Source: E308155-23 Prepared: 08/23/23 Analyzed: 08/24/23

Diesel Range Organics (C10-C28)	245	25.0	250	ND	98.2	38-132			
Surrogate: n-Nonane	45.2		50.0		90.5	50-200			

Matrix Spike Dup (2334041-MSD1) Source: E308155-23 Prepared: 08/23/23 Analyzed: 08/24/23

Diesel Range Organics (C10-C28)	249	25.0	250	ND	99.7	38-132	1.54	20	
Surrogate: n-Nonane	47.6		50.0		95.2	50-200			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/25/2023 10:34:22AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2334029-BLK1)					Prepared: 08/22/23 Analyzed: 08/22/23				
Chloride	ND	20.0							
LCS (2334029-BS1)					Prepared: 08/22/23 Analyzed: 08/22/23				
Chloride	254	20.0	250		102	90-110			
Matrix Spike (2334029-MS1)					Source: E308154-21		Prepared: 08/22/23 Analyzed: 08/22/23		
Chloride	269	20.0	250	ND	108	80-120			
Matrix Spike Dup (2334029-MSD1)					Source: E308154-21		Prepared: 08/22/23 Analyzed: 08/22/23		
Chloride	273	20.0	250	ND	109	80-120	1.38	20	

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Ensolum, LLC	Project Name:	RDX Federal 21 #041	
3122 National Parks Hwy	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	08/25/23 10:34

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



## Project Information

## Chain of Custody

Page 1 of 1

01058-0007 CM

Client: Ensolum, LLC.		<b>Bill To</b>		Lab Use Only		TAT		EPA Program					
Project: RDX Federal 21 #041		Attention: Jim Raley		Lab WO# <u>E308156</u>		Job Number <u>20046-0001</u>		1D	2D	3D	Standard	CWA	SDWA
Project Manager: Ashley Giovengo		Address: 5315 Buena Vista Dr								x		RCRA	
Address: 3122 National Parks Hwy		City, State, Zip: Carlsbad NM, 88220											
City, State, Zip: Carlsbad NM, 88220		Phone: (575)689-7597											
Phone: 575-988-0055		Email: jim.raley@dv.com											
Email: agiovengo@ensolum.com													
Report due by:													

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC	NM	GDOC	TX	Remarks
12:34	8/18/2023	Soil	1 Jar	FS06 - 4'	1							X			
12:26	8/18/2023	Soil	1 Jar	FS08 - 4'	2							X			
12:27	8/18/2023	Soil	1 Jar	FS09 - 4'	3							X			
13:40	8/18/2023	Soil	1 Jar	SW05 - 2'	4							X			

Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, jim.raley@dv.com, chamilton@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature) <u>Ed Raley</u>		Date <u>8-21-23</u>	Time <u>7:11</u>	Received by: (Signature) <u>Michelle Camp</u>		Date <u>8-21-23</u>	Time <u>0711</u>	Lab Use Only Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>	
Relinquished by: (Signature) <u>Michelle Camp</u>		Date <u>8-21-23</u>	Time <u>1700</u>	Received by: (Signature) <u>John M...</u>		Date <u>8-21-23</u>	Time <u>1715</u>		
Relinquished by: (Signature) <u>John M...</u>		Date <u>8-21-23</u>	Time <u>2345</u>	Received by: (Signature) <u>Carth Man</u>		Date <u>8/22/23</u>	Time <u>8:15</u>		

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



## Envirotech Analytical Laboratory

Printed: 8/22/2023 9:34:02AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Ensolum, LLC	Date Received:	08/22/23 08:15	Work Order ID:	E308156
Phone:	(575) 988-0055	Date Logged In:	08/21/23 15:30	Logged In By:	Caitlin Mars
Email:	a.giovengo@ensolum.com	Due Date:	08/28/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

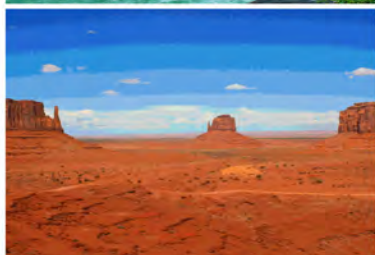
Date



envirotech Inc.

Report to:

Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Ensolum, LLC

Project Name: RDX Federal 21 #041

Work Order: E308136

Job Number: 01058-0007

Received: 8/18/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/22/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 8/22/23

Ashley Giovengo  
3122 National Parks Hwy  
Carlsbad, NM 88220



Project Name: RDX Federal 21 #041  
Workorder: E308136  
Date Received: 8/18/2023 8:15:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/18/2023 8:15:00AM, under the Project Name: RDX Federal 21 #041.

The analytical test results summarized in this report with the Project Name: RDX Federal 21 #041 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

## Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
FS07 - 2'	5
SW06 - 1'	6
QC Summary Data	7
QC - Volatile Organics by EPA 8021B	7
QC - Nonhalogenated Organics by EPA 8015D - GRO	8
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	9
QC - Anions by EPA 300.0/9056A	10
Definitions and Notes	11
Chain of Custody etc.	12

Sample Summary

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	08/22/23 16:08

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS07 - 2'	E308136-01A	Soil	08/16/23	08/18/23	Glass Jar, 32 oz.
SW06 - 1'	E308136-02A	Soil	08/16/23	08/18/23	Glass Jar, 2 oz.



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:08:17PM

FS07 - 2'

E308136-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333053
Benzene	ND	0.0250	1	08/18/23	08/19/23	
Ethylbenzene	ND	0.0250	1	08/18/23	08/19/23	
Toluene	ND	0.0250	1	08/18/23	08/19/23	
o-Xylene	ND	0.0250	1	08/18/23	08/19/23	
p,m-Xylene	ND	0.0500	1	08/18/23	08/19/23	
Total Xylenes	ND	0.0250	1	08/18/23	08/19/23	
Surrogate: 4-Bromochlorobenzene-PID	89.8 %	70-130		08/18/23	08/19/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333053
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/18/23	08/19/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.1 %	70-130		08/18/23	08/19/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2333075
Diesel Range Organics (C10-C28)	ND	25.0	1	08/18/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/18/23	08/18/23	
Surrogate: n-Nonane	89.9 %	50-200		08/18/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333077
Chloride	917	40.0	2	08/18/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:08:17PM

SW06 - 1'

E308136-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333053
Benzene	ND	0.0250	1	08/18/23	08/19/23	
Ethylbenzene	ND	0.0250	1	08/18/23	08/19/23	
Toluene	ND	0.0250	1	08/18/23	08/19/23	
o-Xylene	ND	0.0250	1	08/18/23	08/19/23	
p,m-Xylene	ND	0.0500	1	08/18/23	08/19/23	
Total Xylenes	ND	0.0250	1	08/18/23	08/19/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	91.3 %	70-130		08/18/23	08/19/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333053
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/18/23	08/19/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.8 %	70-130		08/18/23	08/19/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2333075
Diesel Range Organics (C10-C28)	ND	25.0	1	08/18/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/18/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	95.0 %	50-200		08/18/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333077
Chloride	841	20.0	1	08/18/23	08/20/23	



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 4:08:17PM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2333053-BLK1)

Prepared: 08/17/23 Analyzed: 08/18/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.57		8.00		94.6	70-130			

LCS (2333053-BS1)

Prepared: 08/17/23 Analyzed: 08/18/23

Benzene	5.19	0.0250	5.00		104	70-130			
Ethylbenzene	5.12	0.0250	5.00		102	70-130			
Toluene	5.19	0.0250	5.00		104	70-130			
o-Xylene	5.12	0.0250	5.00		102	70-130			
p,m-Xylene	10.4	0.0500	10.0		104	70-130			
Total Xylenes	15.6	0.0250	15.0		104	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.62		8.00		95.2	70-130			

Matrix Spike (2333053-MS1)

Source: E308128-01 Prepared: 08/17/23 Analyzed: 08/18/23

Benzene	4.94	0.0250	5.00	ND	98.8	54-133			
Ethylbenzene	6.66	0.0250	5.00	1.76	97.9	61-133			
Toluene	5.29	0.0250	5.00	0.284	100	61-130			
o-Xylene	7.57	0.0250	5.00	2.63	99.0	63-131			
p,m-Xylene	14.9	0.0500	10.0	5.16	97.3	63-131			
Total Xylenes	22.5	0.0250	15.0	7.78	97.8	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.40		8.00		92.5	70-130			

Matrix Spike Dup (2333053-MSD1)

Source: E308128-01 Prepared: 08/17/23 Analyzed: 08/18/23

Benzene	5.02	0.0250	5.00	ND	100	54-133	1.60	20	
Ethylbenzene	6.72	0.0250	5.00	1.76	99.2	61-133	0.927	20	
Toluene	5.32	0.0250	5.00	0.284	101	61-130	0.476	20	
o-Xylene	7.56	0.0250	5.00	2.63	98.6	63-131	0.213	20	
p,m-Xylene	14.9	0.0500	10.0	5.16	97.3	63-131	0.0202	20	
Total Xylenes	22.4	0.0250	15.0	7.78	97.8	63-131	0.0586	20	
Surrogate: 4-Bromochlorobenzene-PID	7.05		8.00		88.1	70-130			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 4:08:17PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2333053-BLK1) Prepared: 08/17/23 Analyzed: 08/18/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.38		8.00		92.3	70-130			

LCS (2333053-BS2) Prepared: 08/17/23 Analyzed: 08/18/23

Gasoline Range Organics (C6-C10)	51.0	20.0	50.0		102	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.37		8.00		92.1	70-130			

Matrix Spike (2333053-MS2) Source: E308128-01 Prepared: 08/17/23 Analyzed: 08/18/23

Gasoline Range Organics (C6-C10)	189	20.0	50.0	114	150	70-130			M1
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.47		8.00		106	70-130			

Matrix Spike Dup (2333053-MSD2) Source: E308128-01 Prepared: 08/17/23 Analyzed: 08/18/23

Gasoline Range Organics (C6-C10)	180	20.0	50.0	114	132	70-130	4.75	20	M1
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.04		8.00		100	70-130			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 4:08:17PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2333075-BLK1)					Prepared: 08/18/23 Analyzed: 08/18/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	47.3		50.0		94.6	50-200			

LCS (2333075-BS1)					Prepared: 08/18/23 Analyzed: 08/18/23				
Diesel Range Organics (C10-C28)	233	25.0	250		93.2	38-132			
Surrogate: n-Nonane	44.0		50.0		87.9	50-200			

Matrix Spike (2333075-MS1)					Source: E308135-02		Prepared: 08/18/23 Analyzed: 08/18/23		
Diesel Range Organics (C10-C28)	231	25.0	250	ND	92.6	38-132			
Surrogate: n-Nonane	42.1		50.0		84.2	50-200			

Matrix Spike Dup (2333075-MSD1)					Source: E308135-02		Prepared: 08/18/23 Analyzed: 08/18/23		
Diesel Range Organics (C10-C28)	233	25.0	250	ND	93.0	38-132	0.488	20	
Surrogate: n-Nonane	42.9		50.0		85.8	50-200			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 4:08:17PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2333077-BLK1)					Prepared: 08/18/23 Analyzed: 08/19/23				
Chloride	ND	20.0							
LCS (2333077-BS1)					Prepared: 08/18/23 Analyzed: 08/19/23				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2333077-MS1)					Source: E308066-01		Prepared: 08/18/23 Analyzed: 08/19/23		
Chloride	273	20.0	250	ND	109	80-120			
Matrix Spike Dup (2333077-MSD1)					Source: E308066-01		Prepared: 08/18/23 Analyzed: 08/19/23		
Chloride	275	20.0	250	ND	110	80-120	0.434	20	

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Ensolum, LLC	Project Name:	RDX Federal 21 #041	
3122 National Parks Hwy	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	08/22/23 16:08

- M1 Matrix spike recovery was above acceptance limits. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



## Project Information

## Chain of Custody

Page 1 of 1

Client: Ensolum, LLC.		<b>Bill To</b>		<b>Lab Use Only</b>		<b>TAT</b>		<b>EPA Program</b>					
Project: RDX Federal 21 #041		Attention: Jim Raley		Lab WO# E308136		Job Number 01058-0007		1D	2D	3D	Standard	CWA	SDWA
Project Manager: Ashley Gioengo		Address: 5315 Buena Vista Dr		City, State, Zip: Carlsbad NM, 88220		Analysis and Method		x				RCRA	
Address: 3122 National Parks Hwy		City, State, Zip: Carlsbad NM, 88220											
City, State, Zip: Carlsbad NM, 88220		Phone: (575)689-7597											
Phone: 575-988-0055		Email: jim.raley@dnv.com											
Email: agioengo@ensolum.com													
Report due by:													

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	Remarks
10:38	8/16/2023	Soil	1 Jar	FS07 - 2'	1						x		
10:52	8/16/2023	Soil	1 Jar	SW06 - 1'	2						x		

Additional Instructions: Please CC: cburton@ensolum.com, agioengo@ensolum.com, jim.raley@dnv.com, chamilton@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
<i>[Signature]</i>	8-17-23	7:05	<i>[Signature]</i>	8/17/23	13:34	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
<i>[Signature]</i>	8-17-23	16:36	<i>[Signature]</i>	8-17-23	18:30	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
<i>[Signature]</i>	8-18-23	01:15	<i>[Signature]</i>	8/18/23	8:15	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



envirotech

## Envirotech Analytical Laboratory

Printed: 8/18/2023 10:21:07AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Ensolum, LLC	Date Received:	08/18/23 08:15	Work Order ID:	E308136
Phone:	(575) 988-0055	Date Logged In:	08/17/23 16:32	Logged In By:	Caitlin Mars
Email:	a.giovengo@ensolum.com	Due Date:	08/24/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Ensolum, LLC

Project Name: RDX Federal 21 #041

Work Order: E309054

Job Number: 01058-0007

Received: 9/8/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
9/13/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 9/13/23

Ashley Giovengo  
3122 National Parks Hwy  
Carlsbad, NM 88220



Project Name: RDX Federal 21 #041  
Workorder: E309054  
Date Received: 9/8/2023 6:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 9/8/2023 6:00:00AM, under the Project Name: RDX Federal 21 #041.

The analytical test results summarized in this report with the Project Name: RDX Federal 21 #041 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

## Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
FS07 - 4'	5
SW06 - 1'	6
QC Summary Data	7
QC - Volatile Organic Compounds by EPA 8260B	7
QC - Nonhalogenated Organics by EPA 8015D - GRO	8
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	9
QC - Anions by EPA 300.0/9056A	10
Definitions and Notes	11
Chain of Custody etc.	12

Sample Summary

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	09/13/23 13:57

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS07 - 4'	E309054-01A	Soil	09/06/23	09/08/23	Glass Jar, 2 oz.
SW06 - 1'	E309054-02A	Soil	09/06/23	09/08/23	Glass Jar, 2 oz.



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
9/13/2023 1:57:35PM

FS07 - 4'

E309054-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2337004
Benzene	ND	0.0250	1	09/11/23	09/11/23	
Ethylbenzene	ND	0.0250	1	09/11/23	09/11/23	
Toluene	ND	0.0250	1	09/11/23	09/11/23	
o-Xylene	ND	0.0250	1	09/11/23	09/11/23	
p,m-Xylene	ND	0.0500	1	09/11/23	09/11/23	
Total Xylenes	ND	0.0250	1	09/11/23	09/11/23	
Surrogate: Bromofluorobenzene	105 %	70-130		09/11/23	09/11/23	
Surrogate: 1,2-Dichloroethane-d4	97.5 %	70-130		09/11/23	09/11/23	
Surrogate: Toluene-d8	101 %	70-130		09/11/23	09/11/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2337004
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/11/23	09/11/23	
Surrogate: Bromofluorobenzene	105 %	70-130		09/11/23	09/11/23	
Surrogate: 1,2-Dichloroethane-d4	97.5 %	70-130		09/11/23	09/11/23	
Surrogate: Toluene-d8	101 %	70-130		09/11/23	09/11/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2337027
Diesel Range Organics (C10-C28)	ND	25.0	1	09/12/23	09/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	09/12/23	09/13/23	
Surrogate: n-Nonane	112 %	50-200		09/12/23	09/13/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2337014
Chloride	353	200	10	09/11/23	09/12/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
9/13/2023 1:57:35PM

SW06 - 1'

E309054-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2337004
Benzene	ND	0.0250	1	09/11/23	09/12/23	
Ethylbenzene	ND	0.0250	1	09/11/23	09/12/23	
Toluene	ND	0.0250	1	09/11/23	09/12/23	
o-Xylene	ND	0.0250	1	09/11/23	09/12/23	
p,m-Xylene	ND	0.0500	1	09/11/23	09/12/23	
Total Xylenes	ND	0.0250	1	09/11/23	09/12/23	
Surrogate: Bromofluorobenzene		110 %	70-130	09/11/23	09/12/23	
Surrogate: 1,2-Dichloroethane-d4		96.3 %	70-130	09/11/23	09/12/23	
Surrogate: Toluene-d8		103 %	70-130	09/11/23	09/12/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2337004
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/11/23	09/12/23	
Surrogate: Bromofluorobenzene		110 %	70-130	09/11/23	09/12/23	
Surrogate: 1,2-Dichloroethane-d4		96.3 %	70-130	09/11/23	09/12/23	
Surrogate: Toluene-d8		103 %	70-130	09/11/23	09/12/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2337027
Diesel Range Organics (C10-C28)	ND	25.0	1	09/12/23	09/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	09/12/23	09/13/23	
Surrogate: n-Nonane		112 %	50-200	09/12/23	09/13/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2337014
Chloride	88.8	40.0	2	09/11/23	09/12/23	



## QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	9/13/2023 1:57:35PM

## Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

## Blank (2337004-BLK1)

Prepared: 09/11/23 Analyzed: 09/11/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.547		0.500		109	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.466		0.500		93.1	70-130			
Surrogate: Toluene-d8	0.513		0.500		103	70-130			

## LCS (2337004-BS1)

Prepared: 09/11/23 Analyzed: 09/11/23

Benzene	2.49	0.0250	2.50		99.4	70-130			
Ethylbenzene	2.57	0.0250	2.50		103	70-130			
Toluene	2.48	0.0250	2.50		99.2	70-130			
o-Xylene	2.67	0.0250	2.50		107	70-130			
p,m-Xylene	5.22	0.0500	5.00		104	70-130			
Total Xylenes	7.89	0.0250	7.50		105	70-130			
Surrogate: Bromofluorobenzene	0.527		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.484		0.500		96.7	70-130			
Surrogate: Toluene-d8	0.501		0.500		100	70-130			

## Matrix Spike (2337004-MS1)

Source: E309054-01

Prepared: 09/11/23 Analyzed: 09/11/23

Benzene	2.51	0.0250	2.50	ND	100	48-131			
Ethylbenzene	2.58	0.0250	2.50	ND	103	45-135			
Toluene	2.49	0.0250	2.50	ND	99.7	48-130			
o-Xylene	2.67	0.0250	2.50	ND	107	43-135			
p,m-Xylene	5.20	0.0500	5.00	ND	104	43-135			
Total Xylenes	7.87	0.0250	7.50	ND	105	43-135			
Surrogate: Bromofluorobenzene	0.536		0.500		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.468		0.500		93.6	70-130			
Surrogate: Toluene-d8	0.498		0.500		99.6	70-130			

## Matrix Spike Dup (2337004-MSD1)

Source: E309054-01

Prepared: 09/11/23 Analyzed: 09/12/23

Benzene	2.50	0.0250	2.50	ND	99.9	48-131	0.400	23	
Ethylbenzene	2.59	0.0250	2.50	ND	104	45-135	0.328	27	
Toluene	2.49	0.0250	2.50	ND	99.5	48-130	0.221	24	
o-Xylene	2.68	0.0250	2.50	ND	107	43-135	0.430	27	
p,m-Xylene	5.23	0.0500	5.00	ND	105	43-135	0.623	27	
Total Xylenes	7.91	0.0250	7.50	ND	105	43-135	0.558	27	
Surrogate: Bromofluorobenzene	0.532		0.500		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.478		0.500		95.5	70-130			
Surrogate: Toluene-d8	0.496		0.500		99.1	70-130			



## QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	9/13/2023 1:57:35PM

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2337004-BLK1)

Prepared: 09/11/23 Analyzed: 09/11/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.547		0.500		109	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.466		0.500		93.1	70-130			
Surrogate: Toluene-d8	0.513		0.500		103	70-130			

## LCS (2337004-BS2)

Prepared: 09/11/23 Analyzed: 09/11/23

Gasoline Range Organics (C6-C10)	53.3	20.0	50.0		107	70-130			
Surrogate: Bromofluorobenzene	0.536		0.500		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.494		0.500		98.8	70-130			
Surrogate: Toluene-d8	0.505		0.500		101	70-130			

## Matrix Spike (2337004-MS2)

Source: E309054-01

Prepared: 09/11/23 Analyzed: 09/12/23

Gasoline Range Organics (C6-C10)	56.4	20.0	50.0	ND	113	70-130			
Surrogate: Bromofluorobenzene	0.533		0.500		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.464		0.500		92.7	70-130			
Surrogate: Toluene-d8	0.508		0.500		102	70-130			

## Matrix Spike Dup (2337004-MSD2)

Source: E309054-01

Prepared: 09/11/23 Analyzed: 09/12/23

Gasoline Range Organics (C6-C10)	53.2	20.0	50.0	ND	106	70-130	5.78	20	
Surrogate: Bromofluorobenzene	0.531		0.500		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.482		0.500		96.4	70-130			
Surrogate: Toluene-d8	0.508		0.500		102	70-130			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	9/13/2023 1:57:35PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2337027-BLK1)					Prepared: 09/12/23 Analyzed: 09/12/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	57.0		50.0		114	50-200			

LCS (2337027-BS1)					Prepared: 09/12/23 Analyzed: 09/12/23				
Diesel Range Organics (C10-C28)	274	25.0	250		109	38-132			
Surrogate: n-Nonane	54.2		50.0		108	50-200			

Matrix Spike (2337027-MS1)					Source: E309091-03		Prepared: 09/12/23 Analyzed: 09/12/23		
Diesel Range Organics (C10-C28)	277	25.0	250	ND	111	38-132			
Surrogate: n-Nonane	54.8		50.0		110	50-200			

Matrix Spike Dup (2337027-MSD1)					Source: E309091-03		Prepared: 09/12/23 Analyzed: 09/12/23		
Diesel Range Organics (C10-C28)	280	25.0	250	ND	112	38-132	1.15	20	
Surrogate: n-Nonane	56.9		50.0		114	50-200			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	9/13/2023 1:57:35PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2337014-BLK1)					Prepared: 09/11/23 Analyzed: 09/11/23				
Chloride	ND	20.0							
LCS (2337014-BS1)					Prepared: 09/11/23 Analyzed: 09/11/23				
Chloride	254	20.0	250		102	90-110			
Matrix Spike (2337014-MS1)					Source: E309048-01		Prepared: 09/11/23 Analyzed: 09/11/23		
Chloride	248	20.0	250	ND	99.1	80-120			
Matrix Spike Dup (2337014-MSD1)					Source: E309048-01		Prepared: 09/11/23 Analyzed: 09/12/23		
Chloride	250	20.0	250	ND	99.8	80-120	0.756	20	

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Ensolum, LLC	Project Name:	RDX Federal 21 #041	
3122 National Parks Hwy	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	09/13/23 13:57

- ND      Analyte NOT DETECTED at or above the reporting limit
- NR      Not Reported
- RPD      Relative Percent Difference
- DNI      Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: Ensolum, LLC.					Bill To					Lab Use Only					TAT					EPA Program				
Project: RDX Federal 21 #041					Attention: Jim Raley Address: 5315 Buena Vista Dr City, State, Zip: Carlsbad NM, 88220 Phone: (575)689-7597 Email: jim.raley@dvn.com					Lab WO#		Job Number			1D	2D	3D	Standard	CWA	SDWA				
Project Manager: Ashley Giovengo										E309054		01058-0007						x						
Address: 3122 National Parks Hwy										Analysis and Method												RCRA		
City, State, Zip: Carlsbad NM, 88220										TPH GRO/DRO/ORO by 8015	BTX by 8021	VOC by 8260	Metals 6010	Chloride 300.0		BGDOC NM		GDOC TX	State					
Phone: 575-988-0055																			NM	CO	UT	AZ	TX	
Email: agiovengo@ensolum.com															x									
Report due by:					Remarks																			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number																			
10:49	9/6/2023	Soil	1 Jar	FS07 - 4'	1											X								
11:30	9/6/2023	Soil	1 Jar	SW06 - 1'	2											X								
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, jim.raley@dvn.com, chamilton@ensolum.com																								
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.															Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.									
Relinquished by: (Signature) <i>Jim Raley</i>					Date 9-7-23	Time 7:08	Received by: (Signature) <i>Michelle Gungl</i>					Date 9-7-23	Time 0708	Lab Use Only Received on ice: <i>Y</i> / N										
Relinquished by: (Signature) <i>Michelle Gungl</i>					Date 9-7-23	Time 1545	Received by: (Signature) <i>Andrea Messo</i>					Date 9-7-23	Time 1815	T1 _____ T2 _____ T3 _____										
Relinquished by: (Signature) <i>Andrea Messo</i>					Date 9-8-23	Time 2430	Received by: (Signature) <i>Carla Man</i>					Date 9-8-23	Time 16:00	AVG Temp °C <i>4</i>										
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____															Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA									
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																								

## Envirotech Analytical Laboratory

Printed: 9/8/2023 8:50:21AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Ensolum, LLC	Date Received:	09/08/23 06:00	Work Order ID:	E309054
Phone:	(575) 988-0055	Date Logged In:	09/07/23 16:34	Logged In By:	Alexa Michaels
Email:	a.giovengo@ensolum.com	Due Date:	09/14/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

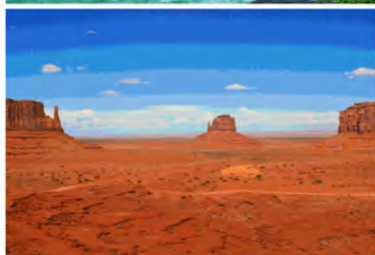
Date



envirotech Inc.

Report to:

Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Ensolum, LLC

Project Name: RDX Federal 28 #041

Work Order: E308115

Job Number: 01058-0007

Received: 8/16/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/22/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 8/22/23



Ashley Giovengo  
3122 National Parks Hwy  
Carlsbad, NM 88220

Project Name: RDX Federal 28 #041  
Workorder: E308115  
Date Received: 8/16/2023 8:05:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/16/2023 8:05:00AM, under the Project Name: RDX Federal 28 #041.

The analytical test results summarized in this report with the Project Name: RDX Federal 28 #041 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

## Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SS01 - 0'	5
SS02B - 0'	6
SS03A - 0'	7
SS04 - 0'	8
SS05 - 0'	9
SS06 - 0'	10
SS07 - 0'	11
PH02 - 3'	12
PH01 - 2'	13
QC Summary Data	14
QC - Volatile Organic Compounds by EPA 8260B	14
QC - Nonhalogenated Organics by EPA 8015D - GRO	15
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	16
QC - Anions by EPA 300.0/9056A	17
Definitions and Notes	18
Chain of Custody etc.	19

Sample Summary

Ensolum, LLC	Project Name:	RDX Federal 28 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	08/22/23 15:26

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS01 - 0'	E308115-01A	Soil	08/14/23	08/16/23	Glass Jar, 2 oz.
SS02B - 0'	E308115-02A	Soil	08/14/23	08/16/23	Glass Jar, 2 oz.
SS03A - 0'	E308115-03A	Soil	08/14/23	08/16/23	Glass Jar, 2 oz.
SS04 - 0'	E308115-04A	Soil	08/14/23	08/16/23	Glass Jar, 2 oz.
SS05 - 0'	E308115-05A	Soil	08/14/23	08/16/23	Glass Jar, 2 oz.
SS06 - 0'	E308115-06A	Soil	08/14/23	08/16/23	Glass Jar, 2 oz.
SS07 - 0'	E308115-07A	Soil	08/14/23	08/16/23	Glass Jar, 2 oz.
PH02 - 3'	E308115-08A	Soil	08/14/23	08/16/23	Glass Jar, 2 oz.
PH02 - 4'	E308115-09A	Soil	08/14/23	08/16/23	Glass Jar, 2 oz.
PH01 - 2'	E308115-10A	Soil	08/14/23	08/16/23	Glass Jar, 2 oz.



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 28 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 3:26:44PM

SS01 - 0'

E308115-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Benzene	ND	0.0250	1	08/16/23	08/17/23	
Ethylbenzene	ND	0.0250	1	08/16/23	08/17/23	
Toluene	ND	0.0250	1	08/16/23	08/17/23	
o-Xylene	ND	0.0250	1	08/16/23	08/17/23	
p,m-Xylene	ND	0.0500	1	08/16/23	08/17/23	
Total Xylenes	ND	0.0250	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene	118 %	70-130		08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4	96.9 %	70-130		08/16/23	08/17/23	
Surrogate: Toluene-d8	106 %	70-130		08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene	118 %	70-130		08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4	96.9 %	70-130		08/16/23	08/17/23	
Surrogate: Toluene-d8	106 %	70-130		08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333057
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/22/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/22/23	
Surrogate: n-Nonane	90.5 %	50-200		08/17/23	08/22/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333063
Chloride	191	20.0	1	08/17/23	08/18/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 28 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 3:26:44PM

SS02B - 0'

E308115-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Benzene	ND	0.0250	1	08/16/23	08/17/23	
Ethylbenzene	ND	0.0250	1	08/16/23	08/17/23	
Toluene	ND	0.0250	1	08/16/23	08/17/23	
o-Xylene	ND	0.0250	1	08/16/23	08/17/23	
p,m-Xylene	ND	0.0500	1	08/16/23	08/17/23	
Total Xylenes	ND	0.0250	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene		117 %	70-130	08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4		97.0 %	70-130	08/16/23	08/17/23	
Surrogate: Toluene-d8		107 %	70-130	08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene		117 %	70-130	08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4		97.0 %	70-130	08/16/23	08/17/23	
Surrogate: Toluene-d8		107 %	70-130	08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333057
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/22/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/22/23	
Surrogate: n-Nonane		94.7 %	50-200	08/17/23	08/22/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333063
Chloride	186	40.0	2	08/17/23	08/18/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 28 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 3:26:44PM

SS03A - 0'

E308115-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Benzene	ND	0.0250	1	08/16/23	08/17/23	
Ethylbenzene	ND	0.0250	1	08/16/23	08/17/23	
Toluene	ND	0.0250	1	08/16/23	08/17/23	
o-Xylene	ND	0.0250	1	08/16/23	08/17/23	
p,m-Xylene	ND	0.0500	1	08/16/23	08/17/23	
Total Xylenes	ND	0.0250	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene		121 %	70-130	08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4		95.0 %	70-130	08/16/23	08/17/23	
Surrogate: Toluene-d8		105 %	70-130	08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene		121 %	70-130	08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4		95.0 %	70-130	08/16/23	08/17/23	
Surrogate: Toluene-d8		105 %	70-130	08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333057
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/19/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/19/23	
Surrogate: n-Nonane		84.1 %	50-200	08/17/23	08/19/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333063
Chloride	145	20.0	1	08/17/23	08/18/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 28 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 3:26:44PM

SS04 - 0'

E308115-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Benzene	ND	0.0250	1	08/16/23	08/17/23	
Ethylbenzene	ND	0.0250	1	08/16/23	08/17/23	
Toluene	ND	0.0250	1	08/16/23	08/17/23	
o-Xylene	ND	0.0250	1	08/16/23	08/17/23	
p,m-Xylene	ND	0.0500	1	08/16/23	08/17/23	
Total Xylenes	ND	0.0250	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene		117 %	70-130	08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4		97.2 %	70-130	08/16/23	08/17/23	
Surrogate: Toluene-d8		105 %	70-130	08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene		117 %	70-130	08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4		97.2 %	70-130	08/16/23	08/17/23	
Surrogate: Toluene-d8		105 %	70-130	08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333057
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/19/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/19/23	
Surrogate: n-Nonane		89.8 %	50-200	08/17/23	08/19/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333063
Chloride	268	20.0	1	08/17/23	08/18/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 28 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 3:26:44PM

SS05 - 0'

E308115-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Benzene	ND	0.0250	1	08/16/23	08/17/23	
Ethylbenzene	ND	0.0250	1	08/16/23	08/17/23	
Toluene	ND	0.0250	1	08/16/23	08/17/23	
o-Xylene	ND	0.0250	1	08/16/23	08/17/23	
p,m-Xylene	ND	0.0500	1	08/16/23	08/17/23	
Total Xylenes	ND	0.0250	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene		117 %	70-130	08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4		96.2 %	70-130	08/16/23	08/17/23	
Surrogate: Toluene-d8		106 %	70-130	08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene		117 %	70-130	08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4		96.2 %	70-130	08/16/23	08/17/23	
Surrogate: Toluene-d8		106 %	70-130	08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333057
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/19/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/19/23	
Surrogate: n-Nonane		87.4 %	50-200	08/17/23	08/19/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333063
Chloride	201	20.0	1	08/17/23	08/18/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 28 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 3:26:44PM

SS06 - 0'

E308115-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Benzene	ND	0.0250	1	08/16/23	08/17/23	
Ethylbenzene	ND	0.0250	1	08/16/23	08/17/23	
Toluene	ND	0.0250	1	08/16/23	08/17/23	
o-Xylene	ND	0.0250	1	08/16/23	08/17/23	
p,m-Xylene	ND	0.0500	1	08/16/23	08/17/23	
Total Xylenes	ND	0.0250	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene		117 %	70-130	08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4		93.1 %	70-130	08/16/23	08/17/23	
Surrogate: Toluene-d8		107 %	70-130	08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene		117 %	70-130	08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4		93.1 %	70-130	08/16/23	08/17/23	
Surrogate: Toluene-d8		107 %	70-130	08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333057
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/19/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/19/23	
Surrogate: n-Nonane		91.4 %	50-200	08/17/23	08/19/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333063
Chloride	215	20.0	1	08/17/23	08/18/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 28 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 3:26:44PM

SS07 - 0'

E308115-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Benzene	ND	0.0250	1	08/16/23	08/17/23	
Ethylbenzene	ND	0.0250	1	08/16/23	08/17/23	
Toluene	ND	0.0250	1	08/16/23	08/17/23	
o-Xylene	ND	0.0250	1	08/16/23	08/17/23	
p,m-Xylene	ND	0.0500	1	08/16/23	08/17/23	
Total Xylenes	ND	0.0250	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene		120 %	70-130	08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4		96.3 %	70-130	08/16/23	08/17/23	
Surrogate: Toluene-d8		106 %	70-130	08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene		120 %	70-130	08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4		96.3 %	70-130	08/16/23	08/17/23	
Surrogate: Toluene-d8		106 %	70-130	08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333057
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/19/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/19/23	
Surrogate: n-Nonane		83.3 %	50-200	08/17/23	08/19/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333063
Chloride	27.7	20.0	1	08/17/23	08/18/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 28 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 3:26:44PM

## PH02 - 3'

## E308115-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Benzene	ND	0.0250	1	08/16/23	08/17/23	
Ethylbenzene	ND	0.0250	1	08/16/23	08/17/23	
Toluene	ND	0.0250	1	08/16/23	08/17/23	
o-Xylene	ND	0.0250	1	08/16/23	08/17/23	
p,m-Xylene	ND	0.0500	1	08/16/23	08/17/23	
Total Xylenes	ND	0.0250	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene		117 %	70-130	08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4		98.0 %	70-130	08/16/23	08/17/23	
Surrogate: Toluene-d8		107 %	70-130	08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene		117 %	70-130	08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4		98.0 %	70-130	08/16/23	08/17/23	
Surrogate: Toluene-d8		107 %	70-130	08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333057
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/19/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/19/23	
Surrogate: n-Nonane		79.0 %	50-200	08/17/23	08/19/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333063
Chloride	69.1	20.0	1	08/17/23	08/18/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 28 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 3:26:44PM

## PH01 - 2'

## E308115-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Benzene	ND	0.0250	1	08/16/23	08/17/23	
Ethylbenzene	ND	0.0250	1	08/16/23	08/17/23	
Toluene	ND	0.0250	1	08/16/23	08/17/23	
o-Xylene	ND	0.0250	1	08/16/23	08/17/23	
p,m-Xylene	ND	0.0500	1	08/16/23	08/17/23	
Total Xylenes	ND	0.0250	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene		117 %	70-130	08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4		95.0 %	70-130	08/16/23	08/17/23	
Surrogate: Toluene-d8		106 %	70-130	08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333044
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/16/23	08/17/23	
Surrogate: Bromofluorobenzene		117 %	70-130	08/16/23	08/17/23	
Surrogate: 1,2-Dichloroethane-d4		95.0 %	70-130	08/16/23	08/17/23	
Surrogate: Toluene-d8		106 %	70-130	08/16/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333057
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/19/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/19/23	
Surrogate: n-Nonane		87.4 %	50-200	08/17/23	08/19/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333063
Chloride	742	400	20	08/17/23	08/18/23	



## QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 28 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 3:26:44PM

## Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

## Blank (2333044-BLK1)

Prepared: 08/16/23 Analyzed: 08/17/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.587		0.500		117	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.497		0.500		99.3	70-130			
Surrogate: Toluene-d8	0.536		0.500		107	70-130			

## LCS (2333044-BS1)

Prepared: 08/16/23 Analyzed: 08/17/23

Benzene	2.44	0.0250	2.50		97.5	70-130			
Ethylbenzene	2.45	0.0250	2.50		97.9	70-130			
Toluene	2.44	0.0250	2.50		97.5	70-130			
o-Xylene	2.56	0.0250	2.50		102	70-130			
p,m-Xylene	5.13	0.0500	5.00		103	70-130			
Total Xylenes	7.69	0.0250	7.50		103	70-130			
Surrogate: Bromofluorobenzene	0.601		0.500		120	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.492		0.500		98.3	70-130			
Surrogate: Toluene-d8	0.535		0.500		107	70-130			

## Matrix Spike (2333044-MS1)

Source: E308115-03

Prepared: 08/16/23 Analyzed: 08/17/23

Benzene	2.42	0.0250	2.50	ND	96.7	48-131			
Ethylbenzene	2.40	0.0250	2.50	ND	96.0	45-135			
Toluene	2.38	0.0250	2.50	ND	95.2	48-130			
o-Xylene	2.54	0.0250	2.50	ND	101	43-135			
p,m-Xylene	5.06	0.0500	5.00	ND	101	43-135			
Total Xylenes	7.60	0.0250	7.50	ND	101	43-135			
Surrogate: Bromofluorobenzene	0.606		0.500		121	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.471		0.500		94.2	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			

## Matrix Spike Dup (2333044-MSD1)

Source: E308115-03

Prepared: 08/16/23 Analyzed: 08/17/23

Benzene	2.42	0.0250	2.50	ND	96.9	48-131	0.248	23	
Ethylbenzene	2.46	0.0250	2.50	ND	98.4	45-135	2.53	27	
Toluene	2.44	0.0250	2.50	ND	97.5	48-130	2.35	24	
o-Xylene	2.58	0.0250	2.50	ND	103	43-135	1.86	27	
p,m-Xylene	5.16	0.0500	5.00	ND	103	43-135	1.94	27	
Total Xylenes	7.74	0.0250	7.50	ND	103	43-135	1.91	27	
Surrogate: Bromofluorobenzene	0.605		0.500		121	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.478		0.500		95.5	70-130			
Surrogate: Toluene-d8	0.524		0.500		105	70-130			



## QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 28 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 3:26:44PM

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2333044-BLK1)

Prepared: 08/16/23 Analyzed: 08/17/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.587		0.500		117	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.497		0.500		99.3	70-130			
Surrogate: Toluene-d8	0.536		0.500		107	70-130			

## LCS (2333044-BS2)

Prepared: 08/16/23 Analyzed: 08/17/23

Gasoline Range Organics (C6-C10)	54.5	20.0	50.0		109	70-130			
Surrogate: Bromofluorobenzene	0.598		0.500		120	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.471		0.500		94.2	70-130			
Surrogate: Toluene-d8	0.534		0.500		107	70-130			

## Matrix Spike (2333044-MS2)

Source: E308115-03

Prepared: 08/16/23 Analyzed: 08/17/23

Gasoline Range Organics (C6-C10)	53.5	20.0	50.0	ND	107	70-130			
Surrogate: Bromofluorobenzene	0.592		0.500		118	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.477		0.500		95.3	70-130			
Surrogate: Toluene-d8	0.537		0.500		107	70-130			

## Matrix Spike Dup (2333044-MSD2)

Source: E308115-03

Prepared: 08/16/23 Analyzed: 08/17/23

Gasoline Range Organics (C6-C10)	54.2	20.0	50.0	ND	108	70-130	1.19	20	
Surrogate: Bromofluorobenzene	0.593		0.500		119	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.472		0.500		94.4	70-130			
Surrogate: Toluene-d8	0.536		0.500		107	70-130			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 28 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 3:26:44PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2333057-BLK1) Prepared: 08/17/23 Analyzed: 08/18/23

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	49.0		50.0		97.9	50-200			

LCS (2333057-BS1) Prepared: 08/17/23 Analyzed: 08/18/23

Diesel Range Organics (C10-C28)	240	25.0	250		96.2	38-132			
Surrogate: n-Nonane	46.4		50.0		92.9	50-200			

Matrix Spike (2333057-MS1) Source: E308115-03 Prepared: 08/17/23 Analyzed: 08/18/23

Diesel Range Organics (C10-C28)	231	25.0	250	ND	92.2	38-132			
Surrogate: n-Nonane	40.0		50.0		80.1	50-200			

Matrix Spike Dup (2333057-MSD1) Source: E308115-03 Prepared: 08/17/23 Analyzed: 08/18/23

Diesel Range Organics (C10-C28)	236	25.0	250	ND	94.5	38-132	2.39	20	
Surrogate: n-Nonane	42.3		50.0		84.6	50-200			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 28 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 3:26:44PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2333063-BLK1)					Prepared: 08/17/23 Analyzed: 08/17/23				
Chloride	ND	20.0							
LCS (2333063-BS1)					Prepared: 08/17/23 Analyzed: 08/17/23				
Chloride	265	20.0	250		106	90-110			
Matrix Spike (2333063-MS1)					Source: E308112-01		Prepared: 08/17/23 Analyzed: 08/17/23		
Chloride	802	200	250	567	93.8	80-120			
Matrix Spike Dup (2333063-MSD1)					Source: E308112-01		Prepared: 08/17/23 Analyzed: 08/17/23		
Chloride	798	200	250	567	92.2	80-120	0.503	20	

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Ensolum, LLC	Project Name:	RDX Federal 28 #041	
3122 National Parks Hwy	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	08/22/23 15:26

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: Ensolum, LLC.		<b>Bill To</b>		<b>Lab Use Only</b>		<b>TAT</b>			<b>EPA Program</b>						
Project: RDX Federal 28 #041		Attention: Jim Raley		Lab WO# <b>E308115</b>		Job Number <b>01058-0007</b>		1D	2D	3D	Standard	CWA	SDWA		
Project Manager: Ashley Giovengo		Address: 5315 Buena Vista Dr									x				
Address: 3122 National Parks Hwy		City, State, Zip: Carlsbad NM, 88220											RCRA		
City, State, Zip: Carlsbad NM, 88220		Phone: (575)689-7597									State				
Phone: 575-988-0055		Email: jim.raley@dvn.com									NM	CO	UT	AZ	TX
Email: agiovengo@ensolum.com											x				
Report due by:											Remarks				

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	Remarks
13:00	8/14/2023	Soil	1 Jar	SS01 - 0'	1						X		
14:39	8/14/2023	Soil	1 Jar	SS02B - 0'	2						X		
14:13	8/14/2023	Soil	1 Jar	SS03A - 0'	3						X		
13:15	8/14/2023	Soil	1 Jar	SS04 - 0'	4						X		
13:25	8/14/2023	Soil	1 Jar	SS05 - 0'	5						X		
13:26	8/14/2023	Soil	1 Jar	SS06 - 0'	6						X		
13:28	8/14/2023	Soil	1 Jar	SS07 - 0'	7						X		
12:04	8/14/2023	Soil	1 Jar	PH02 - 3'	8						X		
12:12	8/14/2023	Soil	1 Jar	PH02 - 4'	9						X		Do not run unless PH02 - 3' is > 100TPH or 600 Cl
11:20	8/14/2023	Soil	1 Jar	PH01 - 2'	10						X		

**Additional Instructions:** Please CC: cburton@ensolum.com, agiovengo@ensolum.com, jim.raley@dvn.com, chamilton@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	<b>Lab Use Only</b> Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
	8/15/23	10:50am		8/15/23	1050	
	8/15/23	1045		8/15/23	1830	
	8/16/23	0130		8/16/23	8:05	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



envirotech

## Envirotech Analytical Laboratory

Printed: 8/16/2023 3:31:55PM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Ensolum, LLC	Date Received:	08/16/23 08:05	Work Order ID:	E308115
Phone:	(575) 988-0055	Date Logged In:	08/15/23 15:52	Logged In By:	Caitlin Mars
Email:	a.giovengo@ensolum.com	Due Date:	08/22/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

COC Remarks: E308115-09A Sample ID PH02-4 ( Do not run unless E308115-08A Sample ID PH02-3 is >100 TPH or 600 Cl )

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Ensolum, LLC

Project Name: RDX Federal 21 #042

Work Order: E308126

Job Number: 01058-0007

Received: 8/17/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/22/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 8/22/23

Ashley Giovengo  
3122 National Parks Hwy  
Carlsbad, NM 88220



Project Name: RDX Federal 21 #042  
Workorder: E308126  
Date Received: 8/17/2023 8:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/17/2023 8:00:00AM, under the Project Name: RDX Federal 21 #042.

The analytical test results summarized in this report with the Project Name: RDX Federal 21 #042 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

## Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
FS22 - 2'	5
FS23 - 2'	6
SW01 - 1'	7
SW03 - 1'	8
QC Summary Data	9
QC - Volatile Organics by EPA 8021B	9
QC - Nonhalogenated Organics by EPA 8015D - GRO	10
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	11
QC - Anions by EPA 300.0/9056A	12
Definitions and Notes	13
Chain of Custody etc.	14

Sample Summary

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported: 08/22/23 16:03
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS22 - 2'	E308126-01A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
FS23 - 2'	E308126-02A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
SW01 - 1'	E308126-03A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.
SW03 - 1'	E308126-04A	Soil	08/15/23	08/17/23	Glass Jar, 2 oz.



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:03:06PM

FS22 - 2'

E308126-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333052
Benzene	ND	0.0250	1	08/17/23	08/17/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/17/23	
Toluene	ND	0.0250	1	08/17/23	08/17/23	
o-Xylene	ND	0.0250	1	08/17/23	08/17/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/17/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/17/23	
Surrogate: 4-Bromochlorobenzene-PID	94.7 %	70-130		08/17/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333052
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/17/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.9 %	70-130		08/17/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333057
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/18/23	
Surrogate: n-Nonane	92.6 %	50-200		08/17/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333064
Chloride	113	20.0	1	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:03:06PM

FS23 - 2'

E308126-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333052
Benzene	ND	0.0250	1	08/17/23	08/17/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/17/23	
Toluene	ND	0.0250	1	08/17/23	08/17/23	
o-Xylene	ND	0.0250	1	08/17/23	08/17/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/17/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/17/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.6 %	70-130		08/17/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333052
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/17/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	89.6 %	70-130		08/17/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333057
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	94.7 %	50-200		08/17/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333064
Chloride	382	20.0	1	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:03:06PM

SW01 - 1'

E308126-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333052
Benzene	ND	0.0250	1	08/17/23	08/17/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/17/23	
Toluene	ND	0.0250	1	08/17/23	08/17/23	
o-Xylene	ND	0.0250	1	08/17/23	08/17/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/17/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/17/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	95.4 %	70-130		08/17/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333052
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/17/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.0 %	70-130		08/17/23	08/17/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333057
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	96.4 %	50-200		08/17/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333064
Chloride	220	20.0	1	08/17/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:03:06PM

SW03 - 1'

E308126-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333052
Benzene	ND	0.0250	1	08/17/23	08/18/23	
Ethylbenzene	ND	0.0250	1	08/17/23	08/18/23	
Toluene	ND	0.0250	1	08/17/23	08/18/23	
o-Xylene	ND	0.0250	1	08/17/23	08/18/23	
p,m-Xylene	ND	0.0500	1	08/17/23	08/18/23	
Total Xylenes	ND	0.0250	1	08/17/23	08/18/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.5 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333052
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/23	08/18/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	93.1 %	70-130		08/17/23	08/18/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2333057
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	92.0 %	50-200		08/17/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333064
Chloride	98.4	20.0	1	08/17/23	08/20/23	



## QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 4:03:06PM

## Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2333052-BLK1)

Prepared: 08/17/23 Analyzed: 08/17/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.59		8.00		94.9	70-130			

## LCS (2333052-BS1)

Prepared: 08/17/23 Analyzed: 08/17/23

Benzene	4.59	0.0250	5.00		91.8	70-130			
Ethylbenzene	4.58	0.0250	5.00		91.5	70-130			
Toluene	4.63	0.0250	5.00		92.6	70-130			
o-Xylene	4.61	0.0250	5.00		92.3	70-130			
p,m-Xylene	9.35	0.0500	10.0		93.5	70-130			
Total Xylenes	14.0	0.0250	15.0		93.1	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.59		8.00		94.8	70-130			

## Matrix Spike (2333052-MS1)

Source: E308121-02

Prepared: 08/17/23 Analyzed: 08/17/23

Benzene	5.10	0.0250	5.00	ND	102	54-133			
Ethylbenzene	5.08	0.0250	5.00	ND	102	61-133			
Toluene	5.14	0.0250	5.00	ND	103	61-130			
o-Xylene	5.11	0.0250	5.00	ND	102	63-131			
p,m-Xylene	10.4	0.0500	10.0	ND	104	63-131			
Total Xylenes	15.5	0.0250	15.0	ND	103	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.45		8.00		93.1	70-130			

## Matrix Spike Dup (2333052-MSD1)

Source: E308121-02

Prepared: 08/17/23 Analyzed: 08/17/23

Benzene	4.59	0.0250	5.00	ND	91.8	54-133	10.5	20	
Ethylbenzene	4.53	0.0250	5.00	ND	90.6	61-133	11.5	20	
Toluene	4.60	0.0250	5.00	ND	92.0	61-130	11.1	20	
o-Xylene	4.54	0.0250	5.00	ND	90.8	63-131	11.8	20	
p,m-Xylene	9.25	0.0500	10.0	ND	92.5	63-131	11.5	20	
Total Xylenes	13.8	0.0250	15.0	ND	91.9	63-131	11.6	20	
Surrogate: 4-Bromochlorobenzene-PID	7.51		8.00		93.9	70-130			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 4:03:06PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2333052-BLK1) Prepared: 08/17/23 Analyzed: 08/17/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.32		8.00		91.5	70-130			

LCS (2333052-BS2) Prepared: 08/17/23 Analyzed: 08/17/23

Gasoline Range Organics (C6-C10)	49.7	20.0	50.0		99.4	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.41		8.00		92.6	70-130			

Matrix Spike (2333052-MS2) Source: E308121-02 Prepared: 08/17/23 Analyzed: 08/17/23

Gasoline Range Organics (C6-C10)	47.7	20.0	50.0	ND	95.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.42		8.00		92.8	70-130			

Matrix Spike Dup (2333052-MSD2) Source: E308121-02 Prepared: 08/17/23 Analyzed: 08/17/23

Gasoline Range Organics (C6-C10)	50.4	20.0	50.0	ND	101	70-130	5.33	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.30		8.00		91.2	70-130			



## QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 4:03:06PM

## Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2333057-BLK1)

Prepared: 08/17/23 Analyzed: 08/18/23

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	49.0		50.0		97.9	50-200			

## LCS (2333057-BS1)

Prepared: 08/17/23 Analyzed: 08/18/23

Diesel Range Organics (C10-C28)	240	25.0	250		96.2	38-132			
Surrogate: n-Nonane	46.4		50.0		92.9	50-200			

## Matrix Spike (2333057-MS1)

Source: E308115-03

Prepared: 08/17/23 Analyzed: 08/18/23

Diesel Range Organics (C10-C28)	231	25.0	250	ND	92.2	38-132			
Surrogate: n-Nonane	40.0		50.0		80.1	50-200			

## Matrix Spike Dup (2333057-MSD1)

Source: E308115-03

Prepared: 08/17/23 Analyzed: 08/18/23

Diesel Range Organics (C10-C28)	236	25.0	250	ND	94.5	38-132	2.39	20	
Surrogate: n-Nonane	42.3		50.0		84.6	50-200			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 4:03:06PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2333064-BLK1)					Prepared: 08/17/23 Analyzed: 08/19/23				
Chloride	ND	20.0							
LCS (2333064-BS1)					Prepared: 08/17/23 Analyzed: 08/19/23				
Chloride	247	20.0	250		98.6	90-110			
Matrix Spike (2333064-MS1)					Source: E308119-01		Prepared: 08/17/23 Analyzed: 08/19/23		
Chloride	315	20.0	250	70.5	97.6	80-120			
Matrix Spike Dup (2333064-MSD1)					Source: E308119-01		Prepared: 08/17/23 Analyzed: 08/19/23		
Chloride	319	20.0	250	70.5	99.3	80-120	1.28	20	

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Ensolum, LLC	Project Name:	RDX Federal 21 #042	
3122 National Parks Hwy	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	08/22/23 16:03

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: Ensolum, LLC.				Bill To				Lab Use Only				TAT				EPA Program			
Project: RDX Federal 21 #042				Attention: Jim Raley				Lab WO#				1D				CWA			
Project Manager: Ashley Giovengo				Address: 5315 Buena Vista Dr				E308126				2D				SDWA			
Address: 3122 National Parks Hwy				City, State, Zip: Carlsbad NM, 88220				Job Number				3D				Standard			
City, State, Zip: Carlsbad NM, 88220				Phone: (575)689-7597				01058-0007				x				RCRA			
Phone: 575-988-0055				Email: jim.raley@dvn.com				Analysis and Method								State			
Email: agiovengo@ensolum.com																NM CO UT AZ TX			
Report due by:																x			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BDOC NM	GDOC TX	Remarks						
12:40	8/15/2023	Soil	1 Jar	FS22 - 2'	1						x								
12:43	8/15/2023	Soil	1 Jar	FS23 - 2'	2						x								
12:47	8/15/2023	Soil	1 Jar	SW01 - 1'	3						x								
13:48	8/15/2023	Soil	1 Jar	SW03 - 1'	4						x								
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, jim.raley@dvn.com, chamilton@ensolum.com																			
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.												Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.							
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Lab Use Only											
		08/16/23	1000			8-16-23	1000	Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N											
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	T1 T2 T3											
		8-16-23	1715			8/17/23	8:00	AVG Temp °C 4											
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other																			
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA																			
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																			

## Envirotech Analytical Laboratory

Printed: 8/17/2023 9:37:49AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Ensolum, LLC	Date Received:	08/17/23 08:00	Work Order ID:	E308126
Phone:	(575) 988-0055	Date Logged In:	08/16/23 17:05	Logged In By:	Caitlin Mars
Email:	a.giovengo@ensolum.com	Due Date:	08/23/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

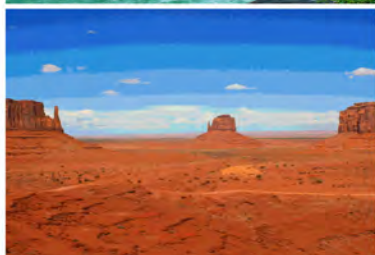
Date



envirotech Inc.

Report to:

Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Ensolum, LLC

Project Name: RDX Federal 21 #042

Work Order: E308135

Job Number: 01058-0007

Received: 8/18/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/22/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 8/22/23

Ashley Giovengo  
3122 National Parks Hwy  
Carlsbad, NM 88220



Project Name: RDX Federal 21 #042  
Workorder: E308135  
Date Received: 8/18/2023 8:15:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/18/2023 8:15:00AM, under the Project Name: RDX Federal 21 #042.

The analytical test results summarized in this report with the Project Name: RDX Federal 21 #042 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

## Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
FS24 - 4'	5
SW02 - 1'	6
QC Summary Data	7
QC - Volatile Organics by EPA 8021B	7
QC - Nonhalogenated Organics by EPA 8015D - GRO	8
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	9
QC - Anions by EPA 300.0/9056A	10
Definitions and Notes	11
Chain of Custody etc.	12

Sample Summary

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	08/22/23 16:07

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS24 - 4'	E308135-01A	Soil	08/16/23	08/18/23	Glass Jar, 2 oz.
SW02 - 1'	E308135-02A	Soil	08/16/23	08/18/23	Glass Jar, 2 oz.



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:07:13PM

FS24 - 4'

E308135-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333053
Benzene	ND	0.0250	1	08/18/23	08/19/23	
Ethylbenzene	ND	0.0250	1	08/18/23	08/19/23	
Toluene	ND	0.0250	1	08/18/23	08/19/23	
o-Xylene	ND	0.0250	1	08/18/23	08/19/23	
p,m-Xylene	ND	0.0500	1	08/18/23	08/19/23	
Total Xylenes	ND	0.0250	1	08/18/23	08/19/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	89.0 %	70-130		08/18/23	08/19/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333053
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/18/23	08/19/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	89.8 %	70-130		08/18/23	08/19/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2333075
Diesel Range Organics (C10-C28)	ND	25.0	1	08/18/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/18/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	86.5 %	50-200		08/18/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333077
Chloride	329	40.0	2	08/18/23	08/20/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/22/2023 4:07:13PM

SW02 - 1'

E308135-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333053
Benzene	ND	0.0250	1	08/18/23	08/19/23	
Ethylbenzene	ND	0.0250	1	08/18/23	08/19/23	
Toluene	ND	0.0250	1	08/18/23	08/19/23	
o-Xylene	ND	0.0250	1	08/18/23	08/19/23	
p,m-Xylene	ND	0.0500	1	08/18/23	08/19/23	
Total Xylenes	ND	0.0250	1	08/18/23	08/19/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.5 %	70-130		08/18/23	08/19/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2333053
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/18/23	08/19/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.0 %	70-130		08/18/23	08/19/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2333075
Diesel Range Organics (C10-C28)	ND	25.0	1	08/18/23	08/18/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/18/23	08/18/23	
<i>Surrogate: n-Nonane</i>						
	91.2 %	50-200		08/18/23	08/18/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2333077
Chloride	260	200	10	08/18/23	08/20/23	



## QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 4:07:13PM

## Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2333053-BLK1)

Prepared: 08/17/23 Analyzed: 08/18/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.57		8.00		94.6	70-130			

## LCS (2333053-BS1)

Prepared: 08/17/23 Analyzed: 08/18/23

Benzene	5.19	0.0250	5.00		104	70-130			
Ethylbenzene	5.12	0.0250	5.00		102	70-130			
Toluene	5.19	0.0250	5.00		104	70-130			
o-Xylene	5.12	0.0250	5.00		102	70-130			
p,m-Xylene	10.4	0.0500	10.0		104	70-130			
Total Xylenes	15.6	0.0250	15.0		104	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.62		8.00		95.2	70-130			

## Matrix Spike (2333053-MS1)

Source: E308128-01

Prepared: 08/17/23 Analyzed: 08/18/23

Benzene	4.94	0.0250	5.00	ND	98.8	54-133			
Ethylbenzene	6.66	0.0250	5.00	1.76	97.9	61-133			
Toluene	5.29	0.0250	5.00	0.284	100	61-130			
o-Xylene	7.57	0.0250	5.00	2.63	99.0	63-131			
p,m-Xylene	14.9	0.0500	10.0	5.16	97.3	63-131			
Total Xylenes	22.5	0.0250	15.0	7.78	97.8	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.40		8.00		92.5	70-130			

## Matrix Spike Dup (2333053-MSD1)

Source: E308128-01

Prepared: 08/17/23 Analyzed: 08/18/23

Benzene	5.02	0.0250	5.00	ND	100	54-133	1.60	20	
Ethylbenzene	6.72	0.0250	5.00	1.76	99.2	61-133	0.927	20	
Toluene	5.32	0.0250	5.00	0.284	101	61-130	0.476	20	
o-Xylene	7.56	0.0250	5.00	2.63	98.6	63-131	0.213	20	
p,m-Xylene	14.9	0.0500	10.0	5.16	97.3	63-131	0.0202	20	
Total Xylenes	22.4	0.0250	15.0	7.78	97.8	63-131	0.0586	20	
Surrogate: 4-Bromochlorobenzene-PID	7.05		8.00		88.1	70-130			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 4:07:13PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2333053-BLK1) Prepared: 08/17/23 Analyzed: 08/18/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.38		8.00		92.3	70-130			

LCS (2333053-BS2) Prepared: 08/17/23 Analyzed: 08/18/23

Gasoline Range Organics (C6-C10)	51.0	20.0	50.0		102	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.37		8.00		92.1	70-130			

Matrix Spike (2333053-MS2) Source: E308128-01 Prepared: 08/17/23 Analyzed: 08/18/23

Gasoline Range Organics (C6-C10)	189	20.0	50.0	114	150	70-130			M1
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.47		8.00		106	70-130			

Matrix Spike Dup (2333053-MSD2) Source: E308128-01 Prepared: 08/17/23 Analyzed: 08/18/23

Gasoline Range Organics (C6-C10)	180	20.0	50.0	114	132	70-130	4.75	20	M1
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.04		8.00		100	70-130			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 4:07:13PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2333075-BLK1) Prepared: 08/18/23 Analyzed: 08/18/23

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	47.3		50.0		94.6	50-200			

LCS (2333075-BS1) Prepared: 08/18/23 Analyzed: 08/18/23

Diesel Range Organics (C10-C28)	233	25.0	250		93.2	38-132			
Surrogate: n-Nonane	44.0		50.0		87.9	50-200			

Matrix Spike (2333075-MS1) Source: E308135-02 Prepared: 08/18/23 Analyzed: 08/18/23

Diesel Range Organics (C10-C28)	231	25.0	250	ND	92.6	38-132			
Surrogate: n-Nonane	42.1		50.0		84.2	50-200			

Matrix Spike Dup (2333075-MSD1) Source: E308135-02 Prepared: 08/18/23 Analyzed: 08/18/23

Diesel Range Organics (C10-C28)	233	25.0	250	ND	93.0	38-132	0.488	20	
Surrogate: n-Nonane	42.9		50.0		85.8	50-200			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/22/2023 4:07:13PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2333077-BLK1)					Prepared: 08/18/23 Analyzed: 08/19/23				
Chloride	ND	20.0							
LCS (2333077-BS1)					Prepared: 08/18/23 Analyzed: 08/19/23				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2333077-MS1)					Source: E308066-01		Prepared: 08/18/23 Analyzed: 08/19/23		
Chloride	273	20.0	250	ND	109	80-120			
Matrix Spike Dup (2333077-MSD1)					Source: E308066-01		Prepared: 08/18/23 Analyzed: 08/19/23		
Chloride	275	20.0	250	ND	110	80-120	0.434	20	

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Ensolum, LLC	Project Name:	RDX Federal 21 #042	
3122 National Parks Hwy	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	08/22/23 16:07

- M1 Matrix spike recovery was above acceptance limits. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

## Envirotech Analytical Laboratory

Printed: 8/18/2023 10:25:58AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Ensolum, LLC	Date Received:	08/18/23 08:15	Work Order ID:	E308135
Phone:	(575) 988-0055	Date Logged In:	08/17/23 16:28	Logged In By:	Caitlin Mars
Email:	a.giovengo@ensolum.com	Due Date:	08/24/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: na

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

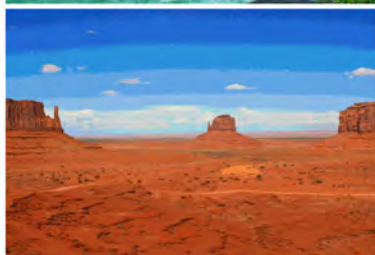
Date



envirotech Inc.

Report to:

Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Ensolum, LLC

Project Name: RDX Federal 21 #042

Work Order: E308145

Job Number: 01058-0007

Received: 8/18/2023

Revision: 2

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/25/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 8/25/23

Ashley Giovengo  
3122 National Parks Hwy  
Carlsbad, NM 88220



Project Name: RDX Federal 21 #042  
Workorder: E308145  
Date Received: 8/18/2023 1:45:00PM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/18/2023 1:45:00PM, under the Project Name: RDX Federal 21 #042.

The analytical test results summarized in this report with the Project Name: RDX Federal 21 #042 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

## Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
FS25 - 3'	5
FS26 - 3.5'	6
FS27 - 4'	7
SW04 - 2'	8
SW07 - 1'	9
QC Summary Data	10
QC - Volatile Organics by EPA 8021B	10
QC - Nonhalogenated Organics by EPA 8015D - GRO	11
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	12
QC - Anions by EPA 300.0/9056A	13
Definitions and Notes	14
Chain of Custody etc.	15

Sample Summary

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	08/25/23 13:04

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS25 - 3'	E308145-01A	Soil	08/17/23	08/18/23	Glass Jar, 2 oz.
FS26 - 3.5'	E308145-02A	Soil	08/17/23	08/18/23	Glass Jar, 2 oz.
FS27 - 4'	E308145-03A	Soil	08/17/23	08/18/23	Glass Jar, 2 oz.
SW04 - 2'	E308145-04A	Soil	08/17/23	08/18/23	Glass Jar, 2 oz.
SW07 - 1'	E308145-05A	Soil	08/17/23	08/18/23	Glass Jar, 2 oz.



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/25/2023 1:04:44PM

FS25 - 3'

E308145-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334014
Benzene	ND	0.0250	1	08/21/23	08/22/23	
Ethylbenzene	ND	0.0250	1	08/21/23	08/22/23	
Toluene	ND	0.0250	1	08/21/23	08/22/23	
o-Xylene	ND	0.0250	1	08/21/23	08/22/23	
p,m-Xylene	ND	0.0500	1	08/21/23	08/22/23	
Total Xylenes	ND	0.0250	1	08/21/23	08/22/23	
Surrogate: 4-Bromochlorobenzene-PID	89.7 %	70-130		08/21/23	08/22/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/21/23	08/22/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	87.1 %	70-130		08/21/23	08/22/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2334005
Diesel Range Organics (C10-C28)	ND	25.0	1	08/21/23	08/22/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/21/23	08/22/23	
Surrogate: n-Nonane	107 %	50-200		08/21/23	08/22/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334010
Chloride	447	20.0	1	08/21/23	08/22/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/25/2023 1:04:44PM

FS26 - 3.5'

E308145-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334014
Benzene	ND	0.0250	1	08/21/23	08/22/23	
Ethylbenzene	ND	0.0250	1	08/21/23	08/22/23	
Toluene	ND	0.0250	1	08/21/23	08/22/23	
o-Xylene	ND	0.0250	1	08/21/23	08/22/23	
p,m-Xylene	ND	0.0500	1	08/21/23	08/22/23	
Total Xylenes	ND	0.0250	1	08/21/23	08/22/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	89.9 %	70-130		08/21/23	08/22/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/21/23	08/22/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	87.8 %	70-130		08/21/23	08/22/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2334005
Diesel Range Organics (C10-C28)	ND	25.0	1	08/21/23	08/22/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/21/23	08/22/23	
<i>Surrogate: n-Nonane</i>						
	105 %	50-200		08/21/23	08/22/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334010
Chloride	364	20.0	1	08/21/23	08/22/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/25/2023 1:04:44PM

FS27 - 4'

E308145-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334014
Benzene	ND	0.0250	1	08/21/23	08/22/23	
Ethylbenzene	ND	0.0250	1	08/21/23	08/22/23	
Toluene	ND	0.0250	1	08/21/23	08/22/23	
o-Xylene	ND	0.0250	1	08/21/23	08/22/23	
p,m-Xylene	ND	0.0500	1	08/21/23	08/22/23	
Total Xylenes	ND	0.0250	1	08/21/23	08/22/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	89.9 %	70-130		08/21/23	08/22/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/21/23	08/22/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	87.3 %	70-130		08/21/23	08/22/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2334005
Diesel Range Organics (C10-C28)	ND	25.0	1	08/21/23	08/22/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/21/23	08/22/23	
<i>Surrogate: n-Nonane</i>						
	99.3 %	50-200		08/21/23	08/22/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334010
Chloride	392	20.0	1	08/21/23	08/22/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/25/2023 1:04:44PM

SW04 - 2'

E308145-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334014
Benzene	ND	0.0250	1	08/21/23	08/22/23	
Ethylbenzene	ND	0.0250	1	08/21/23	08/22/23	
Toluene	ND	0.0250	1	08/21/23	08/22/23	
o-Xylene	ND	0.0250	1	08/21/23	08/22/23	
p,m-Xylene	ND	0.0500	1	08/21/23	08/22/23	
Total Xylenes	ND	0.0250	1	08/21/23	08/22/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	89.6 %	70-130		08/21/23	08/22/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/21/23	08/22/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	86.6 %	70-130		08/21/23	08/22/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2334005
Diesel Range Organics (C10-C28)	ND	25.0	1	08/21/23	08/22/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/21/23	08/22/23	
<i>Surrogate: n-Nonane</i>						
	106 %	50-200		08/21/23	08/22/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334010
Chloride	38.2	20.0	1	08/21/23	08/22/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/25/2023 1:04:44PM

SW07 - 1'

E308145-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334014
Benzene	ND	0.0250	1	08/21/23	08/22/23	
Ethylbenzene	ND	0.0250	1	08/21/23	08/22/23	
Toluene	ND	0.0250	1	08/21/23	08/22/23	
o-Xylene	ND	0.0250	1	08/21/23	08/22/23	
p,m-Xylene	ND	0.0500	1	08/21/23	08/22/23	
Total Xylenes	ND	0.0250	1	08/21/23	08/22/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.2 %	70-130		08/21/23	08/22/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2334014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/21/23	08/22/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	85.9 %	70-130		08/21/23	08/22/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2334005
Diesel Range Organics (C10-C28)	ND	25.0	1	08/21/23	08/22/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/21/23	08/22/23	
<i>Surrogate: n-Nonane</i>						
	100 %	50-200		08/21/23	08/22/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334010
Chloride	50.5	20.0	1	08/21/23	08/22/23	



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/25/2023 1:04:44PM

Volatile Organics by EPA 8021B

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2334014-BLK1) Prepared: 08/21/23 Analyzed: 08/22/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.25		8.00		90.6	70-130			

LCS (2334014-BS1) Prepared: 08/21/23 Analyzed: 08/22/23

Benzene	4.55	0.0250	5.00		90.9	70-130			
Ethylbenzene	4.37	0.0250	5.00		87.4	70-130			
Toluene	4.54	0.0250	5.00		90.9	70-130			
o-Xylene	4.48	0.0250	5.00		89.5	70-130			
p,m-Xylene	9.05	0.0500	10.0		90.5	70-130			
Total Xylenes	13.5	0.0250	15.0		90.2	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.24		8.00		90.5	70-130			

Matrix Spike (2334014-MS1) Source: E308144-02 Prepared: 08/21/23 Analyzed: 08/22/23

Benzene	5.06	0.0250	5.00	ND	101	54-133			
Ethylbenzene	4.86	0.0250	5.00	ND	97.2	61-133			
Toluene	5.05	0.0250	5.00	ND	101	61-130			
o-Xylene	4.99	0.0250	5.00	ND	99.8	63-131			
p,m-Xylene	10.1	0.0500	10.0	ND	101	63-131			
Total Xylenes	15.1	0.0250	15.0	ND	100	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.38		8.00		92.3	70-130			

Matrix Spike Dup (2334014-MSD1) Source: E308144-02 Prepared: 08/21/23 Analyzed: 08/22/23

Benzene	4.85	0.0250	5.00	ND	97.1	54-133	4.14	20	
Ethylbenzene	4.65	0.0250	5.00	ND	93.0	61-133	4.48	20	
Toluene	4.85	0.0250	5.00	ND	96.9	61-130	4.19	20	
o-Xylene	4.77	0.0250	5.00	ND	95.4	63-131	4.46	20	
p,m-Xylene	9.63	0.0500	10.0	ND	96.3	63-131	4.37	20	
Total Xylenes	14.4	0.0250	15.0	ND	96.0	63-131	4.40	20	
Surrogate: 4-Bromochlorobenzene-PID	7.40		8.00		92.6	70-130			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/25/2023 1:04:44PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2334014-BLK1) Prepared: 08/21/23 Analyzed: 08/22/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.58		8.00		82.2	70-130			

LCS (2334014-BS2) Prepared: 08/21/23 Analyzed: 08/22/23

Gasoline Range Organics (C6-C10)	46.5	20.0	50.0		92.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.65		8.00		83.1	70-130			

Matrix Spike (2334014-MS2) Source: E308144-02 Prepared: 08/21/23 Analyzed: 08/22/23

Gasoline Range Organics (C6-C10)	50.4	20.0	50.0	ND	101	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.10		8.00		88.8	70-130			

Matrix Spike Dup (2334014-MSD2) Source: E308144-02 Prepared: 08/21/23 Analyzed: 08/22/23

Gasoline Range Organics (C6-C10)	50.6	20.0	50.0	ND	101	70-130	0.437	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.14		8.00		89.3	70-130			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/25/2023 1:04:44PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2334005-BLK1)					Prepared: 08/21/23 Analyzed: 08/22/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	51.2		50.0		102	50-200			

LCS (2334005-BS1)					Prepared: 08/21/23 Analyzed: 08/22/23				
Diesel Range Organics (C10-C28)	257	25.0	250		103	38-132			
Surrogate: n-Nonane	51.5		50.0		103	50-200			

Matrix Spike (2334005-MS1)					Source: E308144-01		Prepared: 08/21/23 Analyzed: 08/22/23		
Diesel Range Organics (C10-C28)	661	25.0	250	483	71.1	38-132			
Surrogate: n-Nonane	47.3		50.0		94.7	50-200			

Matrix Spike Dup (2334005-MSD1)					Source: E308144-01		Prepared: 08/21/23 Analyzed: 08/22/23		
Diesel Range Organics (C10-C28)	840	25.0	250	483	143	38-132	23.9	20	M2, R2
Surrogate: n-Nonane	56.0		50.0		112	50-200			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/25/2023 1:04:44PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2334010-BLK1)					Prepared: 08/21/23 Analyzed: 08/21/23				
Chloride	ND	20.0							
LCS (2334010-BS1)					Prepared: 08/21/23 Analyzed: 08/22/23				
Chloride	256	20.0	250		102	90-110			
Matrix Spike (2334010-MS1)					Source: E308147-01		Prepared: 08/21/23 Analyzed: 08/21/23		
Chloride	1140	20.0	250	959	70.8	80-120			M4
Matrix Spike Dup (2334010-MSD1)					Source: E308147-01		Prepared: 08/21/23 Analyzed: 08/21/23		
Chloride	1070	20.0	250	959	45.5	80-120	5.72	20	M4

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Ensolum, LLC	Project Name:	RDX Federal 21 #042	
3122 National Parks Hwy	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	08/25/23 13:04

- M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
- R2 The RPD exceeded the acceptance limit.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.





## Envirotech Analytical Laboratory

Printed: 8/21/2023 10:24:50AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Ensolum, LLC	Date Received:	08/18/23 13:45	Work Order ID:	E308145
Phone:	(575) 988-0055	Date Logged In:	08/18/23 15:28	Logged In By:	Caitlin Mars
Email:	a.giovengo@ensolum.com	Due Date:	08/25/23 17:00 (5 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

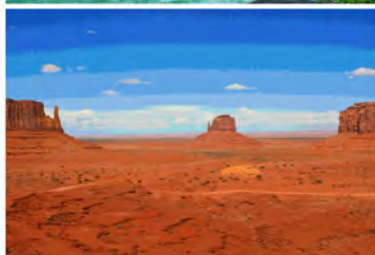
Date



envirotech Inc.

Report to:

Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Ensolum, LLC

Project Name: RDX Federal 21 #042

Work Order: E308158

Job Number: 01058-0007

Received: 8/22/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/28/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 8/28/23



Ashley Giovengo  
3122 National Parks Hwy  
Carlsbad, NM 88220

Project Name: RDX Federal 21 #042  
Workorder: E308158  
Date Received: 8/22/2023 8:15:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/22/2023 8:15:00AM, under the Project Name: RDX Federal 21 #042.

The analytical test results summarized in this report with the Project Name: RDX Federal 21 #042 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

## Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	5
Sample Data	6
FS28 - 0.5'	6
FS29 - 0.5'	7
FS30 - 0.5'	8
FS31 - 0.5'	9
FS32 - 0.5'	10
FS33 - 0.5'	11
FS34 - 0.5'	12
FS35 - 0.5'	13
FS36 - 0.5'	14
FS37 - 0.5'	15
FS38 - 0.5'	16
FS39 - 0.5'	17
FS40 - 0.5'	18
FS41 - 0.5'	19
FS42 - 0.5'	20
FS43 - 0.5'	21
FS44 - 0.5'	22
FS45 - 0.5'	23
FS46 - 0.5'	24
FS47 - 0.5'	25

## Table of Contents (continued)

FS48 - 0.5'	26
QC Summary Data	27
QC - Volatile Organic Compounds by EPA 8260B	27
QC - Volatile Organics by EPA 8021B	28
QC - Nonhalogenated Organics by EPA 8015D - GRO	29
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	31
QC - Anions by EPA 300.0/9056A	33
Definitions and Notes	35
Chain of Custody etc.	36

## Sample Summary

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovento	08/28/23 11:09

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS28 - 0.5'	E308158-01A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS29 - 0.5'	E308158-02A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS30 - 0.5'	E308158-03A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS31 - 0.5'	E308158-04A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS32 - 0.5'	E308158-05A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS33 - 0.5'	E308158-06A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS34 - 0.5'	E308158-07A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS35 - 0.5'	E308158-08A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS36 - 0.5'	E308158-09A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS37 - 0.5'	E308158-10A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS38 - 0.5'	E308158-11A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS39 - 0.5'	E308158-12A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS40 - 0.5'	E308158-13A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS41 - 0.5'	E308158-14A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS42 - 0.5'	E308158-15A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS43 - 0.5'	E308158-16A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS44 - 0.5'	E308158-17A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS45 - 0.5'	E308158-18A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS46 - 0.5'	E308158-19A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS47 - 0.5'	E308158-20A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.
FS48 - 0.5'	E308158-21A	Soil	08/18/23	08/22/23	Glass Jar, 2 oz.



## Sample Data

Ensolum, LLC 3122 National Parks Hwy Carlsbad NM, 88220	Project Name: RDX Federal 21 #042 Project Number: 01058-0007 Project Manager: Ashley Giovengo	<b>Reported:</b> 8/28/2023 11:09:34AM
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FS28 - 0.5'

E308158-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: IY		Batch: 2334032	
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	93.3 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: IY		Batch: 2334032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	93.6 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: JL		Batch: 2334040	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/23	08/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/24/23	
<i>Surrogate: n-Nonane</i>	93.2 %	50-200		08/24/23	08/24/23	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2334058	
Chloride	6600	400	20	08/24/23	08/24/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS29 - 0.5'

E308158-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2334032	
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.7 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2334032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.8 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: JL		Batch: 2334040	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/23	08/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/24/23	
<i>Surrogate: n-Nonane</i>						
	92.4 %	50-200		08/24/23	08/24/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2334058	
Chloride	4520	400	20	08/24/23	08/24/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS30 - 0.5'

E308158-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.8 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.0 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2334040
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/23	08/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/24/23	
<i>Surrogate: n-Nonane</i>						
	93.7 %	50-200		08/24/23	08/24/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334058
Chloride	1730	400	20	08/24/23	08/24/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS31 - 0.5'

E308158-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2334032	
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.2 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2334032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.5 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: JL		Batch: 2334040	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/23	08/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/24/23	
<i>Surrogate: n-Nonane</i>						
	93.9 %	50-200		08/24/23	08/24/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2334058	
Chloride	9110	400	20	08/24/23	08/24/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS32 - 0.5'

E308158-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.9 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.4 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2334040
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/23	08/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/24/23	
<i>Surrogate: n-Nonane</i>						
	97.1 %	50-200		08/24/23	08/24/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334058
Chloride	9990	400	20	08/24/23	08/24/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS33 - 0.5'

E308158-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.9 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.0 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2334040
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/23	08/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/24/23	
<i>Surrogate: n-Nonane</i>						
	95.5 %	50-200		08/24/23	08/24/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334058
Chloride	16400	1000	50	08/24/23	08/24/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS34 - 0.5'

E308158-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.5 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.1 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2334040
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/23	08/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/24/23	
<i>Surrogate: n-Nonane</i>						
	94.5 %	50-200		08/24/23	08/24/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334058
Chloride	6870	400	20	08/24/23	08/24/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS35 - 0.5'

E308158-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.9 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	97.2 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2334040
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/23	08/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/24/23	
<i>Surrogate: n-Nonane</i>						
	95.4 %	50-200		08/24/23	08/24/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334058
Chloride	4940	400	20	08/24/23	08/24/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS36 - 0.5'

E308158-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.7 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.7 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2334040
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/23	08/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/24/23	
<i>Surrogate: n-Nonane</i>						
	94.3 %	50-200		08/24/23	08/24/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334058
Chloride	3040	400	20	08/24/23	08/24/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS37 - 0.5'

E308158-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.0 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.8 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2334040
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/23	08/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/24/23	
<i>Surrogate: n-Nonane</i>						
	95.4 %	50-200		08/24/23	08/24/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334058
Chloride	2040	400	20	08/24/23	08/24/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS38 - 0.5'

E308158-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.0 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.2 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2334040
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/23	08/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/24/23	
<i>Surrogate: n-Nonane</i>						
	94.9 %	50-200		08/24/23	08/24/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334058
Chloride	2200	400	20	08/24/23	08/24/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS39 - 0.5'

E308158-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.0 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.0 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2334040
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/23	08/25/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/25/23	
<i>Surrogate: n-Nonane</i>						
	95.6 %	50-200		08/24/23	08/25/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334058
Chloride	5380	400	20	08/24/23	08/24/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS40 - 0.5'

E308158-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.3 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.8 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2334040
Diesel Range Organics (C10-C28)	27.0	25.0	1	08/24/23	08/25/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/25/23	
<i>Surrogate: n-Nonane</i>						
	94.3 %	50-200		08/24/23	08/25/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334058
Chloride	6730	400	20	08/24/23	08/24/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS41 - 0.5'

E308158-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2334032	
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.9 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2334032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.8 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: JL		Batch: 2334040	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/23	08/25/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/25/23	
<i>Surrogate: n-Nonane</i>						
	96.5 %	50-200		08/24/23	08/25/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2334058	
Chloride	4780	400	20	08/24/23	08/25/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS42 - 0.5'

E308158-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.3 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.1 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2334040
Diesel Range Organics (C10-C28)	30.8	25.0	1	08/24/23	08/25/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/25/23	
<i>Surrogate: n-Nonane</i>						
	94.7 %	50-200		08/24/23	08/25/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334058
Chloride	6110	400	20	08/24/23	08/25/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS43 - 0.5'

E308158-16

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.1 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.0 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2334040
Diesel Range Organics (C10-C28)	463	25.0	1	08/24/23	08/25/23	
Oil Range Organics (C28-C36)	337	50.0	1	08/24/23	08/25/23	
<i>Surrogate: n-Nonane</i>						
	97.4 %	50-200		08/24/23	08/25/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334058
Chloride	6500	400	20	08/24/23	08/25/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS44 - 0.5'

E308158-17

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.2 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.7 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2334040
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/23	08/25/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/25/23	
<i>Surrogate: n-Nonane</i>						
	93.1 %	50-200		08/24/23	08/25/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334058
Chloride	7630	400	20	08/24/23	08/25/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS45 - 0.5'

E308158-18

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.2 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	93.0 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2334040
Diesel Range Organics (C10-C28)	108	25.0	1	08/24/23	08/25/23	
Oil Range Organics (C28-C36)	78.5	50.0	1	08/24/23	08/25/23	
<i>Surrogate: n-Nonane</i>						
	96.1 %	50-200		08/24/23	08/25/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334058
Chloride	18600	1000	50	08/24/23	08/25/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS46 - 0.5'

E308158-19

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.1 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.7 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2334040
Diesel Range Organics (C10-C28)	94.3	25.0	1	08/24/23	08/25/23	
Oil Range Organics (C28-C36)	85.0	50.0	1	08/24/23	08/25/23	
<i>Surrogate: n-Nonane</i>						
	93.6 %	50-200		08/24/23	08/25/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334058
Chloride	538	40.0	2	08/24/23	08/25/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS47 - 0.5'

E308158-20

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Benzene	ND	0.0250	1	08/22/23	08/24/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/24/23	
Toluene	ND	0.0250	1	08/22/23	08/24/23	
o-Xylene	ND	0.0250	1	08/22/23	08/24/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/24/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/24/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.4 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334032
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/24/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.4 %	70-130		08/22/23	08/24/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2334040
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/23	08/25/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/23	08/25/23	
<i>Surrogate: n-Nonane</i>						
	94.5 %	50-200		08/24/23	08/25/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334058
Chloride	18700	400	20	08/24/23	08/25/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #042  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
8/28/2023 11:09:34AM

FS48 - 0.5'

E308158-21

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334021
Benzene	ND	0.0250	1	08/22/23	08/23/23	
Ethylbenzene	ND	0.0250	1	08/22/23	08/23/23	
Toluene	ND	0.0250	1	08/22/23	08/23/23	
o-Xylene	ND	0.0250	1	08/22/23	08/23/23	
p,m-Xylene	ND	0.0500	1	08/22/23	08/23/23	
Total Xylenes	ND	0.0250	1	08/22/23	08/23/23	
Surrogate: Bromofluorobenzene		115 %	70-130	08/22/23	08/23/23	
Surrogate: 1,2-Dichloroethane-d4		99.7 %	70-130	08/22/23	08/23/23	
Surrogate: Toluene-d8		107 %	70-130	08/22/23	08/23/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2334021
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/22/23	08/23/23	
Surrogate: Bromofluorobenzene		115 %	70-130	08/22/23	08/23/23	
Surrogate: 1,2-Dichloroethane-d4		99.7 %	70-130	08/22/23	08/23/23	
Surrogate: Toluene-d8		107 %	70-130	08/22/23	08/23/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2334041
Diesel Range Organics (C10-C28)	ND	25.0	1	08/23/23	08/24/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/23/23	08/24/23	
Surrogate: n-Nonane		94.1 %	50-200	08/23/23	08/24/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2334061
Chloride	2530	40.0	2	08/24/23	08/24/23	



## QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/28/2023 11:09:34AM

## Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

## Blank (2334021-BLK1)

Prepared: 08/22/23 Analyzed: 08/22/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.592		0.500		118	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.491		0.500		98.1	70-130			
Surrogate: Toluene-d8	0.534		0.500		107	70-130			

## LCS (2334021-BS1)

Prepared: 08/22/23 Analyzed: 08/22/23

Benzene	2.53	0.0250	2.50		101	70-130			
Ethylbenzene	2.47	0.0250	2.50		98.8	70-130			
Toluene	2.50	0.0250	2.50		100	70-130			
o-Xylene	2.61	0.0250	2.50		104	70-130			
p,m-Xylene	5.18	0.0500	5.00		104	70-130			
Total Xylenes	7.79	0.0250	7.50		104	70-130			
Surrogate: Bromofluorobenzene	0.594		0.500		119	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.487		0.500		97.4	70-130			
Surrogate: Toluene-d8	0.534		0.500		107	70-130			

## Matrix Spike (2334021-MS1)

Source: E308157-01

Prepared: 08/22/23 Analyzed: 08/22/23

Benzene	2.63	0.0250	2.50	ND	105	48-131			
Ethylbenzene	2.58	0.0250	2.50	ND	103	45-135			
Toluene	2.61	0.0250	2.50	ND	104	48-130			
o-Xylene	2.77	0.0250	2.50	ND	111	43-135			
p,m-Xylene	5.51	0.0500	5.00	ND	110	43-135			
Total Xylenes	8.28	0.0250	7.50	ND	110	43-135			
Surrogate: Bromofluorobenzene	0.599		0.500		120	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.494		0.500		98.7	70-130			
Surrogate: Toluene-d8	0.535		0.500		107	70-130			

## Matrix Spike Dup (2334021-MSD1)

Source: E308157-01

Prepared: 08/22/23 Analyzed: 08/22/23

Benzene	2.61	0.0250	2.50	ND	104	48-131	0.877	23	
Ethylbenzene	2.54	0.0250	2.50	ND	102	45-135	1.56	27	
Toluene	2.57	0.0250	2.50	ND	103	48-130	1.66	24	
o-Xylene	2.75	0.0250	2.50	ND	110	43-135	0.598	27	
p,m-Xylene	5.48	0.0500	5.00	ND	110	43-135	0.637	27	
Total Xylenes	8.23	0.0250	7.50	ND	110	43-135	0.624	27	
Surrogate: Bromofluorobenzene	0.613		0.500		123	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.492		0.500		98.3	70-130			
Surrogate: Toluene-d8	0.530		0.500		106	70-130			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/28/2023 11:09:34AM

Volatile Organics by EPA 8021B

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2334032-BLK1) Prepared: 08/22/23 Analyzed: 08/24/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.46		8.00		93.2	70-130			

LCS (2334032-BS1) Prepared: 08/22/23 Analyzed: 08/24/23

Benzene	4.88	0.0250	5.00		97.6	70-130			
Ethylbenzene	4.82	0.0250	5.00		96.3	70-130			
Toluene	4.88	0.0250	5.00		97.6	70-130			
o-Xylene	4.85	0.0250	5.00		97.0	70-130			
p,m-Xylene	9.79	0.0500	10.0		97.9	70-130			
Total Xylenes	14.6	0.0250	15.0		97.6	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.47		8.00		93.3	70-130			

Matrix Spike (2334032-MS1) Source: E308158-02 Prepared: 08/22/23 Analyzed: 08/24/23

Benzene	5.21	0.0250	5.00	ND	104	54-133			
Ethylbenzene	5.12	0.0250	5.00	ND	102	61-133			
Toluene	5.20	0.0250	5.00	ND	104	61-130			
o-Xylene	5.13	0.0250	5.00	ND	103	63-131			
p,m-Xylene	10.4	0.0500	10.0	ND	104	63-131			
Total Xylenes	15.5	0.0250	15.0	ND	104	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.47		8.00		93.3	70-130			

Matrix Spike Dup (2334032-MSD1) Source: E308158-02 Prepared: 08/22/23 Analyzed: 08/24/23

Benzene	5.02	0.0250	5.00	ND	100	54-133	3.67	20	
Ethylbenzene	4.96	0.0250	5.00	ND	99.2	61-133	3.13	20	
Toluene	5.01	0.0250	5.00	ND	100	61-130	3.70	20	
o-Xylene	4.95	0.0250	5.00	ND	99.1	63-131	3.57	20	
p,m-Xylene	10.1	0.0500	10.0	ND	101	63-131	3.36	20	
Total Xylenes	15.0	0.0250	15.0	ND	100	63-131	3.43	20	
Surrogate: 4-Bromochlorobenzene-PID	7.46		8.00		93.3	70-130			



## QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/28/2023 11:09:34AM

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2334021-BLK1)

Prepared: 08/22/23 Analyzed: 08/22/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.592		0.500		118	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.491		0.500		98.1	70-130			
Surrogate: Toluene-d8	0.534		0.500		107	70-130			

## LCS (2334021-BS2)

Prepared: 08/22/23 Analyzed: 08/22/23

Gasoline Range Organics (C6-C10)	50.7	20.0	50.0		101	70-130			
Surrogate: Bromofluorobenzene	0.602		0.500		120	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.490		0.500		97.9	70-130			
Surrogate: Toluene-d8	0.544		0.500		109	70-130			

## Matrix Spike (2334021-MS2)

Source: E308157-01

Prepared: 08/22/23 Analyzed: 08/22/23

Gasoline Range Organics (C6-C10)	50.6	20.0	50.0	ND	101	70-130			
Surrogate: Bromofluorobenzene	0.602		0.500		120	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.479		0.500		95.8	70-130			
Surrogate: Toluene-d8	0.545		0.500		109	70-130			

## Matrix Spike Dup (2334021-MSD2)

Source: E308157-01

Prepared: 08/22/23 Analyzed: 08/22/23

Gasoline Range Organics (C6-C10)	50.8	20.0	50.0	ND	102	70-130	0.325	20	
Surrogate: Bromofluorobenzene	0.589		0.500		118	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.478		0.500		95.5	70-130			
Surrogate: Toluene-d8	0.545		0.500		109	70-130			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/28/2023 11:09:34AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2334032-BLK1) Prepared: 08/22/23 Analyzed: 08/24/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.37		8.00		92.1	70-130			

LCS (2334032-BS2) Prepared: 08/22/23 Analyzed: 08/24/23

Gasoline Range Organics (C6-C10)	43.1	20.0	50.0		86.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.29		8.00		91.2	70-130			

Matrix Spike (2334032-MS2) Source: E308158-02 Prepared: 08/22/23 Analyzed: 08/24/23

Gasoline Range Organics (C6-C10)	46.5	20.0	50.0	ND	93.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.40		8.00		92.5	70-130			

Matrix Spike Dup (2334032-MSD2) Source: E308158-02 Prepared: 08/22/23 Analyzed: 08/24/23

Gasoline Range Organics (C6-C10)	48.6	20.0	50.0	ND	97.3	70-130	4.53	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.55		8.00		94.4	70-130			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/28/2023 11:09:34AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2334040-BLK1)					Prepared: 08/22/23 Analyzed: 08/24/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	50.9		50.0		102	50-200			

LCS (2334040-BS1)					Prepared: 08/22/23 Analyzed: 08/24/23				
Diesel Range Organics (C10-C28)	242	25.0	250		96.7	38-132			
Surrogate: n-Nonane	48.1		50.0		96.2	50-200			

Matrix Spike (2334040-MS1)					Source: E308158-06		Prepared: 08/22/23 Analyzed: 08/24/23		
Diesel Range Organics (C10-C28)	239	25.0	250	ND	95.7	38-132			
Surrogate: n-Nonane	44.6		50.0		89.3	50-200			

Matrix Spike Dup (2334040-MSD1)					Source: E308158-06		Prepared: 08/22/23 Analyzed: 08/24/23		
Diesel Range Organics (C10-C28)	242	25.0	250	ND	96.9	38-132	1.20	20	
Surrogate: n-Nonane	43.3		50.0		86.5	50-200			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/28/2023 11:09:34AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2334041-BLK1) Prepared: 08/23/23 Analyzed: 08/23/23

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	58.5		50.0		117	50-200			

LCS (2334041-BS1) Prepared: 08/23/23 Analyzed: 08/24/23

Diesel Range Organics (C10-C28)	248	25.0	250		99.4	38-132			
Surrogate: n-Nonane	48.2		50.0		96.3	50-200			

Matrix Spike (2334041-MS1) Source: E308155-23 Prepared: 08/23/23 Analyzed: 08/24/23

Diesel Range Organics (C10-C28)	245	25.0	250	ND	98.2	38-132			
Surrogate: n-Nonane	45.2		50.0		90.5	50-200			

Matrix Spike Dup (2334041-MSD1) Source: E308155-23 Prepared: 08/23/23 Analyzed: 08/24/23

Diesel Range Organics (C10-C28)	249	25.0	250	ND	99.7	38-132	1.54	20	
Surrogate: n-Nonane	47.6		50.0		95.2	50-200			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/28/2023 11:09:34AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2334058-BLK1)					Prepared: 08/24/23 Analyzed: 08/24/23				
Chloride	ND	20.0							
LCS (2334058-BS1)					Prepared: 08/24/23 Analyzed: 08/24/23				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2334058-MS1)					Source: E308158-01		Prepared: 08/24/23 Analyzed: 08/24/23		
Chloride	7270	400	250	6600	266	80-120			M4
Matrix Spike Dup (2334058-MSD1)					Source: E308158-01		Prepared: 08/24/23 Analyzed: 08/24/23		
Chloride	7900	400	250	6600	518	80-120	8.33	20	M4



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #042	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	8/28/2023 11:09:34AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2334061-BLK1)					Prepared: 08/24/23 Analyzed: 08/24/23				
Chloride	ND	20.0							
LCS (2334061-BS1)					Prepared: 08/24/23 Analyzed: 08/24/23				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2334061-MS1)					Source: E308158-21		Prepared: 08/24/23 Analyzed: 08/24/23		
Chloride	2640	40.0	250	2530	41.1	80-120			M4
Matrix Spike Dup (2334061-MSD1)					Source: E308158-21		Prepared: 08/24/23 Analyzed: 08/24/23		
Chloride	2900	40.0	250	2530	145	80-120	9.35	20	M4

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Ensolum, LLC	Project Name:	RDX Federal 21 #042	
3122 National Parks Hwy	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	08/28/23 11:09

- M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



## Project Information

## Chain of Custody

Client: Ensolum, LLC.		<b>Bill To</b>		<b>Lab Use Only</b>		<b>TAT</b>				<b>EPA Program</b>	
Project: RDX Federal 21 #042		Attention: Jim Raley		Lab WO#		1D	2D	3D	Standard	CWA	SDWA
Project Manager: Ashley Gioveno		Address: 5315 Buena Vista Dr		E 308158		01058-0007			x		
Address: 3122 National Parks Hwy		City, State, Zip: Carlsbad NM, 88220		Analysis and Method						RCRA	
City, State, Zip: Carlsbad NM, 88220		Phone: (575)689-7597								State	
Phone: 575-988-0055		Email: jim.raley@dm.com								NM CO UT AZ TX	
Email: agioveno@ensolum.com										x	
Report due by:											

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC	TX	GDGC	Remarks
10:40	8/18/2023	Soil	1 Jar	FS28 - 0.5'	1						X			
10:38	8/18/2023	Soil	1 Jar	FS29 - 0.5'	2						X			
10:36	8/18/2023	Soil	1 Jar	FS30 - 0.5'	3						X			
10:35	8/18/2023	Soil	1 Jar	FS31 - 0.5'	4						X			
10:30	8/18/2023	Soil	1 Jar	FS32 - 0.5'	5						X			
10:43	8/18/2023	Soil	1 Jar	FS33 - 0.5'	6						X			
10:46	8/18/2023	Soil	1 Jar	FS34 - 0.5'	7						X			
10:48	8/18/2023	Soil	1 Jar	FS35 - 0.5'	8						X			
10:49	8/18/2023	Soil	1 Jar	FS36 - 0.5'	9						X			
11:14	8/18/2023	Soil	1 Jar	FS37 - 0.5'	10						X			

**Additional Instructions:** Please CC: cburton@ensolum.com, agioveno@ensolum.com, jim.raley@dm.com, chamilton@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<i>Ed Burr</i>	8-21-23	7:11	<i>Michelle Gungl</i>	8-21-23	0711
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<i>Michelle Gungl</i>	8-21-23	1700	<i>Andrea Mesa</i>	8-21-23	1715
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<i>Andrea Mesa</i>	8-21-23	2345	<i>Carth Man</i>	8/21/23	8:15

Lab Use Only

Received on ice: Y/ N

T1 T2 T3

AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



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## Project Information

## Chain of Custody

Client: Ensolum, LLC.					<b>Bill To</b> Attention: Jim Raley Address: 5315 Buena Vista Dr City, State, Zip: Carlsbad NM, 88220 Phone: (575)689-7597 Email: jim.raley@dv.com Report due by:		Lab Use Only				TAT				EPA Program				
Project: RDX Federal 21 #042							Lab WO#	Job Number			1D	2D	3D	Standard	CWA	SDWA			
Project Manager: Ashley Giovento							E308158			01058-0007						x			
Address: 3122 National Parks Hwy							Analysis and Method										RCRA		
City, State, Zip: Carlsbad NM, 88220							TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0					BGDOC NM	GDOC TX		
Phone: 575-988-0055															State				
Email: agiovento@ensolum.com															NM	CO	UT	AZ	TX
Report due by:															x				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Remarks													
11:15	8/18/2023	Soil	1 Jar	FS38 - 0.5'	11														
11:17	8/18/2023	Soil	1 Jar	FS39 - 0.5'	12														
11:20	8/18/2023	Soil	1 Jar	FS40 - 0.5'	13														
11:22	8/18/2023	Soil	1 Jar	FS41 - 0.5'	14														
11:33	8/18/2023	Soil	1 Jar	FS42 - 0.5'	15														
11:30	8/18/2023	Soil	1 Jar	FS43 - 0.5'	16														
11:27	8/18/2023	Soil	1 Jar	FS44 - 0.5'	17														
11:27	8/18/2023	Soil	1 Jar	FS45 - 0.5'	18														
11:25	8/18/2023	Soil	1 Jar	FS46 - 0.5'	19														
11:15	8/18/2023	Soil	1 Jar	FS47 - 0.5'	20														
Additional Instructions: Please CC: cburton@ensolum.com, agiovento@ensolum.com, jim.raley@dv.com, chamilton@ensolum.com																			
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.											Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.								
Sampled by:											Lab Use Only								
Relinquished by: (Signature)			Date	Time	Received by: (Signature)			Date	Time	Received on ice: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N									
Michelle Camps			8-21-23	7:11	Michelle Camps			8-21-23	8:11										
Relinquished by: (Signature)			Date	Time	Received by: (Signature)			Date	Time	T1 T2 T3									
Michelle Camps			8-21-23	1700	Michelle Camps			8-21-23	1715										
Relinquished by: (Signature)			Date	Time	Received by: (Signature)			Date	Time	AVG Temp °C									
Michelle Camps			8-21-23	2345	Michelle Camps			8/22/23	8:15	4									
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other											Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA								
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																			



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Page 38 of 39

## Envirotech Analytical Laboratory

Printed: 8/22/2023 9:40:45AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Ensolum, LLC	Date Received:	08/22/23 08:15	Work Order ID:	E308158
Phone:	(575) 988-0055	Date Logged In:	08/22/23 09:09	Logged In By:	Caitlin Mars
Email:	a.giovengo@ensolum.com	Due Date:	08/28/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

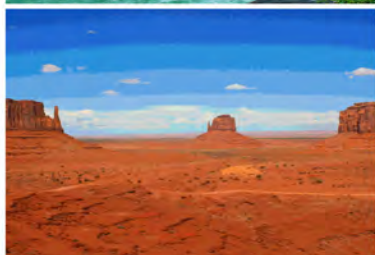
Date



envirotech Inc.

Report to:

Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Ensolum, LLC

Project Name: RDX Federal 21 #041

Work Order: E309054

Job Number: 01058-0007

Received: 9/8/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
9/13/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 9/13/23



Ashley Giovengo  
3122 National Parks Hwy  
Carlsbad, NM 88220

Project Name: RDX Federal 21 #041  
Workorder: E309054  
Date Received: 9/8/2023 6:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 9/8/2023 6:00:00AM, under the Project Name: RDX Federal 21 #041.

The analytical test results summarized in this report with the Project Name: RDX Federal 21 #041 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

## Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
FS07 - 4'	5
SW06 - 1'	6
QC Summary Data	7
QC - Volatile Organic Compounds by EPA 8260B	7
QC - Nonhalogenated Organics by EPA 8015D - GRO	8
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	9
QC - Anions by EPA 300.0/9056A	10
Definitions and Notes	11
Chain of Custody etc.	12

Sample Summary

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:  09/13/23 13:57
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS07 - 4'	E309054-01A	Soil	09/06/23	09/08/23	Glass Jar, 2 oz.
SW06 - 1'	E309054-02A	Soil	09/06/23	09/08/23	Glass Jar, 2 oz.



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
9/13/2023 1:57:35PM

FS07 - 4'

E309054-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2337004
Benzene	ND	0.0250	1	09/11/23	09/11/23	
Ethylbenzene	ND	0.0250	1	09/11/23	09/11/23	
Toluene	ND	0.0250	1	09/11/23	09/11/23	
o-Xylene	ND	0.0250	1	09/11/23	09/11/23	
p,m-Xylene	ND	0.0500	1	09/11/23	09/11/23	
Total Xylenes	ND	0.0250	1	09/11/23	09/11/23	
Surrogate: Bromofluorobenzene	105 %	70-130		09/11/23	09/11/23	
Surrogate: 1,2-Dichloroethane-d4	97.5 %	70-130		09/11/23	09/11/23	
Surrogate: Toluene-d8	101 %	70-130		09/11/23	09/11/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2337004
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/11/23	09/11/23	
Surrogate: Bromofluorobenzene	105 %	70-130		09/11/23	09/11/23	
Surrogate: 1,2-Dichloroethane-d4	97.5 %	70-130		09/11/23	09/11/23	
Surrogate: Toluene-d8	101 %	70-130		09/11/23	09/11/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2337027
Diesel Range Organics (C10-C28)	ND	25.0	1	09/12/23	09/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	09/12/23	09/13/23	
Surrogate: n-Nonane	112 %	50-200		09/12/23	09/13/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2337014
Chloride	353	200	10	09/11/23	09/12/23	



## Sample Data

Ensolum, LLC  
3122 National Parks Hwy  
Carlsbad NM, 88220

Project Name: RDX Federal 21 #041  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
9/13/2023 1:57:35PM

SW06 - 1'

E309054-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2337004
Benzene	ND	0.0250	1	09/11/23	09/12/23	
Ethylbenzene	ND	0.0250	1	09/11/23	09/12/23	
Toluene	ND	0.0250	1	09/11/23	09/12/23	
o-Xylene	ND	0.0250	1	09/11/23	09/12/23	
p,m-Xylene	ND	0.0500	1	09/11/23	09/12/23	
Total Xylenes	ND	0.0250	1	09/11/23	09/12/23	
Surrogate: Bromofluorobenzene		110 %	70-130	09/11/23	09/12/23	
Surrogate: 1,2-Dichloroethane-d4		96.3 %	70-130	09/11/23	09/12/23	
Surrogate: Toluene-d8		103 %	70-130	09/11/23	09/12/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2337004
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/11/23	09/12/23	
Surrogate: Bromofluorobenzene		110 %	70-130	09/11/23	09/12/23	
Surrogate: 1,2-Dichloroethane-d4		96.3 %	70-130	09/11/23	09/12/23	
Surrogate: Toluene-d8		103 %	70-130	09/11/23	09/12/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2337027
Diesel Range Organics (C10-C28)	ND	25.0	1	09/12/23	09/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	09/12/23	09/13/23	
Surrogate: n-Nonane		112 %	50-200	09/12/23	09/13/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2337014
Chloride	88.8	40.0	2	09/11/23	09/12/23	



## QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	9/13/2023 1:57:35PM

## Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

## Blank (2337004-BLK1)

Prepared: 09/11/23 Analyzed: 09/11/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.547		0.500		109	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.466		0.500		93.1	70-130			
Surrogate: Toluene-d8	0.513		0.500		103	70-130			

## LCS (2337004-BS1)

Prepared: 09/11/23 Analyzed: 09/11/23

Benzene	2.49	0.0250	2.50		99.4	70-130			
Ethylbenzene	2.57	0.0250	2.50		103	70-130			
Toluene	2.48	0.0250	2.50		99.2	70-130			
o-Xylene	2.67	0.0250	2.50		107	70-130			
p,m-Xylene	5.22	0.0500	5.00		104	70-130			
Total Xylenes	7.89	0.0250	7.50		105	70-130			
Surrogate: Bromofluorobenzene	0.527		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.484		0.500		96.7	70-130			
Surrogate: Toluene-d8	0.501		0.500		100	70-130			

## Matrix Spike (2337004-MS1)

Source: E309054-01

Prepared: 09/11/23 Analyzed: 09/11/23

Benzene	2.51	0.0250	2.50	ND	100	48-131			
Ethylbenzene	2.58	0.0250	2.50	ND	103	45-135			
Toluene	2.49	0.0250	2.50	ND	99.7	48-130			
o-Xylene	2.67	0.0250	2.50	ND	107	43-135			
p,m-Xylene	5.20	0.0500	5.00	ND	104	43-135			
Total Xylenes	7.87	0.0250	7.50	ND	105	43-135			
Surrogate: Bromofluorobenzene	0.536		0.500		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.468		0.500		93.6	70-130			
Surrogate: Toluene-d8	0.498		0.500		99.6	70-130			

## Matrix Spike Dup (2337004-MSD1)

Source: E309054-01

Prepared: 09/11/23 Analyzed: 09/12/23

Benzene	2.50	0.0250	2.50	ND	99.9	48-131	0.400	23	
Ethylbenzene	2.59	0.0250	2.50	ND	104	45-135	0.328	27	
Toluene	2.49	0.0250	2.50	ND	99.5	48-130	0.221	24	
o-Xylene	2.68	0.0250	2.50	ND	107	43-135	0.430	27	
p,m-Xylene	5.23	0.0500	5.00	ND	105	43-135	0.623	27	
Total Xylenes	7.91	0.0250	7.50	ND	105	43-135	0.558	27	
Surrogate: Bromofluorobenzene	0.532		0.500		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.478		0.500		95.5	70-130			
Surrogate: Toluene-d8	0.496		0.500		99.1	70-130			



## QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	9/13/2023 1:57:35PM

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2337004-BLK1)

Prepared: 09/11/23 Analyzed: 09/11/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.547		0.500		109	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.466		0.500		93.1	70-130			
Surrogate: Toluene-d8	0.513		0.500		103	70-130			

## LCS (2337004-BS2)

Prepared: 09/11/23 Analyzed: 09/11/23

Gasoline Range Organics (C6-C10)	53.3	20.0	50.0		107	70-130			
Surrogate: Bromofluorobenzene	0.536		0.500		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.494		0.500		98.8	70-130			
Surrogate: Toluene-d8	0.505		0.500		101	70-130			

## Matrix Spike (2337004-MS2)

Source: E309054-01

Prepared: 09/11/23 Analyzed: 09/12/23

Gasoline Range Organics (C6-C10)	56.4	20.0	50.0	ND	113	70-130			
Surrogate: Bromofluorobenzene	0.533		0.500		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.464		0.500		92.7	70-130			
Surrogate: Toluene-d8	0.508		0.500		102	70-130			

## Matrix Spike Dup (2337004-MSD2)

Source: E309054-01

Prepared: 09/11/23 Analyzed: 09/12/23

Gasoline Range Organics (C6-C10)	53.2	20.0	50.0	ND	106	70-130	5.78	20	
Surrogate: Bromofluorobenzene	0.531		0.500		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.482		0.500		96.4	70-130			
Surrogate: Toluene-d8	0.508		0.500		102	70-130			



## QC Summary Data

Ensolum, LLC 3122 National Parks Hwy Carlsbad NM, 88220	Project Name: RDX Federal 21 #041 Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 9/13/2023 1:57:35PM
---	---	----------------------------------

## Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2337027-BLK1)

Prepared: 09/12/23 Analyzed: 09/12/23

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	57.0		50.0		114	50-200			

## LCS (2337027-BS1)

Prepared: 09/12/23 Analyzed: 09/12/23

Diesel Range Organics (C10-C28)	274	25.0	250		109	38-132			
Surrogate: n-Nonane	54.2		50.0		108	50-200			

## Matrix Spike (2337027-MS1)

Source: E309091-03

Prepared: 09/12/23 Analyzed: 09/12/23

Diesel Range Organics (C10-C28)	277	25.0	250	ND	111	38-132			
Surrogate: n-Nonane	54.8		50.0		110	50-200			

## Matrix Spike Dup (2337027-MSD1)

Source: E309091-03

Prepared: 09/12/23 Analyzed: 09/12/23

Diesel Range Organics (C10-C28)	280	25.0	250	ND	112	38-132	1.15	20	
Surrogate: n-Nonane	56.9		50.0		114	50-200			



QC Summary Data

Ensolum, LLC	Project Name:	RDX Federal 21 #041	Reported:
3122 National Parks Hwy	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	9/13/2023 1:57:35PM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2337014-BLK1)					Prepared: 09/11/23 Analyzed: 09/11/23				
Chloride	ND	20.0							
LCS (2337014-BS1)					Prepared: 09/11/23 Analyzed: 09/11/23				
Chloride	254	20.0	250		102	90-110			
Matrix Spike (2337014-MS1)					Source: E309048-01		Prepared: 09/11/23 Analyzed: 09/11/23		
Chloride	248	20.0	250	ND	99.1	80-120			
Matrix Spike Dup (2337014-MSD1)					Source: E309048-01		Prepared: 09/11/23 Analyzed: 09/12/23		
Chloride	250	20.0	250	ND	99.8	80-120	0.756	20	

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Ensolum, LLC	Project Name:	RDX Federal 21 #041	
3122 National Parks Hwy	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Ashley Giovengo	09/13/23 13:57

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: Ensolum, LLC.		<b>Bill To</b>		<b>Lab Use Only</b>		<b>TAT</b>		<b>EPA Program</b>	
Project: RDX Federal 21 #041		Attention: Jim Raley		Lab WO#		1D 2D 3D		CWA SDWA	
Project Manager: Ashley Giovengo		Address: 5315 Buena Vista Dr		E309054 01058-0007		Standard		x	
Address: 3122 National Parks Hwy		City, State, Zip: Carlsbad NM, 88220		Analysis and Method				RCRA	
City, State, Zip: Carlsbad NM, 88220		Phone: (575)689-7597							
Phone: 575-988-0055		Email: jim.raley@dvn.com							
Email: agiovengo@ensolum.com									
Report due by:									

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDGC TX	Remarks
10:49	9/6/2023	Soil	1 Jar	FS07 - 4'	1						x		
11:30	9/6/2023	Soil	1 Jar	SW06 - 1'	2						x		

**Additional Instructions:** Please CC: cburton@ensolum.com, agiovengo@ensolum.com, jim.raley@dvn.com, chamilton@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.						Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.					
Sampled by:						Lab Use Only					
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Received on ice: Y/N					
<i>Ed Puerto</i>	9-7-23	7:08	<i>Michelle Gungl</i>	9-7-23	0708						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 T2 T3					
<i>Michelle Gungl</i>	9-7-23	1545	<i>Andrea Messo</i>	9-7-23	1815						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	AVG Temp °C					
<i>Andrea Messo</i>	9-8-23	2430	<i>Carla Man</i>	9-8-23	10:00	4					
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other						Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA					
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.											



envirotech

## Envirotech Analytical Laboratory

Printed: 9/8/2023 8:50:21AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Ensolum, LLC	Date Received:	09/08/23 06:00	Work Order ID:	E309054
Phone:	(575) 988-0055	Date Logged In:	09/07/23 16:34	Logged In By:	Alexa Michaels
Email:	a.giovengo@ensolum.com	Due Date:	09/14/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.



## APPENDIX F

### Email Correspondence

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**From:** [Raley, Jim](#)  
**To:** [Hamlet, Robert, EMNRD](#)  
**Cc:** [Bratcher, Michael, EMNRD](#); [Harimon, Jocelyn, EMNRD](#); [Ashley Giovengo](#)  
**Subject:** RE: [EXTERNAL] RE: Extension Request RDX 21-41 nAPP2305933356  
**Date:** Tuesday, August 1, 2023 8:05:47 AM  
**Attachments:** [image001.png](#)

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[ \*\*EXTERNAL EMAIL\*\* ]

Robert,

On February 20<sup>th</sup>, 2023 we had an flare fire which discharged approx. 1 bbl of fluids on to brush offsite. This site is on federal land. Prior to cleanup BLM requested a cultural survey as well as a biological survey for Scheers Beehive Cactus.

A 90 day extension was granted by NMOCD for August, 19<sup>th</sup> 2023.

On July 26<sup>th</sup>, 2023 formal permission to proceed with remediation was granted by the BLM after review of the cultural and biological survey results. WPX Energy will not be able to complete the remediation and reporting by the current due date.

WPX Energy respectfully asks for an additional extension to November 1<sup>st</sup>, 2023 to complete remediation and reporting for this incident, due to the delay imposed by required BLM cultural and biological surveys.

**Jim Raley** | Environmental Professional - Permian Basin  
5315 Buena Vista Dr., Carlsbad, NM 88220  
C: (575)689-7597 | [jim.ralej@dvn.com](mailto:jim.ralej@dvn.com)



---

**From:** Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>  
**Sent:** Friday, June 2, 2023 1:32 PM  
**To:** Raley, Jim <Jim.Raley@dvn.com>  
**Cc:** Jerrod.Inskeep@wescominc.com; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>  
**Subject:** RE: [EXTERNAL] RE: Extension Request RDX 21-41 nAPP2305933356

RE: Incident #**NAPP2305933356**

**Jim,**

Your request for an extension to **August 19th, 2023** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

**Robert Hamlet** • Environmental Specialist - Advanced  
Environmental Bureau  
EMNRD - Oil Conservation Division  
506 W. Texas Ave. | Artesia, NM 88210  
575.909.0302 | [robert.hamlet@state.nm.us](mailto:robert.hamlet@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>



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**From:** Buchanan, Michael, EMNRD <[Michael.Buchanan@emnrd.nm.gov](mailto:Michael.Buchanan@emnrd.nm.gov)>  
**Sent:** Friday, June 2, 2023 9:19 AM  
**To:** Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>  
**Cc:** Hamlet, Robert, EMNRD <[Robert.Hamlet@emnrd.nm.gov](mailto:Robert.Hamlet@emnrd.nm.gov)>  
**Subject:** FW: [EXTERNAL] RE: Extension Request RDX 21-41 nAPP2305933356

Good morning,

Please see request below

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**From:** Raley, Jim <[Jim.Raley@dyn.com](mailto:Jim.Raley@dyn.com)>  
**Sent:** Thursday, June 1, 2023 6:41 AM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** Jerrod Inskeep <[Jerrod.Inskeep@wescominc.com](mailto:Jerrod.Inskeep@wescominc.com)>  
**Subject:** [EXTERNAL] RE: Extension Request RDX 21-41 nAPP2305933356

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

District II NMOCD,

I have not gotten a response on this extension request. However, as stated due to BLM request for a threatened plant survey, we are forced to extend this project.

Please let me know if you have any concerns.

**Jim Raley** | Environmental Professional - Permian Basin  
5315 Buena Vista Dr., Carlsbad, NM 88220  
C: (575)689-7597 | [jim.rale@dyn.com](mailto:jim.rale@dyn.com)



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**From:** Raley, Jim  
**Sent:** Tuesday, May 9, 2023 2:11 PM  
**To:** [OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)  
**Cc:** Jerrod Inskeep <[Jerrod.Inskeep@wescominc.com](mailto:Jerrod.Inskeep@wescominc.com)>  
**Subject:** Extension Request RDX 21-41 nAPP2305933356

District II NMOCD,

On 02/20/2023 we had a flare burp that discharged approx. ½ bbl of fluids to the pasture area at the RDX 21-41 pad. A small fire developed at the base of the flare which made this incident reportable. Remediation would require assessment and possible removal of soils from around the base of the flare and out into the pasture area, the surface is federal BLM land. A map of the spill area was submitted to BLM along with a Sundry request asking for permission to evaluate and remove impacted soils. BLM responded that a survey would be needed to identify any threatened species of Scheers Beehive Cactus, before we could proceed. An outside consultant has been secured to conduct this survey and communicate the findings to BLM before we proceed. \

To be able to conduct this survey will push the remediation past 90 days. WPX Energy respectfully requests a 90 day extension to August 19<sup>th</sup>, 2023, to comply with BLM request.

nAPP2305933356  
RDX 21-41  
30-015-41269

**Jim Raley** | Environmental Professional - Permian Basin  
5315 Buena Vista Dr., Carlsbad, NM 88220  
C: (575)689-7597 | [jim.ralej@devon.com](mailto:jim.ralej@devon.com)



Confidentiality Warning: This message and any attachments are intended only for the use of the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation or other use of all or any portion of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system.

**From:** [Ashley Giovengo](#)  
**To:** [Enviro, OCD, EMNRD](#); [Morgan, Crisha A](#)  
**Cc:** [Raley, Jim](#); [Chad Hamilton](#); [Cole Burton](#)  
**Subject:** 48-hour Confirmation Sampling Notification Email - RDX Federal 21 #041 & RDX Federal 21 #042 - Incident Numbers nAPP2305933356 & nAPP2320173651  
**Date:** Friday, August 11, 2023 7:59:26 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)

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Hello,

We intend to collect confirmation samples at Devon Energy's RDX Federal 21 #041 and RDX Federal 21 #042 site (nAPP2305933356 & nAPP2320173651) on Tuesday, August 15, 2023, at 09:00 am MST.

Please let us know if you plan to be onsite to oversee the sampling.

Thanks,



**Ashley Giovengo**

Senior Engineer

575-988-0055

**Ensolum, LLC**

in f 

**From:** [Ashley Giovengo](#)  
**To:** [Enviro, OCD, EMNRD](#); [Morgan, Crisha A](#)  
**Cc:** [Raley, Jim](#); [Chad Hamilton](#); [Cole Burton](#)  
**Subject:** RE: 48-hour Confirmation Sampling Notification Email - RDX Federal 21 #041 & RDX Federal 21 #042 - Incident Numbers nAPP2305933356 & nAPP2320173651  
**Date:** Tuesday, August 15, 2023 1:15:54 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)

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Hello All,

Please extend the confirmation sampling notification to include sampling conducted on Wednesday and Thursday (08/16 thru 08/17) at the RDX Federal 21 #041 and RDX Federal 21 #042 (nAPP2305933356 & nAPP2320173651) Site.

Thanks,



**Ashley Giovengo**

Senior Engineer

575-988-0055

**Ensolum, LLC**

in f 

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**From:** Ashley Giovengo  
**Sent:** Friday, August 11, 2023 7:59 AM  
**To:** Enviro, OCD, EMNRD <ocd.enviro@emnrd.nm.gov>; Morgan, Crisha A <camorgan@blm.gov>  
**Cc:** Raley, Jim <jim.ralej@dmn.com>; Chad Hamilton <chamilton@ensolum.com>; Cole Burton <cburton@ensolum.com>  
**Subject:** 48-hour Confirmation Sampling Notification Email - RDX Federal 21 #041 & RDX Federal 21 #042 - Incident Numbers nAPP2305933356 & nAPP2320173651

Hello,

We intend to collect confirmation samples at Devon Energy's RDX Federal 21 #041 and RDX Federal 21 #042 site (nAPP2305933356 & nAPP2320173651) on Tuesday, August 15, 2023, at 09:00 am MST.

Please let us know if you plan to be onsite to oversee the sampling.

Thanks,



**Ashley Giovengo**

Senior Engineer

575-988-0055

**Ensolum, LLC**

in f 

**From:** [Ashley Giovengo](#)  
**To:** [Enviro, OCD, EMNRD](#); [Morgan, Crisha A](#)  
**Cc:** [Raley, Jim](#); [Chad Hamilton](#); [Cole Burton](#)  
**Subject:** 48-hour Confirmation Sampling Notification Email - RDX Federal 21 #041 & RDX Federal 21 #042 - Incident Numbers nAPP2305933356 & nAPP2320173651  
**Date:** Tuesday, September 5, 2023 3:39:23 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)

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Hello,

We intend to re-collect 2 confirmation samples at Devon Energy's RDX Federal 21 #041 and RDX Federal 21 #042 site (nAPP2305933356 & nAPP2320173651) on Wednesday, September 06, 2023, at 09:00 am MST.

Please let us know if you plan to be onsite to oversee the sampling.

Thanks,



**Ashley Giovengo**

Senior Engineer

575-988-0055

**Ensolum, LLC**

in f 

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico  
Energy, Minerals and Natural Resources  
Oil Conservation Division  
1220 S. St Francis Dr.  
Santa Fe, NM 87505

CONDITIONS  
  
Action 269689

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 269689
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	This Remediation Closure Report is approved. Areas reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as they are no longer reasonably needed. A report for reclamation and revegetation including pictures of the contoured backfilled excavation surface and a thorough discussion on reseeding mixture, vegetation ratio, timelines, etc., will need to be submitted and approved prior to this incident receiving the final status of "Restoration Complete".	3/11/2024