



October 9, 2024

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

**Re: Remediation Work Plan
Young Deep SWD
Incident Number nAPP2412026782
Lea County, New Mexico**

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Matador Production Company (Matador), has prepared this *Remediation Work Plan* (RWP) to document assessment and soil sampling activities performed at the Young Deep SWD (Site) in Unit L, Section 10, Township 18 South, Range 32 East, in Lea County, New Mexico (Figure 1). The purpose of the Site assessment and soil sampling activities was to address impacted soil resulting from a release of produced water at the Site. Devon is submitting this RWP, describing analytical results from delineation soil sampling and proposing excavation of the impacted soil.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Lea County, New Mexico (32.7665°, -103.76103°) and is associated with oil and gas exploration and production operations on private land. On April 28, 2024, the load line connecting the produced water storage tanks began leaking, resulting in the release of 117 barrels (bbls) of produced water; 70 bbls were recovered. The release impacted an off-pad area approximately 1,803 square feet in size and an on-pad area measuring 2,945 square feet. Matador reported the release to the New Mexico Oil Conservation Division (NMOCD) via the NMOCD web portal on April 29, 2024. The release was assigned Incident Number nAPP2412026782.

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 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on the initial C-141 application subsection, Site Characterization. Potential Site receptors are identified on Figure 1.

The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well CP 2001 POD 1, with depth to groundwater documented as greater than 55 feet below ground surface (bgs). The well was a soil boring drilled to assess depth to groundwater beneath the Site and was advanced approximately 690 feet southwest of the spill area and measured on July 16, 2024. All wells used to establish depth to groundwater are depicted on Figure 1 and the referenced well records are included in Appendix A. The closest continuously flowing or significant watercourse to the Site is an intermittent dry wash, located approximately 0.82 miles southeast 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 (low potential karst designation area). Site receptors are identified in Figure 1.

Based on the results of the Site Characterization, specifically the depth to groundwater, 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: 10,000 mg/kg

Per 19.15.29.13 NMAC, reclamation of the off-pad release will meet the requirement for a minimum of 4 feet of non-waste containing, uncontaminated earthen material with TPH concentrations less than 100 mg/kg and chloride concentrations less than 600 mg/kg. The release extent and well pad are depicted on Figure 2.

SITE ASSESSMENT ACTIVITIES

Multiple sampling events occurred to characterize and delineate soil affected by the release. Subsurface sampling was complicated by the presence of hard caliche which proved difficult to sample and recover. On May 15, 2024 and May 16, 2024, Ensolum personnel were onsite to evaluate the release extent and to conduct preliminary soil sampling and delineation activities. Soil samples (SS01 through SS05) were collected at ground surface to verify the lateral extent of the release area. Three boreholes (BH01 through BH03) were advanced within the release extent to sample subsurface soil and verify the vertical extent of the release. The delineation soil sample locations are depicted on Figure 2.

Ensolum conducted additional investigation into the subsurface with the use of a trackhoe and trailer drill. On June 17, 2024, boreholes BH01 and BH02 were deepened via trackhoe. Borehole BH01 was advanced from 16 feet to 20 feet bgs, and borehole BH02 was advanced from 2 feet to a depth of 19 feet bgs before encountering refusal. On July 10, 2024, Ensolum utilized a trailer drill to advance borehole BH01 to a final depth of 24 feet bgs. Ensolum collected an additional lateral sample from the ground surface (SS03A) to laterally delineate to the reclamation requirement.

Discrete soil samples from the ground surface and approximately every 2 feet in the boreholes were field screened for chloride utilizing Hach® chloride QuanTab® test strips and the Mohr titration method and TPH utilizing a PetroFLAG® Soil Analyzer System. Field screening results and observations for the boreholes were logged on lithologic/soil sampling logs, which are included in Appendix B. A photographic log of Site assessment and delineation soil sampling activities is provided in Appendix C.

The delineation 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 Laboratory Analysis (Envirotech) in Farmington, New Mexico, for analysis of the following constituents 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. Based on the field screening and laboratory analytical results, additional delineation sampling was warranted.

On September 27, 2024, Ensolum personnel returned to the Site to further evaluate impacted areas at the Site and attempt to delineate to the strictest Closure Criteria. Six potholes, PH01 through PH06, were advanced with a backhoe, and one borehole, BH04, was advanced with a hand auger to collect subsurface samples. PH01, PH02, and PH05 were advanced to 2 feet bgs, PH03 was advanced to 1-foot bgs, PH04 was advanced to 3 feet bgs, and PH06 reached 15 feet bgs. BH04 was advanced manually to 3 feet bgs, then deepened to 10.5 feet bgs with the backhoe. One sample, SS05A, was collected at the ground surface to laterally delineate to the reclamation requirement. Locations of all potholes and delineation samples are depicted on Figure 2.

LABORATORY ANALYTICAL RESULTS

Vertical delineation of the release extent to the Closure Criteria was achieved by samples collected in the boreholes. Laboratory analytical results from delineation samples indicate that chloride and TPH concentrations in soil within the release extent exceed the Closure Criteria at the ground surface to approximately 2 feet bgs in most areas. The area around borehole BH02 contained a sample from 4 feet bgs that contained elevated TPH. Samples from borehole BH03 vertically delineate impacted soil off pad to the reclamation requirement near 2 feet bgs.

The release extent, as it relates to the reclamation requirement, is delineated laterally to the west by SS03A and to the east by samples SS02, SS04, and SS05A. Samples collected from potholes east of the release helped constrain lateral delineation to the Closure Criteria on-pad.

Two outliers were identified. One on-pad area near PH06 was characterized by elevated TPH and chloride concentrations deeper in the subsurface. Similarly, off-pad soil boring BH04 contained samples in the top four feet of the subsurface with chloride concentrations exceeding the reclamation requirement.

PROPOSED REMEDIATION WORK PLAN

Matador proposes to complete excavation activities at the Site according to the following actions:

- Excavate the top 1 to 2 feet of soil from the of the release area and address deeper impacts as required. An estimated 1,624 cubic yards of impacted soil will require excavation. This work will include addressing the deeper impacts identified in the subsurface at PH06. See Figure 3 for the excavation dig plan, which demonstrates expected depths of the excavation. Impacted soil and waste containing soil will be transferred to an approved landfill facility for disposal.
- Areas on pad will be excavated until soil samples meet Closure Criteria, while areas off-pad will be excavated until confirmation samples indicate that no waste-containing soil exists in the top four feet.
- Matador respectfully requests a confirmation sampling variance at a frequency of one five-point composite soil sample every 400 square feet from the floor of the excavation and at a frequency of every 200 square feet from the sidewalls of the excavation. Based on the areal extent of the off-pad excavation area, the variance request will be equally protective of human health, the environment, and depth to ground water is reasonably estimated to be greater than 55 feet bgs, there are no other sensitive receptors in the vicinity of the Site. Therefore, this variance is believed to be equally protective of human health, the environment, and groundwater.
- Matador will address the potential historical release identified off pad near BH04 by excavating soil in this area until the floor and sidewalls meet the reclamation requirement and confirm waste-containing soil has been removed. Matador requests a similar variance to collect confirmation samples every 400 square feet from the floor of the excavation and at a frequency of every 200 square feet from the sidewalls of the excavation.

- The excavation will be backfilled and recontoured to match pre-existing conditions and the off-pad areas will be reseeded with a seed mixture approved by the landowner.

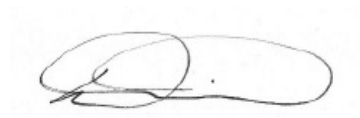
Matador will complete the proposed excavation and soil sampling activities within 180 days of the date of approval of this RWP by the NMOCD.

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

Sincerely,
Ensolum, LLC



Ashley Giovengo
Senior Scientist



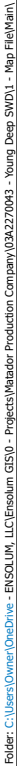
Daniel R. Moir, PG (licensed in WY & TX)
Senior Managing Geologist

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Excavation Dig Plan
Table 1	Soil Sample Analytical Results (Delineation Soil Samples)
Appendix A	Well Log and Record
Appendix B	Lithologic Soil Sampling Logs
Appendix C	Photographic Log
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	NMOCD Notifications



FIGURES

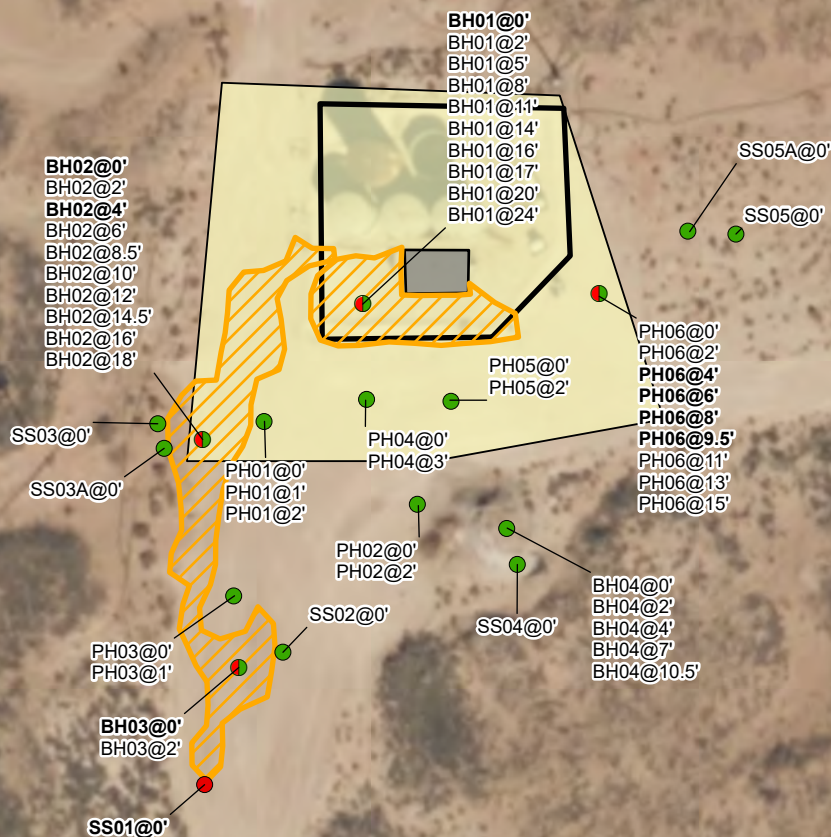


Unit L, Section 10, Township 18S, Range 32E
Lea County, New Mexico

1

Legend

- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Previously Exceeding Closure Criteria
- Delineation Soil Sample with Concentrations Exceeding Closure Criteria
- Release Extent
- Containment Area
- Production Equipment
- On Pad Area



Notes:
 Sample ID @ Depth Below Ground Surface.
 Samples in bold indicate sample exceeded applicable closure criteria.

0 15 30 60 90 120
 Feet

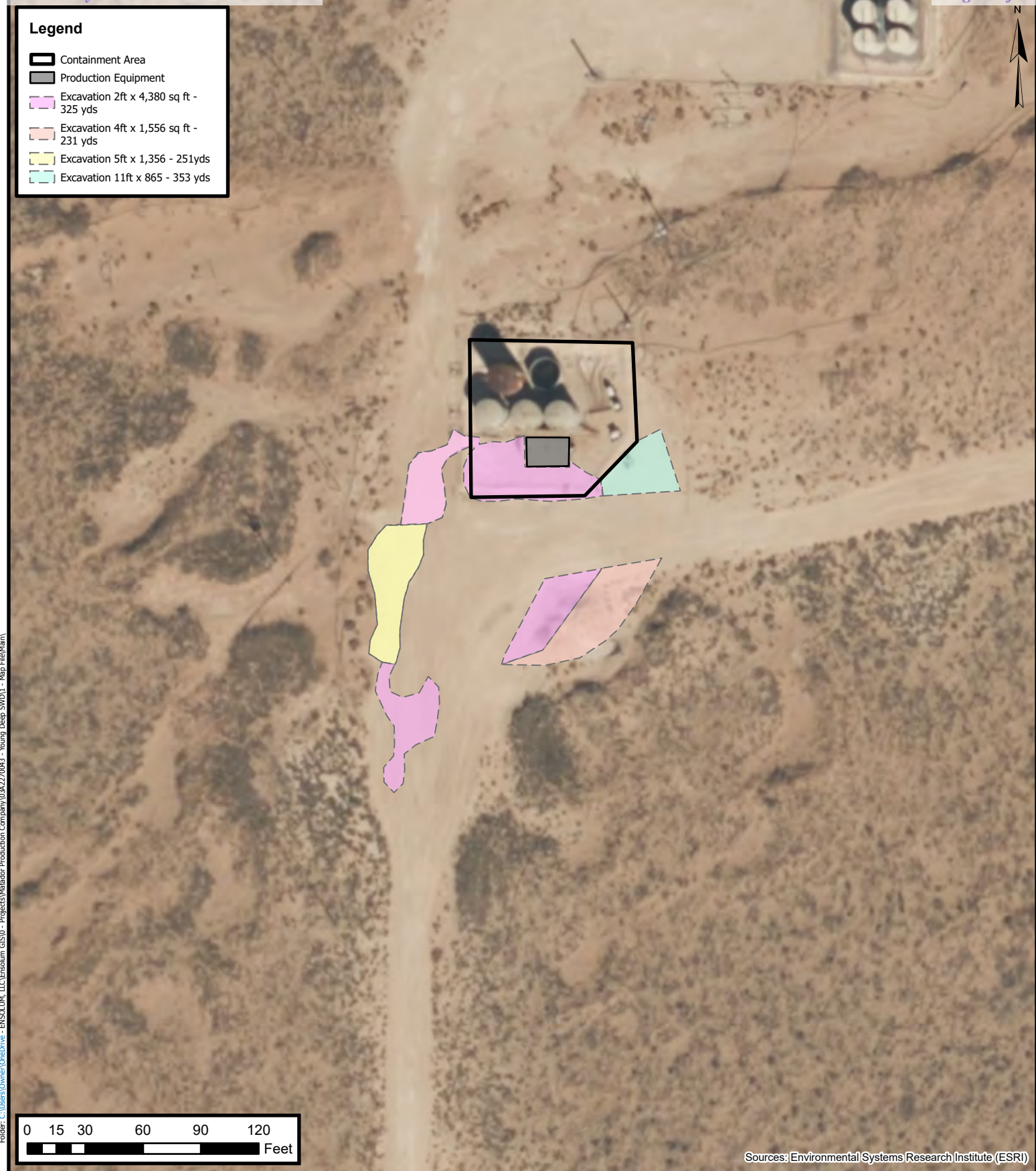
Sources: Environmental Systems Research Institute (ESRI)



Delineation Soil Sample Locations

Matador Production Company
 Young Deep SWD
 Incident Number: nAPP2412026782
 Unit L, Section 10, Township 18S, Range 32E
 Lea County, New Mexico

FIGURE
2



ENSOLUM
Environmental, Engineering and
Hydrogeologic Consultants

Excavation Dig Plan
Matador Production Company
Young Deep SWD
Incident Number: nAPP2412026782
Unit L, Section 10, Township 18S, Range 32E
Lea County, New Mexico

FIGURE
3



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Young Deep SWD
 Matador Production Company
 Lea County, New Mexico

Sample Designation	Date	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	10,000
Delineation Soil Samples										
SS01	5/15/2024	0	<0.0250	<0.0250	<20.0	1,310	1,260	1,310	2,570	81.8
SS02	5/15/2024	0	<0.0250	<0.0250	<20.0	33.9	<50.0	33.9	33.9	34.2
SS03	5/15/2024	0	<0.0250	<0.0250	<20.0	243	437	243	680	38.1
SS03A	6/17/2024	0	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SS04	5/15/2024	0	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SS05	5/15/2024	0	<0.0250	<0.0250	<20.0	56.6	128	56.6	184.6	480
SS05A	9/27/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	224
BH01	5/16/2024	0	0.839	1.83	<20.0	121	70	121	191	22,500
BH01	5/16/2024	2	<0.0250	<0.0250	<20.0	257	<50.0	257	257	1,420
BH01	5/16/2024	5	<0.0250	<0.0250	<20.0	45.2	<50.0	45.2	45.2	1,880
BH01	5/16/2024	8	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	3,530
BH01	5/16/2024	11	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	4,720
BH01	5/16/2024	14	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	4,420
BH01	5/16/2024	16	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	4,670
BH01	6/17/2024	17	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	625
BH01	6/17/2024	20	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	1,230
BH01	7/10/2024	24	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	102
BH02	5/16/2024	0	<0.0250	<0.0500	<20.0	8,300	5,800	8,300	14,100	4,160
BH02	5/16/2024	2	<0.0250	<0.0500	<20.0	757	1,390	757	2,147	57
BH02	6/17/2024	4	<0.0250	<0.0500	<20.0	2,024	1,710	2,040	3,734	584
BH02	6/17/2024	6	<0.0250	<0.0500	<20.0	89.9	119	89.9	209	388
BH02	6/17/2024	8.5	<0.0250	<0.0500	<20.0	54	56	54	110	434
BH02	6/17/2024	10	<0.0250	<0.0500	<20.0	83.6	156	83.6	240	686
BH02	6/17/2024	12	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<20.0	593
BH02	6/17/2024	14.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<20.0	509
BH02	6/17/2024	16	<0.0250	<0.0500	<20.0	88.0	95.6	88.0	184	892
BH02	6/17/2024	18	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	332
BH03	5/16/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	24,800
BH03	5/16/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	<20.0
BH04	9/27/2024	0	<0.0250	<0.0500	<20.0	624	1,250	624	1,874	525
BH04	9/27/2024	2	<0.0250	<0.0500	<20.0	151	282	151	433	43.4
BH04	9/27/2024	4	<0.0250	<0.0500	<20.0	426	837	426	1,263	195
BH04	9/27/2024	7	<0.0250	<0.0500	<20.0	356	701	356	1,057	150
BH04	9/27/2024	10.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	136



TABLE 1 - CONT'D
SOIL SAMPLE ANALYTICAL RESULTS
 Young Deep SWD
 Matador Production Company
 Lea County, New Mexico

Sample Designation	Date	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	10,000
Delineation Soil Samples										
PH01	9/27/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	3,490
PH01	9/27/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<20.0	317
PH01	9/27/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	300
PH02	9/27/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	874
PH02	9/27/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	38.4
PH03	9/27/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	104
PH03	9/27/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	47.3
PH04	9/27/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	3,820
PH04	9/27/2024	3	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	263
PH05	9/27/2024	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	5,410
PH05	9/27/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	275
PH06	9/27/2024	0	<0.0250	<0.0500	<20.0	303	566	303	869	115
PH06	9/27/2024	2	<0.0250	<0.0500	<20.0	691	578	691	1,269	665
PH06	9/27/2024	4	<0.0250	<0.0500	<20.0	4,250	2,220	4,250	6,470	444
PH06	9/27/2024	6	<0.0250	0.107	<20.0	4,830	2,260	4,830	7,090	1,020
PH06	9/27/2024	8	<0.0250	<0.0500	<20.0	1,880	1,090	1,880	2,970	3,350
PH06	9/27/2024	9.5	<0.0250	<0.0500	<20.0	8,970	4,190	8,970	13,160	6,240
PH06	9/27/2024	11	<0.0250	<0.0500	<20.0	623	360	623	983	6,650
PH06	9/27/2024	13	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	6,240
PH06	9/27/2024	15	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<20.0	5,140

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

Grey text represents samples that have been excavated

<": Laboratory Analytical result is less than reporting limit

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

* Indicates sample was collected in area to be reclaimed after remediation is complete; reclamation for chloride in the top 4 feet is 600 mg/kg and total TPH is 100 mg/kg.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes



APPENDIX A

Well Log and Record



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1		WELL TAG ID NO. N/A		OSE FILE NO(S). CP-2001 POD1			
	WELL OWNER NAME(S) Matador Production Company				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS R347 N26th Rural Street 2nd Floor				CITY Artesia	STATE NM	ZIP 88210	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 45	SECONDS 52.53 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
		LONGITUDE -103	45	38.11 W	* DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE Unit L, Section 10, T 18S, R 32E, Lea, County								
2. DRILLING & CASING INFORMATION	LICENSE NO. WD1188		NAME OF LICENSED DRILLER John Scarborough			NAME OF WELL DRILLING COMPANY John Scarborough Drilling Inc.		
	DRILLING STARTED 6/10/2024		DRILLING ENDED 6/10/2024		DEPTH OF COMPLETED WELL (FT) 55'	BORE HOLE DEPTH (FT) 55'	DEPTH WATER FIRST ENCOUNTERED (FT) N/A	
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A		
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:							
	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	55	5.00	Soil Boring	-	-	-	-
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						
				N/A				

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)


FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2


4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0	10	10	Sand, Light brown, Fine grained	Y ✓ N	
	10	20	10	Sand, Light brown, Fine grained	Y ✓ N	
	20	30	10	Sand, Light brown, Fine grained	Y ✓ N	
	30	40	10	Silty Sand, Red, Fine grained	Y ✓ N	
	40	50	10	Silty Sand, Red, Fine grained	Y ✓ N	
	50	55	5	Clayey Gravel with Sand, Red, Very fine to Medium Grained with Large Gravel	Y ✓ N	
	55	55	0	Clayey Gravel with Sand, Red, Very fine to Medium Grained with Large Gravel	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:				TOTAL ESTIMATED WELL YIELD (gpm):	
	<input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER – SPECIFY:				0.00	
5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.				
	MISCELLANEOUS INFORMATION: Temporary well material removed and soil boring backfilled using drill cuttings from total depth to 10 ft below ground surface (bgs), then hydrated bentonite chips 10 ft bgs to ground surface.					
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:					
6. SIGNATURE	BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.					
	Scott Scarborough		Digitally signed by Scott Scarborough Date: 2024.07.18 14:46:02 -06'00'			
SIGNATURE OF DRILLER / PRINT SIGNEE NAME				DATE		





APPENDIX B


Lithologic Soil Sampling Logs


								Sample Name: BH01		Date: 5/16/24	
								Site Name: Young Deep SWD			
								Incident Number: nAPP2412026782			
								Job Number: 03A2270043			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Israel Estrella		Method: Hand Auger	
Coordinates: 32.76656, -103.76105								Hole Diameter: 3'		Total Depth: 24'	
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
W			Y	BH01	0	0	CCHE	Pad Caliche - Wet, Stained			
M			N	BH01	1	1	SP-SM	Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Wet, Non-Plastic, Noncohesive, Massive, Non-Uniform			
M	1948		N	BH01	2	2	SP- SM	Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Non-Uniform			
M	1954		N	BH01	3	3					
M	1954		N	BH01	4	4					
M	2391		N	BH01	5	5					
M	2564		N	BH01	6	6					
M	2744		N	BH01	7	7					
M	3399		N	BH01	8	8	CCHE	Indurated Caliche - White to tan some light pink, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Uniform			
M	3399		N	BH01	9	9					
M	3399		N	BH01	10	10					
M	3399		N	BH01	11	11					
M	3399		N	BH01	12	12					


								Sample Name: BH01		Date: 5/16/24	
								Site Name: Young Deep SWD			
								Incident Number: nAPP2412026782			
								Job Number: 03A2270043			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Israel Estrella		Method: Hand Auger	
Coordinates: 32.76656, -103.76105								Hole Diameter: 3'		Total Depth: 24'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 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	3399		N	BH01	13	13	CCHE	Indurated Caliche - White to tan some light pink, Medium to fine grain size, M, Non-Plastic, Noncohesive, Massive, Uniform			
M	3399		N	BH01	14	14	SC	Clayey Sand/Caliche Mix - Light brown/tan to pink, Medium to fine w/ very fine grain size, Moist, Non-Plastic, Noncohesive, Uniform Alluvial, Gradational Refusal achieved for hand auger at 16 ft bgs. Borehole was continued with trackhoe after 16 ft.			
M	3399		N	BH01	15	15					
M	3399		N	BH01	16	16					
M	633		N	BH01	17	17					
M	3,612		N	BH01	18	18					
M	913		N	BH01	19	19	SC	Clayey Sand/Caliche Mix - Dark Red to pink, Medium to fine w/ very fine grain size, Moist, Non-Plastic, Noncohesive, Uniform, Alluvial Refusal achieved for trackhoe at 20 ft bgs. Borehole was continued with trailer-mounted drill after 20 ft.			
M	1,165		N	BH01	20	20					
M			N	BH01	21	21					
M			N	BH01	22	22					
M			N	BH01	23	23					
M			N	BH01	24	24					
Total Depth @ 24 ft bgs.											


							Sample Name: BH02		Date: 5/16/24	
							Site Name: Young Deep SWD			
							Incident Number: nAPP2412026782			
							Job Number: 03A2270043			
LITHOLOGIC / SOIL SAMPLING LOG							Logged By: Israel Estrella		Method: Hand Auger	
Coordinates: 32.76643, -103.76123							Hole Diameter: 3'		Total Depth: 19'	
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.										
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions		
D			N	BH02	0	0	CCHE	Pad Caliche - Dry, no stain		
M			N	BH02	1	1	SM	Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial Borehole was continued with trackhoe after 2 ft bgs.		
M	ND		N	BH02	2	2				
M	1,798		Y		3	3				
M	700		Y		4	4				
M	1,456		Y		5	5				
M	632		N		6	6	SM	Silty Sand w/ Caliche Gravel- Loose, Medium to Dark Brown w/ White, Medium to fine grain size w/ some small gravel, Moist, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial		
M	1,674		N		7	7	SM	Silty Sand w/ trace Caliche Gravel- Loose, Medium to Dark Brown w/ White, Medium to fine grain size w/ some small gravel, Moist, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial		
						8				
D	409	285	N		8.5	8.5	CCHE	Indurated Caliche - 8.5-9 ft bgs: White to tan some light pink, Medium to fine grain size, D, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial 9-13.5 ft bgs: Pink, Medium to fine grain size, D, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial		
D	515		N		9	9				
D	634		N		10	10				
D	634		N		11	11				
	634				12	12				


 ENSOLUM		Sample Name: BH02		Date: 5/16/24				
		Site Name: Young Deep SWD						
		Incident Number: nAPP2412026782						
		Job Number: 03A2270043						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.76643, -103.76123			Logged By: Israel Estrella		Method: Hand Auger			
			Hole Diameter: 3"		Total Depth: 2'			
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	633		N	BH02	13.5	13.5	SC	Clayey Sand Caliche Mix w/ trace Gravel - Pink to Red, med to fine w/ some very fine and trace small gravel, M, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial
M	633		N	BH02	14.5	14.5		
M	515		N	BH02	15	15		
M	1,075		N	BH02	16	16	SC	Silty Sand Caliche Mix w/ trace Gravel - Medium Brown to Red, med to fine w/ some very fine and trace small gravel, M, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial
M	2,055		N	BH02	17	17	SC	Clayey Sand Caliche Mix w/ some Gravel - Red, med to fine w/ some very fine and some small gravel, M, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial
M	459		N	BH02	18	18		
M			N	BH02	19	19		
Total Depth @ 19 ft bgs.								


								Sample Name: BH03		Date: 5/16/24	
								Site Name: Young Deep SWD			
								Incident Number: nAPP2412026782			
								Job Number: 03A2270043			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Israel Estrella		Method: Hand Auger	
Coordinates: 32.76621, -103.76119								Hole Diameter: 3"		Total Depth: 2'	
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D			N	BH03	0	0	CCHE	Pad Caliche - Dry, no stain			
M			N	BH03	1	1	SM	Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial			
M	ND		N	BH03	2	2	SM				
Total Depth @ 2 ft bgs.											


								Sample Name: BH04		Date: 9/27/2024	
								Site Name: Young Deep SWD			
								Incident Number: nAPP2412026782			
								Job Number: 03A2270043			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Chad Hamilton		Method: Backhoe	
Coordinates: 32.766344, -103.760888								Hole Diameter: 2'		Total Depth: 10.5'	
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D	459		Y	BH04	0	0	SM	Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Dry, Non-Plastic, Noncohesive, Massive, Non-Uniform			
M	168	>2,500	Y	BH04	1	1	SM	Silty Sand - Loose, Medium to Dark Brown, Stained, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Non-Uniform Borehole was continued with backhoe after 3 ft bgs.			
M	ND	>2,500	Y	BH04	2	2					
M	ND	>2,500	Y	BH04	3	3					
M		>2,500	Y	BH04	4	4					
M			Y	BH04	5	5					
M			Y	BH04	6	6					
M		>2,500	Y	BH04	7	7					
M			Y	BH04	8	8					
M			Y	BH04	9	9					
						10					
M	150	12	N	BH04	10.5		CCHE	Indurated Caliche - White to tan some light pink, Medium to fine grain size, D, Non-Plastic, Noncohesive, Massive, Non-Uniform			
Total Depth @ 10.5 ft bgs.											


 ENSOLUM		Sample Name: PH02		Date: 9/27/2024				
		Site Name: Young Deep SWD						
		Incident Number: nAPP2412026782						
		Job Number: 03A2270043						
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: Chad Hamilton		Method: Hand Auger		
Coordinates: 32.766369, -103.760989				Hole Diameter: 2'		Total Depth: 2'		
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	900		N	PH02	0	0	CCHE	Pad Caliche - Dry, no stain
M	200		N	PH02	0.5		SM	Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Non-Uniform
M	600		N	PH02	1	1		
M	150	40	N	PH02	2	2		
Total Depth @ 2 ft bgs.								

 ENSOLUM		Sample Name: PH03		Date: 9/27/2024				
		Site Name: Young Deep SWD						
		Incident Number: nAPP2412026782						
		Job Number: 03A2270043						
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: Chad Hamilton		Method: Hand Auger		
Coordinates: 32.766283, -103.761197				Hole Diameter: 2'		Total Depth: 2'		
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	450		N	PH03	0	0	CCHE	Pad Caliche - Dry, no stain
M	400		N	PH03	0.5			
M	200	49	N	PH03	1	1	SM	Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Non-Uniform
M	200		N	PH03	2	2		
Total Depth @ 2 ft bgs.								

		Sample Name: PH04		Date: 9/27/2024				
		Site Name: Young Deep SWD						
		Incident Number: nAPP2412026782						
		Job Number: 03A2270043						
LITHOLOGIC / SOIL SAMPLING LOG				Logged By: Chad Hamilton		Method: Hand Auger		
Coordinates: 32.766469, -103.761045				Hole Diameter: 2'		Total Depth: 3'		
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	3,200		N	PH04	0	0	CCHE	Pad Caliche - Dry, no stain
M	900		N	PH04	0.5		SM	Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Non-Uniform
M	650		N	PH04	1	1		
M	600		N	PH04	2	2		
M	300	16	N	PH04	3	3		
Total Depth @ 3 ft bgs.								

					Sample Name: PH05		Date: 9/27/2024	
LITHOLOGIC / SOIL SAMPLING LOG					Site Name: Young Deep SWD			
					Incident Number: nAPP2412026782			
					Job Number: 03A2270043			
Coordinates: 32.766466, -103.760949					Logged By: Chad Hamilton		Method: Hand Auger	
					Hole Diameter: 2'		Total Depth: 2'	
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	5,000		N	PH05	0	0	CCHE	Pad Caliche - Dry, no stain
M	4,000			PH05	0.5		SM	Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Non-Uniform
M	450	17	N	PH05	1	1		
M	300	9	N	PH05	2	2		
Total Depth 2 ft bgs.								

								Sample Name: PH06		Date: 9/27/2024	
								Site Name: Young Deep SWD			
								Incident Number: nAPP2412026782			
								Job Number: 03A 2270 43			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Chad Hamilton		Method: Backhoe	
Coordinates: 32.766567, -103.760781								Hole Diameter: 2'		Total Depth: 15'	
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
	300	>2,500		PH06	0	0	CCHE	Pad Caliche - Dry, no stain			
	500		PH06	1	1	SM	Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Uniform, Alluvial				
	850		PH06	2	2						
			PH06		3						
			PH06		4						
			PH06		5						
			PH06		6						
			N PH06		7						
			N PH06		8						
			N PH06		9						
			N PH06		10	CCHE	Indurated Caliche - White to tan some light pink, Medium to fine grain size, D, Non-Plastic, Noncohesive, Massive, Non-Uniform				
	1,400		N PH06	11	11						
		N	PH06		12	SC	See Page 2				

 ENSOLUM		Sample Name: PH06		Date: 9/27/2024				
		Site Name: Young Deep SWD						
		Incident Number: nAPP2412026782						
		Job Number: 03A 2270 43						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.766567, -103.760781			Logged By: Chad Hamilton		Method: Backhoe			
			Hole Diameter: 2'		Total Depth: 15'			
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	1,400		N	PH06	13	13	SC	Clayey Sand Caliche mix w/ trace Gravel - Pink to Red, med to fine w/ some very fine and trace small gravel, M, Non-Plastic, Noncohesive, Massive, Non-Uniform Maximum depth achieved for backhoe at 15 ft bgs
			N	PH06		14		
			N	PH06	15	15		
Total Depth @ 15 ft bgs.								



APPENDIX C

Photographic Log

**Photographic Log**

Matador Production Company

Young Deep SWD

nAPP2412026875



Photograph 1
Description: Release Area
View: Southwest

Date: 5/9/2024



Photograph 2
Description: Release Area
View: West

Date: 5/9/2024



Photograph 3
Description: Release Area
View: North

Date: 5/9/2024



Photograph 4
Description: Vertical Delineation (BH01)
View: Northeast

Date: 5/16/2024



Photographic Log

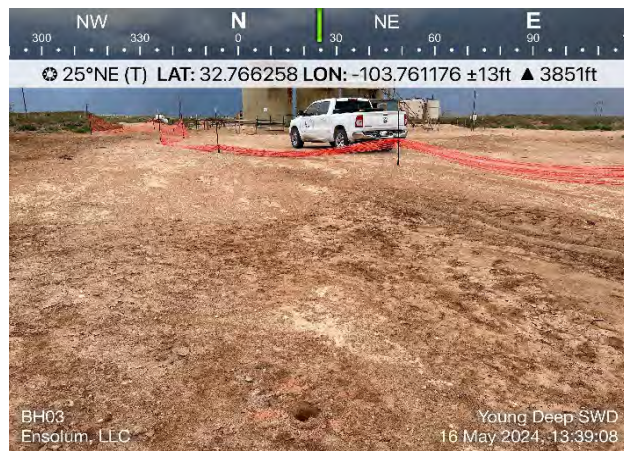
Matador Production Company

Young Deep SWD

nAPP2412026875



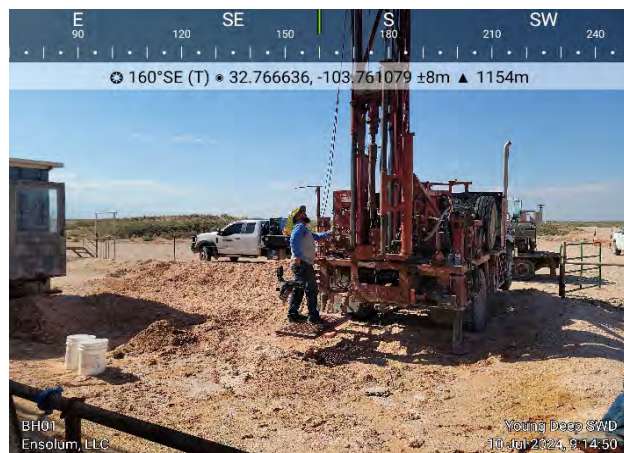
Photograph 5 Date: 5/16/2024
Description: Vertical Delineation (BH02)
View: Northeast



Photograph 6 Date: 5/16/2024
Description: Vertical Delineation (BH03)
View: Northeast



Photograph 7 Date: 6/17/2024
Description: Vertical Delineation (BH01)
View: Southeast



Photograph 8 Date: 7/10/2024
Description: Vertical Delineation (BH01)
View: South

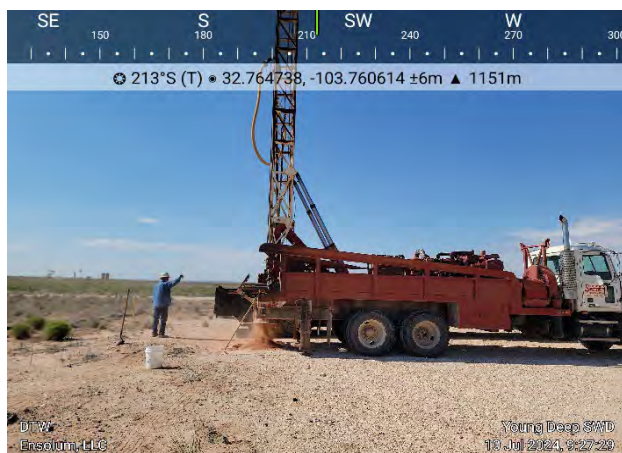


Photographic Log

Matador Production Company

Young Deep SWD

nAPP2412026875



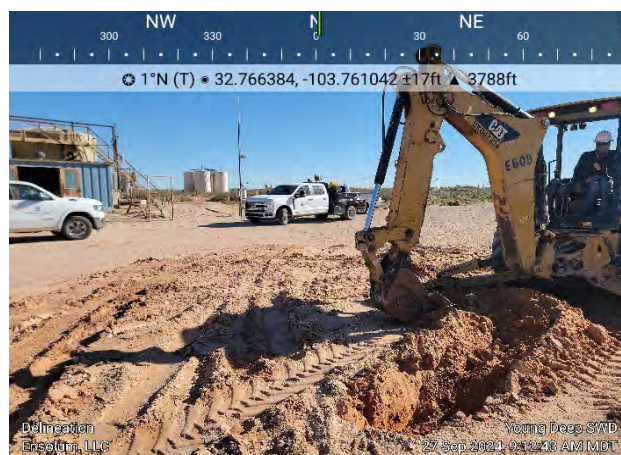
Photograph 9 Date: 7/10/2024
Description: Depth to Water Boring
View: Southwest



Photograph 10 Date: 9/27/2024
Description: Vertical Delineation (BH04)
View: East



Photograph 11 Date: 9/27/2024
Description: Vertical Delineation (PH01)
View: Northeast



Photograph 12 Date: 9/27/2024
Description: Vertical Delineation (PH02)
View: North

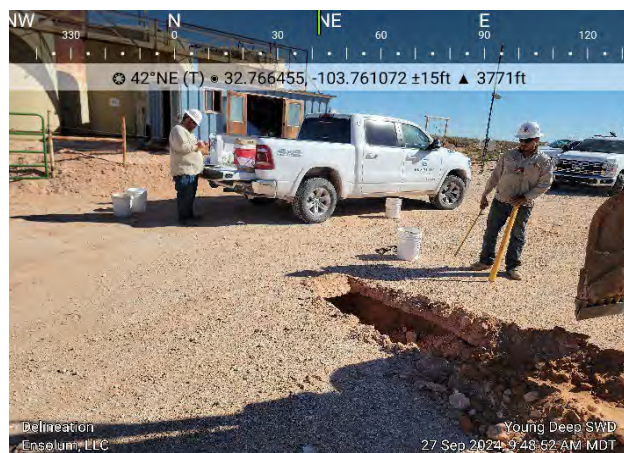


Photographic Log

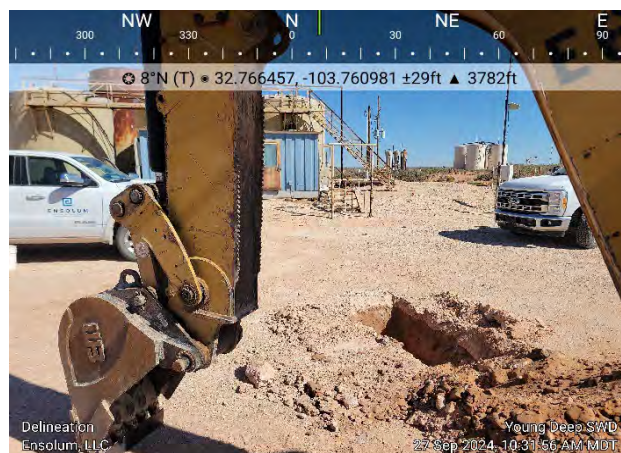
Matador Production Company

Young Deep SWD

nAPP2412026875



Photograph 13 Date: 9/27/2024
Description: Vertical Delineation (PH04)
View: Northeast



Photograph 14 Date: 9/27/2024
Description: Vertical Delineation (PH05)
View: North



Photograph 15 Date: 9/27/2024
Description: Vertical Delineation (PH06)
View: South



Photograph 16 Date: 9/27/2024
Description: Vertical Delineation (PH06)
View: South



APPENDIX D

Laboratory Analytical Reports & Chain-of-Custody Documentation

Report to:

Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E405245

Job Number: 23003-0002

Received: 5/17/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/29/24

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: 5/29/24

Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240



Project Name: Young Deep SWD
Workorder: E405245
Date Received: 5/17/2024 7:45:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/17/2024 7:45:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzaes
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 05/29/24 14:36
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS01 - 0'	E405245-01A	Soil	05/15/24	05/17/24	Glass Jar, 2 oz.
SS02 - 0'	E405245-02A	Soil	05/15/24	05/17/24	Glass Jar, 2 oz.
SS03 - 0'	E405245-03A	Soil	05/15/24	05/17/24	Glass Jar, 2 oz.
SS04 - 0'	E405245-04A	Soil	05/15/24	05/17/24	Glass Jar, 2 oz.
SS05 - 0'	E405245-05A	Soil	05/15/24	05/17/24	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/29/2024 2:36:31PM
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SS01 - 0'

E405245-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2421053	
Benzene	ND	0.0250	1	05/21/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/21/24	05/25/24	
Toluene	ND	0.0250	1	05/21/24	05/25/24	
o-Xylene	ND	0.0250	1	05/21/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/21/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/21/24	05/25/24	
Surrogate: 4-Bromochlorobenzene-PID	92.8 %	70-130		05/21/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2421053	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/24	05/25/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	105 %	70-130		05/21/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2421079	
Diesel Range Organics (C10-C28)	1310	500	20	05/22/24	05/26/24	
Oil Range Organics (C28-C36)	1260	1000	20	05/22/24	05/26/24	
Surrogate: n-Nonane	111 %	50-200		05/22/24	05/26/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2421098	
Chloride	81.8	20.0	1	05/22/24	05/23/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/29/2024 2:36:31PM
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SS02 - 0'

E405245-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2421053	
Benzene	ND	0.0250	1	05/21/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/21/24	05/25/24	
Toluene	ND	0.0250	1	05/21/24	05/25/24	
o-Xylene	ND	0.0250	1	05/21/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/21/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/21/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.9 %	70-130		05/21/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2421053	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	106 %	70-130		05/21/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2421079	
Diesel Range Organics (C10-C28)	33.9	25.0	1	05/22/24	05/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/22/24	05/26/24	
<i>Surrogate: n-Nonane</i>						
	107 %	50-200		05/22/24	05/26/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2421098	
Chloride	34.2	20.0	1	05/22/24	05/23/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/29/2024 2:36:31PM
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SS03 - 0'

E405245-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2421053	
Benzene	ND	0.0250	1	05/21/24	05/26/24	
Ethylbenzene	ND	0.0250	1	05/21/24	05/26/24	
Toluene	ND	0.0250	1	05/21/24	05/26/24	
o-Xylene	ND	0.0250	1	05/21/24	05/26/24	
p,m-Xylene	ND	0.0500	1	05/21/24	05/26/24	
Total Xylenes	ND	0.0250	1	05/21/24	05/26/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.7 %	70-130		05/21/24	05/26/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2421053	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/24	05/26/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	106 %	70-130		05/21/24	05/26/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2421079	
Diesel Range Organics (C10-C28)	243	50.0	2	05/22/24	05/28/24	
Oil Range Organics (C28-C36)	437	100	2	05/22/24	05/28/24	
<i>Surrogate: n-Nonane</i>						
	104 %	50-200		05/22/24	05/28/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2421098	
Chloride	38.1	20.0	1	05/22/24	05/23/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/29/2024 2:36:31PM
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SS04 - 0'

E405245-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2421053	
Benzene	ND	0.0250	1	05/21/24	05/26/24	
Ethylbenzene	ND	0.0250	1	05/21/24	05/26/24	
Toluene	ND	0.0250	1	05/21/24	05/26/24	
o-Xylene	ND	0.0250	1	05/21/24	05/26/24	
p,m-Xylene	ND	0.0500	1	05/21/24	05/26/24	
Total Xylenes	ND	0.0250	1	05/21/24	05/26/24	
Surrogate: 4-Bromochlorobenzene-PID	93.8 %	70-130		05/21/24	05/26/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2421053	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/24	05/26/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	106 %	70-130		05/21/24	05/26/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2421079	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/22/24	05/26/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/22/24	05/26/24	
Surrogate: n-Nonane	107 %	50-200		05/22/24	05/26/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2421098	
Chloride	ND	20.0	1	05/22/24	05/23/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/29/2024 2:36:31PM
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SS05 - 0'

E405245-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2421053	
Benzene	ND	0.0250	1	05/21/24	05/26/24	
Ethylbenzene	ND	0.0250	1	05/21/24	05/26/24	
Toluene	ND	0.0250	1	05/21/24	05/26/24	
o-Xylene	ND	0.0250	1	05/21/24	05/26/24	
p,m-Xylene	ND	0.0500	1	05/21/24	05/26/24	
Total Xylenes	ND	0.0250	1	05/21/24	05/26/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.6 %	70-130		05/21/24	05/26/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2421053	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/24	05/26/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	105 %	70-130		05/21/24	05/26/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2421079	
Diesel Range Organics (C10-C28)	56.6	25.0	1	05/22/24	05/28/24	
Oil Range Organics (C28-C36)	128	50.0	1	05/22/24	05/28/24	
<i>Surrogate: n-Nonane</i>						
	109 %	50-200		05/22/24	05/28/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2421098	
Chloride	480	20.0	1	05/22/24	05/23/24	



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/29/2024 2:36:31PM

Volatile Organics by EPA 8021B

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 (2421053-BLK1) Prepared: 05/21/24 Analyzed: 05/25/24

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	7.35		8.00		91.9	70-130			

LCS (2421053-BS1) Prepared: 05/21/24 Analyzed: 05/25/24

Benzene	5.19	0.0250	5.00		104	70-130			
Ethylbenzene	4.89	0.0250	5.00		97.8	70-130			
Toluene	5.11	0.0250	5.00		102	70-130			
o-Xylene	4.99	0.0250	5.00		99.8	70-130			
p,m-Xylene	10.1	0.0500	10.0		101	70-130			
Total Xylenes	15.1	0.0250	15.0		100	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.42		8.00		92.8	70-130			

LCS Dup (2421053-BSD1) Prepared: 05/21/24 Analyzed: 05/25/24

Benzene	4.75	0.0250	5.00		95.0	70-130	8.90	20	
Ethylbenzene	4.51	0.0250	5.00		90.1	70-130	8.19	20	
Toluene	4.70	0.0250	5.00		94.0	70-130	8.46	20	
o-Xylene	4.60	0.0250	5.00		92.1	70-130	8.08	20	
p,m-Xylene	9.31	0.0500	10.0		93.1	70-130	7.96	20	
Total Xylenes	13.9	0.0250	15.0		92.7	70-130	8.00	20	
Surrogate: 4-Bromochlorobenzene-PID	7.45		8.00		93.2	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/29/2024 2:36:31PM

Nonhalogenated Organics by EPA 8015D - GRO

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 (2421053-BLK1) Prepared: 05/21/24 Analyzed: 05/25/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.66		8.00		108	70-130			

LCS (2421053-BS2) Prepared: 05/21/24 Analyzed: 05/28/24

Gasoline Range Organics (C6-C10)	48.2	20.0	50.0		96.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.64		8.00		108	70-130			

LCS Dup (2421053-BSD2) Prepared: 05/21/24 Analyzed: 05/28/24

Gasoline Range Organics (C6-C10)	54.5	20.0	50.0		109	70-130	12.1	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.79		8.00		110	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/29/2024 2:36:31PM

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 (2421079-BLK1)					Prepared: 05/22/24 Analyzed: 05/25/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	54.2		50.0		108	50-200			

LCS (2421079-BS1)					Prepared: 05/22/24 Analyzed: 05/25/24				
Diesel Range Organics (C10-C28)	248	25.0	250		99.3	38-132			
Surrogate: n-Nonane	52.8		50.0		106	50-200			

LCS Dup (2421079-BSD1)					Prepared: 05/22/24 Analyzed: 05/25/24				
Diesel Range Organics (C10-C28)	259	25.0	250		103	38-132	4.13	20	
Surrogate: n-Nonane	53.1		50.0		106	50-200			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/29/2024 2:36:31PM

Anions by EPA 300.0/9056A

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 (2421098-BLK1)					Prepared: 05/22/24 Analyzed: 05/22/24				
Chloride	ND	20.0							
LCS (2421098-BS1)					Prepared: 05/22/24 Analyzed: 05/22/24				
Chloride	250	20.0	250		100	90-110			
LCS Dup (2421098-BSD1)					Prepared: 05/22/24 Analyzed: 05/22/24				
Chloride	251	20.0	250		101	90-110	0.426	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

Matador Resources, LLC.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	05/29/24 14:36

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

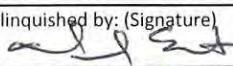


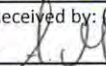

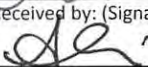
DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

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: Matador Production Company					Bill To Attention: Ensolum LLC Address: on file City, State, Zip: Phone: 575-988-0055 Email: agiovengo@ensolum.com		Lab Use Only Lab WO# <u>E 405 245</u> Job Number <u>23003-0002</u>								TAT 1D 2D 3D Standard <u>x</u>				EPA Program CWA SDWA	
Project: Young Deep SWD							Analysis and Method								RCRA					
Project Manager: Ashley Giovengo																				
Address: 3122 National Parks Hwy							TPH GRO/DRO/ORO by 8015 BTX by 8021 VOC by 8260 Metals 6010 Chloride 300.0 TCEQ TPH BGDOC NM GDOC TX				State NM CO UT AZ TX									
City, State, Zip: Carlsbad NM, 88220																				
Phone: 575-988-0055							Remarks													
Email: agiovengo@ensolum.com																				
Report due by:																				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number															
11:42	5/15/2024	Soil	1	SS01 - 0'	1															
11:45	5/15/2024	Soil	1	SS02 - 0'	2															
11:46	5/15/2024	Soil	1	SS03 - 0'	3															
15:03	5/15/2024	Soil	1	SS04 - 0'	4															
15:22	5/15/2024	Soil	1	SS05 - 0'	5															
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, ehaft@ensolum.com, iestrella@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												
		5/16/24	8:15			5-16-24	1140	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												
		5-16-24	1600			5-16-24	1830													
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	AVG Temp °C												
		5-16-24	2400			5/17/24	0745	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: 5/17/2024 12:31:09PM

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:	Matador Resources, LLC.	Date Received:	05/17/24 07:45	Work Order ID:	E405245
Phone:	(972) 371-5200	Date Logged In:	05/17/24 08:51	Logged In By:	Angelina Pineda
Email:	agiovngo@ensolum.com	Due Date:	05/23/24 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

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E405259

Job Number: 23003-0002

Received: 5/20/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/30/24

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: 5/30/24



Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240

Project Name: Young Deep SWD
Workorder: E405259
Date Received: 5/20/2024 9:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/20/2024 9:30:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzaes
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 05/30/24 13:59
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH01-0'	E405259-01A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH01-2'	E405259-02A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH01-5'	E405259-03A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH01-8'	E405259-04A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH01-11'	E405259-05A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH01-14'	E405259-06A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH01-16'	E405259-07A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH02-0'	E405259-08A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH02-2'	E405259-09A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH03-0'	E405259-10A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
BH03-2'	E405259-11A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/30/2024 1:59:31PM
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BH01-0'

E405259-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Benzene	0.606	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	0.233	0.0250	1	05/23/24	05/25/24	
Toluene	0.703	0.0250	1	05/23/24	05/25/24	
o-Xylene	0.0843	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	0.204	0.0500	1	05/23/24	05/25/24	
Total Xylenes	0.288	0.0250	1	05/23/24	05/25/24	
Surrogate: 4-Bromochlorobenzene-PID	94.5 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.9 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2422012	
Diesel Range Organics (C10-C28)	121	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	70.0	50.0	1	05/28/24	05/29/24	
Surrogate: n-Nonane	95.0 %	50-200		05/28/24	05/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2421137	
Chloride	22500	1000	50	05/23/24	05/26/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/30/2024 1:59:31PM
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BH01-2'

E405259-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
Surrogate: 4-Bromochlorobenzene-PID	92.3 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.4 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2422012	
Diesel Range Organics (C10-C28)	257	125	5	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	ND	250	5	05/28/24	05/29/24	
Surrogate: n-Nonane	103 %	50-200		05/28/24	05/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2421137	
Chloride	1420	40.0	2	05/23/24	05/26/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/30/2024 1:59:31PM
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BH01-5'

E405259-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
Surrogate: 4-Bromochlorobenzene-PID	92.3 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	95.4 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2422012	
Diesel Range Organics (C10-C28)	45.2	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
Surrogate: n-Nonane	98.3 %	50-200		05/28/24	05/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2421137	
Chloride	1880	40.0	2	05/23/24	05/26/24	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Young Deep SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/30/2024 1:59:31PM

BH01-8'**E405259-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.1 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	96.8 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2422012	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>						
	120 %	50-200		05/28/24	05/29/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2421137	
Chloride	3530	40.0	2	05/23/24	05/26/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/30/2024 1:59:31PM
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BH01-11'

E405259-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	91.7 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	96.8 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2422012	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>						
	105 %	50-200		05/28/24	05/29/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2421137	
Chloride	4720	40.0	2	05/23/24	05/26/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/30/2024 1:59:31PM
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BH01-14'

E405259-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.3 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	96.5 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2422012	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>						
	96.4 %	50-200		05/28/24	05/29/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2421137	
Chloride	4420	40.0	2	05/23/24	05/26/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/30/2024 1:59:31PM
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BH01-16'

E405259-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.9 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	97.5 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2422012	
Diesel Range Organics (C10-C28)	30.6	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>						
	81.3 %	50-200		05/28/24	05/29/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2421137	
Chloride	4670	40.0	2	05/23/24	05/26/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/30/2024 1:59:31PM
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BH02-0'

E405259-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
Surrogate: 4-Bromochlorobenzene-PID	86.0 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	95.6 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2422012	
Diesel Range Organics (C10-C28)	8300	500	20	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	5800	1000	20	05/28/24	05/29/24	
Surrogate: n-Nonane	109 %	50-200		05/28/24	05/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2421137	
Chloride	4160	40.0	2	05/23/24	05/26/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/30/2024 1:59:31PM
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BH02-2'

E405259-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.1 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	93.2 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2422012	
Diesel Range Organics (C10-C28)	757	500	20	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	1390	1000	20	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>						
	109 %	50-200		05/28/24	05/29/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2421137	
Chloride	57.0	20.0	1	05/23/24	05/26/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/30/2024 1:59:31PM
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BH03-0'

E405259-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.9 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	93.3 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2422012	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>						
	98.6 %	50-200		05/28/24	05/29/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2421137	
Chloride	24800	400	20	05/23/24	05/26/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/30/2024 1:59:31PM
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BH03-2'

E405259-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Benzene	ND	0.0250	1	05/23/24	05/25/24	
Ethylbenzene	ND	0.0250	1	05/23/24	05/25/24	
Toluene	ND	0.0250	1	05/23/24	05/25/24	
o-Xylene	ND	0.0250	1	05/23/24	05/25/24	
p,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.0 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: EG		Batch: 2421133	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	91.7 %	70-130		05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2422012	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/28/24	05/29/24	
Oil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
<i>Surrogate: n-Nonane</i>						
	101 %	50-200		05/28/24	05/29/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2421137	
Chloride	ND	20.0	1	05/23/24	05/26/24	



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported: 5/30/2024 1:59:31PM
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	

Volatile Organics by EPA 8021B

Analyst: EG

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 (2421133-BLK1) Prepared: 05/23/24 Analyzed: 05/25/24

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	7.19		8.00		89.9	70-130			

LCS (2421133-BS1) Prepared: 05/23/24 Analyzed: 05/25/24

Benzene	5.07	0.0250	5.00		101	70-130			
Ethylbenzene	4.90	0.0250	5.00		98.0	70-130			
Toluene	4.99	0.0250	5.00		99.8	70-130			
o-Xylene	4.86	0.0250	5.00		97.2	70-130			
p,m-Xylene	9.94	0.0500	10.0		99.4	70-130			
Total Xylenes	14.8	0.0250	15.0		98.7	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.22		8.00		90.2	70-130			

LCS Dup (2421133-BSD1) Prepared: 05/23/24 Analyzed: 05/25/24

Benzene	5.03	0.0250	5.00		101	70-130	0.912	20	
Ethylbenzene	4.86	0.0250	5.00		97.3	70-130	0.764	20	
Toluene	4.95	0.0250	5.00		99.0	70-130	0.797	20	
o-Xylene	4.81	0.0250	5.00		96.3	70-130	1.00	20	
p,m-Xylene	9.85	0.0500	10.0		98.5	70-130	0.820	20	
Total Xylenes	14.7	0.0250	15.0		97.8	70-130	0.880	20	
Surrogate: 4-Bromochlorobenzene-PID	7.25		8.00		90.6	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/30/2024 1:59:31PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: EG

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 (2421133-BLK1) Prepared: 05/23/24 Analyzed: 05/25/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.74		8.00		96.8	70-130			

LCS (2421133-BS2) Prepared: 05/23/24 Analyzed: 05/25/24

Gasoline Range Organics (C6-C10)	52.6	20.0	50.0		105	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.71		8.00		96.3	70-130			

LCS Dup (2421133-BSD2) Prepared: 05/23/24 Analyzed: 05/25/24

Gasoline Range Organics (C6-C10)	52.4	20.0	50.0		105	70-130	0.378	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.80		8.00		97.5	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/30/2024 1:59:31PM

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 (2422012-BLK1)					Prepared: 05/28/24 Analyzed: 05/29/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	55.0		50.0		110	50-200			

LCS (2422012-BS1)					Prepared: 05/28/24 Analyzed: 05/29/24				
Diesel Range Organics (C10-C28)	270	25.0	250		108	38-132			
Surrogate: n-Nonane	55.6		50.0		111	50-200			

LCS Dup (2422012-BSD1)					Prepared: 05/28/24 Analyzed: 05/29/24				
Diesel Range Organics (C10-C28)	282	25.0	250		113	38-132	4.40	20	
Surrogate: n-Nonane	56.8		50.0		114	50-200			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/30/2024 1:59:31PM

Anions by EPA 300.0/9056A

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 (2421137-BLK1)					Prepared: 05/23/24 Analyzed: 05/26/24				
Chloride	ND	20.0							
LCS (2421137-BS1)					Prepared: 05/23/24 Analyzed: 05/26/24				
Chloride	249	20.0	250		99.6	90-110			
LCS Dup (2421137-BSD1)					Prepared: 05/23/24 Analyzed: 05/26/24				
Chloride	249	20.0	250		99.4	90-110	0.205	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

Matador Resources, LLC.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	05/30/24 13:59

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

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: Matador Production Company		Bill To	Lab Use Only		TAT				EPA Program				
Project: Young Deep SWD			Lab WO# E405259		Job Number 23003-0004		1D	2D	3D	Standard	CWA	SDWA	
Project Manager: Ashley Giovengo			x										
Address: 3122 National Parks Hwy			Analysis and Method										
City, State, Zip: Carlsbad NM, 88220			State										
Phone: 575-988-0055			NM CO UT AZ TX										
Email: agiovengo@ensolum.com		Attention: Ensolum LLC		Address: on file		City, State, Zip:		Phone: 575-988-0055		Email: agiovengo@ensolum.com		RCRA	
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	TCEQ TPH	BGDOC NM	GDOC TX	Remarks
9:21	5/16/2024	Soil	1	BH01 - 0'	1							X		
9:27	5/16/2024	Soil	1	BH01 - 2'	2							X		
9:58	5/16/2024	Soil	1	BH01 - 5'	3							X		
10:21	5/16/2024	Soil	1	BH01 - 8'	4							X		
10:54	5/16/2024	Soil	1	BH01 - 11'	5							X		
11:32	5/16/2024	Soil	1	BH01 - 14'	6							X		
11:38	5/16/2024	Soil	1	BH01 - 16'	7							X		

Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, ehaft@ensolum.com, iestrella@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			
		5/17/24	9:45			5.17.24	1112	Received on ice: (Y) N			
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	T1 T2 T3			
		5.17.24	1730			5/20/24	0930				
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: Matador Production Company						Bill To							Lab Use Only								TAT				EPA Program							
Project: Young Deep SWD						Attention: Ensolum LLC Address: on file City, State, Zip: Phone: 575-988-0055 Email: agiovengo@ensolum.com							Lab WO# E 405259				Job Number 23003-0002				1D	2D	3D	Standard	CWA	SDWA						
Project Manager: Ashley Giovengo													Analysis and Method																RCRA			
Address: 3122 National Parks Hwy																																
City, State, Zip: Carlsbad NM, 88220																																
Phone: 575-988-0055																																
Email: agiovengo@ensolum.com													TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TCEQ TPH	BGDOC NM	GDOC TX	State											
Report due by:																									NM	CO	UT	AZ	TX			
																									x							
																									Remarks							
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number																											
9:15	5/16/2024	Soil	1	BH02 - 0'	8																											
9:19	5/16/2024	Soil	1	BH02 - 2'	9																											
9:09	5/16/2024	Soil	1	BH03 - 0'	10																											
9:13	5/16/2024	Soil	1	BH03 - 2'	11																											
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, ehaff@ensolum.com, iestrella@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																				
				5/17/24	9:45					5/17/24	11/12	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																				
				5/17/24	17:30					5/20/24	0930																					
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: 5/22/2024 10:24:49AM

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:	Matador Resources, LLC.	Date Received:	05/20/24 09:30	Work Order ID:	E405259
Phone:	(972) 371-5200	Date Logged In:	05/17/24 18:46	Logged In By:	Alexa Michaels
Email:	agiovngo@ensolum.com	Due Date:	05/27/24 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: 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: 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

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E406163

Job Number: 23003-0002

Received: 6/19/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
6/21/24

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: 6/21/24

Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240



Project Name: Young Deep SWD
Workorder: E406163
Date Received: 6/19/2024 7:00:32AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 6/19/2024 7:00:32AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 06/21/24 14:30
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH01 - 20'	E406163-01A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
BH02 - 4'	E406163-02A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
BH02 - 6'	E406163-03A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
BH02 - 8.5'	E406163-04A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
BH02 - 10'	E406163-05A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
BH02 - 12'	E406163-06A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
BH02 - 14.5'	E406163-07A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
BH02 - 16'	E406163-08A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
BH02 - 18'	E406163-09A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
SS03A - 0'	E406163-10A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 6/21/2024 2:30:27PM
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BH01 - 20'

E406163-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		113 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		91.5 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		105 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		113 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		91.5 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		105 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2425052	
Diesel Range Organics (C10-C28)	ND	25.0	1	06/19/24	06/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/19/24	06/19/24	
Surrogate: n-Nonane		105 %	50-200	06/19/24	06/19/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: WF		Batch: 2425053	
Chloride	1230	20.0	1	06/19/24	06/19/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 6/21/2024 2:30:27PM
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BH02 - 4'

E406163-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2425047
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		108 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		93.8 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		104 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		108 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		93.8 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		104 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2425052
Diesel Range Organics (C10-C28)	2040	250	10	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	1710	500	10	06/19/24	06/20/24	
Surrogate: n-Nonane		103 %	50-200	06/19/24	06/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: WF		Batch: 2425053
Chloride	584	20.0	1	06/19/24	06/19/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 6/21/2024 2:30:27PM
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BH02 - 6'

E406163-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		112 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		91.3 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		104 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		112 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		91.3 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		104 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2425052	
Diesel Range Organics (C10-C28)	89.9	25.0	1	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	119	50.0	1	06/19/24	06/20/24	
Surrogate: n-Nonane		79.5 %	50-200	06/19/24	06/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: WF		Batch: 2425053	
Chloride	388	20.0	1	06/19/24	06/19/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 6/21/2024 2:30:27PM
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BH02 - 8.5'
E406163-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		110 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		89.1 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		104 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		110 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		89.1 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		104 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2425052	
Diesel Range Organics (C10-C28)	54.0	25.0	1	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	56.0	50.0	1	06/19/24	06/20/24	
Surrogate: n-Nonane		94.5 %	50-200	06/19/24	06/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: WF		Batch: 2425053	
Chloride	434	20.0	1	06/19/24	06/19/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 6/21/2024 2:30:27PM
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BH02 - 10'
E406163-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		110 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		90.8 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		105 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		110 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		90.8 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		105 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2425052	
Diesel Range Organics (C10-C28)	83.6	50.0	2	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	156	100	2	06/19/24	06/20/24	
Surrogate: n-Nonane		101 %	50-200	06/19/24	06/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: WF		Batch: 2425053	
Chloride	686	20.0	1	06/19/24	06/19/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 6/21/2024 2:30:27PM
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BH02 - 12'
E406163-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		110 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		93.1 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		105 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		110 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		93.1 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		105 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2425052	
Diesel Range Organics (C10-C28)	ND	25.0	1	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/19/24	06/20/24	
Surrogate: n-Nonane		81.6 %	50-200	06/19/24	06/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: WF		Batch: 2425053	
Chloride	593	20.0	1	06/19/24	06/19/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 6/21/2024 2:30:27PM
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BH02 - 14.5'
E406163-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene	108 %	70-130		06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4	92.8 %	70-130		06/18/24	06/20/24	
Surrogate: Toluene-d8	104 %	70-130		06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene	108 %	70-130		06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4	92.8 %	70-130		06/18/24	06/20/24	
Surrogate: Toluene-d8	104 %	70-130		06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2425052	
Diesel Range Organics (C10-C28)	ND	25.0	1	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/19/24	06/20/24	
Surrogate: n-Nonane	98.1 %	50-200		06/19/24	06/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: WF		Batch: 2425053	
Chloride	509	20.0	1	06/19/24	06/19/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 6/21/2024 2:30:27PM
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BH02 - 16'
E406163-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene	108 %	70-130		06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4	95.7 %	70-130		06/18/24	06/20/24	
Surrogate: Toluene-d8	105 %	70-130		06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene	108 %	70-130		06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4	95.7 %	70-130		06/18/24	06/20/24	
Surrogate: Toluene-d8	105 %	70-130		06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2425052	
Diesel Range Organics (C10-C28)	88.0	25.0	1	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	95.6	50.0	1	06/19/24	06/20/24	
Surrogate: n-Nonane	89.9 %	50-200		06/19/24	06/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: WF		Batch: 2425053	
Chloride	892	20.0	1	06/19/24	06/19/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 6/21/2024 2:30:27PM
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BH02 - 18'
E406163-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		101 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		95.1 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		106 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		101 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		95.1 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		106 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2425052	
Diesel Range Organics (C10-C28)	ND	25.0	1	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/19/24	06/20/24	
Surrogate: n-Nonane		102 %	50-200	06/19/24	06/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: WF		Batch: 2425053	
Chloride	332	20.0	1	06/19/24	06/19/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 6/21/2024 2:30:27PM
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SS03A - 0'
E406163-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		104 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		97.3 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		94.3 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		104 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		97.3 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		94.3 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2425052	
Diesel Range Organics (C10-C28)	ND	25.0	1	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/19/24	06/20/24	
Surrogate: n-Nonane		101 %	50-200	06/19/24	06/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: WF		Batch: 2425053	
Chloride	ND	20.0	1	06/19/24	06/19/24	



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	6/21/2024 2:30:27PM

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 (2425047-BLK1) Prepared: 06/19/24 Analyzed: 06/20/24

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	0.562		0.500		112	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.444		0.500		88.7	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			

LCS (2425047-BS1) Prepared: 06/19/24 Analyzed: 06/20/24

Benzene	2.04	0.0250	2.50		81.7	70-130			
Ethylbenzene	2.20	0.0250	2.50		88.0	70-130			
Toluene	2.18	0.0250	2.50		87.0	70-130			
o-Xylene	2.29	0.0250	2.50		91.7	70-130			
p,m-Xylene	4.56	0.0500	5.00		91.2	70-130			
Total Xylenes	6.85	0.0250	7.50		91.4	70-130			
Surrogate: Bromofluorobenzene	0.567		0.500		113	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.495		0.500		98.9	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

Matrix Spike (2425047-MS1) Source: E406163-07 Prepared: 06/19/24 Analyzed: 06/20/24

Benzene	2.24	0.0250	2.50	ND	89.7	48-131			
Ethylbenzene	2.40	0.0250	2.50	ND	95.9	45-135			
Toluene	2.37	0.0250	2.50	ND	94.8	48-130			
o-Xylene	2.55	0.0250	2.50	ND	102	43-135			
p,m-Xylene	5.08	0.0500	5.00	ND	102	43-135			
Total Xylenes	7.63	0.0250	7.50	ND	102	43-135			
Surrogate: Bromofluorobenzene	0.573		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.494		0.500		98.8	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

Matrix Spike Dup (2425047-MSD1) Source: E406163-07 Prepared: 06/19/24 Analyzed: 06/20/24

Benzene	2.30	0.0250	2.50	ND	91.9	48-131	2.42	23	
Ethylbenzene	2.45	0.0250	2.50	ND	98.0	45-135	2.25	27	
Toluene	2.41	0.0250	2.50	ND	96.5	48-130	1.80	24	
o-Xylene	2.58	0.0250	2.50	ND	103	43-135	1.40	27	
p,m-Xylene	5.17	0.0500	5.00	ND	103	43-135	1.62	27	
Total Xylenes	7.75	0.0250	7.50	ND	103	43-135	1.55	27	
Surrogate: Bromofluorobenzene	0.575		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.7	70-130			
Surrogate: Toluene-d8	0.521		0.500		104	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	6/21/2024 2:30:27PM

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 (2425047-BLK1) Prepared: 06/19/24 Analyzed: 06/20/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.562		0.500		112	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.444		0.500		88.7	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			

LCS (2425047-BS2) Prepared: 06/19/24 Analyzed: 06/20/24

Gasoline Range Organics (C6-C10)	56.4	20.0	50.0		113	70-130			
Surrogate: Bromofluorobenzene	0.571		0.500		114	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.461		0.500		92.1	70-130			
Surrogate: Toluene-d8	0.522		0.500		104	70-130			

Matrix Spike (2425047-MS2) Source: E406163-07 Prepared: 06/19/24 Analyzed: 06/20/24

Gasoline Range Organics (C6-C10)	57.6	20.0	50.0	ND	115	70-130			
Surrogate: Bromofluorobenzene	0.579		0.500		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.476		0.500		95.2	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			

Matrix Spike Dup (2425047-MSD2) Source: E406163-07 Prepared: 06/19/24 Analyzed: 06/20/24

Gasoline Range Organics (C6-C10)	56.1	20.0	50.0	ND	112	70-130	2.65	20	
Surrogate: Bromofluorobenzene	0.570		0.500		114	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.460		0.500		91.9	70-130			
Surrogate: Toluene-d8	0.529		0.500		106	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	6/21/2024 2:30:27PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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 (2425052-BLK1)					Prepared: 06/19/24 Analyzed: 06/19/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	49.7		50.0		99.3	50-200			

LCS (2425052-BS1)					Prepared: 06/19/24 Analyzed: 06/19/24				
Diesel Range Organics (C10-C28)	309	25.0	250		124	38-132			
Surrogate: n-Nonane	51.5		50.0		103	50-200			

Matrix Spike (2425052-MS1)					Source: E406163-05		Prepared: 06/19/24 Analyzed: 06/19/24		
Diesel Range Organics (C10-C28)	362	50.0	250	83.6	112	38-132			
Surrogate: n-Nonane	49.7		50.0		99.3	50-200			

Matrix Spike Dup (2425052-MSD1)					Source: E406163-05		Prepared: 06/19/24 Analyzed: 06/19/24		
Diesel Range Organics (C10-C28)	348	50.0	250	83.6	106	38-132	4.14	20	
Surrogate: n-Nonane	47.2		50.0		94.4	50-200			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 6/21/2024 2:30:27PM
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Anions by EPA 300.0/9056A

Analyst: WF

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 (2425053-BLK1)					Prepared: 06/19/24 Analyzed: 06/19/24				
Chloride	ND	20.0							
LCS (2425053-BS1)					Prepared: 06/19/24 Analyzed: 06/19/24				
Chloride	248	20.0	250		99.1	90-110			
Matrix Spike (2425053-MS1)					Source: E406163-06		Prepared: 06/19/24 Analyzed: 06/19/24		
Chloride	825	20.0	250	593	92.9	80-120			
Matrix Spike Dup (2425053-MSD1)					Source: E406163-06		Prepared: 06/19/24 Analyzed: 06/19/24		
Chloride	800	20.0	250	593	82.7	80-120	3.15	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

Matador Resources, LLC.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	06/21/24 14:30

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

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

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

Chain of Custody

Page 1 of 1

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Matador Production Company				Company: Ensolum LLC		Lab WO# E406163		Job Number 23003-0002		1D 2D 3D Std X				NM CO UT TX X			
Project: Young Deep SWD				Address: 3122 National Parks Hwy		City, State, Zip: Carlsbad NM, 88220		Phone: 575-988-0055									
Project Manager: Ashley Giovengo				Email: agiovengo@ensolum.com		Miscellaneous:											
Address: 3122 National Parks Hwy																	
City, State, Zip: Carlsbad NM, 88220																	
Phone: 575-988-0055																	
Email: agiovengo@ensolum.com																	
Sample Information						Analysis and Method								EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA
11:28	6/17/2024	S	1	BH01 - 20'		1						X					
9:21	6/17/2024	S	1	BH02 - 4'		2						X					
9:50	6/17/2024	S	1	BH02 - 6'		3						X					
14:55	6/17/2024	S	1	BH02 - 8.5'		4						X					
15:24	6/17/2024	S	1	BH02 - 10'		5						X					
15:55	6/17/2024	S	1	BH02 - 12'		6						X					
16:11	6/17/2024	S	1	BH02 - 14.5'		7						X					
16:20	6/17/2024	S	1	BH02 - 16'		8						X					
16:32	6/17/2024	S	1	BH02 - 18'		9						X					
14:08	6/17/2024	S	1	SS03A - 0'		10						X					
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, iestrella@ensolum.com																	
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																	
Sampled by: Chad Hamilton, Brandon Deal																	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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. Lab Use Only Received on ice: Y / 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										
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 14 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: 6/19/2024 11:06:53AM

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: Matador Resources, LLC.
Phone: (972) 371-5200
Email: agiovngo@ensolum.com

Date Received: 06/19/24 07:00
Date Logged In: 06/18/24 15:42
Due Date: 06/25/24 17:00 (4 day TAT)

Work Order ID: E406163
Logged In By: Jessica Liesse

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: CouierComments/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

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E406164

Job Number: 23003-0002

Received: 6/19/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
6/21/24

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: 6/21/24

Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240



Project Name: Young Deep SWD
Workorder: E406164
Date Received: 6/19/2024 7:00:32AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 6/19/2024 7:00:32AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported: 06/21/24 14:29
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH01-17'	E406164-01A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 6/21/2024 2:29:15PM
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BH01-17'

E406164-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Benzene	ND	0.0250	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	06/18/24	06/20/24	
Toluene	ND	0.0250	1	06/18/24	06/20/24	
o-Xylene	ND	0.0250	1	06/18/24	06/20/24	
p,m-Xylene	ND	0.0500	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		102 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		96.5 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY		Batch: 2425047	
Gasoline Range Organics (C6-C10)	ND	20.0	1	06/18/24	06/20/24	
Surrogate: Bromofluorobenzene		102 %	70-130	06/18/24	06/20/24	
Surrogate: 1,2-Dichloroethane-d4		108 %	70-130	06/18/24	06/20/24	
Surrogate: Toluene-d8		96.5 %	70-130	06/18/24	06/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2425052	
Diesel Range Organics (C10-C28)	ND	25.0	1	06/19/24	06/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	06/19/24	06/20/24	
Surrogate: n-Nonane		99.6 %	50-200	06/19/24	06/20/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: WF		Batch: 2425053	
Chloride	625	20.0	1	06/19/24	06/19/24	



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	6/21/2024 2:29:15PM

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 (2425047-BLK1)

Prepared: 06/19/24 Analyzed: 06/20/24

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	0.562		0.500		112	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.444		0.500		88.7	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			

LCS (2425047-BS1)

Prepared: 06/19/24 Analyzed: 06/20/24

Benzene	2.04	0.0250	2.50		81.7	70-130			
Ethylbenzene	2.20	0.0250	2.50		88.0	70-130			
Toluene	2.18	0.0250	2.50		87.0	70-130			
o-Xylene	2.29	0.0250	2.50		91.7	70-130			
p,m-Xylene	4.56	0.0500	5.00		91.2	70-130			
Total Xylenes	6.85	0.0250	7.50		91.4	70-130			
Surrogate: Bromofluorobenzene	0.567		0.500		113	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.495		0.500		98.9	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

Matrix Spike (2425047-MS1)

Source: E406163-07

Prepared: 06/19/24 Analyzed: 06/20/24

Benzene	2.24	0.0250	2.50	ND	89.7	48-131			
Ethylbenzene	2.40	0.0250	2.50	ND	95.9	45-135			
Toluene	2.37	0.0250	2.50	ND	94.8	48-130			
o-Xylene	2.55	0.0250	2.50	ND	102	43-135			
p,m-Xylene	5.08	0.0500	5.00	ND	102	43-135			
Total Xylenes	7.63	0.0250	7.50	ND	102	43-135			
Surrogate: Bromofluorobenzene	0.573		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.494		0.500		98.8	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

Matrix Spike Dup (2425047-MSD1)

Source: E406163-07

Prepared: 06/19/24 Analyzed: 06/20/24

Benzene	2.30	0.0250	2.50	ND	91.9	48-131	2.42	23	
Ethylbenzene	2.45	0.0250	2.50	ND	98.0	45-135	2.25	27	
Toluene	2.41	0.0250	2.50	ND	96.5	48-130	1.80	24	
o-Xylene	2.58	0.0250	2.50	ND	103	43-135	1.40	27	
p,m-Xylene	5.17	0.0500	5.00	ND	103	43-135	1.62	27	
Total Xylenes	7.75	0.0250	7.50	ND	103	43-135	1.55	27	
Surrogate: Bromofluorobenzene	0.575		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.7	70-130			
Surrogate: Toluene-d8	0.521		0.500		104	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	6/21/2024 2:29:15PM

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 (2425047-BLK1) Prepared: 06/19/24 Analyzed: 06/20/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.562		0.500		112	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.444		0.500		88.7	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			

LCS (2425047-BS2) Prepared: 06/19/24 Analyzed: 06/20/24

Gasoline Range Organics (C6-C10)	56.4	20.0	50.0		113	70-130			
Surrogate: Bromofluorobenzene	0.571		0.500		114	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.461		0.500		92.1	70-130			
Surrogate: Toluene-d8	0.522		0.500		104	70-130			

Matrix Spike (2425047-MS2) Source: E406163-07 Prepared: 06/19/24 Analyzed: 06/20/24

Gasoline Range Organics (C6-C10)	57.6	20.0	50.0	ND	115	70-130			
Surrogate: Bromofluorobenzene	0.579		0.500		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.476		0.500		95.2	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			

Matrix Spike Dup (2425047-MSD2) Source: E406163-07 Prepared: 06/19/24 Analyzed: 06/20/24

Gasoline Range Organics (C6-C10)	56.1	20.0	50.0	ND	112	70-130	2.65	20	
Surrogate: Bromofluorobenzene	0.570		0.500		114	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.460		0.500		91.9	70-130			
Surrogate: Toluene-d8	0.529		0.500		106	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	6/21/2024 2:29:15PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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 (2425052-BLK1)					Prepared: 06/19/24 Analyzed: 06/19/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	49.7		50.0		99.3	50-200			

LCS (2425052-BS1)					Prepared: 06/19/24 Analyzed: 06/19/24				
Diesel Range Organics (C10-C28)	309	25.0	250		124	38-132			
Surrogate: n-Nonane	51.5		50.0		103	50-200			

Matrix Spike (2425052-MS1)					Source: E406163-05		Prepared: 06/19/24 Analyzed: 06/19/24		
Diesel Range Organics (C10-C28)	362	50.0	250	83.6	112	38-132			
Surrogate: n-Nonane	49.7		50.0		99.3	50-200			

Matrix Spike Dup (2425052-MSD1)					Source: E406163-05		Prepared: 06/19/24 Analyzed: 06/19/24		
Diesel Range Organics (C10-C28)	348	50.0	250	83.6	106	38-132	4.14	20	
Surrogate: n-Nonane	47.2		50.0		94.4	50-200			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 6/21/2024 2:29:15PM
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Anions by EPA 300.0/9056A

Analyst: WF

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 (2425053-BLK1)					Prepared: 06/19/24 Analyzed: 06/19/24				
Chloride	ND	20.0							
LCS (2425053-BS1)					Prepared: 06/19/24 Analyzed: 06/19/24				
Chloride	248	20.0	250		99.1	90-110			
Matrix Spike (2425053-MS1)					Source: E406163-06		Prepared: 06/19/24 Analyzed: 06/19/24		
Chloride	825	20.0	250	593	92.9	80-120			
Matrix Spike Dup (2425053-MSD1)					Source: E406163-06		Prepared: 06/19/24 Analyzed: 06/19/24		
Chloride	800	20.0	250	593	82.7	80-120	3.15	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

Matador Resources, LLC.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	06/21/24 14:29

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

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

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



Chain of Custody

[illegible]

envirotecl

Envirotech Analytical Laboratory

Printed: 6/19/2024 11:27:36AM

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:	Matador Resources, LLC.	Date Received:	06/19/24 07:00	Work Order ID:	E406164
Phone:	(972) 371-5200	Date Logged In:	06/18/24 15:49	Logged In By:	Jessica Liesse
Email:	agiovngo@ensolum.com	Due Date:	06/25/24 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: Couier**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? 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

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E407072

Job Number: 23003-0002

Received: 7/11/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
7/16/24

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: 7/16/24

Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240



Project Name: Young Deep SWD
Workorder: E407072
Date Received: 7/11/2024 10:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 7/11/2024 10:30:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 07/16/24 09:52
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH01-24'	E407072-01A	Soil	07/10/24	07/11/24	Glass Jar, 2 oz.
BH01-26'	E407072-02A	Soil	07/10/24	07/11/24	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 7/16/2024 9:52:08AM
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BH01-24'

E407072-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: IY		Batch: 2428074	
Benzene	ND	0.0250	1	07/11/24	07/12/24	
Ethylbenzene	ND	0.0250	1	07/11/24	07/12/24	
Toluene	ND	0.0250	1	07/11/24	07/12/24	
o-Xylene	ND	0.0250	1	07/11/24	07/12/24	
p,m-Xylene	ND	0.0500	1	07/11/24	07/12/24	
Total Xylenes	ND	0.0250	1	07/11/24	07/12/24	
Surrogate: 4-Bromochlorobenzene-PID	90.9 %	70-130		07/11/24	07/12/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY		Batch: 2428074	
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/11/24	07/12/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	97.0 %	70-130		07/11/24	07/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2428080	
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/24	07/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/11/24	07/12/24	
Surrogate: n-Nonane	115 %	50-200		07/11/24	07/12/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2428083	
Chloride	102	20.0	1	07/11/24	07/11/24	



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	7/16/2024 9:52:08AM

Volatile Organics by EPA 8021B

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 (2428074-BLK1) Prepared: 07/11/24 Analyzed: 07/11/24

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	7.12		8.00		89.0	70-130			

LCS (2428074-BS1) Prepared: 07/11/24 Analyzed: 07/11/24

Benzene	4.77	0.0250	5.00		95.4	70-130			
Ethylbenzene	4.55	0.0250	5.00		90.9	70-130			
Toluene	4.68	0.0250	5.00		93.6	70-130			
o-Xylene	4.54	0.0250	5.00		90.8	70-130			
p,m-Xylene	9.21	0.0500	10.0		92.1	70-130			
Total Xylenes	13.8	0.0250	15.0		91.7	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.01		8.00		87.6	70-130			

Matrix Spike (2428074-MS1) Source: E407073-03 Prepared: 07/11/24 Analyzed: 07/12/24

Benzene	4.69	0.0250	5.00	ND	93.8	54-133			
Ethylbenzene	4.52	0.0250	5.00	ND	90.4	61-133			
Toluene	4.64	0.0250	5.00	ND	92.7	61-130			
o-Xylene	4.51	0.0250	5.00	ND	90.3	63-131			
p,m-Xylene	9.19	0.0500	10.0	ND	91.9	63-131			
Total Xylenes	13.7	0.0250	15.0	ND	91.4	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.46		8.00		93.2	70-130			

Matrix Spike Dup (2428074-MSD1) Source: E407073-03 Prepared: 07/11/24 Analyzed: 07/12/24

Benzene	4.90	0.0250	5.00	ND	98.0	54-133	4.36	20	
Ethylbenzene	4.72	0.0250	5.00	ND	94.4	61-133	4.40	20	
Toluene	4.83	0.0250	5.00	ND	96.7	61-130	4.21	20	
o-Xylene	4.71	0.0250	5.00	ND	94.2	63-131	4.19	20	
p,m-Xylene	9.60	0.0500	10.0	ND	96.0	63-131	4.32	20	
Total Xylenes	14.3	0.0250	15.0	ND	95.4	63-131	4.28	20	
Surrogate: 4-Bromochlorobenzene-PID	7.46		8.00		93.3	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	7/16/2024 9:52:08AM

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 (2428074-BLK1) Prepared: 07/11/24 Analyzed: 07/11/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.70		8.00		96.3	70-130			

LCS (2428074-BS2) Prepared: 07/11/24 Analyzed: 07/12/24

Gasoline Range Organics (C6-C10)	44.8	20.0	50.0		89.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.71		8.00		96.3	70-130			

Matrix Spike (2428074-MS2) Source: E407073-03 Prepared: 07/11/24 Analyzed: 07/12/24

Gasoline Range Organics (C6-C10)	44.6	20.0	50.0	ND	89.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.94		8.00		99.2	70-130			

Matrix Spike Dup (2428074-MSD2) Source: E407073-03 Prepared: 07/11/24 Analyzed: 07/12/24

Gasoline Range Organics (C6-C10)	51.1	20.0	50.0	ND	102	70-130	13.7	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.86		8.00		98.2	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	7/16/2024 9:52:08AM

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 (2428080-BLK1)					Prepared: 07/11/24 Analyzed: 07/11/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	54.9		50.0		110	50-200			

LCS (2428080-BS1)					Prepared: 07/11/24 Analyzed: 07/11/24				
Diesel Range Organics (C10-C28)	300	25.0	250		120	38-132			
Surrogate: n-Nonane	61.8		50.0		124	50-200			

Matrix Spike (2428080-MS1)					Source: E407068-02		Prepared: 07/11/24 Analyzed: 07/11/24		
Diesel Range Organics (C10-C28)	297	25.0	250	ND	119	38-132			
Surrogate: n-Nonane	61.5		50.0		123	50-200			

Matrix Spike Dup (2428080-MSD1)					Source: E407068-02		Prepared: 07/11/24 Analyzed: 07/11/24		
Diesel Range Organics (C10-C28)	289	25.0	250	ND	116	38-132	2.66	20	
Surrogate: n-Nonane	59.6		50.0		119	50-200			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 7/16/2024 9:52:08AM
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Anions by EPA 300.0/9056A

Analyst: JM

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 (2428083-BLK1)					Prepared: 07/11/24 Analyzed: 07/11/24				
Chloride	ND	20.0							
LCS (2428083-BS1)					Prepared: 07/11/24 Analyzed: 07/11/24				
Chloride	250	20.0	250		100	90-110			
Matrix Spike (2428083-MS1)					Source: E407066-02		Prepared: 07/11/24 Analyzed: 07/11/24		
Chloride	542	20.0	250	300	97.1	80-120			
Matrix Spike Dup (2428083-MSD1)					Source: E407066-02		Prepared: 07/11/24 Analyzed: 07/11/24		
Chloride	545	20.0	250	300	98.2	80-120	0.510	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

Matador Resources, LLC.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	07/16/24 09:52

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

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

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



Chain of Custody

[illegible]

envirotech

Envirotech Analytical Laboratory

Printed: 7/11/2024 3:05:01PM

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:	Matador Resources, LLC.	Date Received:	07/11/24 10:30	Work Order ID:	E407072
Phone:	(972) 371-5200	Date Logged In:	07/10/24 16:50	Logged In By:	Alexa Michaels
Email:	agiovngo@ensolum.com	Due Date:	07/17/24 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: CouierComments/Resolution

COC Remarks on sample 2: Do not run unless BH01-24 is > 600Cl or 100 TPH

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? 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

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E409294

Job Number: 23003-0002

Received: 10/1/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/7/24

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: 10/7/24

Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240



Project Name: Young Deep SWD
Workorder: E409294
Date Received: 10/1/2024 8:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/1/2024 8:00:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/07/24 05:52

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
PH06-0'	E409294-01A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH06-2'	E409294-02A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH06-4'	E409294-03A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH06-6'	E409294-04A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH06-8'	E409294-05A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH06-9.5'	E409294-06A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH06-11'	E409294-07A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH06-13'	E409294-08A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH06-15'	E409294-09A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 5:52:03AM
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PH06-0'
E409294-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Benzene	ND	0.0250	1	10/01/24	10/02/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/02/24	
Toluene	ND	0.0250	1	10/01/24	10/02/24	
o-Xylene	ND	0.0250	1	10/01/24	10/02/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/02/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/02/24	
Surrogate: 4-Bromochlorobenzene-PID	105 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	94.6 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2440052	
Diesel Range Organics (C10-C28)	303	50.0	2	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	566	100	2	10/01/24	10/04/24	
Surrogate: n-Nonane	117 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2440049	
Chloride	115	20.0	1	10/02/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 5:52:03AM
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PH06-2'

E409294-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Benzene	ND	0.0250	1	10/01/24	10/02/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/02/24	
Toluene	ND	0.0250	1	10/01/24	10/02/24	
o-Xylene	ND	0.0250	1	10/01/24	10/02/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/02/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/02/24	
Surrogate: 4-Bromochlorobenzene-PID	105 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	95.2 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2440052	
Diesel Range Organics (C10-C28)	691	50.0	2	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	578	100	2	10/01/24	10/04/24	
Surrogate: n-Nonane	113 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2440049	
Chloride	665	20.0	1	10/02/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 5:52:03AM
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PH06-4'

E409294-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Benzene	ND	0.0500	2	10/01/24	10/02/24	
Ethylbenzene	ND	0.0500	2	10/01/24	10/02/24	
Toluene	ND	0.0500	2	10/01/24	10/02/24	
o-Xylene	ND	0.0500	2	10/01/24	10/02/24	
p,m-Xylene	ND	0.100	2	10/01/24	10/02/24	
Total Xylenes	ND	0.0500	2	10/01/24	10/02/24	
Surrogate: 4-Bromochlorobenzene-PID	109 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Gasoline Range Organics (C6-C10)	ND	40.0	2	10/01/24	10/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	94.4 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2440052	
Diesel Range Organics (C10-C28)	4250	250	10	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	2220	500	10	10/01/24	10/04/24	
Surrogate: n-Nonane	109 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2440049	
Chloride	444	20.0	1	10/02/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 5:52:03AM
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PH06-6'

E409294-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Benzene	ND	0.0500	2	10/01/24	10/02/24	
Ethylbenzene	ND	0.0500	2	10/01/24	10/02/24	
Toluene	ND	0.0500	2	10/01/24	10/02/24	
o-Xylene	ND	0.0500	2	10/01/24	10/02/24	
p,m-Xylene	0.107	0.100	2	10/01/24	10/02/24	
Total Xylenes	0.107	0.0500	2	10/01/24	10/02/24	
Surrogate: 4-Bromochlorobenzene-PID	113 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Gasoline Range Organics (C6-C10)	ND	40.0	2	10/01/24	10/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	95.7 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2440052	
Diesel Range Organics (C10-C28)	4830	250	10	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	2260	500	10	10/01/24	10/04/24	
Surrogate: n-Nonane	115 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2440049	
Chloride	1020	20.0	1	10/02/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 5:52:03AM
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PH06-8'

E409294-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Benzene	ND	0.0250	1	10/01/24	10/02/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/02/24	
Toluene	ND	0.0250	1	10/01/24	10/02/24	
o-Xylene	ND	0.0250	1	10/01/24	10/02/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/02/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/02/24	
Surrogate: 4-Bromochlorobenzene-PID	110 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	95.9 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2440052	
Diesel Range Organics (C10-C28)	1880	500	20	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	1090	1000	20	10/01/24	10/04/24	
Surrogate: n-Nonane	126 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2440049	
Chloride	3350	40.0	2	10/02/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 5:52:03AM
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PH06-9.5'

E409294-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Benzene	ND	0.125	5	10/01/24	10/02/24	
Ethylbenzene	ND	0.125	5	10/01/24	10/02/24	
Toluene	ND	0.125	5	10/01/24	10/02/24	
o-Xylene	ND	0.125	5	10/01/24	10/02/24	
p,m-Xylene	ND	0.250	5	10/01/24	10/02/24	
Total Xylenes	ND	0.125	5	10/01/24	10/02/24	
Surrogate: 4-Bromochlorobenzene-PID	109 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Gasoline Range Organics (C6-C10)	ND	100	5	10/01/24	10/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	94.6 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2440052	
Diesel Range Organics (C10-C28)	8970	500	20	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	4190	1000	20	10/01/24	10/04/24	
Surrogate: n-Nonane	125 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2440049	
Chloride	6240	100	5	10/02/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 5:52:03AM
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PH06-11'

E409294-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Benzene	ND	0.0250	1	10/01/24	10/02/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/02/24	
Toluene	ND	0.0250	1	10/01/24	10/02/24	
o-Xylene	ND	0.0250	1	10/01/24	10/02/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/02/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/02/24	
Surrogate: 4-Bromochlorobenzene-PID	102 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	96.4 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2440052	
Diesel Range Organics (C10-C28)	623	50.0	2	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	360	100	2	10/01/24	10/04/24	
Surrogate: n-Nonane	116 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2440049	
Chloride	6650	100	5	10/02/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 5:52:03AM
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PH06-13'

E409294-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Benzene	ND	0.0250	1	10/01/24	10/02/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/02/24	
Toluene	ND	0.0250	1	10/01/24	10/02/24	
o-Xylene	ND	0.0250	1	10/01/24	10/02/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/02/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	99.5 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	95.8 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2440052	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>						
	124 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2440049	
Chloride	6240	100	5	10/02/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 5:52:03AM
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PH06-15'

E409294-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Benzene	ND	0.0250	1	10/01/24	10/02/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/02/24	
Toluene	ND	0.0250	1	10/01/24	10/02/24	
o-Xylene	ND	0.0250	1	10/01/24	10/02/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/02/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/02/24	
Surrogate: 4-Bromochlorobenzene-PID	100 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2440031	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	95.3 %	70-130		10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2440052	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
Surrogate: n-Nonane	118 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2440049	
Chloride	5140	100	5	10/02/24	10/02/24	



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 5:52:03AM

Volatile Organics by EPA 8021B

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 (2440031-BLK1) Prepared: 10/01/24 Analyzed: 10/02/24

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	8.24		8.00		103	70-130			

LCS (2440031-BS1) Prepared: 10/01/24 Analyzed: 10/02/24

Benzene	5.05	0.0250	5.00		101	70-130			
Ethylbenzene	4.83	0.0250	5.00		96.6	70-130			
Toluene	4.95	0.0250	5.00		99.0	70-130			
o-Xylene	4.85	0.0250	5.00		97.0	70-130			
p,m-Xylene	9.80	0.0500	10.0		98.0	70-130			
Total Xylenes	14.7	0.0250	15.0		97.7	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.36		8.00		104	70-130			

Matrix Spike (2440031-MS1) Source: E409294-05 Prepared: 10/01/24 Analyzed: 10/02/24

Benzene	5.76	0.0250	5.00	ND	115	54-133			
Ethylbenzene	5.52	0.0250	5.00	ND	110	61-133			
Toluene	5.65	0.0250	5.00	ND	113	61-130			
o-Xylene	5.63	0.0250	5.00	ND	113	63-131			
p,m-Xylene	11.2	0.0500	10.0	ND	112	63-131			
Total Xylenes	16.9	0.0250	15.0	ND	112	63-131			
Surrogate: 4-Bromochlorobenzene-PID	8.82		8.00		110	70-130			

Matrix Spike Dup (2440031-MSD1) Source: E409294-05 Prepared: 10/01/24 Analyzed: 10/02/24

Benzene	5.80	0.0250	5.00	ND	116	54-133	0.629	20	
Ethylbenzene	5.54	0.0250	5.00	ND	111	61-133	0.390	20	
Toluene	5.68	0.0250	5.00	ND	114	61-130	0.426	20	
o-Xylene	5.66	0.0250	5.00	ND	113	63-131	0.587	20	
p,m-Xylene	11.3	0.0500	10.0	ND	113	63-131	0.415	20	
Total Xylenes	16.9	0.0250	15.0	ND	113	63-131	0.473	20	
Surrogate: 4-Bromochlorobenzene-PID	8.90		8.00		111	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 5:52:03AM

Nonhalogenated Organics by EPA 8015D - GRO

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 (2440031-BLK1) Prepared: 10/01/24 Analyzed: 10/02/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.72		8.00		96.4	70-130			

LCS (2440031-BS2) Prepared: 10/01/24 Analyzed: 10/02/24

Gasoline Range Organics (C6-C10)	46.5	20.0	50.0		93.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.76		8.00		97.0	70-130			

Matrix Spike (2440031-MS2) Source: E409294-05 Prepared: 10/01/24 Analyzed: 10/02/24

Gasoline Range Organics (C6-C10)	57.6	20.0	50.0	ND	115	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.73		8.00		96.6	70-130			

Matrix Spike Dup (2440031-MSD2) Source: E409294-05 Prepared: 10/01/24 Analyzed: 10/02/24

Gasoline Range Organics (C6-C10)	56.2	20.0	50.0	ND	112	70-130	2.41	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.79		8.00		97.4	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 5:52:03AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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 (2440052-BLK1)					Prepared: 10/01/24 Analyzed: 10/03/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	65.0		50.0		130	50-200			

LCS (2440052-BS1)					Prepared: 10/01/24 Analyzed: 10/04/24				
Diesel Range Organics (C10-C28)	305	25.0	250		122	38-132			
Surrogate: n-Nonane	59.2		50.0		118	50-200			

Matrix Spike (2440052-MS1)					Source: E409281-01		Prepared: 10/01/24 Analyzed: 10/04/24		
Diesel Range Organics (C10-C28)	333	25.0	250	33.7	120	38-132			
Surrogate: n-Nonane	60.2		50.0		120	50-200			

Matrix Spike Dup (2440052-MSD1)					Source: E409281-01		Prepared: 10/01/24 Analyzed: 10/04/24		
Diesel Range Organics (C10-C28)	334	25.0	250	33.7	120	38-132	0.241	20	
Surrogate: n-Nonane	60.6		50.0		121	50-200			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 5:52:03AM
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Anions by EPA 300.0/9056A

Analyst: DT

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 (2440049-BLK1)				Prepared: 10/02/24 Analyzed: 10/02/24					
Chloride	ND	20.0							
LCS (2440049-BS1)				Prepared: 10/02/24 Analyzed: 10/02/24					
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2440049-MS1)				Source: E409294-03		Prepared: 10/02/24 Analyzed: 10/02/24			
Chloride	702	20.0	250	444	103	80-120			
Matrix Spike Dup (2440049-MSD1)				Source: E409294-03		Prepared: 10/02/24 Analyzed: 10/02/24			
Chloride	698	20.0	250	444	102	80-120	0.605	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

Matador Resources, LLC.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/07/24 05:52

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

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

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



Chain of Custody

Page 1 of 1

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Matador Production Company				Company: Ensolum LLC		Lab WO# E40929423003-0002		1D	2D	3D	Std	NM	CO	UT	TX		
Project: Young Deep SWD				Address: 3122 National Parks Hwy								X					
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220													
Address: 3122 National Parks Hwy				Phone: 575-988-0055													
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com													
Phone: 575-988-0055				Miscellaneous:													
Email: agiovengo@ensolum.com																	
Sample Information						Analysis and Method						EPA Program					
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/TORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA
1047	9/27/24	S	1	PH06-0'		1											
1050				PH06-2'		2											
1108				PH06-4		3											
1114				PH06-6'		4											
1126				PH06-8'		5											
1137				PH06-9.5'		6											
1202				PH06-11'		7											
1215				PH06-13'		8											
1227				PH06-15'		9											
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, iestrella@ensolum.com, bdeal@ensolum.com, bsimmons@ensolum.com																	
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																	
Sampled by: Chad Hamilton Cole Burton																	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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. Lab Use Only Received on ice: (Y) 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										
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 14 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: 10/1/2024 11:09:54AM

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:	Matador Resources, LLC.	Date Received:	10/01/24 08:00	Work Order ID:	E409294
Phone:	(972) 371-5200	Date Logged In:	09/30/24 16:17	Logged In By:	Raina Schwanz
Email:	agiovngo@ensolum.com	Due Date:	10/07/24 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

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E409296

Job Number: 23003-0002

Received: 10/1/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/7/24

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: 10/7/24

Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240



Project Name: Young Deep SWD
Workorder: E409296
Date Received: 10/1/2024 8:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/1/2024 8:00:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/07/24 13:08
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS05A-0'	E409296-01A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH01-0'	E409296-02A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH01-1'	E409296-03A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH01-2'	E409296-04A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH02-0'	E409296-05A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH02-2'	E409296-06A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH03-0'	E409296-07A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH03-1'	E409296-08A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH04-0'	E409296-09A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH04-3'	E409296-10A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH05-0'	E409296-11A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
PH05-2'	E409296-12A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 1:08:28PM
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SS05A-0'

E409296-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	97.5 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	97.9 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	97.5 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	97.9 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2440043	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
Surrogate: n-Nonane	116 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2440050	
Chloride	224	20.0	1	10/01/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 1:08:28PM
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PH01-0'

E409296-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	97.7 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	99.1 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	100 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	97.7 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	99.1 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	100 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2440043	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
Surrogate: n-Nonane	114 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2440050	
Chloride	3490	40.0	2	10/01/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 1:08:28PM
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PH01-1'

E409296-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	99.3 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	99.3 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2440043	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
Surrogate: n-Nonane	127 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2440050	
Chloride	317	20.0	1	10/01/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 1:08:28PM
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PH01-2'

E409296-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	97.9 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	98.6 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	97.9 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	98.6 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2440043	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
Surrogate: n-Nonane	113 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2440050	
Chloride	300	20.0	1	10/01/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 1:08:28PM
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PH02-0'

E409296-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	97.5 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	97.5 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2440043	
Diesel Range Organics (C10-C28)	533	50.0	2	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	557	100	2	10/01/24	10/04/24	
Surrogate: n-Nonane	116 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2440050	
Chloride	874	20.0	1	10/01/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 1:08:28PM
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PH02-2'

E409296-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	97.8 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	99.5 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	97.8 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	99.5 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2440043	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
Surrogate: n-Nonane	122 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2440050	
Chloride	38.4	20.0	1	10/01/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 1:08:28PM
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PH03-0'

E409296-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	98.6 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	104 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	103 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	98.6 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	104 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	103 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2440043	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
Surrogate: n-Nonane	126 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2440050	
Chloride	104	20.0	1	10/01/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 1:08:28PM
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PH03-1'

E409296-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	98.3 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: Bromofluorobenzene	98.3 %	70-130		10/01/24	10/03/24	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		10/01/24	10/03/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2440043	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
Surrogate: n-Nonane	109 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2440050	
Chloride	47.3	20.0	1	10/01/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 1:08:28PM
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PH04-0'

E409296-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Benzene	ND	0.0250	1	10/01/24	10/04/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/04/24	
Toluene	ND	0.0250	1	10/01/24	10/04/24	
o-Xylene	ND	0.0250	1	10/01/24	10/04/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/04/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/04/24	
Surrogate: Bromofluorobenzene	97.6 %	70-130		10/01/24	10/04/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/01/24	10/04/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/04/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/04/24	
Surrogate: Bromofluorobenzene	97.6 %	70-130		10/01/24	10/04/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/01/24	10/04/24	
Surrogate: Toluene-d8	101 %	70-130		10/01/24	10/04/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2440043	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
Surrogate: n-Nonane	99.8 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2440050	
Chloride	3820	40.0	2	10/01/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 1:08:28PM
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PH04-3'

E409296-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Benzene	ND	0.0250	1	10/01/24	10/04/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/04/24	
Toluene	ND	0.0250	1	10/01/24	10/04/24	
o-Xylene	ND	0.0250	1	10/01/24	10/04/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/04/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/04/24	
Surrogate: Bromofluorobenzene	94.0 %	70-130		10/01/24	10/04/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/01/24	10/04/24	
Surrogate: Toluene-d8	98.0 %	70-130		10/01/24	10/04/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/04/24	
Surrogate: Bromofluorobenzene	94.0 %	70-130		10/01/24	10/04/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/01/24	10/04/24	
Surrogate: Toluene-d8	98.0 %	70-130		10/01/24	10/04/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2440043	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
Surrogate: n-Nonane	120 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2440050	
Chloride	263	20.0	1	10/01/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 1:08:28PM
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PH05-0'

E409296-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Benzene	ND	0.0250	1	10/01/24	10/04/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/04/24	
Toluene	ND	0.0250	1	10/01/24	10/04/24	
o-Xylene	ND	0.0250	1	10/01/24	10/04/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/04/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/04/24	
Surrogate: Bromofluorobenzene	98.6 %	70-130		10/01/24	10/04/24	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		10/01/24	10/04/24	
Surrogate: Toluene-d8	98.7 %	70-130		10/01/24	10/04/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/04/24	
Surrogate: Bromofluorobenzene	98.6 %	70-130		10/01/24	10/04/24	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		10/01/24	10/04/24	
Surrogate: Toluene-d8	98.7 %	70-130		10/01/24	10/04/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2440043	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
Surrogate: n-Nonane	95.9 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2440050	
Chloride	5410	40.0	2	10/01/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 1:08:28PM
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PH05-2'

E409296-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Benzene	ND	0.0250	1	10/01/24	10/04/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/04/24	
Toluene	ND	0.0250	1	10/01/24	10/04/24	
o-Xylene	ND	0.0250	1	10/01/24	10/04/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/04/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/04/24	
Surrogate: Bromofluorobenzene	98.1 %	70-130		10/01/24	10/04/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/01/24	10/04/24	
Surrogate: Toluene-d8	102 %	70-130		10/01/24	10/04/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2440032	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/04/24	
Surrogate: Bromofluorobenzene	98.1 %	70-130		10/01/24	10/04/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		10/01/24	10/04/24	
Surrogate: Toluene-d8	102 %	70-130		10/01/24	10/04/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2440043	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
Surrogate: n-Nonane	94.4 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2440050	
Chloride	275	20.0	1	10/01/24	10/02/24	



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 1:08:28PM

Volatile Organic Compounds by EPA 8260B

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 (2440032-BLK1) Prepared: 10/01/24 Analyzed: 10/03/24

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	0.493		0.500		98.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.509		0.500		102	70-130			
Surrogate: Toluene-d8	0.497		0.500		99.3	70-130			

LCS (2440032-BS1) Prepared: 10/01/24 Analyzed: 10/03/24

Benzene	2.02	0.0250	2.50		80.7	70-130			
Ethylbenzene	2.16	0.0250	2.50		86.4	70-130			
Toluene	2.19	0.0250	2.50		87.7	70-130			
o-Xylene	2.34	0.0250	2.50		93.8	70-130			
p,m-Xylene	4.66	0.0500	5.00		93.2	70-130			
Total Xylenes	7.00	0.0250	7.50		93.4	70-130			
Surrogate: Bromofluorobenzene	0.489		0.500		97.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.494		0.500		98.7	70-130			

Matrix Spike (2440032-MS1) Source: E409296-04 Prepared: 10/01/24 Analyzed: 10/03/24

Benzene	2.12	0.0250	2.50	ND	84.6	48-131			
Ethylbenzene	2.26	0.0250	2.50	ND	90.5	45-135			
Toluene	2.30	0.0250	2.50	ND	92.2	48-130			
o-Xylene	2.39	0.0250	2.50	ND	95.8	43-135			
p,m-Xylene	4.76	0.0500	5.00	ND	95.3	43-135			
Total Xylenes	7.16	0.0250	7.50	ND	95.4	43-135			
Surrogate: Bromofluorobenzene	0.484		0.500		96.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.497		0.500		99.4	70-130			

Matrix Spike Dup (2440032-MSD1) Source: E409296-04 Prepared: 10/01/24 Analyzed: 10/03/24

Benzene	2.09	0.0250	2.50	ND	83.5	48-131	1.28	23	
Ethylbenzene	2.26	0.0250	2.50	ND	90.2	45-135	0.332	27	
Toluene	2.29	0.0250	2.50	ND	91.7	48-130	0.544	24	
o-Xylene	2.45	0.0250	2.50	ND	97.9	43-135	2.17	27	
p,m-Xylene	4.87	0.0500	5.00	ND	97.4	43-135	2.19	27	
Total Xylenes	7.32	0.0250	7.50	ND	97.6	43-135	2.18	27	
Surrogate: Bromofluorobenzene	0.487		0.500		97.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.506		0.500		101	70-130			
Surrogate: Toluene-d8	0.497		0.500		99.4	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 1:08:28PM

Nonhalogenated Organics by EPA 8015D - GRO

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 (2440032-BLK1) Prepared: 10/01/24 Analyzed: 10/03/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.493		0.500		98.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.509		0.500		102	70-130			
Surrogate: Toluene-d8	0.497		0.500		99.3	70-130			

LCS (2440032-BS2) Prepared: 10/01/24 Analyzed: 10/03/24

Gasoline Range Organics (C6-C10)	40.4	20.0	50.0		80.9	70-130			
Surrogate: Bromofluorobenzene	0.494		0.500		98.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.490		0.500		98.0	70-130			
Surrogate: Toluene-d8	0.503		0.500		101	70-130			

Matrix Spike (2440032-MS2) Source: E409296-04 Prepared: 10/01/24 Analyzed: 10/03/24

Gasoline Range Organics (C6-C10)	46.3	20.0	50.0	ND	92.7	70-130			
Surrogate: Bromofluorobenzene	0.497		0.500		99.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.504		0.500		101	70-130			
Surrogate: Toluene-d8	0.510		0.500		102	70-130			

Matrix Spike Dup (2440032-MSD2) Source: E409296-04 Prepared: 10/01/24 Analyzed: 10/03/24

Gasoline Range Organics (C6-C10)	43.4	20.0	50.0	ND	86.8	70-130	6.56	20	
Surrogate: Bromofluorobenzene	0.480		0.500		96.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.515		0.500		103	70-130			
Surrogate: Toluene-d8	0.505		0.500		101	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 1:08:28PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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 (2440043-BLK1)					Prepared: 10/01/24 Analyzed: 10/03/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	55.8		50.0		112	50-200			

LCS (2440043-BS1)					Prepared: 10/01/24 Analyzed: 10/03/24				
Diesel Range Organics (C10-C28)	277	25.0	250		111	38-132			
Surrogate: n-Nonane	57.6		50.0		115	50-200			

Matrix Spike (2440043-MS1)					Source: E409295-02		Prepared: 10/01/24 Analyzed: 10/04/24		
Diesel Range Organics (C10-C28)	259	25.0	250	ND	104	38-132			
Surrogate: n-Nonane	56.2		50.0		112	50-200			

Matrix Spike Dup (2440043-MSD1)					Source: E409295-02		Prepared: 10/01/24 Analyzed: 10/04/24		
Diesel Range Organics (C10-C28)	258	25.0	250	ND	103	38-132	0.302	20	
Surrogate: n-Nonane	57.5		50.0		115	50-200			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 1:08:28PM
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Anions by EPA 300.0/9056A

Analyst: DT

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 (2440050-BLK1)					Prepared: 10/01/24 Analyzed: 10/01/24				
Chloride	ND	20.0							
LCS (2440050-BS1)					Prepared: 10/01/24 Analyzed: 10/01/24				
Chloride	257	20.0	250		103	90-110			
Matrix Spike (2440050-MS1)					Source: E409296-06		Prepared: 10/01/24 Analyzed: 10/02/24		
Chloride	297	20.0	250	38.4	103	80-120			
Matrix Spike Dup (2440050-MSD1)					Source: E409296-06		Prepared: 10/01/24 Analyzed: 10/02/24		
Chloride	297	20.0	250	38.4	104	80-120	0.129	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

Matador Resources, LLC.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/07/24 13:08

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

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

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



Chain of Custody

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Matador Production Company				Company: Ensolum LLC		Lab WO#		1D 2D 3D Std				NM CO UT TX					
Project: <u>Young Deep SWD</u>				Address: 3122 National Parks Hwy		<u>E4092910</u>		<u>2303-0002</u>				<u>X</u>					
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220													
Address: 3122 National Parks Hwy				Phone: 575-988-0055													
City, State, Zip: Carlsbad NM, 88220				Email: <u>agiovengo@ensolum.com</u>													
Phone: 575-988-0055				Miscellaneous:													
Email: <u>agiovengo@ensolum.com</u>																	
Sample Information						Analysis and Method								EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA
0929	9/12/24	S	1	SS05A - 0'		1						X					
0835				PH01 - 0'		2						X					
841				PH01 - 1'		3						X					
0845				PH01 - 2'		4						X					
0906				PH02 - 0'		5						X					
0912				PH02 - 2'		6						X					
0927				PH03 - 0'		7						X					
0929				PH03 - 1'		8						X					
0946				PH04 - 0'		9						X					
1005				PH04 - 3'		10						X					
Additional Instructions: Please CC: <u>cburton@ensolum.com</u> , <u>agiovengo@ensolum.com</u> , <u>chamilton@ensolum.com</u> , <u>iestrella@ensolum.com</u> , <u>bdeal@ensolum.com</u> , <u>bsimmons@ensolum.com</u> I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: <u>Chad Hamilton, Cole Burton</u>																	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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. Lab Use Only Received on ice: <u>Y</u> / 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										
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 14 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

Page 2 of 2

Envirotech Analytical Laboratory

Printed: 10/1/2024 11:16:36AM

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:	Matador Resources, LLC.	Date Received:	10/01/24 08:00	Work Order ID:	E409296
Phone:	(972) 371-5200	Date Logged In:	09/30/24 16:28	Logged In By:	Raina Schwanz
Email:	agiovngo@ensolum.com	Due Date:	10/07/24 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

Matador Resources, LLC.

Project Name: Young Deep SWD

Work Order: E410002

Job Number: 23003-0002

Received: 10/1/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/7/24

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: 10/7/24

Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240



Project Name: Young Deep SWD
Workorder: E410002
Date Received: 10/1/2024 8:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/1/2024 8:00:00AM, under the Project Name: Young Deep SWD.

The analytical test results summarized in this report with the Project Name: Young Deep SWD 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/07/24 05:55

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH04-0'	E410002-01A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
BH04-2'	E410002-02A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
BH04-4'	E410002-03A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
BH04-7'	E410002-04A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
BH04-10.5'	E410002-05A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 5:55:59AM
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BH04-0'
E410002-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2440028	
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
Surrogate: 4-Bromochlorobenzene-PID	94.7 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2440028	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	94.2 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2440052	
Diesel Range Organics (C10-C28)	624	50.0	2	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	1250	100	2	10/01/24	10/04/24	
Surrogate: n-Nonane	114 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2440048	
Chloride	525	20.0	1	10/01/24	10/02/24	

Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Young Deep SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
10/7/2024 5:55:59AM

BH04-2'

E410002-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2440028	
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	97.3 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2440028	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	95.6 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2440052	
Diesel Range Organics (C10-C28)	151	50.0	2	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	282	100	2	10/01/24	10/04/24	
<i>Surrogate: n-Nonane</i>						
	118 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2440048	
Chloride	43.4	20.0	1	10/01/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 5:55:59AM
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BH04-4'

E410002-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2440028	
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
Surrogate: 4-Bromochlorobenzene-PID	95.5 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2440028	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	94.8 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2440052	
Diesel Range Organics (C10-C28)	426	250	10	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	837	500	10	10/01/24	10/04/24	
Surrogate: n-Nonane	115 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2440048	
Chloride	195	20.0	1	10/01/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 5:55:59AM
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BH04-7'

E410002-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2440028	
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
Surrogate: 4-Bromochlorobenzene-PID	95.3 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2440028	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	94.5 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2440052	
Diesel Range Organics (C10-C28)	356	250	10	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	701	500	10	10/01/24	10/04/24	
Surrogate: n-Nonane	118 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2440048	
Chloride	150	20.0	1	10/01/24	10/02/24	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 5:55:59AM
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BH04-10.5'
E410002-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2440028	
Benzene	ND	0.0250	1	10/01/24	10/03/24	
Ethylbenzene	ND	0.0250	1	10/01/24	10/03/24	
Toluene	ND	0.0250	1	10/01/24	10/03/24	
o-Xylene	ND	0.0250	1	10/01/24	10/03/24	
p,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
Surrogate: 4-Bromochlorobenzene-PID	96.2 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2440028	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	95.8 %	70-130		10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2440052	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Oil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
Surrogate: n-Nonane	118 %	50-200		10/01/24	10/04/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2440048	
Chloride	136	20.0	1	10/01/24	10/02/24	



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 5:55:59AM

Volatile Organics by EPA 8021B

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 (2440028-BLK1) Prepared: 10/01/24 Analyzed: 10/02/24

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	7.87		8.00		98.4	70-130			

LCS (2440028-BS1) Prepared: 10/01/24 Analyzed: 10/02/24

Benzene	4.59	0.0250	5.00		91.7	70-130			
Ethylbenzene	4.37	0.0250	5.00		87.3	70-130			
Toluene	4.48	0.0250	5.00		89.6	70-130			
o-Xylene	4.36	0.0250	5.00		87.2	70-130			
p,m-Xylene	8.87	0.0500	10.0		88.7	70-130			
Total Xylenes	13.2	0.0250	15.0		88.2	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.98		8.00		99.7	70-130			

Matrix Spike (2440028-MS1) Source: E409291-06 Prepared: 10/01/24 Analyzed: 10/02/24

Benzene	5.12	0.0250	5.00	ND	102	54-133			
Ethylbenzene	4.91	0.0250	5.00	ND	98.2	61-133			
Toluene	5.01	0.0250	5.00	ND	100	61-130			
o-Xylene	4.90	0.0250	5.00	ND	98.0	63-131			
p,m-Xylene	9.94	0.0500	10.0	ND	99.4	63-131			
Total Xylenes	14.8	0.0250	15.0	ND	99.0	63-131			
Surrogate: 4-Bromochlorobenzene-PID	8.13		8.00		102	70-130			

Matrix Spike Dup (2440028-MSD1) Source: E409291-06 Prepared: 10/01/24 Analyzed: 10/02/24

Benzene	5.56	0.0250	5.00	ND	111	54-133	8.35	20	
Ethylbenzene	5.31	0.0250	5.00	ND	106	61-133	7.89	20	
Toluene	5.45	0.0250	5.00	ND	109	61-130	8.25	20	
o-Xylene	5.33	0.0250	5.00	ND	107	63-131	8.46	20	
p,m-Xylene	10.7	0.0500	10.0	ND	107	63-131	7.70	20	
Total Xylenes	16.1	0.0250	15.0	ND	107	63-131	7.95	20	
Surrogate: 4-Bromochlorobenzene-PID	8.18		8.00		102	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 5:55:59AM

Nonhalogenated Organics by EPA 8015D - GRO

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 (2440028-BLK1) Prepared: 10/01/24 Analyzed: 10/02/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.61		8.00		95.1	70-130			

LCS (2440028-BS2) Prepared: 10/01/24 Analyzed: 10/02/24

Gasoline Range Organics (C6-C10)	44.0	20.0	50.0		87.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.78		8.00		97.3	70-130			

Matrix Spike (2440028-MS2) Source: E409291-06 Prepared: 10/01/24 Analyzed: 10/03/24

Gasoline Range Organics (C6-C10)	41.1	20.0	50.0	ND	82.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.78		8.00		97.3	70-130			

Matrix Spike Dup (2440028-MSD2) Source: E409291-06 Prepared: 10/01/24 Analyzed: 10/03/24

Gasoline Range Organics (C6-C10)	41.7	20.0	50.0	ND	83.4	70-130	1.45	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.71		8.00		96.4	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Young Deep SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/7/2024 5:55:59AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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 (2440052-BLK1)					Prepared: 10/01/24 Analyzed: 10/03/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	65.0		50.0		130	50-200			

LCS (2440052-BS1)					Prepared: 10/01/24 Analyzed: 10/04/24				
Diesel Range Organics (C10-C28)	305	25.0	250		122	38-132			
Surrogate: n-Nonane	59.2		50.0		118	50-200			

Matrix Spike (2440052-MS1)					Source: E409281-01		Prepared: 10/01/24 Analyzed: 10/04/24		
Diesel Range Organics (C10-C28)	333	25.0	250	33.7	120	38-132			
Surrogate: n-Nonane	60.2		50.0		120	50-200			

Matrix Spike Dup (2440052-MSD1)					Source: E409281-01		Prepared: 10/01/24 Analyzed: 10/04/24		
Diesel Range Organics (C10-C28)	334	25.0	250	33.7	120	38-132	0.241	20	
Surrogate: n-Nonane	60.6		50.0		121	50-200			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Young Deep SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 10/7/2024 5:55:59AM
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Anions by EPA 300.0/9056A

Analyst: DT

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 (2440048-BLK1)					Prepared: 10/01/24 Analyzed: 10/01/24				
Chloride	ND	20.0							
LCS (2440048-BS1)					Prepared: 10/01/24 Analyzed: 10/01/24				
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2440048-MS1)					Source: E409291-04		Prepared: 10/01/24 Analyzed: 10/01/24		
Chloride	260	20.0	250	ND	104	80-120			
Matrix Spike Dup (2440048-MSD1)					Source: E409291-04		Prepared: 10/01/24 Analyzed: 10/01/24		
Chloride	259	20.0	250	ND	104	80-120	0.224	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

Matador Resources, LLC.	Project Name:	Young Deep SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/07/24 05:55

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

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

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



Chain of Custody

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Matador Production Company				Company: Ensolum LLC		Lab WO# E410002		Job Number 23003-0002		1D	2D	3D	Std	NM	CO	UT	TX
Project: <u>Young Deep SWD</u>				Address: 3122 National Parks Hwy									X	X			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220													
Address: 3122 National Parks Hwy				Phone: 575-988-0055													
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com													
Phone: 575-988-0055				Miscellaneous:													
Email: agiovengo@ensolum.com																	
Sample Information						Analysis and Method								EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA
0853	9/27/24	S	1	BH04-0'		1						X					
0858	9/27/24	S	1	BH04-2'		2						X					
1302	9/27/24	S	1	BH04-4'		3						X					
1309	9/27/24	S	1	BH04-7'		4						X					
1321	9/27/24	S	1	BH04-10.5'		5						X					
			6														
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, iestrella@ensolum.com, bdeal@ensolum.com, bsimmons@ensolum.com																	
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																	
Sampled by: <u>Chad Hamilton, Cole Burton</u>																	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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. Lab Use Only Received on ice: <u>Y</u> 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										
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 14 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: 10/1/2024 11:21:42AM

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:	Matador Resources, LLC.	Date Received:	10/01/24 08:00	Work Order ID:	E410002
Phone:	(972) 371-5200	Date Logged In:	10/01/24 09:22	Logged In By:	Caitlin Mars
Email:	agiovngo@ensolum.com	Due Date:	10/07/24 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 E

Email Correspondence

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

QUESTIONS

Action 338299

QUESTIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 338299
	Action Type: [NOTIFY] Notification Of Release (NOR)

QUESTIONS

Location of Release Source	
Please answer all the questions in this group.	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Other (Specify) Produced Water Released: 89 BBL Recovered: 70 BBL Lost: 19 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 338299

QUESTIONS (continued)

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 338299
	Action Type: [NOTIFY] Notification Of Release (NOR)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.
Per Paragraph 4 of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. 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 prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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ACKNOWLEDGMENTS

Action 338299

ACKNOWLEDGMENTS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 338299
	Action Type: [NOTIFY] Notification Of Release (NOR)

ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	I acknowledge that I am authorized to submit notification of a release on behalf of my operator.
<input checked="" type="checkbox"/>	I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to my operator) to track the notification(s) and corrective action(s) for a release, pursuant to NMAC 19.15.29.
<input checked="" type="checkbox"/>	I acknowledge that creating a new incident file will require my operator to file subsequent submission(s) of form "C-141, Application for administrative approval of a release notification and corrective action", pursuant to NMAC 19.15.29.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	I acknowledge the fact that 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.
<input checked="" type="checkbox"/>	I acknowledge the fact that, 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.

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Santa Fe, NM 87505

CONDITIONS

Action 338299

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 338299
	Action Type: [NOTIFY] Notification Of Release (NOR)

CONDITIONS

Created By	Condition	Condition Date
j_touchet	When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141.	4/29/2024

Impacted Soil	
Saturated Soil (inches)	
	3
	3219
Standing fluids	
inches of standing fluid	
	0
bbl estimate of standing fluids	
	0.0
barrels recovered (if known)	
	0
Soil type	
pad caliche	
Spill type	
produced water	
Barrel estimate in soil	
	28.7
Barrel estimate (standing fluids/ recovered+in soil)	
	28.7

need to populate or select

Impacted Soil	
Saturated Soil (inches)	
	4
	1530
Standing fluids	
inches of standing fluid	
	0
bbl estimate of standing fluids	
	0.0
barrels recovered (if known)	
	70
Soil type	
pad caliche	
Spill type	
produced water	
Barrel estimate in soil	
	18.2
Barrel estimate (standing fluids/ recovered+in soil)	
	88.2

need to populate or select

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Santa Fe, NM 87505

QUESTIONS

Action 339681

QUESTIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 339681
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Initial C-141 Received

Location of Release Source	
Please answer all the questions in this group.	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Other (Specify) Produced Water Released: 117 BBL Recovered: 70 BBL Lost: 47 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

District I

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QUESTIONS, Page 2

Action 339681

QUESTIONS (continued)

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 339681
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: Clint Talley Title: Assistant Foreman Email: clinton.talley@matadorresources.com Date: 05/01/2024
--	--

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QUESTIONS, Page 3

Action 339681

QUESTIONS (continued)

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 339681
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS**Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Not answered.
What method was used to determine the depth to ground water	Not answered.
Did this release impact groundwater or surface water	Not answered.
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Not answered.
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Not answered.
An occupied permanent residence, school, hospital, institution, or church	Not answered.
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Not answered.
Any other fresh water well or spring	Not answered.
Incorporated municipal boundaries or a defined municipal fresh water well field	Not answered.
A wetland	Not answered.
A subsurface mine	Not answered.
An (non-karst) unstable area	Not answered.
Categorize the risk of this well / site being in a karst geology	Not answered.
A 100-year floodplain	Not answered.
Did the release impact areas not on an exploration, development, production, or storage site	Not answered.

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	No
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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CONDITIONS

Action 339681

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 339681
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	5/1/2024

From: [Hamlet, Robert, EMNRD](#)
To: [Ashley Giovengo](#)
Cc: [clinton.talley@matadorresources.com](#); [Jason Touchet](#); [Cole Burton](#); [Chad Hamilton](#); [Bratcher, Michael, EMNRD](#); [Wells, Shelly, EMNRD](#); [Velez, Nelson, EMNRD](#)
Subject: Extension Request - Young Deep SWD - Incident Number nAPP2412026782
Date: Friday, July 12, 2024 7:44:00 AM
Attachments: [image006.png](#)
[image007.png](#)
[image008.png](#)

[**EXTERNAL EMAIL**]

RE: Incident #NAPP2412026782

Ashley,

Your request for a 90 day extension to **October 10th, 2024** 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
<http://www.emnrd.state.nm.us/OCD/>



From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Thursday, July 11, 2024 10:29 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Subject: FW: [EXTERNAL] Extension Request - Young Deep SWD - Incident Number nAPP2412026782

From: Ashley Giovengo <agiovengo@ensolum.com>
Sent: Thursday, July 11, 2024 10:25 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>; clinton.talley@matadorresources.com; jason.touchet@matadorresources.com
Cc: Cole Burton <cburton@ensolum.com>; Chad Hamilton <chamilton@ensolum.com>
Subject: [EXTERNAL] Extension Request - Young Deep SWD - Incident Number nAPP2412026782

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

Matador Production Company (Matador) is requesting an extension for the current deadline of July 29, 2024, for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC at the Young Deep SWD (Site) (Incident Number nAPP2412026782). The release occurred on April 28, 2024, and lateral delineation and vertical delineation sampling to the strictest criteria per NMOCD Table I has been completed at the Site. Matador completed a depth to water boring on July 10, 2024, and Ensolum personnel will allow the boring (BH01) to equilibrate for 72-hours before completing measuring the depth to groundwater (DTW). Matador intends to begin remediation at the Site as soon as the DTW has been determined and will submit a remediation work plan or closure report upon receiving final laboratory analytical data from confirmation sampling activities. Matador respectfully requests a 90-day extension until October 27, 2024. Please let me know if you have any further questions regarding this site.

Thanks,



Ashley Giovengo

Senior Scientist

575-988-0055

Ensolum, LLC

in f X

“Your authenticity is your superpower.” – Unknown

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QUESTIONS

Action 391286

QUESTIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID:
	228937
	Action Number:
	391286
Action Type:	
[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)	

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2412026782
Incident Name	NAPP2412026782 YOUNG DEEP SWD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

Location of Release Source	
Please answer all the questions in this group.	
Site Name	Young Deep SWD
Date Release Discovered	04/28/2024
Surface Owner	Private

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Other (Specify) Produced Water Released: 117 BBL Recovered: 70 BBL Lost: 47 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 391286

QUESTIONS (continued)

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID:
	228937
	Action Number:
	391286
Action Type:	
[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)	

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: Jason Touchet Title: EHS Field Rep Email: jason.touchet@matadorresources.com Date: 10/09/2024
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QUESTIONS, Page 3

Action 391286

QUESTIONS (continued)

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID:
	228937
	Action Number:
	391286
Action Type:	
[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)	

QUESTIONS**Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride	(EPA 300.0 or SM4500 Cl B)	24800
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	14100
GRO+DRO	(EPA SW-846 Method 8015M)	8970
BTEX	(EPA SW-846 Method 8021B or 8260B)	2
Benzene	(EPA SW-846 Method 8021B or 8260B)	1

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	11/04/2024
On what date will (or did) the final sampling or liner inspection occur	11/15/2024
On what date will (or was) the remediation complete(d)	11/15/2024
What is the estimated surface area (in square feet) that will be reclaimed	4320
What is the estimated volume (in cubic yards) that will be reclaimed	733.6
What is the estimated surface area (in square feet) that will be remediated	3838
What is the estimated volume (in cubic yards) that will be remediated	890.4

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 391286

QUESTIONS (continued)

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID:	228937
	Action Number:	391286
	Action Type:	[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	Not answered.
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Yes
What is the name of the NMED facility	Lea Land Hobbs, NM
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
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.	
I hereby agree and sign off to the above statement	Name: Jason Touchet Title: EHS Field Rep Email: jason.touchet@matadorresources.com Date: 10/09/2024
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5

Action 391286

QUESTIONS (continued)

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 391286
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 391286

QUESTIONS (continued)

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID:
	228937
	Action Number:
	391286
Action Type:	
[C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)	

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	397944
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/06/2024
What was the (estimated) number of samples that were to be gathered	80
What was the sampling surface area in square feet	8129

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Action 391286

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 391286
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards from Table 1 of the OCD Spill Rule for site assessment/characterization/proven depth to water determination. Sidewall/Edge samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The variance is approved for 400 ft2 floor confirmation samples in the Release Area. The release area will still need confirmation sidewall samples representing no more than 200 ft2. All sidewall samples should be taken from the sidewall of the excavation. Please make sure that the edge of the release extent is accurately defined. All off-pad areas must meet reclamation/revegetation standards set forth in the OCD Spill Rule. The work will need to occur in 90 days after the report has been reviewed.	11/1/2024