# **E N S O L U M**

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

Young Deep SWD

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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<sup>®</sup> chloride QuanTab<sup>®</sup> test strips and the Mohr titration method and TPH utilizing a PetroFLAG<sup>®</sup> 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.

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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 wastecontaining 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.

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- The excavation will be backfilled and recontoured to match pre-existing conditions and the offpad areas will be reserved 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**

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# TABLES

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				۲ Matado	TABLE 1           LE ANALYTICA           Young Deep SWI           or Production Co           County, New Me	) mpany				
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
				Delin	eation Soil San	nples				
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 BH02	6/17/2024 6/17/2024	4 6	<0.0250 <0.0250	<0.0500 <0.0500	<20.0 <20.0	2,024 89.9	1,710 119	<b>2,040</b> 89.9	<b>3,734</b> 209	584 388
BH02 BH02	6/17/2024	8.5	<0.0250	<0.0500	<20.0	89.9 54	56	89.9 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	10	<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

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	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			
				Delin	eation Soil San	nples		L					
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

NO	ose pod no. (w POD1	ELL NO.	)	w N	ELL TAG ID NO. 'A		OSE FILE NO CP-2001 PC			
OCAT	WELL OWNER Matador Prod						PHONE (OPT	IONAL)		
WELLL	WELL OWNER N R347 N26th H		ADDRESS treet 2nd Floor				CITY Artesia		STATE NM 88210	ZIP
1. GENERAL AND WELL LOCATION	WELL LOCATION	LAT	DE	GREES 32	MINUTES SECO 45 52	NDS	* ACCURAC	Y REQUIRED: ONE TEN	TH OF A SECOND	
NERA	(FROM GPS)	_	UTODE	-103		3.11 W		QUIRED: WGS 84		
1. GF			G WELL LOCATION TO T 18S, R 32E, Lea, (		S AND COMMON LAND	MARKS – PLS	SS (SECTION, TO	DWNSHJIP, RANGE) WH	IERE AVAILABLE	
	LICENSE NO. WD118	8	NAME OF LICENSED		Scarborough			NAME OF WELL DR	ILLING COMPANY arborough Drilling Inc	
	DRILLING STAN 6/10/202		DRILLING ENDED 6/10/2024	DEPTH OF COMP		BORE HO	LE DEPTH (FT) 55'		ST ENCOUNTERED (FT) N/A	•
	COMPLETED W		ARTESIAN	✓ DRY HOLE	SHALLOW (UNC	ONFINED)		STATIC WATER LEV	VEL IN COMPLETED WE	ELL (FT)
VOIL	DRILLING FLUI	D:	✓ AIR		ADDITIVES – SPI	ECIFY:		-		
DRMA	DRILLING MET	HOD:	<b>F</b> ROTARY	HAMMER	CABLE TOOL	OTHE	ER – SPECIFY:			
2. DRILLING & CASING INFORMATION	DEPTH (fe FROM	et bgl) TO	BORE HOLE DIAM (inches)	(include eac	ATERIAL AND/OR GRADE h casing string, and	CON	ASING NECTION ГҮРЕ	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
& CA	0	55	5.00		tions of screen) il Boring	(add coup	oling diameter) -	-	-	-
DNIT							_			
DRII										
7										
		-								
						11				
_	DEPTH (fe	et bgl)	BORE HOLE	LIST	ANNULAR SEAL M	ATERIAL	AND	AMOUNT	METHO	DOF
RIAL	FROM	ТО	DIAM. (inches)	GRAVE	L PACK SIZE-RANG	E BY INTI	ERVAL	(cubic feet)	PLACEN	
ANNULAR MATERIAL					N/A					
LARN										
ANNU										
З.										
	R OSE INTERNA	AL USE							& LOG (Version 04/3	30/19)
FILI	E NO.				POD NO.		TRN	NO.		

WELL TAG ID NO.

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LOCATION

	DEPTH (1	eet bgl)	THICKNESS		D TYPE OF MATERIAL E				TER	ESTIMATED YIELD FOR
	FROM	то	(feet)		ER-BEARING CAVITIES O plemental sheets to fully d			1.	RING? / NO)	WATER- BEARING ZONES (gpm)
	0	10	10		Sand, Light brown, Fine gra	ained		Y	√ N	
	10	20	10		Sand, Light brown, Fine gra	ained		Y	√ N	
	20	30	10		Sand, Light brown, Fine gra	ained		Y	√ N	
	30	40	10		Silty Sand, Red, Fine grai	ned		Y	√ N	
	40	50	10		Silty Sand, Red, Fine grai	ned		Y	√ N	
Ļ	50	55	5	Clayey Gravel with San	nd, Red, Very fine to Medium	n Grain	ed with Large Gravel	Y	√ N	
VEL	55	55	0	Clayey Gravel with Sau	nd, Red, Very fine to Mediu	n Grain	ed with Large Gravel	Y	√ N	
OF								Y	N	
50								Y	N	
ICL								Y	N	
00				1				Y	N	
4. HYDROGEOLOGIC LOG OF WELL								Y	N	
ROG								Y	N	
IVD				· · · · · · · · · · · · · · · · · · ·				Y	N	
4.1								Y	N	
								Y	N	
								Y	N	
								Y	N	
								Y	N	
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				1				Y	N	
1	METHOD L	ISED TO E	STIMATE YIELI	OF WATER-BEARING				AL ESTIN		0.00
	PUM.	P 🗆 A	AIR LIFT	BAILER OT	HER – SPECIFY:					0.00
SION	WELL TES	T TEST	RESULTS - ATT TIME, END TI	ACH A COPY OF DAT ME, AND A TABLE SH	A COLLECTED DURING	WELL T	TESTING, INCLUD WDOWN OVER TH	NG DISC E TESTIN	HARGE N NG PERIO	METHOD, D.
TEST; RIG SUPERVIS			bi	elow ground surface (b	al removed and soil boring ogs), then hydrated benton	nite chi	ps 10 ft ogs to grot	ind surra	ce.	
5. TE					VIDED ONSITE SUPER VI					
6. SIGNATURE	RECORDO	F THE ABO ORD WILL	OVE DESCRIBED	) WELL. I ALSO CERT WITH THE PERMIT H	F MY KNOWLEDGE ANI IFY THAT THE WELL TA IOLDER WITHIN 30 DAYS	G, IF RI	EQUIRED, HAS BEI	EN INSTA	LLED AN	ID THAT THIS
5		SIGNAT	URE OF DRILLI	ER / PRINT SIGNEE	NAME				DATE	
FOF	R OSE INTER	NAL USE					WR-20 WELL RE	CORD &	LOG (Ve	rsion 04/30/2019
FIL	E NO.				POD NO.		TRN NO.			
LOO	CATION				And the second s	WELL	TAG ID NO.			PAGE 2 OF 2



**APPENDIX B** 

Lithologic Soil Sampling Logs

								Sample Name: BH01	Date: 5/16/24			
								Site Name: Young Deep SWD				
			N	2	ΟΙ			Incident Number: nAPP24120267	782			
and the second second								Job Number: 03A2270043	-			
		LITHOL	OGI		SAMPLING	GLOG		Logged By: Israel Estrella	Method: Hand Auger			
Coord	inates:							Hole Diameter: 3'	Total Depth: 24 '			
					vith HACH Cl	nloride Test	Strips and	PetroFLAG for chloride and TPH, r				
			-					factors included.				
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Des	scriptions			
W			Y	BH01	0	0	CCHE	Pad Caliche - W	/et, Stained			
					-	-		Silty Sand - Loose, Medium to Dark Br				
N.4			N			- 1	SP-SM	Wet, Non-Plastic, Noncohesive	e, Massive, Non-Uniform			
Μ			Ν	BH01	1 _	_ 1						
м	1948		N	BH01	2	2						
М	1954		N	BH01	3	3						
м	1954		N	BH01	4	4	SP- SM	Silty Sand - Loose, Medium to Dark Bro M Medium to fine grain size, Moist, Non-Pl				
м	2391		N	BH01	5	5		Noncohesive, Massiv	ve, Non-Uniform			
м	2564		N	BH01	6	- 6						
м	2744		N	BH01	7	- - 7 -						
м	3399		N	BH01	8_	- - 8 -						
м	3399		N	BH01	9	9						
М	3399		N	BH01	10	10	CCHE	Indurated Caliche - White Medium to fine grain size Noncohesive, Mas	e, Moist, Non-Plastic,			
М	3399		N	BH01	11	- 11						
М	3399		Ν	BH01	12	12						

								Sample Name: BH01	Date: 5/16/24		
			N	C		LU	R/	Site Name: Young Deep SWD			
								Incident Number: nAPP24120267	782		
								Job Number: 03A2270043			
		LITHOL	OGI	C / SOIL S	SAMPLING	G LOG		Logged By: Israel Estrella	Method: Hand Auger		
Coordi	nates: 3	32.76656	, -103	.76105				Hole Diameter: 3'	Total Depth: 24 '		
			-					PID for chloride and vapor, respect factors included.	tively. Chloride test		
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Des	scriptions		
М	3399		Ν	BH01	13	13		Indurated Caliche - White t	to tan some light pink,		
					-	-	CCHE	Medium to fine grain si	ze, M, Non-Plastic,		
					_	-		Noncohesive, Mas	sive, Uniform		
М	3399		Ν	BH01	14	_ 14					
М	3399		N	BH01	15	- - 15		Clayey Sand/Caliche Mix - Li	-		
М	3399		N	BH01	16	- 16	SC	Medium to fine w/ very fine Plastic, Noncohesive, Gradatic	Uniform Alluvial,		
Μ	633		N	BH01	17	- 17 -		Refusal achieved for han Borehole was continued wi			
м	3,612		N	BH01	18	18					
м	913		Ν	BH01	19	19					
м	1,165		N	BH01	20	20		Clayey Sand/Caliche Mix	- Dark Red to pink,		
м			N	BH01	21	21	SC	Medium to fine w/ very fine Plastic, Noncohesive,	<b>e</b> .		
Μ			N	BH01	22	22		Refusal achieved for tra Borehole was continued wit after 20	th trailer-mounted drill		
Μ			N	BH01	23	23		aner 20	, it.		
м			Ν	BH01	24	24					
						Total De	pth @ 2	4 ft bgs.			
						<b></b>					

								Sample Name: BH02	Date: 5/16/24		
				C				Site Name: Young Deep SWD			
				2		LU		Incident Number: nAPP24120267	82		
and the second								Job Number: 03A2270043			
		LITHOL	.OGI		SAMPLING	G LOG		Logged By: Israel Estrella	Method: Hand Auger		
Coord	inates: 3	32.76643	8, -103	.76123				Hole Diameter: 3'	Total Depth: 19'		
Comm	ents: Fie	ld screer	ning co	onducted v	vith HACH Cl	nloride Test S	Strips and	PetroFLAG for chloride and TPH, re	espectively. Chloride test		
perfor	med with	n 1:4 dilu	ition f	actor of so	il to distilled	water. No c	orrection	factors included.			
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Des	criptions		
D			Ν	BH02	0 _	0	CCHE	Pad Caliche - Dr	y, no stain		
м			N	BH02	- 1 _ -						
M	ND 1,798		N Y	BH02	2 _ - 3 _ -	2 - - - - - - - - - - - - - - - - - - -	SM	Silty Sand - Loose, Medi Medium to fine grain size Noncohesive, Massive,	, Moist, Non-Plastic, Uniform, Alluvial		
м	700		Y		4	4		Borehole was continued with trackhoe afte bgs.			
М	1,456		Y		5	_ 5					
м	632		N		- 6	- - - 6		Silty Sand w/ Caliche Gravel- Loos	se. Medium to Dark Brown		
м					-	-	SM	w/ White, Medium to fine grain Moist, Non-Plastic, Noncohesive,	size w/ some small gravel,		
	1,674		N		7	- 7 	SM	Silty Sand w/ trace Caliche C to Dark Brown w/ White, I size w/ some small gravel	Medium to fine grain		
								Noncohesive, Massive,	Uniform, Alluvial		
D	409	285	Ν		8.5	8.5					
D	515		Ν		9	9					
D	634		N		- 	- - - 10 -	ССНЕ	Indurated Caliche - 8.5-9 ft k light pink, Medium to fin Plastic, Noncohesive, Mass 9-13.5 ft bgs: Pink, Mediun	e grain size, D, Non- sive, Uniform, Alluvial n to fine grain size, D,		
D	634		N		11	11		Non-Plastic, Noncohesive, Massive, Uniform, Alluvial			
	634				12	12					

								Sample Name: BH02	Date: 5/16/24
								Site Name: Young Deep SWD	54101 5/20/21
		L	N		ΟΙ	LU		Incident Number: nAPP2412026	782
and the second								Job Number: 03A2270043	
			OGI		SAMPLING	GLOG		Logged By: Israel Estrella	Method: Hand Auger
Coord	inates: 3			-				Hole Diameter: 3"	Total Depth: 2 '
					vith HACH Cl	hloride Test		PetroFLAG for chloride and TPH, r	espectively. Chloride test
			-					factors included.	
Moisture Content	U	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic De	scriptions
М	633		Ν	BH02	13.5	13.5			
M M	633 515		N N	вно2 вно2	- 14.5 15 -	- 14.5 15	SC	Clayey Sand Caliche Mix w, Red, med to fine w/ som small gravel, M, Non-Pl Massive, Unifor	e very fine and trace lastic, Noncohesive,
М	1,075		N	BH02	16 	16	SC	Silty Sand Caliche Mix w/ trace Red, med to fine w/ some very fir Non-Plastic, Noncohesive, M	ne and trace small gravel, M,
М	2,055		Ν	BH02	17	17			
м	459		N	BH02	18		SC	Clayey Sand Caliche Mix v med to fine w/ some very gravel, M, Non-Plastic, N Uniform, A	y fine and some small oncohesive, Massive,
М			Ν	RH02	19	19 Total De	nth @ 1	0 ft bac	

			Sample Name: BH03	Date: 5/16/24
	N S O I	_ U N	Site Name: Young Deep SWD	
				5782
			Job Number: 03A2270043	
	LOGIC / SOIL SAMPLING	LOG	Logged By: Israel Estrella	Method: Hand Auger
Coordinates: 32.7662		Levide Tel Cold	Hole Diameter: 3"	Total Depth: 2'
	ution factor of soil to distilled	•	nd PetroFLAG for chloride and TPH, on factors included.	respectively. Chloride test
Moisture Content Chloride (ppm) TPH (ppm)	Staining Samble ID Depth (ft bgs)		Lithologic De	escriptions
D	N BH03 0	L 0 ссн	E Pad Caliche - D	Dry, no stain
м	N BH03 1	1 SM	Silty Sand - Loose, Med Medium to fine grain siz Noncohesive, Massiv	e, Moist, Non-Plastic,
M ND	N BH03 2	2 SM Total Depth @		-

								Sample Name: BH04	Date: 9/27/2024
				C			R A	Site Name: Young Deep SWD	
			IN	2		LU		Incident Number: nAPP241202678	32
								Job Number: 03A2270043	
			OGI		SAMPLING	5106		Logged By: Chad Hamilton	Method: Backhoe
Coord		2.766344						Hole Diameter: 2'	Total Depth: 10.5'
					vith HACH Cl	nloride Test S	Strips and	PetroFLAG for chloride and TPH, re	
			-					factors included.	
Moisture Content	-	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Des	scriptions
D	459		Y	BH04	0	L 0	SM	Silty Sand - Loose, Medium to Dark Bro Dry, Non-Plastic, Noncohesive	-
м	168	>2,500	Y	BH04	1	1			
м	ND	>2,500	Y	BH04	2	2			
М	ND	>2,500	Y	BH04	3	- - 3 -			
м		>2,500	Y	BH04	4	4		Silty Sand - Loose, Medi	um to Dark Brown.
М			Y	BH04	5_	- - 5 -	SM	Stained, Medium to fine g Plastic, Noncohesive, Ma	rain size, Moist, Non-
М			Y	BH04	6	6		Borehole was continued w bgs.	ith backhoe after 3 ft
Μ		>2,500	Y	BH04	7	- 7			
М			Y	BH04	8 _	8			
М			Y	BH04	9	9			
					-	10			
м	150	12	N	BH04	10.5	-	CCHE	Indurated Caliche - White to tan some size, D, Non-Plastic, Noncohesiv	
						Total Dep	th @ 10	.5 ft bgs.	

ENSOLUM       Site Name: Support Support         Site Name: Support       Site Name: Support         Jub Number: 03A227043       Jub Number: 03A227043         Coordinates: 32.766369, 103.760989       Hole Diameter: 2'         Condents: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride test performed with 14 dilution factor of soil to distilled water. No correction factors included.         Integrating the strip of the									Comple Name: DU02	Data: 0/27/2024
Job Number: 03A2270043LITHOLOGIC / SOIL SAMPLING LOGLogged By: Chad HamiltonMethod: Hand AugerCoordinates: 32.766369, -103.760989Hole Diameter: 2'Total Depth: 2'Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride testperformed with 1:4 dilution factor of soil to distilled water. No correction factors included.an tigo of bill of		-	_						Sample Name: PH02 Site Name: Young Deep SWD	Date: 9/27/2024
Job Number: 03A2270043LITHOLOGIC / SOIL SAMPLING LOGLogged By: Chad HamiltonMethod: Hand AugerCoordinates: 32.766369, -103.760989Hole Diameter: 2'Total Depth: 2'Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride testperformed with 1:4 dilution factor of soil to distilled water. No correction factors included.an tigo of bill of			E	N	5	U	LU	Μ		782
LITHOLOGIC / SOIL SAMPLING LOGLogged By: Chad HamiltonMethod: Hand AugerCoordinates: 32.766369, -103.760989Hole Diameter: 2'Total Depth: 2'Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG for chloride and TPH, respectively. Chloride testperformed with 1:4 dilution factor of soil to distilled water. No correction factors included.and to be the strips of the strip	a second				-					102
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.         and to performed with 1:4 dilution factor of soil to distilled water. No correction factors included.       Lithologic Descriptions         and to performed with 1:4 dilution factor of soil to distilled water. No correction factors included.       Depth (ft bgs)       Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Non-Uniform         M       150       40       N       PH02       2       2       2	<b> </b>			0610			5106			Method: Hand Auger
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.         an tigo       (md)       (md)       (md)       Sample       Depth       Depth       Depth       Depth       Depth       Depth       Depth       CCHE       Pad Caliche - Dry, no stain         D       900       N       PH02       0       0       CCHE       Pad Caliche - Dry, no stain         M       600       N       PH02       1       1       SM       Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Non-Uniform         M       150       40       N       PH02       2       2       2	Coord				-					
performed with 1:4 dilution factor of soil to distilled water. No correction factors included.         an tip of W       Q       Q       Sample Depth (ft bgs)       Depth (ft bgs)       Y       Q       Q       Lithologic Descriptions         D       900       N       PH02       0       0       CCHE       Pad Caliche - Dry, no stain         M       200       N       PH02       1       1       SM       Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Non-Uniform         M       150       40       N       PH02       2       2       2						vith HACH C	hloride Test	Strips and		
D900NPH020III0CCHEPad Caliche - Dry, no stainM200NPH020.5Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Non-UniformM15040NPH02222				-				•		
M     200     N     PH02     0.5     Silty Sand - Loose, Medium to Dark Brown, M       M     600     N     PH02     1     1       M     150     40     N     PH02     2			TPH (ppm)			Depth (ft bgs)	(ft bgs)	USCS/Rock Symbol	Lithologic De	escriptions
M       600       N       PH02       1       1       Silty Sand - Loose, Medium to Dark Brown, Medium to fine grain size, Moist, Non-Plastic, Noncohesive, Massive, Non-Uniform         M       150       40       N       PH02       2       2	D	900		N	PH02	0 1	0	CCHE	Pad Caliche - D	Dry, no stain
	М	600		N	PH02			SM	Medium to fine grain siz	ze, Moist, Non-Plastic,
Total Depth @ 2 ft bgs.	Μ	150	40	Ν	PH02	2	2			

i									
		_						Sample Name: PH03	Date: 9/27/2024
		E	N	S		LU	Μ	Site Name: Young Deep SWD	
								Incident Number: nAPP24120267	/82
<b> </b>								Job Number: 03A2270043	
<u> </u>					SAMPLING	i LOG		Logged By: Chad Hamilton	Method: Hand Auger
	inates: 32						Chult	Hole Diameter: 2'	Total Depth: 2'
			-					PetroFLAG for chloride and TPH, factors included.	respectively. Chloride test
Moisture Content	-	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic De	scriptions
D	450		Ν	PH03	0	0	CCHE	Pad Caliche - D	ry, no stain
М	400		Ν	PH03	0.5	-			
Μ	200	49	N	PH03	1	1	SM	Silty Sand - Loose, Med Medium to fine grain siz Noncohesive, Massi	e, Moist, Non-Plastic,
М	200		Ν	PH03	2	2			

									D
		_						Sample Name: PH04	Date: 9/27/2024
		E	N	S	Ο		M	Site Name: Young Deep SWD	700
								Incident Number: nAPP24120267 Job Number: 03A2270043	/82
								Logged By: Chad Hamilton Hole Diameter: 2'	Method: Hand Auger Total Depth: 3'
					vith HACH C	hloride Test	Strins and	PetroFLAG for chloride and TPH,	· · ·
			-						respectively. enotide test
D Moisture Content							Lithologic Descriptions		
U	3,200		Ν	PH04	0 1	0	CCHE	Pad Caliche - D	Dry, no stain
Μ	900		Ν	PH04	0.5				
М	650		Ν	PH04	1	1			
м	600		N	PH04	2	2	SM	Silty Sand - Loose, Medium to Dark Brown Medium to fine grain size, Moist, Non-Plast Noncohesive, Massive, Non-Uniform	
М	300	16	Ν	PH04	3	3 Total De			

		_						Sample Name: PH05	Date: 9/27/2024
<b>E</b> E N S O L U M							Site Name: Young Deep SWD		
							Incident Number: nAPP2412026	782	
<b> </b>			0.01			Job Number: 03A2270043			
LITHOLOGIC / SOIL SAMPLING LOG							Logged By: Chad Hamilton	Method: Hand Auger	
	Coordinates: 32.766466, -103.760949 Comments: Field screening conducted with HACH Chloride Test Strips and							Hole Diameter: 2'	Total Depth: 2'
			-					factors included.	respectively. Chlonde test
~	Moisture Content (ppm) (ppm) (ppm) (ppm) (ppm) (ppm) (ppm) (ppm) (tr pgs) (tr pgs) (							Lithologic De	escriptions
D	5,000		Ν	PH05	0 1	0	CCHE	Pad Caliche - I	Dry, no stain
М	4,000			PH05	0.5	ļ.			
М	450	17	N	PH05	1	1		Silty Sand - Loose, Me	dium to Dark Brown,
						$\Box$	SM	Medium to fine grain siz	
					_	-		Noncohesive, Mass	ive, Non-Uniform
Μ	300	9	Ν	PH05	2	2	Depth 2		

	500			1100	 -	- 1			
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	90Hd 90Hd	(ft bgs) 0	(ft bgs)	었 USCS/Rock 표 Symbol		
	500			PH06	1 _	_ 1			
					-	- -			
	850			PH06	2	2			
					-	- 			
				PH06	-	3			
					-	- -			
				PH06	-	4			
					-	-		Silty Sand - Loose, Med	lium to Dark Brown,
				PH06	-	_ 5	SM	Medium to fine grain siz	
					-	-		Noncohesive, Massive	e, Uniform, Alluvial
	1,300			PH06	6	6			
					-	-			
			Ν	PH06	-	7			
					-	- -			
		>2,500	Ν	PH06	8	8			
					-	- -			
			Ν	PH06	-	9			
					-	-			
			N	PH06	-	10			
					-	-	CCHE	Indurated Caliche - White to tan som Medium to fine grain size, D, Non	
	1,400		N	PH06	11	11	COL	Noncohesive, Massi	
					-	- -			

		Sample Name: PH06	Date: 9/27/2024	
	NSOLU	Incident Number: nAPP241		
		Job Number: 03A 2270 43		
LITHOL	LOGIC / SOIL SAMPLING LOG	Logged By: Chad Hamilton	Method: Backhoe	
Coordinates: 32.766567	7, -103.760781	Hole Diameter: 2'	Total Depth: 15'	
	ning conducted with HACH Chloride Test ution factor of soil to distilled water. No c		TPH, respectively. Chloride test	
Moisture Content Chloride (ppm) TPH (ppm)	Sample Depth (ft bgs)	Syr	Lithologic Descriptions	
M 1,400	N PH06 13 1 13 N PH06 13 14	Red, med to fine w, small gravel, M, N	/ix w/ trace Gravel - Pink to ' some very fine and trace on-Plastic, Noncohesive, , Non-Uniform	
	N PH06 15 15	Maximum depth acl pth @ 15 ft bgs.	nieved for backhoe at 15 ft	



APPENDIX C

Photographic Log











# APPENDIX D

Laboratory Analytical Reports & Chain-of-Custody Documentation





5796 U.S. Hwy 64 Farmington, NM 87401

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





# 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

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 reguarding 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

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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

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



	~.	impic D				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Project Numbe Project Manag	er: 2300	ng Deep SWD 03-0002 ley Giovengo			<b>Reported:</b> 5/29/2024 2:36:31PM
		SS01 - 0'				
		E405245-01				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	t: 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	
`oluene	ND	0.0250	1	05/21/24	05/25/24	
-Xylene	ND	0.0250	1	05/21/24	05/25/24	
,m-Xylene	ND	0.0500	1	05/21/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/21/24	05/25/24	
urrogate: 4-Bromochlorobenzene-PID		92.8 %	70-130	05/21/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analys	t: BA		Batch: 2421053
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/24	05/25/24	
urrogate: 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	Analys	t: KM		Batch: 2421079
Diesel Range Organics (C10-C28)	1310	500	20	05/22/24	05/26/24	
Dil Range Organics (C28-C36)	1260	1000	20	05/22/24	05/26/24	
urrogate: n-Nonane		111 %	50-200	05/22/24	05/26/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	t: IY		Batch: 2421098
Chloride	81.8	20.0	1	05/22/24	05/23/24	



#### Sample Data

	Da	imple D	ala			
Matador Resources, LLC.	Project Name:	You	ng Deep SWD			
5400 LBJ Freeway, Suite 1500	Project Numbe	r: 2300	03-0002			Reported:
Dallas TX, 75240	Project Manage	er: Ash	ey Giovengo			5/29/2024 2:36:31PM
		SS02 - 0'				
	]	E405245-02				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	t: 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	
Foluene	ND	0.0250	1	05/21/24	05/25/24	
p-Xylene	ND	0.0250	1	05/21/24	05/25/24	
o,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		92.9 %	70-130	05/21/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analys	t: BA		Batch: 2421053
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/24	05/25/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		106 %	70-130	05/21/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analys	t: KM		Batch: 2421079
Diesel Range Organics (C10-C28)	33.9	25.0	1	05/22/24	05/26/24	
Dil 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	Analys	t: IY		Batch: 2421098
Chloride	34.2	20.0	1	05/22/24	05/23/24	



	5	ample D	ala			
	Project Name Project Numb		ng Deep SWD )3-0002			Reported:
Dallas TX, 75240	Project Manag	ger: Ash	ley Giovengo			5/29/2024 2:36:31PM
		SS03 - 0'				
		E405245-03				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: 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	
foluene	ND	0.0250	1	05/21/24	05/26/24	
p-Xylene	ND	0.0250	1	05/21/24	05/26/24	
o,m-Xylene	ND	0.0500	1	05/21/24	05/26/24	
Fotal Xylenes	ND	0.0250	1	05/21/24	05/26/24	
Surrogate: 4-Bromochlorobenzene-PID		92.7 %	70-130	05/21/24	05/26/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analy	st: 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	Analy	st: KM		Batch: 2421079
Diesel Range Organics (C10-C28)	243	50.0	2	05/22/24	05/28/24	
Dil Range Organics (C28-C36)	437	100	2	05/22/24	05/28/24	
Surrogate: n-Nonane		104 %	50-200	05/22/24	05/28/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analy	st: IY		Batch: 2421098
Chloride	38.1	20.0	1	05/22/24	05/23/24	



	5	ample D	ala			
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name Project Numb Project Manaş	er: 230	ng Deep SWD 03-0002 ley Giovengo			<b>Reported:</b> 5/29/2024 2:36:31PM
		SS04 - 0'				
		E405245-04				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	lyst: 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	
Foluene	ND	0.0250	1	05/21/24	05/26/24	
p-Xylene	ND	0.0250	1	05/21/24	05/26/24	
o,m-Xylene	ND	0.0500	1	05/21/24	05/26/24	
Fotal 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	Ana	lyst: 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	Ana	lyst: 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	Ana	lyst: IY		Batch: 2421098
Chloride	ND	20.0	1	05/22/24	05/23/24	



	D.	ample D	ala			
5400 LBJ Freeway, Suite 1500	Project Name Project Numb Project Manag	er: 2300	ng Deep SWD 03-0002 ley Giovengo			<b>Reported:</b> 5/29/2024 2:36:31PM
		SS05 - 0'				
		E405245-05				
		Reporting				
Analyte	Result	Limit	Dilutior	n Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Ana	alyst: 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	
p-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		93.6 %	70-130	05/21/24	05/26/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Ana	alyst: BA		Batch: 2421053
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/24	05/26/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		105 %	70-130	05/21/24	05/26/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Ana	alyst: 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	
Surrogate: n-Nonane		109 %	50-200	05/22/24	05/28/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Ana	alyst: IY		Batch: 2421098
Chloride	480	20.0	1	05/22/24	05/23/24	



## **OC Summary Data**

		<u><u><u>v</u></u><u>v</u><u>v</u></u>		ary Data					
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager:	2	Young Deep SW 23003-0002 Ashley Gioveng					<b>Reported:</b> 5/29/2024 2:36:31PM
		Volatile O	rganics	by EPA 802	21B				Analyst: BA
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2421053-BLK1)							Prepared: 0	5/21/24 A	Analyzed: 05/25/24
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
p-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: 0	5/21/24 <i>I</i>	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: 0	5/21/24 A	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	
p-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**

		QU N	, u 111111						
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number Project Manager	: :	Young Deep SV 23003-0002 Ashley Gioveng					<b>Reported:</b> 5/29/2024 2:36:31PM
	No	onhalogenated	Organic	s by EPA 80	15D - G	RO			Analyst: BA
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2421053-BLK1)							Prepared: 0	5/21/24 A	nalyzed: 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: 0	5/21/24 A	nalyzed: 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: 0	5/21/24 A	nalyzed: 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**

		QC D	umma	ir y Data					
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager:	23	oung Deep SWI 003-0002 shley Giovengo					<b>Reported:</b> 5/29/2024 2:36:31PM
	Nonh	alogenated Org	anics by	EPA 8015D	- DRO	/ORO			Analyst: JL
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2421079-BLK1)							Prepared: 0	5/22/24 A	nalyzed: 05/25/24
Diesel Range Organics (C10-C28)	ND	25.0							
Dil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	54.2		50.0		108	50-200			
LCS (2421079-BS1)							Prepared: 0	5/22/24 A	nalyzed: 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: 0	5/22/24 A	nalyzed: 05/25/24
Diesel Range Organics (C10-C28)	259	25.0	250		103	38-132	4.13	20	



### **QC Summary Data**

			-		-				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500		Project Name: Project Number:	:	Young Deep SW 23003-0002					<b>Reported:</b> 5/29/2024 2:36:31PM
Dallas TX, 75240		Project Manager	: .	Ashley Gioveng	0				5/29/2024 2:30:31PM
		Anions	by EPA	300.0/9056A	1				Analyst: IY
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2421098-BLK1)							Prepared: 0	5/22/24 <i>I</i>	Analyzed: 05/22/24
Chloride	ND	20.0							
LCS (2421098-BS1)							Prepared: 0	5/22/24 <i>I</i>	Analyzed: 05/22/24
Chloride	250	20.0	250		100	90-110			
LCS Dup (2421098-BSD1)							Prepared: 0	5/22/24 A	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.



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.



lien	: Matador Proc	luction C	Company		Bill	0		-	Lab	Use	e Only	,		T		TA	AT	-	Page EPA Program CWA SDWA RCRA State O UT AZ TX Remarks		
Proje		Deep SW			Attention: Ensolum LL		Lab	WO#			Job Ni	umb		1D	2D	3D	Star	ndard	CWA	SDWA	
Proje	ct Manager: As	hley Gio	vengo		Address: on file	E 405		245	5	2200	3	0002	-				х		1		
Addr	ess: 3122 Natio	nal Parks	s Hwy		City, State, Zip:			200 D	100 m				d Metho							RCRA	
City,	State, Zip: Carls	bad NM	88220		Phone: 575-988-0055	88-0055		γd							1						
	e: 575-988-005				Email: agiovengo@ens	lum.com		ORO			1								State		
	: agiovengo@e	nsolum.	com					DRO/	21	0	0	0.00		MN		¥	1	IM CO	UT AZ	TX	
	rt due by:							RO/C	oy 80	y 82(	s 601	de 30	TPH				-	×			
Tim Samp	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	тсео трн	BGDOC		GDOC			Remarks		
11:	2 5/15/2024	Soil	1		SS01 - 0'	l								x							
11:	5 5/15/2024	Soil	1		SS02 - 0'	Z								x							
11:	6 5/15/2024	Soil	1	1	SS03 - 0'	3								x							
15:	3 5/15/2024	Soil	1		SS04 - 0'	ч								x							
15:	22 5/15/2024	Soil	1		SS05 - 0'	5		1						x							
										T)											
					um.com, agiovengo@ensolı				om, el	naft						1.12					
date o	time of collection is a	considered	fraud and ma	y be grounds for leg									1.00	n avg ter	np abov	ve 0 but	less than		they are samp equent days.	oled or	
0	uished by: (Signatu	te	Date		Received by Signatur	3-10	1.24	11	14		Recei	ved	on ice:		D/N	se On I	ily				
	uished ty: (Signatu		5		400 Received by: (Signatur	5.16	2.24	1	330		<u>T1</u>			<u>T2</u>	_		_ :	гз			
Relind	uished by: (Signatu	re)	Date	16-24 24	Received by: (Signatur	5117	24	Time	145	_	AVG 1	_		¥	_	_					
	Matrix: S - Soil, Sd - S					Contain															
					nless other arrangements are mad atory with this COC. The liability o								f at the c	client e	xpens	ie. Th	e repor	t for the	<b>ot</b>	the above	

#### **Envirotech Analytical Laboratory**

#### Sample Receipt Checklist (SRC)

Client:	Matador Resources, LLC. Da	te Received:	05/17/24	07:45	Work Order ID:	E405245
Phone:	(972) 371-5200 Da	te Logged In:	05/17/24		Logged In By:	Angelina Pineda
Email:		e Date:		17:00 (4 day TAT)		
Chain of	f Custody (COC)					
	the sample ID match the COC?		Yes			
	the number of samples per sampling site location match t	he COC	Yes			
3. Were s	samples dropped off by client or carrier?		Yes	Carrier: Courier		
4. Was th	he COC complete, i.e., signatures, dates/times, requested	analyses?	Yes			
5. Were a	all samples received within holding time? Note: Analysis, such as pH which should be conducted in the i.e, 15 minute hold time, are not included in this disucssion.	field,	Yes		Commen	ts/Resolution
Sample '	Turn Around Time (TAT)					
6. Did th	e COC indicate standard TAT, or Expedited TAT?		Yes			
Sample	<u>Cooler</u>					
7. Was a	sample cooler received?		Yes			
8. If yes,	was cooler received in good condition?		Yes			
9. Was th	he sample(s) received intact, i.e., not broken?		Yes			
10. Were	e custody/security seals present?		No			
11. If yes	s, were custody/security seals intact?		NA			
12. Was tl	he sample received on ice? If yes, the recorded temp is 4°C, i.e., Note: Thermal preservation is not required, if samples are rec minutes of sampling		Yes			
13. If no	visible ice, record the temperature. Actual sample tem	perature: 4°	C			
	Container					
	aqueous VOC samples present?		No			
	VOC samples collected in VOA Vials?		NA			
	e head space less than 6-8 mm (pea sized or less)?		NA			
	a trip blank (TB) included for VOC analyses?		NA			
	non-VOC samples collected in the correct containers?		Yes			
19. Is the	appropriate volume/weight or number of sample containers	collected?	Yes			
Field La						
	e field sample labels filled out with the minimum information information in the second	ation:	V			
	Sample ID? Date/Time Collected?		Yes			
	Collectors name?		Yes Yes			
Sample 1	Preservation_		1.00			
-	the COC or field labels indicate the samples were present	rved?	No			
22. Are s	sample(s) correctly preserved?		NA			
	o filteration required and/or requested for dissolved metal	ls?	No			
<u>Multip</u> h	ase Sample Matrix					
	the sample have more than one phase, i.e., multiphase?		No			
	s, does the COC specify which phase(s) is to be analyzed	!?	NA			
Subcont	ract Laboratory					
20 1	samples required to get sent to a subcontract laboratory?		No			
Zo. Are s						

B

Date

envirotech Inc.

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

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5796 U.S. Hwy 64 Farmington, NM 87401

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





# 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

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,

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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 reguarding 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

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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**

		Sample Sum	mai y		
Matador Resources, LLC.		Project Name:	Young Deep SWD		Reported:
5400 LBJ Freeway, Suite 1500		Project Number:	23003-0002		Keporteu.
Dallas TX, 75240		Project Manager:	Ashley Giovengo		05/30/24 13:59
Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
3H01-0'	E405259-01A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
3H01-2'	E405259-02A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
3H01-5'	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.
3H02-0'	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.
H03-0'	E405259-10A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.
H03-2'	E405259-11A	Soil	05/16/24	05/20/24	Glass Jar, 2 oz.



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Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500	Project Name: Project Numbe	er: 2300	ng Deep SWD )3-0002			Reported:
Dallas TX, 75240	Project Manag	er: Ash	ey Giovengo			5/30/2024 1:59:31PM
		BH01-0'				
		E405259-01				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	st: 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	Analys	st: 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	Analys	st: IY		Batch: 2421137
Chloride	22500	1000	50	05/23/24	05/26/24	



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Matador Resources, LLC.	Project Name	: You	ng Deep SWD				
5400 LBJ Freeway, Suite 1500	Project Numb	er: 230	03-0002			Reported:	
Dallas TX, 75240	Project Manag	ger: Ash	: Ashley Giovengo				
		BH01-2'					
		E405259-02					
		Reporting					
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes	
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	t: 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		
Foluene	ND	0.0250	1	05/23/24	05/25/24		
p-Xylene	ND	0.0250	1	05/23/24	05/25/24		
o,m-Xylene	ND	0.0500	1	05/23/24	05/25/24		
Fotal 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	Analys	t: 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	Analys	Batch: 2422012			
Diesel Range Organics (C10-C28)	257	125	5	05/28/24	05/29/24		
Dil 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	Analys	t: IY		Batch: 2421137	
Chloride	1420	40.0	2	05/23/24	05/26/24		



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Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500	Project Name: Project Numbe		ng Deep SWD )3-0002			Reported:
Dallas TX, 75240	Project Manag					5/30/2024 1:59:31PM
		BH01-5'				
		E405259-03				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analy	st: 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	
-Xylene	ND	0.0250	1	05/23/24	05/25/24	
o,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
urrogate: 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	
Dil 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	Analy	st: IY		Batch: 2421137
Chloride	1880	40.0	2	05/23/24	05/26/24	



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Matador Resources, LLC.	Project Name:	: You	ng Deep SWD			
5400 LBJ Freeway, Suite 1500	Project Numb	er: 230	03-0002			<b>Reported:</b> 5/30/2024 1:59:31PM
Dallas TX, 75240	Project Manag	ger: Ash	ley Giovengo			
		BH01-8'				
		E405259-04				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	st: 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	
o,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		92.1 %	70-130	05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	/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		96.8 %	70-130	05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analys		Batch: 2422012	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/28/24	05/29/24	
Dil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
Surrogate: n-Nonane		120 %	50-200	05/28/24	05/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	st: IY		Batch: 2421137
Chloride	3530	40.0	2	05/23/24	05/26/24	



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Matador Resources, LLC.	Project Name:		ng Deep SWD			
5400 LBJ Freeway, Suite 1500	Project Number		03-0002		Reported:	
Dallas TX, 75240	Project Manag	ger: Ash	ley Giovengo			5/30/2024 1:59:31PM
		BH01-11'				
		E405259-05				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	t: 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	
p-Xylene	ND	0.0250	1	05/23/24	05/25/24	
o,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Fotal Xylenes	ND	0.0250	1	05/23/24	05/25/24	
Surrogate: 4-Bromochlorobenzene-PID		91.7 %	70-130	05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	'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		96.8 %	70-130	05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analys	Batch: 2422012		
Diesel Range Organics (C10-C28)	ND	25.0	1	05/28/24	05/29/24	
Dil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
Surrogate: n-Nonane		105 %	50-200	05/28/24	05/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	t: IY		Batch: 2421137
Chloride	4720	40.0	2	05/23/24	05/26/24	



		ample D	ata			
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Project Numbe Project Manag	er: 230	ng Deep SWD 03-0002 ley Giovengo			<b>Reported:</b> 5/30/2024 1:59:31PM
		BH01-14'				
		E405259-06				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	t: 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	
p-Xylene	ND	0.0250	1	05/23/24	05/25/24	
o,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Fotal 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		96.5 %	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	
Surrogate: n-Nonane		96.4 %	50-200	05/28/24	05/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	t: IY		Batch: 2421137
Chloride	4420	40.0	2	05/23/24	05/26/24	



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Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Project Numbo Project Manag	er: 230	ng Deep SWD 03-0002 ley Giovengo			<b>Reported:</b> 5/30/2024 1:59:31PM
		BH01-16'				
		E405259-07				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	st: 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	
Foluene	ND	0.0250	1	05/23/24	05/25/24	
p-Xylene	ND	0.0250	1	05/23/24	05/25/24	
o,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Fotal Xylenes	ND	0.0250	1	05/23/24	05/25/24	
Surrogate: 4-Bromochlorobenzene-PID		92.9 %	70-130	05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analys	st: EG		Batch: 2421133
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/23/24	05/25/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		97.5 %	70-130	05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analys	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	
Surrogate: n-Nonane		81.3 %	50-200	05/28/24	05/29/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	st: IY		Batch: 2421137
Chloride	4670	40.0	2	05/23/24	05/26/24	



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Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500	Project Name: Project Numb		ng Deep SWD 03-0002		Reported:	
Dallas TX, 75240	Project Manag		ley Giovengo		5/30/2024 1:59:31PM	
		BH02-0'				
		E405259-08				
		Reporting				
Analyte	Result	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	
p-Xylene	ND	0.0250	1	05/23/24	05/25/24	
o,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	



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Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Project Numbe Project Manag	er: 2300	ng Deep SWD 03-0002 ley Giovengo			<b>Reported:</b> 5/30/2024 1:59:31PM
		BH02-2'				
		E405259-09				
		Reporting				
Analyte	Result	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	
Foluene	ND	0.0250	1	05/23/24	05/25/24	
p-Xylene	ND	0.0250	1	05/23/24	05/25/24	
o,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Fotal Xylenes	ND	0.0250	1	05/23/24	05/25/24	
Surrogate: 4-Bromochlorobenzene-PID		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	
Surrogate: 1-Chloro-4-fluorobenzene-FID		93.2 %	70-130	05/23/24	05/25/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst	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	
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	57.0	20.0	1	05/23/24	05/26/24	



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Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Project Numbe Project Manag	er: 230	ng Deep SWD 03-0002 ley Giovengo			<b>Reported:</b> 5/30/2024 1:59:31PM
		BH03-0'				
		E405259-10				
		Reporting				
Analyte	Result	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	
oluene	ND	0.0250	1	05/23/24	05/25/24	
-Xylene	ND	0.0250	1	05/23/24	05/25/24	
o,m-Xylene	ND	0.0500	1	05/23/24	05/25/24	
Total Xylenes	ND	0.0250	1	05/23/24	05/25/24	
urrogate: 4-Bromochlorobenzene-PID		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	
urrogate: 1-Chloro-4-fluorobenzene-FID		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	
Dil Range Organics (C28-C36)	ND	50.0	1	05/28/24	05/29/24	
Surrogate: n-Nonane		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	



5	ample D	ala			
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5					Reported:
Project Mana	iger: Ash	ley Giovengo			5/30/2024 1:59:31PM
	BH03-2'				
	E405259-11				
	Reporting				
Result	Limit	Dilution	Prepared	Analyzed	Notes
mg/kg	mg/kg	Analy	yst: EG		Batch: 2421133
ND	0.0250	1	05/23/24	05/25/24	
ND	0.0250	1	05/23/24	05/25/24	
ND	0.0250	1	05/23/24	05/25/24	
ND	0.0250	1	05/23/24	05/25/24	
ND	0.0500	1	05/23/24	05/25/24	
ND	0.0250	1	05/23/24	05/25/24	
	90.0 %	70-130	05/23/24	05/25/24	
mg/kg	mg/kg	Analy	yst: EG		Batch: 2421133
ND	20.0	1	05/23/24	05/25/24	
	91.7 %	70-130	05/23/24	05/25/24	
mg/kg	mg/kg	Analy	yst: KM		Batch: 2422012
ND	25.0	1	05/28/24	05/29/24	
ND	50.0	1	05/28/24	05/29/24	
	101 %	50-200	05/28/24	05/29/24	
mg/kg	mg/kg	Analy	yst: IY		Batch: 2421137
ND	20.0			-	
	Project Name Project Num Project Mana Result Mg/kg ND ND ND ND ND ND ND ND ND ND ND ND ND	Project Name:         You           Project Number:         2300           Project Manager:         Ash           Project Manager:         Ash           BH03-2'         E405259-11           E405259-11         Imit           mg/kg         mg/kg           Mg/kg         mg/kg           ND         0.0250           ND         20.0           mg/kg         mg/kg           Mg/kg         Mg/kg           ND         25.0           ND         50.0           ND         50.0           ND         50.0           ND         50.0           ND         <	Project Number:       23003-0002         Project Manager:       Ashley Giovengo         Ashley Ciovengo       Ashley Ciovengo         BH03-2'         E405259-11         Result       Limit       Dilution         Mg/kg       mg/kg       Analy         MD       0.0250       1         ND       20.0       1         Mg/kg       mg/kg       Analy         ND       20.0       1         MD       25.0       1         ND       50.0       1         ND       50.200       1         Mg/kg       Mg/kg       Analy	Image of the set of the	Vourg Deep SWD         Project Name:       Yourg Deep SWD         Project Number:       23003-0002         Project Manager:       Ashley Giovengo         BH03-2'         E405259-11         Te405259-11         Result       Dilution       Prepared       Analyzed         Mp $mg/kg$ $mg/kg$ Analyzet       05/23/24       05/25/24         ND $0.0250$ 1 $05/23/24$ $05/25/24$ ND $20.0$ $05/23/24$ $05/25/24$ ND $20.0$ $05/23/24$ $05/25/24$ ND $20.0$ $05/23/24$ $05/25/24$ ND $25.0$ <



## **QC Summary Data**

		$\mathbf{z} \in \mathcal{S}$		ary Date					
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager:	2	/oung Deep SV 3003-0002 Ashley Gioveng					<b>Reported:</b> 5/30/2024 1:59:31PM
		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
		0.0		0.0					
Blank (2421133-BLK1)							Prepared: 0	5/23/24 A	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: 0	5/23/24 A	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: 0	5/23/24 A	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**

		QU L	Juiiiii	I y Date	и				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number Project Manage:	: 2	oung Deep SV 3003-0002 .shley Gioveng					<b>Reported:</b> 5/30/2024 1:59:31PM
	No	onhalogenated	Organics	by EPA 80	15D - Gl	RO			Analyst: EG
Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limi %	
Blank (2421133-BLK1)							Prepared: 0	5/23/24	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: 0	5/23/24	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: 0	5/23/24	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**

		QC D	umma	I y Data					
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager	23	ung Deep SWI 003-0002 hley Giovengo					<b>Reported:</b> 5/30/2024 1:59:31PM
-	Nonh	alogenated Org	ganics by	EPA 8015D	- DRO	/ORO			Analyst: KM
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2422012-BLK1)							Prepared: 0	5/28/24 A	nalyzed: 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				
					110	50-200			
LCS (2422012-BS1)					110	50-200	Prepared: 0	5/28/24 A	nalyzed: 05/29/24
LCS (2422012-BS1) Diesel Range Organics (C10-C28)	270	25.0	250		108	50-200 38-132	Prepared: 0	5/28/24 A	analyzed: 05/29/24
Diesel Range Organics (C10-C28)	270 55.6	25.0	250 50.0		-		Prepared: 0	5/28/24 A	nalyzed: 05/29/24
Diesel Range Organics (C10-C28) Surrogate: n-Nonane		25.0			108	38-132			analyzed: 05/29/24 analyzed: 05/29/24
· · · ·		25.0			108	38-132			



### **QC Summary Data**

			-		-				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager		Young Deep SW 23003-0002 Ashley Gioveng					<b>Reported:</b> 5/30/2024 1:59:31PM
				. 300.0/9056A					Analyst: IY
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2421137-BLK1)							Prepared: 0	5/23/24 A	nalyzed: 05/26/24
Chloride	ND	20.0							
LCS (2421137-BS1)							Prepared: 0	5/23/24 A	nalyzed: 05/26/24
Chloride	249	20.0	250		99.6	90-110			
LCS Dup (2421137-BSD1)							Prepared: 0	5/23/24 A	nalyzed: 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.



	_ ••		
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.





Reproject Information

Page \_\_\_\_\_ of \_\_

lient: N	latador Prod	luction C	ompany			Bill To				Lab L	Jse O	nly				TA			rogram
roject:	Young E	Deep SW	D			ention: Ensolum LLC		Lab y	VO#	59		Num			2D	3D	Standard	CWA	SDWA
roject N	lanager: Asl	hley Giov	/engo		Add	ress: on file		E4	051	59			5-000				X		1.
	3122 Nation					, State, Zip:			-		Ana	lysis a	nd Meth	od	-	-			RCRA
ity, Stat	e, Zip: Carls	bad NM,	88220		Pho	ne: 575-988-0055			ha			10						1	
	575-988-005				Ema	ail: agiovengo@ensolum.co	om		DKO							1.1		State	1
	giovengo@e	nsolum.c	com		_				NON ON ON	21	0	0.0		MN		XL	NM CO	D UT AZ	TX
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Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID			Lab Number		TPH GRO/DRO/URU by 8015	BTEX by 8021 VOC bv 8260	Metals 6010	Chloride 300.0	TCEQ TPH	RGDOC		GDOC		Remarks	
9:21	5/16/2024	Soil	1			BH01 - 0'	1							)					
9:27	5/16/2024	Soil	1			BH01 - 2'	2							)	(				
9:58	5/16/2024	Soil	1	61		BH01 - 5'	3							,	(				
10:21	5/16/2024	Soil	1			BH01 - 8'	4							,	(				
10:54	5/16/2024	Soil	1	1		BH01 - 11'	5							,	(				
11:32	5/16/2024	Soil	1			BH01 - 14'	6							,	(				
11:38	5/16/2024	Soil	1		1.2	BH01 - 16'	7							,	(		2		
											60								
	(C. 1997) - 199					agiovengo@ensolum.com				m, ena				1			eceived on ice the d	au they are care	alad or
ate or time	e of collection is c	considered f				at tampering with or intentionally mi Sampled by:		le locatio	on,						emp abo	ove 0 but	less than 6 °C on su		pied of
<	ed by: (Signatur	St	Date	r 1	Time 9 = 45	Received by: (Signature)	Date 5.1	7.24	Time	12	Re	ceive	d on ice	: 1	Lab L	Jse Or N	nly		
(	ed by: (Signatur		5	1724	1730	Received by (Signature)	5/20	24	Dg	30	<u>T1</u>			<u>T2</u>	-	_	<u>T3</u>		
elinquish	ed by: (Signatu	re)	Date	e	Time	Received by: (Signature)	Date		Time				np °C	4	_				
	rix: <b>S</b> - Soil, <b>Sd</b> - S						Containe												
lata: Sam						r arrangements are made. Haza h this COC. The liability of the lab							of at the	client	expen	se. Th	e report for th	e analysis of	the above

ent: I	Matador Prod	uction Co	ompany		Bill To				Lab	Use	e Onl	ly				TA	T		EPA PI	rogram			
oject:	Young D	Deep SWI	D		Attention: Ensolum LLC		Lab	WO#		~	Job N	Numb	ber	1D	2D	3D	Stand	lard	CWA	SDWA			
	Manager: Ash				Address: on file		E	105	50	4	130	03-	ood 2	-			x						
	: 3122 Nation				City, State, Zip:		1.			A	Analys	sis an	d Metho	bd	-	- 1	_		1	RCRA			
	te, Zip: Carls		88220		Phone: 575-988-0055	Sec. 1. des.	11	O by									-		State				
	575-988-0055 agiovengo@er		om		Email: agiovengo@ensol	agiovengo@ensolum.com								5			NN		UT AZ	TX			
	due by:	13010111.0	om					/DRO		/DRC 3021	8021	3260	010	300.	300.0	т	NN		¥	×	-		
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID		Lab Number		TPH GRO/DRO/ORO by 8015	втех by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TCEQ TPH	BGDOC		GDOC			Remarks	rogram SDWA RCRA			
9:15	5/16/2024	Soil	1	0	BH02 - 0'	8								x									
9:19	5/16/2024	Soil	1		BH02 - 2'	9								x									
9:09	5/16/2024	Soil	1		BH03 - 0'	10								x									
9:13	5/16/2024	Soil	1		BH03 - 2'	11								x									
dditio	nal Instruction	ncı Dla		urton @onco	lum.com, agiovengo@ensolum	com chamilton@	ancolu			haft	(Men	solu	m.com	iestr	مالم	enso		m					
					am aware that tampering with or intention			-	Jili, e	nan	Sample	es requi	ring therma	l preserv	ation mu	ist be re	ceived on ic	e the day	they are sam	pled or			
	ne of collection is c hed by: (Signatur			Time		Date 5-1-	1.24	Time	11	2			on ice:	Į	ab Us			C on subs	equent days.				
elinquis	hed by: (Signatur		Date	·17.24	Received by: (Signature)		124		93(		<u>T1</u>	liveu		<u>T2</u>			<u>T3</u>	-					
elinquis	hed by: (Signatur	re)	Date	Time	Received by: (Signature)	Date		Time			AVG		A	4									
	atrix: S - Soil, Sd - S					Contain												for the	analysis	the above			
ote: Sar	mples are discard	led 30 days	s after resu	Its are reported	unless other arrangements are made. pratory with this COC. The liability of t	Hazardous samples wi	ll be re	turned	d to cli	ent o	r disp	osed o	of at the					for the a	analysis of	the above			

	<i>by OCD: 10/9/2024 2:08:41 PM</i> Er	nvirotech	Analyt	ical Laboratory	]	Printed: 5/22/2024 10:24	/2 0J 1:49AN
		Sample	Receipt (	Checklist (SRC)			
	<ul> <li>Please take note of any NO checkmarks.</li> <li>e no response concerning these items within 24 hours of the content</li> </ul>	date of this not	ice, all the s	amples will be analyzed as req	uested.		
Client:	Matador Resources, LLC. Da	ate Received:	05/20/24	09:30	Work Order ID:	E405259	
Phone:	(972) 371-5200 Da	ate Logged In:	05/17/24	18:46	Logged In By:	Alexa Michaels	
Email:	agiovngo@ensolum.com Du	le Date:	05/27/24	17:00 (5 day TAT)			
<u>Chain o</u>	<u>f Custody (COC)</u>						
	the sample ID match the COC?		Yes				
	the number of samples per sampling site location match	the COC	Yes				
3. Were	samples dropped off by client or carrier?		Yes	Carrier: Courier			
4. Was tl	he COC complete, i.e., signatures, dates/times, requested	l analyses?	Yes				
5. Were	all samples received within holding time? Note: Analysis, such as pH which should be conducted in the i.e, 15 minute hold time, are not included in this disucssion.	e field,	Yes		Commen	ts/Resolution	
Sample	Turn Around Time (TAT)						
	e COC indicate standard TAT, or Expedited TAT?		Yes				
Sample	Cooler						
	sample cooler received?		Yes				
8. If yes,	, was cooler received in good condition?		Yes				
9. Was tl	he sample(s) received intact, i.e., not broken?		Yes				
	e custody/security seals present?		No				
	s, were custody/security seals intact?		NA				
12. Was t	he sample received on ice? If yes, the recorded temp is 4°C, i.e Note: Thermal preservation is not required, if samples are rec minutes of sampling	ceived w/i 15	Yes				
	visible ice, record the temperature. Actual sample ten	nperature: <u>4</u>	<u>'C</u>				
	<u>Container</u>						
	aqueous VOC samples present?		No				
	VOC samples collected in VOA Vials?		NA				
	e head space less than 6-8 mm (pea sized or less)?		NA				
	a trip blank (TB) included for VOC analyses?		NA				
	non-VOC samples collected in the correct containers?		Yes				
	appropriate volume/weight or number of sample containers	collected?	Yes				
Field La							
	e field sample labels filled out with the minimum information Sample ID?	ation:	Yes				
	Date/Time Collected?		Yes				
	Collectors name?		No				
Sample	Preservation						
21. Does	s the COC or field labels indicate the samples were prese	rved?	No				
22. Are s	sample(s) correctly preserved?		NA				
24. Is lat	b filteration required and/or requested for dissolved meta	ıls?	No				
<u>Multiph</u>	ase Sample Matrix						
-	s the sample have more than one phase, i.e., multiphase?		No				
	s, does the COC specify which phase(s) is to be analyzed		NA				
Subcont	ract Laboratory						
	samples required to get sent to a subcontract laboratory?		No				
	a subcontract laboratory specified by the client and if so		NA	Subcontract Lab: NA			
27. Was	a succentrater informative specified by the chefit and fi so		11/1	Subcontract Lab. INA			

**Client Instruction** 

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






5796 U.S. Hwy 64 Farmington, NM 87401

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





# 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

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,



Page 74 of 197

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 reguarding 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

Field Offices: Southern New Mexico Area Lynn Jarboe Laboratory Technical Representative Office: 505-421-LABS(5227) Cell: 505-320-4759 ljarboe@envirotech-inc.com Raina Schwanz Laboratory Administrator Office: 505-632-1881 rainaschwanz@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 Summarv

		Sample Sum	mai y		
Matador Resources, LLC.		Project Name:	Young Deep SWD		Reported:
5400 LBJ Freeway, Suite 1500		Project Number:	23003-0002		Keporteu:
Dallas TX, 75240		Project Manager:	Ashley Giovengo		06/21/24 14:30
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.
3H02 - 4'	E406163-02A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
3H02 - 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.
3H02 - 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.
3H02 - 18'	E406163-09A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.
S03A - 0'	E406163-10A	Soil	06/17/24	06/19/24	Glass Jar, 2 oz.



		impic D					
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Project Numbe Project Manag	er: 2300	ng Deep SV 03-0002 ley Gioven				<b>Reported:</b> 6/21/2024 2:30:27PM
		BH01 - 20'					
		E406163-01					
		Reporting					
Analyte	Result	Limit	Dilı	ution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	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

	3	ample D	ลเล				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Project Numbe Project Manag	er: 2300	ng Deep S 03-0002 ley Gioven				<b>Reported:</b> 6/21/2024 2:30:27PM
		BH02 - 4'					
		E406163-02					
		Reporting					
Analyte	Result	Limit	Dil	ution	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	
p-Xylene	ND	0.0250		1	06/18/24	06/20/24	
o,m-Xylene	ND	0.0500		1	06/18/24	06/20/24	
Fotal 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	
Jurrogate: 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	1	10	06/19/24	06/20/24	
Dil Range Organics (C28-C36)	1710	500	1	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

	3	ample D	ลเล				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Project Numbe Project Manag	er: 2300	ng Deep S 03-0002 ey Gioven				<b>Reported:</b> 6/21/2024 2:30:27PM
		BH02 - 6'					
		E406163-03					
		Reporting					
Analyte	Result	Limit	Dil	ution	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	
o,m-Xylene	ND	0.0500		1	06/18/24	06/20/24	
Fotal 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	
Dil 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

	Di	ample D	ala				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Project Numbe Project Manag	er: 2300	ng Deep S )3-0002 ley Giover				<b>Reported:</b> 6/21/2024 2:30:27PM
	]	BH02 - 8.5'					
	-	E406163-04					
		Reporting					
Analyte	Result	Limit	Dil	lution	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	
p-Xylene	ND	0.0250		1	06/18/24	06/20/24	
o,m-Xylene	ND	0.0500		1	06/18/24	06/20/24	
Fotal 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	
Dil 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

	56	ample D	ata				
Matador Resources, LLC.	Project Name:	You	ng Deep S	WD			
5400 LBJ Freeway, Suite 1500	Project Numbe	er: 2300	03-0002				Reported:
Dallas TX, 75240	Project Manag	er: Ash	ley Gioven	6/21/2024 2:30:27PM			
	-	BH02 - 10'					
		E406163-05					
		Reporting					
Analyte	Result	Limit	Dil	ution	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	
p-Xylene	ND	0.0250		1	06/18/24	06/20/24	
o,m-Xylene	ND	0.0500		1	06/18/24	06/20/24	
Fotal 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	g/kg Analyst: NV			Batch: 2425052	
Diesel Range Organics (C10-C28)	83.6	50.0		2	06/19/24	06/20/24	
Dil 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

	50	ample D	ala				
Matador Resources, LLC.	Project Name:		ng Deep S 03-0002	WD			Reported:
5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Numbe Project Manag			<i>a</i> 0			6/21/2024 2:30:27PM
Danas 1X, 73240	Project Manag	ger: Asin	ley Gioven	go			0/21/2024 2.30.2/FM
		BH02 - 12'					
		E406163-06					
		Reporting					
Analyte	Result	Limit	Dil	ution	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	
o,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	
urrogate: 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	
Dil 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

	5	ample D	ata				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name Project Numb Project Mana	ber: 2300	ng Deep S )3-0002 ley Giover				<b>Reported:</b> 6/21/2024 2:30:27PM
	]	BH02 - 14.5'					
		E406163-07					
		Reporting					
Analyte	Result	Limit	Dil	ution	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	
,m-Xylene	ND	0.0500		1	06/18/24	06/20/24	
Fotal 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	
urrogate: 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	
Dil 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

	Di	ample D	ala				
Matador Resources, LLC.	Project Name:		ng Deep S	WD			
5400 LBJ Freeway, Suite 1500	Project Numbe		03-0002				Reported:
Dallas TX, 75240	Project Manag	ger: Ash	ley Giover	ngo			6/21/2024 2:30:27PM
		BH02 - 16'					
		E406163-08					
		Reporting					
Analyte	Result	Limit	Dil	ution	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	
p-Xylene	ND	0.0250		1	06/18/24	06/20/24	
o,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	
urrogate: 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	
Dil 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

	50	imple D	ala				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500	Project Name: Project Numbe		ng Deep S 03-0002	WD			Reported:
Dallas TX, 75240	Project Manage		ey Gioven	igo			6/21/2024 2:30:27PM
		BH02 - 18'					
		E406163-09					
		Reporting					
Analyte	Result	Limit	Dil	ution	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	
p-Xylene	ND	0.0250		1	06/18/24	06/20/24	
o,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	
urrogate: 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	
lurrogate: 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	
Dil 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

	56	ample D	ata				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Project Numbe Project Manag	er: 2300	ng Deep S' )3-0002 ley Gioven				<b>Reported:</b> 6/21/2024 2:30:27PM
		SS03A - 0'					
		E406163-10					
		Reporting					
Analyte	Result	Limit	Dil	ution	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	
p-Xylene	ND	0.0250		1	06/18/24	06/20/24	
o,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	mg/kg Analyst: NV				Batch: 2425052
Diesel Range Organics (C10-C28)	ND	25.0		1	06/19/24	06/20/24	
Dil 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

	-		v					
				)				Reported:
	-							
	Project Manager:	As	shley Giovengo				(	5/21/2024 2:30:27PM
	Volatile Organic	Compo	unds by EPA	A 82601	3			Analyst: IY
	Reporting	Spike	Source		Rec		RPD	
Result	Limit	Level	Result	Rec	Limits	RPD	Limit	
mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
						Prepared: 0	6/19/24 An	alyzed: 06/20/24
ND	0.0250							
ND	0.0250							
ND	0.0250							
ND	0.0250							
ND	0.0500							
ND	0.0250							
0.562		0.500		112	70-130			
		0.500		88.7	70-130			
0.528		0.500		106	70-130			
						Prepared: 0	6/19/24 An	alyzed: 06/20/24
2.04	0.0250	2.50		81.7	70-130			
2.20		2.50		88.0	70-130			
2.18	0.0250	2.50		87.0	70-130			
2.29	0.0250	2.50		91.7	70-130			
4.56	0.0500	5.00		91.2	70-130			
6.85	0.0250	7.50		91.4	70-130			
0.567		0.500		113	70-130			
		0.500		98.9	70-130			
0.520		0.500		104	70-130			
			Source: E	406163-0	07	Prepared: 0	6/19/24 An	alyzed: 06/20/24
2.24	0.0250	2.50	ND	89.7	48-131			
2.40	0.0250	2.50	ND	95.9	45-135			
2.37	0.0250	2.50	ND	94.8	48-130			
2.55	0.0250	2.50	ND	102	43-135			
5.08	0.0500	5.00	ND	102	43-135			
7.63	0.0250	7.50	ND	102	43-135			
0.573		0.500		115	70-130			
0.494		0.500		98.8	70-130			
0.518		0.500		104	70-130			
			Source: E	406163-0	07	Prepared: 0	6/19/24 An	alyzed: 06/20/24
2.30	0.0250	2.50	ND	91.9	48-131	2.42	23	
2.45	0.0250	2.50	ND	98.0	45-135	2.25	27	
2.41	0.0250	2.50	ND	96.5	48-130	1.80	24	
		2.50	ND	103	43-135	1.40	27	
2.58	0.0250	2.50						
2.58 5.17	0.0250 0.0500	5.00	ND	103	43-135	1.62	27	
					43-135 43-135	1.62 1.55	27 27	
5.17	0.0500	5.00	ND	103				
5.17 7.75	0.0500	5.00 7.50	ND	103 103	43-135			
-	Result mg/kg ND ND ND ND ND ND ND ND ND 2.528 2.04 2.04 2.20 2.18 2.29 4.56 6.85 0.567 0.495 0.520 2.24 2.40 2.37 2.55 5.08 7.63 0.573 0.494 0.518	2.04     Project Name: Project Number: Project Manager:       Volatile Organic       Result mg/kg     Reporting Limit mg/kg       ND     0.0250       0.562     0.444       0.528     0.0250       2.18     0.0250       2.29     0.0250       4.56     0.0500       0.567     0.495       0.520     2.37       2.24     0.0250       2.37     0.0250       5.08     0.0500       7.63     0.0250       0.573     0.494       0.518     2.30	L     Project Name:     Ya       Project Number:     23       Project Manager:     As       Volatile Organic Comport       Result     Reporting     Spike       mg/kg     mg/kg     mg/kg       ND     0.0250     mg/kg       ND     0.0250     ND       ND     0.0250     ND       ND     0.0250     0.0000       ND     0.0250     0.000       0.562     0.500     0.000       0.528     0.500     0.000       0.528     0.500     2.50       2.18     0.0250     2.50       0.567     0.500     0.500       0.567     0.500     0.500       0.567     0.500     0.500       0.520     2.50     2.50       2.40     0.0250     2.50	Project Name:     Young Deep SWI       Project Number:     23003-0002       Project Manager:     Ashley Giovengo       Volatile Organic Compounds by EP4       Result     Spike     Source       mg/kg     mg/kg     mg/kg     mg/kg       ND     0.0250     sealth       ND     0.0250     mg/kg     mg/kg       ND     0.0250     sealth     mg/kg       0.0500     ND     0.0250     sealth       0.0520     0.00250     sealth     sealth       0.0520     0.000     sealth     sealth       0.0520     0.000     sealth     sealth       0.0250     0.000     sealth     sealth       0.0520     0.500     sealth     sealth       0.0250     2.50     sealth	Project Name:     Young Deep SWD       Project Number:     23003-0002       Project Manager:     Ashley Giovengo       Volatile Organic Compounds by EPA 82601       Result     Reporting     Spike     Source       Result     Billinit     Level     Result     Rec       mg/kg     mg/kg     mg/kg     mg/kg     %       ND     0.0250     ND     0.0250       ND     0.0250     ND     0.0250       ND     0.0250     ND     0.0250       ND     0.0250     88.7       0.562     0.500     112       0.444     0.500     88.7       0.528     0.500     106       2.04     0.0250     2.50     88.0       2.18     0.0250     2.50     91.7       4.56     0.500     91.7     4.56       0.520     7.50     91.4       0.567     0.500     113       0.495     0.500     104       0.567     0.500     104	Project Name:     Young Deep SWD       Project Number:     23003-0002       Project Manager:     Ashley Giovengo       Volatile Organic Compounds by EPA 8260B       Result     Reporting     Spike     Source     Rec     Limits       mg/kg     mg/kg     mg/kg     mg/kg     %     %       ND     0.0250     ng/kg     ng/kg     %     %       ND     0.0250     ND     0.0250     ND     0.0250       ND     0.0250     ND     0.0250     ND     0.0250       ND     0.0250     88.7     70-130       0.562     0.500     112     70-130       0.528     0.500     106     70-130       2.04     0.0250     2.50     88.0     70-130       2.18     0.0250     2.50     91.7     70-130       2.29     0.0250     2.50     91.4     70-130       0.567     0.500     91.4     70-130       0.567     0.500     91.4     70-130 <td>Project Name:     Young Deep SWD       Project Number:     23003-0002       Project Manager:     Ashley Giovengo       Volatile Organic Compounds by EPA 8260B       Result     Reporting Limit     Spike Level     Source Result     Rec     Limit     RPD       mg/kg     mg/kg     mg/kg     mg/kg     %     %     %       ND     0.0250    </td> <td>Project Number:     23003-0002       Project Manager:     Ashley Giovengo       Volatile Organic Compounds by EPA 8260B       Result     Reporting mg/kg     Spike Limit     Source Level     Rec     Rec     Ref     RPD     Limit       mg/kg     mg/kg     mg/kg     mg/kg     %4     %6     %     %4     %4     %6     %     %4     %4     %6     %     %6     %     %6     %     %6     %     %6     %     %6     %     %6     %6     %6     %6     %6     %6     %6     %6     %6     %6     %6     %6     %6     %6     %6     %6     %6</td>	Project Name:     Young Deep SWD       Project Number:     23003-0002       Project Manager:     Ashley Giovengo       Volatile Organic Compounds by EPA 8260B       Result     Reporting Limit     Spike Level     Source Result     Rec     Limit     RPD       mg/kg     mg/kg     mg/kg     mg/kg     %     %     %       ND     0.0250	Project Number:     23003-0002       Project Manager:     Ashley Giovengo       Volatile Organic Compounds by EPA 8260B       Result     Reporting mg/kg     Spike Limit     Source Level     Rec     Rec     Ref     RPD     Limit       mg/kg     mg/kg     mg/kg     mg/kg     %4     %6     %     %4     %4     %6     %     %4     %4     %6     %     %6     %     %6     %     %6     %     %6     %     %6     %     %6     %6     %6     %6     %6     %6     %6     %6     %6     %6     %6     %6     %6     %6     %6     %6     %6



# **QC Summary Data**

		<b>V</b> C D		ary Data	•				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager:	2	Young Deep SW 3003-0002 Ashley Gioveng					<b>Reported:</b> 6/21/2024 2:30:27PM
	No	onhalogenated O	rganics	by EPA 801	15D - GI	RO			Analyst: IY
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2425047-BLK1)							Prepared: 0	6/19/24 A	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: 0	6/19/24 A	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:	E406163-0	07	Prepared: 0	6/19/24 A	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: 0	6/19/24 A	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**

		QC DI	umm	ary Data					
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager:	1	Young Deep SWI 23003-0002 Ashley Giovengo					<b>Reported:</b> 6/21/2024 2:30:27PM
	Nonh	alogenated Orga	anics by	y 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
DII- (2425052 DI 1/1)							Duran and O	(10/24 )	
Blank (2425052-BLK1)							Prepared: 0	0/19/24 A	analyzed: 06/19/24
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0	50.0		00.3	50.200			
Surrogate: n-Nonane	49.7		50.0		99.3	50-200			
LCS (2425052-BS1)							Prepared: 0	6/19/24 A	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: E	406163-	05	Prepared: 0	6/19/24 A	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: E	406163-	05	Prepared: 0	6/19/24 A	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**

		$\mathbf{x} \in \mathbf{v}$	•••••		-				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager:	2	Young Deep SW 23003-0002 Ashley Giovengo					<b>Reported:</b> 6/21/2024 2:30:27PM
		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
Blank (2425053-BLK1)							Prepared: 0	6/19/24 <i>A</i>	Analyzed: 06/19/24
Chloride	ND	20.0							
LCS (2425053-BS1)							Prepared: 0	6/19/24 A	Analyzed: 06/19/24
Chloride	248	20.0	250		99.1	90-110			
Matrix Spike (2425053-MS1)				Source: I	E406163-0	)6	Prepared: 0	6/19/24 A	Analyzed: 06/19/24
Chloride	825	20.0	250	593	92.9	80-120			
Matrix Spike Dup (2425053-MSD1)				Source: I	E406163-0	)6	Prepared: 0	6/19/24 A	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.



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**

	Clier	nt Inform	nation			Invoice Information		110		La	b Us	e On	ly	TAT State						9	
Client: N	latador Prod	luction Co	ompany	/	Co	Company:     Ensolum LLC     Lab WO#     Job Number     1D     2D     3D     Std     NM     CO     UT     TZ       Address:     3122 National Parks Hwy     E406163     23003-0002     X						TX									
	Young Dee					dress: 3122 National Parks Hw	y	E	106	163	3	1.0									
	lanager: Asl		engo			ty, State, Zip: Carlsbad NM, 882															
	3122 Nation					one: 575-988-0055						Ana	lysis	and	Meth	hod			EP.	A Progra	m
	e, Zip: Carls					Email: agiovengo@ensolum.com SDWA CWA RCRA							RCRA								
	75-988-005					Miscellaneous:															
	giovengo@e		om			Compliance V or						or N									
									801	801	12		0		~	5		P	NSID #		
•				Sam	ple Informat				Oby	O by	8021	3260	300.	NN	5-1)	Meta					
Time Sampled	Date Sampled	No. of							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				Remarks	
11:28	6/17/2024	S	1			BH01 - 20'		Lab Number						x	F	-					
9:21	6/17/2024	S	1			BH02 - 4'		2						x							
9:50	6/17/2024	S	1			BH02 - 6'		3						х							
14:55	6/17/2024	S	1			BH02 - 8.5'		Ч						х							
15:24	6/17/2024	S	1			BH02 - 10'		5						х							
15:55	6/17/2024	S	1		BH02 - 12'			6						x							
16:11	6/17/2024	S	1		BH02 - 14.5'			7						х							
16:20	6/17/2024	S	1		BH02 - 16'			8						x							
16:32	6/17/2024	S	1			BH02 - 18'		9			1			x							
14:08	6/17/2024	S	1			SS03A - 0'		10						х							
Addition	al Instructio	ons: Ple	ase CC:	cburton@e	ensolum.com	n, agiovengo@ensolum.com, ch	amilt	on@enso	lum.o	com,	iest	rella	ens	olun	n.com	1					
I, (field sam Sampled by		e validity and hilton, Brand		city of this samp	ble. I am aware th	at tampering with or intentionally mislabelir	g the s	ample locatio	n, date	or tim	e of co	ollectio	n is co								_
Relinquish	ed by: (Signatur	re)	Da	ie 118124	Time 7:51	Mereived by: (Signatore)	Date	-18:24	_	575	1			sampl		ceived pa	nal preservation cked in ice at a	an avg te	mp above 0		
Vulic	- A	ongali	U	01824	Time D63D	630 Keybork Of Hell			-	70	Ø			Rec	eived	on ice		o Use / N	Only		
	ed by: (Signatu			ate	Time	Received by: (Signature)	Date		Time					<u>T1</u>			<u>T2</u>			<u>T3</u>	
	ed by: (Signatu			ate	Time	Received by: (Signature)	Date	ntainer Ty	Time			DOIN/	nlacti		Tem		4				
	rix: S - Soil, Sd - S												1						the anal	ucic of the	abovo
Note: Sam	oles are discard	led 14 days	s after re:	sults are repor	rted unless othe	r arrangements are made. Hazardous s h this COC. The liability of the laborator	ample	s will be ret	urned	to clie	ent or	dispo	sed of	at th	e clien	t exper	ise. The rep	port for	the anal	ysis of the	te
samples is	applicable only	to those s	amples r	eceived by the	e laboratory wit	h this COC. The liability of the laborator	y is lin	nited to the	amou	nt pai	d for	on the	repo	rt.							

Received by OCD: 10/9/2024 2:08:41 PM

Page \_ / \_ of \_ (

#### **Envirotech Analytical Laboratory**

#### Sample Receipt Checklist (SRC)

Client:	Matador Resources, LLC. Da	te Received:	06/19/24	07:00	Work Order ID:	E406163
Phone:	(972) 371-5200 Da	te Logged In:	06/18/24	15:42	Logged In By:	Jessica Liesse
Email:		e Date:		17:00 (4 day TAT)		
Chain o	f Custody (COC)					
1. Does	the sample ID match the COC?		Yes			
	the number of samples per sampling site location match t	he COC	Yes			
3. Were	samples dropped off by client or carrier?		Yes	Carrier: Couier		
4. Was t	he COC complete, i.e., signatures, dates/times, requested	analyses?	Yes			
5. Were	all samples received within holding time? Note: Analysis, such as pH which should be conducted in the i.e, 15 minute hold time, are not included in this disucssion.	field,	Yes		Commen	ts/Resolution
Sample	Turn Around Time (TAT)					
	ne COC indicate standard TAT, or Expedited TAT?		Yes			
	<u>Cooler</u>					
	sample cooler received?		Yes			
8. If yes	, was cooler received in good condition?		Yes			
9. Was t	he sample(s) received intact, i.e., not broken?		Yes			
10. Were	e custody/security seals present?		No			
11. If ye	s, were custody/security seals intact?		NA			
12. Was 1	the sample received on ice? If yes, the recorded temp is 4°C, i.e., Note: Thermal preservation is not required, if samples are rec minutes of sampling		Yes			
13. If no	visible ice, record the temperature. Actual sample tem	perature: <u>4</u> °	<u>C</u>			
	<u>Container</u>	-				
	aqueous VOC samples present?		No			
15. Are	VOC samples collected in VOA Vials?		NA			
16. Is th	e 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	e appropriate volume/weight or number of sample containers	collected?	Yes			
Field La	abel					
	e field sample labels filled out with the minimum information	ation:				
	Sample ID? Date/Time Collected?		Yes			
	Collectors name?		Yes Yes			
	Preservation_		103			
-	s the COC or field labels indicate the samples were prese	rved?	No			
22. Are	sample(s) correctly preserved?		NA			
	b filteration required and/or requested for dissolved meta	ls?	No			
<u>Multip</u> h	nase Sample Matrix					
	s the sample have more than one phase, i.e., multiphase?		No			
27. If ye	es, does the COC specify which phase(s) is to be analyzed	!?	NA			
Subcon	tract Laboratory					
	samples required to get sent to a subcontract laboratory?		No			
	a subcontract laboratory specified by the client and if so	who?	NA	Subcontract Lab: NA		
	Instruction					

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







5796 U.S. Hwy 64 Farmington, NM 87401

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





# 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

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,



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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 reguarding 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

Field Offices: Southern New Mexico Area Lynn Jarboe Laboratory Technical Representative Office: 505-421-LABS(5227) Cell: 505-320-4759 ljarboe@envirotech-inc.com Raina Schwanz Laboratory Administrator Office: 505-632-1881 rainaschwanz@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 Sum	mary		
Matador Resources, LLC.		Project Name:	Young Deep SWD		Reported:
5400 LBJ Freeway, Suite 1500		Project Number:	23003-0002		Reporteu.
Dallas TX, 75240		Project Manager:	Ashley Giovengo		06/21/24 14:29
Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH01-17'		Soil	06/17/24	06/19/24	Glass Jar, 2 oz.

C



		ampic D					
Matador Resources, LLC.	Project Name	: You	ng Deep SV	VD			
5400 LBJ Freeway, Suite 1500	Project Numb	er: 2300	03-0002				Reported:
Dallas TX, 75240	Project Manag	ger: Ash	ley Gioveng	go			6/21/2024 2:29:15PM
		BH01-17'					
		E406164-01					
		Reporting					
Analyte	Result	Limit	Dilu	ition	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg		Analyst: I	IY		Batch: 2425047
Benzene	ND	0.0250	1	1	06/18/24	06/20/24	
Ethylbenzene	ND	0.0250	1	l	06/18/24	06/20/24	
Toluene	ND	0.0250	1	1	06/18/24	06/20/24	
p-Xylene	ND	0.0250	1	1	06/18/24	06/20/24	
o,m-Xylene	ND	0.0500	1	1	06/18/24	06/20/24	
Total Xylenes	ND	0.0250	1	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: I	IY		Batch: 2425047
Gasoline Range Organics (C6-C10)	ND	20.0	1	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: 1	NV		Batch: 2425052
Diesel Range Organics (C10-C28)	ND	25.0	1	1	06/19/24	06/20/24	
Dil Range Organics (C28-C36)	ND	50.0	1	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: V	WF		Batch: 2425053
Chloride	625	20.0	1	1	06/19/24	06/19/24	





## QC Summary Data

			**	D GUT					
Matador Resources, LLC.		Project Name:		oung Deep SWI	J				Reported:
5400 LBJ Freeway, Suite 1500		Project Number:		3003-0002					
Dallas TX, 75240		Project Manager:	As	shley Giovengo				6	5/21/2024 2:29:15PM
		Volatile Organic	Compo	unds by EPA	A 8260H	3			Analyst: IY
Analyte		Reporting	Spike	Source		Rec		RPD	
,	Result	Limit	Level	Result	Rec	Limits	RPD	Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2425047-BLK1)							Prepared: 0	6/19/24 An	alyzed: 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: 0	6/19/24 An	alyzed: 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			
p-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: E	406163-0	07	Prepared: 0	6/19/24 An	alyzed: 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			
p-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: E	406163-0	07	Prepared: 0	6/19/24 An	alyzed: 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	
p-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			
			0.500		99.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.7 104	70-130			
Surrogate: Toluene-d8	0.521								



# **QC Summary Data**

		QC BI	umma	ary Data	a				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Project Number: Project Manager:	2.	oung Deep SW 3003-0002 shley Gioveng.		<b>Reported:</b> 6/21/2024 2:29:15Pt				
	N	onhalogenated O	rganics	by EPA 801	15D - GR	0			Analyst: IY
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2425047-BLK1)							Prepared: 0	6/19/24 A	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: 0	6/19/24 A	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: 0	6/19/24 A	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	7	Prepared: 0	6/19/24 A	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**

		QU D	u 111111						
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager:	2	Young Deep SW 23003-0002 Ashley Gioveng					<b>Reported:</b> 6/21/2024 2:29:15PM
Dulus III, 70210	Nonh	alogenated Org				/ORO			Analyst: NV
Analyte		Reporting	Spike	Source		Rec		RPD	Tharyst. 100
1 mary to	Result	Limit	Level	Result	Rec	Limits	RPD	Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2425052-BLK1)							Prepared: 0	6/19/24 A	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: 0	6/19/24 A	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)	trix Spike (2425052-MS1) Source: E406163-05							6/19/24 A	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: l	E <b>406163-</b>	05	Prepared: 0	6/19/24 A	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**

		$\chi \sim \sim$	•••••						
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager	: 2	Young Deep SV 23003-0002 Ashley Giovenş					<b>Reported:</b> 6/21/2024 2:29:15PM
		Anions	by EPA	300.0/90564	۸				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
Blank (2425053-BLK1)							Prepared: 0	6/19/24 A	nalyzed: 06/19/24
Chloride	ND	20.0							
LCS (2425053-BS1)							Prepared: 0	6/19/24 A	nalyzed: 06/19/24
Chloride	248	20.0	250		99.1	90-110			
Matrix Spike (2425053-MS1)	Source: E406163-06 Prepare						Prepared: 0	6/19/24 A	nalyzed: 06/19/24
Chloride	825	20.0	250	593	92.9	80-120			
Matrix Spike Dup (2425053-MSD1)				Source:	E406163-	06	Prepared: 0	6/19/24 A	nalyzed: 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.



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**

	Clier	nt Informa	ation		Invoice Information			Invoice Information Lab Use Only													e
Client: N	latador Prod	uction Co	mpany	1	Co							1D 2D 3D Std NM CO UT TX			TX						
Project:	Young Deep	o SWD				Address: 3122 National Parks Hwy				160	+	23	003	-00	02		X X				
Project N	lanager: Ash	nley Giove	engo		<u></u>	y, State, Zip: Carlsbad NM, 8822	sbad NM, 88220														
	3122 Nation				Ph	one: 575-988-0055						Ana	lysis	and	Met	hod		-		A Progr	
	e, Zip: Carlsl		38220		Er	nail: agiovengo@ensolum.com		_						117				SI	DWA	CWA	RCRA
	75-988-005		_		Mis	cellaneous:						8.3						_		1.20	
mail: a	giovengo@er	nsolum.co	om				_		015	015								_	mplianc	e Y	or N
								_	oy 80	oy 80	21	0	0.0	Σ	X	tals		PV	VSID #		
-				Sam	ple Informati		<b>L</b> 1		ORO	DRO	y 80	y 826	de 3(	Z'S	- 500	8 Me				Domoriu	
Time Sampled	Date Sampled	Matrix	No. of Containers	s		Sample ID	Field	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				Remark	5
10:03	6/17/2024	S	1			BH01 - 17'		1						х							
				-														+			
-		-		-			-					-		-	-			+			
							-	-	-	-	-	-		-				+			
					_					-		-						-			
		100					_														
						, agiovengo@ensolum.com, char at tampering with or intentionally mislabeling			-								ay be grounds fo	for leg	al action.		
	Chad Ham ed_by: (Signatur		n Deal Da	ite	Time	Received by: (Signature)	Date		Time		7		-				mal preservation r				
10	auished by: (Signature) Date Time Received by: (Signature)				Michelle Gongales	6-	18-24	6	6751				1 C C C C C	pled or received packed in ice at an avg temp above 0 but less than 6 °C on sequent days					an 6 °C on		
Winguish	ed by (Signatur	engale	y Da	e (8)4	Time 0630	Received by: (Signature)	Date	19-24	Time	70	0			Rec	eiveo	d on ic	e: Y/		Only		
Relinquish	ed by: (Signatur	re)	Da		Time	Received by: (Signature)	Date		Time	-				T1			Τ2			тз	
Relinquish	ed by: (Signatur	re)	Da	ite	Time	Received by: (Signature)	Date	-	Time	-				11		0.0	4		_	15	
							Cont	ainer Tur	0. 0	alace	. n.	DOIV/	nlact		Ter		ss, v - VOA	-			
Sample Mat	rix: S - Soil, Sd - So	olid, Sg - Slud	ige, A - Aq	queous, O - Oth	er	r arrangements are made. Hazardous sa									- am	oer gia		rt for	the anal	usis of th	e above

Received by OCD: 10/9/2024 2:08:41 PM

Page \_\_\_\_\_ of \_\_\_

### **Envirotech Analytical Laboratory**

Client:	Matador Resources, LLC.	Date Received:	06/19/24	07:00	Work Order ID:	E406164
hone:	(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)		
<sup>7</sup> hain of (						
	Custody (COC)		Vac			
	e sample ID match the COC? e number of samples per sampling site location r	natch the COC	Yes			
	mples dropped off by client or carrier?		Yes Yes	Carrier: Couier		
	COC complete, i.e., signatures, dates/times, req	uested analyses?	Yes	Carrier. <u>Courer</u>		
	I samples received within holding time? Note: Analysis, such as pH which should be conducte i.e, 15 minute hold time, are not included in this disuc	d in the field,	Yes		Commen	ts/Resolution
	urn Around Time (TAT) COC indicate standard TAT, or Expedited TAT?		Yes			
Sample C			105			
	ample cooler received?		Yes			
	vas cooler received in good condition?		Yes			
•	sample(s) received intact, i.e., not broken?		Yes			
	custody/security seals present?		No			
	were custody/security seals intact?		NA			
	sample received on ice? If yes, the recorded temp is 4 Note: Thermal preservation is not required, if samples minutes of sampling isible ice, record the temperature. Actual samples	are received w/i 15	Yes <u>C</u>			
Sample C	ontainer					
4. Are aq	ueous VOC samples present?		No			
5. Are V	OC samples collected in VOA Vials?		NA			
	head space less than 6-8 mm (pea sized or less)?		NA			
	trip blank (TB) included for VOC analyses?	_	NA			
	on-VOC samples collected in the correct contained		Yes			
	ppropriate volume/weight or number of sample con	tainers collected?	Yes			
Field Lab		nformation				
	ield sample labels filled out with the minimum i mple ID?	mormanoil.	Yes			
Da	ate/Time Collected?		Yes			
	ollectors name?		Yes			
_	reservation		<b>r</b> -			
	he COC or field labels indicate the samples were	e preserved?	No			
	mple(s) correctly preserved? filteration required and/or requested for dissolved	d metals?	NA No			
	se Sample Matrix					
	he sample have more than one phase, i.e., multip	hase?	No			
	does the COC specify which phase(s) is to be an		NA			
Subcontra	act Laboratory					
	mples required to get sent to a subcontract laboration	atory?	No			
	subcontract laboratory specified by the client an		NA			

**<u>Client Instruction</u>** 

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



envirotech Inc.





5796 U.S. Hwy 64 Farmington, NM 87401

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





# 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

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,



Page 107 of 197

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 reguarding 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

Field Offices: Southern New Mexico Area Lynn Jarboe Laboratory Technical Representative Office: 505-421-LABS(5227) Cell: 505-320-4759 ljarboe@envirotech-inc.com Raina Schwanz Laboratory Administrator Office: 505-632-1881 rainaschwanz@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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BH01-24'

BH01-26'

		Sample Sum	mary			
Matador Resources, LLC.		Project Name:	Young Deep SWD			Depented
5400 LBJ Freeway, Suite 1500		Project Number:	23003-0002			Reported:
Dallas TX, 75240		Project Manager:	Ashley Giovengo			07/16/24 09:52
Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container	

Soil

Soil

E407072-01A

E407072-02A

07/10/24

07/10/24

07/11/24

07/11/24

envirotech Inc.

.

Glass Jar, 2 oz.

Glass Jar, 2 oz.

	N	ampie D											
Matador Resources, LLC.	Project Name		ng Deep SWD										
5400 LBJ Freeway, Suite 1500	Project Numb		03-0002			<b>Reported:</b> 7/16/2024 9:52:08AM							
Dallas TX, 75240	0 Project Manager:				Ashley Giovengo								
		BH01-24'											
		E407072-01											
		Reporting											
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes							
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	st: 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								
p-Xylene	ND	0.0250	1	07/11/24	07/12/24								
o,m-Xylene	ND	0.0500	1	07/11/24	07/12/24								
Fotal 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	Analys	st: 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	Analys	st: KM		Batch: 2428080							
Diesel Range Organics (C10-C28)	ND	25.0	1	07/11/24	07/12/24								
Dil 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	Analys	st: JM		Batch: 2428083							
Chloride	102	20.0	1	07/11/24	07/11/24								



# **QC Summary Data**

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500		Project Name: Project Number: Project Manager:	23	oung Deep SV 003-0002 shley Gioveng					<b>Reported:</b> 7/16/2024 9:52:08AM
Dallas TX, 75240		Project Manager:	As	sniey Gloveng	zo				//10/2024 9:52:08AM
		Volatile Or	rganics b	oy EPA 802	21B				Analyst: IY
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2428074-BLK1)							Prepared: 0	7/11/24 A	nalyzed: 07/11/24
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
p-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: 0	7/11/24 A	nalyzed: 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			
Foluene	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:	E407073-0	03	Prepared: 0	7/11/24 A	nalyzed: 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			
p-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 Surrogate: 4-Bromochlorobenzene-PID	13.7 7.46	0.0250	15.0	ND	91.4 93.2	63-131 70-130			
surroguie. 4-Bromocniorobenzene-r11)	/.40		0.00						
Matrix Spike Dup (2428074-MSD1)					E407073-		-		nalyzed: 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	
p-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	



# **QC Summary Data**

		QC D	umm	ii y Data	a				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager:	23	oung Deep SW 3003-0002 shley Gioveng					<b>Reported:</b> 7/16/2024 9:52:08AM
	Nor	nhalogenated C	Organics	by EPA 801	15D - GI	RO			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
Blank (2428074-BLK1)							Prepared: 0	7/11/24 A	nalyzed: 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: 0	7/11/24 A	nalyzed: 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: 0	7/11/24 A	nalyzed: 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: 0	7/11/24 A	nalyzed: 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**

		QU DI	umm	ialy Data	L				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager:		Young Deep SW 23003-0002 Ashley Giovengo					<b>Reported:</b> 7/16/2024 9:52:08AM
	Nonh	alogenated Org	anics b	y 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
Blank (2428080-BLK1)							Prepared: 0	7/11/24 A	nalyzed: 07/11/24
Diesel Range Organics (C10-C28) Oil Range Organics (C28-C36)	ND ND	25.0 50.0							
Surrogate: n-Nonane	54.9		50.0		110	50-200			
LCS (2428080-BS1)							Prepared: 0	7/11/24 A	nalyzed: 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: I	E <b>407068</b> -	02	Prepared: 0	7/11/24 A	nalyzed: 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: I	E <b>407068</b> -	02	Prepared: 0	7/11/24 A	nalyzed: 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**

		$\mathbf{x} \in \mathbf{z}$	••••••		-					
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager:	2	Young Deep SW 23003-0002 Ashley Gioveng					•	orted: 9:52:08AM
		Anions	by EPA	300.0/9056A	<b>\</b>				Analyst	: JM
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit		
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	1	Notes
Blank (2428083-BLK1)							Prepared: 0	7/11/24 /	Analyzed: 0	7/11/24
Chloride	ND	20.0								
LCS (2428083-BS1)							Prepared: 0	7/11/24 A	Analyzed: 0	7/11/24
Chloride	250	20.0	250		100	90-110				
Matrix Spike (2428083-MS1)				Source:	E407066-(	)2	Prepared: 0	7/11/24 A	Analyzed: 0	7/11/24
Chloride	542	20.0	250	300	97.1	80-120				
Matrix Spike Dup (2428083-MSD1)				Source:	E407066-(	)2	Prepared: 0	7/11/24 A	Analyzed: 0	7/11/24
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.



Γ	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 Analyt	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**

	Clier	nt Inform	ation			Invoice Information			Lab Use Or								TAT	State
Client: N	latador Prod	uction Co	ompany			Company: Ensolum LLC	_	Lab	WO	#	20	Job	Num	ber	2	1D 2	D 3D Sto	
	Young Deep							Company:         Ensolum LLC         Lab WO#         Job Numbra           Address:         3122 National Parks Hwy         E 40 70 70 70 70 70 70 70 70 70 70 70 70 70				500	Jor		x	X		
	lanager: Ash					City, State, Zip: Carlsbad NM, 88220			_			-						FDA D.
	3122 Nation	10 AA 10 M				Phone: 575-988-0055			-	1	-	Ana	alysis	and	Met	hod	1	EPA Program
	e, Zip: Carlsl		88220			Email: agiovengo@ensolum.com				0.1								SDWA CWA RCRA
	75-988-005			_	∾	Miscellaneous:												Compliance Y or N
:mail: ag	giovengo@er	nsolum.c	om				1		3015	3015								PWSID #
				Sam	ple Informa	tion	1		DRO/ORO by 8015	GRO/DRO by 8015	021	260	Chloride 300.0	MN	XL-	RCRA 8 Metals		111010
Time		1.	No. of	J				Lab	/ORC	DRC	BTEX by 8021	VOC by 8260	ride	BGDOC - NM	rceq 1005 - TX	1 8 N		Remarks
Sampled	Date Sampled	Matrix	Containers			Sample ID	Field	Lab Numbe	DRO	GRO	BTEX	Nov	Chlo	BGD	TCEQ	RCR		
9:45	7/10/2024	S	1			BH01 - 24'	1	1						X				
		3	1										-	~		-		
9:47	7/10/2024	S	1			BH01 - 26'		2	1					X				Do not run unless BH01 - 24' is > 600Cl or 100 TPH
			-	-	_		-	0	-	-	-	-	-	-		-		
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	1									2.1.1		1.1						
Addition	al Instructio	ns: Plea	ase CC: cl	burton@	ensolum.co	m, agiovengo@ensolum.com, ie	strella	@ensolu	im.co	m, b	deal	@ens	solur	n.cor	n, ch	amilte	on@ensolu	im.com
												200.0	and a second	4.5.4		67604		
, (field samp	oler), attest to the	validity and	authenticity	y of this samp	ple. I am aware	that tampering with or intentionally mislabeli	ng the sa	mple locati	on, date	e or tin	ne of co	ollectio	on is co	nsider	ed frau	d and m	ay be grounds f	for legal action.
	Cole Burton		In sec.		1	14 0.00	1.		1-0			-	-	le	00.00.000	1.1		must be received on ice the day they are
Relinquishe	ed by: (Signatur	e)	Date	11/24	Time 10:15	Received by Signature)	Date	1024	Time	015								avg temp above 0 but less than 6 °C on
Palinquich	2 Or	(a)	Date	UL PI	Time	Received by: (Signature)	Date		Time		-	-		subse	nuent d	avs	Lahl	Use Only
Mie	d by (Signatur	e) onzale		1024	1630	Received by Talinature)	10000	10.4		80	7	1		Rec	eiver	l on ic	0	
0	ed by: (Signatur	- 0	Date		Time	Received by: (Signature)	Date		Time		12	1		Ince	civee	onic	0	
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Relinquish	ed by: (Signatur	re)	Date		Time	Received by: (Signature)	Date		Time	e							4	
												1		AVC	Ten	np °C_	T	
Sample Mat	rix: <b>S</b> - Soil, <b>Sd</b> - Se	olid, Sg - Slu	dge, A - Aque	eous, <b>O</b> - Oth	ner												ss, v - VOA	
						ner arrangements are made. Hazardous									e clier	nt expe	nse. The repo	rt for the analysis of the above
samples is	applicable only	to those s	amples rec	eived by the	e laboratory w	ith this COC. The liability of the laborato	ry is lin	ited to the	e amou	int pa	id for	on the	e repo	rt.	_	_		

Received by OCD: 10/9/2024 2:08:41 PM

Page 1 of 1

NO 1 1

## **Envirotech Analytical Laboratory**

### Sample Receipt Checklist (SRC)

	Matador Resources, LLC. D	ate Received:	07/11/24 10	:30	Work Order I	D: E407072
Phone:	(972) 371-5200 D	ate Logged In:	07/10/24 16	:50	Logged In By	: Alexa Michaels
Email:	agiovngo@ensolum.com D	ue Date:	07/17/24 17	:00 (4 day TAT)		
<u>Chain o</u>	Custody (COC)					
1. Does	he sample ID match the COC?		Yes			
2. Does t	he number of samples per sampling site location match	the COC	Yes			
3. Were	samples dropped off by client or carrier?		Yes	Carrier: C	Couier	
4. Was th	e COC complete, i.e., signatures, dates/times, requested	d analyses?	Yes			
5. Were	all samples received within holding time? Note: Analysis, such as pH which should be conducted in th i.e, 15 minute hold time, are not included in this disucssion.	e field,	Yes		Comn	nents/Resolution
Sample '	<u>Furn Around Time (TAT)</u>					
6. Did th	e COC indicate standard TAT, or Expedited TAT?		Yes		COC Remarks on sa	=
Sample					unless BH01-24 is >	600Cl or 100 TPH
	sample cooler received?		Yes			
8. If yes,	was cooler received in good condition?		Yes			
	he sample(s) received intact, i.e., not broken?		Yes			
10. Were	custody/security seals present?		No			
11. If ye	s, were custody/security seals intact?		NA			
12. Was t	he sample received on ice? If yes, the recorded temp is 4°C, i.e. Note: Thermal preservation is not required, if samples are re minutes of sampling		Yes			
13. If no	visible ice, record the temperature. Actual sample tem	mperature: <u>4°</u>	<u>C</u>			
Sam-1	Containan					
Sample [	Container					
	iqueous VOC samples present?		No			
14. Are a			No NA			
14. Are a 15. Are '	queous VOC samples present?					
14. Are a 15. Are 7 16. Is the	queous VOC samples present? /OC samples collected in VOA Vials?		NA			
14. Are a 15. Are v 16. Is the 17. Was	queous VOC samples present? VOC samples collected in VOA Vials? e head space less than 6-8 mm (pea sized or less)?		NA NA			
14. Are a 15. Are 7 16. Is the 17. Was 18. Are 1	queous VOC samples present? VOC samples collected in VOA Vials? e head space less than 6-8 mm (pea sized or less)? a trip blank (TB) included for VOC analyses?	s collected?	NA NA NA			
14. Are a 15. Are v 16. Is the 17. Was 18. Are n 19. Is the <b>Field La</b>	Aqueous VOC samples present? VOC samples collected in VOA Vials? e head space less than 6-8 mm (pea sized or less)? a trip blank (TB) included for VOC analyses? non-VOC samples collected in the correct containers? appropriate volume/weight or number of sample containers bel		NA NA NA Yes			
<ul> <li>14. Are a</li> <li>15. Are 3</li> <li>16. Is the</li> <li>17. Was</li> <li>18. Are 1</li> <li>19. Is the</li> <li>Field La</li> <li>20. Were</li> </ul>	Aqueous VOC samples present? VOC samples collected in VOA Vials? e head space less than 6-8 mm (pea sized or less)? a trip blank (TB) included for VOC analyses? non-VOC samples collected in the correct containers? appropriate volume/weight or number of sample containers <u>bel</u> field sample labels filled out with the minimum inform		NA NA Yes Yes			
14. Are a 15. Are 3 16. Is the 17. Was 18. Are 1 19. Is the Field La 20. Were	Aqueous VOC samples present? VOC samples collected in VOA Vials? head space less than 6-8 mm (pea sized or less)? a trip blank (TB) included for VOC analyses? non-VOC samples collected in the correct containers? appropriate volume/weight or number of sample containers <b>bel</b> field sample labels filled out with the minimum inform Sample ID?		NA NA Yes Yes Yes			
14. Are a 15. Are v 16. Is the 17. Was 18. Are u 19. Is the Field La 20. Were	Aqueous VOC samples present? VOC samples collected in VOA Vials? e head space less than 6-8 mm (pea sized or less)? a trip blank (TB) included for VOC analyses? non-VOC samples collected in the correct containers? appropriate volume/weight or number of sample containers <b>bel</b> field sample labels filled out with the minimum inform Sample ID? Date/Time Collected?		NA NA Yes Yes Yes Yes			
14. Are a 15. Are a 15. Are v 16. Is the 17. Was 18. Are n 19. Is the Field La 20. Were S 1 0	Aqueous VOC samples present? VOC samples collected in VOA Vials? e head space less than 6-8 mm (pea sized or less)? a trip blank (TB) included for VOC analyses? non-VOC samples collected in the correct containers? appropriate volume/weight or number of sample containers bel field sample labels filled out with the minimum inform Sample ID? Date/Time Collected? Collectors name?		NA NA Yes Yes Yes			
14. Are a 15. Are v 16. Is the 17. Was 18. Are r 19. Is the <b>Field La</b> 20. Were S I C Sample	Aqueous VOC samples present? VOC samples collected in VOA Vials? e head space less than 6-8 mm (pea sized or less)? a trip blank (TB) included for VOC analyses? non-VOC samples collected in the correct containers? appropriate volume/weight or number of sample containers <b>bel</b> field sample labels filled out with the minimum inform Sample ID? Date/Time Collected? Collectors name? <b>Preservation</b>	nation:	NA NA Yes Yes Yes Yes Yes			
14. Are a 15. Are v 16. Is the 17. Was 18. Are 1 19. Is the Field La 20. Were S Sample 21. Does	Aqueous VOC samples present? VOC samples collected in VOA Vials? thead space less than 6-8 mm (pea sized or less)? a trip blank (TB) included for VOC analyses? ton-VOC samples collected in the correct containers? appropriate volume/weight or number of sample containers <b>bel</b> field sample labels filled out with the minimum inform Sample ID? Date/Time Collected? Collectors name? <b>Preservation</b> the COC or field labels indicate the samples were preservation	nation:	NA NA Yes Yes Yes Yes			
14. Are a 15. Are v 16. Is the 17. Was 18. Are u 19. Is the Field La 20. Were Sample 21. Does 22. Are s	Aqueous VOC samples present? VOC samples collected in VOA Vials? e head space less than 6-8 mm (pea sized or less)? a trip blank (TB) included for VOC analyses? non-VOC samples collected in the correct containers? appropriate volume/weight or number of sample containers <b>bel</b> field sample labels filled out with the minimum inform Sample ID? Date/Time Collected? Collectors name? <b>Preservation</b>	nation: erved?	NA NA Yes Yes Yes Yes Yes			
14. Are a 15. Are a 16. Is the 17. Was 18. Are a 19. Is the <b>Field La</b> 20. Were 21. Does 22. Are s 24. Is lat	Aqueous VOC samples present? VOC samples collected in VOA Vials? the head space less than 6-8 mm (pea sized or less)? a trip blank (TB) included for VOC analyses? non-VOC samples collected in the correct containers? appropriate volume/weight or number of sample containers <b>bel</b> field sample labels filled out with the minimum inform Sample ID? Date/Time Collected? Collectors name? <b>Preservation</b> the COC or field labels indicate the samples were preserved sample(s) correctly preserved? of literation required and/or requested for dissolved metal	nation: erved?	NA NA Yes Yes Yes Yes No NA			
14. Are a 15. Are v 16. Is the 17. Was 18. Are v 19. Is the <b>Field La</b> 20. Were 20. Were 21. Does 22. Are s 24. Is lat <u>Multiph</u>	Aqueous VOC samples present? VOC samples collected in VOA Vials? the head space less than 6-8 mm (pea sized or less)? a trip blank (TB) included for VOC analyses? non-VOC samples collected in the correct containers? appropriate volume/weight or number of sample containers <b>bel</b> field sample labels filled out with the minimum inform Sample ID? Date/Time Collected? Collectors name? <b>Preservation</b> the COC or field labels indicate the samples were preserved ample(s) correctly preserved? o filteration required and/or requested for dissolved meta <b>ase Sample Matrix</b>	nation: erved? als?	NA NA Yes Yes Yes Yes No NA No			
14. Are a 15. Are a 16. Is the 17. Was 18. Are a 19. Is the <b>Field La</b> 20. Were Sample 21. Does 22. Are s 24. Is lat <b>Multiph</b> 26. Does	a queous VOC samples present? VOC samples collected in VOA Vials? the head space less than 6-8 mm (pea sized or less)? a trip blank (TB) included for VOC analyses? non-VOC samples collected in the correct containers? appropriate volume/weight or number of sample containers? <b>bel</b> field sample labels filled out with the minimum inform sample ID? Date/Time Collected? Collectors name? <b>Preservation</b> the COC or field labels indicate the samples were prese sample(s) correctly preserved? o filteration required and/or requested for dissolved meta <b>ase Sample Matrix</b> the sample have more than one phase, i.e., multiphase?	nation: erved? als?	NA NA Yes Yes Yes Yes No NA No			
14. Are a 15. Are v 16. Is the 17. Was 18. Are n 19. Is the <b>Field La</b> 20. Were <u>Sample</u> 21. Does 22. Are s 24. Is lat <u>Multiph</u> 26. Does 27. If yes	Aqueous VOC samples present? VOC samples collected in VOA Vials? the head space less than 6-8 mm (pea sized or less)? a trip blank (TB) included for VOC analyses? hon-VOC samples collected in the correct containers? appropriate volume/weight or number of sample containers <b>bel</b> field sample labels filled out with the minimum inform sample ID? Date/Time Collected? Collectors name? <b>Preservation</b> the COC or field labels indicate the samples were preserved? of filteration required and/or requested for dissolved meta <b>ase Sample Matrix</b> the sample have more than one phase, i.e., multiphase? s, does the COC specify which phase(s) is to be analyzed analyzed to the sample of the sample of the sample of the sample of the sample have more than one phase, is to be analyzed of the sample of the sample of the sample of the sample have more than one phase, is to be analyzed of the sample have more than one phase, is to be analyzed of the sample have more than one phase, is to be analyzed of the sample of	nation: erved? als?	NA NA Yes Yes Yes Yes No NA No			
14. Are a 15. Are v 16. Is the 17. Was 18. Are v 19. Is the <b>Field La</b> 20. Were 20. Were 21. Does 22. Are s 24. Is lat <u>Multiph</u> 26. Does 27. If ye: <u>Subcont</u>	Aqueous VOC samples present? VOC samples collected in VOA Vials? the head space less than 6-8 mm (pea sized or less)? a trip blank (TB) included for VOC analyses? non-VOC samples collected in the correct containers? appropriate volume/weight or number of sample containers <b>bel</b> field sample labels filled out with the minimum inform Sample ID? Date/Time Collected? Collectors name? <b>Preservation</b> the COC or field labels indicate the samples were preserved? of filteration required and/or requested for dissolved meta <b>ase Sample Matrix</b> the sample have more than one phase, i.e., multiphase? s, does the COC specify which phase(s) is to be analyzed <b>ract Laboratory</b>	nation: erved? als?	NA NA Yes Yes Yes Yes No NA No No			
14. Are a 15. Are v 16. Is the 17. Was 18. Are v 19. Is the <b>Field La</b> 20. Were 20. Were 21. Does 22. Are s 24. Is lat <u>Multiph</u> 26. Does 27. If ye: <u>Subcont</u> 28. Are s	Aqueous VOC samples present? VOC samples collected in VOA Vials? the head space less than 6-8 mm (pea sized or less)? a trip blank (TB) included for VOC analyses? hon-VOC samples collected in the correct containers? appropriate volume/weight or number of sample containers <b>bel</b> field sample labels filled out with the minimum inform sample ID? Date/Time Collected? Collectors name? <b>Preservation</b> the COC or field labels indicate the samples were preserved? of filteration required and/or requested for dissolved meta <b>ase Sample Matrix</b> the sample have more than one phase, i.e., multiphase? s, does the COC specify which phase(s) is to be analyzed analyzed to the sample of the sample of the sample of the sample of the sample have more than one phase, is to be analyzed of the sample of the sample of the sample of the sample have more than one phase, is to be analyzed of the sample have more than one phase, is to be analyzed of the sample have more than one phase, is to be analyzed of the sample of	nation: erved? als? d?	NA NA Yes Yes Yes Yes No NA No NA No	Subcontract Lab	• NA	

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



envirotech Inc.

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5796 U.S. Hwy 64 Farmington, NM 87401

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





# 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

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,



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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 reguarding 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

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## Sample Summary

		Sample Sum	mary		
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500		Project Name: Project Number:	6 1		Reported:
Dallas TX, 75240		Project Manager:	Ashley Giovengo		10/07/24 05:52
Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
РН06-0'	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.
'H06-15'	E409294-09A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.



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Matador Resources, LLC.	Project Name	e: You	ng Deep SWD			
5400 LBJ Freeway, Suite 1500	Project Numb	ber: 230	03-0002			Reported:
Dallas TX, 75240	Project Mana		10/7/2024 5:52:03AN			
		PH06-0'				
		E409294-01				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	st: 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	
o,m-Xylene	ND	0.0500	1	10/01/24	10/02/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/02/24	
urrogate: 4-Bromochlorobenzene-PID		105 %	70-130	10/01/24	10/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analys	st: BA		Batch: 2440031
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/02/24	
urrogate: 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	Analys	st: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	303	50.0	2	10/01/24	10/04/24	
Dil Range Organics (C28-C36)	566	100	2	10/01/24	10/04/24	
urrogate: n-Nonane		117 %	50-200	10/01/24	10/04/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	st: DT		Batch: 2440049



	6	ample D	ala			
Matador Resources, LLC.	Project Name	: You	ng Deep SWD			
5400 LBJ Freeway, Suite 1500	Project Numb	ber: 2300	03-0002			Reported:
Dallas TX, 75240	Project Mana	ger: Ash	ley Giovengo			10/7/2024 5:52:03AM
		PH06-2'				
		E409294-02				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	t: 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	
o,m-Xylene	ND	0.0500	1	10/01/24	10/02/24	
Fotal 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	Analys	t: 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	Analys	t: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	691	50.0	2	10/01/24	10/04/24	
Dil 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	Analys	t: DT		Batch: 2440049
Chloride	665	20.0	1	10/02/24	10/02/24	



	5	ampie D	ala			
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Project Numbo Project Manag	er: 230	ng Deep SWD 03-0002 ley Giovengo			<b>Reported:</b> 10/7/2024 5:52:03AM
		PH06-4'				
		E409294-03				
		Reporting				
Analyte	Result	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	
p-Xylene	ND	0.0500	2	10/01/24	10/02/24	
o,m-Xylene	ND	0.100	2	10/01/24	10/02/24	
Total Xylenes	ND	0.0500	2	10/01/24	10/02/24	
urrogate: 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	
Dil 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	



	50	ampic D	ala			
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500	Project Name: Project Number	er: 230	ng Deep SWD 03-0002			<b>Reported:</b> 10/7/2024 5:52:03AM
Dallas TX, 75240	Project Manag	ger: Asn	ley Giovengo			10/7/2024 5:52:05AM
		PH06-6'				
		E409294-04				
		Reporting				
Analyte	Result	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	
p-Xylene	ND	0.0500	2	10/01/24	10/02/24	
o,m-Xylene	0.107	0.100	2	10/01/24	10/02/24	
Fotal 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	
Dil 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	



		ample D				
Matador Resources, LLC.	Project Name:		ng Deep SWD )3-0002			Reported:
5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Number Project Manag		ley Giovengo	10/7/2024 5:52:03AN		
Danas 1A, 752+0	T Tojeet Wallag	ci. Asii	ley Glovengo			10/7/2021 5.52.051141
		PH06-8'				
		E409294-05				
		Reporting				
Analyte	Result	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	
o,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	
Dil 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	



	50	ampic D	ala			
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500	Project Name: Project Numbe Project Manag	er: 230	ng Deep SWD 03-0002			Reported:
Dallas TX, 75240	ley Giovengo			10/7/2024 5:52:03AM		
		PH06-9.5'				
		E409294-06				
		Reporting				
Analyte	Result	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	
Foluene	ND	0.125	5	10/01/24	10/02/24	
o-Xylene	ND	0.125	5	10/01/24	10/02/24	
o,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	



	50	ampic D	ala			
Matador Resources, LLC.	Project Name:		ng Deep SWD			
5400 LBJ Freeway, Suite 1500	Project Numbe	er: 230	03-0002			Reported:
Dallas TX, 75240	Project Manag	ger: Ash	ley Giovengo			10/7/2024 5:52:03AM
		PH06-11'				
		E409294-07				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	: 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	
p-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	Analys	:: 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	Analys	:: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	623	50.0	2	10/01/24	10/04/24	
Dil 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	Analys	:: DT		Batch: 2440049
Chloride	6650	100	5	10/02/24	10/02/24	



	D.	ampic D	ala			
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Project Numbe Project Manag	er: 2300	ng Deep SWD 03-0002 ley Giovengo			<b>Reported:</b> 10/7/2024 5:52:03AM
		PH06-13'				
		E409294-08				
		Reporting				
Analyte	Result	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	
o,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		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	
Surrogate: 1-Chloro-4-fluorobenzene-FID		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	
Dil Range Organics (C28-C36)	ND	50.0	1	10/01/24	10/04/24	
Surrogate: n-Nonane		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	



	D.	ampic D	ala			
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Project Numbe Project Manag	er: 230	ng Deep SWD 03-0002 ley Giovengo			<b>Reported:</b> 10/7/2024 5:52:03AM
		PH06-15'				
		E409294-09				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	:: 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	
-Xylene	ND	0.0250	1	10/01/24	10/02/24	
o,m-Xylene	ND	0.0500	1	10/01/24	10/02/24	
Fotal 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	Analys	:: 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	Analys	:: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Dil 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	Analys	:: DT		Batch: 2440049
Chloride	5140	100	5	10/02/24	10/02/24	



# **QC Summary Data**

				v					
Matador Resources, LLC.		Project Name:	Yc	oung Deep SV	VD				Reported:
5400 LBJ Freeway, Suite 1500		Project Number:	23	3003-0002					
Dallas TX, 75240		Project Manager:	As	Ashley Giovengo					10/7/2024 5:52:03AM
		Volatile Or	ganics b	oy EPA 802	21B				Analyst: BA
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2440031-BLK1)							Prepared: 1	0/01/24 A	Analyzed: 10/02/24
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
p-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: 1	0/01/24 A	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: 1	0/01/24 A	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			
p-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: 1	0/01/24 A	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	
p-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**

		QC D	uIIIIII	ary Data	L				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager:	2	Young Deep SW 23003-0002 Ashley Giovengo					<b>Reported:</b> 10/7/2024 5:52:03AM
	No	nhalogenated C	Organics	s by EPA 801	5D - GI	RO			Analyst: BA
Analyte	Result	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
	ing kg	шукg	mg/kg	шекс	70	70	70	70	Notes
Blank (2440031-BLK1)							Prepared: 1	0/01/24 A	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: 1	0/01/24 A	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: I	E409294-	05	Prepared: 1	0/01/24 A	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: I	E409294-	05	Prepared: 1	0/01/24 A	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**

		QU D	umm	ary Data	e .				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager:	2	Young Deep SW 23003-0002 Ashley Gioveng					<b>Reported:</b> 10/7/2024 5:52:03AM
Dallas IX, 75240		Toject Manager.	1	Asincy Oloveng	0				10///2024 5.52.05/101
	Nonh	alogenated Org	anics by	y EPA 8015D	- DRO	/ORO			Analyst: NV
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2440052-BLK1)							Prepared: 1	0/01/24 A	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: 1	0/01/24 A	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: 1	0/01/24 A	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:	E <b>409281</b> -	01	Prepared: 1	0/01/24 A	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**

		•	···· <b>J</b> = ····	-					
	5	2	23003-0002						5:52:03AM
	, ,		, ,					Analys	
Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD			
mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%		Notes
						Prepared:	10/02/24	Analyzed:	10/02/24
ND	20.0								
						Prepared:	10/02/24	Analyzed:	10/02/24
252	20.0	250		101	90-110				
			Source:	E409294-(	)3	Prepared:	10/02/24	Analyzed:	10/02/24
702	20.0	250	444	103	80-120				
			Source:	E409294-(	)3	Prepared:	10/02/24	Analyzed:	10/02/24
698	20.0	250	444	102	80-120	0.605	20		
	mg/kg ND 252 702	Project Name:         Project Number:         Project Manager:         Anions         Result         Result         mg/kg         ND         252         20.0         702       20.0	Project Name:     Project Number:       Project Number:     2       Project Manager:     2       Anions by EPA       Result     Reporting mg/kg       ND     20.0       252     20.0       702     20.0       250     250	Project Number:       23003-0002         Project Manager:       Ashley Gioveng         Anions by EPA 300.0/9056A       Image:         Result       Reporting       Spike       Source         Result       Imit       Level       Result         mg/kg       mg/kg       mg/kg       mg/kg         ND       20.0       250         252       20.0       250         702       20.0       250         Source:       Source:	Project Name:       Young Deep SWD         Project Number:       23003-0002         Project Manager:       Ashley Giovengo         Anions by EPA 300.0/9056A       Reporting         Result       Reporting       Spike       Source         Result       Reporting       mg/kg       mg/kg       mg/kg       %         ND       20.0       250       101         Source:       E409294-0       5000000000000000000000000000000000000	Project Name:       Young Deep SWD         Project Number:       23003-0002         Project Manager:       Ashley Giovengo         Anions by EPA 300.0/9056A         Result Limit       Reporting Mg/kg       Spike Mg/kg       Source Mg/kg       Rec       Rec         ND       20.0       250       101       90-110         Source: E409294-03         702       20.0       250       444       103       80-120         Source: E409294-03	Project Name: Project Number: Project Manager:Young Deep SWD 23003-0002 Ashley GiovengoAnions by EPA 300.0/9056AResult Mg/kgReporting Mg/kgSpike Mg/kgSource Mg/kgRec %ND20.010190-11025220.025010190-11025220.025044410380-12070220.025044410380-120	Project Name:       Young Deep SWD         Project Number:       23003-0002         Project Manager:       Ashley Giovengo         Anions by EPA 300.0/9056A       Rec       Rec       RPD         Result       Reporting       Spike       Source       Rec       Limits       RPD       Limit         mg/kg       mg/kg       mg/kg       mg/kg       mg/kg       g/kg       %       %       %         ND       20.0       20.0       250       101       90-110       Prepared: 10/02/24         702       20.0       250       444       103       80-120	Project Name: Young Deep SWD         Project Number:       23003-0002         Project Manager:       Ashley Giovengo       10/7/2024         Anions by EPA 300.0/9056A       Analys         Result mg/kg       Reporting Limit mg/kg       Spike Mg/kg       Source Mg/kg       Rec Mg/kg       Rep Mg/kg       RPD Limit Mg/kg       RPD Limit Mg/kg       RPD Mg/kg

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.



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**

						Cł	hain of Cu	isto	dy											Page _	<u>i</u> of
	Clier	nt Inform	ation			Invoice Inform	nation				La	b Use	e On	ly .			TAT			State	
lient: N	t: Matador Production Company Company: Ensolum LLC														тх						
roject:	Young	PARK	SW	D	Ad	dress: 3122 National P	Parks Hwy			10	72	94	23	603	3·00	62		X	X		
	lanager: Ash					/, State, Zip: Carlsbad	NM, 88220		-	4 · · ·											
	3122 Nation					one: 575-988-0055			-	<u> </u>			Ana	lysis :	and N	Neth	od			PA Program	
	e, Zip: Carlsb		88220			ail: agiovengo@enso	olum.com								1				SDWA	CWA	RCRA
	375-988-0055 310vengo@er					ellaneous:				۰.	<u>_</u>								Complian	ice Y	or N
	SIOVEIIgowei	<u>1301u111.c</u>			Ļ					8015	8015	_		9		J	2		PWSID #		
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Time Sampled	Date Sampled	Matrix	No. of Container	n		Sample ID		Filter	Lab Number	DRO/ORO by	GRO/DRO by	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals			Remarks	
740	9/27/24	5	l	PHC	16-0				1						X						
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215				PH C	× 6 - 13				<u>0</u> 9						+						
227					15				1						-++	-	_			<u></u>	
ماطنة مع		Dias				giovengo@ensolum.co	om chamilt		ancolur			troll:				h			<u> </u>		
<mark>simmoı</mark> (field samı mpled by:	ns@ensolum oler), attest to the Chad Hami	.com validity and ilton <u>C</u>	authentic	City of this sample Burt on	. I am aware that	tampering with or intentionally	y mislabeling the	sampl	e location	date o	or time	of colle	ection								
		5	> 0	7.30.24	1445	V/I Cm	,k~	Date	3024	Time	4/4	5	<b>e-</b>		-			in ice at an avj		on ice the day the but less than 6 °C	
$\cdot$	ed by: (Signature			1te 9-30-24		Received by (Signature) Received by: (Signature)	1		<u>0.l4</u>	117	30				Recei	ived o	on ice:		•		
Inter	ed by: (Signature		9	. <u>30.Ly</u>	2400	Received by Ministerey	on	/D• Date	1.24	Time	:α	2			<u>T1</u>		,	<u>T2</u>		<u>T3</u>	
	rix: S - Soil, Sd - So								ner Typ	İ.		<b>p</b> - DC	oly/pl			Temp		<u>*</u>	1		
ote: Sam	ples are discarde	ed 14 days	after res	ults are reporte		rangements are made. Haza liability of the laboratory is	ardous sample	s will b	e return	ed to c	lient o	or disp							the analysis	of the above s	samples is
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## **Envirotech Analytical Laboratory**

#### Sample Receipt Checklist (SRC)

Client:	Matador Resources, LLC. Da	te Received:	10/01/24	08:00	Work Order ID:	E409294
Phone:	(972) 371-5200 Da	te Logged In:	09/30/24	16:17	Logged In By:	Raina Schwanz
Email:		e Date:	10/07/24	17:00 (4 day TAT)		
Chain o	f Custody (COC)					
1. Does	the sample ID match the COC?		Yes			
2. Does	the number of samples per sampling site location match t	he COC	Yes			
3. Were	samples dropped off by client or carrier?		Yes	Carrier: Courier		
4. Was the	he COC complete, i.e., signatures, dates/times, requested	analyses?	Yes			
5. Were	all samples received within holding time? Note: Analysis, such as pH which should be conducted in the i.e, 15 minute hold time, are not included in this disucssion.	field,	Yes		<u>Commen</u>	ts/Resolution
Sample	Turn Around Time (TAT)					
	ne COC indicate standard TAT, or Expedited TAT?		Yes			
Sample						
7. Was a	a sample cooler received?		Yes			
	, was cooler received in good condition?		Yes			
9. Was th	he sample(s) received intact, i.e., not broken?		Yes			
10. Were	e custody/security seals present?		No			
11. If ye	s, were custody/security seals intact?		NA			
12. Was t	the sample received on ice? If yes, the recorded temp is 4°C, i.e., Note: Thermal preservation is not required, if samples are rec		Yes			
12 If no	minutes of sampling o visible ice, record the temperature. Actual sample tem	maratura: 1º	C			
		iperature. <u>+</u>	<u>c</u>			
	Container aqueous VOC samples present?		N			
	VOC samples collected in VOA Vials?		No NA			
	e head space less than 6-8 mm (pea sized or less)?		NA			
	a trip blank (TB) included for VOC analyses?		NA			
	non-VOC samples collected in the correct containers?		Yes			
	e appropriate volume/weight or number of sample containers	collected?	Yes			
Field La		concettua.	105			
	e field sample labels filled out with the minimum informa	tion:				
	Sample ID?		Yes			
	Date/Time Collected? Collectors name?		Yes			
	Preservation		Yes			
	s the COC or field labels indicate the samples were preser	rved?	No			
	sample(s) correctly preserved?		NA			
	b filteration required and/or requested for dissolved metal	ls?	No			
	ase Sample Matrix		- • •			
	s the sample have more than one phase, i.e., multiphase?		No			
	es, does the COC specify which phase(s) is to be analyzed	!?	NA			
-	tract Laboratory		11/1			
	samples required to get sent to a subcontract laboratory?		No			
	a subcontract laboratory specified by the client and if so	who?	NA	Subcontract Lab: NA		
LJ. Was	a subcontract raboratory specificu by the chefit allu ll so	** 110 :	11/1	Subconnact Lab: NA		



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

Date

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5796 U.S. Hwy 64 Farmington, NM 87401

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





# 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

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,



Page 139 of 197

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 reguarding 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

Field Offices: Southern New Mexico Area Lynn Jarboe Laboratory Technical Representative Office: 505-421-LABS(5227) Cell: 505-320-4759 ljarboe@envirotech-inc.com Raina Schwanz Laboratory Administrator Office: 505-632-1881 rainaschwanz@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

		Sampic Sum	illai y		
Matador Resources, LLC.		Project Name:	Young Deep SWD		Reported:
5400 LBJ Freeway, Suite 1500		Project Number:	23003-0002		Reporteu.
Dallas TX, 75240		Project Manager:	10/07/24 13:08		
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.
'H01-2'	E409296-04A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
'H02-0'	E409296-05A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
H02-2'	E409296-06A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
'H03-0'	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.
H04-0'	E409296-09A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
H04-3'	E409296-10A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
H05-0'	E409296-11A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.
H05-2'	E409296-12A	Soil	09/27/24	10/01/24	Glass Jar, 2 oz.



	~	ampic D					
Matador Resources, LLC.	Project Name:		ng Deep SV	WD			
5400 LBJ Freeway, Suite 1500	Project Numb		23003-0002 Ashley Giovengo				<b>Reported:</b> 10/7/2024 1:08:28PM
Dallas TX, 75240	Project Manag	ger: Ash					10/7/2024 1:08:28PM
		SS05A-0'					
		E409296-01					
		Reporting					
Analyte	Result	Limit	Dilı	ution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	g 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	
p-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

	5	ample D	ata				
Matador Resources, LLC.	Project Name:		ng Deep S	WD			
5400 LBJ Freeway, Suite 1500	Project Number		23003-0002 Ashley Giovengo				Reported:
Dallas TX, 75240	Project Manag	ger: Ash	ley Giover	ngo			10/7/2024 1:08:28PM
		PH01-0'					
		E409296-02					
		Reporting					
Analyte	Result	Limit	Di	lution	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	
p-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

	D.	ample D	aca					
Matador Resources, LLC.	Project Name:	You	ng Deep S	WD				
5400 LBJ Freeway, Suite 1500	Project Numbe		03-0002	Reported:				
Dallas TX, 75240	Project Manag	er: Ash	ey Giover	ngo			10/7/2024 1:08:28PM	
		PH01-1'						
		E409296-03						
		Reporting						
Analyte	Result	Limit	Dil	lution	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		
p-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

		ample D	uu				
Matador Resources, LLC.	Project Name:		Young Deep S 23003-0002				B ( )
5400 LBJ Freeway, Suite 1500	Project Number						<b>Reported:</b> 10/7/2024 1:08:28PM
Dallas TX, 75240	Project Manag	ger: Ash	ley Giover	igo			10/7/2024 1:08:28PM
		PH01-2'					
		E409296-04					
		Reporting					
Analyte	Result	Limit	Dil	ution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	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	
p-Xylene	ND	0.0250		1	10/01/24	10/03/24	
o,m-Xylene	ND	0.0500		1	10/01/24	10/03/24	
Fotal 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	mg/kg An		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	
Dil 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

Sample Data									
Matador Resources, LLC.	Project Name:		ng Deep S	WD					
5400 LBJ Freeway, Suite 1500	Project Number		03-0002				Reported:		
Dallas TX, 75240	Project Manag	ger: Ash	ley Giovei	ıgo			10/7/2024 1:08:28PM		
		PH02-0'							
		E409296-05							
		Reporting							
Analyte	Result	Limit	Di	lution	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			
p-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	mg/kg Analys		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	mg/kg Ar		: 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

Sample Data									
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500	Project Name Project Numb		Young Deep S 23003-0002				Reported:		
Dallas TX, 75240	Project Manager: Ashley Gioven			ıgo		10/7/2024 1:08:28PM			
		PH02-2'							
		E409296-06							
		Reporting							
Analyte	Result	Limit	Dil	lution	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			
p-Xylene	ND	0.0250		1	10/01/24	10/03/24			
o,m-Xylene	ND	0.0500		1	10/01/24	10/03/24			
Fotal 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

Sample Data									
Matador Resources, LLC.	Project Name:		ng Deep S	WD					
5400 LBJ Freeway, Suite 1500	Project Numbe	er: 2300	03-0002				Reported:		
Dallas TX, 75240	Project Manag	er: Ash	ley Giover	ngo			10/7/2024 1:08:28PM		
		PH03-0'							
		E409296-07							
		Reporting							
Analyte	Result	Limit	Dil	ution	Prepared	Analyzed	Notes		
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	ng/kg Analyst: BA		: 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			
p-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	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			
Dil 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

Sample Data									
Matador Resources, LLC.	Project Name:		Young Deep S				<b>D</b>		
5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Number		)3-0002				<b>Reported:</b> 10/7/2024 1:08:28PM		
Danas 1 <i>X</i> , 75240	Project Manag	er: Asn	ley Giovei	igo			10///2024 1.08.28FM		
		PH03-1'							
		E409296-08							
		Reporting							
Analyte	Result	Limit	Di	lution	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			
p-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	mg/kg Ana		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.	Project Name		Young Deep SWI						
5400 LBJ Freeway, Suite 1500	Project Numb		03-0002				Reported:		
Dallas TX, 75240	Project Manag	ger: Ash	ey Giover	ngo			10/7/2024 1:08:28PM		
		PH04-0'							
		E409296-09							
		Reporting							
Analyte	Result	Limit	Di	lution	Prepared	Analyzed	Notes		
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	kg Analyst: BA		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			
-Xylene	ND	0.0250		1	10/01/24	10/04/24			
,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			
urrogate: 1,2-Dichloroethane-d4		103 %	70-130		10/01/24	10/04/24			
urrogate: Toluene-d8		101 %	70-130		10/01/24	10/04/24			
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	mg/kg Analy		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			
urrogate: 1,2-Dichloroethane-d4		103 %	70-130		10/01/24	10/04/24			
urrogate: 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			
Dil Range Organics (C28-C36)	ND	50.0		1	10/01/24	10/04/24			
urrogate: 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

Sample Data								
Matador Resources, LLC.	Project Name	e: You	ng Deep S	WD				
5400 LBJ Freeway, Suite 1500	Project Numl	per: 2300	23003-0002				Reported:	
Dallas TX, 75240	Project Mana	ger: Ash	ey Giover	ngo			10/7/2024 1:08:28PM	
		PH04-3'						
		E409296-10						
		Reporting						
Analyte	Result	Limit	Dil	ution	Prepared	Analyzed	Notes	
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	ng/kg Analyst: BA		: 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		
p-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
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Sample Data									
Matador Resources, LLC.	Project Name	: You	ng Deep S	SWD					
5400 LBJ Freeway, Suite 1500	Project Numb		23003-0002				Reported:		
Dallas TX, 75240	Project Manag	ger: Ash	ley Giover	ngo			10/7/2024 1:08:28PM		
		PH05-0'							
		E409296-11							
		Reporting							
Analyte	Result	Limit	Di	lution	Prepared	Analyzed	Notes		
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	g/kg Analyst: BA		: 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			
p-Xylene	ND	0.0250		1	10/01/24	10/04/24			
o,m-Xylene	ND	0.0500		1	10/01/24	10/04/24			
Fotal 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	mg/kg Ana		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	mg/kg Anal		: NV		Batch: 2440043		
Diesel Range Organics (C10-C28)	ND	25.0		1	10/01/24	10/04/24			
Dil 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			



Samp	le Data
~ •••••	

Sample Data								
Matador Resources, LLC.	Project Name	e: You	ng Deep S	WD				
5400 LBJ Freeway, Suite 1500	Project Numb	Number: 23003-0002				Reported:		
Dallas TX, 75240	Project Mana	ger: Ash	ley Giover	ngo			10/7/2024 1:08:28PM	
		PH05-2'						
		E409296-12						
		Reporting						
Analyte	Result	Limit	Dil	lution	Prepared	Analyzed	Notes	
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	g/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		
p-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

		<u><u><u>v</u></u> v v v</u>		iry Data						
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500		Project Name: Project Number:		oung Deep SWI 003-0002	0				Reported:	
Dallas TX, 75240		Project Manager:	As	shley Giovengo				1	0/7/2024 1:08:28PM	
		Volatile Organic	Compou	unds by EPA	A 82601	B	Analyst: BA			
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit		
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes	
Blank (2440032-BLK1)							Prepared: 1	0/01/24 Ana	lyzed: 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: 1,2-Dichloroeinane-a4 Surrogate: Toluene-d8	0.309		0.500		99.3	70-130				
-	0.47/		0.200			, 0 150				
LCS (2440032-BS1)							Prepared: 1	0/01/24 Ana	lyzed: 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: E	409296-	04	Prepared: 1	0/01/24 Ana	lyzed: 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: E	409296-	04	Prepared: 1	0/01/24 Ana	ılyzed: 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	2.17	27		
Total Xylenes	7.32	0.0250	7.50	ND	97.6	43-135	2.19	27		
Surrogate: Bromofluorobenzene	0.487	0.0250	0.500		97.3	70-130	2.10	-/		
· ·			0.500		97.5 101	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.506									
Surrogate: Toluene-d8	0.497		0.500		99.4	70-130				



# **QC Summary Data**

		QC SI		ary Data	L				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager:	2	Young Deep SW1 3003-0002 Ashley Giovengo					<b>Reported:</b> 10/7/2024 1:08:28PM
	N	onhalogenated O	rganics	by EPA 801	5D - GI	RO			Analyst: BA
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
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: E	E <b>409296-</b> (	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: E	E <b>409296-</b> (	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			



# **QC Summary Data**

		QC D	u I I I I I I	ary Data	•				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager:		Young Deep SW 23003-0002 Ashley Giovengo					<b>Reported:</b> 10/7/2024 1:08:28PM
	Nonh	alogenated Org	anics b	y 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
Blank (2440043-BLK1)							Prepared: 1	0/01/24 A	analyzed: 10/03/24
Diesel Range Organics (C10-C28) Oil Range Organics (C28-C36)	ND ND	25.0 50.0							
Surrogate: n-Nonane	55.8		50.0		112	50-200			
LCS (2440043-BS1)							Prepared: 1	0/01/24 A	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: E	409295-	02	Prepared: 1	0/01/24 A	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: E	409295-	02	Prepared: 1	0/01/24 A	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**

		$\mathbf{x} \in \mathbf{z}$	••••••		•					
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager:	2	Young Deep SW 23003-0002 Ashley Gioveng					-	orted: 1:08:28PM
		Anions	by EPA	300.0/9056A	•				Analys	t: DT
Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit		
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%		Notes
Blank (2440050-BLK1)							Prepared:	10/01/24	Analyzed: 1	0/01/24
Chloride	ND	20.0								
LCS (2440050-BS1)							Prepared:	10/01/24	Analyzed: 1	0/01/24
Chloride	257	20.0	250		103	90-110				
Matrix Spike (2440050-MS1)				Source:	E409296-0	)6	Prepared:	10/01/24	Analyzed: 1	0/02/24
Chloride	297	20.0	250	38.4	103	80-120				
Matrix Spike Dup (2440050-MSD1)				Source:	E409296-0	)6	Prepared:	10/01/24	Analyzed: 1	0/02/24
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.



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.





# Released to Imaging: 11/1/2024 2:24:53 PM

Relinquished by: (Signature)

Relingythed by: (Signature)

Relinquished by: (Signature)

Date

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Date

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

30.2

Time

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.

	Clie	nt Inforn	nation		Invoice Information	on				La		ie Or					Т/					State	
Client: N	<b>Aatador Prod</b>	luction Co	ompany		Company: Ensolum LLC			Lab	WO#			dol	Num	ber		1D	2D	3D	Std	i ,	NM CO	O UT	TX
Project:	Young De	en Sh	<u></u>		Address: 3122 National Parks	Hwy		LE4	<b>PO</b>	29	U	23	Num	$\omega$	)2				Х		X		
Project N	<u>/lanager: Asl</u>	hley Giov	engo		City, State, Zip: Carlsbad NM,	88220																	
Address:	3122 Nation	nal Parks	Hwy		Phone: 575-988-0055							Ana	alysis	and	Met	hod					EPA	Progra	
	e, Zip: Carls				Email: agiovengo@ensolum	.com														SD\	NA	CWA	RCRA
Phone:	575-988-005	5			Miscellaneous:			1									ļ						
Email: a	giovengo@e	nsolum.c	om						8015	ម	1									Com	pliance	Y	or N
				······					8	γ 80	=		8	-	ž	als				PWS	ID #		
				Sample II	nformation				្ត្រឹ	ģ	803	826	ŝ	N.	5	Met							
Time Sampled	Date Sampled	Matrix	No. of Containers		Sample ID		n Filter	ab nber	DRO/ORO by	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals					Re	emarks	
0929	4127/24	S	l		5505A -01									Х									
0835	i				PH01-0'		Ċ	2						X									
5841					$PHO_1 - 1'$			3						Х									
0845		$\left[ \right]$			PH01-21		l	ł						Х									
0406					PH02-0'		E	5						x									
0912					PH02-2'		(	2						Х									
0927					PH03-0'		٢	1		_				X									
0929					PH03-1			R						Х									
09.46				1	PH04-0'									Х									
1005		1	1		DH04-3'			О						X									
Addition	al Instructions@ensolum		ase CC: cb	urton@ensolu	m.com, agiovengo@ensolum.com, (	chamil	ton@en	solun	n.cor	n, ie	strel	la@e	ensol	um.c	om,	bdea	al@ei	nsolu		»m,			
I, (field sam	pler), attest to the	e validity and	d authenticity Burte	<b>n</b>	n aware that tampering with or intentionally misla	abeling th	e sample ic	cation,	date o	or time	e of col	lectio	n is con	sidere	d frau	d and n	nay be	groun	ds for l	egal ac	tion.		
Relinquish	Chad Ham ed by: (Signatur	e)	Date	Time	Received by signature		Date		Tim	ilé				Sampl	es requ	iring th	ermal p	reserva	tion mu	st be re	ceived on ic	ce the day f	they are

Date

Date

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

۰d

Time

Time

810

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

E

(Signature)

crived by: [5] ignature]

Received by: (Signature)

**Chain of Custody** 

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sampled or received packed in ice at an avg temp above 0 but less than 6 °C on b Use Only لها

Received on ice:

AVG Temp °C

# Released to Imaging: 11/1/2024 2:24:53 PM

Address: 3122 National Parks Hwy       E 400,20 (c) 23003:0002       X       Address: 3122 National Parks Hwy       City, State, Zip: Carlsbad NM, 88220       Phone: 575-988-0055       Email: agiovengo@ensolum.com       Miscellaneous:       Sample Information       Sample Information       Sample Information       O 12     9/12.7/24	CO UT TX A Program CWA RCRA ce Y or N Remarks
Address: 3122 National Parks Hwy       Address: 3122 National Parks Hwy       E 400.20 (k 23003.0002 X X X X X X X X X X X X X X X X X X	A Program CWA RCRA
coject Manager: Ashley Giovengo       City, State, Zip: Carlsbad NM, 88220         ddress: 3122 National Parks Hwy       Phone: 575-988-0055         ity, State, Zip: Carlsbad NM, 88220       Phone: 575-988-0055         mail: agiovengo@ensolum.com       Miscellaneous:         Sampled       Matrix         No. of Sampled       Sample Information         Sampled       Date Sampled         Matrix       No. of Containers         Sampled       Sample ID	CWA RCRA
ity, State, Zip: Carlsbad NM, 88220     Email: agiovengo@ensolum.com       hone: 575-988-0055     Miscellaneous:       mail: agiovengo@ensolum.com     58       Sampled     Matrix       No. of Sampled     Sample Information       Time Sampled     Date Sampled       Matrix     No. of Containers	CWA RCRA
Sampled     Matrix     No. of Containers     Sample Information       Time sampled     Date Sampled     Matrix     No. of Containers     Sample ID     Date Sample Information     Date Sam	e Y or N
Imail: agiovengo@ensolum.com     Sample Information     Sam	
Sample Information       Time Sampled     No. of Containers     Sample ID     Date Sample ID	
Time Sampled     No. of Containers     No. of Containers     Sample Information       Date Sampled     Matrix     No. of Containers     Sample ID	Remarks
	Remarks
015 9/27/24 S I PH05-2' IZ X	
dditional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, iestrella@ensolum.com, bdeal@ensolum.com,	
simmons@ensolum.com (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.	
moled by: Chad Hamilton Cale Buchen	on ice the day they are
sampled or received packed in ice at an avg temp above 0 with and 9.36-25 14815	
elfinguished by: (Signature) Date Time Received by: (Signature) Date Time Lab Use Only And State Time Received on ice: Y N	
ellingivished by: (Signature) Date Time Received by: (Signature) Date Date Time Time Time Time T1	<u>T3</u>
elinquished by: (Signature) Date Time AVG Temp °C	
ample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA	fthe above complet
lote: 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 pplicable 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.	in the above samples i

#### **Envirotech Analytical Laboratory**

Sample Receipt Checklist (SRC)

Client:	Matador Resources, LLC. Da	te Received:	10/01/24	08:00	Work Order ID:	E409296
Phone:	(972) 371-5200 Da	te Logged In:	09/30/24	16:28	Logged In By:	Raina Schwanz
Email:		e Date:		17:00 (4 day TAT)	Dogged in Dy.	
<b>Ch</b> - <del>1</del>						
	<u>f Custody (COC)</u>		Vaa			
	the sample ID match the COC? the number of samples per sampling site location match t	he COC	Yes			
	samples dropped off by client or carrier?		Yes	a : a :		
	he COC complete, i.e., signatures, dates/times, requested	amaliyaaa?	Yes Yes	Carrier: Courier		
		analyses?				
5. were	all samples received within holding time? Note: Analysis, such as pH which should be conducted in the i.e, 15 minute hold time, are not included in this disucssion.	field,	Yes		Comment	s/Resolution
Sample	Turn Around Time (TAT)					
	e COC indicate standard TAT, or Expedited TAT?		Yes			
Sample	<u>Cooler</u>					
	sample cooler received?		Yes			
8. If yes,	, was cooler received in good condition?		Yes			
9. Was tl	he sample(s) received intact, i.e., not broken?		Yes			
	e custody/security seals present?		No			
	s, were custody/security seals intact?		NA			
-	he sample received on ice? If yes, the recorded temp is 4°C, i.e., Note: Thermal preservation is not required, if samples are rec		Yes			
	minutes of sampling					
13. If no	visible ice, record the temperature. Actual sample tem	perature: <u>4°</u>	<u>C</u>			
Sample	<u>Container</u>					
14. Are a	aqueous VOC samples present?		No			
15. Are '	VOC samples collected in VOA Vials?		NA			
16. Is the	e 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 1	non-VOC samples collected in the correct containers?		Yes			
19. Is the	appropriate volume/weight or number of sample containers	collected?	Yes			
Field La	ıbel					
20. Were	e field sample labels filled out with the minimum informa	ation:				
S	Sample ID?		Yes			
	Date/Time Collected?		Yes			
	Collectors name?		Yes			
	<u>Preservation</u>	mrod9	ът			
	s the COC or field labels indicate the samples were presented as the constant of the presented of the same state of the	rvea?	No			
	sample(s) correctly preserved?	169	NA			
	b filteration required and/or requested for dissolved meta	15 :	No			
	ase Sample Matrix		_			
	s the sample have more than one phase, i.e., multiphase?	10	No			
27. lf ye	s, does the COC specify which phase(s) is to be analyzed	17	NA			
Subcont	ract Laboratory					
28. Are s	samples required to get sent to a subcontract laboratory?		No			
	a subcontract laboratory specified by the client and if so					



Date

envirotech Inc.

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





5796 U.S. Hwy 64 Farmington, NM 87401

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





# 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

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 reguarding 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

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Envirotech Web Address: www.envirotech-inc.com

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#### **Sample Summary**

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Matador Resources, LLC.		Project Name:	Young Deep SWD		Reported:
5400 LBJ Freeway, Suite 1500		Project Number:	23003-0002		Reporteu.
Dallas TX, 75240		Project Manager:	Ashley Giovengo		10/07/24 05:55
Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
•	ł		•		
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.



		•				
Matador Resources, LLC.	Project Name	e: You	ng Deep SWD			
5400 LBJ Freeway, Suite 1500	Project Numb	ber: 2300	03-0002			Reported:
Dallas TX, 75240	Project Mana	ger: Ash	ley Giovengo			10/7/2024 5:55:59AN
		BH04-0'				
		E410002-01				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analys	t: 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	
oluene	ND	0.0250	1	10/01/24	10/03/24	
-Xylene	ND	0.0250	1	10/01/24	10/03/24	
,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
urrogate: 4-Bromochlorobenzene-PID		94.7 %	70-130	10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analys	t: BA		Batch: 2440028
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
urrogate: 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	Analys	t: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	624	50.0	2	10/01/24	10/04/24	
Dil Range Organics (C28-C36)	1250	100	2	10/01/24	10/04/24	
urrogate: n-Nonane		114 %	50-200	10/01/24	10/04/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analys	:: DT		Batch: 2440048
Chloride	525	20.0	1	10/01/24	10/02/24	



	D	bample D	ala			
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500	Project Name Project Numl		ng Deep SWD 03-0002			Reported:
Dallas TX, 75240	Project Mana	nger: Ash	ley Giovengo			10/7/2024 5:55:59AM
		BH04-2'				
		E410002-02				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	t: 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	
p-Xylene	ND	0.0250	1	10/01/24	10/03/24	
o,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
urrogate: 4-Bromochlorobenzene-PID		97.3 %	70-130	10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analys	t: BA		Batch: 2440028
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/01/24	10/03/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID		95.6 %	70-130	10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analys	t: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	151	50.0	2	10/01/24	10/04/24	
Dil Range Organics (C28-C36)	282	100	2	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	Analys	t: DT		Batch: 2440048
Chloride	43.4	20.0	1	10/01/24	10/02/24	



	5	bample D	ala			
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500	Project Name Project Numb		ng Deep SWD 03-0002			Reported:
Dallas TX, 75240	Project Mana		ley Giovengo			10/7/2024 5:55:59AM
		BH04-4'				
		E410002-03				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	: 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	
p-Xylene	ND	0.0250	1	10/01/24	10/03/24	
o,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
urrogate: 4-Bromochlorobenzene-PID		95.5 %	70-130	10/01/24	10/03/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analys	:: 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	Analys	:: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	426	250	10	10/01/24	10/04/24	
Dil 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	Analys	:: DT		Batch: 2440048
Chloride	195	20.0	1	10/01/24	10/02/24	



	5	ample D	ala			
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500	Project Name Project Numb		ng Deep SWD 03-0002			Reported:
Dallas TX, 75240	Project Mana		ley Giovengo			10/7/2024 5:55:59AM
		BH04-7'				
		E410002-04				
		Reporting				
Analyte	Result	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	
p-Xylene	ND	0.0250	1	10/01/24	10/03/24	
o,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Total Xylenes	ND	0.0250	1	10/01/24	10/03/24	
urrogate: 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	
Dil 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	



		ampic D	aca			
Matador Resources, LLC.	Project Name:		ng Deep SWD			
5400 LBJ Freeway, Suite 1500	Project Number: 23003-0002					Reported:
Dallas TX, 75240	Project Manag	ger: Ash	ley Giovengo			10/7/2024 5:55:59AM
		BH04-10.5'				
		E410002-05				
		Reporting				
Analyte	Result	Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analys	t: 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	
foluene	ND	0.0250	1	10/01/24	10/03/24	
p-Xylene	ND	0.0250	1	10/01/24	10/03/24	
o,m-Xylene	ND	0.0500	1	10/01/24	10/03/24	
Fotal 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	Analys	t: 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	Analys	t: NV		Batch: 2440052
Diesel Range Organics (C10-C28)	ND	25.0	1	10/01/24	10/04/24	
Dil 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	Analys	t: DT		Batch: 2440048
Chloride	136	20.0	1	10/01/24	10/02/24	



# **QC Summary Data**

		<u> </u>		v					
Matador Resources, LLC.		Project Name:	Yo	oung Deep SV	VD				Reported:
5400 LBJ Freeway, Suite 1500		Project Number:	23	003-0002					
Dallas TX, 75240		Project Manager:	As	shley Gioveng	go				10/7/2024 5:55:59AM
		Volatile Or	ganics b	oy EPA 802	21B				Analyst: BA
Analyte		Reporting	Spike	Source		Rec		RPD	
-	Result	Limit	Level	Result	Rec	Limits	RPD	Limit	
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	Notes
Blank (2440028-BLK1)							Prepared: 1	0/01/24 A	nalyzed: 10/02/24
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
p-Xylene	ND	0.0250							
o,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: 1	0/01/24 A	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			
o,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: 1	0/01/24 A	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			
p-Xylene	4.90	0.0250	5.00	ND	98.0	63-131			
o,m-Xylene	9.94	0.0500	10.0	ND	99.4	63-131			
Fotal 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: 1	0/01/24 A	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	
p-Xylene	5.33	0.0250	5.00	ND	107	63-131	8.46	20	
o,m-Xylene	10.7	0.0500	10.0	ND	107	63-131	7.70	20	
	16.1	0.0250	15.0	ND	107	(2.121	7.05	20	
Total Xylenes	10.1	0.0250	15.0	ND	107	63-131	7.95	20	



# **QC Summary Data**

		QC D	umm	ary Data	a a				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager	2	oung Deep SW 3003-0002 shley Gioveng					<b>Reported:</b> 10/7/2024 5:55:59AM
	No	nhalogenated (	Organics	by EPA 801	15D - GI	RO			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	%	70	70	70	Notes
Blank (2440028-BLK1)							Prepared: 1	0/01/24 A	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: 1	0/01/24 A	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: 1	0/01/24 A	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: 1	0/01/24 A	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**

		QC D	uIIIII	ary Data	l				
Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240		Project Name: Project Number: Project Manager:		Young Deep SW 23003-0002 Ashley Gioveng					<b>Reported:</b> 10/7/2024 5:55:59AM
	Nonh	alogenated Org	anics b	y 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
Blank (2440052-BLK1)							Prepared: 1	0/01/24 A	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: 1	0/01/24 A	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: 1	E409281-	01	Prepared: 1	0/01/24 A	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: 1	E409281-	01	Prepared: 1	0/01/24 A	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**

Rec Limits %		RPD Limit	10/7/2024 Analyst	orted: 5:55:59AM t: DT
Limits				t: DT
Limits				
	%	%		Notes
	Prepared: 1	10/01/24	Analyzed: 1	0/01/24
	Prepared:	10/01/24	Analyzed: 1	0/01/24
90-110	)			
-04	Prepared:	10/01/24	Analyzed: 1	0/01/24
80-120	)			
0.4	Prepared:	10/01/24	Analyzed: 1	0/01/24
-04		20		
	1-04 80-120 1-04	80-120 <b>1-04</b> Prepared:	80-120	80-120 <b>1-04</b> Prepared: 10/01/24 Analyzed: 1

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.



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

	Clie	nt Inform	ation			Invoice Info	rmation				La	b Use	e On	У			TA	Г		State	
	Aatador Prod					ompany: Ensolum LL			_ Lab	wo#			Job N	lumb	er	01	D 2D	3D Std	NN	1 CO UT	TX
roject:	Young De	ep Su	D			ddress: 3122 Nationa		_	_ <u>E</u>	410	00	21	23	03.	000	2		X	X		
	Manager: Ash 3122 Nation			City, State, Zip: Carlsbad NM, 88220 Phone: 575-988-0055					-			4.00	huele	and	Vietho	d		-	PA Progra		
	e, Zip: Carlst					mail: agiovengo@er	solum com	-	-	-		-	Alla	IYSIS		vietni		-	SDWA	CWA	RCRA
	575-988-0055					scellaneous:	isolum.com		-												
mail: a	giovengo@er	nsolum.co	om					-		8015	015								Complia	_	or N
				Comulai						à -	GRO/DRO by 8015	021	60	0.00	M	¥-	etais		PWSID #		_
Time		1	No. of	Sample	nformatio	A second second	d	H	Lab	DRO/ORO	/DRO	BTEX by 8021	VOC by 8260	Chloride 300.0	00-1	TCEQ 1005 - TX	RCRA 8 Metals			Remarks	
Sampled	Date Sampled	Matrix	Containers			Sample ID	Fie	Filte	Lab Number	DRO	GRO	BTEX	VOC	Chlo	BGDOC - NM	TCEQ	RCRA				
		5	1		- /										X				1		
0853	9/27/24	2			BH	04-01		-	1	-		-	-	-	$\wedge$	-		-			
1458	9/27/24	5	1		RH	104-21			2						X						
									3			- 1			1						
302	9/27/24	S	1		Bit	04-41	-		5					_	X			_			_
12.00	9/27/24	5	1		DI	10y - 7'		1	4						X						
1309	1101167						-		,					-	- 1						
321	9/27/24	5	1		BH	64 - 10.5'		6	5						Х						_
			B																		
-			40							-			-	-	-	-		-			
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1.0.1											L					_		_			
	al Instruction		se CC: cbi	urton@ensolu	um.com, a	agiovengo@ensolum	.com, chamilto	on@	ensolu	m.cor	n, ies	trella	a@er	isolu	m.co	m, bo	eal@en	solum.co	om,		
			authenticity	of this sample. I a	m aware that	t tampering with or intention	ally mislabeling the	sampl	e location	, date c	or time	of colle	ection	s consi	idered	fraud a	nd may be g	rounds for	legal action.	ł	
	Chad Hami		Burton	-		N. A.				1-		- 1	1		Complex				ut he seesing	f on ice the day t	havene
elinquishe	ed by: (Signature	2	9	38-24	1445	Received by (Signature)	the 2	1:3	3-2	4	4	44	-	1	sampled	l or recei				0 but less than 6	
Relinquish	ed by: (Signature	e)	Date	Time	1	Received by: (Signature)		ate	~	Time	1	10		ľ	ubteau	ant daw		Lab U	se Only		
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elinquish	ed by: (Signature	2)	Date	50-64 6 Time	400	Received by: (Signature)	Da	ate	67	Time	00	-		1	11			T2		<u>T3</u>	
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	rix: S - Soil, Sd - So																glass, v'-			6-1 I	
						arrangements are made. H ne liability of the laborator							osed c	f at th	e clier	nt expe	nse. The r	eport for th	he analysis	of the above	samples i
- P Prisoure	entry to those su		an of the	and a second sec		is about of the laborator	is interest to the l				- rep			-							

#### **Envirotech Analytical Laboratory**

Sample Receipt Checklist (SRC)

Client:	Matador Resources, LLC. D	ate Received:	10/01/24	08:00	Work Order ID:	E410002
Phone:	(972) 371-5200 D	ate Logged In:	10/01/24	09:22	Logged In By:	Caitlin Mars
Email:	agiovngo@ensolum.com D	ue Date:	10/07/24	17:00 (4 day TAT)		
Chain of	f Custody (COC)					
1. Does t	he sample ID match the COC?		Yes			
2. Does t	he number of samples per sampling site location match	the COC	Yes			
3. Were s	samples dropped off by client or carrier?		Yes	Carrier: Courier		
4. Was th	ne COC complete, i.e., signatures, dates/times, requested	d analyses?	Yes			
5. Were a	all samples received within holding time? Note: Analysis, such as pH which should be conducted in th i.e, 15 minute hold time, are not included in this disucssion.	e field,	Yes		Comment	ts/Resolution
Sample '	<u> Turn Around Time (TAT)</u>					
6. Did th	e 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 th	ne sample(s) received intact, i.e., not broken?		Yes			
10. Were	custody/security seals present?		No			
11. If yes	s, were custody/security seals intact?		NA			
12. Was th	he sample received on ice? If yes, the recorded temp is 4°C, i.e Note: Thermal preservation is not required, if samples are re- minutes of sampling		Yes			
13. If no	visible ice, record the temperature. Actual sample te	mperature: 4%	С			
	Container		<u> </u>			
	aqueous VOC samples present?		No			
	VOC samples collected in VOA Vials?		NA			
	e head space less than 6-8 mm (pea sized or less)?		NA			
	a trip blank (TB) included for VOC analyses?		NA			
	non-VOC samples collected in the correct containers?		Yes			
	appropriate volume/weight or number of sample container	s collected?	Yes			
Field La	bel					
	field sample labels filled out with the minimum inform	nation:				
	Sample ID?		Yes			
	Date/Time Collected?		Yes	L		
	Collectors name?		Yes			
	Preservation the COC or field labels indicate the samples were pres	erved?	No			
	sample(s) correctly preserved?		NA			
	b filteration required and/or requested for dissolved met	als?	No			
	ase Sample Matrix	-				
	the sample have more than one phase, i.e., multiphases	)	No			
	s, does the COC specify which phase(s) is to be analyze		NO NA			
-			11/1			
	ract Laboratory	1	NT			
	samples required to get sent to a subcontract laboratory as a subcontract laboratory specified by the client and if so		No NA	Cube antique t -1- NTA		
27. Was a	a subcontract laboratory specified by the chefit and it so	o who:	INA	Subcontract Lab: NA		

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



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

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Action 338299

QUESTIONS

Operator:	OGRID:
MATADOR PRODUCTION COMPANY	228937
One Lincoln Centre	Action Number:
Dallas, TX 75240	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.	

District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

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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** (continued)

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

QUESTIONS

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 motification	Nature and Volume of Release (continued)	
Reasons why this would be considered a submission for a notification of a major <b>From paragraph A. "Major release" determine using:</b>	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
	, , , , , , , , , , , , , , , , , , , ,	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.

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		

1(A)(5)(a) С), р e prep and attach all information needed for closure evaluation in the follow-up C-141 submission.

QUESTIONS, Page 2

Action 338299

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811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

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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

ACKNOWLEDGMENTS

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

#### ACKNOWLEDGMENTS

· · · · ·	
$\overline{\mathbf{v}}$	I acknowledge that I am authorized to submit notification of a release on behalf of my operator.
	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.
	l 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.
	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.
V	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.
V	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.

ACKNOWLEDGMENTS

Action 338299

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District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator:	OGRID:
MATADOR PRODUCTION COMPANY	228937
One Lincoln Centre	Action Number:
Dallas, TX 75240	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

	1
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)	
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	1
Inipacted Soli	
Saturated Soil (inches)	
4	Ł
	_
1530	<u>)</u>
Standing fluids	-
inches of standing fluid	
hbl estimate of standing fluids	<u>'</u>
bbl estimate of standing fluids 0.0	-
barrels recovered (if known)	-
70	<u>,</u>
	1
Soil type	1
pad caliche	
Spill type	1
produced water	
Barrel estimate in soil	
18.2	<u></u>
Barrel estimate (standing fluids/ recovered+in soil)	
88.2	<u></u>
	need to populate or select

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District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

> One Lincoln Centre Dallas, TX 75240

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

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QUESTIONS

Action 339681

QUESTIONS MATADOR PRODUCTION COMPANY

OGRID:
228937
Action Number:
339681
Action Type:
[C-141] Initial C-141 (C-141-v-Initial)

#### QUESTIONS

Operator:

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.

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District III

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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** (continued)

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

QUESTIONS

Initial Response

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.	

The responsible party must undertake the following actions immediately unless they could create a s	afety 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.
	ation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative o ted or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of valuation 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
--	--

QUESTIONS, Page 2

Action 339681

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### Released to Imaging: 11/1/2024/2:24253PPM

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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** (continued)

Operator:	OGRID:
MATADOR PRODUCTION COMPANY	228937
One Lincoln Centre	Action Number:
Dallas, TX 75240	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 elease 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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Action 339681

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462 State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

CONDITIONS

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

### CONDITIONS

 Created By
 Condition
 Condition

 scwells
 None
 5/1/2024

Action 339681

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 email 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 <<u>OCD.Enviro@emnrd.nm.gov</u>>; Velez, Nelson, EMNRD
<<u>Nelson.Velez@emnrd.nm.gov</u>>; clinton.talley@matadorresources.com; Jason Touchet
<jason.touchet@matadorresources.com>
Cc: Cole Burton <<u>cburton@ensolum.com</u>>; Chad Hamilton <<u>chamilton@ensolum.com</u>>
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

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

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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 391286

QUESTIONS	
Operator:	OGRID:
MATADOR PRODUCTION COMPANY	228937
One Lincoln Centre	Action Number:
Dallas, TX 75240	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 fo	r 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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## **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. Santa Fe, NM 87505

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QUESTIONS, Page 2

Action 391286

QUESTIONS (continued)		
Operator:	OGRID:	
MATADOR PRODUCTION COMPANY	228937	
One Lincoln Centre	Action Number:	
Dallas, TX 75240	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.
	diation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of eted or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of evaluation in the follow-up C-141 submission.
to report and/or file certain release notifications and perform corrective actions for rele the OCD does not relieve the operator of liability should their operations have failed to	knowledge and understand that pursuant to OCD rules and regulations all operators are required eases which may endanger public health or the environment. The acceptance of a C-141 report by adequately investigate and remediate contamination that pose a threat to groundwater, surface rt does not relieve the operator of responsibility for compliance with any other federal, state, or
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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# State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS, Page 3

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Action 391286

 QUESTIONS (continued)

 Operator:
 OGRID:

 MATADOR PRODUCTION COMPANY
 00GRID:

 One Lincoln Centre
 228937

 Dallas, TX 75240
 Action Number:

 391286
 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 ar	nd 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 CI 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 (EPA SW-846 Method 8021B or 8260B) Benzene 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 measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsite 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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# State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS, Page 4

Action 391286

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

OUESTIONS (continued)

#### QUESTIONS

Remediation Plan (continued)

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 This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants: (Select all answers below that apply.) (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. 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 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
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in account	rdance with the physical realities encountered during remediation. If the responsible party has any need to

I ne 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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# **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. Santa Fe, NM 87505

QUESTIONS, Page 5

Action 391286

QUESTIONS (continued)	
Operator: MATADOR PRODUCTION COMPANY	OGRID: 228937
One Lincoln Centre Dallas, TX 75240	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	Νο	

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

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Action 391286

**QUESTIONS** (continued) Operator: OGRID: MATADOR PRODUCTION COMPANY 228937 One Lincoln Centre Action Number Dallas, TX 75240 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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# **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. Santa Fe, NM 87505

CONDITIONS

Action 391286

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

#### CONDITIONS

Created B	y Condition	Condition Date
rhamle	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