

Appendix A: Release Notification and Corrective Action Form (NMOCD Form C-141)

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

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible	Party Holly	Energy Partners,	LLC		OGRID	282505	
Contact Name Melanie Nolan		Contact Te	Telephone 214-605-8303				
Contact email Melanie.Nolan@hollyenergy.com		Incident #	# (assigned by OCD) nAPP2102856493				
Contact mail	ling address	1602 W. Main, A	Artesia, NM 8821	0			
			Location	n of R	Release So	Source	
Latitude 32.	492667				Longitude -	-103.256611	
			(NAD 83 in c	lecimal de	grees to 5 decim	imal places)	
Site Name EN	MSU 6in Pip	peline			Site Type	Right of Way	
Date Release	Discovered	1/26/2021			API# (if app	pplicable)	
Unit Letter	G - 4:	Т1.	D				
K	Section 10	Township 21S	Range 36E	Lea	Coun	nty	
K	10	215	JOE	Lea			
	Materia	Federal T	Nature an	id Vo	lume of I	,	
Crude Oil		Volume Release	ed (bbls) 821			Volume Recovered (bbls) 390	
Produced	Water	Volume Release	ed (bbls)			Volume Recovered (bbls)	
		Is the concentra produced water	tion of dissolved >10,000 mg/l?	chloride	in the	☐ Yes ☐ No	
☐ Condensa	te	Volume Release	ed (bbls)			Volume Recovered (bbls)	
☐ Natural G	as	Volume Release	ed (Mcf)			Volume Recovered (Mcf)	
Other (de	scribe)	Volume/Weight	Released (provid	de units)		Volume/Weight Recovered (provide units)	
Cause of Rela							
Cause of rele	ase is believ	ed to be corrosion	and an internal i	investiga	ation is on-go	going.	

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Incident ID	
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Was this a major release as defined by	If YES, for what reason(s) does the responsible party consider this a major release?
19.15.29.7(A) NMAC?	Release of 821 Barrels
⊠ Yes □ No	
Notification was given to	Gilbert Cordero at 1236MST on 1/26 by Melanie Nolan telephonically. A follow-up email was sent following Mike Bratcher, Gilbert Cordero, Robert Hamlet and Chad Hensley with NMOCD with release details and
	Initial Response
The responsible p	party must undertake the following actions immediately unless they could create a safety hazard that would result in injury
∑ The source of the rele	ease has been stopped.
The impacted area has	s been secured to protect human health and the environment.
Released materials ha	ve been contained via the use of berms or dikes, absorbent pads, or other containment devices.
All free liquids and re	coverable materials have been removed and managed appropriately.
If all the actions described	l above have <u>not</u> been undertaken, explain why:
has begun, please attach a	AC the responsible party may commence remediation immediately after discovery of a release. If remediation a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred t area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
regulations all operators are republic health or the environmental failed to adequately investigated to adequately investigated to adequately investigated to a second control of the cont	mation given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and required to report and/or file certain release notifications and perform corrective actions for releases which may endanger nent. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have the and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws
Printed Name: Melanie N	Nolan Title: Environmental Specialist
Signature:	Date: 1/28/2021
email: <u>Melanie.Nolan@</u>	hollyenergy.com Telephone: 214-605-8303
OCD Only	
Received by:	Date:

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Site Assessment/Characterization

This information must be provided to the appropriate district office no taler than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release?	161 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ⊠ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ⊠ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ⊠ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ⊠ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ⊠ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	Yes No
Are the lateral extents of the release within 300 feet of a wetland?	
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☐ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ⊠ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ⊠ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ⊠ No
<u> </u>	☐ Yes ⊠ No
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil
Characterization Report Checklist: Each of the following items must be included in the report.	

Characterization Report Checklist: Each of the following items must be included in the report.				
Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.				
<u> Field data </u>				
Data table of soil contaminant concentration data				
Depth to water determination				
Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release				
Boring or excavation logs				
Photographs including date and GIS information				
Topographic/Aerial maps				
Laboratory data including chain of custody				

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

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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Printed Name: _Melanie Nolan	Title:Environmental Specialist	
Signature: Welanie Nolan	Date:6/24/2021	
email: _Melanie.Nolan@hollyenergy.com	Telephone:214-605-8303	
OCD Only		
Received by:	Date:	

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Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan.
 ☑ Detailed description of proposed remediation technique ☑ Scaled sitemap with GPS coordinates showing delineation points ☑ Estimated volume of material to be remediated ☑ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC ☑ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)
<u>Deferral Requests Only</u> : Each of the following items must be confirmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
Extents of contamination must be fully delineated.
Contamination does not cause an imminent risk to human health, the environment, or groundwater.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD
rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: Melanie Nolan Title: Environmental Specialist
Signature: Melanis Volan Date: 6/24/2021
email: Melanie.Nolan@hollyenergy.com Telephone:214-605-8303
OCD Only
Received by: Date:
Approved
Signature: Date:

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District RP
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Application ID

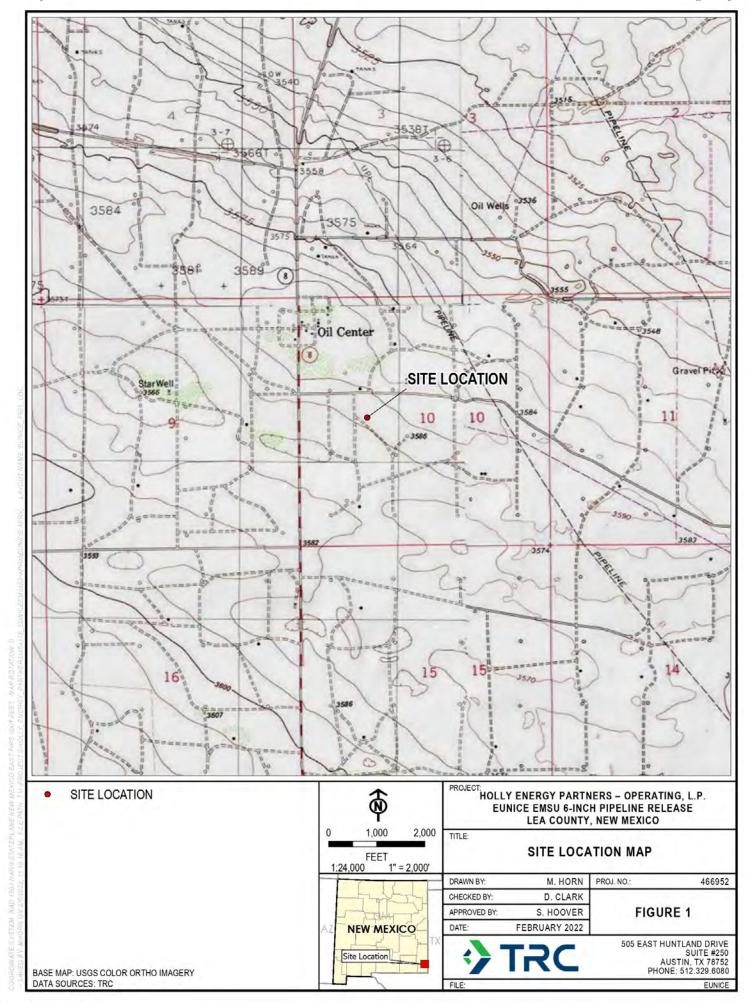
Closure

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

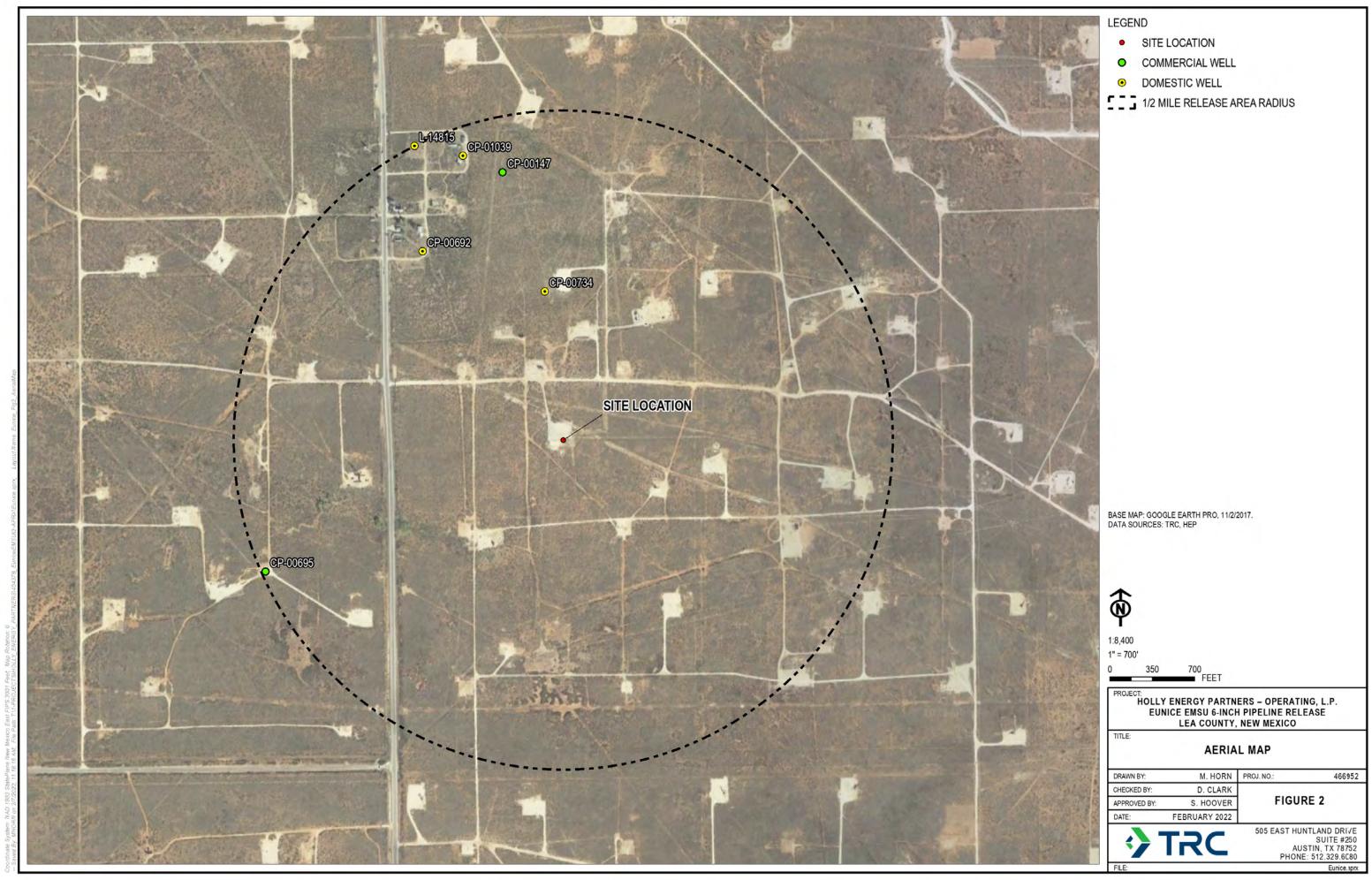
Closure Report Attachment Checklist: Each of the following it	tems must be included in the closure report.
A scaled site and sampling diagram as described in 19.15.29.1	1 NMAC
□ Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of final sampling (Note: appropriate ODC	C District office must be notified 2 days prior to final sampling)
Description of remediation activities	
may endanger public health or the environment. The acceptance of should their operations have failed to adequately investigate and renhuman health or the environment. In addition, OCD acceptance of a compliance with any other federal, state, or local laws and/or regula restore, reclaim, and re-vegetate the impacted surface area to the conaccordance with 19.15.29.13 NMAC including notification to the O	tions. The responsible party acknowledges they must substantially nditions that existed prior to the release or their final land use in CD when reclamation and re-vegetation are complete. Environmental Specialist Date:
OCD Only	
Received by:Chad Hensley	Date: 03/24/2022
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible or regulations.
Closure Approved by:	Date: 03/24/2022
Printed Name: Chad Hensley	



FIGURES

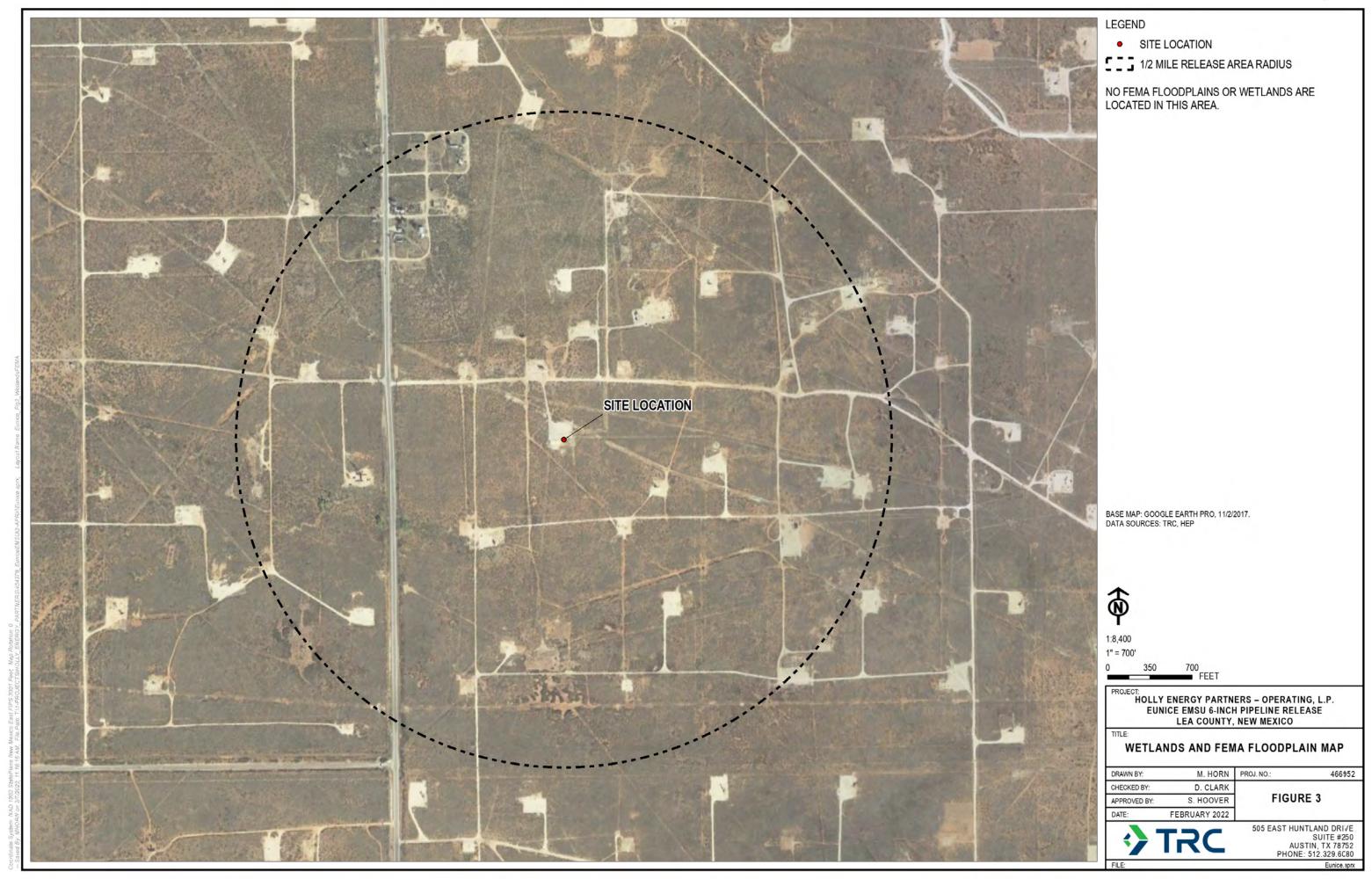


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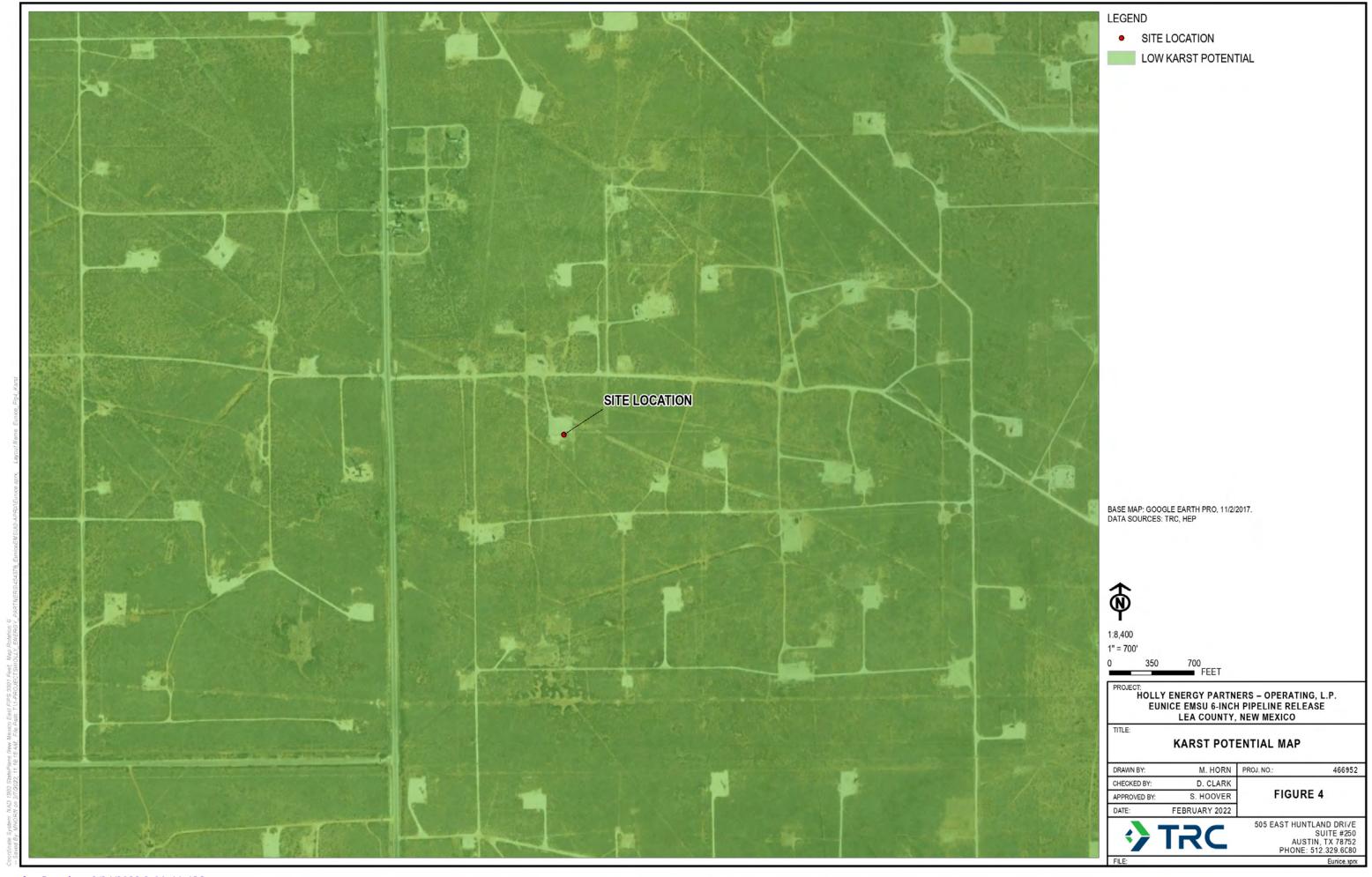


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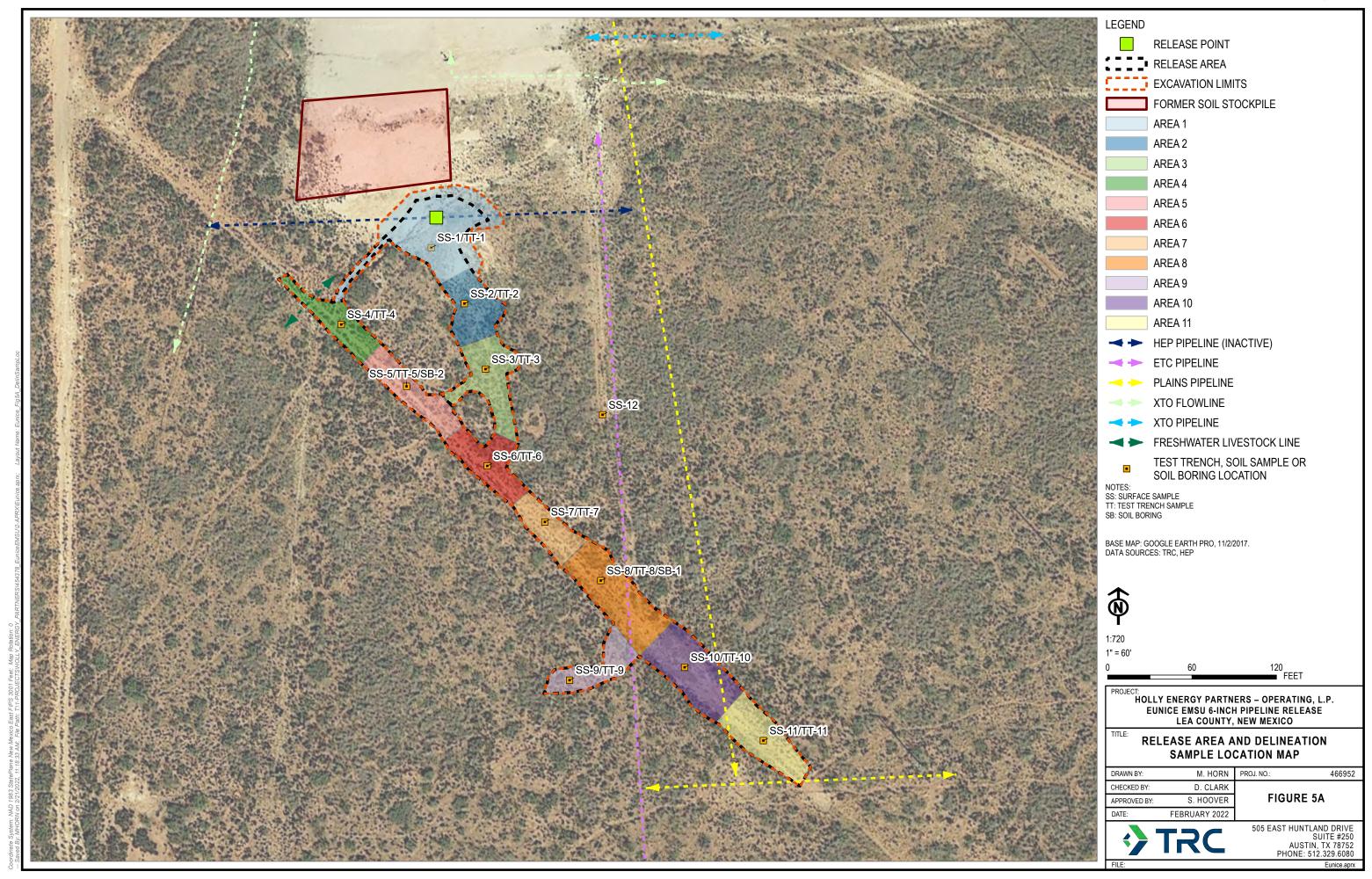


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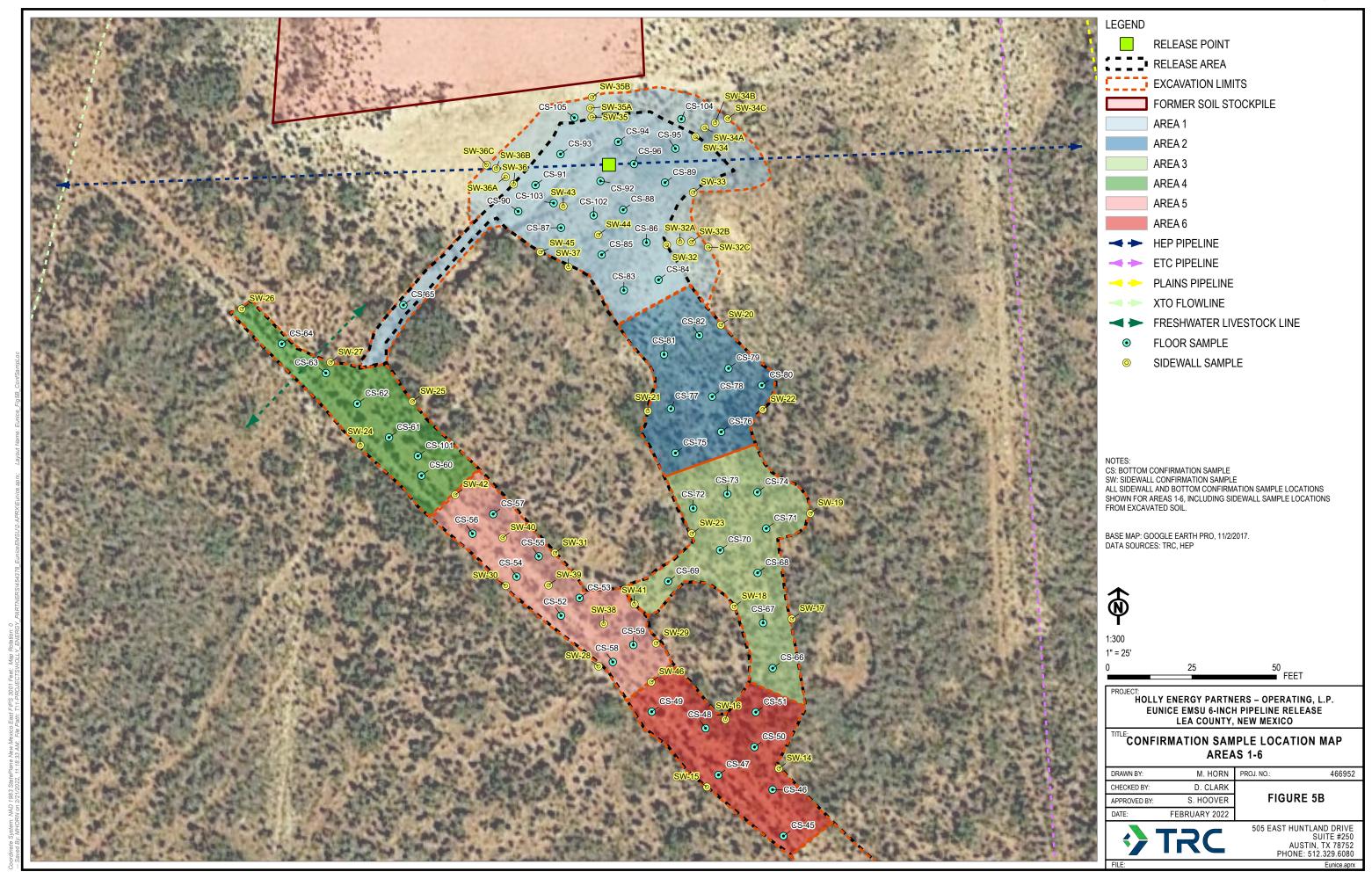


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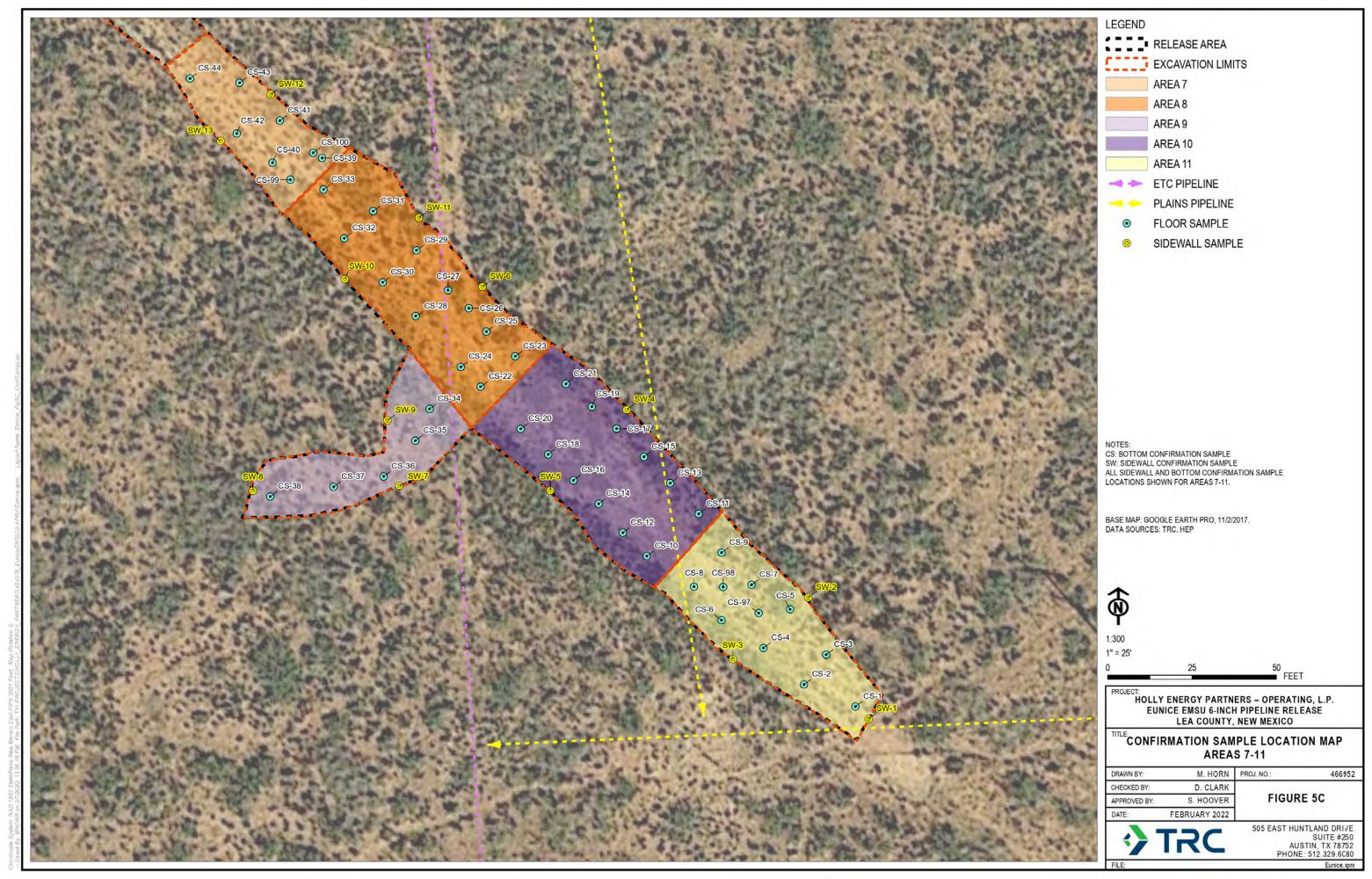


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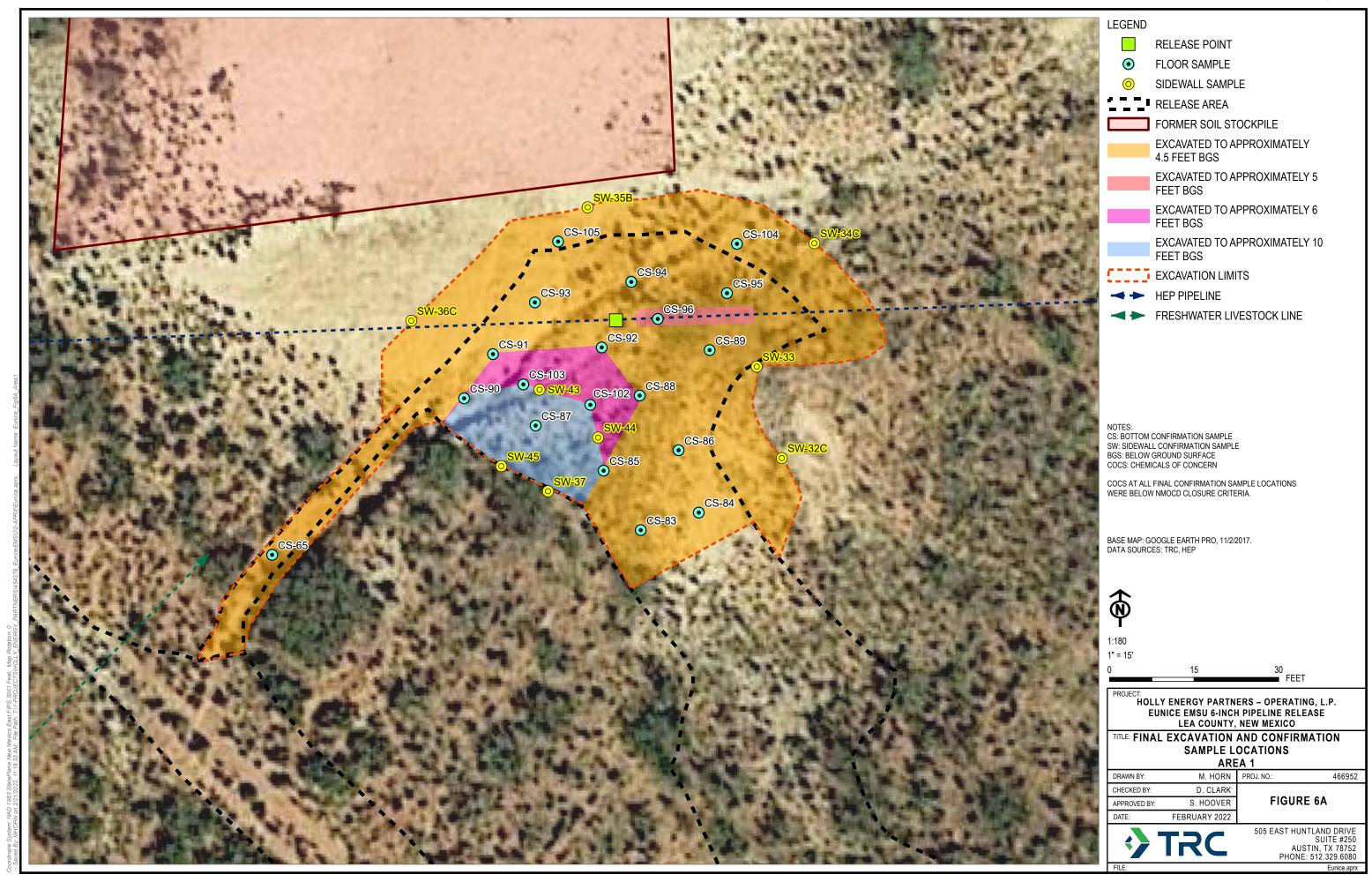
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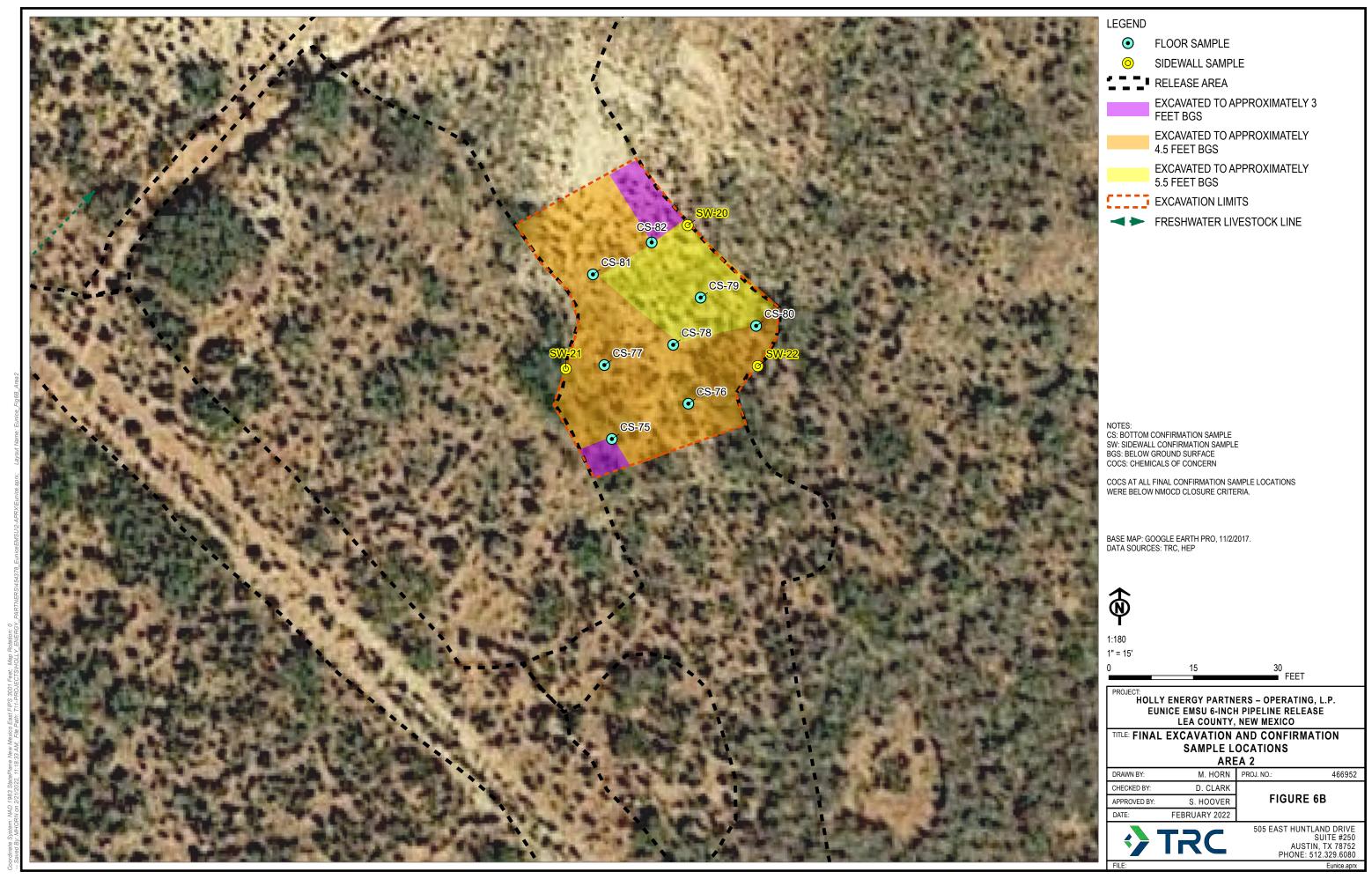


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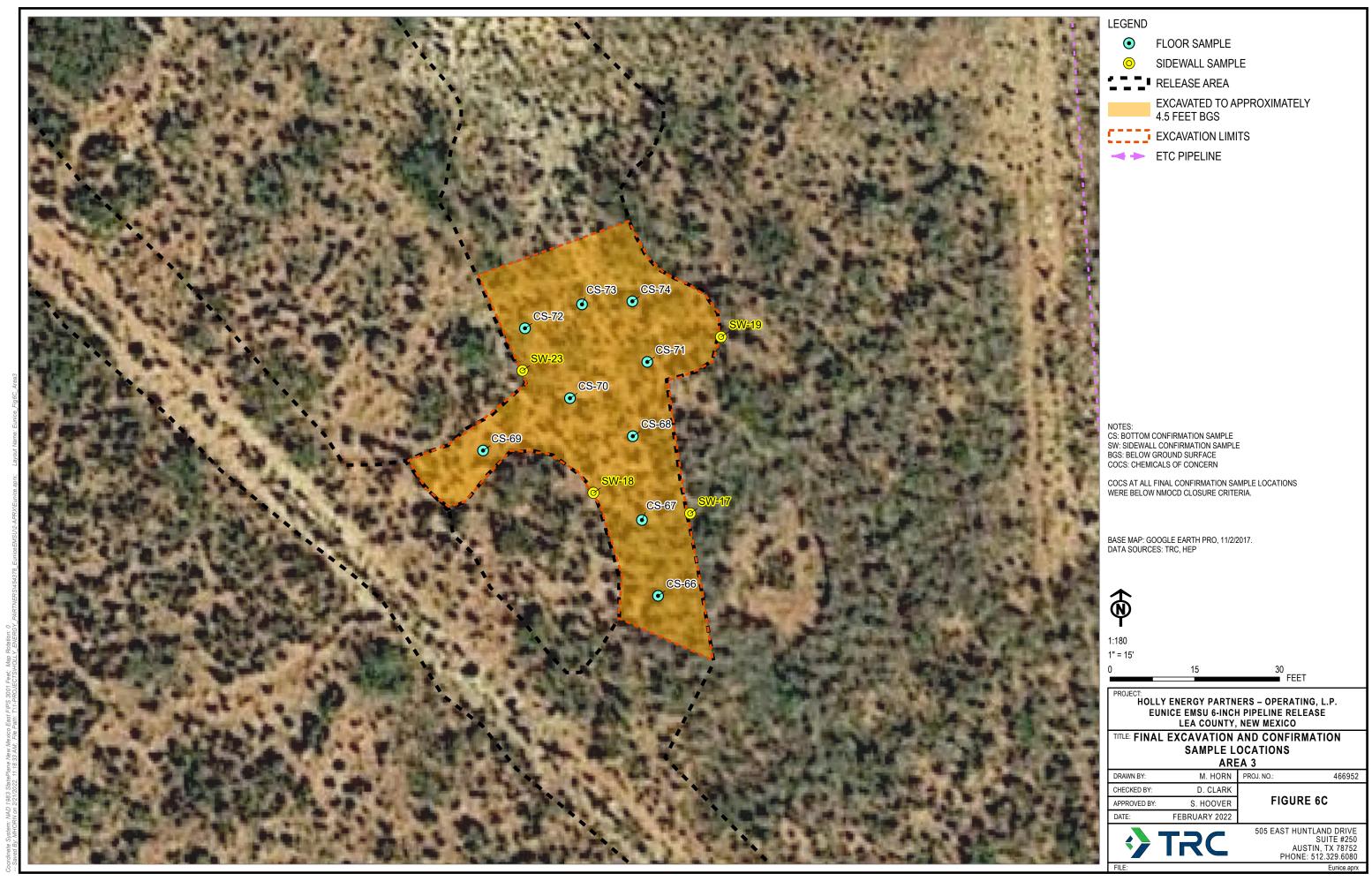
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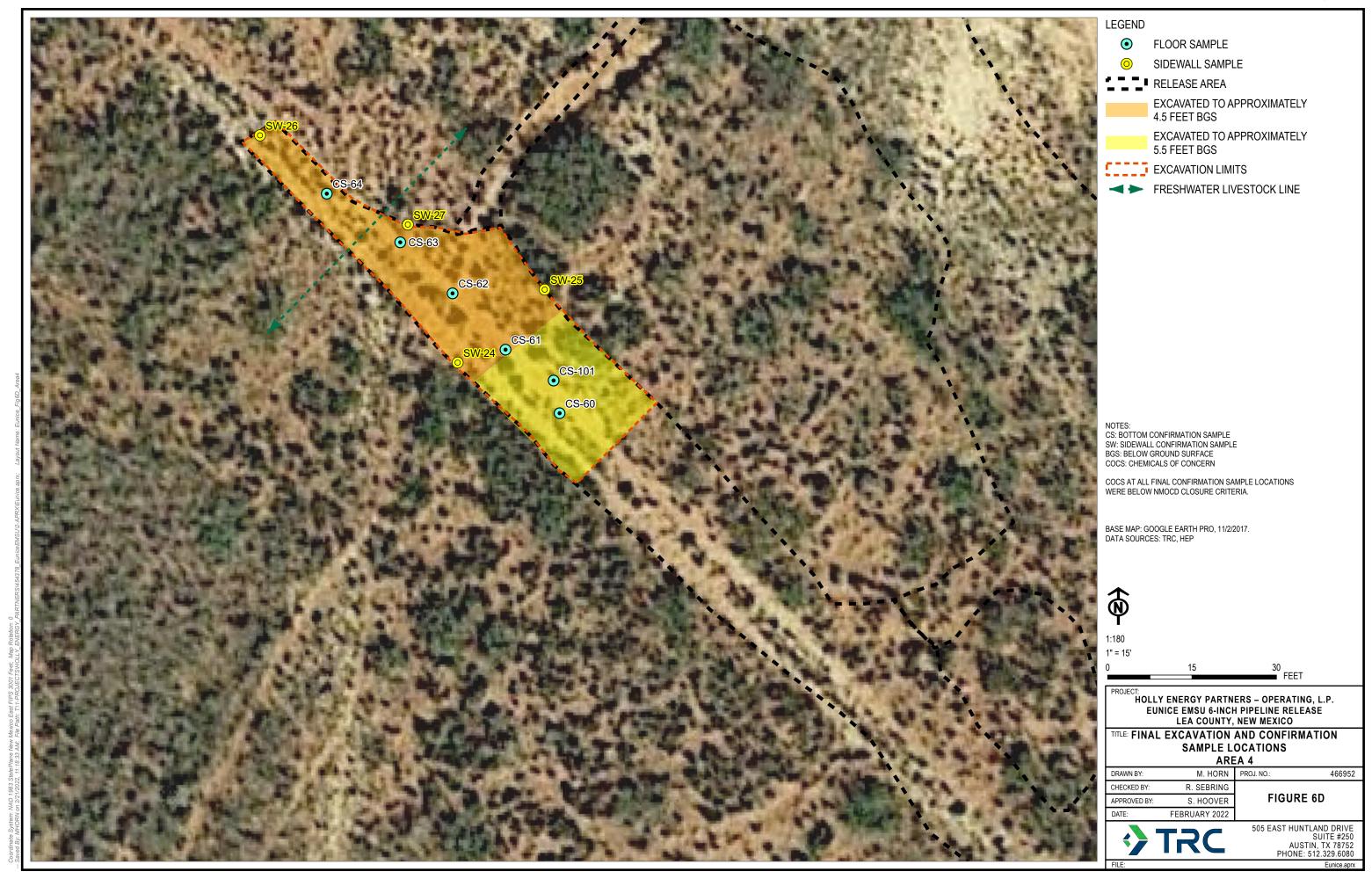


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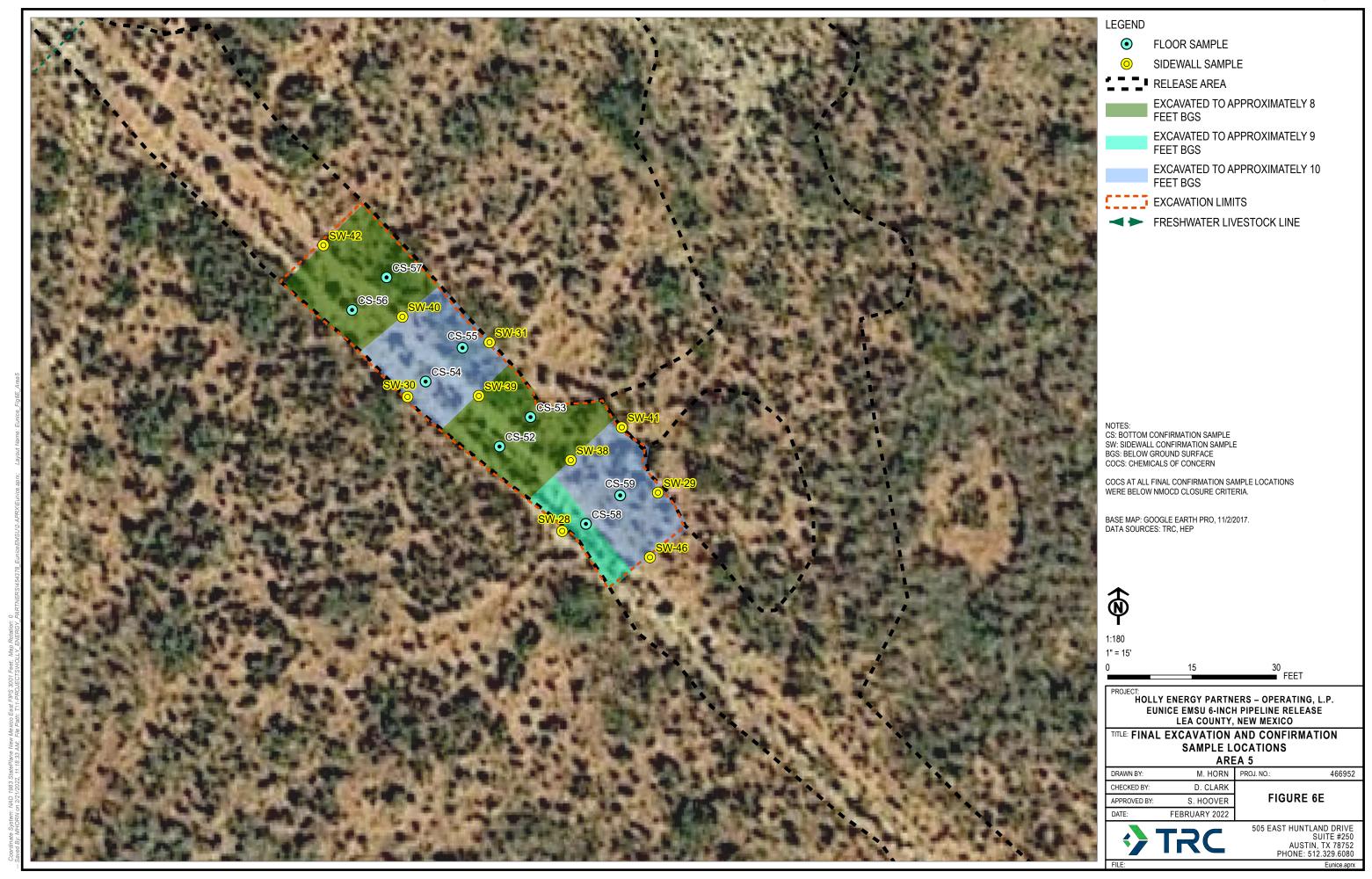
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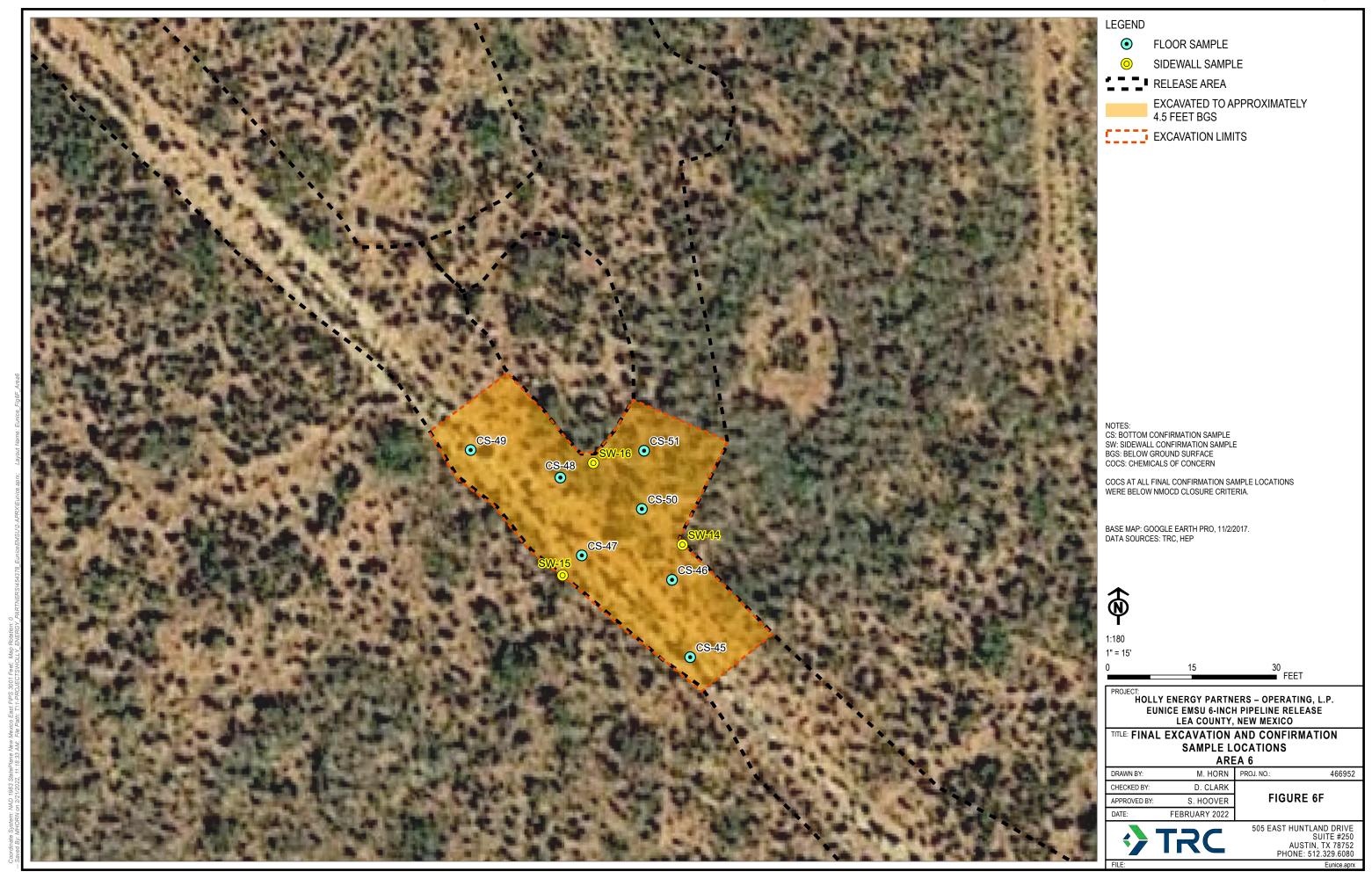
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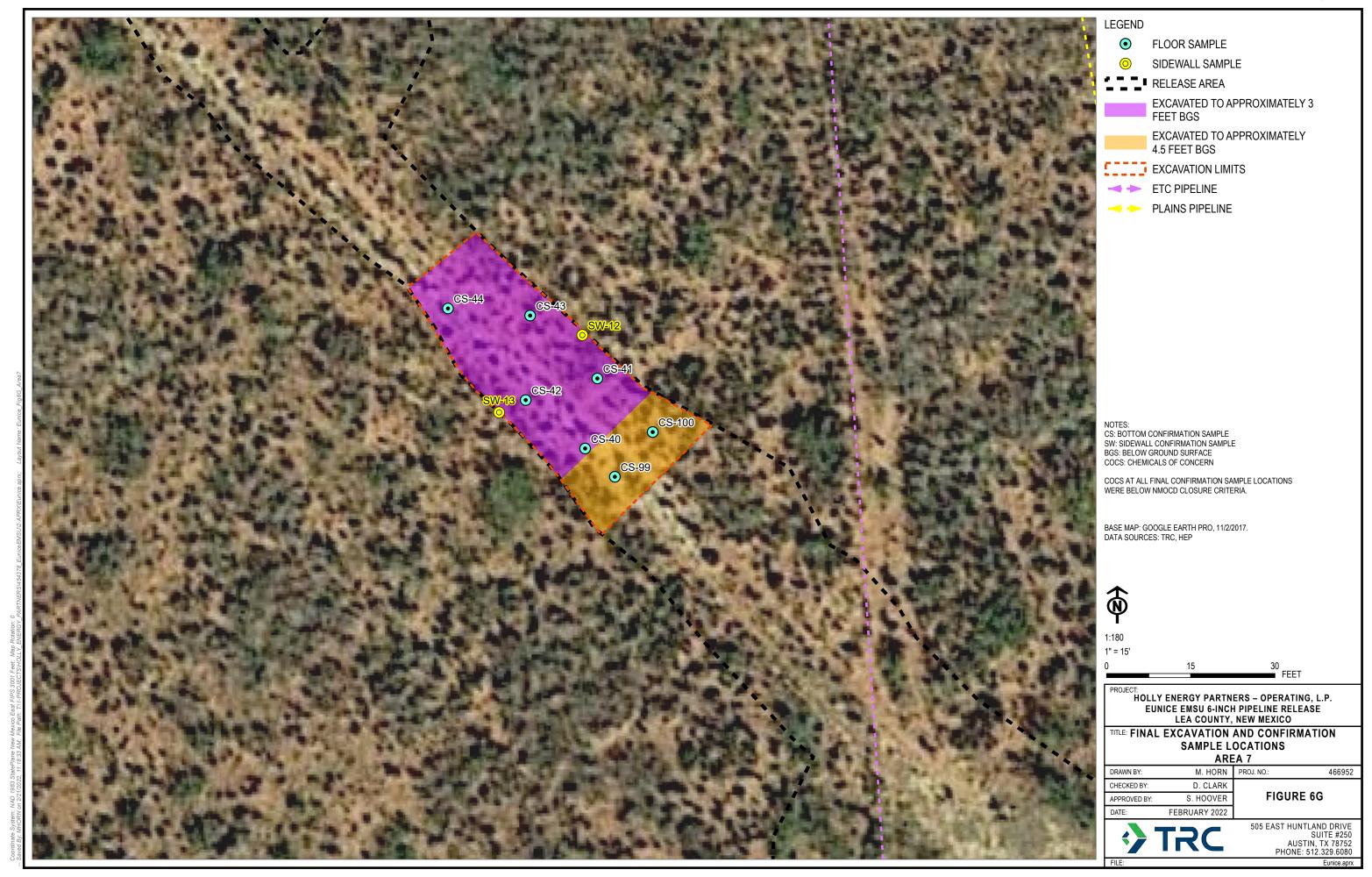
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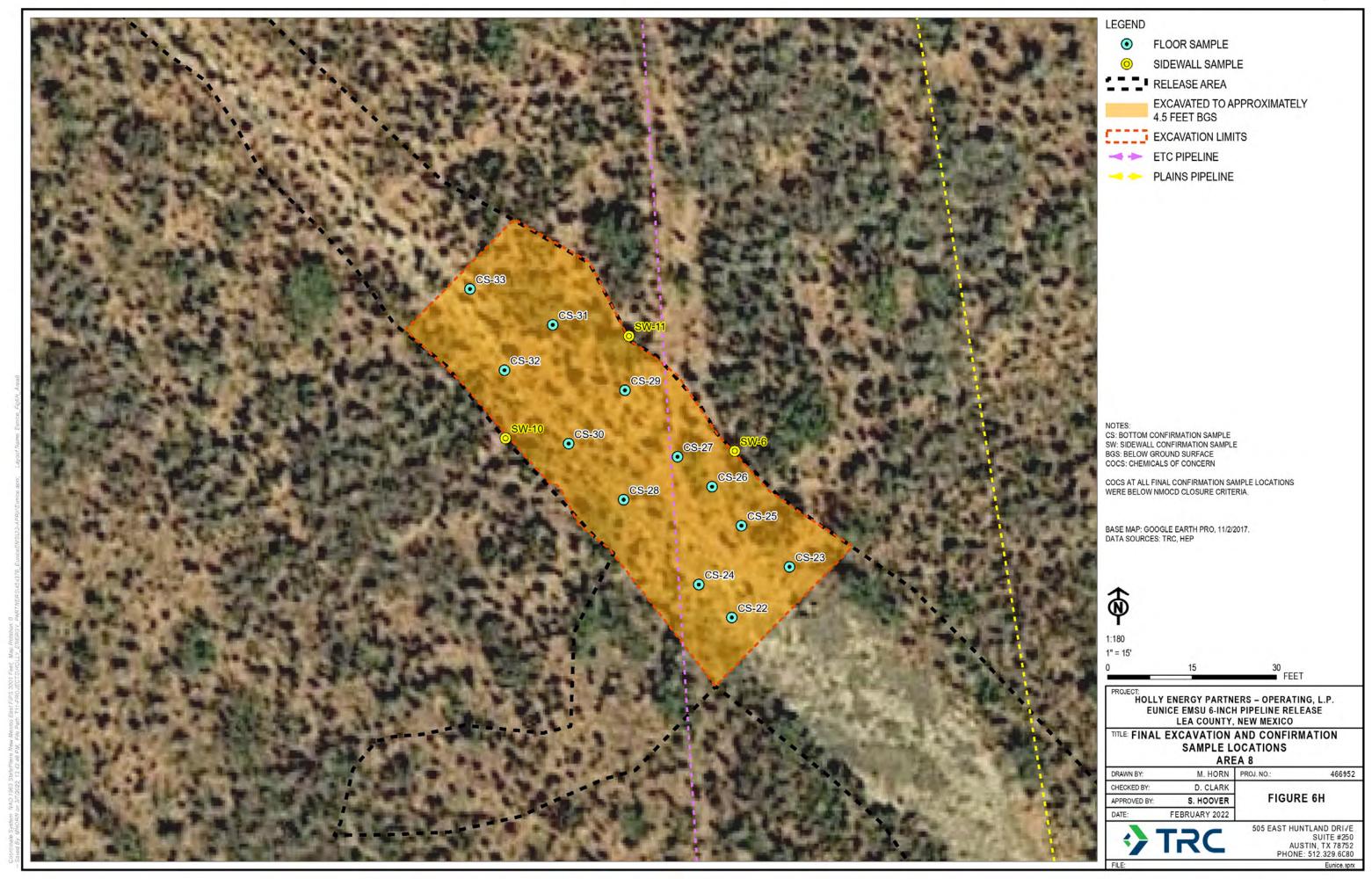
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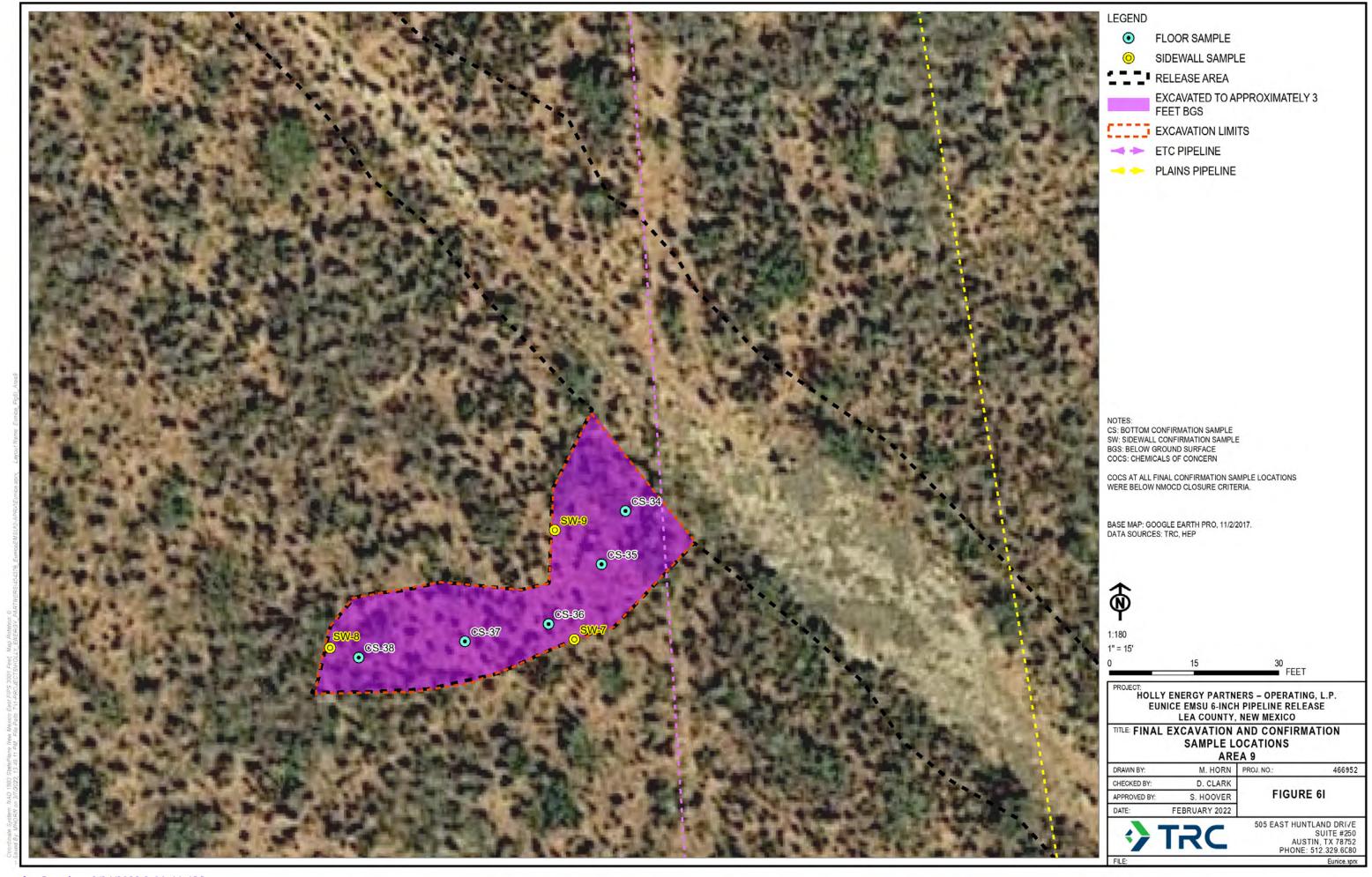
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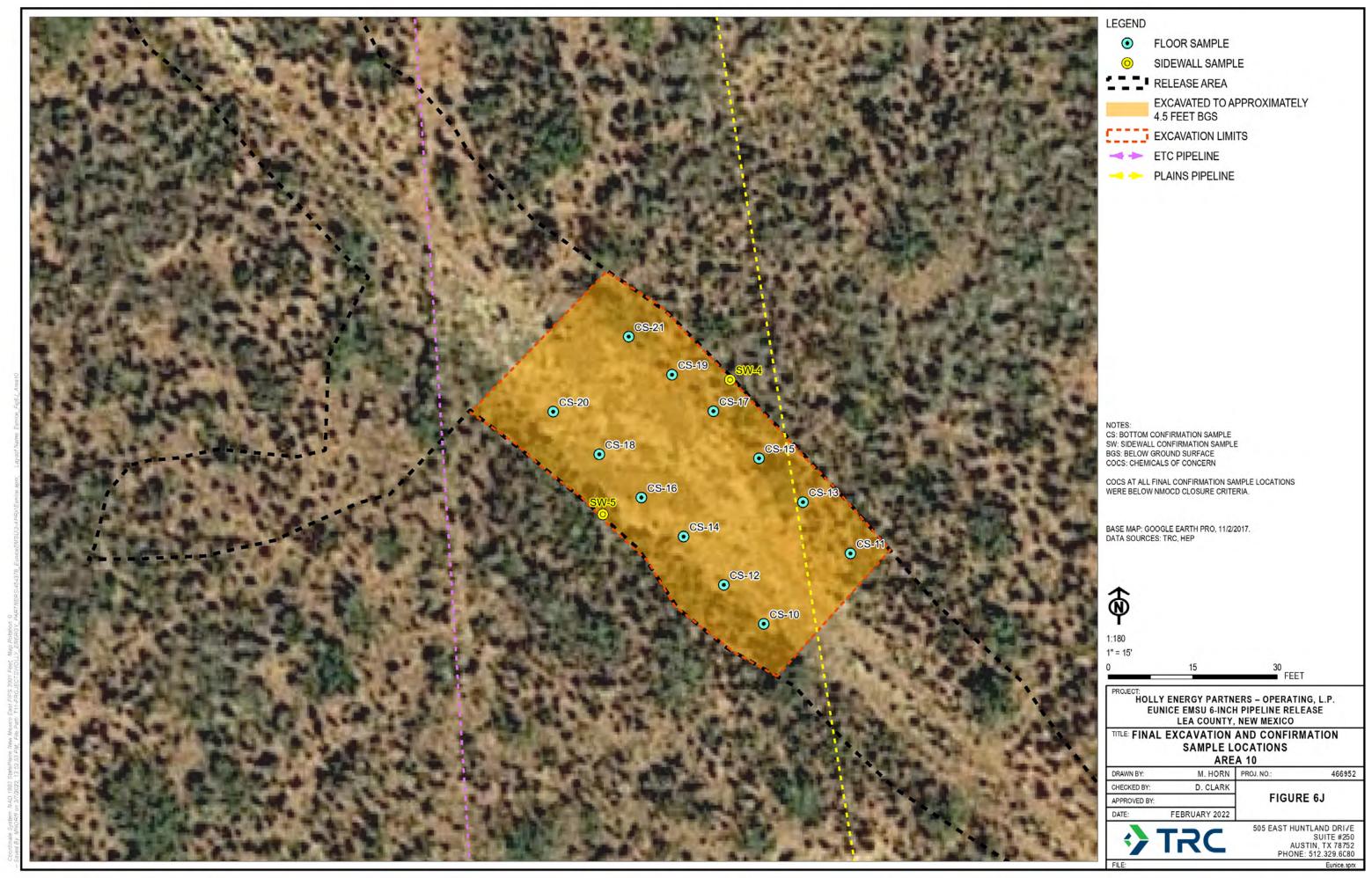
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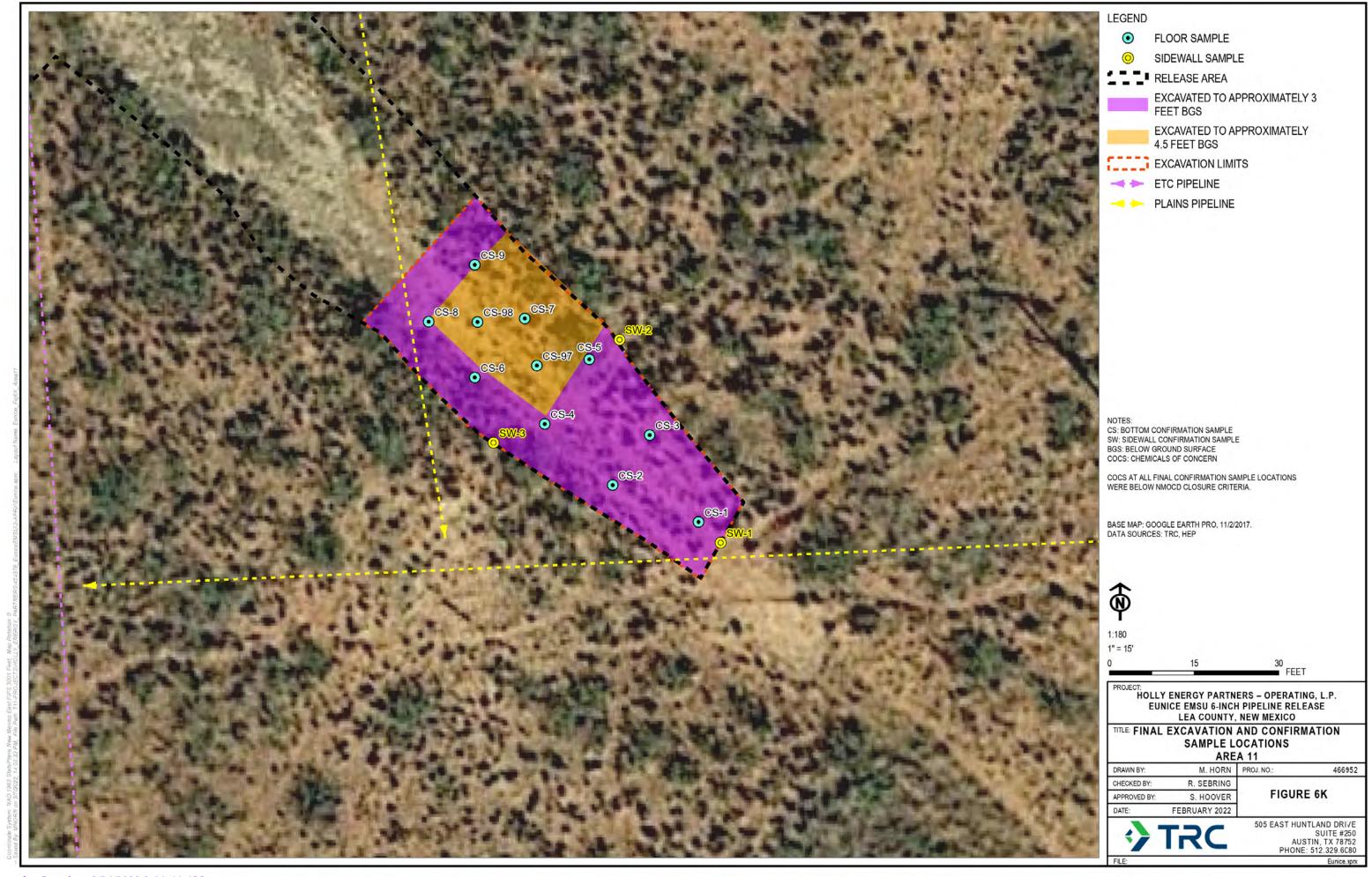
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TABLES

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TABLE 1 SUMMARY OF DELINEATION AND STOCKPILE SOIL SAMPLE ANALYTICAL RESULTS HOLLY ENERGY PARTNERS - OPERATING, L.P. Eunice EMSU Pipeline Release

NMOCD Tracking No.: nAPP2102856493

Sample ID	Sample Depth (feet bgs)	Sample Date	Soil Status	PID Reading (ppm)	TPH (GRO)	TPH (DRO)	TPH GRO & DRO	TPH (MRO)	Total TPH	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	Chloride
							•			(mg/kg)					
l	MOCD Closi	•			NA	NA	NA	NA	100	10	NA	NA	NA	50	600
	NMOCD C	Closure Crite	ria (Below 4	Feet bgs)	NA	NA	1,000	NA	2,500	10	NA	NA	NA	50	20,000
								neation Sample		_					
SS-1 @ 2'	2	3/18/2021	Excavated	208	<258	16,700	16,700	2,280	19,000	<0.104	<0.104	0.301	0.945	1.25	483
TT-1 @ 3'	3	3/18/2021	Excavated	40.0	<53.3	<53.3	<53.3	<53.3	<53.3	<0.00215	<0.00215	<0.00215	<0.00429	<0.00215	952
TT-1 @ 4'	4	3/18/2021	Excavated	106	<49.9	<49.9	<49.9	<49.9	<49.9						825
TT-1 @ 5'	5	3/18/2021	In Situ	22.0	60.3	<49.9	60.3	<49.9	60.3						949
							Area 2 Deli	neation Sample	s						
SS-2 @ 2'	2	3/18/2021	Excavated	244	<252	14,600	14,600	2,120	16,700	<0.102	<0.102	0.387	1.09	1.47	20.7
TT-2 @ 3'	3	3/18/2021	In Situ	416	<52.4	56.8	56.8	<52.4	56.8	<0.0209	<0.0209	<0.0209	<0.0419	<0.0209	12.3
							Area 3 Deli	neation Sample	s						
SS-3 @ 2'	2	3/18/2021	Excavated	674.2	682	24,800	25,482	3,710	29,200	<0.102	0.466	1.76	5.38	7.61	7.39
Duplicate-1 [SS-3 @ 2']	2	3/18/2021	Excavated	674.2	674	19,400	20,074	3,950	24,000	< 0.00204	<0.00204	<0.00204	<0.00408	<0.00204	<5.05
TT-3 @ 3'R	3	3/18/2021	Excavated	270.2	<52.2	213	213	<52.2	213	<0.00208	<0.00208	<0.00208	<0.00416	<0.00208	121
				<u> </u>			Area 4 Deli	neation Sample	s						
SS-4 @ 1'	1	3/18/2021	Excavated	670	573	25,400	25,973	3,810	29,800	<0.102	0.406	2.20	6.10	8.71	25.7
TT-4 @ 2'	2	3/18/2021	Excavated	1,259	<51.7	724	724	83.9	808	<0.0208	<0.0208	<0.0208	<0.416	<0.0208	13.1
TT-4 @ 3'	3	3/18/2021	Excavated	202	<51.8	<51.8	<51.8	<51.8	<51.8	<0.00208	<0.00208	<0.00208	<0.00416	<0.00208	16.9
TT-4 @ 4'	4	3/18/2021	Excavated	156	107	64.1	171	<51.5	171	<0.00206	<0.00206	<0.00206	<0.00412	<0.00206	164
TT-4 @ 5'	5	3/18/2021	In Situ	1,118	<51.6	764	764	112	876	<0.00207	<0.00207	<0.00207	<0.00413	<0.00207	181
TT-4 @ 5.5'	5.5	3/18/2021	In Situ	555	51.8	93.2	145	<51.6	145	<0.00207	<0.00207	<0.00207	<0.00414	<0.00207	92.5
TT-4 @ 6'R	6	3/18/2021	In Situ	1,276	<51.5	895	895	132	1,030	<0.00207	0.00415	0.00488	0.00489	0.0139	53.9
		0/10/2021	iii Oita	1,270	-01.0			neation Sample		10.00207	0.00410	0.00400	0.00400	0.0100	00.0
SS-5 @ 2'	2	3/18/2021	Excavated	421	575	27,200	27,775	3,990	31,800	<0.101	0.858	2.55	9.04	12.4	71.8
TT-5 @ 3'R	3	3/18/2021	Excavated	289	11,600	19,600	31,200	2,520	33,700	<0.216	1.11	2.61	8.95	12.7	18.4
TT-5 @ 7-8'	7-8	9/21/2021	Excavated		<249	2,860	2,860	294	3,150	0.792	0.674	1.46	2.49	5.42	11.8
TT-5 @ 7-0	8-9	9/21/2021	Excavated		<249	1,780	1,780	<249	1,780	0.138	<0.0404	0.699	1.03	1.87	13.4
TT-5 @ 9-10'	9-10	9/21/2021			115	422	537	<49.8	537	0.0895	0.0941	0.055	0.229	0.566	11.3
		9/21/2021	Excavated	607	<249					<0.202					
SB-2 @ 3-4'	3-4 4-5	9/15/2021	Excavated	1,438		3,230	3,230	389	3,620	<0.202	0.2440	1.020	1.470	2.730	10.0
SB-2 @ 4-5'			Excavated		1,150	3,980	5,130	466	5,600		<0.0101	0.758	1.750	2.510	22.4
SB-2 @ 5-6'	5-6	9/15/2021	Excavated	1,605	1,140	5,930	7,070	643	7,710	<0.201	<0.201	1.050	3.910	4.960	13.1
SB-2 @ 6-7	6-7		Excavated	1,150	1,720	6,580	8,300	715	9,020	<0.199	0.2540	1.440	5.190	6.880	12.5
SB-2 @ 10-11'	10-11	9/15/2021	In Situ	98	<49.9	166	166	<49.9	166	<0.00200	<0.00200	0.00316	0.00406	0.00722	181.0
SB-2 @ 11-12'	11-12	9/15/2021	In Situ	68	<49.8	<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	167.0
SB-2 @ 15-16'	15-16	9/15/2021	In Situ	128	<50.0	519	519	84.3	603	<0.0401	<0.00401	0.0644	0.175	0.240	76.1
SB-2 @ 16-17'	16-17	9/15/2021	In Situ	56	<49.9	<49.9	<49.9	<49.9	<49.9	0.00729	<0.00200	0.00349	0.0057	0.0165	58.9
								neation Sample							
SS-6 @ 1'	1	3/18/2021	Excavated	368	311	13,200	13,511	1,790	15,300	<0.102	0.356	0.895	4.04	5.29	22.1
TT-6 @ 1.5'R	1.5	3/18/2021	Excavated	1,580	7,040	12,900	19,940	1,590	21,500	<0.108	0.522	1.72	5.77	8.01	71.8
								neation Sample							
SS-7 @ 1'	1		Excavated	165	<253	18,300	18,300	2,920	21,200	<0.100	<0.100	0.217	1.08	1.30	12.6
TT-7 @ 2'	2	3/18/2021	Excavated	399	<51.9	112	112	<51.9	112	<0.00208	<0.00208	<0.00208	<0.00416	<0.00208	6.89
TT-7 @ 3'R	3	3/18/2021	In Situ	137	<50.0	<50.0	<50.0	<50.0	<50.0						

TABLE 1 SUMMARY OF DELINEATION AND STOCKPILE SOIL SAMPLE ANALYTICAL RESULTS HOLLY ENERGY PARTNERS - OPERATING, L.P. Eunice EMSU Pipeline Release

NMOCD Tracking No.: nAPP2102856493

Sample ID	Sample Depth (feet bgs)	Sample Date	Soil Status	PID Reading (ppm)	TPH (GRO)	TPH (DRO)	TPH GRO & DRO	TPH (MRO)	Total TPH	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	Chloride
	(leet bys)									(mg/kg)					
	NMOCD Close	ure Criteria (Surface to 4	Feet bgs)	NA	NA	NA	NA	100	10	NA	NA	NA	50	600
	NMOCD (Closure Crite	eria (Below 4	Feet bgs)	NA	NA	1,000	NA	2,500	10	NA	NA	NA	50	20,000
							Area 8 Deli	neation Sample	s						
SS-8 @ 2'	2	3/18/2021	Excavated	235	277	19,200	19,477	2,640	22,100	<0.101	0.297	0.793	3.54	4.63	7.31
TT-8 @ 3'R	3	3/18/2021	Excavated	1,173	9,280	16,000	25,280	2,120	27,400	<0.107	0.669	1.76	6.08	8.51	12.4
SB-1 @ 3-4'	3-4	9/15/2021	Excavated	370	<50.0	649	649	87.8	737	<0.0400	<0.0400	0.0951	0.295	0.390	10.70
SB-1 @ 4-5'	4-5	9/15/2021	In Situ	258	<49.9	91.5	91.5	<49.9	91.5	<0.0399	<0.0399	0.1130	0.474	0.587	8.75
SB-1 @ 5-6'	5-6	9/15/2021	In Situ	148	<49.8	78.1	78.1	<49.8	78.1	<0.0402	<0.0402	<0.0402	<0.0805	<0.0803	9.5
SB-1 @ 6-7'	6-7	9/15/2021	In Situ	125	<49.9	<49.9	<49.9	<49.9	<49.9	<0.0402	<0.0402	0.0407	<0.0803	<0.0803	10.7
							Area 9 Deli	neation Sample	S						
SS-9 @ 1'	1	3/18/2021	Excavated	82	<50.5	235	235	<50.5	235	<0.00201	<0.00201	0.0101	0.0533	0.0634	5.34
TT-9 @ 2'	2	3/18/2021	Excavated	360	<51.9	665	665	92.5	758	<0.0207	<0.0207	<0.0207	<0.0415	<0.0207	<4.97
TT-9 @ 3'	3	3/18/2021	In Situ	82.0	<50.0	<50.0	<50.0	<50.0	<50.0		-				
							Area 10 Del	ineation Sample	es						
SS-10 @ 3'	3	3/18/2021	Excavated	704	1,350	44,700	46,050	6,260	52,300	<0.103	0.483	2.94	11.6	15.0	9.84
TT-10 @ 4'	4	3/18/2021	Excavated	1,258	84.3	1,080	1,164	140	1,300	<0.0209	0.0258	0.180	0.252	0.457	<4.98
TT-10 @ 5'	5	3/18/2021	In Situ	261	<53.0	<53.0	<53.0	<53.0	<53.0	<0.00210	<0.00210	<0.00210	<0.00419	<0.00210	<5.05
TT-10 @ 6'R	6	3/18/2021	In Situ	626	<53.3	<53.3	<53.0	<53.3	<53.3	<0.00212	<0.00212	<0.00212	<0.00424	<0.00212	35.0
							Area 11 Del	ineation Sample	es						
SS-11 @ 2'	2	3/18/2021	Excavated	433	271	16,500	16,771	2,360	19,100	<0.102	<0.102	0.671	2.35	3.02	<5.02
TT-11 @ 3'	3	3/18/2021	In Situ	259	<52.5	<52.5	<52.5	<52.5	<52.5	<0.00210	<0.00210	<0.00210	<0.00420	<0.00210	<4.99
							Miscellaneous	Delineation Sar	•						
SS-12 @ 6"	0.5	3/18/2021	In Situ*	183	<50.1	565	565	143	708	<0.00202	<0.00202	<0.00202	<0.00403	<0.00202	<4.95
							Stock	oile Samples							
Stockpile-1		2/2/2021	Disposed		4,780	14,000	18,780	1,630	20,410	3.42	16.8	27.9	108.2	156.3	57.0
Stockpile-2		2/2/2021	Disposed		3,490	11,700	15,190	1,490	16,680	1.30	9.10	13.2	72.6	96.2	68.7

Notes:

- bgs below ground surface
- BTEX benzene, toluene, ethylbenzene, xylenes
- DRO Diesel Range Organics
- GRO Gasoline Range Organics
- MRO Motor Oil Range Organics
- mg/kg milligrams per kilogram
- PID Photo-Ionization Detector
- ppm parts per million
- TPH Total Petroleum Hydrocarbons
- NA Not Applicable No NMOCD Closure Criteria for parameter
- NMOCD New Mexico Oil Conservation Division
 - R Suffix indicates refusal at Test Trench location
 - SS Surface Sample
 - TT Test Trench Sample
 - SB Soil Boring Sample
 - **Bold** Parameter detected above the laboratory reporting limit
- **Yellow** Concentration is above the applicable NMOCD Closure Criteria
- Pink Soil excavated and removed
- -- Not Analyzed
- < Parameter not detected above laboratory reporting limit
- * Soil associated with sample SS-12 determined to be associated with a release from a third-party pipeline and is not associated with HEP

Sample ID	Sample Depth (feet	Sample	Soil Status	Area	TPH (GRO)	TPH (DRO)	TPH GRO & DRO	TPH (MRO)	Total TPH	Chloride			
	bgs)	Date			(mg/kg)								
		sure Criteria			NA	NA	NA	NA	100	600			
	NMOCD	Closure Crite	ria (Below 4		NA	NA	1,000	NA	2,500	20,000			
	_			Area 1	l Floor Confirma								
CS-65 @ 4.5	4.5	10/4/2021	In Situ	1	<49.8	188	188	<49.8	188				
CS-83 @ 4.5	4.5	10/7/2021	In Situ	1	<49.9	100	100	<49.9	100	16.4			
CS-84 @ 4.5	4.5	10/7/2021	In Situ	1	<49.8	<49.8	<49.8	<49.8	<49.8	221			
CS-85 @ 4.5	4.5	10/7/2021	In Situ	1	<49.9	317	317	51.5	369	132			
CS-86 @ 4.5	4.5	10/7/2021	In Situ	1	<49.8	113	113	<49.8	113	380			
CS-87 @ 4.5	4.5	10/7/2021	Excavated	1	643	2,880	3,523	334	3,860	865			
CS-87 @ 6.5	6.5	10/21/2021	Excavated	1	1,530	4,790	6,320	496	6,820	542			
CS-87 @ 7.5	7.5	10/21/2021	Excavated	1	349	1,220	1,569	109	1,680				
CS-87 @ 8	8.0	10/22/2021	Excavated	1	1,330	3,650	4,980	<249	4,980				
CS-87 @ 9	9.0	10/22/2021	Excavated	1	658	1,420	2,078	<249	2,080				
CS-87 @ 10	10.0	10/22/2021	In Situ	1	49.9	392	441.9	<49.9	442	1			
CS-88 @ 4.5	4.5	10/7/2021	In Situ	1	<49.8	113	113	<49.8	113	1,050			
CS-89 @ 4.5	4.5	10/7/2021	In Situ	1	<49.9	<49.9	<49.9	<49.9	<49.9	893			
CS-90 @ 4.5	4.5	10/7/2021	In Situ	1	<49.9	134	134	<49.9	134	357			
CS-91 @ 4.5	4.5	10/7/2021	In Situ	1	<49.8	152	152	<49.8	152	42.9			
CS-92 @ 4.5	4.5	10/7/2021	In Situ	1	50.0	338	388	<49.9	388	305			
CS-93 @ 4.5	4.5	10/7/2021	In Situ	1	<49.8	<49.8	<49.8	<49.8	<49.8	488			
CS-94 @ 4.5	4.5	10/7/2021	In Situ	1	<49.9	<49.9	<49.9	<49.9	<49.9	1,870			
CS-95 @ 4.5	4.5	10/7/2021	In Situ	1	<49.8	<49.8	<49.8	<49.8	<49.8	3,470			
CS-96 @ 4.5	4.5	10/7/2021	Excavated	1	<249	3,690	3,690	536	4,230	203			
CS-96 @ 5	5.0	10/22/2021	In Situ	1	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0			
CS-102 @ 6	6.0	10/21/2021	In Situ	1	<49.9	537	537	75.2	612	1,060			
CS-103 @ 6	6.0	10/21/2021	In Situ	1	<50.0	946	946	125	1,070	792			
CS-104 @4.5	4.5	10/21/2021	In Situ	1	<49.8	74	74	<49.8	74	23.6			
CS-105 @ 4.5	4.5	10/21/2021	In Situ	1	<49.9	<49.9	<49.9	<49.9	<49.9	17			
00 100 @ 1.0	1.0	10/21/2021	III Olla	Δrea 1 S	Sidewall Confirm		110.0	10.0	10.0				
SW-32 @ 2.25	2.25	10/7/2021	Excavated	1	<49.9	<49.9	<49.9	<49.9	<49.9	1.700			
SW-32A @ 2.25	2.25	10/7/2021	Excavated	1	<49.8	<49.8	<49.8	<49.8	<49.8	3,170			
SW-32B @ 2.25	2.25	10/21/2021	Excavated	1			~49.0			2,270			
SW-32C @ 2.25	2.25	10/21/2021	In Situ	1						275			
SW-33 @ 2.25	2.25	10/21/2021	In Situ	1	<49.8	<49.8	<49.8	 <49.8	<49.8	193			
SW-34 @ 2.25	2.25			1	171	66.8		<49.9	238	1,180			
		10/7/2021	Excavated	•			237.8						
SW-34A @ 2.25	2.25	10/21/2021	Excavated	1	<50.0	<50.0	<50.0	<50.0	<50.0	1,070			
SW-34B @ 2.25	2.25	10/21/2021	Excavated	1						1,070			

Sample ID	Sample Depth (feet	Sample	Soil Status	Area	TPH (GRO)	TPH (DRO)	TPH GRO & DRO	TPH (MRO)	Total TPH	Chloride				
•	bgs)	Date		•		(mg/kg)								
		sure Criteria	Surface to 4	Feet bgs)	NA	NA	NA	NA	100	600				
	NMOCD	Closure Crite	eria (Below 4	Feet bgs)	NA	NA	1,000	NA	2,500	20,000				
SW-34C @ 2.25	2.25	10/21/2021	In Situ	1						36.8				
SW-35 @ 2.25	2.25	10/7/2021	Excavated	1	117	76.9	193.9	<49.8	194	126				
SW-35A @ 2.25	2.25	10/21/2021	Excavated	1	<49.9	<49.9	<49.9	<49.9	<49.9	1,650				
SW-35B @ 2.25	2.25	10/21/2021	In Situ	1						365				
SW-36 @ 2.25	2.25	10/7/2021	Excavated	1	<49.9	<49.9	<49.9	<49.9	<49.9	1,100				
SW-36A @ 2.25	2.25	10/21/2021	Excavated	1	<49.9	<49.9	<49.9	<49.9	<49.9	1,180				
SW-36B @ 2.25	2.25	10/21/2021	Excavated	1						787				
SW-36C @ 2.25	2.25	10/21/2021	In Situ	1						180				
SW-37 @ 2.25	2.25	10/7/2021	In Situ	1	<49.9	<49.9	<49.9	<49.9	<49.9	63.6				
SW-43 @ 8*	8.0	11/4/2021	In Situ	1	<49.9	<49.9	<49.9	<49.9	<49.9	360				
SW-44 @ 8*	8.0	11/4/2021	In Situ	1	<49.9	50.2	50.2	<49.9	50.2	390				
SW-45 @ 8	8.0	11/4/2021	In Situ	1	<49.8	<49.8	<49.8	<49.8	<49.8	163				
				Area 2	Floor Confirma	tion Samples								
CS-75 @ 3	3.0	10/6/2021	In Situ	2	<49.9	53.8	53.8	<49.9	53.8					
CS-76 @ 3	3.0	10/6/2021	Excavated	2	<49.8	326	326	<49.8	326					
CS-76 @ 4.5	4.5	10/19/2021	In Situ	2	<49.9	349	349	59.1	408					
CS-77 @ 3	3.0	10/6/2021	Excavated	2	764	3,350	4,114	417	4,530					
CS-77 @ 4.5	4.5	10/19/2021	In Situ	2	<50.0	<50.0	<50.0	<50.0	<50.0					
CS-78 @ 3	3.0	10/6/2021	Excavated	2	289	2,220	2,509	271	2,780					
CS-78 @ 4.5	4.5	10/19/2021	In Situ	2	<49.8	409	409	71.4	480					
CS-79 @ 3	3.0	10/6/2021	Excavated	2	<49.9	1,140	1,140	123	1,260					
CS-79 @ 4.5	4.5	10/19/2021	Excavated	2	1,070	3,480	4,550	418	4,970					
CS-79 @ 5.5	5.5	10/19/2021	In Situ	2	<49.9	336	336	62.5	399					
CS-80 @ 3	3.0	10/6/2021	Excavated	2	<50.0	210	210	<50.0	210					
CS-80 @ 4.5	4.5	10/19/2021	In Situ	2	<49.8	<49.8	<49.8	<49.8	<49.8					
CS-81 @ 3	3.0	10/6/2021	Excavated	2	<50.0	511	511	64.3	575					
CS-81 @ 4.5	4.5	10/19/2021	In Situ	2	<49.8	<49.8	<49.8	<49.8	<49.8					
CS-82 @ 3	3.0	10/6/2021	In Situ	2	<49.8	55.5	55.5	<49.8	55.5					
				Area 2 S	Sidewall Confirm	nation Samples								
SW-20 @ 1.5	1.5	10/1/2021	In Situ	2	<49.8	<49.8	<49.8	<49.8	<50.0					
SW-21 @ 1.5	1.5	10/1/2021	In Situ	2	<50.0	<50.0	<50.0	<50.0	<50.0					
SW-22 @ 1.5	1.5	10/1/2021	In Situ	2	<49.9	<49.9	<49.9	<49.9	<50.0					
	Area 3 Floor Confirmation Samples													
CS-66 @ 4.5	4.5	10/6/2021	In Situ	3	<49.9	58.9	58.9	<49.9	58.9					

Sample ID	Sample Depth (feet	Sample Date	Soil Status	Area	TPH (GRO)	TPH (DRO)	TPH GRO & DRO	TPH (MRO)	Total TPH	Chloride
	bgs)							g/kg)		
		sure Criteria	•	• •	NA	NA	NA	NA	100	600
	NMOCD	Closure Crite	eria (Below 4	Feet bgs)	NA	NA	1,000	NA	2,500	20,000
CS-67 @ 4.5	4.5	10/6/2021	In Situ	3	<49.8	54.3	54.3	<49.8	54.3	
CS-68 @ 4.5	4.5	10/6/2021	In Situ	3	<49.9	112	112	<49.9	112	
CS-69 @ 4.5	4.5	10/6/2021	In Situ	3	<50.0	<50.0	<50.0	<50.0	<50.0	-
CS-70 @ 4.5	4.5	10/6/2021	In Situ	3	<49.9	<49.9	<49.9	<49.9	<49.9	1
CS-71 @ 4.5	4.5	10/6/2021	In Situ	3	<49.8	230	230	<49.8	230	
CS-72 @ 4.5	4.5	10/6/2021	In Situ	3	<50.0	451	451	51.5	503	
CS-73 @ 4.5	4.5	10/6/2021	In Situ	3	<49.9	57.1	57.1	<49.9	57.1	
CS-74 @ 4.5	4.5	10/6/2021	In Situ	3	<49.8	142	142	<49.8	142	
				Area 3	Sidewall Confirm	nation Samples				
SW-17 @ 2.25	2.25	10/1/2021	In Situ	3	<49.9	<49.9	<49.9	<49.9	<50.0	
SW-18 @ 2.25	2.25	10/1/2021	In Situ	3	<50.0	<50.0	<50.0	<50.0	<50.0	
SW-19 @ 2.25	2.25	10/1/2021	In Situ	3	<49.9	<49.9	<49.9	<49.9	<50.0	
SW-23 @ 2.25	2.25	10/1/2021	In Situ	3	<49.8	<49.8	<49.8	<49.8	<50.0	
				Area 4	Floor Confirma	tion Samples				
CS-60 @ 4.5	4.5	10/4/2021	Excavated	4	317	1,000	1,317	124	1,440	
CS-60 @ 5.5	5.5	10/19/2021	In Situ	4	<49.8	467	467	54.1	521	
CS-101 @5.5	5.5	10/19/2021	In Situ	4	<49.9	389	389	<49.9	389	
CS-61 @ 4.5	4.5	10/4/2021	In Situ	4	<50.0	618	618	72.0	690	
CS-62 @ 4.5	4.5	10/4/2021	In Situ	4	56.5	679	735.5	81.1	817	
CS-63 @ 4.5	4.5	10/4/2021	In Situ	4	<49.8	136	136	<49.8	136	
CS-64 @ 4.5	4.5	10/4/2021	In Situ	4	<49.9	145	145	<49.9	145	
				Area 4	Sidewall Confirm	nation Samples				
SW-24 @ 2.25	2.25	10/1/2021	In Situ	4	<49.8	<49.8	<49.8	<49.8	<50.0	
SW-25 @ 2.25	2.25	10/1/2021	In Situ	4	<49.9	<49.9	<49.9	<49.9	<50.0	
SW-26 @ 2.25	2.25	10/1/2021	In Situ	4	<49.9	<49.9	<49.9	<49.9	<50.0	
SW-27 @ 2.25	2.25	10/1/2021	In Situ	4	<49.8	<49.8	<49.8	<49.8	<50.0	
	•			Area 5	Floor Confirma	tion Samples				
CS-52 @ 8	8.0	10/4/2021	In Situ	5	<49.9	<49.9	<49.9	<49.9	<49.9	
CS-53 @ 8	8.0	10/4/2021	In Situ	5	<49.8	<49.8	<49.8	<49.8	<49.8	
CS-54 @ 9	9.0	10/4/2021	Excavated	5	588	3,690	4,278	472	4,750	
CS-54 @ 10	10.0	10/19/2021	In Situ	5	<50.0	59.1	59.1	<50.0	59.1	
CS-55 @ 9	9.0	10/4/2021	Excavated	5	1,190	3,770	4,960	520	5,480	
CS-55 @ 10	10.0	10/19/2021	In Situ	5	<49.9	52.8	52.8	<49.9	52.8	
CS-56 @ 8	8.0	10/4/2021	In Situ	5	<49.9	<49.9	<49.9	<49.9	<49.9	

Sample ID	Sample Depth (feet	Sample Date	Soil Status	Area	TPH (GRO)	TPH (DRO)	TPH GRO & DRO	TPH (MRO)	Total TPH	Chloride		
	bgs)							g/kg)				
		sure Criteria	•	• •	NA	NA	NA	NA	100	600		
	NMOCD	Closure Crite	eria (Below 4	Feet bgs)	NA	NA	1,000	NA	2,500	20,000		
CS-57 @ 8	8.0	10/4/2021	In Situ	5	<49.8	<49.8	<49.8	<49.8	<49.8			
CS-58 @ 9	9.0	10/4/2021	In Situ	5	64.8	562	626.8	65.0	692			
CS-59 @ 9	9.0	10/4/2021	Excavated	5	505	1,470	1,975	<249	1,980			
CS-59 @ 10	10.0	10/19/2021	In Situ	5	<50.0	69.3	69.3	<50.0	69.3			
Area 5 Sidewall Confirmation Samples												
SW-28 @ 2	2.0	10/1/2021	In Situ	5	<50.0	<50.0	<50.0	<50.0	<50.0			
SW-28 @ 5	5.0	10/1/2021	In Situ	5	<49.9	<49.9	<49.9	<49.9	<50.0			
SW-29 @ 2	2.0	10/1/2021	In Situ	5	<49.8	<49.8	<49.8	<49.8	<50.0			
SW-29 @ 5	5.0	10/1/2021	In Situ	5	<50.0	<50.0	<50.0	<50.0	<50.0			
SW-30 @ 2	2.0	10/1/2021	In Situ	5	<49.8	<49.8	<49.8	<49.8	<50.0	-		
SW-30 @ 5	5.0	10/1/2021	In Situ	5	<49.8	<49.8	<49.8	<49.8	<50.0			
SW-31 @ 2	2.0	10/1/2021	In Situ	5	<49.9	<49.9	<49.9	<49.9	<50.0			
SW-31 @ 5	5.0	10/1/2021	In Situ	5	<49.9	<49.9	<49.9	<49.9	<50.0			
SW-38 @ 9*	9.0	10/19/2021	In Situ	5	<50.0	414	414	54.9	469			
SW-39 @ 9*	9.0	10/19/2021	In Situ	5	<49.8	<49.8	<49.8	<49.8	<49.8			
SW-40 @ 9*	9.0	10/19/2021	In Situ	5	<49.8	<49.8	<49.8	<49.8	<49.8			
SW-41 @ 9*	9.0	10/19/2021	In Situ	5	<50.0	<50.0	<50.0	<50.0	<50.0			
SW-42 @ 6*	6.0	10/19/2021	In Situ	5	<49.9	<49.9	<49.9	<49.9	<49.9			
SW-46 @ 9*	9.0	10/19/2021	In Situ	5	<50.0	<50.0	<50.0	<50.0	<50.0			
				Area 6	Floor Confirma	tion Samples						
CS-45 @ 4.5	4.5	9/30/2021	In Situ	6	<49.9	<49.9	<49.9	<49.9	<50.0			
CS-46 @ 4.5	4.5	9/30/2021	In Situ	6	<49.9	<49.9	<49.9	<49.9	<50.0			
CS-47 @ 4.5	4.5	9/30/2021	In Situ	6	<49.8	<49.8	<49.8	<49.8	<50.0			
CS-48 @ 4.5	4.5	9/30/2021	In Situ	6	<50.0	<50.0	<50.0	<50.0	<50.0			
CS-49 @ 4.5	4.5	9/30/2021	In Situ	6	<50.0	<50.0	<50.0	<50.0	<50.0			
CS-50 @ 4.5	4.5	9/30/2021	In Situ	6	<49.8	<49.8	<49.8	<49.8	<50.0			
CS-51 @ 4.5	4.5	9/30/2021	In Situ	6	<50.0	<50.0	<50.0	<50.0	<50.0			
				Area 6	Sidewall Confirm	nation Samples						
SW-14 @ 2.25	2.25	9/30/2021	In Situ	6	<49.9	<49.9	<49.9	<49.9	<50.0			
SW-15 @ 2.25	2.25	9/30/2021	In Situ	6	<49.9	<49.9	<49.9	<49.9	<50.0			
SW-16 @ 2.25	2.25	9/30/2021	In Situ	6	<49.9	<49.9	<49.9	<49.9	<50.0			
				Area 7	7 Floor Confirma	tion Samples						
CS-39 @ 3**	3.0	9/30/2021	Excavated	7	1,410	3,580	4,990	287	5,280			
CS-99 @ 4.5**	4.5	10/19/2021	In Situ	7	<50.0	91	91	<50.0	91			

Sample ID	Sample Depth (feet	Sample	Soil Status	Area	TPH (GRO)	TPH (DRO)	TPH GRO & DRO	TPH (MRO)	Total TPH	Chloride
	bgs)	Date				l.		g/kg)		
		sure Criteria	(Surface to 4	Feet bgs)	NA	NA	NA NA	NA NA	100	600
	NMOCD	Closure Crite	eria (Below 4	Feet bgs)	NA	NA	1,000	NA	2,500	20,000
CS-100 @ 4.5**	4.5	10/19/2021	In Situ	7	<49.8	142	142	<49.8	142	
CS-40 @ 3	3.0	9/30/2021	In Situ	7	<50.0	<50.0	<50.0	<50.0	<50.0	
CS-41 @ 3	3.0	9/30/2021	In Situ	7	<49.9	<49.9	<49.9	<49.9	<50.0	
CS-42 @ 3	3.0	9/30/2021	In Situ	7	<49.8	<49.8	<49.8	<49.8	<50.0	
CS-43 @ 3	3.0	9/30/2021	In Situ	7	<50.0	<50.0	<50.0	<50.0	<50.0	
CS-44 @ 3	3.0	9/30/2021	In Situ	7	<49.9	<49.9	<49.9	<49.9	<50.0	
				Area 7	Sidewall Confire	nation Samples				
SW-12 @ 1.5	1.5	9/30/2021	In Situ	7	<49.8	<49.8	<49.8	<49.8	<50.0	
SW-13 @ 1.5	1.5	9/30/2021	In Situ	7	<50.0	<50.0	<50.0	<50.0	<50.0	
				Area 8	Floor Confirma	ation Samples				
CS-22 @ 4.5	4.5	9/29/2021	In Situ	8	<50.0	<50.0	<50.0	<50.0	<50.0	
CS-23 @ 4.5	4.5	9/29/2021	In Situ	8	<49.8	<49.8	<49.8	<49.8	<50.0	
CS-24 @ 4.5	4.5	10/6/2021	In Situ	8	<50.0	<50.0	<50.0	<50.0	<50.0	
CS-25 @ 4.5	4.5	10/6/2021	In Situ	8	<49.8	<49.8	<49.8	<49.8	<49.8	
CS-26 @ 4.5	4.5	9/29/2021	In Situ	8	<50.0	<50.0	<50.0	<50.0	<50.0	
CS-27 @ 4.5	4.5	9/29/2021	In Situ	8	<49.8	<49.8	<49.8	<49.8	<50.0	
CS-28 @ 4.5	4.5	9/29/2021	In Situ	8	<49.8	<49.8	<49.8	<49.8	<50.0	
CS-29 @ 4.5	4.5	9/29/2021	In Situ	8	<50.0	<50.0	<50.0	<50.0	<50.0	
CS-30 @ 4.5	4.5	9/29/2021	In Situ	8	<49.9	<49.9	<49.9	<49.9	<50.0	
CS-31 @ 4.5	4.5	9/29/2021	In Situ	8	<50.0	<50.0	<50.0	<50.0	<50.0	
CS-32 @ 4.5	4.5	9/29/2021	In Situ	8	<50.0	<50.0	<50.0	<50.0	<50.0	
CS-33 @ 4.5	4.5	9/29/2021	In Situ	8	<49.8	222	222	<49.8	222	
				Area 8 S	Sidewall Confirm	nation Samples				
SW-6 @ 2.25	2.25	9/29/2021	In Situ	8	<49.9	<49.9	<49.9	<49.9	<50.0	
SW-10 @ 2.25	2.25	9/29/2021	In Situ	8	<50.0	<50.0	<50.0	<50.0	<50.0	
SW-11 @ 2.25	2.25	9/29/2021	In Situ	8	<49.9	<49.9	<49.9	<49.9	<50.0	
				Area 9	Floor Confirma	ation Samples				
CS-34 @ 3	3.0	9/30/2021	In Situ	9	<49.8	<49.8	<49.8	<49.8	<50.0	
CS-35 @ 3	3.0	9/30/2021	In Situ	9	<50.0	<50.0	<50.0	<50.0	<50.0	
CS-36 @ 3	3.0	9/30/2021	In Situ	9	<50.0	<50.0	<50.0	<50.0	<50.0	-
CS-37 @ 3	3.0	9/30/2021	In Situ	9	<49.8	<49.8	<49.8	<49.8	<50.0	
CS-38 @ 3	3.0	9/30/2021	In Situ	9	<50.0	<50.0	<50.0	<50.0	<50.0	-
				Area 9 S	Sidewall Confirm	mation Samples				
SW-7 @ 1.5	1.5	9/29/2021	In Situ	9	<49.9	<49.9	<49.9	<49.9	<50.0	

Sample ID	Sample Depth (feet	Sample	Soil Status	Area	TPH (GRO)	TPH (DRO)	TPH GRO & DRO	TPH (MRO)	Total TPH	Chloride
	bgs)	Date						g/kg)		
		sure Criteria	(Surface to 4	Feet bgs)	NA	NA	NA	NA	100	600
	NMOCD	Closure Crite	eria (Below 4	Feet bgs)	NA	NA	1,000	NA	2,500	20,000
SW-8 @ 1.5	1.5	9/29/2021	In Situ	9	<49.8	<49.8	<49.8	<49.8	<50.0	
SW-9 @ 1.5	1.5	9/29/2021	In Situ	9	<49.8	<49.8	<49.8	<49.8	<50.0	
				Area 1	0 Floor Confirm	ation Samples				
CS-10 @ 4.5	4.5	9/28/2021	In Situ	10	<49.9	56.3	56.3	<49.9	56.3	
CS-11 @ 4.5	4.5	9/28/2021	In Situ	10	<49.9	<49.9	<49.9	<49.9	<50.0	
CS-12 @ 4.5	4.5	9/28/2021	In Situ	10	<49.8	<49.8	<49.8	<49.8	<50.0	
CS-13 @ 4.5	4.5	9/28/2021	In Situ	10	<50.0	<50.0	<50.0	<50.0	<50.0	
CS-14 @ 4.5	4.5	9/28/2021	In Situ	10	<49.9	<49.9	<49.9	<49.9	<50.0	
CS-15 @ 4.5	4.5	9/28/2021	In Situ	10	205	481	686	52.6	739	
CS-16 @ 4.5***	4.5	9/28/2021	In Situ	10	<50.0	<50.0	<50.0	<50.0	<50.0	
CS-16 @ 5***	5.0	9/28/2021	In Situ	10	<49.9	<49.9	<49.9	<49.9	<50.0	
CS-17 @ 4.5	4.5	9/28/2021	In Situ	10	<49.9	<49.9	<49.9	<49.9	<49.9	
CS-18 @ 4.5	4.5	9/28/2021	In Situ	10	<49.8	245	245	<49.8	245	
CS-19 @ 4.5***	4.5	9/28/2021	In Situ	10	<50.0	<50.0	<50.0	<50.0	<50.0	
CS-19 @ 5***	5.0	9/28/2021	In Situ	10	<49.9	<49.9	<49.9	<49.9	<50.0	
CS-20 @ 4.5	4.5	9/28/2021	In Situ	10	<49.9	<49.9	<49.9	<49.9	<49.9	
CS-21 @ 4.5***	4.5	9/28/2021	In Situ	10	<49.8	<49.8	<49.8	<49.8	<50.0	
CS-21 @ 5***	5.0	9/28/2021	In Situ	10	<50.0	<50.0	<50.0	<50.0	<50.0	
-				Area 10	Sidewall Confir	mation Samples				
SW-4 @ 2.25	2.25	9/29/2021	In Situ	10	<49.8	<49.8	<49.8	<49.8	<50.0	
SW-5 @ 2.25	2.25	9/29/2021	In Situ	10	<50.0	<50.0	<50.0	<50.0	<50.0	
-				Area 1	1 Floor Confirm	ation Samples				
CS-1 @ 3	3.0	9/28/2021	In Situ	11	<49.9	<49.9	<49.9	<49.9	<50.0	
CS-2 @ 3	3.0	9/28/2021	In Situ	11	<49.9	<49.9	<49.9	<49.9	<50.0	
CS-3 @ 3	3.0	9/28/2021	In Situ	11	<49.8	<49.8	<49.8	<49.8	<50.0	
CS-4 @ 3	3.0	9/28/2021	In Situ	11	<50.0	<50.0	<50.0	<50.0	<50.0	
CS-5 @ 3	3.0	9/28/2021	In Situ	11	<50.0	60.3	60.3	<50.0	60.3	
CS-6 @ 3	3.0	9/28/2021	In Situ	11	<49.8	<49.8	<49.8	<49.8	<50.0	
CS-7 @ 3	3.0	9/28/2021	Excavated	11	<50.0	189	189	<50.0	189	
CS-7 @ 3.5	3.5	9/28/2021	Excavated	11	61.8	474	535.8	57.0	593	
CS-7 @ 4.5	4.5	10/19/2021	In Situ	11	<50.0	140	140	<50.0	140	
CS-8 @ 3	3.0	9/28/2021	In Situ	11	<49.8	<49.8	<49.8	<49.8	<50.0	
CS-9 @ 3	3.0	9/28/2021	In Situ	11	<50.0	<50.0	<50.0	<50.0	<50.0	
CS-97 @ 4.5	4.5	10/19/2021	In Situ	11	<49.9	154	154	<49.9	154	

TABLE 2

SUMMARY OF CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS HOLLY ENERGY PARTNERS - OPERATING, L.P.

Eunice EMSU Pipeline Release NMOCD Tracking No.: nAPP2102856493

Sample ID	Sample Depth (feet	Sample Date	Soil Status	Area	TPH (GRO)	TPH (DRO)	TPH GRO & DRO	TPH (MRO)	Total TPH	Chloride				
	bgs)	Date			(mg/kg)									
	NMOCD Clos	sure Criteria	(Surface to 4	Feet bgs)	NA	NA	NA	NA	100	600				
	NMOCD Closure Criteria (Below 4 Feet bgs)					NA	1,000	NA	2,500	20,000				
CS-98 @ 4.5	4.5	10/19/2021	In Situ	11	<50.0	128	128	<50.0	128					
				Area 11	Sidewall Confir	mation Samples								
SW-1 @ 1.5	1.5	9/28/2021	In Situ	11	<50.0	<50.0	<50.0	<50.0	<50.0					
SW-2 @ 1.5	1.5	9/28/2021	In Situ	11	<50.0	<50.0	<50.0	<50.0	<50.0					
SW-3 @ 1.5	1.5	9/28/2021	In Situ	11	<49.8	70.9	70.9	<49.8	70.9					

Notes:

- bgs below ground surface
- BTEX benzene, toluene, ethylbenzene, xylenes
- DRO Diesel Range Organics
- GRO Gasoline Range Organics
- MRO Motor Oil Range Organics
- mg/kg milligrams per kilogram
- TPH Total Petroleum Hydrocarbons
- NA Not Applicable No NMOCD Closure Criteria for parameter
- NMOCD New Mexico Oil Conservation Division
 - CS Bottom Sample
 - SW Sidewall Sample
 - **Bold** Parameter detected above the laboratory reporting limit
- Yellow Concentration is above the applicable NMOCD Closure Criteria
 - Pink Soil excavated and removed
 - -- Not Analyzed
 - < Parameter not detected above laboratory reporting limit
 - * Sidewall sample collected from interior of excavation area along sidewall of deeper section of excavation (i.e., not from periphery of excavation)
 - ** Bottom sample CS-39 @ 3 feet bgs resolved and replaced by two underlying and adjacent bottom samples CS-99 @ 4.5 feet bgs and CS-100 @ 4.5 feet bgs
 - *** Bottom sample locations CS-16, CS-19, and CS-21 collected at 4.5 feet bgs from excavation bottom and from 5 feet bgs from test trenches beneath excavation bottom



REMEDIATION SUMMARY AND SITE CLOSURE REQUEST

Eunice EMSU 6-Inch Pipeline Release Latitude 32.492667, Longitude -103.256611 Lea County, New Mexico NMOCD No. nAPP2102856493

Z 5/8

February 25, 2022

Prepared For:

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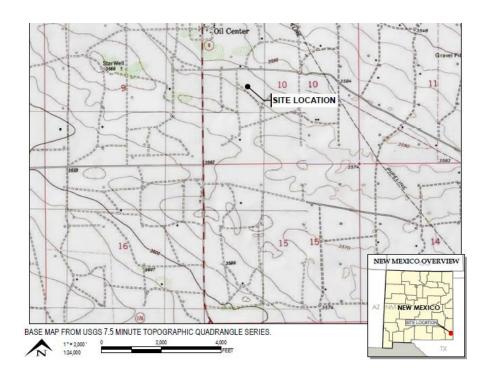




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APPENDICES

Appendix A Release Notification and Corrective Action Form (NMOCD Form C-141)

Appendix B Disposal Tickets and Transporter Manifests

Appendix C Soil Boring Logs (SB-1 and SB-2)
Appendix D Laboratory Analytical Reports
Appendix E Photographic Documentation



1.0 INTRODUCTION

TRC Environmental Corporation (TRC), on behalf of Holly Energy Partners – Operating, L.P. (HEP), has prepared this *Remediation Summary and Site Closure Request* for a crude oil release at the Eunice EMSU 6-Inch Pipeline (site). The site is in Unit Letter K, Section 10, Township 21 South, Range 36 East, Lea County, New Mexico. The surface is privately owned by the Deck Millard Estate #4193. The global positioning system (GPS) coordinates for the release point are 32.493419, -103.257089. The GPS coordinates for the approximate center of the affected soil footprint are 32.492667, -103.256611. The area surrounding the site is used for oil and gas exploration and production activities. The location of the site is depicted on Figure 1.

2.0 BACKGROUND

2.1 Release Discovery and Initial Release Response

On January 26, 2021, a crude oil release was discovered near HEP's Eunice EMSU 6-Inch Pipeline at the above-referenced GPS coordinates. The Eunice EMSU 6-Inch Pipeline was taken out of service after the release. Initial verbal notification of the release was provided to Gilbert Cordero of the New Mexico Oil Conservation Division (NMOCD) by Melanie Nolan of HEP on January 26, 2021. The Release Notification and Corrective Action Form (Form C-141) was submitted to NMOCD on January 28, 2021. An updated and signed Form C-141 is included in Appendix A. The volume of crude oil released was approximately 821 barrels (bbls). The NMOCD assigned tracking number nAPP2102856493 to the release. A vacuum truck was dispatched in response to the release, and approximately 390 bbls of crude oil were recovered during initial response activities and returned to the nearest production vessel.

The release location relative to nearby wells, wetlands and floodplains, and karst potential are depicted in Figures 2 through 4, respectively. The affected soil footprint (Release Area) is approximately 19,275 square feet and is shown on Figure 5A.

Immediately after the release, between January 27 and 31, 2021, HEP excavated the upper 1 to 3 feet of affected soil throughout the Release Area based on visual observations of crude oilstained soil. Approximately 1,380 cubic yards (cy) of affected soil were excavated and stockpiled on plastic sheeting pending waste characterization and disposal. Two samples were collected from the stockpiled soil on February 2, 2021, for waste characterization and profiling. The stockpile analytical results are shown on Table 1. The stockpile of affected soil was transported to J&L Landfarm Inc., in Hobbs, New Mexico under manifest for disposal as non-hazardous waste in May 2021. The volume of excavated soil was initially estimated as 1,500 cy in the June 2021 Site Characterization Report and Remediation Workplan (Remediation Workplan); the revised volume of 1,380 cy is based on disposal tickets and transporter manifests. The May 2021 waste manifests are provided in Appendix B.

2.2 March 2021 Delineation Activities

Delineation activities were conducted on March 18, 2021, to assess the extent of remaining affected soil within the Release Area. Soil samples SS-1 to SS-11 were collected from the bottom of the January 2021 excavation, and soil sample SS-12 was collected east of the January 2021 excavation where surface soil staining was observed associated with parked equipment. A total of 11 test trenches (TT-1 through TT-11) were advanced using a backhoe



across the Release Area in the locations of soil samples SS-1 through SS-11 to assess the vertical extent of affected soil. The test trenches were approximately 5 to 7 feet long and 3 feet wide. The total depth of the trenches ranged from 1.5 feet below ground surface (bgs) to 7.5 feet bgs, as measured from original ground surface (not the bottom of the January 2021 excavation). The test trenches were excavated until a hard caliche layer was encountered which prevented further backhoe excavation (refusal). Lithology and field observations of hydrocarbons including odor, staining, and photoionization detector (PID) readings were recorded every 1 vertical foot during trench excavation. Soil samples were collected at 1-foot intervals during trench excavation. Following investigation and soil sampling activities, the trenches were backfilled with the originally excavated material. The locations of the March 2021 trenches and soil samples are depicted on Figure 5A.

General site lithology was observed to consist of unconsolidated red/brown, coarse, well-sorted sand to depths of approximately 1 to 3 feet underlain by soft to hard caliche until refusal was encountered at depths of 1.5 to 7.5 feet bgs. The depth to the caliche was initially reported as 1 to 7 feet bgs in the June 2021 Remediation Workplan; the updated depth of 1 to 3 feet bgs to the caliche is based on further review of site lithology and the March 2021 test trench logs.

Soil samples were submitted to Eurofins Xenco Laboratory in Midland, Texas for laboratory analysis of total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) Method 8015; benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8260; and chloride by EPA Method 300.0. Initially, the uppermost two to three soil samples from each test trench were analyzed, and the results were compared to NMOCD Closure Criteria (Closure Criteria). If concentrations of the initial samples exceeded Closure Criteria, deeper samples were analyzed until concentrations were below Closure Criteria or until the bottommost sample (i.e., at backhoe refusal) from each location was analyzed. The March 2021 soil sample analytical results are presented on Table 1.

TPH was detected at concentrations above the Closure Criteria in the uppermost (shallowest) soil sample at each sample/test trench location within the Release Area and at surface sample location SS-12, which was collected east of the Release Area where oil-stained surface soils were observed adjacent to but outside the Release Area. Chloride was detected at concentrations above the Closure Criterion at depths of 3 and 4 feet bgs at the sample/test trench SS-1/TT-1 location, which is located closest to the Release Area. Underlying samples with TPH and/or chloride concentrations below the Closure Criteria provided vertical delineation of affected soil at test trenches TT-1 (at 5 feet bgs), TT-2 (at 3 feet bgs), TT-4 (at 5 feet bgs), TT-7 (at 3 feet bgs), TT-9 (at 3 feet bgs), TT-10 (at 5 feet bgs), and TT-11 (at 3 feet bgs). Benzene and total BTEX concentrations were not detected above the Closure Criteria in any of the March 2021 samples. The March 2021 delineation results were summarized in the June 2021 Remediation Workplan.

As discussed below in Section 4.2, it was determined that the soil staining observed at surface sample location SS-12, located east of the Release Area, was associated with a release from a nearby third-party pipeline (Energy Transfer) and is not related to the Eunice EMSU 6-Inch Pipeline Release site. HEP notified Energy Transfer who subsequently confirmed that a release had occurred from their pipeline. No additional delineation or excavation associated with surface sample location SS-12 was conducted by HEP. The Energy Transfer pipeline is depicted on Figure 5A (identified as "ETC Pipeline").



2.3 June 2021 Site Characterization Report and Remediation Workplan

The Remediation Workplan was submitted to the NMOCD on June 25, 2021. The report provided information regarding the initial release response, soil sampling, completion of test trenches, and determination of the Closure Criteria applicable to the site, and proposed remediation activities as follows:

- Excavation activities would extend horizontally to the margins of the affected area until PID readings, as well as visual and olfactory evidence, indicated TPH concentrations were likely below Closure Criteria. In areas that were vertically delineated by test trench samples, the excavation would extend vertically to the depth of vertical delineation. In areas where vertical delineation of TPH was not achieved prior to encountering the hard caliche layer (i.e., areas represented by SS-3/TT-3, SS-5/TT-5, SS-6/TT-6, and SS-8/TT-8), the excavation would extend into the hard caliche layer until mechanical excavation was no longer feasible, and confirmation samples would be collected for laboratory analysis. As discussed below in Section 4.2, it was determined that the soil staining observed at surface sample location SS-12, located east of the Release Area, was associated with a release from a nearby third-party pipeline and was not related to the Eunice EMSU 6-Inch Pipeline Release site.
- Four pipelines and one flowline are present within the affected area as shown on Figure 5A. An attempt would be made to remove the affected soil from around the existing subsurface pipelines either by hand and/or hydro-excavation.
- Confirmation soil samples would be collected from the bottom and sidewalls of the excavation to confirm that TPH and/or chloride soil concentrations in exceedance of Closure Criteria were removed. Pursuant to 19.15.29.12(D) NMAC, confirmation samples would consist of five-point composite samples, and discrete grab samples would be collected from any wet or discolored areas. One confirmation soil sample would be collected per 200 square feet of excavation bottom. One sidewall confirmation soil sample would be collected per 100 linear feet of excavation sidewall. Each confirmation sample would be analyzed for TPH by EPA Method 8015. Confirmation samples collected around the SS-1/TT-1 location (i.e., within Area 1) would be additionally analyzed for chloride by EPA Method 300.0, because this was the only area where chloride exceeded the Closure Criterion during delineation activities.
- If confirmation sample TPH or chloride concentrations exceeded Closure Criteria, additional excavation would be performed until: (1) additional confirmation samples indicated TPH and chloride concentrations were below Closure Criteria; (2) backhoe refusal was encountered in the hard caliche layer; or (3) further excavation around the pipelines was not feasible. It should be noted that because a larger excavator was used during excavation activities conducted from September through December 2021, refusal was not encountered and all site soils (including caliche) above Closure Criteria were removed. Also, all soils above Closure Criteria around and beneath the pipelines was removed.
- If confirmation sample TPH or chloride concentrations exceeded the Closure Criteria and further excavation was not feasible within the hard caliche layer and/or around the pipelines, these areas would be sprayed with MicroBlaze® to promote natural attenuation. It should be noted that because a larger excavator was used, refusal was not encountered during remedial activities conducted from September to December



2021. All soils (including caliche) above Closure Criteria were excavated and removed, including adjacent to and beneath the underground pipelines. Thus, application of MicroBlaze[®] was not required.

- The excavation would be backfilled to grade with clean fill material once confirmation sample analytical results were below the Closure Criteria. Pursuant to 19.15.29.13 NMAC, the affected surface areas would be restored to pre-release conditions by surface grading to near original conditions and contouring to prevent erosion and ponding, promote stability, and preserve storm water flow patterns.
- Excavated soil would be stockpiled on plastic sheeting during the excavation, characterized, and disposed at an NMOCD-approved disposal facility at the completion of excavation activities.

The June 2021 Remediation Workplan was approved by the NMOCD in a July 16, 2021, e-mail with the following conditions:

- "Although, horizontal delineation has not been accomplished. Please continue to horizontally delineate sample points to 100 mg/kg for TPH on the outer edges/periphery and include sample points in your next report after closure criteria limits have been met."
- "Various sample points do not indicate closure criteria sampling vertically. Please ensure on your next report you prove closure past contamination depth."

This Remediation Summary and Site Closure Request presents information regarding the additional delineation and remediation activities conducted to achieve NMOCD closure of the site and also addresses NMOCD's conditions emailed on July 16, 2021.

3.0 NMOCD CLOSURE CRITERIA

Cleanup standards for crude oil releases are provided in 19.15.29 NMAC. The cleanup standards (described in the rule as "Closure Criteria") are based primarily on depth to groundwater but are also based on other criteria such as distance to the nearest surface water body or wetland, karst potential, distance to nearest flood-plain, or whether the site is located within incorporated municipal boundaries or a defined freshwater field. The evaluation of the applicable Closure Criteria was documented in the June 2021 Remediation Workplan. A summary of this evaluation is provided below.

Review of the New Mexico Office of the State Engineer (NMOSE) records indicated six water wells have been drilled and completed within 0.5 mile of the site, as depicted on Figure 2. The shallowest recorded depth to groundwater of these wells is 161 feet bgs in domestic water well L-14815, located 0.5 mile to the northwest of the site. This demonstrates that the depth to groundwater beneath the site is greater than 100 feet bgs. Additionally, and as shown on Figure 2, the site is not located in close proximity to a waterway, spring, permanent residence, church, school, hospital, or domestic water well.

A review of the United States Fish and Wildlife Service (USFWS) wetlands map indicated the site is not located within 300 feet of a wetland. The New Mexico Bureau of Land Management (BLM) karst potential map indicates the site is located within a "low karst potential" area. Finally, review of the Federal Emergency Management Act (FEMA) floodplain map indicates the release at the site is located outside of a 100-year floodplain. Figures 3 depicts the wetlands and FEMA floodplain information while Figure 4 depicts the karst potential data.



A summary of the NMOCD Closure Criteria is provided in the table below.

NMOCD Closure Criteria

		Closure Criteria Based on Depth to Groundwater (mg/kg)		
Constituent of Concern		≤ 50 feet bgs	51 feet to 100 feet bgs	> 100 feet bgs
Chloride (EPA 300)		600	10,000	20,000
TPH (EPA 8015M)	GRO + DRO + MRO	100	2,500	2,500
	GRO + DRO	NA	1,000	1,000
Total BTEX (EPA 8021 or 8260)		50	50	50
Benzene (EPA 8021 or 8260)		10	10	10

Notes: mg/kg = milligrams per kilogram

bgs = below ground surface

TPH = total petroleum hydrocarbons

GRO = gasoline range organics

DRO = diesel range organics

MRO = motor oil range organics

NA = not applicable

BTEX = benzene, toluene, ethylbenzene, and total xylenes

As discussed above, depth to groundwater is over 100 feet bgs and the site is not within a municipal freshwater well field; is not within or near a wetland; is not within a 100-year floodplain; is in a low karst potential area; and is not close to a waterway, spring, permanent residence, church, school, hospital, or domestic water well. Therefore, the Closure Criteria applicable for the site are summarized below.

- Surface to 4 feet bgs:
 - Benzene 10 mg/kg
 - Total BTEX 50 mg/kg
 - Total TPH 100 mg/kg
 - Chloride 600 mg/kg
- Greater than 4 feet bgs:
 - Benzene 10 mg/kg
 - Total BTEX 50 mg/kg
 - Total TPH 2,500 mg/kg
 - TPH Gasoline Range Organics (GRO) + Diesel Range Organics (DRO) – 1,000 mg/kg
 - Chloride 20,000 mg/kg

The Closure Criteria applicable for the site are also shown on Tables 1 and 2.

4.0 SUMMARY OF REMEDIATION ACTIVITIES

Delineation, remediation, disposal, backfilling, and restoration activities performed at the site from September to December 2021 are summarized below and are further described in Sections 4.1 through 4.4.

• On September 15, 2021, two soil borings (SB-1 and SB-2) were drilled using air rotary drilling methods to delineate the total depth of affected soil. Additionally, test trench TT-5, which is co-located with boring SB-2, was re-excavated on September 21, 2021, to provide additional vertical delineation of affected soils in that location. The locations of



soil borings SB-1 and SB-2 and test trench TT-5 are shown on Figure 5A. September 2021 delineation activities are further described below in Section 4.1.

- From September 27 through November 4, 2021, additional excavation was performed
 within the Release Area and confirmation soil samples were collected from the
 excavation bottom and sidewalls. The lateral and vertical extents of the excavation were
 extended as needed until TPH and/or chloride concentrations in confirmation samples
 were below Closure Criteria. Approximately 3,360 cy of affected soil were excavated
 from September to November 2021 (not including the 1,380 cy of affected soil excavated
 in January 2021).
- From November 1 through November 12, 2021, stockpiled excavated soil was
 transported to J&L Landfarm Inc. in Hobbs, New Mexico for disposal under the nonhazardous waste profile previously approved for the initial soil excavation (the 1,380 cy
 of stockpiled soil excavated in January 2021 and transported to J&L Landfarm Inc. in
 May 2021). Waste transportation and disposal activities are further described below in
 Section 4.3.
- From November 1 through November 17, 2021, the excavated area was backfilled with clean fill. Backfilling is further described below in Section 4.4.
- On December 21, 2021, re-seeding and surface restoration was performed in areas disturbed by remedial activities. Re-seeding and restoration are further described in below in Section 4.4.

Delineation and remediation activities performed at the site from January to March 2021 are summarized in the June 2021 Remediation Workplan.

4.1 September 2021 Delineation Activities

On September 15, 2021, two soil borings were drilled using air rotary drilling methods to vertically delineate the total depth of soil above Closure Criteria in accordance with NMOCD's July 16, 2021, e-mail. Soil boring SB-1 was drilled in Area 8 at or immediately adjacent to SS-8/TT-8 to a total depth of 17 feet bgs, and soil boring SB-2 was drilled in Area 5 at or immediately adjacent to SS-5/TT-5 to a total depth of 22 feet bgs. Soil samples were collected using a 2-foot split spoon sampler. The locations of soil borings SB-1 and SB-2 are shown on Figure 5A. Soil samples were collected for laboratory analysis continuously from 3 to 7 feet bgs in both borings, and additionally from 10 to 11 feet bgs, 11 to 12 feet bgs, 15 to 16 feet bgs, and 16 to 17 feet bgs in boring SB-2. Upon completion, the boreholes were plugged with hydrated bentonite chips. Soil samples were submitted to Eurofins Xenco Laboratory in Midland, Texas for laboratory analysis of TPH by EPA Method 8015, BTEX by EPA Method 8260, and chloride by EPA Method 300.0.

The lithology observed in borings SB-1 and SB-2 was generally consistent with the lithology observed in the March 2021 test trenches. Because the borings were drilled within the existing January 2021 excavation, the upper 2 feet of soil had been removed. Caliche was observed to depths of 5 feet bgs, underlain by fine sand to depths of 13 to 16 feet bgs, then underlain by very hard caliche to the total depth investigated of 22 feet bgs. Boring logs for soil borings SB-1 and SB-2 are included in Appendix C.

Soil sample analytical results for SB-1 and SB-2 are summarized on Table 1. As shown, TPH was detected at concentrations above the Closure Criteria in boring SB-1 from 3 to 4 feet bgs



and in boring SB-2 from 3 to 7 feet bgs. Underlying samples with TPH concentrations below the Closure Criteria provided vertical delineation of affected soil in both borings, including three consecutive samples from the 4 to 7 feet bgs interval in SB-1 and four samples from the 10 to 17 feet bgs interval in SB-2. Benzene, total BTEX, and chloride were not detected above Closure Criteria in any of the samples collected from borings SB-1 and SB-2.

On September 21, 2021, test trench TT-5, which was sampled to a depth of 3 feet bgs in March 2021 and is co-located with boring SB-2, was re-excavated to a depth of approximately 10 feet bgs to provide further vertical delineation of affected soils within the interval of 7 to 10 feet bgs. The 7 to 10 feet bgs interval was not sampled in boring SB-2. The locations of test trench TT-5 and boring SB-2 are shown on Figure 5A. Soil samples were continuously collected for laboratory analysis from 7 to 10 feet bgs. Upon completion, the test trench was backfilled with the excavated material (pending eventual excavation and removal during remedial activities conducted from September 27 through November 4, 2021). Soil samples were submitted to Eurofins Xenco Laboratory in Midland, Texas for laboratory analysis of TPH by EPA Method 8015, BTEX by EPA Method 8260, and chloride by EPA Method 300.0.

The September 2021 soil sample analytical results for TT-5 are summarized on Table 1. As shown, TPH was detected at concentrations above the Closure Criteria in all three samples collected from 7 to 10 feet bgs. Underlying samples with TPH concentrations below the Closure Criteria at co-located boring SB-2 (from 10 to 17 feet bgs) provided vertical delineation of affected soil at this location. Benzene, total BTEX, and chloride were not detected above Closure Criteria in any of the September 2021 samples collected from test trench TT-5.

The laboratory analytical reports and chain-of-custody documentation for the delineation samples collected in September 2021 are provided in Appendix D. Laboratory analytical reports for samples collected from February through March 2021 were provided in the June 2021 Remediation Workplan.

4.2 Remedial Activities

The Release Area was approximately 19,275 square feet and was located generally southeast, south, and southwest of the release location. The Release Area was divided into Areas 1 through 11 based on the locations of March 2021 soil samples SS-1 through SS-11 and test trenches TT-1 through TT-11 in order to better manage remediation activities. The Release Area and final excavation extents for Areas 1 through 11 are shown on Figures 5A, 5B, and 5C.

The soil staining observed near surface sample SS-12 was determined to be associated with a release from a nearby third-party pipeline (Energy Transfer) and is not related to the Eunice EMSU 6-Inch Pipeline Release site. The area around sample SS-12 was not addressed as part of these remedial activities. HEP notified Energy Transfer who subsequently confirmed that a release had occurred from their pipeline. The Energy Transfer pipeline is depicted on Figure 5A (identified as "ETC Pipeline").

Several underground crude transmission lines, a natural gas pipeline, and a freshwater agricultural (livestock) line are located within the Release Area as follows:

• The HEP subsurface crude line is located within the northern portion of the Release Area; the line is currently inactive.



- One subsurface natural gas pipeline, operated by ETC, is located in the southeastern portion of the Release Area.
- One subsurface crude line, operated by Plains, is located in the southeastern portion of the Release Area.
- Two surface crude flowlines and one subsurface crude line, operated by XTO, are located north of the Release Area.
- One freshwater livestock line is located at the northwestern portion of the Release Area.

With the exception of the underground freshwater livestock line, which was unmarked/unknown and discovered during remediation activities, the underground lines were daylighted prior to excavation via hydro-excavation and potholing. The locations of the underground lines are shown on Figure 5A.

Remediation activities were conducted from September 27 through November 4, 2021, and included excavation of affected soil within or adjacent to the Release Area and confirmation sampling from the excavation bottom (also referred to as floor) and sidewalls. An excavator was used for excavation activities in areas away from underground lines, while hydro-excavation and/or excavation using hand tools were conducted in the immediate vicinity of and beneath underground lines. The excavation was extended laterally and vertically until PID readings and visual and olfactory evidence indicated TPH concentrations were likely to be below Closure Criteria, at which point confirmation samples were collected for laboratory analysis. Confirmation soil samples were collected and placed in laboratory-prepared containers, immediately placed on ice, and delivered to Eurofins Xenco Laboratory in Midland, Texas for analysis of TPH by EPA Method 8015M. Confirmation samples collected from Area 1 were additionally analyzed for chloride by EPA Method 300 with the following exceptions:

- Bottom sample location CS-87 at depths of 7.5 feet bgs, 8 feet bgs, 9 feet bgs, and 10 feet bgs were not analyzed for chloride because vertical delineation to below the Closure Criterion was already achieved in overlying samples collected at 4.5 feet bgs and 6.5 feet bgs.
- Bottom sample location CS-65 at a depth of 4.5 feet bgs was not analyzed for chloride due to the distance of the sample location (approximately 60 feet to the west-southwest) from sample/test trench location SS-1/TT-1, where chloride was initially detected above the Closure Criterion during March 2021 delineation activities.

Where confirmation sample analytical results indicated TPH and/or chloride concentrations were above Closure Criteria, additional excavation was performed until all subsequent confirmation samples exhibited TPH and/or chloride concentrations below Closure Criteria. As requested by NMOCD in their e-mail approval of the Remediation Workplan dated July 16, 2021, total TPH concentrations in sidewall samples collected along the excavation periphery were also evaluated to ensure concentrations were below 100 mg/kg, regardless of depth. Portions of Areas 1 and 5 required additional vertical excavation, thus interior sidewall samples were collected from the deeper excavations to demonstrate lateral compliance with Closure Criteria within the interior portion of the excavation. While Area 5 sidewall confirmation sample SW-38 at 9 feet bgs had a total TPH concentration of 469 mg/kg, this sample was collected from an interior sidewall and not from the excavation periphery sidewall, thus demonstrating compliance with the Closure Criterion (2,500 mg/kg for total TPH below 4 feet bgs) but not being subject to the 100 mg/kg excavation periphery objective. TPH concentrations in the remaining interior



sidewall confirmation samples collected from Area 1 (SW-43 at 8 feet bgs and SW-44 at 8 feet bgs) and Area 5 (SW-39 at 9 feet bgs, SW-40 at 9 feet bgs, SW-41 at 9 feet bgs, SW-42 at 6 feet bgs, and SW-46 at 9 feet bgs) were below both the 100 mg/kg threshold for the excavation periphery and the Closure Criteria.

In Area 10, bottom confirmation samples were collected at a depth of 4.5 feet bgs at 12 locations throughout the area to confirm TPH concentrations were below the Closure Criteria. At three of these locations (CS-16, CS-19, and CS-21), test trenches were excavated to 5 feet bgs and soil samples were collected at a depth of 5 feet bgs for analysis of TPH to further confirm vertical delineation of TPH concentrations below the Closure Criteria in this area. TPH concentrations in all Area 10 confirmation samples, including the 12 bottom confirmation samples collected at 4.5 feet bgs and the three test trench samples collected at 5 feet bgs, were below the Closure Criteria.

A summary of confirmation bottom and sidewall soil sample analytical results organized by area is provided in Table 2. As shown, all final (designated soil status as "in situ") bottom and sidewall confirmation samples exhibited TPH and chloride concentrations below Closure Criteria, while all soil with TPH and/or chloride concentrations above Closure Criteria was excavated.

All confirmation sample locations, including sidewall and bottom sample locations that were excavated due to the presence of TPH and/or chloride at concentrations above Closure Criteria, are shown on Figures 5B (Areas 1 through 6) and 5C (Areas 7 through 11). Final confirmation sample locations, excavation extents, and excavation depths for Areas 1 through 11 are depicted on Figures 6A through 6K, respectively. As shown on Figures 5B and 6A, Area 1 was the only area that required lateral excavation beyond the Release Area.

It should be noted that in Area 7, bottom confirmation sample CS-39 collected at a depth of 3 feet bgs exceeded the Closure Criterion for total TPH. The portion of the excavation represented by bottom confirmation sample location CS-39 at 3 feet bgs was further excavated to a depth of 4.5 feet bgs, and bottom confirmation sample location CS-39 at 3 feet bgs was replaced by two new bottom confirmation samples CS-99 and CS-100, which were sampled at a depth of 4.5 feet bgs. The area of the deeper portion of the excavation (4.5 feet bgs) within Area 7 exceeded 200 square feet, thus requiring two bottom confirmation samples (CS-99 at 4.5 feet bgs and CS-100 at 4.5 feet bgs) rather than the original one bottom confirmation sample (CS-39 at 3 feet bgs). Thus, the Closure Criteria exceedance at CS-39 at 3 feet bgs was resolved by excavation. Bottom confirmation sample locations CS-39, CS-99, and CS-100 are shown on Figure 5C while bottom confirmation sample locations CS-99 and CS-100 are shown on Figure 6G.

A total of 4,740 cy of affected soil (ex situ) was excavated from within or immediately adjacent to the Release Area. This includes 1,380 cy of affected soil excavated in January 2021 and 3,360 cy of affected soil excavated from September through November 2021. The final excavation area was approximately 20,900 square feet. Final excavation depths ranged from 3 to 10 feet bgs. A table summarizing the final excavation depth and volume (ex situ) for each area is provided below.



Total Volume of Soil Excavated by Area – January to November 2021

Area	Figure No.	Excavation Depth (Feet bgs)	Final Ex Situ Volume (Cubic Yards)
1	6A	4.5 to 10	928
2	6B	3 to 5.5	326
3	6C	4.5	415
4	6D	4.5 to 5.5	305
5	6E	8 to 10	655
6	6F	4.5	337
7	6G	3 to 4.5	195
8	6H	4.5	551
9	61	3	188
10	6J	4.5	535
11	6K	3 to 4.5	305
Total Ex Situ Volume Excavated		4,740	

The laboratory analytical reports and chain-of-custody documentation for the confirmation samples collected from September through November 2021 are provided in Appendix D. Laboratory analytical reports for samples collected from February through March 2021 were provided in the June 2021 Remediation Workplan. Photographs of the excavation are shown in Appendix E.

The final number of soil samples and sampling locations for investigation and remediation at the site from February to November 2021 are as follows:

- 50 original excavation floor, test trench, or soil boring samples from 12 locations were collected for the purposes of vertical and horizontal delineation throughout and adjacent to the Release Area, including duplicate samples (see Table 1).
- 2 stockpile soil samples were collected from excavated soil for waste characterization and profiling (see Table 1).
- 127 excavation bottom (floor) confirmation samples from 105 locations to guide excavation efforts and vertically confirm affected soil was removed to below Closure Criteria (see Table 2).
- 61 excavation sidewall confirmation samples from 46 locations to guide excavation efforts and laterally confirm affected soil was removed to below Closure Criteria (see Table 2).

Stockpile soil samples were not collected from the remediation soil stockpiles generated from September through November 2021 because the disposal facility (J&L Landfarm Inc.) accepted the soil under the waste profile generated via the February 2021 stockpile characterization samples.



4.3 Excavated Soil Disposal

From November 1 through November 12, 2021, approximately 3,360 cy (ex situ) of affected soil excavated during the September to November 2021 remedial activities were transported under non-hazardous waste manifests to J&L Landfarm Inc., in Hobbs, New Mexico. As approved by J&L Landfarm, Inc., stockpile samples collected from the response activities in February 2021 were used to characterize the waste as non-hazardous for disposal. Results are shown on Table 1. Including the 1,380 cy of affected soil transported to J&L Landfarm Inc., in May 2021, a total of 4,740 cy of affected soil were removed from the site. Waste manifests are provided in Appendix B.

4.4 Backfilling, Reseeding, and Restoration

Clean backfill material similar to the excavated material was mined from the McNabb Partners Pit located near Nadine, New Mexico (32.59324, -103.12100). In May 2021, approximately 1,380 cy of clean topsoil were transported to the site and stockpiled pending completion of remedial activities and backfilling. In November 2021, approximately 250 cy of clean topsoil and 3,110 cy of clean caliche were transported to the site and stockpiled pending backfilling. The clean fill was used to backfill the excavated area from November 1 through 17, 2021, concurrent with and following excavation activities (see photographs in Appendix E). Final site grading and re-seeding were performed on December 21, 2021.

HEP has restored the area disturbed during remedial activities to a similar condition that existed prior to the release in accordance with 19.15.29.13 NMAC. The area was re-seeded with an appropriate seed blend, and road areas were watered and packed for erosion control purposes (see photographs in Appendix E).

4.5 Laboratory Analytical Data Quality Assurance/Quality Control Results

Data reports generated by Eurofins Xenco Laboratory in Midland, Texas for the confirmation sampling activities conducted from September through November 2021 were reviewed to ensure that reported analytical results met data quality objectives.

Based on the data review, it was determined that analytical results for reported concentrations of target analytes are defensible and that measurement data reliability is within the expected limits of sampling and analytical error. All analytical results are usable for characterization of soil at the site. The laboratory analytical results are provided as Appendix D.

5.0 SITE CLOSURE REQUEST

Remediation activities were conducted in accordance with NMOCD guidelines, the June 2021 Remediation Workplan, and NMOCD's July 16, 2021, conditional approval of the June 2021 Remediation Workplan. Affected soil with TPH and chloride concentrations above Closure Criteria were excavated and transported to an appropriate disposal facility (benzene and total BTEX were not detected above Closure Criteria in affected soils at the site). The excavation was backfilled with similar clean fill material, and the surface was regraded and re-seeded with an appropriate seed blend. As documented in this report, all final (in situ) confirmation soil samples exhibited TPH and chloride concentrations below Closure Criteria.



Based on completion of the remedial activities in accordance with the June 2021 Remediation Workplan and NMOCD's July 16, 2021, conditional approval, HEP respectfully requests that the NMOCD grant closure of the Eunice EMSU 6-Inch Pipeline Release (NMOCD tracking number nAPP2102856493).

6.0 DISTRIBUTION

Copy 1: Mike Bratcher

New Mexico Energy, Minerals, and Natural Resources Department

Oil Conservation Division, District 2

811 S. First Street Artesia, NM 88210

Copy 2: Trevor Baird

Holly Energy Partners – Operating, L.P. 2828 N. Harwood Street, Suite 1300

Dallas, TX 75201

Copy 3: Arsin Sahba

HollyFrontier Corporation

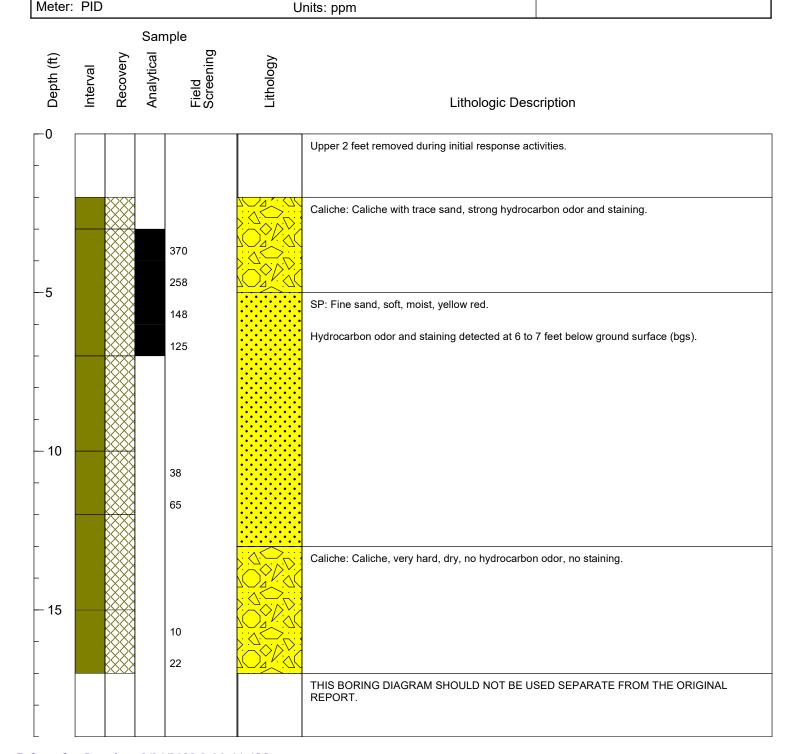
2828 N. Harwood Street, Suite 1300

Dallas, TX 75201



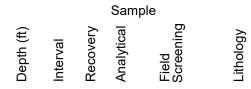
Appendix C: Soil Boring Logs (SB-1 and SB-2)

TRC BORIN	IG LOG SB-1	
Client: HEP	<u> </u>	TRC Project #: 466952
Site: Eunice EMSU 6" Pipeline Releas	e	Start Date: 9/15/21
Address: 32.493419, -103.257089		Finish Date: 9/15/21
Project: Delineation		
Drilling Company: HCI Drilling		TRC Site Rep.:Russell Sebring
Drilling Method: Air Rotary		TRC Reviewer: Bryan Gilbert
Boring Diameter (in): 6 Boring Depth (ft bgs):17		
Sampling Method: 2-ft Split Spoon Sam	pler	
Blow Count Method: Not Applicable Grout: Hydrated bentonite chips		
Field Screening Parameter: Volatile Org	ganic Compounds	
Meter: PID	Units: ppm	



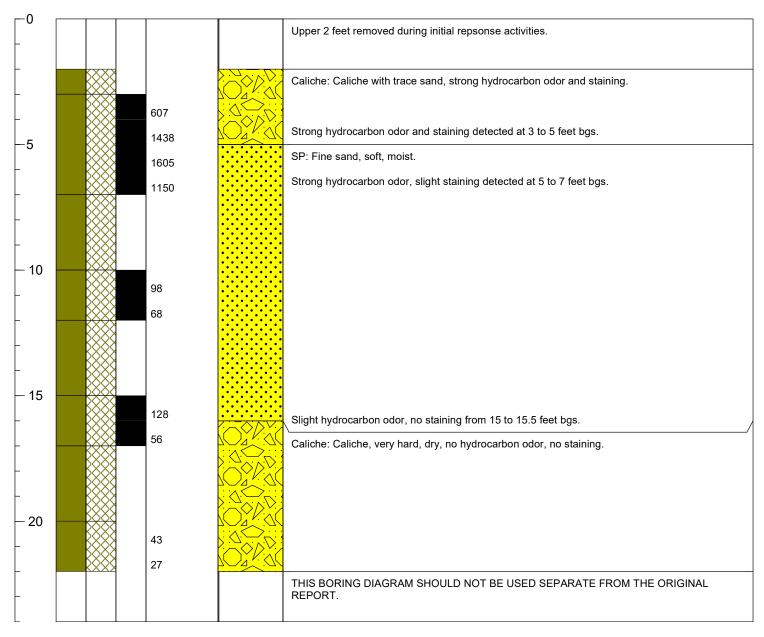
TRC BORIN	IG LOG SB-2	
Client: HEP	<u> </u>	TRC Project #: 466952
Site: Eunice EMSU 6" Pipeline Release	e	Start Date: 9/15/21
Address: 32.493419, -103.257089	Address: 32.493419, -103.257089	
Project: Delineation		
Drilling Company: HCI Drilling		TRC Site Rep.:Russell Sebring
Drilling Method: Air Rotary		TRC Reviewer: Bryan Gilbert
Boring Diameter (in): 6 Boring Depth (ft bgs):22		
Sampling Method: 2-ft Split Spoon Sam		
Blow Count Method: Not Applicable		
Field Screening Parameter: Volatile Organic Compounds		

Units: ppm



Meter: PID

Lithologic Description





Appendix D: Laboratory Analytical Reports

Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Midland 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6226-1

Laboratory Sample Delivery Group: Eunice, NM Client Project/Site: HEP:Eunice EMSU Remediation

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MAMER

Authorized for release by: 9/20/2021 9:05:59 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

----- LINKS

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Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Remediation

Laboratory Job ID: 880-6226-1 SDG: Eunice, NM

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Definitions/Glossary

Client: TRC Solutions, Inc. Job ID: 880-6226-1 Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

Qualifiers

GC	VOA
Oua	lifior

F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

Qualifier Description

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

LOQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOF)

MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
N 41	Market and Land (Director)

MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated

ND	Not Detected at the reporting limit (or MDL or EDL if shown)
שוו	INOU Detected at the reporting little (or MDL or LDL if Showin)

Limit of Quantitation (DoD/DOE)

NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit

PRES	Presumptive
OC.	Quality Control

RER	Relative Error Ratio	(Radiocnemistry)

RL Reporting Limit or Requested Limit (Radioc	hemistry)
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RPD Relative Percent Difference, a measure of the relative difference between two	nointe

TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Case Narrative

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-6226-1 SDG: Eunice, NM

Job ID: 880-6226-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative 880-6226-1

Comments

No additional comments.

Receipt

The samples were received on 9/17/2021 8:58 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.6° C.

GC VOA

Method 8021B: The following samples were diluted due to the nature of the sample matrix: SB-1 @ 3-4' (880-6226-1), SB-1 @ 4-5' (880-6226-2), SB-1 @ 5-6' (880-6226-3), SB-1 @ 6-7' (880-6226-4), SB-2 @ 3-4' (880-6226-9), SB-2 @ 5-6' (880-6226-10), SB-2 @ 6-7' (880-6226-11), SB-2 @ 15-16' (880-6226-14) and SB-2 @ 4.5' (880-6226-18) at 20.0, 20.0, 20.0, 20.0, 100.0, 100.0, 100.0, 20.0 and 50.0. Elevated reporting limits (RLs) are provided.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-8021 and analytical batch 880-8018 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SB-2 @ 5-6' (880-6226-10), SB-2 @ 6-7' (880-6226-11), SB-2 @ 15-16' (880-6226-14), SB-2 @ 16-17' (880-6226-15), SB-2 @ 4.5' (880-6226-18), (880-6227-A-1-C), (880-6227-A-1-A MS) and (880-6227-A-1-B MSD). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-6226-1 SDG: Eunice, NM

Lab Sample ID: 880-6226-1

Client Sample ID: SB-1 @ 3-4'

Date Collected: 09/15/21 09:00 Date Received: 09/17/21 09:00

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0400	U	0.0400	mg/Kg		09/17/21 09:44	09/17/21 15:11	20
Toluene	<0.0400	U	0.0400	mg/Kg		09/17/21 09:44	09/17/21 15:11	20
Ethylbenzene	0.0951		0.0400	mg/Kg		09/17/21 09:44	09/17/21 15:11	20
m-Xylene & p-Xylene	0.200		0.0800	mg/Kg		09/17/21 09:44	09/17/21 15:11	20
o-Xylene	0.0948		0.0400	mg/Kg		09/17/21 09:44	09/17/21 15:11	20
Xylenes, Total	0.295		0.0800	mg/Kg		09/17/21 09:44	09/17/21 15:11	20
Total BTEX	0.390		0.0800	mg/Kg		09/17/21 09:44	09/17/21 15:11	20
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130			09/17/21 09:44	09/17/21 15:11	20
1,4-Difluorobenzene (Surr)	80		70 - 130			09/17/21 09:44	09/17/21 15:11	20

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Gasoline Range Organics <50.0 U 50.0 mg/Kg 09/17/21 10:40 09/17/21 14:38 (GRO)-C6-C10 **Diesel Range Organics (Over** 649 50.0 mg/Kg 09/17/21 10:40 09/17/21 14:38 C10-C28) **Oll Range Organics (Over** 50.0 mg/Kg 09/17/21 10:40 09/17/21 14:38 87.8 C28-C36) **Total TPH** 737 50.0 mg/Kg 09/17/21 10:40 09/17/21 14:38 Surrogato %Pacayary Qualifier I imite Dil Eac Dronarod Analyzod

Surrogate	Mitecovery Qualifier	Lillits	riepareu	Allalyzeu	Diriac
1-Chlorooctane	104	70 - 130	09/17/21 10:40	09/17/21 14:38	1
o-Terphenyl	105	70 - 130	09/17/21 10:40	09/17/21 14:38	1
Method: 300.0 - Anions, Ion Chrom	atography - Soluble				

Analyte	Result	Qualifier	RL	Un	IT	D	Prepared	Analyzed	DII Fac	
Chloride	10.7		5.04	mg	/Kg			09/20/21 03:44	1	
Client Sample ID: SB-1 @ 4-5'							Lab Sar	mple ID: 880-0	6226-2	

Date Collected: 09/15/21 09:10 Date Received: 09/17/21 09:00

Lab Sample ID: 880-6226-2 **Matrix: Solid**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0399	U	0.0399	mg/Kg		09/17/21 09:44	09/17/21 15:31	20
Toluene	<0.0399	U	0.0399	mg/Kg		09/17/21 09:44	09/17/21 15:31	20
Ethylbenzene	0.113		0.0399	mg/Kg		09/17/21 09:44	09/17/21 15:31	20
m-Xylene & p-Xylene	0.290		0.0798	mg/Kg		09/17/21 09:44	09/17/21 15:31	20
o-Xylene	0.184		0.0399	mg/Kg		09/17/21 09:44	09/17/21 15:31	20
Xylenes, Total	0.474		0.0798	mg/Kg		09/17/21 09:44	09/17/21 15:31	20
Total BTEX	0.587		0.0798	mg/Kg		09/17/21 09:44	09/17/21 15:31	20
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			09/17/21 09:44	09/17/21 15:31	20
1,4-Difluorobenzene (Surr)	86		70 - 130			09/17/21 09:44	09/17/21 15:31	20

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Gasoline Range Organics <49.9 U 49.9 mg/Kg 09/17/21 10:40 09/17/21 15:01 (GRO)-C6-C10

Job ID: 880-6226-1

Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Client Sample ID: SB-1 @ 4-5'

Date Collected: 09/15/21 09:10 Date Received: 09/17/21 09:00 Lab Sample ID: 880-6226-2

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	91.5		49.9	mg/Kg		09/17/21 10:40	09/17/21 15:01	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/17/21 10:40	09/17/21 15:01	1
Total TPH	91.5		49.9	mg/Kg		09/17/21 10:40	09/17/21 15:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			09/17/21 10:40	09/17/21 15:01	1
o-Terphenyl	111		70 - 130			09/17/21 10:40	09/17/21 15:01	1
- Method: 300.0 - Anions, Ion Chr	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: SB-1 @ 5-6' Lab Sample ID: 880-6226-3 Date Collected: 09/15/21 09:20

Date Received: 09/17/21 09:00

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0402	U	0.0402	mg/Kg		09/17/21 09:44	09/17/21 14:30	20
Toluene	<0.0402	U	0.0402	mg/Kg		09/17/21 09:44	09/17/21 14:30	20
Ethylbenzene	<0.0402	U	0.0402	mg/Kg		09/17/21 09:44	09/17/21 14:30	20
m-Xylene & p-Xylene	<0.0803	U	0.0803	mg/Kg		09/17/21 09:44	09/17/21 14:30	20
o-Xylene	<0.0402	U	0.0402	mg/Kg		09/17/21 09:44	09/17/21 14:30	20
Xylenes, Total	<0.0803	U	0.0803	mg/Kg		09/17/21 09:44	09/17/21 14:30	20
Total BTEX	<0.0803	U	0.0803	mg/Kg		09/17/21 09:44	09/17/21 14:30	20
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	94	-	70 - 130			09/17/21 09:44	09/17/21 14:30	20
1,4-Difluorobenzene (Surr)	85		70 - 130			09/17/21 09:44	09/17/21 14:30	20
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.8 78.1 <49.8		49.8 49.8 49.8	mg/Kg mg/Kg mg/Kg		09/17/21 10:40 09/17/21 10:40 09/17/21 10:40	09/17/21 13:29 09/17/21 13:29 09/17/21 13:29	
Total TPH	78.1		49.8	mg/Kg		09/17/21 10:40	09/17/21 13:29	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	104		70 - 130			09/17/21 10:40	09/17/21 13:29	
o-Terphenyl	106		70 - 130			09/17/21 10:40	09/17/21 13:29	1
Method: 300.0 - Anions, Ion Chro	0							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.50		5.00	mg/Kg			09/20/21 03:55	

Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

Job ID: 880-6226-1

Client Sample ID: SB-1 @ 6-7'

Date Collected: 09/15/21 09:30 Date Received: 09/17/21 09:00

Lab Sample ID: 880-6226-4

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0402	U	0.0402	mg/Kg		09/17/21 09:44	09/17/21 14:50	20
Toluene	<0.0402	U	0.0402	mg/Kg		09/17/21 09:44	09/17/21 14:50	20
Ethylbenzene	0.0407		0.0402	mg/Kg		09/17/21 09:44	09/17/21 14:50	20
m-Xylene & p-Xylene	<0.0805	U	0.0805	mg/Kg		09/17/21 09:44	09/17/21 14:50	20
o-Xylene	<0.0402	U	0.0402	mg/Kg		09/17/21 09:44	09/17/21 14:50	20
Xylenes, Total	<0.0805	U	0.0805	mg/Kg		09/17/21 09:44	09/17/21 14:50	20
Total BTEX	<0.0805	U	0.0805	mg/Kg		09/17/21 09:44	09/17/21 14:50	20
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106	-	70 - 130			09/17/21 09:44	09/17/21 14:50	20
1,4-Difluorobenzene (Surr)	86		70 - 130			09/17/21 09:44	09/17/21 14:50	20

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac <49.9 U Gasoline Range Organics 49.9 mg/Kg 09/17/21 10:40 09/17/21 15:26 (GRO)-C6-C10 49.9 09/17/21 10:40 09/17/21 15:26 Diesel Range Organics (Over <49.9 U mg/Kg C10-C28) Oll Range Organics (Over C28-C36) <49.9 U 49.9 mg/Kg 09/17/21 10:40 09/17/21 15:26 Total TPH 09/17/21 10:40 09/17/21 15:26 <49.9 U 49.9 mg/Kg

Surrogate	%Recovery	Qualifier	Limits	•	Prepared	Analyzed	DII Fac
1-Chlorooctane	107		70 - 130	09/	/17/21 10:40	09/17/21 15:26	1
o-Terphenyl	112		70 - 130	09/	/17/21 10:40	09/17/21 15:26	1

Method: 300.0 - Anions, Ion Chron	natography - Solub	le					
Analyte	Result Qualific	ier RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.7	4.99	mg/Kg			09/20/21 04:12	1

Client Sample ID: SB-2 @ 3-4'

Date Collected: 09/15/21 10:30

Date Received: 09/17/21 09:00

Lab Sample ID: 880-6226-9

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.202	U	0.202	mg/Kg		09/17/21 09:44	09/17/21 15:52	100
Toluene	0.244		0.202	mg/Kg		09/17/21 09:44	09/17/21 15:52	100
Ethylbenzene	1.02		0.202	mg/Kg		09/17/21 09:44	09/17/21 15:52	100
m-Xylene & p-Xylene	1.16		0.403	mg/Kg		09/17/21 09:44	09/17/21 15:52	100
o-Xylene	0.305		0.202	mg/Kg		09/17/21 09:44	09/17/21 15:52	100
Xylenes, Total	1.47		0.403	mg/Kg		09/17/21 09:44	09/17/21 15:52	100
Total BTEX	2.73		0.403	mg/Kg		09/17/21 09:44	09/17/21 15:52	100
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			09/17/21 09:44	09/17/21 15:52	100
1,4-Difluorobenzene (Surr)	81		70 - 130			09/17/21 09:44	09/17/21 15:52	100
Method: 8015B NM - Diesel R	ange Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U	249	mg/Kg		09/17/21 10:40	09/17/21 15:51	5

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-6226-1 SDG: Eunice, NM

Client Sample ID: SB-2 @ 3-4'

Date Collected: 09/15/21 10:30 Date Received: 09/17/21 09:00 Lab Sample ID: 880-6226-9

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	3230		249	mg/Kg		09/17/21 10:40	09/17/21 15:51	5
C10-C28)								
Oll Range Organics (Over	389		249	mg/Kg		09/17/21 10:40	09/17/21 15:51	5
C28-C36)								
Total TPH	3620		249	mg/Kg		09/17/21 10:40	09/17/21 15:51	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130			09/17/21 10:40	09/17/21 15:51	5
o-Terphenyl	112		70 - 130			09/17/21 10:40	09/17/21 15:51	5
- Method: 300.0 - Anions, Ion Ch	romatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: SB-2 @ 5-6'

Method: 8021B - Volatile Organic Compounds (GC)

Date Collected: 09/15/21 10:50

Date Received: 09/17/21 09:00

Lab Sample ID: 880-6226-10

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.201	U	0.201	mg/Kg		09/17/21 09:44	09/17/21 16:12	100
Toluene	<0.201	U	0.201	mg/Kg		09/17/21 09:44	09/17/21 16:12	100
Ethylbenzene	1.05		0.201	mg/Kg		09/17/21 09:44	09/17/21 16:12	100
m-Xylene & p-Xylene	3.16		0.402	mg/Kg		09/17/21 09:44	09/17/21 16:12	100
o-Xylene	0.746		0.201	mg/Kg		09/17/21 09:44	09/17/21 16:12	100
Xylenes, Total	3.91		0.402	mg/Kg		09/17/21 09:44	09/17/21 16:12	100
Total BTEX	4.96		0.402	mg/Kg		09/17/21 09:44	09/17/21 16:12	100
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	22	S1-	70 - 130			09/17/21 09:44	09/17/21 16:12	100
1,4-Difluorobenzene (Surr)	18	S1-	70 - 130			09/17/21 09:44	09/17/21 16:12	100
- Method: 8015B NM - Diesel Ra	nge Organics (D	RO) (GC)						
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1140		250	mg/Kg		09/17/21 10:40	09/17/21 16:15	5
Diesel Range Organics (Over C10-C28)	5930		250	mg/Kg		09/17/21 10:40	09/17/21 16:15	5
C 10-C20)								
Oll Range Organics (Over C28-C36)	643		250	mg/Kg		09/17/21 10:40	09/17/21 16:15	5
Oll Range Organics (Over	643 7710		250 250	mg/Kg		09/17/21 10:40 09/17/21 10:40	09/17/21 16:15 09/17/21 16:15	
Oll Range Organics (Over C28-C36)		Qualifier						5
Oll Range Organics (Over C28-C36) Total TPH	7710		250			09/17/21 10:40	09/17/21 16:15	5 Dil Fac
Oll Range Organics (Over C28-C36) Total TPH Surrogate	7710 %Recovery		250			09/17/21 10:40 Prepared	09/17/21 16:15 Analyzed	5 Dil Fac 5
Oll Range Organics (Over C28-C36) Total TPH Surrogate 1-Chlorooctane o-Terphenyl	7710 %Recovery 135 98	S1+	250 Limits 70 - 130			09/17/21 10:40 Prepared 09/17/21 10:40	09/17/21 16:15 Analyzed 09/17/21 16:15	5 Dil Fac
Oll Range Organics (Over C28-C36) Total TPH Surrogate 1-Chlorooctane	7710 %Recovery 135 98 romatography -	S1+	250 Limits 70 - 130		D	09/17/21 10:40 Prepared 09/17/21 10:40	09/17/21 16:15 Analyzed 09/17/21 16:15	5 <i>Dil Fac</i>

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-6226-1 SDG: Eunice, NM

Lab Sample ID: 880-6226-11

Client Sample ID: SB-2 @ 6-7'

Date Collected: 09/15/21 11:00 Date Received: 09/17/21 09:00

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.199	U	0.199	mg/Kg		09/17/21 09:44	09/17/21 16:32	100
Toluene	0.254		0.199	mg/Kg		09/17/21 09:44	09/17/21 16:32	100
Ethylbenzene	1.44		0.199	mg/Kg		09/17/21 09:44	09/17/21 16:32	100
m-Xylene & p-Xylene	4.07		0.398	mg/Kg		09/17/21 09:44	09/17/21 16:32	100
o-Xylene	1.12		0.199	mg/Kg		09/17/21 09:44	09/17/21 16:32	100
Xylenes, Total	5.19		0.398	mg/Kg		09/17/21 09:44	09/17/21 16:32	100
Total BTEX	6.88		0.398	mg/Kg		09/17/21 09:44	09/17/21 16:32	100
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	22	S1-	70 - 130			09/17/21 09:44	09/17/21 16:32	100
1,4-Difluorobenzene (Surr)	21	S1-	70 - 130			09/17/21 09:44	09/17/21 16:32	100
,	nge Organics (D		70 - 130 R L	Unit	D	09/17/21 09:44 Prepared	09/17/21 16:32 Analyzed	100
1,4-Difluorobenzene (Surr) Method: 8015B NM - Diesel Ra Analyte Gasoline Range Organics	nge Organics (D	RO) (GC)		<mark>Unit</mark> mg/Kg	<u>D</u>			
1,4-Difluorobenzene (Surr) Method: 8015B NM - Diesel Ra Analyte	nge Organics (D	RO) (GC)	RL		<u>D</u>	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr) Method: 8015B NM - Diesel Ra Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	nge Organics (D Result 1720	RO) (GC)	RL 250	mg/Kg	<u> </u>	Prepared 09/17/21 10:40	Analyzed 09/17/21 16:39	Dil Fac
1,4-Difluorobenzene (Surr) Method: 8015B NM - Diesel Ra Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over	nge Organics (DI Result 1720 6580	RO) (GC)	RL 250	mg/Kg	<u>D</u>	Prepared 09/17/21 10:40 09/17/21 10:40	Analyzed 09/17/21 16:39 09/17/21 16:39	Dil Fac 5
1,4-Difluorobenzene (Surr) Method: 8015B NM - Diesel Ra Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	nge Organics (DI Result 1720 6580 715	RO) (GC) Qualifier	RL 250 250 250	mg/Kg mg/Kg mg/Kg	<u>D</u>	Prepared 09/17/21 10:40 09/17/21 10:40 09/17/21 10:40	Analyzed 09/17/21 16:39 09/17/21 16:39 09/17/21 16:39	Dil Fac 5 5
1,4-Difluorobenzene (Surr) Method: 8015B NM - Diesel Ra Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH	nge Organics (DI Result 1720 6580 715 9020	RO) (GC) Qualifier	RL 250 250 250 250	mg/Kg mg/Kg mg/Kg	<u>D</u>	Prepared 09/17/21 10:40 09/17/21 10:40 09/17/21 10:40 09/17/21 10:40	Analyzed 09/17/21 16:39 09/17/21 16:39 09/17/21 16:39	Dil Fac 5 5 5

Client Sample ID: SB-2 @ 10-11' Lab Sample ID: 880-6226-12

RL

4.98

Unit

mg/Kg

Prepared

Analyzed

09/20/21 04:40

Result Qualifier

12.5

Analyte

Chloride

Method: 300.0 - Anions, Ion Chromatography - Soluble

Date Collected: 09/15/21 11:10 **Matrix: Solid** Date Received: 09/17/21 09:00

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/17/21 09:44	09/17/21 18:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/17/21 09:44	09/17/21 18:23	1
Ethylbenzene	0.00316		0.00200	mg/Kg		09/17/21 09:44	09/17/21 18:23	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		09/17/21 09:44	09/17/21 18:23	1
o-Xylene	0.00406		0.00200	mg/Kg		09/17/21 09:44	09/17/21 18:23	1
Xylenes, Total	0.00406		0.00399	mg/Kg		09/17/21 09:44	09/17/21 18:23	1
Total BTEX	0.00722		0.00399	mg/Kg		09/17/21 09:44	09/17/21 18:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130			09/17/21 09:44	09/17/21 18:23	1
1,4-Difluorobenzene (Surr)	94		70 - 130			09/17/21 09:44	09/17/21 18:23	1
- Method: 8015B NM - Diesel Ra	ange Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		09/17/21 10:40	09/17/21 17:50	1

Eurofins Xenco, Midland

Dil Fac

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-6226-1 SDG: Eunice, NM

Client Sample ID: SB-2 @ 10-11'

Date Collected: 09/15/21 11:10 Date Received: 09/17/21 09:00

Lab Sample ID: 880-6226-12

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	166		49.9	mg/Kg		09/17/21 10:40	09/17/21 17:50	1
C10-C28)								
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/17/21 10:40	09/17/21 17:50	1
Total TPH	166		49.9	mg/Kg		09/17/21 10:40	09/17/21 17:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130			09/17/21 10:40	09/17/21 17:50	1
o-Terphenyl	110		70 - 130			09/17/21 10:40	09/17/21 17:50	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Allalyte						•	•	

Client Sample ID: SB-2 @ 11-12'

Lab Sample ID: 880-6226-13

Date Collected: 09/15/21 11:20 Matrix: Solid

Date Received: 09/17/21 09:00

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		09/17/21 09:44	09/17/21 18:43	1
Toluene	<0.00201	U	0.00201	mg/Kg		09/17/21 09:44	09/17/21 18:43	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		09/17/21 09:44	09/17/21 18:43	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		09/17/21 09:44	09/17/21 18:43	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		09/17/21 09:44	09/17/21 18:43	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		09/17/21 09:44	09/17/21 18:43	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		09/17/21 09:44	09/17/21 18:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130			09/17/21 09:44	09/17/21 18:43	1
1,4-Difluorobenzene (Surr)	107		70 - 130			09/17/21 09:44	09/17/21 18:43	1
Method: 8015B NM - Diesel Ranç Analyte	• •	RO) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: 8015B NM - Diesel Rand	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier			<u>D</u>			Dil Fac
Analyte Gasoline Range Organics	• •	Qualifier	RL 49.8	<mark>Unit</mark> mg/Kg	<u>D</u>	Prepared 09/17/21 10:40	Analyzed 09/17/21 18:36	
Analyte Gasoline Range Organics (GRO)-C6-C10	Result <49.8	Qualifier U	49.8	mg/Kg	<u>D</u>	09/17/21 10:40	09/17/21 18:36	1
Analyte Gasoline Range Organics	Result	Qualifier U			<u>D</u>			Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.8	Qualifier U	49.8	mg/Kg	<u>D</u>	09/17/21 10:40	09/17/21 18:36	1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.8 <49.8	Qualifier U U	49.8	mg/Kg	<u>D</u>	09/17/21 10:40 09/17/21 10:40	09/17/21 18:36 09/17/21 18:36	1 1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <49.8 <49.8 <49.8	Qualifier U U U U	49.8 49.8 49.8	mg/Kg mg/Kg mg/Kg	<u>D</u>	09/17/21 10:40 09/17/21 10:40 09/17/21 10:40	09/17/21 18:36 09/17/21 18:36 09/17/21 18:36	1 1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Total TPH	Result <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49	Qualifier U U U U	49.8 49.8 49.8 49.8	mg/Kg mg/Kg mg/Kg	<u>D</u>	09/17/21 10:40 09/17/21 10:40 09/17/21 10:40 09/17/21 10:40	09/17/21 18:36 09/17/21 18:36 09/17/21 18:36 09/17/21 18:36	1 1 1 1 Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Total TPH	Result <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 <49.8 %Recovery	Qualifier U U U U	49.8 49.8 49.8 49.8 Limits	mg/Kg mg/Kg mg/Kg	<u>D</u>	09/17/21 10:40 09/17/21 10:40 09/17/21 10:40 09/17/21 10:40 Prepared	09/17/21 18:36 09/17/21 18:36 09/17/21 18:36 09/17/21 18:36 Analyzed	1 1 1 1 Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Total TPH Surrogate 1-Chlorooctane	Result	Qualifier U U U Qualifier	49.8 49.8 49.8 49.8 Limits 70 - 130	mg/Kg mg/Kg mg/Kg	<u>D</u>	09/17/21 10:40 09/17/21 10:40 09/17/21 10:40 09/17/21 10:40 Prepared 09/17/21 10:40	09/17/21 18:36 09/17/21 18:36 09/17/21 18:36 09/17/21 18:36 Analyzed 09/17/21 18:36	1 1 1 1 1 1 1 Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Total TPH Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U U U Qualifier	49.8 49.8 49.8 49.8 Limits 70 - 130	mg/Kg mg/Kg mg/Kg	D	09/17/21 10:40 09/17/21 10:40 09/17/21 10:40 09/17/21 10:40 Prepared 09/17/21 10:40	09/17/21 18:36 09/17/21 18:36 09/17/21 18:36 09/17/21 18:36 Analyzed 09/17/21 18:36	1 1 1 1 1 1 Dil Fac

Client: TRC Solutions, Inc. Job ID: 880-6226-1 SDG: Eunice, NM

Project/Site: HEP:Eunice EMSU Remediation

Client Sample ID: SB-2 @ 15-16' Lab Sample ID: 880-6226-14

Date Collected: 09/15/21 11:30 Matrix: Solid Date Received: 09/17/21 09:00

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0401	U	0.0401	mg/Kg		09/17/21 09:44	09/17/21 21:06	20
Toluene	<0.0401	U	0.0401	mg/Kg		09/17/21 09:44	09/17/21 21:06	20
Ethylbenzene	0.0644		0.0401	mg/Kg		09/17/21 09:44	09/17/21 21:06	20
m-Xylene & p-Xylene	0.120		0.0802	mg/Kg		09/17/21 09:44	09/17/21 21:06	20
o-Xylene	0.0554		0.0401	mg/Kg		09/17/21 09:44	09/17/21 21:06	20
Xylenes, Total	0.175		0.0802	mg/Kg		09/17/21 09:44	09/17/21 21:06	20
Total BTEX	0.240		0.0802	mg/Kg		09/17/21 09:44	09/17/21 21:06	20
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	80		70 - 130			09/17/21 09:44	09/17/21 21:06	20
1,4-Difluorobenzene (Surr)	76		70 - 130			09/17/21 09:44	09/17/21 21:06	20
Analyte		Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fa
Method: 8015B NM - Diesel Ra	•							
Gasoline Range Organics	<50.0	U	50.0					
			00.0	mg/Kg		09/17/21 10:40	09/17/21 17:26	
` '	510							
Diesel Range Organics (Over	519		50.0	mg/Kg mg/Kg		09/17/21 10:40 09/17/21 10:40	09/17/21 17:26 09/17/21 17:26	
Diesel Range Organics (Over	519 84.3							
Diesel Range Organics (Over C10-C28)			50.0	mg/Kg		09/17/21 10:40	09/17/21 17:26	
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over			50.0	mg/Kg		09/17/21 10:40	09/17/21 17:26	
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH	84.3	Qualifier	50.0 50.0	mg/Kg mg/Kg		09/17/21 10:40 09/17/21 10:40	09/17/21 17:26 09/17/21 17:26	
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH	84.3	Qualifier	50.0 50.0 50.0	mg/Kg mg/Kg		09/17/21 10:40 09/17/21 10:40 09/17/21 10:40	09/17/21 17:26 09/17/21 17:26 09/17/21 17:26	Dil Fa
C10-C28) Oll Range Organics (Over C28-C36) Total TPH Surrogate	84.3 603 %Recovery	Qualifier	50.0 50.0 50.0 <i>Limits</i>	mg/Kg mg/Kg		09/17/21 10:40 09/17/21 10:40 09/17/21 10:40 Prepared	09/17/21 17:26 09/17/21 17:26 09/17/21 17:26 Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH Surrogate 1-Chlorooctane	84.3 603 <u>%Recovery</u> 110 110	<u> </u>	50.0 50.0 50.0 <u>Limits</u> 70 - 130	mg/Kg mg/Kg		09/17/21 10:40 09/17/21 10:40 09/17/21 10:40 Prepared 09/17/21 10:40	09/17/21 17:26 09/17/21 17:26 09/17/21 17:26 Analyzed 09/17/21 17:26	Dil Fac

Client Sample ID: SB-2 @ 16-17' Lab Sample ID: 880-6226-15 Date Collected: 09/15/21 11:40 **Matrix: Solid**

5.00

mg/Kg

76.1

Date Received: 09/17/21 09:00

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00729		0.00200	mg/Kg		09/17/21 09:44	09/17/21 19:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/17/21 09:44	09/17/21 19:04	1
Ethylbenzene	0.00349		0.00200	mg/Kg		09/17/21 09:44	09/17/21 19:04	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		09/17/21 09:44	09/17/21 19:04	1
o-Xylene	0.00570		0.00200	mg/Kg		09/17/21 09:44	09/17/21 19:04	1
Xylenes, Total	0.00570		0.00399	mg/Kg		09/17/21 09:44	09/17/21 19:04	1
Total BTEX	0.0165		0.00399	mg/Kg		09/17/21 09:44	09/17/21 19:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	150	S1+	70 - 130			09/17/21 09:44	09/17/21 19:04	1
1,4-Difluorobenzene (Surr)	111		70 - 130			09/17/21 09:44	09/17/21 19:04	1
Method: 8015B NM - Diesel Ra	ange Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		09/17/21 10:40	09/17/21 18:57	1
(GRO)-C6-C10								

Eurofins Xenco, Midland

09/20/21 04:57

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-6226-1

SDG: Eunice, NM

Client Sample ID: SB-2 @ 16-17'

Date Collected: 09/15/21 11:40 Date Received: 09/17/21 09:00

Lab Sample ID: 880-6226-15

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		09/17/21 10:40	09/17/21 18:57	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/17/21 10:40	09/17/21 18:57	1
Total TPH	<49.9	U	49.9	mg/Kg		09/17/21 10:40	09/17/21 18:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130			09/17/21 10:40	09/17/21 18:57	1
o-Terphenyl	110		70 - 130			09/17/21 10:40	09/17/21 18:57	1
- Marthada 000 0 - Autawa Ilau Ohu	omatography -	Soluble						
Method: 300.0 - Anions, Ion Chr	omatog. apm							
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: SB-2 @ 4.5' Lab Sample ID: 880-6226-18

Date Collected: 09/15/21 10:40

Matrix: Solid

Date Received: 09/17/21 08:58

Method: 8021B - Volatile Orgar	nic Compounds ((GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.101	U	0.101	mg/Kg		09/17/21 09:44	09/17/21 21:27	50
Toluene	<0.101	U	0.101	mg/Kg		09/17/21 09:44	09/17/21 21:27	50
Ethylbenzene	0.758		0.101	mg/Kg		09/17/21 09:44	09/17/21 21:27	50
m-Xylene & p-Xylene	1.33		0.202	mg/Kg		09/17/21 09:44	09/17/21 21:27	50
o-Xylene	0.424		0.101	mg/Kg		09/17/21 09:44	09/17/21 21:27	50
Xylenes, Total	1.75		0.202	mg/Kg		09/17/21 09:44	09/17/21 21:27	50
Total BTEX	2.51		0.202	mg/Kg		09/17/21 09:44	09/17/21 21:27	50
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	21	S1-	70 - 130			09/17/21 09:44	09/17/21 21:27	50
1,4-Difluorobenzene (Surr)	12	S1-	70 - 130			09/17/21 09:44	09/17/21 21:27	50

Analyte	Result Qual	ifier RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	1150	249	mg/Kg		09/17/21 10:40	09/17/21 17:03	
Diesel Range Organics (Over C10-C28)	3980	249	mg/Kg		09/17/21 10:40	09/17/21 17:03	;
Oll Range Organics (Over C28-C36)	466	249	mg/Kg		09/17/21 10:40	09/17/21 17:03	
Total TPH	5600	249	mg/Kg		09/17/21 10:40	09/17/21 17:03	
Surrogate	%Recovery Qual	lifier Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	124	70 - 130		•	09/17/21 10:40	09/17/21 17:03	
o-Terphenyl	99	70 - 130			09/17/21 10:40	09/17/21 17:03	

Method: 300.0 - Anions, Ion Chromatography - Soluble										
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
	Chloride	22.4		5.00	mg/Kg			09/20/21 05:08	1	

Surrogate Summary

Client: TRC Solutions, Inc. Job ID: 880-6226-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-6226-1	SB-1 @ 3-4'	86	80	
880-6226-2	SB-1 @ 4-5'	103	86	
880-6226-3	SB-1 @ 5-6'	94	85	
880-6226-4	SB-1 @ 6-7'	106	86	
880-6226-9	SB-2 @ 3-4'	108	81	
880-6226-10	SB-2 @ 5-6'	22 S1-	18 S1-	
880-6226-11	SB-2 @ 6-7'	22 S1-	21 S1-	
880-6226-12	SB-2 @ 10-11'	90	94	
880-6226-13	SB-2 @ 11-12'	122	107	
880-6226-14	SB-2 @ 15-16'	80	76	
880-6226-15	SB-2 @ 16-17'	150 S1+	111	
880-6226-18	SB-2 @ 4.5'	21 S1-	12 S1-	
880-6227-A-1-A MS	Matrix Spike	121	87	
880-6227-A-1-B MSD	Matrix Spike Duplicate	105	2 S1-	
LCS 880-8021/1-A	Lab Control Sample	94	89	
LCSD 880-8021/2-A	Lab Control Sample Dup	102	84	
MB 880-8021/5-A	Method Blank	114	101	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

		1001	OTPH1	Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-6226-1	SB-1 @ 3-4'	104	105	. — — — — — — — — —
880-6226-2	SB-1 @ 4-5'	107	111	
880-6226-3	SB-1 @ 5-6'	104	106	
880-6226-3 MS	SB-1 @ 5-6'	101	94	
880-6226-3 MSD	SB-1 @ 5-6'	100	94	
880-6226-4	SB-1 @ 6-7'	107	112	
880-6226-9	SB-2 @ 3-4'	119	112	
880-6226-10	SB-2 @ 5-6'	135 S1+	98	
880-6226-11	SB-2 @ 6-7'	143 S1+	101	
880-6226-12	SB-2 @ 10-11'	109	110	
880-6226-13	SB-2 @ 11-12'	102	106	
880-6226-14	SB-2 @ 15-16'	110	110	
880-6226-15	SB-2 @ 16-17'	108	110	
880-6226-18	SB-2 @ 4.5'	124	99	
LCS 880-8033/2-A	Lab Control Sample	110	105	
LCSD 880-8033/3-A	Lab Control Sample Dup	109	104	
MB 880-8033/1-A	Method Blank	101	106	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: TRC Solutions, Inc. Job ID: 880-6226-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-8021/5-A

Matrix: Solid

Analysis Batch: 8018

Client Sample ID: Method Blank

Prep Type: Total/NA
Pren Batch: 8021

	MB	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/17/21 09:44	09/17/21 13:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/17/21 09:44	09/17/21 13:00	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/17/21 09:44	09/17/21 13:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		09/17/21 09:44	09/17/21 13:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/17/21 09:44	09/17/21 13:00	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		09/17/21 09:44	09/17/21 13:00	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		09/17/21 09:44	09/17/21 13:00	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	09/17/21 09:4	99/17/21 13:00	1
1,4-Difluorobenzene (Surr)	101		70 - 130	09/17/21 09:4	4 09/17/21 13:00	1

Lab Sample ID: LCS 880-8021/1-A **Client Sample ID: Lab Control Sample**

Matrix: Solid

Analysis Batch: 8018

Prep Type: Total/NA

Prep Batch: 8021

ı		Spike	LCS	LCS				%Rec.	
l	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
l	Benzene	0.100	0.08392		mg/Kg		84	70 - 130	
١	Toluene	0.100	0.09398		mg/Kg		94	70 - 130	
l	Ethylbenzene	0.100	0.09569		mg/Kg		96	70 - 130	
l	m-Xylene & p-Xylene	0.200	0.1710		mg/Kg		86	70 - 130	
١	o-Xylene	0.100	0.08522		mg/Kg		85	70 - 130	
п									

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	94	70 - 130
1 4-Difluorobenzene (Surr)	89	70 - 130

Lab Sample ID: LCSD 880-8021/2-A

Matrix: Solid

Analysis Batch: 8018

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 8021

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09187		mg/Kg		92	70 - 130	9	35	
Toluene	0.100	0.1003		mg/Kg		100	70 - 130	6	35	
Ethylbenzene	0.100	0.1076		mg/Kg		108	70 - 130	12	35	
m-Xylene & p-Xylene	0.200	0.1881		mg/Kg		94	70 - 130	10	35	
o-Xylene	0.100	0.09564		mg/Kg		96	70 - 130	12	35	

LCSD LCSD

Surrogate	%Recovery Qualifie	r Limits
4-Bromofluorobenzene (Surr)	102	70 - 130
1.4-Difluorobenzene (Surr)	84	70 - 130

Lab Sample ID: 880-6227-A-1-A MS

Matrix: Solid

Analysis Batch: 8018

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 8021

	Sample S	Sample	Spike	MS	MS				%Rec.	
Analyte	Result (Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Renzene	0.00211	F1 F2	0.0008	0.05206	F1	ma/Ka		51	70 130	

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QC Sample Results

Job ID: 880-6226-1 Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Client Sample ID: Matrix Spike Lab Sample ID: 880-6227-A-1-A MS **Matrix: Solid**

Prep Type: Total/NA **Analysis Batch: 8018** Prep Batch: 8021 MS MS Sample Sample Snike

	Sample	Sample	Spike	IVIO	IVIO				70Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Toluene	<0.00201	U	0.0998	0.07410		mg/Kg		74	70 - 130	
Ethylbenzene	<0.00201	U	0.0998	0.08223		mg/Kg		82	70 - 130	
m-Xylene & p-Xylene	<0.00402	U F1	0.200	0.1529		mg/Kg		75	70 - 130	
o-Xylene	0.00597		0.0998	0.07798		mg/Kg		72	70 - 130	

MS MS %Recovery Qualifier Limits Surrogate 70 - 130 4-Bromofluorobenzene (Surr) 121 1,4-Difluorobenzene (Surr) 87 70 - 130

Lab Sample ID: 880-6227-A-1-B MSD Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

Matrix: Solid Analysis Batch: 8018

m-Xylene & p-Xylene

o-Xylene

Prep Batch: 8021 MSD MSD RPD Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit 0.00211 F1 F2 35 Benzene 0.0994 0.002296 F1 F2 mg/Kg 0.2 70 - 130 183 Toluene <0.00201 U 0.0994 0.08534 mg/Kg 86 70 - 13014 35 0.0994 Ethylbenzene <0.00201 U 0.08926 mg/Kg 90 70 - 130 8 35

0.1296 F1

0.07718

mg/Kg

mg/Kg

0.199

0.0994

MSD MSD %Recovery Qualifier Limits Surrogate 70 - 130 4-Bromofluorobenzene (Surr) 105 1,4-Difluorobenzene (Surr) 2 S1-70 - 130

<0.00402 UF1

0.00597

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-8033/1-A Client Sample ID: Method Blank Matrix: Solid Prep Type: Total/NA **Analysis Batch: 8022** Prep Batch: 8033

Analysis Daton. 0022							i iep batt	,II. 0033
	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		09/17/21 10:40	09/17/21 12:19	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		09/17/21 10:40	09/17/21 12:19	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/17/21 10:40	09/17/21 12:19	1

Total TPH	<50.0	U	50.0	mg/Kg	09/17/21 10:40	09/17/21 12:19	1
	МВ	MB					
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 130		09/17/21 10:40	09/17/21 12:19	1

o-Terphenyl 106 70 - 130 09/17/21 10:40 09/17/21 12:19

Lab Sample ID: LCS 880-8033/2-A **Matrix: Solid**

Analysis Batch: 8022 Prep Batch: 8033 LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits 1000 98 Gasoline Range Organics 975.7 mg/Kg 70 - 130

(GRO)-C6-C10

Eurofins Xenco, Midland

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

35

35

64

72

70 - 130

70 - 130

16

Client: TRC Solutions, Inc. Job ID: 880-6226-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-8033/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 8022** Prep Batch: 8033

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Diesel Range Organics (Over	1000	857.5		mg/Kg		86	70 - 130	
040,000)								

C10-C28)

	LCS			
Surrogate	%Recovery	Qualifier	Limits	
1-Chlorooctane	110		70 - 130	
o-Terphenyl	105		70 - 130	

Lab Sample ID: LCSD 880-8033/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 8022** Prep Batch: 8033

Spike LCSD LCSD RPD %Rec. Result Qualifier Limit Analyte Added Unit D %Rec Limits RPD 1000 833.5 83 Gasoline Range Organics mg/Kg 70 - 130 16 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 858.4 mg/Kg 86 70 - 130 0 20 C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits

1-Chlorooctane 109 70 - 130 o-Terphenyl 104 70 - 130

Lab Sample ID: 880-6226-3 MS Client Sample ID: SB-1 @ 5-6' **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 8022

Prep Batch: 8033 Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier Unit D %Rec Limits

Analyte Gasoline Range Organics <49.8 Ū 997 993.2 mg/Kg 100 70 - 130(GRO)-C6-C10 78.1 997 946.3 87 70 - 130 Diesel Range Organics (Over mg/Kg C10-C28)

MS MS Qualifier Surrogate %Recovery Limits 1-Chlorooctane 101 70 - 130 o-Terphenyl 94 70 - 130

Lab Sample ID: 880-6226-3 MSD Client Sample ID: SB-1 @ 5-6'

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 8022** Prep Batch: 8033

Sample Sample Spike MSD MSD %Rec. RPD Result Qualifier Added RPD Limit Analyte Result Qualifier Unit D %Rec Limits Gasoline Range Organics <49.8 U 999 964.9 mg/Kg 97 70 - 130 20 (GRO)-C6-C10 78.1 999 937.0 86 20 Diesel Range Organics (Over mg/Kg 70 - 130

C10-C28) MSD MSD %Recovery Qualifier Limits Surrogate 70 - 130 1-Chlorooctane 100 70 - 130 o-Terphenyl 94

Client: TRC Solutions, Inc. Job ID: 880-6226-1 Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-8035/1-A

Matrix: Solid

Analysis Batch: 8090

Client Sample ID: Method Blank

Prep Type: Soluble

Client Sample ID: SB-1 @ 5-6'

Prep Type: Soluble

MB MB Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 09/20/21 02:20

Lab Sample ID: LCS 880-8035/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 8090

Spike LCS LCS %Rec. Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 252.1 mg/Kg 101 90 - 110

Lab Sample ID: LCSD 880-8035/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 8090

LCSD LCSD %Rec. RPD Spike Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Chloride 250 252.3 mg/Kg 101 90 - 110

Lab Sample ID: 880-6226-3 MS Client Sample ID: SB-1 @ 5-6' **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 8090

MS MS Sample Sample Spike %Rec. Analyte Result Qualifier Added Qualifier Unit %Rec Result Limits Chloride 9.50 250 272.4 105 90 - 110 mg/Kg

Lab Sample ID: 880-6226-3 MSD

Matrix: Solid

Analysis Batch: 8090

Sample Sample Spike MSD MSD %Rec. RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 9.50 273.2 mg/Kg 105 90 - 110 0 20

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

GC VOA

Analysis Batch: 8018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6226-1	SB-1 @ 3-4'	Total/NA	Solid	8021B	8021
880-6226-2	SB-1 @ 4-5'	Total/NA	Solid	8021B	8021
880-6226-3	SB-1 @ 5-6'	Total/NA	Solid	8021B	8021
880-6226-4	SB-1 @ 6-7'	Total/NA	Solid	8021B	8021
880-6226-9	SB-2 @ 3-4'	Total/NA	Solid	8021B	8021
880-6226-10	SB-2 @ 5-6'	Total/NA	Solid	8021B	8021
880-6226-11	SB-2 @ 6-7'	Total/NA	Solid	8021B	8021
880-6226-12	SB-2 @ 10-11'	Total/NA	Solid	8021B	8021
880-6226-13	SB-2 @ 11-12'	Total/NA	Solid	8021B	8021
880-6226-14	SB-2 @ 15-16'	Total/NA	Solid	8021B	8021
880-6226-15	SB-2 @ 16-17'	Total/NA	Solid	8021B	8021
880-6226-18	SB-2 @ 4.5'	Total/NA	Solid	8021B	8021
MB 880-8021/5-A	Method Blank	Total/NA	Solid	8021B	8021
LCS 880-8021/1-A	Lab Control Sample	Total/NA	Solid	8021B	8021
LCSD 880-8021/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	8021
880-6227-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	8021
880-6227-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	8021

Prep Batch: 8021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
880-6226-1	SB-1 @ 3-4'	Total/NA	Solid	5035	_
880-6226-2	SB-1 @ 4-5'	Total/NA	Solid	5035	
880-6226-3	SB-1 @ 5-6'	Total/NA	Solid	5035	
880-6226-4	SB-1 @ 6-7'	Total/NA	Solid	5035	
880-6226-9	SB-2 @ 3-4'	Total/NA	Solid	5035	
880-6226-10	SB-2 @ 5-6'	Total/NA	Solid	5035	
880-6226-11	SB-2 @ 6-7'	Total/NA	Solid	5035	
880-6226-12	SB-2 @ 10-11'	Total/NA	Solid	5035	
880-6226-13	SB-2 @ 11-12'	Total/NA	Solid	5035	
880-6226-14	SB-2 @ 15-16'	Total/NA	Solid	5035	
880-6226-15	SB-2 @ 16-17'	Total/NA	Solid	5035	
880-6226-18	SB-2 @ 4.5'	Total/NA	Solid	5035	
MB 880-8021/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-8021/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-8021/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-6227-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-6227-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

GC Semi VOA

Analysis Batch: 8022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6226-1	SB-1 @ 3-4'	Total/NA	Solid	8015B NM	8033
880-6226-2	SB-1 @ 4-5'	Total/NA	Solid	8015B NM	8033
880-6226-3	SB-1 @ 5-6'	Total/NA	Solid	8015B NM	8033
880-6226-4	SB-1 @ 6-7'	Total/NA	Solid	8015B NM	8033
880-6226-9	SB-2 @ 3-4'	Total/NA	Solid	8015B NM	8033
880-6226-10	SB-2 @ 5-6'	Total/NA	Solid	8015B NM	8033
880-6226-11	SB-2 @ 6-7'	Total/NA	Solid	8015B NM	8033
880-6226-12	SB-2 @ 10-11'	Total/NA	Solid	8015B NM	8033
880-6226-13	SB-2 @ 11-12'	Total/NA	Solid	8015B NM	8033

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Client: TRC Solutions, Inc.

Job ID: 880-6226-1

Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

GC Semi VOA (Continued)

Analysis Batch: 8022 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6226-14	SB-2 @ 15-16'	Total/NA	Solid	8015B NM	8033
880-6226-15	SB-2 @ 16-17'	Total/NA	Solid	8015B NM	8033
880-6226-18	SB-2 @ 4.5'	Total/NA	Solid	8015B NM	8033
MB 880-8033/1-A	Method Blank	Total/NA	Solid	8015B NM	8033
LCS 880-8033/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8033
LCSD 880-8033/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8033
880-6226-3 MS	SB-1 @ 5-6'	Total/NA	Solid	8015B NM	8033
880-6226-3 MSD	SB-1 @ 5-6'	Total/NA	Solid	8015B NM	8033

Prep Batch: 8033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6226-1	SB-1 @ 3-4'	Total/NA	Solid	8015NM Prep	
880-6226-2	SB-1 @ 4-5'	Total/NA	Solid	8015NM Prep	
880-6226-3	SB-1 @ 5-6'	Total/NA	Solid	8015NM Prep	
880-6226-4	SB-1 @ 6-7'	Total/NA	Solid	8015NM Prep	
880-6226-9	SB-2 @ 3-4'	Total/NA	Solid	8015NM Prep	
880-6226-10	SB-2 @ 5-6'	Total/NA	Solid	8015NM Prep	
880-6226-11	SB-2 @ 6-7'	Total/NA	Solid	8015NM Prep	
880-6226-12	SB-2 @ 10-11'	Total/NA	Solid	8015NM Prep	
880-6226-13	SB-2 @ 11-12'	Total/NA	Solid	8015NM Prep	
880-6226-14	SB-2 @ 15-16'	Total/NA	Solid	8015NM Prep	
880-6226-15	SB-2 @ 16-17'	Total/NA	Solid	8015NM Prep	
880-6226-18	SB-2 @ 4.5'	Total/NA	Solid	8015NM Prep	
MB 880-8033/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8033/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8033/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6226-3 MS	SB-1 @ 5-6'	Total/NA	Solid	8015NM Prep	
880-6226-3 MSD	SB-1 @ 5-6'	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 8035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
880-6226-1	SB-1 @ 3-4'	Soluble	Solid	DI Leach	_
880-6226-2	SB-1 @ 4-5'	Soluble	Solid	DI Leach	
880-6226-3	SB-1 @ 5-6'	Soluble	Solid	DI Leach	
380-6226-4	SB-1 @ 6-7'	Soluble	Solid	DI Leach	
380-6226-9	SB-2 @ 3-4'	Soluble	Solid	DI Leach	
880-6226-10	SB-2 @ 5-6'	Soluble	Solid	DI Leach	
880-6226-11	SB-2 @ 6-7'	Soluble	Solid	DI Leach	
380-6226-12	SB-2 @ 10-11'	Soluble	Solid	DI Leach	
880-6226-13	SB-2 @ 11-12'	Soluble	Solid	DI Leach	
880-6226-14	SB-2 @ 15-16'	Soluble	Solid	DI Leach	
880-6226-15	SB-2 @ 16-17'	Soluble	Solid	DI Leach	
880-6226-18	SB-2 @ 4.5'	Soluble	Solid	DI Leach	
MB 880-8035/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-8035/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-8035/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
380-6226-3 MS	SB-1 @ 5-6'	Soluble	Solid	DI Leach	
880-6226-3 MSD	SB-1 @ 5-6'	Soluble	Solid	DI Leach	

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Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-6226-1

SDG: Eunice, NM

HPLC/IC

Analysis Batch: 8090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6226-1	SB-1 @ 3-4'	Soluble	Solid	300.0	8035
880-6226-2	SB-1 @ 4-5'	Soluble	Solid	300.0	8035
880-6226-3	SB-1 @ 5-6'	Soluble	Solid	300.0	8035
880-6226-4	SB-1 @ 6-7'	Soluble	Solid	300.0	8035
880-6226-9	SB-2 @ 3-4'	Soluble	Solid	300.0	8035
880-6226-10	SB-2 @ 5-6'	Soluble	Solid	300.0	8035
880-6226-11	SB-2 @ 6-7'	Soluble	Solid	300.0	8035
880-6226-12	SB-2 @ 10-11'	Soluble	Solid	300.0	8035
880-6226-13	SB-2 @ 11-12'	Soluble	Solid	300.0	8035
880-6226-14	SB-2 @ 15-16'	Soluble	Solid	300.0	8035
880-6226-15	SB-2 @ 16-17'	Soluble	Solid	300.0	8035
880-6226-18	SB-2 @ 4.5'	Soluble	Solid	300.0	8035
MB 880-8035/1-A	Method Blank	Soluble	Solid	300.0	8035
LCS 880-8035/2-A	Lab Control Sample	Soluble	Solid	300.0	8035
LCSD 880-8035/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	8035
880-6226-3 MS	SB-1 @ 5-6'	Soluble	Solid	300.0	8035
880-6226-3 MSD	SB-1 @ 5-6'	Soluble	Solid	300.0	8035

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Date Received: 09/17/21 09:00

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-6226-1 SDG: Eunice, NM

Lab Sample ID: 880-6226-1

Matrix: Solid

Client Sample ID: SB-1 @ 3-4' Date Collected: 09/15/21 09:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	8021	09/17/21 09:44	MR	XEN MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	8018	09/17/21 15:11	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	8033	09/17/21 10:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8022	09/17/21 14:38	AM	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	8035	09/17/21 10:51	CH	XEN MID
Soluble	Analysis	300.0		1			8090	09/20/21 03:44	CH	XEN MID

Client Sample ID: SB-1 @ 4-5'

Date Collected: 09/15/21 09:10 Date Received: 09/17/21 09:00 Lab Sample ID: 880-6226-2

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	8021	09/17/21 09:44	MR	XEN MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	8018	09/17/21 15:31	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	8033	09/17/21 10:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8022	09/17/21 15:01	AM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	8035	09/17/21 10:51	CH	XEN MID
Soluble	Analysis	300.0		1			8090	09/20/21 03:49	CH	XEN MID

Client Sample ID: SB-1 @ 5-6'

Date Collected: 09/15/21 09:20 Date Received: 09/17/21 09:00

Lab Sample ID: 880-6226-3

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	8021	09/17/21 09:44	MR	XEN MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	8018	09/17/21 14:30	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8033	09/17/21 10:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8022	09/17/21 13:29	AM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	8035	09/17/21 10:51	CH	XEN MID
Soluble	Analysis	300.0		1			8090	09/20/21 03:55	CH	XEN MID

Client Sample ID: SB-1 @ 6-7'

Date Collected: 09/15/21 09:30 Date Received: 09/17/21 09:00

Lab Sample ID: 880-6226-4 **Matrix: Solid**

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	8021	09/17/21 09:44	MR	XEN MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	8018	09/17/21 14:50	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8033	09/17/21 10:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8022	09/17/21 15:26	AM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	8035	09/17/21 10:51	CH	XEN MID
Soluble	Analysis	300.0		1			8090	09/20/21 04:12	CH	XEN MID

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-6226-1

SDG: Eunice, NM

Client Sample ID: SB-2 @ 3-4'

Date Collected: 09/15/21 10:30 Date Received: 09/17/21 09:00 Lab Sample ID: 880-6226-9

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	8021	09/17/21 09:44	MR	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	8018	09/17/21 15:52	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8033	09/17/21 10:40	DM	XEN MID
Total/NA	Analysis	8015B NM		5			8022	09/17/21 15:51	AM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	8035	09/17/21 10:51	CH	XEN MID
Soluble	Analysis	300.0		1			8090	09/20/21 04:17	CH	XEN MID

Client Sample ID: SB-2 @ 5-6'

Date Collected: 09/15/21 10:50

Date Received: 09/17/21 09:00

Lab Sample ID: 880-6226-10

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	8021	09/17/21 09:44	MR	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	8018	09/17/21 16:12	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	8033	09/17/21 10:40	DM	XEN MID
Total/NA	Analysis	8015B NM		5			8022	09/17/21 16:15	AM	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	8035	09/17/21 10:51	CH	XEN MID
Soluble	Analysis	300.0		1			8090	09/20/21 04:34	CH	XEN MID

Client Sample ID: SB-2 @ 6-7'

Date Collected: 09/15/21 11:00

Date Received: 09/17/21 09:00

Lab Sample ID: 880-6226-11

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	8021	09/17/21 09:44	MR	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	8018	09/17/21 16:32	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	8033	09/17/21 10:40	DM	XEN MID
Total/NA	Analysis	8015B NM		5			8022	09/17/21 16:39	AM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	8035	09/17/21 10:51	СН	XEN MID
Soluble	Analysis	300.0		1			8090	09/20/21 04:40	CH	XEN MID

Client Sample ID: SB-2 @ 10-11'

Date Collected: 09/15/21 11:10

Date Received: 09/17/21 09:00

Lab Sample II	D: 880-6226-12

Matrix: Solid

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	8021	09/17/21 09:44	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8018	09/17/21 18:23	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	8033	09/17/21 10:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8022	09/17/21 17:50	AM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	8035	09/17/21 10:51	CH	XEN MID
Soluble	Analysis	300.0		1			8090	09/20/21 04:45	CH	XEN MID

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-6226-1 SDG: Eunice, NM

Client Sample ID: SB-2 @ 11-12'

Date Collected: 09/15/21 11:20 Date Received: 09/17/21 09:00

Lab Sample ID: 880-6226-13

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	8021	09/17/21 09:44	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8018	09/17/21 18:43	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	8033	09/17/21 10:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8022	09/17/21 18:36	AM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	8035	09/17/21 10:51	CH	XEN MID
Soluble	Analysis	300.0		1			8090	09/20/21 04:51	CH	XEN MID

Client Sample ID: SB-2 @ 15-16'

Date Collected: 09/15/21 11:30

Date Received: 09/17/21 09:00

Lab Sample ID: 880-6226-14

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	8021	09/17/21 09:44	MR	XEN MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	8018	09/17/21 21:06	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8033	09/17/21 10:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8022	09/17/21 17:26	AM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	8035	09/17/21 10:51	CH	XEN MID
Soluble	Analysis	300.0		1			8090	09/20/21 04:57	CH	XEN MID

Client Sample ID: SB-2 @ 16-17'

Date Collected: 09/15/21 11:40

Date Received: 09/17/21 09:00

Lab Sample ID: 880-6226-15

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	8021	09/17/21 09:44	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	8018	09/17/21 19:04	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8033	09/17/21 10:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8022	09/17/21 18:57	AM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	8035	09/17/21 10:51	СН	XEN MID
Soluble	Analysis	300.0		1			8090	09/20/21 05:02	CH	XEN MID

Client Sample ID: SB-2 @ 4.5'

Date Collected: 09/15/21 10:40

Date Received: 09/17/21 08:58

Lab Sample ID: 880-6226-18

Matrix: Solid

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	8021	09/17/21 09:44	MR	XEN MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	8018	09/17/21 21:27	KL	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8033	09/17/21 10:40	DM	XEN MID
Total/NA	Analysis	8015B NM		5			8022	09/17/21 17:03	AM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	8035	09/17/21 10:51	СН	XEN MID
Soluble	Analysis	300.0		1			8090	09/20/21 05:08	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: TRC Solutions, Inc.

Job ID: 880-6226-1

Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pi	ogram	Identification Number	Expiration Date
Texas	N	ELAP	T104704400-21-22	06-30-22
The following analytes	are included in this report, by	ut the laboratory is not certifi	ed by the governing authority. This list ma	y include analytes for w
the agency does not of	• •	,	ou by the governing dutienty.	ly molade unalytee for v
the agency does not off Analysis Method	• •	Matrix	Analyte	y molado analytoo loi v
0 ,	fer certification.	•	, , ,	

Method Summary

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-6226-1

SDG: Eunice, NM

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Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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Sample Summary

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-6226-1 SDG: Eunice, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-6226-1	SB-1 @ 3-4'	Solid	09/15/21 09:00	09/17/21 09:00
880-6226-2	SB-1 @ 4-5'	Solid	09/15/21 09:10	09/17/21 09:00
880-6226-3	SB-1 @ 5-6'	Solid	09/15/21 09:20	09/17/21 09:00
880-6226-4	SB-1 @ 6-7'	Solid	09/15/21 09:30	09/17/21 09:00
880-6226-9	SB-2 @ 3-4'	Solid	09/15/21 10:30	09/17/21 09:00
880-6226-10	SB-2 @ 5-6'	Solid	09/15/21 10:50	09/17/21 09:00
880-6226-11	SB-2 @ 6-7'	Solid	09/15/21 11:00	09/17/21 09:00
880-6226-12	SB-2 @ 10-11'	Solid	09/15/21 11:10	09/17/21 09:00
880-6226-13	SB-2 @ 11-12'	Solid	09/15/21 11:20	09/17/21 09:00
880-6226-14	SB-2 @ 15-16'	Solid	09/15/21 11:30	09/17/21 09:00
880-6226-15	SB-2 @ 16-17'	Solid	09/15/21 11:40	09/17/21 09:00
880-6226-18	SB-2 @ 4.5'	Solid	09/15/21 10:40	09/17/21 08:58

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* Curofins Xenco Divionment Testing

Project Manager

Russell Sebring

Company Name \ddress.

TRC

City, State ZIP

Midland, TX 79705 10 Desta Drive, Suite 130E

432 250 4465

Email [rsebring@trccompanies.com

Address

City, State ZIP

Bill to. (if different)

Company Name

Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300 Midland TX (432) 704-5440 San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199

Work Order Comments Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐ State of Project: Reporting Level III ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐ Deliverables EDD ☐ ADaPT ☐ Other	880-6226 Chain of Custody www xenco.com Page 1 of
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Revised Date 08/25/2020 Rev. 2020 2	R									
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Date/Time	Received by (Signature)	Relinquished by: (Signature)	ime	Date/Time		(Signature)	Received by:		y (Signature	Religquished by: (Signature)
	It assigns standard terms and conditions The due to circumstances beyond the control The enforced unless previously negotiated.	of service. Eurofins Xenco will be liable only for the cost of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$8.5.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated to each project and each pro	Eurofins Xencer expenses inc	nt company to r any losses c nple submitted	er from clier consibility fo for each san	a valid purchase ord not assume any resp and a charge of \$5 t	amples constitutes f samples and shall blied to each projec	inquishment or s nly for the cost o \$85.00 will be app	co will be liable on the community of th	of service. Eurofins Xenof Eurofins Xenco. A mi
7470 / 7471	\g TI U Hg 1631/2451/7470/7471	Z	Ba Be C	A Sb As	0 8RCR	TCLP / SPLP 6010 8RCRA	d TC	o be analyze	and Metal(s)	Circle Method(s) and Metal(s) to be analyzed
I Sn ∪ V Zn	Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn ∪ V Zn	Ca Cr Co Cu Fe Pb Mg	Ba Be B Cd	Al Sb As	kas 11 /	A 13PPM Texas 11	8RCRA	200.8 / 6020:	010 200.	Total 200.7 / 6010
deeper sample for Chloride	deeper									
		×		_	ဓ	1010 16-17'	9 15 21 1	S	16-17'	SB-1@16-17
		×		<u> </u>	G	1000 15-16'	9 15 21 1	S	15-16'	SB-1@15-16
sample for BTEX	88	×		<u>,</u>	G	950 11-12'	9 15 21	S	11-12	SB-1@11-12
If Benzene > 10 and/or Total	If Benze	×		-	G	940 10-11'	9 15 21	S	10-11'	SB-1@10-11
			×	1 X	G	930 6-7'	9 15 21	S	06-7'	SB-1@6-7
TEAT ACCEST SHIPTES OF IT IT			×	1 ×	9	920 5-6'	9 15 21	S	<u>)</u> 5-6'	SB-1@5-6
or lotal IPH is >2500, Run	or lota		×	1 ×	9	910 4-5'	9 15 21	S	04-5	SB-1@4-5
If IPH (GRO + DRO) > 1000	= IPH		×	1 ×	G	900 3-4'	9 15 21	S	03-4	SB-1@3-4
Sample Comments	Sar	Hold	BTEX	Cont TPH	Comp C	Sampled Depth	Sampled Sa	Matrix	ntification	Sample Identification
NaOH+Ascorbic Acid SAPC	NaCH+A			<u> </u>	Cra V	-11-				
ZII ACEIGIETINGON ZII	11 11 11 11 11 11 11 11 11 11 11 11 11					Ď	Corrected Temp	9	_	Total Containers.
te+NaOH 7n	Zn Aceta	1144				ading S	Temperature Reading	No (N/A)	als Yes	Sample Custody Seals
NaSO	Na.S.O. NaSO.			Pa		7	Correction Factor	Yes No (N/A)		Cooler Custody Seals.
NABIS	NaHSO, NABIS			ram		189	nometer	Yes No		Samples Received Intact:
	H.PO. HP			etei	N _O	Wet Ice Yes	Yee No W	Temp Blank.		SAMPLE RECEIPT
	H ₂ S0, H ₂			's		the lab if received by 4 30pm	the			PO#:
	HCL HC				ived by	TAT starts the day received by		Russell Sebring	Z.	Sampler's Name.
	Cool Cool					Due Date	Due	Eunice NM		Project Location
O DI Water H ₂ O	None, NO			Code		Routine Rush	Į.	454378		Project Number
Preservative Codes	Pre	ANALYSIS REQUEST			,	Turn Around	mediation	HEP Eunice EMSU Remediation	HEP Euni	Project Name
				-			_		•	

Securofins

Xenco

Enviorment Testing

Phone

City, State ZIP

Midland, TX 79705

10 Desta Drive, Suite 130E

ddress

Company Name Project Manager

TRC

Russell Sebring

Project Name

HEP Eunice EMSU Remediation

Email rsebring@trccompanies.com

City, State ZIP

Company Name Bill to. (if different)

Chain of Custody

Midland TX (432) 704-5440, San Antonio TX (210) 509-3334 EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199 Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300

Work Order No.
4
www.xenco.com Page of a
Work Order Comments
Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV☐
Deliverables EDD ☐ ADaPT ☐ Other

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Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	_		Received by: (Signature)	Received	ature) //	Relipquished by: (Signature)
	rced unless previously negotiated.	of Euroffins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Euroffins Xenco, but not analyzed These terms will be enforced unless previously negotiated.	mitted to Eurofins Xe	ample sui	55 for each s	ject and a charge of	pplied to each pro	arge of \$85.00 will be a	f Eurofins Xenco. A minimum c
	It assigns standard terms and conditions	Notice Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such become and that the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such become and that the client is a sample and shall not assume any responsibility for any losses or expenses incurred by the client if such become and the transfer of the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client is such become any loss of the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client is such become any loss of the cost of	any to Eurofins Xenc	ient comp	order from cl	tes a valid purchase hall not assume any r	samples constitution samples and si	t and relinquishment o liable only for the cost	otice Signature of this docume f service. Eurofins Xenco will b
470 / 7471	.g TI U Hg 1631/2451/7470/7471	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	o As Ba Be C	;RA S	010 8RC	TCLP / SPLP 6010 8RCRA	ed	al(s) to be analyz	Circle Method(s) and Metal(s) to be analyzed
Sn U V Zn	Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn	8RCRA 13PPM Texas 11 AISb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn	As Ba Be B	Al Sb	exas 11	CRA 13PPM 1		200.8 / 6020:	Total 200.7 / 6010
accher sample for Cilionde	Too Cha		$\times x \times x $	1	4	1640 4-51	9.1521	151 5	5B-2 < 4-5
If Chloride > 20,000 run next	If Chlori	×			ດ	1200 21-22'	9 15 21	S	SB-2@21-22
		×			- G	1150 20-21'	9 15 21	S	SB-2@20-21
			×	<u></u>	<u>"</u> ច	1140 16-17	9 15 21	S	SB-2@16-17'
sample for BTEX	Sa		×		G G	1130 15-16'	9 15 21	S	SB-2@15-16'
If Benzene > 10 and/or Total	If Benze		×		១	1120 11-12	9 15 21	S	SB-2@11-12
			×		- G	1110 10-11	9 15 21	S	SB-2@10-11'
			×	-	ဓ	1100 6-7'	9 15 21	S	SB-2@6-7
or lotal IPH is >2500, Run next deener samples for TPH	or lotal		× ×		G	1050 5-6'	9 15 21	S	SB-2@5-6'
If IPH (GRO + DRO) > 1000	1) HOL 41		×	*	ര	1030 3-4'	9 15 21		SB-2@3-4'
Sample Comments	San	Hold	TPH BTEX Chlor	Cont	Comp	Sampled Depth	Sampled	on Matrix	Sample Identification
				:	Grah	Time	Date		
NaOH+Ascorbic Acid SABC	NaOH+As					nperature.	Corrected Temperature		Total Containers.
Zn Acetate+NaOH Zn	Zn Acetat					Reading	Temperature Reading	Yes No N/A	Sample Custody Seals.
NaSO,	Na ₂ S ₂ O ₂ Na ₂ S _O ₃			Pa		ctor .	Correction Factor	Yes No N/A	Cooler Custody Seals
NABIS	NaHSO, NABIS			ran		ID.	Thermometer ID	Yes No	Samples Received Intact:
	H ₃ PO, HP			nete	s No	Wet Ice Yes	Yes No	Temp Blank.	SAMPLE RECEIPT
	H ₂ S04. H ₂			rs	y 4 30pm	the lab, if received by 4 30pm			PO#.
	HCL HC				ceived by	TAT starts the day received by		Russell Sebring	Sampler's Name.
	Cool Cool					Due Date		Eunice NM	Project Location
DI Water: H ₂ O	None NO			Code	Rush	✓ Routine ☐ F		454378	Project Number
Preservative Codes	Pres	ANALYSIS REQUEST		_	ă	Turn Around	emediation	HEP Eunice EMSU Remediation	Project Name HEP

Revised Date: 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 880-6226-1 SDG Number: Eunice, NM

List Source: Eurofins Xenco, Midland

Login Number: 6226 List Number: 1 Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is	N/A	

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<6mm (1/4").

Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Midland 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6404-1

Laboratory Sample Delivery Group: Eunice NM Client Project/Site: HEP Eunice EMSU Remediation

Revision: 2

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MRAMER

Authorized for release by: 1/3/2022 1:47:07 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS

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Have a Question?



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www.eurofinsus.com/Env

Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU Remediation Laboratory Job ID: 880-6404-1 SDG: Eunice NM

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Definitions/Glossary

Client: TRC Solutions, Inc. Job ID: 880-6404-1 Project/Site: HEP Eunice EMSU Remediation

SDG: Eunice NM

Qualifiers

GC VOA

Qualifier **Qualifier Description** F1 MS and/or MSD recovery exceeds control limits. S1-Surrogate recovery exceeds control limits, low biased. S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description** Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description** Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report. Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery **CFL** Contains Free Liquid **CFU** Colony Forming Unit **CNF** Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE) MCL

EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL **Practical Quantitation Limit**

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Case Narrative

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6404-1 SDG: Eunice NM

Job ID: 880-6404-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative 880-6404-1

REVISION

The report being provided is a revision of the original report sent on 9/28/2021. The report (revision 2) is being revised due to Per client email, removed sample depths on sample IDs.

Report revision history

The report being provided is a revision of the original report sent on 9/28/2021. The report (revision 2) is being revised due to Per client email, removed sample depths on sample IDs.

Revision 1 - 9/30/2021 - Reason - Incorrect TPH method reported on original report.

Receipt

The samples were received on 9/23/2021 4:42 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.7°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-8359 and analytical batch 880-8365 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: TT-5 (880-6404-1) and TT-5 (880-6404-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

4

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Client: TRC Solutions, Inc. Job ID: 880-6404-1 Project/Site: HEP Eunice EMSU Remediation SDG: Eunice NM

Client Sample ID: TT-5 Lab Sample ID: 880-6404-1 **Matrix: Solid**

Date Collected: 09/21/21 13:30 Date Received: 09/23/21 16:42

Sample Depth: 7 - 8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.792		0.0402	mg/Kg		09/24/21 10:53	09/24/21 20:34	20
Toluene	0.674		0.0402	mg/Kg		09/24/21 10:53	09/24/21 20:34	20
Ethylbenzene	1.46		0.0402	mg/Kg		09/24/21 10:53	09/24/21 20:34	20
m-Xylene & p-Xylene	2.28		0.0803	mg/Kg		09/24/21 10:53	09/24/21 20:34	20
o-Xylene	0.212		0.0402	mg/Kg		09/24/21 10:53	09/24/21 20:34	20
Xylenes, Total	2.49		0.0803	mg/Kg		09/24/21 10:53	09/24/21 20:34	20
Total BTEX	5.42		0.0803	mg/Kg		09/24/21 10:53	09/24/21 20:34	20
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			09/24/21 10:53	09/24/21 20:34	20
1,4-Difluorobenzene (Surr)	63	S1-	70 - 130			09/24/21 10:53	09/24/21 20:34	20

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U	249	mg/Kg		09/24/21 14:35	09/25/21 01:28	5
Diesel Range Organics (Over C10-C28)	2860		249	mg/Kg		09/24/21 14:35	09/25/21 01:28	5
Oll Range Organics (Over C28-C36)	294		249	mg/Kg		09/24/21 14:35	09/25/21 01:28	5
Total TPH	3150		249	mg/Kg		09/24/21 14:35	09/25/21 01:28	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130			09/24/21 14:35	09/25/21 01:28	5
o-Terphenyl	114		70 - 130			09/24/21 14:35	09/25/21 01:28	5

Method: 300.0 - Anions, Ion Cl	hromatography - So	oluble					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.8	4.97	mg/Kg			09/27/21 21:15	1

Lab Sample ID: 880-6404-2 **Client Sample ID: TT-5** Date Collected: 09/21/21 13:40

Date Received: 09/23/21 16:42

Sample Depth: 8 - 9

Released to Imaging: 3/24/2022 9:01:44 AM

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.138		0.0404	mg/Kg		09/24/21 10:53	09/24/21 20:54	20
Toluene	<0.0404	U	0.0404	mg/Kg		09/24/21 10:53	09/24/21 20:54	20
Ethylbenzene	0.699		0.0404	mg/Kg		09/24/21 10:53	09/24/21 20:54	20
m-Xylene & p-Xylene	0.844		0.0808	mg/Kg		09/24/21 10:53	09/24/21 20:54	20
o-Xylene	0.185		0.0404	mg/Kg		09/24/21 10:53	09/24/21 20:54	20
Xylenes, Total	1.03		0.0808	mg/Kg		09/24/21 10:53	09/24/21 20:54	20
Total BTEX	1.87		0.0808	mg/Kg		09/24/21 10:53	09/24/21 20:54	20
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81	·	70 - 130			09/24/21 10:53	09/24/21 20:54	20
1.4-Difluorobenzene (Surr)	85		70 - 130			09/24/21 10:53	09/24/21 20:54	20

Eurofins Xenco, Midland

Matrix: Solid

Job ID: 880-6404-1

Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU Remediation SDG: Eunice NM

Client Sample ID: TT-5 Lab Sample ID: 880-6404-2 Date Collected: 09/21/21 13:40

Matrix: Solid

Date Received: 09/23/21 16:42 Sample Depth: 8 - 9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U	249	mg/Kg		09/24/21 14:35	09/24/21 02:58	5
Diesel Range Organics (Over C10-C28)	1780		249	mg/Kg		09/24/21 14:35	09/24/21 02:58	5
Oll Range Organics (Over C28-C36)	<249	U	249	mg/Kg		09/24/21 14:35	09/24/21 02:58	5
Total TPH	1780		249	mg/Kg		09/24/21 14:35	09/24/21 02:58	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130			09/24/21 14:35	09/24/21 02:58	5
o-Terphenyl	117		70 - 130			09/24/21 14:35	09/24/21 02:58	5

Method: 300.0 - Anions, Ion Chromatography - Soluble Result Qualifier Unit Analyte RL Prepared Analyzed Dil Fac Chloride 13.4 4.99 mg/Kg 09/27/21 21:31

Client Sample ID: TT-5 Lab Sample ID: 880-6404-3

Date Collected: 09/21/21 13:50 **Matrix: Solid**

Date Received: 09/23/21 16:42

Sample Depth: 9 - 10

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0895		0.0398	mg/Kg		09/24/21 10:53	09/24/21 21:15	20
Toluene	0.0941		0.0398	mg/Kg		09/24/21 10:53	09/24/21 21:15	20
Ethylbenzene	0.153		0.0398	mg/Kg		09/24/21 10:53	09/24/21 21:15	20
m-Xylene & p-Xylene	0.148		0.0795	mg/Kg		09/24/21 10:53	09/24/21 21:15	20
o-Xylene	0.0814		0.0398	mg/Kg		09/24/21 10:53	09/24/21 21:15	20
Xylenes, Total	0.229		0.0795	mg/Kg		09/24/21 10:53	09/24/21 21:15	20
Total BTEX	0.566		0.0795	mg/Kg		09/24/21 10:53	09/24/21 21:15	20
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	168	S1+	70 - 130			09/24/21 10:53	09/24/21 21:15	20
1,4-Difluorobenzene (Surr)	83		70 - 130			09/24/21 10:53	09/24/21 21:15	2
		ics (DRO) Qualifier	(GC)	Unit	D	Prepared	Analyzed	Dil Fa
•								
Analyte Gasoline Range Organics				Unit mg/Kg	<u>D</u>	Prepared 09/24/21 14:35		Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result		RL		<u>D</u>	09/24/21 14:35		
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 115	Qualifier	RL 49.8	mg/Kg	<u>D</u>	09/24/21 14:35 09/24/21 14:35	09/24/21 03:18	
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 115 422	Qualifier	49.8 49.8	mg/Kg	<u>D</u>	09/24/21 14:35 09/24/21 14:35 09/24/21 14:35	09/24/21 03:18 09/24/21 03:18	
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH	Result 115 422 <49.8	Qualifier U	49.8 49.8 49.8	mg/Kg mg/Kg mg/Kg	<u>D</u>	09/24/21 14:35 09/24/21 14:35 09/24/21 14:35	09/24/21 03:18 09/24/21 03:18 09/24/21 03:18	
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH Surrogate	Result 115 422 <49.8 537	Qualifier U	49.8 49.8 49.8 49.8 49.8	mg/Kg mg/Kg mg/Kg	<u>D</u>	09/24/21 14:35 09/24/21 14:35 09/24/21 14:35 09/24/21 14:35	09/24/21 03:18 09/24/21 03:18 09/24/21 03:18 09/24/21 03:18	
Method: 8015B NM - Diesel R Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH Surrogate 1-Chlorooctane o-Terphenyl	Result 115 422 <49.8 537 %Recovery	Qualifier U	## 49.8 49.8 49.8 Limits	mg/Kg mg/Kg mg/Kg	<u>D</u>	09/24/21 14:35 09/24/21 14:35 09/24/21 14:35 09/24/21 14:35 Prepared 09/24/21 14:35	09/24/21 03:18 09/24/21 03:18 09/24/21 03:18 09/24/21 03:18 Analyzed	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH Surrogate 1-Chlorooctane o-Terphenyl	Result 115 422 <49.8 537	Qualifier U Qualifier	## A 49.8 49.8 49.8 49.8 **Limits** 70 - 130 70 - 130	mg/Kg mg/Kg mg/Kg	<u>D</u>	09/24/21 14:35 09/24/21 14:35 09/24/21 14:35 09/24/21 14:35 Prepared 09/24/21 14:35	09/24/21 03:18 09/24/21 03:18 09/24/21 03:18 09/24/21 03:18 Analyzed 09/24/21 03:18	Dil Fa
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH Surrogate 1-Chlorooctane	Result 115 422 <49.8 537	Qualifier U Qualifier	## A 49.8 49.8 49.8 49.8 **Limits** 70 - 130 70 - 130	mg/Kg mg/Kg mg/Kg	<u>D</u>	09/24/21 14:35 09/24/21 14:35 09/24/21 14:35 09/24/21 14:35 Prepared 09/24/21 14:35	09/24/21 03:18 09/24/21 03:18 09/24/21 03:18 09/24/21 03:18 Analyzed 09/24/21 03:18	Dil Fa

Surrogate Summary

Client: TRC Solutions, Inc. Job ID: 880-6404-1 Project/Site: HEP Eunice EMSU Remediation SDG: Eunice NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

			Per	cent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-6278-A-92-D MS	Matrix Spike	116	84	
880-6278-A-92-E MSD	Matrix Spike Duplicate	122	71	
880-6404-1	TT-5	104	63 S1-	
880-6404-2	TT-5	81	85	
880-6404-3	TT-5	168 S1+	83	
LCS 880-8359/1-A	Lab Control Sample	114	86	
LCSD 880-8359/2-A	Lab Control Sample Dup	115	85	
MB 880-8359/5-A	Method Blank	103	79	

BFB = 4-Bromofluorobenzene (Surr) DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

			Percent Surrog	ate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-6404-1	TT-5	125	114	
880-6404-2	TT-5	125	117	
880-6404-3	TT-5	118	119	
880-6413-A-41-D MS	Matrix Spike	119	112	
880-6413-A-41-E MSD	Matrix Spike Duplicate	123	114	
LCS 880-8373/2-A	Lab Control Sample	91	86	
LCSD 880-8373/3-A	Lab Control Sample Dup	91	84	
MB 880-8373/1-A	Method Blank	108	115	

Surrogate Legend

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6404-1

SDG: Eunice NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-8359/5-A

Matrix: Solid

Analysis Batch: 8365

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 8359

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/24/21 10:53	09/24/21 17:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/24/21 10:53	09/24/21 17:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/24/21 10:53	09/24/21 17:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		09/24/21 10:53	09/24/21 17:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/24/21 10:53	09/24/21 17:49	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		09/24/21 10:53	09/24/21 17:49	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		09/24/21 10:53	09/24/21 17:49	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	09/24/21 10:53	09/24/21 17:49	1
1,4-Difluorobenzene (Surr)	79		70 - 130	09/24/21 10:53	09/24/21 17:49	1

Lab Sample ID: LCS 880-8359/1-A

Matrix: Solid

Analysis Batch: 8365

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 8359

l		Spike	LCS	LCS				%Rec.	
l	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
l	Benzene	 0.100	0.09435		mg/Kg		94	70 - 130	
l	Toluene	0.100	0.09455		mg/Kg		95	70 - 130	
l	Ethylbenzene	0.100	0.09547		mg/Kg		95	70 - 130	
l	m-Xylene & p-Xylene	0.200	0.1988		mg/Kg		99	70 - 130	
l	o-Xylene	0.100	0.09902		mg/Kg		99	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1.4-Difluorobenzene (Surr)	86		70 - 130

Lab Sample ID: LCSD 880-8359/2-A

Matrix: Solid

Analysis Batch: 8365

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 8359

	Spike	LCSD LCSE	כ		%Rec.		RPD
Analyte	Added	Result Quali	ifier Unit	D %Rec	Limits	RPD	Limit
Benzene	0.100	0.09553	mg/Kg	96	70 - 130	1	35
Toluene	0.100	0.09768	mg/Kg	98	70 - 130	3	35
Ethylbenzene	0.100	0.1002	mg/Kg	100	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2093	mg/Kg	105	70 - 130	5	35
o-Xylene	0.100	0.1051	mg/Kg	105	70 - 130	6	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1.4-Difluorobenzene (Surr)	85		70 - 130

Lab Sample ID: 880-6278-A-92-D MS

Matrix: Solid

Analyte Benzene

Analysis Batch: 8365

								Prep Type: Prep Bat	
Sample	Sample	Spike	MS	MS				%Rec.	
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
<0.00200	U F1	0.0998	0.06933	F1	mg/Kg		69	70 - 130	

Eurofins Xenco, Midland

Client Sample ID: Matrix Spike

Page 8 of 19

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6404-1

SDG: Eunice NM

Prep Batch: 8359

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-6278-A-92-D MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 8365

_	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Toluene	<0.00200	U F1	0.0998	0.07674		mg/Kg		76	70 - 130	
Ethylbenzene	<0.00200	U	0.0998	0.07945		mg/Kg		80	70 - 130	
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1605		mg/Kg		80	70 - 130	
o-Xylene	< 0.00200	U	0.0998	0.08074		mg/Kg		80	70 - 130	

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	84		70 - 130

Lab Sample ID: 880-6278-A-92-E MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 8365

•	Prep Type: Total/NA
	Prep Batch: 8359

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U F1	0.0994	0.05515	F1	mg/Kg		55	70 - 130	23	35
Toluene	<0.00200	U F1	0.0994	0.06640	F1	mg/Kg		66	70 - 130	14	35
Ethylbenzene	<0.00200	U	0.0994	0.07154		mg/Kg		72	70 - 130	10	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1491		mg/Kg		75	70 - 130	7	35
o-Xylene	<0.00200	U	0.0994	0.07463		mg/Kg		75	70 - 130	8	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1491		mg/Kg mg/Kg		75	70 - 130	10 7 8	

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	71		70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-8373/1-A **Client Sample ID: Method Blank Matrix: Solid** Prep Type: Total/NA Prep Batch: 8373

Analysis Batch: 8338

	MB	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		09/24/21 14:35	09/24/21 19:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/24/21 14:35	09/24/21 19:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/24/21 14:35	09/24/21 19:18	1
Total TPH	<50.0	U	50.0	mg/Kg		09/24/21 14:35	09/24/21 19:18	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	09/24/21 14:35	09/24/21 19:18	1
o-Terphenyl	115		70 - 130	09/24/21 14:35	09/24/21 19:18	1

Lab Sample ID: LCS 880-8373/2-A

Matrix: Solid

Analysis Batch: 8338

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 8373

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits 1000 745.3 Gasoline Range Organics mg/Kg 75 70 - 130

(GRO)-C6-C10

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6404-1

SDG: Eunice NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-8373/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 8338** Prep Batch: 8373

LCS LCS Spike %Rec. Added Result Qualifier Unit %Rec Limits Diesel Range Organics (Over 1000 869.5 mg/Kg 87 70 - 130

C10-C28)

	LCS LCS	
Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	91	70 - 130
o-Terphenyl	86	70 - 130

Lab Sample ID: LCSD 880-8373/3-A Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 8338 Prep Batch: 8373 LCSD LCSD RPD Spike %Rec. Result Qualifier RPD Limit **Analyte** Added Unit D %Rec Limits Gasoline Range Organics 1000 801.3 80 70 - 130 20 mg/Kg (GRO)-C6-C10

1000

822.0

mg/Kg

82

Client Sample ID: Matrix Spike Duplicate

70 - 130

Diesel Range Organics (Over C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 70 - 130 91 o-Terphenyl 84 70 - 130

Lab Sample ID: 880-6413-A-41-D MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 8338

Prep Batch: 8373 Spike MS MS Sample Sample %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Gasoline Range Organics <49.8 U 997 933.2 mg/Kg 94 70 - 130 (GRO)-C6-C10 997 886.7 Diesel Range Organics (Over 174 mg/Kg 71 70 - 130

C10-C28)

	IVIS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	119		70 - 130
o-Terphenvl	112		70 - 130

Lab Sample ID: 880-6413-A-41-E MSD

Matrix: Solid

C10-C28)

o-Terphenyl

Analysis Batch: 8338 Prep Batch: 8373 Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Added Result Qualifier Limits RPD Limit Analyte Unit %Rec Gasoline Range Organics <49.8 Ū 999 1012 mg/Kg 101 70 - 130 8 20 (GRO)-C6-C10 999 917.3 74 70 - 130 20 Diesel Range Organics (Over 174 mg/Kg 3

MSD MSD Surrogate %Recovery Qualifier Limits 70 - 130 1-Chlorooctane 123

114

Eurofins Xenco, Midland

70 - 130

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Prep Type: Total/NA

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6404-1

Client Sample ID: TT-5

Client Sample ID: TT-5

Prep Type: Soluble

Prep Type: Soluble

SDG: Eunice NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-8317/1-A

Lab Sample ID: LCS 880-8317/2-A

Matrix: Solid

Client Sample ID: Method Blank **Prep Type: Soluble**

Analysis Batch: 8469

MB MB

Analyte Result Qualifier RL Unit D Analyzed Dil Fac Prepared 5.00 09/27/21 20:58 Chloride <5.00 U mg/Kg

> **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 8469

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 90 - 110 240.1 mg/Kg 96

Lab Sample ID: LCSD 880-8317/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 8469

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier Limits **RPD** Limit Analyte Unit D %Rec Chloride 250 240.9 96 20 mg/Kg

Lab Sample ID: 880-6404-1 MS

Matrix: Solid

Analysis Batch: 8469

%Rec. Spike MS MS Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 249 278.2 11.8 mg/Kg 107 90 - 110

Lab Sample ID: 880-6404-1 MSD

Released to Imaging: 3/24/2022 9:01:44 AM

Matrix: Solid

Analysis Batch: 8469

MSD MSD RPD Sample Sample Spike %Rec. Analyte Result Qualifier Added %Rec Limits RPD Result Qualifier Unit Limit Chloride 11.8 249 279.4 108 20 mg/Kg 90 - 110 0

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6404-1 SDG: Eunice NM

GC VOA

Prep Batch: 8359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6404-1	TT-5	Total/NA	Solid	5035	
880-6404-2	TT-5	Total/NA	Solid	5035	
880-6404-3	TT-5	Total/NA	Solid	5035	
MB 880-8359/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-8359/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-8359/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-6278-A-92-D MS	Matrix Spike	Total/NA	Solid	5035	
880-6278-A-92-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 8365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6404-1	TT-5	Total/NA	Solid	8021B	8359
880-6404-2	TT-5	Total/NA	Solid	8021B	8359
880-6404-3	TT-5	Total/NA	Solid	8021B	8359
MB 880-8359/5-A	Method Blank	Total/NA	Solid	8021B	8359
LCS 880-8359/1-A	Lab Control Sample	Total/NA	Solid	8021B	8359
LCSD 880-8359/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	8359
880-6278-A-92-D MS	Matrix Spike	Total/NA	Solid	8021B	8359
880-6278-A-92-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	8359

GC Semi VOA

Analysis Batch: 8292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6404-2	TT-5	Total/NA	Solid	8015B NM	8373
880-6404-3	TT-5	Total/NA	Solid	8015B NM	8373

Analysis Batch: 8338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6404-1	TT-5	Total/NA	Solid	8015B NM	8373
MB 880-8373/1-A	Method Blank	Total/NA	Solid	8015B NM	8373
LCS 880-8373/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8373
LCSD 880-8373/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8373
880-6413-A-41-D MS	Matrix Spike	Total/NA	Solid	8015B NM	8373
880-6413-A-41-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8373

Prep Batch: 8373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6404-1	TT-5	Total/NA	Solid	8015NM Prep	
880-6404-2	TT-5	Total/NA	Solid	8015NM Prep	
880-6404-3	TT-5	Total/NA	Solid	8015NM Prep	
MB 880-8373/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8373/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8373/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6413-A-41-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-6413-A-41-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 8317

Released to Imaging: 3/24/2022 9:01:44 AM

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6404-1	TT-5	Soluble	Solid	DI Leach	

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6404-1 SDG: Eunice NM

HPLC/IC (Continued)

Leach Batch: 8317 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6404-2	TT-5	Soluble	Solid	DI Leach	
880-6404-3	TT-5	Soluble	Solid	DI Leach	
MB 880-8317/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-8317/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-8317/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-6404-1 MS	TT-5	Soluble	Solid	DI Leach	
880-6404-1 MSD	TT-5	Soluble	Solid	DI Leach	

Analysis Batch: 8469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6404-1	TT-5	Soluble	Solid	300.0	8317
880-6404-2	TT-5	Soluble	Solid	300.0	8317
880-6404-3	TT-5	Soluble	Solid	300.0	8317
MB 880-8317/1-A	Method Blank	Soluble	Solid	300.0	8317
LCS 880-8317/2-A	Lab Control Sample	Soluble	Solid	300.0	8317
LCSD 880-8317/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	8317
880-6404-1 MS	TT-5	Soluble	Solid	300.0	8317
880-6404-1 MSD	TT-5	Soluble	Solid	300.0	8317

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Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6404-1 SDG: Eunice NM

Client Sample ID: TT-5

Date Received: 09/23/21 16:42

Date Collected: 09/21/21 13:30

Lab Sample ID: 880-6404-1 **Matrix: Solid**

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	8359	09/24/21 10:53	MR	XEN MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	8365	09/24/21 20:34	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8373	09/24/21 14:35	DM	XEN MID
Total/NA	Analysis	8015B NM		5			8338	09/25/21 01:28	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	8317	09/26/21 12:21	SC	XEN MID
Soluble	Analysis	300.0		1			8469	09/27/21 21:15	CH	XEN MID

Client Sample ID: TT-5

Date Collected: 09/21/21 13:40 Date Received: 09/23/21 16:42

Lab Sample ID: 880-6404-2 Matrix: Solid

Batch Batch Dil Initial Final Batch Prepared Method **Prep Type** Type Run **Factor** Amount **Amount** Number or Analyzed **Analyst** Lab Total/NA Prep 5035 4.95 g 5 mL 8359 09/24/21 10:53 MR XEN MID 8021B Total/NA 20 5 mL 5 mL 8365 09/24/21 20:54 MR XEN MID Analysis Total/NA Analysis 8015B NM 5 8292 09/24/21 02:58 AJ XEN MID Total/NA Prep 8015NM Prep 10.03 g 10 mL 8373 09/24/21 14:35 DM XEN MID Soluble 5.01 g 50 mL 8317 09/26/21 12:21 SC XEN MID Leach DI Leach Soluble Analysis 300.0 8469 09/27/21 21:31 CH XEN MID 1

Client Sample ID: TT-5

Date Collected: 09/21/21 13:50

Date Received: 09/23/21 16:42

Lab Sample ID: 880-6404-3

Matrix: Solid

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	8359	09/24/21 10:53	MR	XEN MID
Total/NA	Analysis	8021B		20	5 mL	5 mL	8365	09/24/21 21:15	MR	XEN MID
Total/NA	Analysis	8015B NM		1			8292	09/24/21 03:18	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8373	09/24/21 14:35	DM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	8317	09/26/21 12:21	SC	XEN MID
Soluble	Analysis	300.0		1			8469	09/27/21 21:37	CH	XEN MID

Laboratory References:

Released to Imaging: 3/24/2022 9:01:44 AM

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: TRC Solutions, Inc. Job ID: 880-6404-1 Project/Site: HEP Eunice EMSU Remediation

SDG: Eunice NM

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	P	rogram	Identification Number	Expiration Date
Texas	N	ELAP	T104704400-21-22	06-30-22
,		ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for wh
0 ,	offer certification.			
Analysis Method	offer certification. Prep Method	Matrix	Analyte	
0 ,		Matrix Solid	Analyte Total TPH	

Method Summary

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6404-1

SDG: Eunice NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6404-1

SDG: Eunice NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depti
880-6404-1	TT-5	Solid	09/21/21 13:30	09/23/21 16:42	7 - 8
880-6404-2	TT-5	Solid	09/21/21 13:40	09/23/21 16:42	8 - 9
880-6404-3	TT-5	Solid	09/21/21 13:50	09/23/21 16:42	9 - 10

Relinquished by (Signature)

Received by: (Signature)

222 Date/Time

1642

Relinquished by (Signature)

Received by: (Signature)

Date/Time

Revised Date: 08/25/2020 Rev 2020.2

		- T
Xenco	Tonnent	
	Test.	

City, State ZIP Address.

Mario

79705

City, State ZIP:

Reporting Level II 🗌 Level III 🗎 PST/UST 📗 TRRP 📗

Level IV

State of Project:

Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐

Superfund [

Work Order Comments

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Dec

452,250,4465

Project Manager Company Name

Kussell

SEBLING.

Bill to. (if different)

Company Name.

Hobbs, NM (575) 392-7550 Carlsbad NM (575) 988-3199	EL Paso TX (915) 585-3443, Lubbock, TX (806) 794-1250	Midland TX (432) 704-5440 San Antonio, TX (2 OOU-6404 Chain of Custod.	Houston, TX (281) 240-4200, Dallas TX (214	Chain of Custod	
		o: W 1 0 1	アンファ		

Phone	424.250.4Hes	ام ا	Email.	Email JESTBRING TRECOMPLNIES. COL	240	777	CCO	7	2/6	ر د د	5	'		Del	Deliverables EDD	es EI	ğ	Ш	A	ADaPT 🗆		Other	ф	
Project Name:	HEPIELDS Y EMSU DELEBATION	Penie DATION	Turn Around	ound							ANA	ANALYSIS RE		UEST	7						ם	reser	vative	Preservative Codes
Project Number	454378		Akoutine [Rush	Pres.											\dashv	_		\dashv		None NO	б		DI Water: H ₂ O
Project Location	EUNIE NA	Due	Due Date											\neg			\dashv		-	\perp	Cool Cool	<u>8</u>	<	MeOH Me
Sampler's Name.	R SEMING	TA:	TAT starts the day received by	ay received by		***********														т.	HCL HC	ਨ	I :	HNO. HN
P0#		the	the lab if received by 4 30pm	ed by 4 30pm	rs															-	H,SO, H,	ĩ	z	NaOH Na
SAMPLE RECEIPT	Temp Blank:	Yes (No) W	Wet Ice.	€ No	ietei																HªPO, HP	픇 ,		
Samples Received Intact	(Yes) No	Thermometer ID	•	27	ram																NaHSO, NARIS	2	N D	
Cooler Custody Seals.	Yes No (N/X	Correction Factor		+0.6	Pa																Na.S.O. NaSO.	Na S	Ş	
Sample Custody Seals	Yes No (N/A	Temperature Reading	ading	2,2			/	10				····								NI.	n Ace	tate+N	Zn Acetate+NaOH 7n	Zn
Total Containers.	3 (Corrected Temperature	erature.	2,7	L	74	EX	OP.												7 1	laOH+	Asco	bic Ac	NaOH+Ascorbic Acid SAPC
Sample Identification	Matrix	Date Sampled Sa	Time D Sampled	Depth Comp	# of Cont	11	B76	CH													S	ampl	e Cor	Sample Comments
17-507-8	\ \ \	21 80000 1		"	_	1	(1											\vdash					
17-50 8-9	5	3	1340 0	e-9 G	-	,	,	1																
77-50 9-10	-10'	←	1350 9	1 OF5	_	(1							7				4	_					
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Total 200.7 / 6010	10 200.8 / 6020:	8RCRA	A 13PPN	13PPM Texas 11 Al Sb As Ba Be	≥	b As	Ba E	Be B	B Cd Ca Cr Co Cu Fe Pb	Sa CI	S	웨	e Pb	- 11	S	ō Z		ě A	SiC	Z.	Sr	TI Sr	Ma Mn Mo Ni K Se Aa SiO, Na Sr Ti Sn U V Zn	/ 7n
Circle Method(s) and	Circle Method(s) and Metal(s) to be analyzed		CLP / SPLI	TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo	CRA	Sb A	s Ba	ВеС	Cr Cr	င္ပ	Cu P	b Mn	Mo		e Ag	TI (_	I .	g 16	31/2	45 1	/747	Hg 1631 / 245 1 / 7470 / 747	171
Notice [.] Signature of this do	Notice Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any location of the cost of samples and shall not assume any responsibility for any location of the cost of samples and shall not assume any responsibility for any location of the cost of samples and shall not assume any responsibility for any location of the cost of samples and shall not assume any responsibility for any location of the cost of samples and shall not assume any responsibility for any location of the cost of samples and shall not assume any responsibility for any location of the cost of samples and shall not assume any responsibility for any location of the cost of samples and shall not assume any responsibility for any location of the cost of samples and shall not assume any responsibility for any location of the cost of samples and shall not assume any responsibility for any location of the cost of samples and shall not assume any location of the cost of the cost of samples and shall not assume any location of the cost of samples and shall not assume any location of the cost of the cost of samples and shall not assume any location of the cost of samples and shall not assume any location of the cost of the	samples constitut	es a valid purc	hase order from	n client	compan	y to Eur	ofins Xe	nco, its	affiliat	es and	ubcon	ractors	. It ass	igns st	andard	terms	and co	nditior	. 8				
of Eurofins Xenco. A minin	of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated	pplied to each proj	ect and a char	ge of \$5 for eac	h sampl	e submi	tted to E	Eurofins	Xenco	but no	t analyz	ed The	se tern	are due to circumstances beyond the control ns will be enforced unless previously negotia	e enfor	ced un	less pr	yond u	y nego	rol				

Login Sample Receipt Checklist

Client: TRC Solutions, Inc. Job Number: 880-6404-1 SDG Number: Eunice NM

Login Number: 6404 List Source: Eurofins Xenco, Midland

List Number: 1

Creator: Phillips, Kerianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Eurofins Xenco, Midland Page 19 of 19

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Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6652-1

Laboratory Sample Delivery Group: Eunice NM Client Project/Site: HEP Eunice EMSU Remediation

Revision: 1

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MRAMER

Authorized for release by: 1/10/2022 9:36:02 AM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS

Review your project results through

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www.eurofinsus.com/Env

Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU Remediation Laboratory Job ID: 880-6652-1 SDG: Eunice NM

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Definitions/Glossary

Client: TRC Solutions, Inc.

Job ID: 880-6652-1

Project/Site: HEP Eunice EMSU Remediation SDG: Eunice NM

Qualifiers

GC Semi VOA

 Qualifier
 Qualifier Description

 S1+
 Surrogate recovery exceeds control limits, high biased.

 U
 Indicates the analyte was analyzed for but not detected.

Glossary

DL

These commonly used abbreviations may or may not be present in this report.
Listed under the "D" column to designate that the result is reported on a dry weight basis
Percent Recovery
Contains Free Liquid
Colony Forming Unit
Contains No Free Liquid
Duplicate Error Ratio (normalized absolute difference)
Dilution Factor

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC Decision Level Concentration (Radiochemistry)

Extincted Detection Limit (Dioxin)

Detection Limit (DoD/DOE)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent
POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Eurofins Xenco

Case Narrative

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6652-1

SDG: Eunice NM

Job ID: 880-6652-1

Laboratory: Eurofins Xenco

Narrative

Job Narrative 880-6652-1

REVISION

The report being provided is a revision of the original report sent on 10/5/2021. The report (revision 1) is being revised due to Per client email, removed sample depths from sample name.

Report revision history

Receipt

The samples were received on 9/29/2021 2:02 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 6.0°C

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: CS-7 (880-6652-14). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client: TRC Solutions, Inc.

Job ID: 880-6652-1
Project/Site: HEP Eunice EMSU Remediation

SDG: Eunice NM

Client Sample ID: CS-1 Lab Sample ID: 880-6652-1

Date Collected: 09/28/21 08:00 Matrix: Solid
Date Received: 09/29/21 14:02

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:33	1
Method: 8015B NM - Diesel Ran	ge Organi	ics (DRO) (G	SC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		09/29/21 16:43	09/30/21 17:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/29/21 16:43	09/30/21 17:27	1
Oll Range Organics (Over C28-C36)	<49.9	1.1	49.9	mg/Kg		00/20/21 16:42	09/30/21 17:27	4

o-Terphenyl 103 70 - 130 09/29/21 16:43 09/30/21 17:27 1

Limits

70 - 130

%Recovery Qualifier

102

Client Sample ID: CS-2

Date Collected: 09/28/21 08:10

Lab Sample ID: 880-6652-3

Matrix: Solid

Date Received: 09/29/21 14:02

Surrogate

1-Chlorooctane

Method: 8015 NM - Diesel Range Organics (DRO) (GC)								
	Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Total TPH	<50.0 U	50.0	mg/Kg			10/04/21 10:33	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		09/29/21 16:43	09/30/21 17:48	1	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/29/21 16:43	09/30/21 17:48	1	
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/29/21 16:43	09/30/21 17:48	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	101		70 - 130			09/29/21 16:43	09/30/21 17:48	1	
o-Terphenyl	104		70 - 130			09/29/21 16:43	09/30/21 17:48	1	

Client Sample ID: CS-3

Date Collected: 09/28/21 08:20

Lab Sample ID: 880-6652-5

Matrix: Solid

Date Received: 09/29/21 14:02

Method: 8015 NM - Diesel Ra	nge Organic	s (DRO) (GO	>)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:33	1
Method: 8015B NM - Diesel R	ange Organ	ics (DRO) (G	SC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		09/29/21 16:43	09/30/21 18:10	1

					22/22/21/22		
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg	09/29/21 16:43	09/30/21 18:10	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg	09/29/21 16:43	09/30/21 18:10	1
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg	09/29/21 16:43	09/30/21 18:10	1

Surrogate	%Recovery (Qualifier L	imits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99	70	<u>0 - 130</u>	09/29/21 16:43	09/30/21 18:10	1
o-Terphenyl	102	70	0 - 130	09/29/21 16:43	09/30/21 18:10	1

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Dil Fac

Prepared

09/29/21 16:43 09/30/21 17:27

Analyzed

o-Terphenyl

Client: TRC Solutions, Inc. Job ID: 880-6652-1 Project/Site: HEP Eunice EMSU Remediation SDG: Eunice NM

Client Sample ID: CS-4 Lab Sample ID: 880-6652-7

Date Collected: 09/28/21 08:30 **Matrix: Solid** Date Received: 09/29/21 14:02

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:33	1
Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		09/29/21 16:43	09/30/21 18:31	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		09/29/21 16:43	09/30/21 18:31	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/21 16:43	09/30/21 18:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			09/29/21 16:43	09/30/21 18:31	1

Client Sample ID: CS-5 Lab Sample ID: 880-6652-9

70 - 130

107

Date Collected: 09/28/21 08:40 **Matrix: Solid** Date Received: 09/29/21 14:02

Method: 8015 NM - Diesel Rang	je Organics (DRO)	(GC)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	60.3	50.0	mg/Kg			10/04/21 10:33	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		09/29/21 16:43	09/30/21 18:53	1
Diesel Range Organics (Over C10-C28)	60.3		50.0	mg/Kg		09/29/21 16:43	09/30/21 18:53	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/21 16:43	09/30/21 18:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			09/29/21 16:43	09/30/21 18:53	1
o-Terphenyl	105		70 - 130			09/29/21 16:43	09/30/21 18:53	1

Client Sample ID: CS-6 Lab Sample ID: 880-6652-11

Date Collected: 09/28/21 08:55 Date Received: 09/29/21 14:02

Method: 8015 NM - Diesel Rar	nge Organic	s (DRO) (0	SC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:33	1
– Method: 8015B NM - Diesel Ra	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		09/29/21 16:43	09/30/21 19:14	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		09/29/21 16:43	09/30/21 19:14	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		09/29/21 16:43	09/30/21 19:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			09/29/21 16:43	09/30/21 19:14	1
o-Terphenyl	109		70 - 130			09/29/21 16:43	09/30/21 19:14	1

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09/29/21 16:43 09/30/21 18:31

Matrix: Solid

Client: TRC Solutions, Inc.

Job ID: 880-6652-1 Project/Site: HEP Eunice EMSU Remediation SDG: Eunice NM

Client Sample ID: CS-7 Lab Sample ID: 880-6652-13

Date Collected: 09/28/21 09:05 **Matrix: Solid** Date Received: 09/29/21 14:02

Method: 8015 NM - Diesel Rar	nge Organic	s (DRO) (0	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	189		50.0	mg/Kg			10/04/21 10:33	1
Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		09/29/21 16:43	09/30/21 19:36	1
(GRO)-C6-C10								
Diesel Range Organics (Over	189		50.0	mg/Kg		09/29/21 16:43	09/30/21 19:36	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/21 16:43	09/30/21 19:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			09/29/21 16:43	09/30/21 19:36	1
o-Terphenyl	107		70 - 130			09/29/21 16:43	09/30/21 19:36	1

Client Sample ID: CS-7 Lab Sample ID: 880-6652-14

Date Collected: 09/28/21 09:10 **Matrix: Solid** Date Received: 09/29/21 14:02

Method: 8015 NM - Diesel Range Organics (DRO) (GC)								
	Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Total TPH	593	50.0	mg/Kg			10/05/21 10:03	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	61.8		49.8	mg/Kg		10/04/21 13:45	10/05/21 03:11	1
Diesel Range Organics (Over C10-C28)	474		49.8	mg/Kg		10/04/21 13:45	10/05/21 03:11	1
Oll Range Organics (Over C28-C36)	57.0		49.8	mg/Kg		10/04/21 13:45	10/05/21 03:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130			10/04/21 13:45	10/05/21 03:11	1
o-Terphenyl	132	S1+	70 - 130			10/04/21 13:45	10/05/21 03:11	1

Lab Sample ID: 880-6652-15 **Client Sample ID: CS-8** Date Collected: 09/28/21 09:15 **Matrix: Solid**

Date Received: 09/29/21 14:02

Method: 8015 NM - Diesel Range	Organic	s (DRO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:33	1
Method: 8015B NM - Diesel Range	_	ics (DRO) (GC)	RΙ	Unit	n	Propared	Analyzed	Dil Fac

Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		09/29/21 16:43	09/30/21 19:57	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		09/29/21 16:43	09/30/21 19:57	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		09/29/21 16:43	09/30/21 19:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			09/29/21 16:43	09/30/21 19:57	1
o-Terphenyl	109		70 - 130			09/29/21 16:43	09/30/21 19:57	1

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Client Sample Results

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6652-1

SDG: Eunice NM

Client Sample ID: CS-9 Lab Sample ID: 880-6652-17

Date Collected: 09/28/21 09:25

Date Received: 09/29/21 14:02

Matrix: Solid

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:33	1
Method: 8015B NM - Diesel Ra	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		09/29/21 16:43	09/30/21 20:19	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		09/29/21 16:43	09/30/21 20:19	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/21 16:43	09/30/21 20:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			09/29/21 16:43	09/30/21 20:19	1
o-Terphenyl	106		70 - 130			09/29/21 16:43	09/30/21 20:19	1

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Surrogate Summary

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6652-1

SDG: Eunice NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

		1CO1	OTPH1	nt Surroga
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-6652-1	CS-1	102	103	
880-6652-3	CS-2	101	104	
880-6652-5	CS-3	99	102	
880-6652-7	CS-4	103	107	
880-6652-9	CS-5	101	105	
880-6652-11	CS-6	106	109	
880-6652-13	CS-7	105	107	
880-6652-14	CS-7	120	132 S1+	
880-6652-15	CS-8	104	109	
880-6652-17	CS-9	102	106	
890-1316-A-11-E MS	Matrix Spike	100	91	
890-1316-A-11-F MSD	Matrix Spike Duplicate	101	91	
890-1349-A-1-F MS	Matrix Spike	120	110	
890-1349-A-1-G MSD	Matrix Spike Duplicate	122	113	
LCS 880-8617/2-A	Lab Control Sample	105	96	
LCS 880-8829/2-A	Lab Control Sample	113	117	
LCSD 880-8617/3-A	Lab Control Sample Dup	106	97	
LCSD 880-8829/3-A	Lab Control Sample Dup	108	111	
MB 880-8617/1-A	Method Blank	100	103	
MB 880-8829/1-A	Method Blank	122	128	

1CO = 1-Chlorooctane OTPH = o-Terphenyl

QC Sample Results

Client: TRC Solutions, Inc. Job ID: 880-6652-1 Project/Site: HEP Eunice EMSU Remediation SDG: Eunice NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-8617/1-A

Lab Sample ID: LCS 880-8617/2-A

Matrix: Solid

Analysis Batch: 8626

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 8617

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		09/29/21 16:43	09/30/21 11:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/29/21 16:43	09/30/21 11:21	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/29/21 16:43	09/30/21 11:21	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	09/29/21 16:43	09/30/21 11:21	1
o-Terphenyl	103		70 - 130	09/29/21 16:43	09/30/21 11:21	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 8617

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit Limits D %Rec 1000 795.0 80 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 947.4 95 mg/Kg 70 - 130C10-C28)

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	105	70 - 130
o-Terphenyl	96	70 - 130

Lab Sample ID: LCSD 880-8617/3-A

Matrix: Solid

Matrix: Solid

Analysis Batch: 8626

Analysis Batch: 8626

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Prep Batch: 8617

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier RPD Limit Analyte Unit %Rec Limits Gasoline Range Organics 1000 874.5 mg/Kg 87 70 - 130 10 20 (GRO)-C6-C10 1000 Diesel Range Organics (Over 945.0 mg/Kg 94 70 - 130 0 20 C10-C28)

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: 890-1316-A-11-E MS

Matrix: Solid

Analysis Batch: 8626

Client Sample ID: Matrix Spike Prep Type: Total/NA

Prep Batch: 8617

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	997	1000		mg/Kg		100	70 - 130	
Diesel Range Organics (Over C10-C28)	63.1		997	890.0		mg/Kg		83	70 - 130	

Client: TRC Solutions, Inc. Job ID: 880-6652-1 Project/Site: HEP Eunice EMSU Remediation SDG: Eunice NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-1316-A-11-E MS

Matrix: Solid

Analysis Batch: 8626

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 8617

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 100 70 - 130 o-Terphenyl 91 70 - 130

Lab Sample ID: 890-1316-A-11-F MSD Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 8626 Prep Batch: 8617 RPD MSD MSD Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics <49.8 U 999 1023 mg/Kg 102 70 - 130 2 20 (GRO)-C6-C10

901.5

mg/Kg

999

C10-C28)

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 101 70 - 130 70 - 130 o-Terphenyl 91

63.1

MB MB

Lab Sample ID: MB 880-8829/1-A

Matrix: Solid

Analysis Batch: 8775

Diesel Range Organics (Over

Client Sample ID: Method Blank **Prep Type: Total/NA**

70 - 130

84

Prep Batch: 8829

ı									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/04/21 13:45	10/04/21 21:30	1
	Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/04/21 13:45	10/04/21 21:30	1
	Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/04/21 13:45	10/04/21 21:30	1

MB MB %Recovery Qualifier Surrogate Limits Prepared Analyzed Dil Fac 1-Chlorooctane 122 70 - 130 10/04/21 13:45 10/04/21 21:30 128 70 - 130 10/04/21 13:45 10/04/21 21:30 o-Terphenyl

Lab Sample ID: LCS 880-8829/2-A

Matrix: Solid

Analysis Batch: 8775

Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 8829

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	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	968.3		mg/Kg		97	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	1131		mg/Kg		113	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	117		70 - 130

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Lab Sample ID: LCSD 880-8829/3-A

Lab Sample ID: 890-1349-A-1-F MS

QC Sample Results

Client: TRC Solutions, Inc. Job ID: 880-6652-1 Project/Site: HEP Eunice EMSU Remediation SDG: Eunice NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 8829

Analysis Batch: 8775							Prep	Batch:	8829
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	910.6		mg/Kg		91	70 - 130	6	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1069		mg/Kg		107	70 - 130	6	20

C10-C28)

Matrix: Solid

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	111		70 - 130

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Matrix: Solid Analysis Batch: 8775 Prep Batch: 8829

Sample Sample Spike MS MS %Rec. Analyte **Result Qualifier** Added Result Qualifier Limits Unit D %Rec Gasoline Range Organics 299 995 1030 73 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 287 995 1341 mg/Kg 106 70 - 130 C10-C28)

MS MS %Recovery Qualifier Surrogate Limits 1-Chlorooctane 120 70 - 130 o-Terphenyl 110 70 - 130

Lab Sample ID: 890-1349-A-1-G MSD

Matrix: Solid

Analysis Batch: 8775

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA Prep Batch: 8829

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	299		997	1121		mg/Kg		82	70 - 130	8	20
Diesel Range Organics (Over	287		997	1374		mg/Kg		109	70 - 130	2	20

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	122		70 - 130
o-Terphenyl	113		70 - 130

QC Association Summary

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6652-1 SDG: Eunice NM

GC Semi VOA

Prep Batch: 8617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6652-1	CS-1	Total/NA	Solid	8015NM Prep	
880-6652-3	CS-2	Total/NA	Solid	8015NM Prep	
880-6652-5	CS-3	Total/NA	Solid	8015NM Prep	
880-6652-7	CS-4	Total/NA	Solid	8015NM Prep	
880-6652-9	CS-5	Total/NA	Solid	8015NM Prep	
880-6652-11	CS-6	Total/NA	Solid	8015NM Prep	
880-6652-13	CS-7	Total/NA	Solid	8015NM Prep	
880-6652-15	CS-8	Total/NA	Solid	8015NM Prep	
880-6652-17	CS-9	Total/NA	Solid	8015NM Prep	
MB 880-8617/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8617/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8617/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1316-A-11-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1316-A-11-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 8626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6652-1	CS-1	Total/NA	Solid	8015B NM	8617
880-6652-3	CS-2	Total/NA	Solid	8015B NM	8617
880-6652-5	CS-3	Total/NA	Solid	8015B NM	8617
880-6652-7	CS-4	Total/NA	Solid	8015B NM	8617
880-6652-9	CS-5	Total/NA	Solid	8015B NM	8617
880-6652-11	CS-6	Total/NA	Solid	8015B NM	8617
880-6652-13	CS-7	Total/NA	Solid	8015B NM	8617
880-6652-15	CS-8	Total/NA	Solid	8015B NM	8617
880-6652-17	CS-9	Total/NA	Solid	8015B NM	8617
MB 880-8617/1-A	Method Blank	Total/NA	Solid	8015B NM	8617
LCS 880-8617/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8617
LCSD 880-8617/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8617
890-1316-A-11-E MS	Matrix Spike	Total/NA	Solid	8015B NM	8617
890-1316-A-11-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8617

Analysis Batch: 8775

Lab Sample ID 880-6652-14	Client Sample ID CS-7	Prep Type Total/NA	Matrix Solid	Method 8015B NM	Prep Batch 8829
MB 880-8829/1-A	Method Blank	Total/NA	Solid	8015B NM	8829
LCS 880-8829/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8829
LCSD 880-8829/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8829
890-1349-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	8829
890-1349-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8829

Analysis Batch: 8793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6652-1	CS-1	Total/NA	Solid	8015 NM	
880-6652-3	CS-2	Total/NA	Solid	8015 NM	
880-6652-5	CS-3	Total/NA	Solid	8015 NM	
880-6652-7	CS-4	Total/NA	Solid	8015 NM	
880-6652-9	CS-5	Total/NA	Solid	8015 NM	
880-6652-11	CS-6	Total/NA	Solid	8015 NM	
880-6652-13	CS-7	Total/NA	Solid	8015 NM	
880-6652-15	CS-8	Total/NA	Solid	8015 NM	

QC Association Summary

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6652-1

SDG: Eunice NM

GC Semi VOA (Continued)

Analysis Batch: 8793 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6652-17	CS-9	Total/NA	Solid	8015 NM	

Prep Batch: 8829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6652-14	CS-7	Total/NA	Solid	8015NM Prep	-
MB 880-8829/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8829/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8829/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1349-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1349-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 8889

_					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6652-14	CS-7	Total/NA	Solid	8015 NM	

Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6652-1 SDG: Eunice NM

Client Sample ID: CS-1

Date Collected: 09/28/21 08:00 Date Received: 09/29/21 14:02

Lab Sample ID: 880-6652-1

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:33	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8617	09/29/21 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8626	09/30/21 17:27	AJ	XEN MID

Lab Sample ID: 880-6652-3 Client Sample ID: CS-2

Date Collected: 09/28/21 08:10 **Matrix: Solid**

Date Received: 09/29/21 14:02

Prep Type Total/NA	Batch Type Analysis	Batch Method 8015 NM	Run	Pactor 1	Initial Amount	Final Amount	Batch Number 8793	Prepared or Analyzed 10/04/21 10:33	Analyst AJ	Lab XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.03 g	10 mL	8617 8626	09/29/21 16:43 09/30/21 17:48		XEN MID XEN MID

Client Sample ID: CS-3 Lab Sample ID: 880-6652-5

Date Collected: 09/28/21 08:20 **Matrix: Solid**

Date Received: 09/29/21 14:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:33	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.04 g	10 mL	8617 8626	09/29/21 16:43 09/30/21 18:10		XEN MID XEN MID

Client Sample ID: CS-4 Lab Sample ID: 880-6652-7

Date Collected: 09/28/21 08:30 **Matrix: Solid**

Date Received: 09/29/21 14:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:33	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	8617	09/29/21 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8626	09/30/21 18:31	AJ	XEN MID

Client Sample ID: CS-5 Lab Sample ID: 880-6652-9

Date Collected: 09/28/21 08:40

Date Received: 09/29/21 14:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:33	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8617	09/29/21 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8626	09/30/21 18:53	AJ	XEN MID

Client Sample ID: CS-6 Lab Sample ID: 880-6652-11

Date Collected: 09/28/21 08:55 **Matrix: Solid** Date Received: 09/29/21 14:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:33	AJ	XEN MID

Eurofins Xenco

Matrix: Solid

Project/Site: HEP Eunice EMSU Remediation

Client Sample ID: CS-6

Client: TRC Solutions, Inc.

Date Collected: 09/28/21 08:55 Date Received: 09/29/21 14:02

Lab Sample ID: 880-6652-11

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	8617	09/29/21 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8626	09/30/21 19:14	AJ	XEN MID

Lab Sample ID: 880-6652-13

Matrix: Solid

Matrix: Solid

Matrix: Solid

Date Collected: 09/28/21 09:05 Date Received: 09/29/21 14:02

Client Sample ID: CS-7

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:33	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8617	09/29/21 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8626	09/30/21 19:36	AJ	XEN MID

Client Sample ID: CS-7 Lab Sample ID: 880-6652-14 Date Collected: 09/28/21 09:10 Matrix: Solid

Date Received: 09/29/21 14:02

Batch Batch Dil Initial Final **Batch** Prepared **Prep Type** Method Amount Number Type Run Factor **Amount** or Analyzed **Analyst** Lab Total/NA 8015 NM 8889 10/05/21 10:03 AJ XEN MID Analysis Total/NA Prep 8015NM Prep 10.05 g 10 mL 8829 10/04/21 13:45 DM XEN MID Total/NA Analysis 8015B NM 1 8775 10/05/21 03:11 AJ XEN MID

Lab Sample ID: 880-6652-15 Client Sample ID: CS-8

Date Collected: 09/28/21 09:15

Date Received: 09/29/21 14:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:33	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.04 g	10 mL	8617 8626	09/29/21 16:43 09/30/21 19:57		XEN MID XEN MID

Client Sample ID: CS-9 Lab Sample ID: 880-6652-17

Date Collected: 09/28/21 09:25 Date Received: 09/29/21 14:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:33	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8617	09/29/21 16:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8626	09/30/21 20:19	AJ	XEN MID

Laboratory References:

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6652-1

SDG: Eunice NM

Laboratory: Eurofins Xenco

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pro	ogram	Identification Number	Expiration Date
Texas	NE	LAP	T104704400-21-22	06-30-22
the following analyte the agency does not	•	rt, but the laboratory is r	not certified by the governing authority.	This list may include analytes for w
,	•	rt, but the laboratory is r Matrix	not certified by the governing authority. Analyte	This list may include analytes for w

Method Summary

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6652-1

SDG: Eunice NM

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Job ID: 880-6652-1 Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU Remediation

SDG: Eunice NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-6652-1	CS-1	Solid	09/28/21 08:00	09/29/21 14:02
880-6652-3	CS-2	Solid	09/28/21 08:10	09/29/21 14:02
880-6652-5	CS-3	Solid	09/28/21 08:20	09/29/21 14:02
880-6652-7	CS-4	Solid	09/28/21 08:30	09/29/21 14:02
880-6652-9	CS-5	Solid	09/28/21 08:40	09/29/21 14:02
880-6652-11	CS-6	Solid	09/28/21 08:55	09/29/21 14:02
880-6652-13	CS-7	Solid	09/28/21 09:05	09/29/21 14:02
880-6652-14	CS-7	Solid	09/28/21 09:10	09/29/21 14:02
880-6652-15	CS-8	Solid	09/28/21 09:15	09/29/21 14:02
880-6652-17	CS-9	Solid	09/28/21 09:25	09/29/21 14:02

Reliaquished by (Signature)

Received by: (Signature)

Date/Time

Relinquished by (Signature)

Received by (Signature)

Date/Time

Revised Date 08/25/2020 Rev 2020.2

Circle Method(s) and Metal(s) to be analyzed

Environment Testing

Houston TX (281) 240-4200 Dallas TX Chain of Cust

Midland TX (432) 704-5440 San Antonio EL Paso TX (915) 585-3443 Lubbock, T Hobbs NM (575) 392-7550 Carlsbad NM (575)

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CS-3@35'	S	9	9/28/2021	825	3.5	ဂ			×			_						
CS-4 @ 3'	S	9	9/28/2021	830	3	င	×						-	$\dashv$				
CS-4 @3 5'	S	9	9/28/2021	835	35	C			×				-					
CS-5 @ 3'	S	9	9/28/2021	840	3	C							$\dashv$					
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re. Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	ent and relinquish	ment of s	amples consti	tutes a valid pu	rchase order	from clie	nt comp	any to Eu	rofins Xe	nco, its a	ffiliates	and subc	ontracto	rs. It ass	igns standard te	rms and condi	itions	
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SAMPLE RECEIPT

Cooler Custody Seals. Samples Received Intact:

ample Custody Seals.

Sampler's Name

roject Location

Project Number Project Name. Project Manager

City, State ZIP Address company Name 50

133

Revised Date 08/25/2020 Rev 2020.2

# Securofins

Xenco Environment Testing

## Chain of Custody

Midland, TX (432) 704-5440 San Antonio, TX (210) 509-3334 EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199 Houston TX (281) 240-4200, Dallas TX (214) 902-0300

	Work Order No:
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Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐

Work Order Comments

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otice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	relinquishment	of samples cons	stitutes a valid p	urchase orde	from c	ent cor	npany t	o Eurof	ins Xen	co, its at	filiates	and sul	contra	ctors.	it assig	yns sta	ndard	terms	and co	nditior	°		
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Sampler's Name. Project Location Project Number

Project Name:

City, State ZIP

Company Name Project Manager

TRC

RUSSELL SEBRING

Bill to (if different)

Company Name

#### **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc. Job Number: 880-6652-1 SDG Number: Eunice NM

Login Number: 6652 **List Source: Eurofins Xenco** 

List Number: 1

Creator: Phillips, Kerianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is	N/A	

<6mm (1/4").

### **Environment Testing America**

#### **ANALYTICAL REPORT**

Eurofins Xenco 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6654-1

Laboratory Sample Delivery Group: Eunice NM Client Project/Site: HEP Eunice EMSU Remediation

Revision: 2

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MRAMER

Authorized for release by: 1/10/2022 9:37:30 AM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS .....

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Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1

2

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12

Client: TRC Solutions, Inc.
Project/Site: HEP Eunice EMSU Remediation

Laboratory Job ID: 880-6654-1 SDG: Eunice NM

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#### **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-6654-1 Project/Site: HEP Eunice EMSU Remediation

SDG: Eunice NM

#### **Qualifiers**

#### **GC Semi VOA**

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

#### **Glossary**

DLC

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DI RA RE IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) Minimum Detectable Concentration (Radiochemistry) MDC

Decision Level Concentration (Radiochemistry)

MDL Method Detection Limit MLMinimum Level (Dioxin) MPN Most Probable Number Method Quantitation Limit MQL

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

**PQL Practical Quantitation Limit** 

**PRES** Presumptive **Quality Control** QC

RER Relative Error Ratio (Radiochemistry)

RLReporting Limit or Requested Limit (Radiochemistry)

**RPD** Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

Too Numerous To Count **TNTC** 

#### **Case Narrative**

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6654-1

SDG: Eunice NM

Job ID: 880-6654-1

**Laboratory: Eurofins Xenco** 

**Narrative** 

Job Narrative 880-6654-1

#### REVISION

The report being provided is a revision of the original report sent on 10/4/2021. The report (revision 2) is being revised due to Per client email, removed sample depths from sample name.

Report revision history

The report being provided is a revision of the original report sent on 10/4/2021. The report (revision 2) is being revised due to Per client email, removed sample depths from sample name.

Revision 1 - 11/3/2021 - Reason - Per client email, corrected samples 014,015,016 to match COC.

#### Receipt

The samples were received on 9/29/2021 1:37 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 6.0°C

#### GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: TRC Solutions, Inc. Job ID: 880-6654-1 Project/Site: HEP Eunice EMSU Remediation SDG: Eunice NM

Client Sample ID: CS-10 Lab Sample ID: 880-6654-1

Date Collected: 09/28/21 09:45 **Matrix: Solid** Date Received: 09/29/21 13:37

Method: 8015 NM - Diesel Rai	nge Organic	s (DRO) (0	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	56.3		50.0	mg/Kg			10/04/21 10:33	1
- Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		09/30/21 09:25	10/01/21 00:58	1
(GRO)-C6-C10								
Diesel Range Organics (Over	56.3		49.9	mg/Kg		09/30/21 09:25	10/01/21 00:58	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/30/21 09:25	10/01/21 00:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130			09/30/21 09:25	10/01/21 00:58	1

**Client Sample ID: CS-11** Lab Sample ID: 880-6654-3 **Matrix: Solid** 

70 - 130

117

Date Collected: 09/28/21 09:55 Date Received: 09/29/21 13:37

o-Terphenyl

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier Unit RL Prepared Analyzed Dil Fac Total TPH <50.0 U 50.0 10/04/21 10:33 mg/Kg

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		09/30/21 09:25	10/01/21 01:20	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/30/21 09:25	10/01/21 01:20	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/30/21 09:25	10/01/21 01:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			09/30/21 09:25	10/01/21 01:20	1
o-Terphenyl	109		70 - 130			09/30/21 09:25	10/01/21 01:20	1

Client Sample ID: CS-12 Lab Sample ID: 880-6654-5 **Matrix: Solid** 

Date Collected: 09/28/21 10:05 Date Received: 09/29/21 13:37

(GRO)-C6-C10

Method: 8015 NM - Diesel Rang	ge Organic	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:46	1
Method: 8015B NM - Diesel Rai	nge Organ	ics (DRO) (0	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		09/30/21 09:25	10/01/21 01:41	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg	09/30/21 09:25	10/01/21 01:41	1	
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg	09/30/21 09:25	10/01/21 01:41	1	

1-Chlorooctane 103 70 - 130 09/30/21 09:25 10/01/21 01:41 107 70 - 130 09/30/21 09:25 10/01/21 01:41 o-Terphenyl

**Eurofins Xenco** 

09/30/21 09:25 10/01/21 00:58

Job ID: 880-6654-1

Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU Remediation SDG: Eunice NM

**Client Sample ID: CS-13** Lab Sample ID: 880-6654-7

Date Collected: 09/28/21 10:15 **Matrix: Solid** Date Received: 09/29/21 13:37

Method: 8015 NM - Diesel Rang			•					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:46	1
- Method: 8015B NM - Diesel Rar	nge Organ	ics (DRO) (G	SC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		09/30/21 09:25	10/01/21 02:03	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		09/30/21 09:25	10/01/21 02:03	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/30/21 09:25	10/01/21 02:03	1

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 09/30/21 09:25 10/01/21 02:03 1-Chlorooctane 100 70 - 130 o-Terphenyl 103 70 - 130 09/30/21 09:25 10/01/21 02:03

**Client Sample ID: CS-14** Lab Sample ID: 880-6654-9 Date Collected: 09/28/21 10:25 **Matrix: Solid** 

Date Received: 09/29/21 13:37

Method: 8015 NM - Diesel Range	s (DRO) (G	C)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:46	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		09/30/21 09:25	10/01/21 02:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/30/21 09:25	10/01/21 02:45	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/30/21 09:25	10/01/21 02:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			09/30/21 09:25	10/01/21 02:45	1
o-Terphenyl	105		70 - 130			09/30/21 09:25	10/01/21 02:45	1

**Client Sample ID: CS-16** Lab Sample ID: 880-6654-11 **Matrix: Solid** 

Date Collected: 09/28/21 10:50 Date Received: 09/29/21 13:37

Method: 8015 NM - Diesel R	ange Organic	s (DRO) (GO	<b>C</b> )									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac				
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:46	1				
Method: 8015B NM - Diesel Range Organics (DRO) (GC)												
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac				
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		09/30/21 09:25	10/01/21 03:06	1				
(GRO)-C6-C10												

1 Chloropotono	100		70 120		00/20/21 00:25	10/01/21 02:06	
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg	09/30/21 09:25	10/01/21 03:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg	09/30/21 09:25	10/01/21 03:06	1

70 - 130 09/30/21 09:25 10/01/21 03:06 105 70 - 130 09/30/21 09:25 10/01/21 03:06 o-Terphenyl

#### **Client Sample Results**

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6654-1

SDG: Eunice NM

Client Sample ID: CS-19 Lab Sample ID: 880-6654-12

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (GC	<b>;</b> )					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:46	1
_ Г	_							
Method: 8015B NM - Diesel Ra	nge Organi	cs (DRO) (G	SC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
O II D O I	-10.0		10.0			00/00/04 00 05	10/01/01 00 07	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		09/30/21 09:25	10/01/21 03:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/30/21 09:25	10/01/21 03:27	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/30/21 09:25	10/01/21 03:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4.00-1	400		70 400			00/00/04 00:05	40/04/04 02:07	

 1-Chlorooctane
 106
 70 - 130
 09/30/21 09:25
 10/01/21 03:27
 1

 o-Terphenyl
 109
 70 - 130
 09/30/21 09:25
 10/01/21 03:27
 1

Client Sample ID: CS-21

Date Collected: 09/28/21 11:40

Lab Sample ID: 880-6654-13

Matrix: Solid

Date Received: 09/29/21 13:37

Method: 8015 NM - Diesel Rang	iC)							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:46	1

Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		09/30/21 09:25	10/01/21 03:48	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		09/30/21 09:25	10/01/21 03:48	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		09/30/21 09:25	10/01/21 03:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			09/30/21 09:25	10/01/21 03:48	1
o-Terphenyl	104		70 - 130			09/30/21 09:25	10/01/21 03:48	1

Client Sample ID: SW-1

Date Collected: 09/28/21 09:30

Lab Sample ID: 880-6654-14

Matrix: Solid

Date Collected: 09/28/21 09:30 Date Received: 09/29/21 13:37

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:46	1	
Madhada 0045D NM Diagal	D	(DDO) (C	20)						

Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:46	1
Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		09/30/21 09:25	10/01/21 04:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/30/21 09:25	10/01/21 04:10	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/30/21 09:25	10/01/21 04:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130			09/30/21 09:25	10/01/21 04:10	1
o-Terphenyl	115		70 - 130			09/30/21 09:25	10/01/21 04:10	1

Job ID: 880-6654-1 SDG: Eunice NM

Project/Site: HEP Eunice EMSU Remediation

Client Sample ID: SW-2

Lab Sample ID: 8

Lab Sample ID: 880-6654-15 Matrix: Solid

Date Collected: 09/28/21 09:35 Date Received: 09/29/21 13:37

Client: TRC Solutions, Inc.

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			10/04/21 10:46	1

<50.0	U	50.0	mg/Kg			10/04/21 10:46	1
ange Organ	ics (DRO)	(GC)					
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<50.0	U	50.0	mg/Kg		09/30/21 09:25	10/01/21 04:31	1
<50.0	U	50.0	mg/Kg		09/30/21 09:25	10/01/21 04:31	1
<50.0	U	50.0	mg/Kg		09/30/21 09:25	10/01/21 04:31	1
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
114		70 - 130			09/30/21 09:25	10/01/21 04:31	1
123		70 - 130			09/30/21 09:25	10/01/21 04:31	1
	**Recovery**  **Table 1.50.0**  **Table 1.50.0**  **Table 1.50.0**  **Table 1.50.0**  **Recovery**  **Table 1.50.0**  **	Result   Qualifier   Control   Con	Result   Qualifier   RL	Result   Qualifier   RL   Unit   mg/Kg	Result   Qualifier   RL   Unit   Mg/Kg	Result   Qualifier   RL   Unit   mg/Kg   D   Prepared   09/30/21 09:25	Result   Qualifier   RL   Unit   mg/Kg   D   Prepared   Analyzed   10/01/21 04:31

Client Sample ID: SW-3 Lab Sample ID: 880-6654-16

Date Collected: 09/28/21 09:40 Matrix: Solid

Date Received: 09/29/21 13:37

Method: 8015 NM - Diesel Rang	ge Organics (DRO) (G						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	70.9	50.0	mg/Kg			10/04/21 10:46	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)											
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		09/30/21 09:25	10/01/21 04:52	1			
Diesel Range Organics (Over C10-C28)	70.9		49.8	mg/Kg		09/30/21 09:25	10/01/21 04:52	1			
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		09/30/21 09:25	10/01/21 04:52	1			
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac			
1-Chlorooctane	100		70 - 130			09/30/21 09:25	10/01/21 04:52	1			
o-Terphenyl	101		70 - 130			09/30/21 09:25	10/01/21 04:52	1			

3

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11

13

#### **Surrogate Summary**

Job ID: 880-6654-1 Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU Remediation SDG: Eunice NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

**Matrix: Solid Prep Type: Total/NA** 

			Percent	Surrogate Recovery (Acceptance Lin
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-6650-A-1-B MS	Matrix Spike	103	94	
880-6650-A-1-C MSD	Matrix Spike Duplicate	103	93	
880-6654-1	CS-10	112	117	
380-6654-3	CS-11	104	109	
380-6654-5	CS-12	103	107	
880-6654-7	CS-13	100	103	
880-6654-9	CS-14	103	105	
880-6654-11	CS-16	102	105	
880-6654-12	CS-19	106	109	
880-6654-13	CS-21	101	104	
880-6654-14	SW-1	110	115	
880-6654-15	SW-2	114	123	
380-6654-16	SW-3	100	101	
LCS 880-8639/2-A	Lab Control Sample	102	94	
LCSD 880-8639/3-A	Lab Control Sample Dup	101	93	
MB 880-8639/1-A	Method Blank	100	104	

OTPH = o-Terphenyl

#### **QC Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-6654-1 Project/Site: HEP Eunice EMSU Remediation SDG: Eunice NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-8639/1-A

Lab Sample ID: LCS 880-8639/2-A

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 8626** 

**Analysis Batch: 8626** 

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 8639

ı		MB	МВ						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		09/30/21 09:25	09/30/21 21:01	1
	Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/30/21 09:25	09/30/21 21:01	1
	Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/30/21 09:25	09/30/21 21:01	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	09/30/21 09:25	09/30/21 21:01	1
o-Terphenyl	104		70 - 130	09/30/21 09:25	09/30/21 21:01	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 8639

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit Limits D %Rec 1000 770.3 77 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 914.9 mg/Kg 91 70 - 130 C10-C28)

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	102	70 - 130
o-Terphenyl	94	70 - 130

Lab Sample ID: LCSD 880-8639/3-A Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

**Matrix: Solid** Analysis Ratch: 8626

Analysis Batch: 8626  Analyte  Gasoline Range Organics (GRO)-C6-C10  Diesel Range Organics (Over							Prep Batch: 8639				
	Spike	Spike LCSD LCS		LCSD			%Rec.		RPD		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit		
Gasoline Range Organics	1000	777.6		mg/Kg		78	70 - 130	1	20		
(GRO)-C6-C10											
Diesel Range Organics (Over	1000	921.2		mg/Kg		92	70 - 130	1	20		

C10-C28)

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	101	70 - 130
o-Terphenyl	93	70 - 130

Lab Sample ID: 880-6650-A-1-B MS **Client Sample ID: Matrix Spike Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 8626									Prep Batch: 8639	
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	997	794.2		mg/Kg		80	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.8	U	997	866.5		mg/Kg		82	70 - 130	

#### **QC Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-6654-1 Project/Site: HEP Eunice EMSU Remediation SDG: Eunice NM

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-6650-A-1-B MS

**Matrix: Solid** 

**Analysis Batch: 8626** 

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 8639

MS MS %Recovery Qualifier Limits Surrogate 1-Chlorooctane 103 70 - 130 o-Terphenyl 94 70 - 130

Lab Sample ID: 880-6650-A-1-C MSD

**Matrix: Solid** 

**Analysis Batch: 8626** 

Client S	ample	ID:	Matrix	S	pike	Du	plica	ate
			Dura		<b>.</b>		4-1/	

Prep Type: Total/NA

RPD MSD MSD Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit <49.8 U Gasoline Range Organics 999 868.4 mg/Kg 87 70 - 130 9 20 (GRO)-C6-C10 Diesel Range Organics (Over <49.8 U 999 856.9 20 mg/Kg 81 70 - 130 C10-C28)

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	93		70 - 130

Prep Batch: 8639

#### **QC Association Summary**

Job ID: 880-6654-1 Client: TRC Solutions, Inc. SDG: Eunice NM Project/Site: HEP Eunice EMSU Remediation

#### **GC Semi VOA**

#### **Analysis Batch: 8626**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6654-1	CS-10	Total/NA	Solid	8015B NM	8639
880-6654-3	CS-11	Total/NA	Solid	8015B NM	8639
880-6654-5	CS-12	Total/NA	Solid	8015B NM	8639
880-6654-7	CS-13	Total/NA	Solid	8015B NM	8639
880-6654-9	CS-14	Total/NA	Solid	8015B NM	8639
880-6654-11	CS-16	Total/NA	Solid	8015B NM	8639
880-6654-12	CS-19	Total/NA	Solid	8015B NM	8639
880-6654-13	CS-21	Total/NA	Solid	8015B NM	8639
880-6654-14	SW-1	Total/NA	Solid	8015B NM	8639
880-6654-15	SW-2	Total/NA	Solid	8015B NM	8639
880-6654-16	SW-3	Total/NA	Solid	8015B NM	8639
MB 880-8639/1-A	Method Blank	Total/NA	Solid	8015B NM	8639
LCS 880-8639/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8639
LCSD 880-8639/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8639
880-6650-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	8639
880-6650-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8639

#### Prep Batch: 8639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6654-1	CS-10	Total/NA	Solid	8015NM Prep	
880-6654-3	CS-11	Total/NA	Solid	8015NM Prep	
880-6654-5	CS-12	Total/NA	Solid	8015NM Prep	
880-6654-7	CS-13	Total/NA	Solid	8015NM Prep	
880-6654-9	CS-14	Total/NA	Solid	8015NM Prep	
880-6654-11	CS-16	Total/NA	Solid	8015NM Prep	
880-6654-12	CS-19	Total/NA	Solid	8015NM Prep	
880-6654-13	CS-21	Total/NA	Solid	8015NM Prep	
880-6654-14	SW-1	Total/NA	Solid	8015NM Prep	
880-6654-15	SW-2	Total/NA	Solid	8015NM Prep	
880-6654-16	SW-3	Total/NA	Solid	8015NM Prep	
MB 880-8639/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8639/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8639/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6650-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-6650-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 8793**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6654-1	CS-10	Total/NA	Solid	8015 NM	
880-6654-3	CS-11	Total/NA	Solid	8015 NM	
880-6654-5	CS-12	Total/NA	Solid	8015 NM	
880-6654-7	CS-13	Total/NA	Solid	8015 NM	
880-6654-9	CS-14	Total/NA	Solid	8015 NM	
880-6654-11	CS-16	Total/NA	Solid	8015 NM	
880-6654-12	CS-19	Total/NA	Solid	8015 NM	
880-6654-13	CS-21	Total/NA	Solid	8015 NM	
880-6654-14	SW-1	Total/NA	Solid	8015 NM	
880-6654-15	SW-2	Total/NA	Solid	8015 NM	
880-6654-16	SW-3	Total/NA	Solid	8015 NM	

Job ID: 880-6654-1

SDG: Eunice NM

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Lab Sample ID: 880-6654-1

**Matrix: Solid** 

**Client Sample ID: CS-10** 

Date Collected: 09/28/21 09:45 Date Received: 09/29/21 13:37

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:33	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	8639	09/30/21 09:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8626	10/01/21 00:58	AJ	XEN MID
		•		1	10.02 g	TO THE				

Lab Chronicle

Lab Sample ID: 880-6654-3 Client Sample ID: CS-11

Date Collected: 09/28/21 09:55 **Matrix: Solid** 

Date Received: 09/29/21 13:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:33	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.02 g	10 mL	8639 8626	09/30/21 09:25 10/01/21 01:20	DM AJ	XEN MID XEN MID

Client Sample ID: CS-12 Lab Sample ID: 880-6654-5

Date Collected: 09/28/21 10:05 **Matrix: Solid** 

Date Received: 09/29/21 13:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:46	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.05 g	10 mL	8639 8626	09/30/21 09:25 10/01/21 01:41		XEN MID XEN MID

**Client Sample ID: CS-13** Lab Sample ID: 880-6654-7 **Matrix: Solid** 

Date Collected: 09/28/21 10:15 Date Received: 09/29/21 13:37

Batch Dil Initial Batch Final Batch Prepared **Prep Type** Method Amount Amount Number or Analyzed Type Run **Factor** Analyst Lab 8015 NM 10/04/21 10:46 AJ Total/NA 8793 Analysis XEN MID Total/NA Prep 8015NM Prep 10.01 g 10 mL 8639 09/30/21 09:25 DM XEN MID Total/NA 10/01/21 02:03 AJ Analysis 8015B NM 8626 XEN MID 1

Client Sample ID: CS-14 Lab Sample ID: 880-6654-9

Date Collected: 09/28/21 10:25 Date Received: 09/29/21 13:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	Amount	Amount	8793	10/04/21 10:46		XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8639	09/30/21 09:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8626	10/01/21 02:45	AJ	XEN MID

Client Sample ID: CS-16 Lab Sample ID: 880-6654-11

Date Collected: 09/28/21 10:50 Date Received: 09/29/21 13:37

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:46	AJ	XEN MID

**Eurofins Xenco** 

**Matrix: Solid** 

Matrix: Solid

Client: TRC Solutions, Inc.

**Client Sample ID: CS-16** 

Date Collected: 09/28/21 10:50

Date Received: 09/29/21 13:37

Project/Site: HEP Eunice EMSU Remediation

Lab Sample ID: 880-6654-11

Matrix: Solid

Job ID: 880-6654-1

SDG: Eunice NM

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8639	09/30/21 09:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8626	10/01/21 03:06	AJ	XEN MID

**Client Sample ID: CS-19** Lab Sample ID: 880-6654-12

Date Collected: 09/28/21 11:20 **Matrix: Solid** Date Received: 09/29/21 13:37

Batch Batch Dil Initial Final Batch Prepared Method **Prep Type** Type **Amount** Amount Number or Analyzed Run **Factor** Analyst Lab Total/NA Analysis 8015 NM 8793 10/04/21 10:46 AJ XEN MID Total/NA Prep 8015NM Prep 8639 09/30/21 09:25 DM **XEN MID** 10.03 g 10 mL Total/NA Analysis 8015B NM 8626 10/01/21 03:27 AJ XEN MID 1

Client Sample ID: CS-21 Lab Sample ID: 880-6654-13 Date Collected: 09/28/21 11:40 **Matrix: Solid** 

Date Received: 09/29/21 13:37

Batch Batch Dil Initial Final **Batch** Prepared Method Number **Prep Type** Type Run Factor Amount Amount or Analyzed Analyst Lab Total/NA 8015 NM 8793 10/04/21 10:46 AJ XEN MID Analysis Total/NA Prep 8015NM Prep 10.04 g 10 mL 8639 09/30/21 09:25 DM **XEN MID** 10/01/21 03:48 AJ Total/NA Analysis 8015B NM 1 8626 XEN MID

Lab Sample ID: 880-6654-14 Client Sample ID: SW-1

Date Collected: 09/28/21 09:30 **Matrix: Solid** 

Date Received: 09/29/21 13:37

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:46	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	8639	09/30/21 09:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8626	10/01/21 04:10	AJ	XEN MID

Client Sample ID: SW-2 Lab Sample ID: 880-6654-15

Date Collected: 09/28/21 09:35 Matrix: Solid

Date Received: 09/29/21 13:37

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:46	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8639	09/30/21 09:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8626	10/01/21 04:31	AJ	XEN MID

Client Sample ID: SW-3 Lab Sample ID: 880-6654-16

Date Collected: 09/28/21 09:40 **Matrix: Solid** 

Date Received: 09/29/21 13:37

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:46	AJ	XEN MID

#### **Lab Chronicle**

Client: TRC Solutions, Inc. Job ID: 880-6654-1 Project/Site: HEP Eunice EMSU Remediation SDG: Eunice NM

**Client Sample ID: SW-3** Lab Sample ID: 880-6654-16

Date Collected: 09/28/21 09:40 Matrix: Solid Date Received: 09/29/21 13:37

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	8639	09/30/21 09:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8626	10/01/21 04:52	AJ	XEN MID

#### **Laboratory References:**

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

#### **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.

Job ID: 880-6654-1

Project/Site: HEP Eunice EMSU Remediation

SDG: Eunice NM

#### **Laboratory: Eurofins Xenco**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analyte	e are included in this reno	ort but the laboratory is r	not certified by the governing authority	This list may include analytes for y
,	•	ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for v
the agency does not	offer certification.	•		This list may include analytes for v
,	•	ort, but the laboratory is r  Matrix Solid	not certified by the governing authority.  Analyte Total TPH	This list may include analytes for v

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#### **Method Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6654-1

SDG: Eunice NM

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Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

#### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

#### **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6654-1

SDG: Eunice NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-6654-1	CS-10	Solid	09/28/21 09:45	09/29/21 13:37
880-6654-3	CS-11	Solid	09/28/21 09:55	09/29/21 13:37
880-6654-5	CS-12	Solid	09/28/21 10:05	09/29/21 13:37
880-6654-7	CS-13	Solid	09/28/21 10:15	09/29/21 13:37
880-6654-9	CS-14	Solid	09/28/21 10:25	09/29/21 13:37
880-6654-11	CS-16	Solid	09/28/21 10:50	09/29/21 13:37
880-6654-12	CS-19	Solid	09/28/21 11:20	09/29/21 13:37
880-6654-13	CS-21	Solid	09/28/21 11:40	09/29/21 13:37
880-6654-14	SW-1	Solid	09/28/21 09:30	09/29/21 13:37
880-6654-15	SW-2	Solid	09/28/21 09:35	09/29/21 13:37
880-6654-16	SW-3	Solid	09/28/21 09:40	09/29/21 13:37

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CS - 14 @ 45

CS-14 @ 5

CS-13 @ 45

CS-13 @ 5

CS-12 @ 45

CS-12 @ 5'

CS-11 @ 45

CS-10@5

CS-11 @ 5'

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Curofins

Xenco Environment Testing

## Chain of Cu

Midland TX (432) 704-5440 San An EL Paso TX (915) 585-3443 Lubbock, 17 ( Houston TX (281) 240-4200 Dall

Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199

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www.xenco.com

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Order No:
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**SAMPLE RECEIPT** 

Samples Received Intact:

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otal Containers.

Sample Identification

CS-10 @ 45

Sampler's Name

Project Location

Project Number

Project Name.

City, State ZIP

MIDLAND, TX 79705

City, State ZIP

Reporting Level III ☐ Level III ☐ PST/UST ☐ TRRP ☐

Level IV

State of Project:

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

**Work Order Comments** 

10 DESTA DR #130E

\ddress.

Company Name

TRC

roject Manager

RUSSELL SEBRING

Bill to (if different)

Company Name.

Street Curofins

MIDLAND, TX 79705

10 DESTA DR #130E

Project Manager Company Name.

RUSSELL SEBRING

TRC

Company Name Bill to (if different)

Address.

State of Project:

Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐

**Work Order Comments** 

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Xenco Environment Testing

# **Chain of Custody**

Midland TX (432) 704-5440 San Antonio, TX (210) 509-3334 EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199 Houston TX (281) 240-4200 Dallas TX (214) 902-0300

Work Order No:	
H599	

City, State ZIP	MIDLAND, TX 79705	705		City, State ZIP	ZIP								Repo	orting L	evel II	P □	œ ≡ □	PST/	UST 🗌	TRRP	Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV☐
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Project Location	Eunice, NM	y NM	Due Date				$\dashv$				_	-	$\dashv$			_	$\downarrow$	$\prod_{i=1}^{n}$	Cool Cool	<u>5</u> (	MeOH Me
Sampler's Name.	Russell Sebring/Misti Bryant	g/Mısti Bryan	<u></u>	TAT starts the day received by	d by													I (	HCL HC	• •	HNO ₃ . HN
PO#			the lab if re	the lab if received by 4 30pm	L													Ŧ	H ₂ S0 ₄ , H ₂	3	NaOH Na
SAMPLE RECEIPT	PT Temp Blank.	nk. Yes No	lo Wet Ice.	Yes No	ਰ iete			 S										<del>-</del>	H CG'H	₽	
Samples Received Intact:	tact: Yes No	o Thermometer ID	neter ID		ran			JLTS										z :	Namso, Naris	NAR!	n
Cooler Custody Seals.	Yes No	N/A Correcti	Correction Factor		Pa			ESU										<b>z</b> :	Na-S-O NaSO	Na C	· ·
Sample Custody Seals	s Yes No	N/A Tempera	Temperature Reading	5.9%	30			IG R										7	n Δροξο	tot Not	Zn Acetate+NaOH Zn
Total Containers.		Correcte	Corrected Temperature			5M	s	NDIN										<b>z</b> i	laOH+/	scorbi	NaOH+Ascorbic Acid SAPC
Sample Identification		Matrix Date Sampled	Time d Sampled	Depth c	Grab/ # of Comp Cont	<u> 휴 옥  </u> TPH 801	Chloride	Hold PE	HOLD										Sa	mple	Sample Comments
CS-16 @ 5	@ 5	9/28/2021	21 1050	45	C 1		$\neg$					$\dashv$	1				_	$\downarrow$			
CS-19 @ 5	@ 5 S	9/28/2021	21 1120	5	C 1	×															
CS-21 @ 5	9) 5 ¹	9/28/2021	21 1140	45	C 1	×						$\dashv$						$\perp$			
SW-1 @ 15	15	9/28/2021	930	15	C 1	×											_	_			
SW-2 @ 15	15	9/28/2021	21 935	15	C 1	×												4			
SW-3 @ 15	1 5' S	9/28/2021		15	C 1	×												_			
							-	T				-									
					-		T	T		<u> </u>		-									
Total 200.7 / 6010	10 200.8 / 6020:	:0:	8RCRA 13PPM Texas 11	PM Texas	s 11 A	Al Sb As Ba Be	s Ba	œ	Cd Ca		Cr Co Cu Fe	Fe Pb	- 11	Mg Mn Mo Ni K Se	Z	Se	Ag Sı	SiO ₂ Na	Sr	TI Sn I	U V Zn
Circle Method(s) and Metal(s) to be analyzed	nd Metal(s) to be a	analyzed	TCLP/S	TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo	8RCR/	Sb	As Ba	Be C	Cr M	င္ပ	u Pb	≦n Ma		Ni Se Ag TI U	= -		년 16	31/2	Hg 1631/2451/7470/7471	7470	/7471
Notice Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors.	ocument and relinquish	ment of samples	constitutes a valid	purchase orde	r from clie	nt compa	ny to Eu	rofins Xe	nco, its	affiliates	and subc	ontracto	ors. It assi	It assigns standard terms and conditions	dard ter	ms and	conditio	ns			
of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	mum charge of \$85.00	will be applied to	s and snall not ass each project and a	charge of \$5 fo	r each sar	nple subr	ses or ex nitted to	Eurofins	Xenco,	by the cl	ient if su nalyzed.	ch losse These te	s are due t	to circun	stances d unles	beyond previou	the con	trol otiated.			
Retinquished by (Signature)	(Signature)	Rece	Received by (Sign	(Signature)		Dat	Date/Time		Re	Relinquished by: (Signature)	ned by	(Sign	ature)		Rece	ived b	y (Sig	Received by (Signature)	۳		Date/Time
		Ble	O the Sumo	P	7	25	21/2	377	2												
3								_	4												
51									9												

#### **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc. Job Number: 880-6654-1 SDG Number: Eunice NM

Login Number: 6654 **List Source: Eurofins Xenco** 

List Number: 1

Creator: Phillips, Kerianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Page 21 of 21

## **Environment Testing America**

#### **ANALYTICAL REPORT**

Eurofins Xenco 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6805-1

Laboratory Sample Delivery Group: 454378

Client Project/Site: HEP: Eunice EMSU Remediation

Revision: 2

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MEAMER

Authorized for release by: 1/7/2022 4:32:17 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

.....LINKS

Review your project results through

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Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc. Laboratory Job ID: 880-6805-1 Project/Site: HEP: Eunice EMSU Remediation

SDG: 454378

#### **Table of Contents**

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#### **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-6805-1

Project/Site: HEP: Eunice EMSU Remediation SDG: 454378

#### **Qualifiers**

#### **GC Semi VOA**

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.
01	

#### **Glossary**

J. 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision Level Concentration (Radiochemistry)	
EDL	Estimated Detection Limit (Dioxin)	
LOD	Limit of Detection (DoD/DOE)	
LOQ	Limit of Quantitation (DoD/DOE)	
MCL	EPA recommended "Maximum Contaminant Level"	

MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry) MDL Method Detection Limit

ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

Not Detected at the reporting limit (or MDL or EDL if shown) ND

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

**RER** Relative Error Ratio (Radiochemistry)

RLReporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points **RPD** 

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

#### **Case Narrative**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6805-1

SDG: 454378

Job ID: 880-6805-1

**Laboratory: Eurofins Xenco** 

**Narrative** 

Job Narrative 880-6805-1

#### Comments

No additional comments.

#### Revision

The report being provided is a revision of the original report sent on 10/8/2021. The report (revision 1) is being revised due to: Added narrative regarding low surrogate recoveries.

#### Receipt

The samples were received on 10/5/2021 12:43 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

#### **Receipt Exceptions**

Added narrative regarding low surrogate recoveries

#### GC Semi VOA

Method 8015B NM: The laboratory control sample (LCS) associated with preparation batch 880-8972 and analytical batch 880-8955 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015B NM: Surrogate recovery for the following sample was outside control limits: (MB 880-8972/1-A). Evidence of matrix interferences is not obvious.

Method 8015B NM: Surrogate recovery for the following sample was outside control limits: CS-15@4.5 (880-6805-1). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **Organic Prep**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6805-1

SDG: 454378

**Client Sample ID: CS-15** 

Date Collected: 09/28/21 10:35

Date Received: 10/05/21 12:43

Sample Depth: 4.5

Lab	Sample	ID:	880-6805-1
			Matrix: Solid

10/06/21 10:40 10/06/21 23:25

Method: 8015 NM - Diesel Rang	e Organics (DRO) (GC	<del>;</del> )					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	739	49.9	mg/Kg			10/07/21 09:03	1

- Total II II	100		40.0	1119/119			10/01/21 00:00	'
Method: 8015B NM - Diesel			•			_		
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	205		49.9	mg/Kg		10/06/21 10:40	10/06/21 23:25	1
Diesel Range Organics (Over C10-C28)	481	*1	49.9	mg/Kg		10/06/21 10:40	10/06/21 23:25	1
Oll Range Organics (Over C28-C36)	52.6		49.9	mg/Kg		10/06/21 10:40	10/06/21 23:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	21	S1-	70 - 130			10/06/21 10:40	10/06/21 23:25	1

**Client Sample ID: CS-16** Lab Sample ID: 880-6805-2 Date Collected: 09/28/21 10:45 **Matrix: Solid** 

70 - 130

19 S1-

Date Received: 10/05/21 12:43

Sample Depth: 4.5

o-Terphenyl

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/07/21 09:03	1

-	٠٠٠٠٠	Ü	00.0	mg/rtg		10/01/21 00.00	
- Method: 8015B NM - Diesel R	ange Organi	ics (DRO)	(GC)				
Analyte		Qualifier	RL	Unit	D Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg	10/06/21 10:40	10/06/21 21:38	1
(GRO)-C6-C10							
Diesel Range Organics (Over	<50.0	U *1	50.0	mg/Kg	10/06/21 10:40	10/06/21 21:38	1
C10-C28)							
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg	10/06/21 10:40	10/06/21 21:38	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130		10/06/21 10:40	10/06/21 21:38	1
o-Terphenyl	102		70 - 130		10/06/21 10:40	10/06/21 21:38	1

**Client Sample ID: CS-17** Lab Sample ID: 880-6805-3 Matrix: Solid

Date Collected: 09/28/21 10:55 Date Received: 10/05/21 12:43

Sample Depth: 4.5

Method: 8015 NM - Diesel Range	e Organic	s (DRO) (GC	<b>;</b> )					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/07/21 09:03	1
Method: 8015B NM - Diesel Ran	ge Organ	ics (DRO) (G	GC)					

Method: 8015B NM - Diesel Rar	nge Organi	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg	<u> </u>	10/06/21 10:40	10/06/21 22:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		10/06/21 10:40	10/06/21 22:43	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/06/21 10:40	10/06/21 22:43	1

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6805-1

SDG: 454378

Client Sample ID: CS-17

Date Collected: 09/28/21 10:55

Date Received: 10/05/21 12:43

Lab Sample ID: 880-6805-3

**Matrix: Solid** 

Sample Depth: 4.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130	10/06/21 10:40	10/06/21 22:43	1
o-Terphenyl	100		70 - 130	10/06/21 10:40	10/06/21 22:43	1

Client Sample ID: CS-18

Date Collected: 09/28/21 11:05

Date Received: 10/05/21 12:43

Sample Depth: 4.5

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92	70 - 130	10/06/21 10:40	10/06/21 22:43	1
o-Terphenyl	100	70 - 130	10/06/21 10:40	10/06/21 22:43	1

Lab Sample ID: 880-6805-4 **Matrix: Solid** 

10/06/21 10:40 10/06/21 23:46

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 10/07/21 09:03 **Total TPH** 49.8 mg/Kg 245

Method: 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac <49.8 U Gasoline Range Organics 49.8 10/06/21 10:40 10/06/21 23:46 mg/Kg (GRO)-C6-C10 **Diesel Range Organics (Over** 245 *1 49.8 mg/Kg 10/06/21 10:40 10/06/21 23:46 C10-C28) Oll Range Organics (Over C28-C36) <49.8 U 49.8 mg/Kg 10/06/21 10:40 10/06/21 23:46 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 10/06/21 10:40 10/06/21 23:46 1-Chlorooctane 98 70 - 130

Client Sample ID: CS-19 Lab Sample ID: 880-6805-5 Date Collected: 09/28/21 11:15 **Matrix: Solid** 

70 - 130

102

Date Received: 10/05/21 12:43

Sample Depth: 4.5

o-Terphenyl

Method: 8015 NM - Diesel I	Range Organics (DRO) (G	C)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			10/07/21 09:03	1
Method: 8015B NM - Diese	l Range Organics (DRO) (	GC)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
O I' D		<u> </u>			10/00/04 10:10	40/00/04 00:04	

Analyte	Result	Qualifier	KL	Unit	U	Prepared	Anaiyzea	DII Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/06/21 10:40	10/06/21 23:04	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U *1	50.0	mg/Kg		10/06/21 10:40	10/06/21 23:04	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/06/21 10:40	10/06/21 23:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared Analyze	d Dil Fac
1-Chlorooctane	109		70 - 130	10/06/21 10:40 10/06/21 23	:04 1
o-Terphenyl	117		70 - 130	10/06/21 10:40 10/06/21 2	:04 1

#### **Client Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-6805-1 Project/Site: HEP: Eunice EMSU Remediation SDG: 454378

Lab Sample ID: 880-6805-6 **Client Sample ID: CS-20** Date Collected: 09/28/21 11:25

**Matrix: Solid** 

Date Received: 10/05/21 12:43 Sample Depth: 4.5

Method: 8015 NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Total TPH	<49.9	U	49.9	mg/Kg			10/07/21 09:03	1		

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/05/21 15:00	10/06/21 05:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/05/21 15:00	10/06/21 05:06	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/05/21 15:00	10/06/21 05:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130			10/05/21 15:00	10/06/21 05:06	1
o-Terphenyl	119		70 - 130			10/05/21 15:00	10/06/21 05:06	1

Lab Sample ID: 880-6805-7 **Client Sample ID: CS-21 Matrix: Solid** 

Date Collected: 09/28/21 11:35

Date Received: 10/05/21 12:43

Sample Depth: 4.5

	sel Range Organics (DRO)	• • •					
Analyte	Result Qualifier	r RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			10/07/21 09:03	1
Method: 8015B NM - Die	esel Range Organics (DR	O) (GC)					

	Qualifier	RL	Unit	D	Duamanad		
-E0.0			0	U	Prepared	Analyzed	Dil Fac
<50.0	U	50.0	mg/Kg		10/05/21 15:00	10/06/21 05:27	1
<50.0	U	50.0	mg/Kg		10/05/21 15:00	10/06/21 05:27	1
<50.0	U	50.0	mg/Kg		10/05/21 15:00	10/06/21 05:27	1
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
113		70 - 130			10/05/21 15:00	10/06/21 05:27	1
122		70 - 130			10/05/21 15:00	10/06/21 05:27	1
	<50.0 <50.0 <b>%Recovery</b>		<50.0 U 50.0  <50.0 U 50.0  **Recovery Qualifier Limits 70 - 130	<50.0 U 50.0 mg/Kg <50.0 U 50.0 mg/Kg  **Recovery Qualifier Limits 70 - 130	<50.0 U 50.0 mg/Kg <50.0 U 50.0 mg/Kg  **Recovery Qualifier Limits  70 - 130	<50.0 U	<50.0 U

#### **Surrogate Summary**

Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6805-1

SDG: 454378

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

**Matrix: Solid Prep Type: Total/NA** 

			Per	cent Surrogate Rec
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-6805-1	CS-15	21 S1-	19 S1-	
880-6805-2	CS-16	97	102	
880-6805-2 MS	CS-16	115	113	
880-6805-2 MSD	CS-16	117	115	
880-6805-3	CS-17	92	100	
880-6805-4	CS-18	98	102	
880-6805-5	CS-19	109	117	
880-6805-6	CS-20	111	119	
880-6805-7	CS-21	113	122	
880-6816-A-1-F MS	Matrix Spike	126	127	
880-6816-A-1-G MSD	Matrix Spike Duplicate	129	125	
LCS 880-8934/2-A	Lab Control Sample	111	114	
LCS 880-8972/2-A	Lab Control Sample	105	105	
LCSD 880-8934/3-A	Lab Control Sample Dup	106	108	
LCSD 880-8972/3-A	Lab Control Sample Dup	112	110	
MB 880-8934/1-A	Method Blank	115	130	
MB 880-8972/1-A	Method Blank	120	132 S1+	

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6805-1

SDG: 454378

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-8934/1-A

Lab Sample ID: LCS 880-8934/2-A

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 8873** 

**Analysis Batch: 8873** 

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 8934

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/05/21 15:00	10/05/21 20:33	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/05/21 15:00	10/05/21 20:33	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/05/21 15:00	10/05/21 20:33	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130	10/05/21 15:00	10/05/21 20:33	1
o-Terphenyl	130		70 - 130	10/05/21 15:00	10/05/21 20:33	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 8934

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit Limits D %Rec 1000 901.9 90 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 970.2 mg/Kg 97 70 - 130C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	114		70 - 130

Lab Sample ID: LCSD 880-8934/3-A

**Matrix: Solid** 

**Analysis Batch: 8873** 

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Prep Batch: 8934

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier RPD Limit Analyte Unit D %Rec Limits Gasoline Range Organics 1000 954.9 mg/Kg 95 70 - 130 6 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 911.1 mg/Kg 91 70 - 130 20 C10-C28)

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	106	70 - 130
o-Terphenyl	108	70 - 130

Lab Sample ID: 880-6816-A-1-F MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 8873

Analysis Batch: 8873									Prep Batch: 893	
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	995	968.9		mg/Kg		97	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U	995	1024		mg/Kg		103	70 - 130	

Client: TRC Solutions, Inc. Job ID: 880-6805-1 Project/Site: HEP: Eunice EMSU Remediation

SDG: 454378

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-6816-A-1-F MS

**Matrix: Solid** 

**Analysis Batch: 8873** 

**Client Sample ID: Matrix Spike** 

**Prep Type: Total/NA** 

Prep Batch: 8934

MS MS %Recovery Qualifier Limits Surrogate 1-Chlorooctane 126 70 - 130 o-Terphenyl 127 70 - 130

Client Sample ID: Matrix Spike Duplicate Lab Sample ID: 880-6816-A-1-G MSD

**Matrix: Solid** 

**Analysis Batch: 8873** 

**Prep Type: Total/NA** Prep Batch: 8934 RPD %Rec.

MSD MSD Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics <49.9 U 997 1002 mg/Kg 100 70 - 130 3 20 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 997 1020 mg/Kg 102 70 - 130 0 20

C10-C28)

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 129 70 - 130 70 - 130 o-Terphenyl 125

Lab Sample ID: MB 880-8972/1-A

**Matrix: Solid** 

**Analysis Batch: 8955** 

Client Sample ID: Method Blank **Prep Type: Total/NA** 

Prep Batch: 8972

MB MB Result Qualifier Unit Analyte RL D Prepared Analyzed Dil Fac Gasoline Range Organics <50.0 U 50.0 mg/Kg 10/06/21 10:40 10/06/21 20:31 (GRO)-C6-C10 50.0 mg/Kg Diesel Range Organics (Over <50.0 U 10/06/21 10:40 10/06/21 20:31 C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 10/06/21 10:40 10/06/21 20:31 mg/Kg

MB MB %Recovery Qualifier Surrogate Limits Prepared Analyzed Dil Fac 70 - 130 1-Chlorooctane 120 10/06/21 10:40 10/06/21 20:31 70 - 130 10/06/21 10:40 10/06/21 20:31 o-Terphenyl 132 S1+

Lab Sample ID: LCS 880-8972/2-A

**Matrix: Solid** 

**Analysis Batch: 8955** 

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Prep Batch: 8972

LCS LCS Spike %Rec. Added %Rec Limits Analyte Result Qualifier Unit 1000 Gasoline Range Organics 906.4 91 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 999.9 mg/Kg 100 70 - 130 C10-C28)

LCS LCS

Surrogate	%Recovery Qualifie	r Limits
1-Chlorooctane	105	70 - 130
o-Terphenvl	105	70 - 130

Surrogate

C10-C28)

#### **QC Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-6805-1 Project/Site: HEP: Eunice EMSU Remediation SDG: 454378

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

LCSD LCSD

%Recovery Qualifier

Lab Sample ID: LCSD 880-8972/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 8955** Prep Batch: 8972 LCSD LCSD Spike %Rec. **RPD** Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics 1000 994.2 mg/Kg 99 70 - 130 9 20 (GRO)-C6-C10 1000 Diesel Range Organics (Over 1260 *1 126 70 - 130 mg/Kg 23 20 C10-C28)

1-Chlorooctane 70 - 130 112 70 - 130 o-Terphenyl 110 Client Sample ID: CS-16 Lab Sample ID: 880-6805-2 MS **Matrix: Solid** Prep Type: Total/NA

Limits

**Analysis Batch: 8955** Prep Batch: 8972 Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier D %Rec Limits Unit Gasoline Range Organics <50.0 U 997 1027 101 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U *1 997 999.4 mg/Kg 95 70 - 130

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 115 70 - 130 o-Terphenyl 113 70 - 130

Lab Sample ID: 880-6805-2 MSD **Client Sample ID: CS-16 Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 8955** Prep Batch: 8972

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1147		mg/Kg		113	70 - 130	11	20	
Diesel Range Organics (Over C10-C28)	<50.0	U *1	1000	1033		mg/Kg		98	70 - 130	3	20	

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 117 70 - 130 115 70 - 130 o-Terphenyl

#### **QC Association Summary**

Client: TRC Solutions, Inc.

Job ID: 880-6805-1 Project/Site: HEP: Eunice EMSU Remediation SDG: 454378

#### **GC Semi VOA**

#### **Analysis Batch: 8873**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6805-6	CS-20	Total/NA	Solid	8015B NM	8934
880-6805-7	CS-21	Total/NA	Solid	8015B NM	8934
MB 880-8934/1-A	Method Blank	Total/NA	Solid	8015B NM	8934
LCS 880-8934/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8934
LCSD 880-8934/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8934
880-6816-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	8934
880-6816-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8934

#### Prep Batch: 8934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6805-6	CS-20	Total/NA	Solid	8015NM Prep	
880-6805-7	CS-21	Total/NA	Solid	8015NM Prep	
MB 880-8934/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8934/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8934/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6816-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-6816-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 8955**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6805-1	CS-15	Total/NA	Solid	8015B NM	8972
880-6805-2	CS-16	Total/NA	Solid	8015B NM	8972
880-6805-3	CS-17	Total/NA	Solid	8015B NM	8972
880-6805-4	CS-18	Total/NA	Solid	8015B NM	8972
880-6805-5	CS-19	Total/NA	Solid	8015B NM	8972
MB 880-8972/1-A	Method Blank	Total/NA	Solid	8015B NM	8972
LCS 880-8972/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8972
LCSD 880-8972/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8972
880-6805-2 MS	CS-16	Total/NA	Solid	8015B NM	8972
880-6805-2 MSD	CS-16	Total/NA	Solid	8015B NM	8972

#### Prep Batch: 8972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6805-1	CS-15	Total/NA	Solid	8015NM Prep	-
880-6805-2	CS-16	Total/NA	Solid	8015NM Prep	
880-6805-3	CS-17	Total/NA	Solid	8015NM Prep	
880-6805-4	CS-18	Total/NA	Solid	8015NM Prep	
880-6805-5	CS-19	Total/NA	Solid	8015NM Prep	
MB 880-8972/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8972/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8972/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6805-2 MS	CS-16	Total/NA	Solid	8015NM Prep	
880-6805-2 MSD	CS-16	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 9044**

<b>Lab Sample ID</b> 880-6805-1	Client Sample ID CS-15	Prep Type Total/NA	Matrix Solid	Method 8015 NM	Prep Batch
880-6805-2	CS-16	Total/NA	Solid	8015 NM	
880-6805-3	CS-17	Total/NA	Solid	8015 NM	
880-6805-4	CS-18	Total/NA	Solid	8015 NM	
880-6805-5	CS-19	Total/NA	Solid	8015 NM	

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Released to Imaging: 3/24/2022 9:01:44 AM

#### **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6805-1

SDG: 454378

#### GC Semi VOA (Continued)

#### **Analysis Batch: 9044 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6805-6	CS-20	Total/NA	Solid	8015 NM	
880-6805-7	CS-21	Total/NA	Solid	8015 NM	

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Lab Sample ID: 880-6805-1

**Matrix: Solid** 

Date Collected: 09/28/21 10:35 Date Received: 10/05/21 12:43

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9044	10/07/21 09:03	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	8972	10/06/21 10:40	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8955	10/06/21 23:25	AJ	XEN MID
Total/NA	•	•		1	3		8955	10/06/21 23:25	AJ	XEN

Lab Sample ID: 880-6805-2 Client Sample ID: CS-16

Date Collected: 09/28/21 10:45 **Matrix: Solid** Date Received: 10/05/21 12:43

Batch **Batch** Dil Initial **Final Batch** Prepared **Prep Type** Number or Analyzed Type Method Run **Factor** Amount Amount **Analyst** Lab 9044 10/07/21 09:03 AJ Total/NA Analysis 8015 NM XEN MID Total/NA 8015NM Prep 10.00 g 8972 10/06/21 10:40 AM XEN MID Prep 10 mL Total/NA 10/06/21 21:38 AJ Analysis 8015B NM 1 8955 XEN MID

**Client Sample ID: CS-17** Lab Sample ID: 880-6805-3

Date Collected: 09/28/21 10:55 Matrix: Solid

Date Received: 10/05/21 12:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9044	10/07/21 09:03	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.03 g	10 mL	8972 8955	10/06/21 10:40 10/06/21 22:43		XEN MID XEN MID

**Client Sample ID: CS-18** Lab Sample ID: 880-6805-4

Date Collected: 09/28/21 11:05 **Matrix: Solid** Date Received: 10/05/21 12:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9044	10/07/21 09:03	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8972	10/06/21 10:40	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8955	10/06/21 23:46	AJ	XEN MID

**Client Sample ID: CS-19** Lab Sample ID: 880-6805-5

Date Collected: 09/28/21 11:15 Matrix: Solid Date Received: 10/05/21 12:43

Dil Batch Batch Batch Initial Final Prepared **Prep Type** Type Method Run **Factor Amount Amount** Number or Analyzed Analyst Lab Total/NA Analysis 8015 NM 9044 10/07/21 09:03 AJ XEN MID Total/NA Prep 8015NM Prep 10.01 g 10 mL 8972 10/06/21 10:40 AM XEN MID

Client Sample ID: CS-20 Lab Sample ID: 880-6805-6

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8955

10/06/21 23:04 AJ

Date Collected: 09/28/21 11:25 **Matrix: Solid** Date Received: 10/05/21 12:43

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9044	10/07/21 09:03	AJ	XEN MID

**Eurofins Xenco** 

XEN MID

Analysis

8015B NM

Total/NA

#### Lab Chronicle

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6805-1

SDG: 454378

**Client Sample ID: CS-20** 

Date Collected: 09/28/21 11:25 Date Received: 10/05/21 12:43 Lab Sample ID: 880-6805-6

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8934	10/05/21 15:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8873	10/06/21 05:06	AJ	XEN MID

Client Sample ID: CS-21 Lab Sample ID: 880-6805-7

Date Collected: 09/28/21 11:35 Matrix: Solid

Date Received: 10/05/21 12:43

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9044	10/07/21 09:03	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8934	10/05/21 15:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8873	10/06/21 05:27	AJ	XEN MID

Laboratory References:

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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#### **Accreditation/Certification Summary**

Client: TRC Solutions, Inc. Job ID: 880-6805-1 Project/Site: HEP: Eunice EMSU Remediation

SDG: 454378

**Laboratory: Eurofins Xenco** 

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority		rogram	Identification Number	Expiration Date
Texas	NF	ELAP	T104704400-21-22	06-30-22
• ,		ort, but the laboratory is n	ot certified by the governing authority.	This list may include analytes for whi
the agency does not	offer certification.			
the agency does not Analysis Method	offer certification. Prep Method	Matrix	Analyte	

#### **Method Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6805-1

SDG: 454378

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

#### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Xenco

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#### **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6805-1

SDG: 454378

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-6805-1	CS-15	Solid	09/28/21 10:35	10/05/21 12:43	4.5
880-6805-2	CS-16	Solid	09/28/21 10:45	10/05/21 12:43	4.5
880-6805-3	CS-17	Solid	09/28/21 10:55	10/05/21 12:43	4.5
880-6805-4	CS-18	Solid	09/28/21 11:05	10/05/21 12:43	4.5
880-6805-5	CS-19	Solid	09/28/21 11:15	10/05/21 12:43	4.5
880-6805-6	CS-20	Solid	09/28/21 11:25	10/05/21 12:43	4.5
880-6805-7	CS-21	Solid	09/28/21 11:35	10/05/21 12:43	4.5

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Xenco 

City, State ZIP

Midland TX, 79705

City, State ZIP

Company Name Bill to (if different)

State of Project:

Program· UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐ **Work Order Comments** 

으

Reporting Level II Level III PST/UST TRRP

Level IV

10 Desta Drive, #130E

Project Manager ompany Name

RUSSELL SEBRING

T_RC

## Chain of Cus

Houston TX (281) 240-4200 Dallas Midland, TX (432) 704-5440 San Anto EL Paso TX (915) 585-3443 Lubboo Hobbs NM (575) 392-7550 Carlsbad

NIVI (U) C)	o80-6805 Chain of Custody		
	Custody		

rder No:	
6805	

#### **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc.

Job Number: 880-6805-1 SDG Number: 454378

**List Source: Eurofins Xenco** 

Login Number: 6805 List Number: 1

Creator: Phillips, Kerianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

**Eurofins Xenco** 

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## **Environment Testing America**

#### **ANALYTICAL REPORT**

Eurofins Midland 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6701-1

Laboratory Sample Delivery Group: Eunice, NM

Client Project/Site: HEP EMSU

Revision: 2

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

JURAMER

Authorized for release by: 2/4/2022 12:01:33 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS .....

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Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Laboratory Job ID: 880-6701-1

SDG: Eunice, NM

#### **Table of Contents**

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#### **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-6701-1 Project/Site: HEP EMSU SDG: Eunice, NM

#### **Qualifiers**

#### **GC Semi VOA**

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

#### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis

Percent Recovery %R **CFL** Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

Duplicate Error Ratio (normalized absolute difference) DER

Dil Fac **Dilution Factor** 

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

Estimated Detection Limit (Dioxin) **EDL** LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit MLMinimum Level (Dioxin) MPN Most Probable Number Method Quantitation Limit MQL

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

**PQL Practical Quantitation Limit** 

**PRES** Presumptive QC **Quality Control** 

Relative Error Ratio (Radiochemistry) **RER** 

Reporting Limit or Requested Limit (Radiochemistry) RL

**RPD** Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

Too Numerous To Count **TNTC** 

#### Case Narrative

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Job ID: 880-6701-1

SDG: Eunice, NM

Job ID: 880-6701-1

**Laboratory: Eurofins Midland** 

Narrative

Job Narrative 880-6701-1

#### **REVISION**

The report being provided is a revision of the original report sent on 10/1/2021. The report (revision 2) is being revised due to Per client email, corrected sample IDs.

Report revision history

The report being provided is a revision of the original report sent on 10/1/2021. The report (revision 2) is being revised due to Per client email, corrected sample IDs.

Revision 1 - 1/10/2022 - Reason - Per client email, removed sample depths from sample name.

#### Receipt

The samples were received on 9/30/2021 4:53 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

#### GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client: TRC Solutions, Inc. Project/Site: HEP EMSU

SDG: Eunice, NM

Client Sample ID: SW-4

Date Collected: 09/29/21 13:00 Date Received: 09/30/21 16:53

Matrix: Solid

Lab Sample ID: 880-6701-1

Sample Depth: 2.25'

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/01/21 14:57	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/01/21 07:42	10/01/21 11:19	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/01/21 07:42	10/01/21 11:19	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/01/21 07:42	10/01/21 11:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			10/01/21 07:42	10/01/21 11:19	1
o-Terphenyl	113		70 - 130			10/01/21 07:42	10/01/21 11:19	1

**Client Sample ID: SW-5** Lab Sample ID: 880-6701-2 Date Collected: 09/29/21 13:05 **Matrix: Solid** 

Date Received: 09/30/21 16:53

Sample Depth: 2.25'

Method: 8015 NM - Diesel Ran	ge Organics	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/01/21 14:57	1

Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)				
Analyte	Result	Qualifier	RL	Unit	D Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg	10/01/21 07:42	10/01/21 12:24	1
(GRO)-C6-C10 Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg	10/01/21 07:42	10/01/21 12:24	1
C10-C28) Oll Range Organics (Over C28-C36)	<50.0	ш	50.0	mg/Kg	10/01/21 07:42	10/01/21 12:24	1
On Nange Organics (Over 626-630)	<b>\</b> 30.0	U	50.0	mg/Kg	10/01/21 07.42	10/01/21 12.24	'
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130		10/01/21 07:42	10/01/21 12:24	1
o-Terphenyl	104		70 - 130		10/01/21 07:42	10/01/21 12:24	1

Client Sample ID: SW-6 Lab Sample ID: 880-6701-3 Matrix: Solid

Date Collected: 09/29/21 13:10 Date Received: 09/30/21 16:53

Sample Depth: 2.25'

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (G	iC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/01/21 14:57	1

Method: 8015B NM - Diesel Ra	nge Organi	ics (DRO) (	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/01/21 07:42	10/01/21 12:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/01/21 07:42	10/01/21 12:46	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/01/21 07:42	10/01/21 12:46	1

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

SDG: Eunice, NM

Client Sample ID: SW-6

Lab Sample ID: 880-6701-3

Date Collected: 09/29/21 13:10 Date Received: 09/30/21 16:53

**Matrix: Solid** 

Sample Depth: 2.25'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	10/01/21 07:42	10/01/21 12:46	1
o-Terphenyl	108		70 - 130	10/01/21 07:42	10/01/21 12:46	1

Lab Sample ID: 880-6701-4 Client Sample ID: SW-7

**Matrix: Solid** 

Date Collected: 09/29/21 13:15 Date Received: 09/30/21 16:53

Sample Depth: 1.5'

Method: 8015 NM - Diesel Range C	<b>Organic</b>	s (DRO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/01/21 14:57	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/01/21 07:42	10/01/21 13:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/01/21 07:42	10/01/21 13:08	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/01/21 07:42	10/01/21 13:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			10/01/21 07:42	10/01/21 13:08	1
o-Terphenvl	109		70 - 130			10/01/21 07:42	10/01/21 13:08	1

**Client Sample ID: SW-8** Lab Sample ID: 880-6701-5 Date Collected: 09/29/21 13:20 **Matrix: Solid** 

Date Received: 09/30/21 16:53

Sample Depth: 1.5'

(GRO)-C6-C10

o-Terphenyl

Diesel Range Organics (Over

Method: 8015 NM - Diesel F	Range Organic	s (DRO) (GC	;)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/01/21 14:57	1
Method: 8015B NM - Diesel	Range Organi	ics (DRO) (G	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		10/01/21 07:42	10/01/21 13:30	1

1-Chlorooctane	99	70 - 130		10/01/21 07:42	10/01/21 13:30	
Surrogate	%Recovery Qualifier	Limits		Prepared	Analyzed	Dil Fac
C10-C28) OII Range Organics (Over C28-C36)	<49.8 U	49.8	mg/Kg	10/01/21 07:42	10/01/21 13:30	1

70 - 130

49.8

mg/Kg

<49.8 U

105

**Eurofins Midland** 

10/01/21 07:42 10/01/21 13:30

10/01/21 07:42 10/01/21 13:30

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

SDG: Eunice, NM

**Client Sample ID: SW-9** 

Date Collected: 09/29/21 13:25 Date Received: 09/30/21 16:53

Sample Depth: 1.5'

Lab Sample ID: 880-6701-6

Lab Sample ID: 880-6701-7

Analyzed

10/01/21 07:51 10/01/21 12:24

Prepared

Matrix: Solid

Dil Fac

**Matrix: Solid** 

Method: 8015 NM - Diesel Rang	je Organic	s (DRO) (G0	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/01/21 14:57	1
Method: 8015B NM - Diesel Rar	nge Organ	ics (DRO) (0	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/01/21 07:51	10/01/21 11:19	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/01/21 07:51	10/01/21 11:19	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/01/21 07:51	10/01/21 11:19	1

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 93 70 - 130 10/01/21 07:51 10/01/21 11:19 95 70 - 130 10/01/21 07:51 10/01/21 11:19 o-Terphenyl

**Client Sample ID: SW-10** Date Collected: 09/29/21 13:30 Date Received: 09/30/21 16:53

Analyte

Sample Depth: 2.25' Method: 8015 NM - Diesel Range Organics (DRO) (GC)

RL

Unit

Result Qualifier

89

<b>y</b>					_		,	
Total TPH	<50.0	U	50.0	mg/Kg			10/01/21 14:57	1
Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/01/21 07:51	10/01/21 12:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 07:51	10/01/21 12:24	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 07:51	10/01/21 12:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			10/01/21 07:51	10/01/21 12:24	1

**Client Sample ID: SW-11** Lab Sample ID: 880-6701-8

70 - 130

Date Collected: 09/29/21 13:35 Date Received: 09/30/21 16:53

Sample Depth: 2.25'

o-Terphenyl

Method: 8015 NM - Diesel Ran	ige Organic	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/01/21 14:57	1

Method: 8015B NM - Diesel Ra	nge Organi	ics (DRO) (	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/01/21 07:51	10/01/21 12:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/01/21 07:51	10/01/21 12:46	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/01/21 07:51	10/01/21 12:46	1

**Eurofins Midland** 

Matrix: Solid

SDG: Eunice, NM

Client Sample ID: SW-11

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Date Collected: 09/29/21 13:35 Date Received: 09/30/21 16:53

Date Collected: 09/29/21 08:40

Lab Sample ID: 880-6701-8 **Matrix: Solid** 

Sample Depth: 2.25'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	10/01/21 07:51	10/01/21 12:46	1
o-Terphenyl	110		70 - 130	10/01/21 07:51	10/01/21 12:46	1

Client Sample ID: CS-30 Lab Sample ID: 880-6701-9

**Matrix: Solid** 

Date Received: 09/30/21 16:53 Sample Depth: 4.5'

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Result Qualifier Analyte RL Unit D Prepared Analyzed Dil Fac Total TPH <50.0 U 10/01/21 14:57 50.0 mg/Kg

Method: 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac <49.9 U 49.9 10/01/21 07:51 10/01/21 13:08 Gasoline Range Organics mg/Kg (GRO)-C6-C10 <49.9 U Diesel Range Organics (Over 49.9 mg/Kg 10/01/21 07:51 10/01/21 13:08 C10-C28) Oll Range Organics (Over C28-C36) <49.9 U 49.9 mg/Kg 10/01/21 07:51 10/01/21 13:08 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac <u>10/01/21 07:51</u> <u>10/01/21 13:08</u> 1-Chlorooctane 111 70 - 130 116 70 - 130 10/01/21 07:51 10/01/21 13:08 o-Terphenyl

Client Sample ID: CS-27 Lab Sample ID: 880-6701-10 Date Collected: 09/29/21 08:25 **Matrix: Solid** 

Date Received: 09/30/21 16:53

Oll Range Organics (Over C28-C36)

Sample Depth: 4.5'

C10-C28)

Method: 8015 NM - Diesel Ra	nge Organics (DRO) (G	C)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			10/01/21 14:57	1
Method: 8015B NM - Diesel R	Range Organics (DRO) (	GC)					
Method: 8015B NM - Diesel R Analyte	Range Organics (DRO) ( Result Qualifier	GC) RL	Unit	D	Prepared	Analyzed	Dil Fac
	• • • • • • • • • • • • • • • • • • • •	•	Unit mg/Kg	<u>D</u>	Prepared 10/01/21 07:51	Analyzed 10/01/21 13:30	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100	70 - 130	10/01/21 07:51	10/01/21 13:30	1
o-Terphenyl	105	70 - 130	10/01/21 07:51	10/01/21 13:30	1

49.8

<49.8 U

**Eurofins Midland** 

10/01/21 07:51 10/01/21 13:30

mg/Kg

#### **Surrogate Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Job ID: 880-6701-1

SDG: Eunice, NM

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

		1001	OTPH1	gate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-6701-1	SW-4	104	113	
880-6701-1 MS	SW-4	99	100	
880-6701-1 MSD	SW-4	99	98	
880-6701-2	SW-5	97	104	
880-6701-3	SW-6	101	108	
880-6701-4	SW-7	98	109	
880-6701-5	SW-8	99	105	
880-6701-6	SW-9	93	95	
880-6701-6 MS	SW-9	107	97	
880-6701-6 MSD	SW-9	97	87	
880-6701-7	SW-10	88	89	
880-6701-8	SW-11	104	110	
880-6701-9	CS-30	111	116	
880-6701-10	CS-27	100	105	
LCS 880-8705/2-A	Lab Control Sample	103	103	
LCS 880-8706/2-A	Lab Control Sample	96	89	
LCSD 880-8705/3-A	Lab Control Sample Dup	108	107	
LCSD 880-8706/3-A	Lab Control Sample Dup	104	102	
MB 880-8705/1-A	Method Blank	95	104	
MB 880-8706/1-A	Method Blank	107	107	

1CO = 1-Chlorooctane OTPH = o-Terphenyl 2

__

3

4

6

8

10

12

Client: TRC Solutions, Inc. Job ID: 880-6701-1 Project/Site: HEP EMSU SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-8705/1-A

**Matrix: Solid** 

**Analysis Batch: 8701** 

**Client Sample ID: Method Blank** 

**Prep Type: Total/NA** 

Prep Batch: 8705

	IVIB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/01/21 07:42	10/01/21 10:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 07:42	10/01/21 10:13	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 07:42	10/01/21 10:13	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	10/01/21 07:42	10/01/21 10:13	1
o-Terphenyl	104		70 - 130	10/01/21 07:42	10/01/21 10:13	1

**Client Sample ID: Lab Control Sample** 

**Client Sample ID: Lab Control Sample Dup** 

**Prep Type: Total/NA** Prep Batch: 8705

Prep Type: Total/NA

Matrix: Solid **Analysis Batch: 8701** 

Lab Sample ID: LCS 880-8705/2-A

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	 1000	940.7		mg/Kg		94	70 - 130	 
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	987.0		mg/Kg		99	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	103	70 - 130
o-Terphenyl	103	70 - 130

Lab Sample ID: LCSD 880-8705/3-A

Matrix: Solid

						Prep	Batch:	8705
Spike	LCSD	LCSD				%Rec.		RPD
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1000	992.5		mg/Kg		99	70 - 130	5	20
1000	1002		mg/Kg		100	70 - 130	2	20
	Added	Added         Result           1000         992.5	Added Result Qualifier 992.5	Added Result Qualifier Unit mg/Kg	Added Result Qualifier Unit mg/Kg D	AddedResult 1000Qualifier 992.5Unit mg/KgD 99%Rec 99	Spike         LCSD         LCSD         %Rec.           Added         Result         Qualifier         Unit         D         %Rec         Limits           1000         992.5         mg/Kg         99         70 - 130	Added         Result         Qualifier         Unit         D         %Rec         Limits         RPD           1000         992.5         mg/Kg         99         70 - 130         5

C10-C28)

LCSD LCSD

Surrogate	%Recovery Qualitier	Limits
1-Chlorooctane	108	70 - 130
o-Terphenyl	107	70 - 130

Lab S

**Matrix** 

**Analys** 

Sample ID: 880-6701-1 MS				Client Sample ID: SW-4
ix: Solid				Prep Type: Total/NA
ysis Batch: 8701				Prep Batch: 8705
5	Sample Sample	Spike	MS MS	%Rec.

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	997	882.2		mg/Kg		84	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.8	U	997	883.7		mg/Kg		89	70 - 130	

Client: TRC Solutions, Inc. Job ID: 880-6701-1 Project/Site: HEP EMSU SDG: Eunice, NM

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-6701-1 MS

**Matrix: Solid** 

**Analysis Batch: 8701** 

Client Sample ID: SW-4 **Prep Type: Total/NA** 

Prep Batch: 8705

MS MS Limits Surrogate %Recovery Qualifier 1-Chlorooctane 99 70 - 130 o-Terphenyl 100 70 - 130

Lab Sample ID: 880-6701-1 MSD

**Analysis Batch: 8701** 

Client Sample ID: SW-4 **Matrix: Solid** Prep Type: Total/NA

Prep Batch: 8705 **RPD** %Rec. Limits RPD Limit

MSD MSD Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Gasoline Range Organics <49.8 U 999 930.9 mg/Kg 88 70 - 130 5 20 (GRO)-C6-C10 Diesel Range Organics (Over <49.8 U 999 879.7 mg/Kg 88 70 - 130 0 20 C10-C28)

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 99 70 - 130 70 - 130 o-Terphenyl 98

Lab Sample ID: MB 880-8706/1-A

**Matrix: Solid** 

**Analysis Batch: 8703** 

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 8706

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/01/21 07:51	10/01/21 10:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 07:51	10/01/21 10:13	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 07:51	10/01/21 10:13	1

	IVID IVID				
Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107	70 - 130	10/01/21 07:51	10/01/21 10:13	1
o-Terphenyl	107	70 - 130	10/01/21 07:51	10/01/21 10:13	1

Lab Sample ID: LCS 880-8706/2-A

Released to Imaging: 3/24/2022 9:01:44 AM

**Matrix: Solid** 

**Client Sample ID: Lab Control Sample Prep Type: Total/NA** 

Analysis Batch: 8703							Prep E	satch: 8/06
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	857.5		mg/Kg		86	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	901.0		mg/Kg		90	70 - 130	
C10 C28)								

LCS	LCS
-----	-----

MB MB

MD MD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	96	70 - 130
o-Terphenyl	89	70 - 130

#### QC Sample Results

Client: TRC Solutions, Inc. Job ID: 880-6701-1 Project/Site: HEP EMSU SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-8706/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** 

**Analysis Batch: 8703** 

Prep Type: Total/NA Prep Batch: 8706 %Rec. **RPD** Unit %Rec Limits RPD Limit

LCSD LCSD Spike Added Result Qualifier Analyte Gasoline Range Organics 1000 896.7 mg/Kg 90 70 - 130 4 20 (GRO)-C6-C10 1000 Diesel Range Organics (Over 1006 101 70 - 130 mg/Kg 20 11 C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 70 - 130 104 70 - 130 o-Terphenyl 102

**Client Sample ID: SW-9** Lab Sample ID: 880-6701-6 MS **Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 8703** Prep Batch: 8706 Sample Sample Spike MS MS %Rec.

Result Qualifier Added Result Qualifier D %Rec Limits Analyte Unit Gasoline Range Organics <49.8 U 997 939.0 92 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.8 U 997 1049 mg/Kg 105 70 - 130 C10-C28)

MS MS Qualifier Surrogate %Recovery Limits 1-Chlorooctane 107 70 - 130 o-Terphenyl 97 70 - 130

Lab Sample ID: 880-6701-6 MSD **Client Sample ID: SW-9 Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 8703** Prep Batch: 8706 Sample Sample Spike MSD MSD %Rec. RPD

Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics <49.8 Ū 999 83 20 859.7 70 - 130 9 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.8 U 999 940.0 mg/Kg 94 70 - 130 11 20 C10-C28)

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 97 70 - 130 87 70 - 130 o-Terphenyl

#### **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Job ID: 880-6701-1

SDG: Eunice, NM

#### **GC Semi VOA**

#### **Analysis Batch: 8701**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6701-1	SW-4	Total/NA	Solid	8015B NM	8705
880-6701-2	SW-5	Total/NA	Solid	8015B NM	8705
880-6701-3	SW-6	Total/NA	Solid	8015B NM	8705
880-6701-4	SW-7	Total/NA	Solid	8015B NM	8705
880-6701-5	SW-8	Total/NA	Solid	8015B NM	8705
MB 880-8705/1-A	Method Blank	Total/NA	Solid	8015B NM	8705
LCS 880-8705/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8705
LCSD 880-8705/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8705
880-6701-1 MS	SW-4	Total/NA	Solid	8015B NM	8705
880-6701-1 MSD	SW-4	Total/NA	Solid	8015B NM	8705

#### **Analysis Batch: 8703**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6701-6	SW-9	Total/NA	Solid	8015B NM	8706
880-6701-7	SW-10	Total/NA	Solid	8015B NM	8706
880-6701-8	SW-11	Total/NA	Solid	8015B NM	8706
880-6701-9	CS-30	Total/NA	Solid	8015B NM	8706
880-6701-10	CS-27	Total/NA	Solid	8015B NM	8706
MB 880-8706/1-A	Method Blank	Total/NA	Solid	8015B NM	8706
LCS 880-8706/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8706
LCSD 880-8706/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8706
880-6701-6 MS	SW-9	Total/NA	Solid	8015B NM	8706
880-6701-6 MSD	SW-9	Total/NA	Solid	8015B NM	8706

#### Prep Batch: 8705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6701-1	SW-4	Total/NA	Solid	8015NM Prep	
880-6701-2	SW-5	Total/NA	Solid	8015NM Prep	
880-6701-3	SW-6	Total/NA	Solid	8015NM Prep	
880-6701-4	SW-7	Total/NA	Solid	8015NM Prep	
880-6701-5	SW-8	Total/NA	Solid	8015NM Prep	
MB 880-8705/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8705/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8705/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6701-1 MS	SW-4	Total/NA	Solid	8015NM Prep	
880-6701-1 MSD	SW-4	Total/NA	Solid	8015NM Prep	

#### Prep Batch: 8706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6701-6	SW-9	Total/NA	Solid	8015NM Prep	
880-6701-7	SW-10	Total/NA	Solid	8015NM Prep	
880-6701-8	SW-11	Total/NA	Solid	8015NM Prep	
880-6701-9	CS-30	Total/NA	Solid	8015NM Prep	
880-6701-10	CS-27	Total/NA	Solid	8015NM Prep	
MB 880-8706/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8706/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8706/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6701-6 MS	SW-9	Total/NA	Solid	8015NM Prep	
880-6701-6 MSD	SW-9	Total/NA	Solid	8015NM Prep	

**Eurofins Midland** 

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#### **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Job ID: 880-6701-1

SDG: Eunice, NM

#### **GC Semi VOA**

#### **Analysis Batch: 8748**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6701-1	SW-4	Total/NA	Solid	8015 NM	
880-6701-2	SW-5	Total/NA	Solid	8015 NM	
880-6701-3	SW-6	Total/NA	Solid	8015 NM	
880-6701-4	SW-7	Total/NA	Solid	8015 NM	
880-6701-5	SW-8	Total/NA	Solid	8015 NM	
880-6701-6	SW-9	Total/NA	Solid	8015 NM	
880-6701-7	SW-10	Total/NA	Solid	8015 NM	
880-6701-8	SW-11	Total/NA	Solid	8015 NM	
880-6701-9	CS-30	Total/NA	Solid	8015 NM	
880-6701-10	CS-27	Total/NA	Solid	8015 NM	

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SDG: Eunice, NM

Client Sample ID: SW-4

Date Received: 09/30/21 16:53

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Lab Sample ID: 880-6701-1 Date Collected: 09/29/21 13:00

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8748	10/01/21 14:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8705	10/01/21 07:42	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8701	10/01/21 11:19	AJ	XEN MID

**Client Sample ID: SW-5** Lab Sample ID: 880-6701-2

Date Collected: 09/29/21 13:05 **Matrix: Solid** 

Date Received: 09/30/21 16:53

Prep Type Total/NA	Batch Type Analysis	Batch Method 8015 NM	Run	Dil Factor	Initial Amount	Final Amount	Batch Number 8748	<b>Prepared or Analyzed</b> 10/01/21 14:57	Analyst AJ	Lab XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.00 g	10 mL	8705 8701	10/01/21 07:42 10/01/21 12:24		XEN MID XEN MID

Client Sample ID: SW-6 Lab Sample ID: 880-6701-3 Date Collected: 09/29/21 13:10 **Matrix: Solid** 

Date Received: 09/30/21 16:53

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Type Method Run **Factor Amount** Amount Number or Analyzed Analyst Lab Total/NA Analysis 8015 NM 8748 10/01/21 14:57 AJ XEN MID Total/NA 10/01/21 07:42 DM Prep 8015NM Prep 10.02 g 10 mL 8705 **XEN MID** Analysis Total/NA 8015B NM 1 8701 10/01/21 12:46 AJ XEN MID

Client Sample ID: SW-7 Lab Sample ID: 880-6701-4

Date Collected: 09/29/21 13:15 Date Received: 09/30/21 16:53

Dil Initial Batch **Batch** Final **Batch** Prepared Prep Type Method Number or Analyzed Type Run **Factor Amount** Amount Analyst Lab 8015 NM Total/NA 8748 10/01/21 14:57 AJ Analysis XEN MID Total/NA 8015NM Prep 10.03 g 10 mL 8705 10/01/21 07:42 DM XEN MID Prep Total/NA Analysis 8015B NM 8701 10/01/21 13:08 AJ XEN MID 1

Client Sample ID: SW-8 Lab Sample ID: 880-6701-5

Date Collected: 09/29/21 13:20 Date Received: 09/30/21 16:53

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8748	10/01/21 14:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8705	10/01/21 07:42	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8701	10/01/21 13:30	AJ	XEN MID

Client Sample ID: SW-9 Lab Sample ID: 880-6701-6

Date Collected: 09/29/21 13:25 Date Received: 09/30/21 16:53

<del>_</del>	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8748	10/01/21 14:57	AJ	XEN MID

**Eurofins Midland** 

**Matrix: Solid** 

Matrix: Solid

Matrix: Solid

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

Lab Sample ID: 880-6701-6

Matrix: Solid

**Matrix: Solid** 

Client Sample ID: SW-9
Date Collected: 09/29/21 13:25

Date Received: 09/30/21 16:53

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8706	10/01/21 07:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8703	10/01/21 11:19	AJ	XEN MID

Client Sample ID: SW-10

Date Collected: 09/29/21 13:30

Lab Sample ID: 880-6701-7

Matrix: Solid

Date Received: 09/30/21 16:53

Prep Type Total/NA	Batch Type Analysis	Batch Method 8015 NM	Run	Dil Factor	Initial Amount	Final Amount	Batch Number 8748	Prepared or Analyzed 10/01/21 14:57	Analyst AJ	Lab XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.00 g	10 mL	8706 8703	10/01/21 07:51 10/01/21 12:24	DM AJ	XEN MID XEN MID

Client Sample ID: SW-11

Date Collected: 09/29/21 13:35

Lab Sample ID: 880-6701-8

Matrix: Solid

Date Collected: 09/29/21 13:35 Date Received: 09/30/21 16:53

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM	·	1			8748	10/01/21 14:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	8706	10/01/21 07:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8703	10/01/21 12:46	AJ	XEN MID

Client Sample ID: CS-30 Lab Sample ID: 880-6701-9

Date Collected: 09/29/21 08:40 Date Received: 09/30/21 16:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8748	10/01/21 14:57	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.03 g	10 mL	8706 8703	10/01/21 07:51 10/01/21 13:08	DM AJ	XEN MID XEN MID

Client Sample ID: CS-27

Date Collected: 09/29/21 08:25

Lab Sample ID: 880-6701-10

Matrix: Solid

Date Received: 09/30/21 16:53

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8748	10/01/21 14:57	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8706	10/01/21 07:51	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8703	10/01/21 13:30	AJ	XEN MID

**Laboratory References:** 

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Eurofins Midland** 

## **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Job ID: 880-6701-1

SDG: Eunice, NM

## **Laboratory: Eurofins Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analyte	e are included in this reno	ort but the laboratory is r	not certified by the governing authority	This list may include analytes for y
,	•	ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for v
the agency does not	offer certification.	•		This list may include analytes for v
,	•	ort, but the laboratory is r  Matrix Solid	not certified by the governing authority.  Analyte Total TPH	This list may include analytes for v

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## **Method Summary**

Client: TRC Solutions, Inc.
Project/Site: HEP EMSU

Job ID: 880-6701-1 SDG: Eunice, NM

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

#### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Midland

## **Sample Summary**

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

Job ID: 880-6701-1 SDG: Eunice. NM

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-6701-1	SW-4	Solid	09/29/21 13:00	09/30/21 16:53	2.25'
880-6701-2	SW-5	Solid	09/29/21 13:05	09/30/21 16:53	2.25'
880-6701-3	SW-6	Solid	09/29/21 13:10	09/30/21 16:53	2.25'
880-6701-4	SW-7	Solid	09/29/21 13:15	09/30/21 16:53	1.5'
880-6701-5	SW-8	Solid	09/29/21 13:20	09/30/21 16:53	1.5'
880-6701-6	SW-9	Solid	09/29/21 13:25	09/30/21 16:53	1.5'
880-6701-7	SW-10	Solid	09/29/21 13:30	09/30/21 16:53	2.25'
880-6701-8	SW-11	Solid	09/29/21 13:35	09/30/21 16:53	2.25'
880-6701-9	CS-30	Solid	09/29/21 08:40	09/30/21 16:53	4.5'
880-6701-10	CS-27	Solid	09/29/21 08:25	09/30/21 16:53	4.5'

Revised Date: 08/25/2020 Rev 2020.2

## **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc.

Job Number: 880-6701-1

SDG Number: Eunice, NM

Login Number: 6701 List Source: Eurofins Midland

List Number: 1

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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# **Environment Testing America**

## **ANALYTICAL REPORT**

Eurofins Xenco 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6702-1

Laboratory Sample Delivery Group: Eunice, NM

Client Project/Site: HEP EMSU

Revision: 1

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

JURAMER

Authorized for release by: 1/7/2022 4:41:15 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

.....LINKS

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www.eurofinsus.com/Env

Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Laboratory Job ID: 880-6702-1

SDG: Eunice, NM

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## **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-6702-1 Project/Site: HEP EMSU SDG: Eunice, NM

**Qualifiers** 

**GC Semi VOA** 

Qualifier **Qualifier Description** 

LCS and/or LCSD is outside acceptance limits, low biased. U Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

**DER** Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

Detection Limit (DoD/DOE) DΙ

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Decision Level Concentration (Radiochemistry) DLC

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit MLMinimum Level (Dioxin) Most Probable Number MPN MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL **Practical Quantitation Limit** 

**PRES** Presumptive QC **Quality Control** 

Relative Error Ratio (Radiochemistry) RER

RL Reporting Limit or Requested Limit (Radiochemistry)

**RPD** Relative Percent Difference, a measure of the relative difference between two points

**TEF** Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) TEQ

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Job ID: 880-6702-1

SDG: Eunice, NM

Job ID: 880-6702-1

**Laboratory: Eurofins Xenco** 

Narrative

Job Narrative 880-6702-1

#### **REVISION**

The report being provided is a revision of the original report sent on 10/5/2021. The report (revision 1) is being revised due to Per client email, removed sample depths from sample name.

Report revision history

#### Receipt

The samples were received on 9/30/2021 4:57 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

#### GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Job ID: 880-6702-1 SDG: Eunice, NM

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

Date Received: 09/30/21 16:57

Client Sample ID: CS-22 Lab Sample ID: 880-6702-1 Date Collected: 09/29/21 08:00

**Matrix: Solid** 

Sample Depth: 4.5'

Method: 8015 NM - Diesel Rar	ige Organics (DRO) (GO	C)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			10/05/21 10:42	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *-	50.0	mg/Kg		10/01/21 09:56	10/01/21 22:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 09:56	10/01/21 22:36	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 09:56	10/01/21 22:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			10/01/21 09:56	10/01/21 22:36	1
o-Terphenyl	102		70 - 130			10/01/21 09:56	10/01/21 22:36	1

**Client Sample ID: CS-23** Lab Sample ID: 880-6702-2 **Matrix: Solid** 

Date Collected: 09/29/21 08:05 Date Received: 09/30/21 16:57

Sample Depth: 4.5'

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Prepared Analyte Result Qualifier RL Unit Analyzed Dil Fac Total TPH <50.0 U 50.0 mg/Kg 10/05/21 10:42

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Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)				
Analyte	Result	Qualifier	RL	Unit	D Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *-	49.8	mg/Kg	10/01/21 09:56	10/01/21 22:57	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg	10/01/21 09:56	10/01/21 22:57	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg	10/01/21 09:56	10/01/21 22:57	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130		10/01/21 09:56	10/01/21 22:57	1
o-Terphenyl	102		70 - 130		10/01/21 09:56	10/01/21 22:57	1

Client Sample ID: CS-26 Lab Sample ID: 880-6702-3

Date Collected: 09/29/21 08:20 Date Received: 09/30/21 16:57

Sample Depth: 4.5'

Method: 8015 NM - Diesel Ran	ge Organics (DRO) (GC	<del>;</del> )					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TDH		50.0	ma/Ka			10/05/21 10:42	

				0 0				
Method: 8015B NM - Diesel Ra	nge Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *-	50.0	mg/Kg		10/01/21 09:56	10/01/21 23:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 09:56	10/01/21 23:17	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 09:56	10/01/21 23:17	1

**Eurofins Xenco** 

Matrix: Solid

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

Job ID: 880-6702-1 SDG: Eunice, NM

Lab Sample ID: 880-6702-3

Lab Sample ID: 880-6702-4

**Client Sample ID: CS-26** 

Date Collected: 09/29/21 08:20 Date Received: 09/30/21 16:57

Matrix: Solid

Matrix: Solid

**Matrix: Solid** 

Sample Depth: 4.5'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	10/01/21 09:56	10/01/21 23:17	1
o-Terphenyl	102		70 - 130	10/01/21 09:56	10/01/21 23:17	1

**Client Sample ID: CS-28** 

Date Collected: 09/29/21 08:30

Date Received: 09/30/21 16:57

Sample Depth: 4.5'

Method: 8015 NM - Diesel Ran	ge Organics	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/05/21 10:42	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *-	49.8	mg/Kg		10/01/21 09:56	10/01/21 23:37	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/01/21 09:56	10/01/21 23:37	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/01/21 09:56	10/01/21 23:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			10/01/21 09:56	10/01/21 23:37	1
o-Terphenyl	103		70 - 130			10/01/21 09:56	10/01/21 23:37	1

Lab Sample ID: 880-6702-5 **Client Sample ID: CS-29** 

Date Collected: 09/29/21 08:35 Date Received: 09/30/21 16:57

Sample Depth: 4.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/05/21 10:42	1
Method: 8015B NM - Diesel Ra	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *-	50.0	mg/Kg		10/01/21 09:56	10/01/21 23:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 09:56	10/01/21 23:58	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 09:56	10/01/21 23:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			10/01/21 09:56	10/01/21 23:58	1
o-Terphenyl	105		70 - 130			10/01/21 09:56	10/01/21 23:58	1

Job ID: 880-6702-1

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

SDG: Eunice, NM

**Client Sample ID: CS-31** Lab Sample ID: 880-6702-6 Date Collected: 09/29/21 08:45 Matrix: Solid

Date Received: 09/30/21 16:57

Sample Depth: 4.5'

Method: 8015 NM - Diesel Range	Organic	s (DRO) (G0	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/05/21 10:42	1

Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/01/21 13:00	10/01/21 17:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 13:00	10/01/21 17:30	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 13:00	10/01/21 17:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			10/01/21 13:00	10/01/21 17:30	1
o-Terphenyl	113		70 - 130			10/01/21 13:00	10/01/21 17:30	1

**Client Sample ID: CS-32** Lab Sample ID: 880-6702-7 **Matrix: Solid** 

Date Collected: 09/29/21 08:50 Date Received: 09/30/21 16:57

Sample Depth: 4.5'

Method: 8015 NM - Diesel Ran	ge Organics	(DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/05/21 10:42	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/01/21 13:00	10/01/21 17:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 13:00	10/01/21 17:51	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 13:00	10/01/21 17:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			10/01/21 13:00	10/01/21 17:51	1
o-Terphenyl	113		70 - 130			10/01/21 13:00	10/01/21 17:51	1

**Client Sample ID: CS-33** Lab Sample ID: 880-6702-8 Matrix: Solid

Date Collected: 09/29/21 08:55 Date Received: 09/30/21 16:57

Sample Depth: 4.5'

Method: 8015 NM - Diesel Ran	ge Organics (DRO) (G	C)						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TDH	222	50.0	ma/Ka			10/05/21 10:42		

Method: 8015B NM - Diesel Ra	nge Organi	ics (DRO) (	GC)					
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/01/21 13:00	10/01/21 18:13	1
Diesel Range Organics (Over C10-C28)	222		49.8	mg/Kg		10/01/21 13:00	10/01/21 18:13	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/01/21 13:00	10/01/21 18:13	1

## **Client Sample Results**

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Job ID: 880-6702-1

SDG: Eunice, NM

Client Sample ID: CS-33

Lab Sample ID: 880-6702-8

Date Collected: 09/29/21 08:55

Matrix: Solid

Date Received: 09/30/21 16:57

Sample Depth: 4.5'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	10/01/21 13:00	10/01/21 18:13	1
o-Terphenyl	117		70 - 130	10/01/21 13:00	10/01/21 18:13	1

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## **Surrogate Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Job ID: 880-6702-1

SDG: Eunice, NM

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

			Perc	ent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-6699-A-1-B MS	Matrix Spike	110	110	
880-6699-A-1-C MSD	Matrix Spike Duplicate	106	104	
880-6701-A-1-B MS	Matrix Spike	99	100	
880-6701-A-1-C MSD	Matrix Spike Duplicate	99	98	
880-6702-1	CS-22	93	102	
880-6702-2	CS-23	94	102	
880-6702-3	CS-26	93	102	
880-6702-4	CS-28	93	103	
880-6702-5	CS-29	95	105	
880-6702-6	CS-31	102	113	
880-6702-7	CS-32	105	113	
880-6702-8	CS-33	111	117	
LCS 880-8705/2-A	Lab Control Sample	103	103	
LCS 880-8715/2-A	Lab Control Sample	96	97	
LCSD 880-8705/3-A	Lab Control Sample Dup	108	107	
LCSD 880-8715/3-A	Lab Control Sample Dup	93	95	
MD 000 0705/4 A	Method Blank	95	104	
MB 880-8705/1-A	Method Blank	95	105	

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Client: TRC Solutions, Inc. Job ID: 880-6702-1 Project/Site: HEP EMSU

SDG: Eunice, NM

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-8705/1-A

Lab Sample ID: LCS 880-8705/2-A

**Matrix: Solid** 

**Analysis Batch: 8701** 

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 8705

	INIB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/01/21 07:42	10/01/21 10:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 07:42	10/01/21 10:13	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 07:42	10/01/21 10:13	1
						_		D# 5
	Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Gasoline Range Organics <50.0 (GRO)-C6-C10 Diesel Range Organics (Over <50.0 C10-C28) Oll Range Organics (Over C28-C36)    MB	Gasoline Range Organics <50.0 U (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U C10-C28) Oll Range Organics (Over C28-C36) <50.0 U  MB MB	Gasoline Range Organics <50.0 U 50.0 mg/Kg 10/01/21 07:42 10/01/21 10:13 (GRO)-C6-C10  Diesel Range Organics (Over <50.0 U 50.0 mg/Kg 10/01/21 07:42 10/01/21 10:13 C10-C28)  Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 10/01/21 07:42 10/01/21 10:13				

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1-Chlorooctane	95		70 - 130	10/01/21 07:42	10/01/21 10:13	1
l	o-Terphenyl	104		70 - 130	10/01/21 07:42	10/01/21 10:13	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 8705

**Analysis Batch: 8701** LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit Limits D %Rec 1000 940.7 94 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 987.0 mg/Kg 99 70 - 130

C10-C28)

**Matrix: Solid** 

LCS LCS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 103 70 - 130 70 - 130 o-Terphenyl 103

Lab Sample ID: LCSD 880-8705/3-A

**Matrix: Solid** 

**Analysis Batch: 8701** 

Client Sample ID: La	ab Control Sample Dup
	Prep Type: Total/NA

Prep Batch: 8705

Spike LCSD LCSD **RPD** %Rec. Added Result Qualifier Limit Analyte Limits RPD Unit %Rec Gasoline Range Organics 1000 992.5 mg/Kg 99 70 - 130 5 20 (GRO)-C6-C10 1000 Diesel Range Organics (Over 1002 mg/Kg 100 70 - 130 2 20 C10-C28)

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	107		70 - 130

Lab Sample ID: 880-6701-A-1-B MS

**Matrix: Solid** 

**Analysis Batch: 8701** 

Client Sample ID: Matrix Spike
Chone Campio is: matrix opino

**Prep Type: Total/NA** Prep Batch: 8705

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-	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	997	882.2		mg/Kg		84	70 - 130	
Diesel Range Organics (Over	<49.8	U	997	883.7		mg/Kg		89	70 - 130	

**Eurofins Xenco** 

Released to Imaging: 3/24/2022 9:01:44 AM

Client: TRC Solutions, Inc. Job ID: 880-6702-1 Project/Site: HEP EMSU SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-6701-A-1-B MS

**Matrix: Solid** 

**Analysis Batch: 8701** 

Client Sample ID: Matrix Spike

**Prep Type: Total/NA** 

Prep Batch: 8705

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 99 70 - 130 o-Terphenyl 100 70 - 130

Lab Sample ID: 880-6701-A-1-C MSD

**Matrix: Solid** 

**Analysis Batch: 8701** 

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 8705

RPD MSD MSD Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics <49.8 U 999 930.9 mg/Kg 88 70 - 130 5 20 (GRO)-C6-C10 Diesel Range Organics (Over <49.8 U 999 879.7 mg/Kg 88 70 - 130 0 20 C10-C28)

MSD MSD

MB MB

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 99 70 - 130 70 - 130 o-Terphenyl 98

Lab Sample ID: MB 880-8715/1-A

**Matrix: Solid** 

**Analysis Batch: 8697** 

Client Sample ID: Method Blank **Prep Type: Total/NA** 

Prep Batch: 8715

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/01/21 09:56	10/01/21 15:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 09:56	10/01/21 15:18	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 09:56	10/01/21 15:18	1

MB MB %Recovery Qualifier Surrogate 1-Chlorooctane 95

Limits 70 - 130 105 70 - 130 o-Terphenyl

Prepared Analyzed Dil Fac 10/01/21 09:56 10/01/21 15:18 10/01/21 09:56 10/01/21 15:18

Lab Sample ID: LCS 880-8715/2-A

Released to Imaging: 3/24/2022 9:01:44 AM

**Matrix: Solid** 

**Analysis Batch: 8697** 

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Prep Batch: 8715

•	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	745.9		mg/Kg		75	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	945.6		mg/Kg		95	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery Qualified	r Limits
1-Chlorooctane	96	70 - 130
o-Terphenyl	97	70 - 130

Lab Sample ID: LCSD 880-8715/3-A

Lab Sample ID: 880-6699-A-1-B MS

Lab Sample ID: 880-6699-A-1-C MSD

**Matrix: Solid** 

(GRO)-C6-C10

Analyte

C10-C28)

Surrogate

o-Terphenyl

Analyte

C10-C28)

Surrogate

o-Terphenyl

Analyte

C10-C28)

Surrogate

o-Terphenyl

1-Chlorooctane

1-Chlorooctane

**Matrix: Solid** 

(GRO)-C6-C10

**Analysis Batch: 8697** 

Gasoline Range Organics

Diesel Range Organics (Over

1-Chlorooctane

**Matrix: Solid** 

(GRO)-C6-C10

**Analysis Batch: 8697** 

Gasoline Range Organics

Diesel Range Organics (Over

**Analysis Batch: 8697** 

Gasoline Range Organics

Diesel Range Organics (Over

Prep Type: Total/NA

Prep Batch: 8715

RPD

10

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## QC Sample Results

Spike

Added

1000

1000

Limits

70 - 130

70 - 130

Spike

Added

997

997

Limits

70 - 130

70 - 130

Spike

Added

999

999

Limits

70 - 130

70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

LCSD LCSD

%Recovery Qualifier

93

95

Sample Sample

<49.8 U *-

MS MS

Sample Sample

<49.8 U *-

MSD MSD

Qualifier

<49.8 U

106

104

%Recovery

Result Qualifier

Qualifier

<49.8 U

110

110

%Recovery

Result Qualifier

Client: TRC Solutions, Inc. Job ID: 880-6702-1 Project/Site: HEP EMSU SDG: Eunice, NM

LCSD LCSD

MS MS

MSD MSD

1017

903.3

Result Qualifier

1058

957.5

Result Qualifier

674.3 *-

879.9

Result Qualifier

Unit

mg/Kg

mg/Kg

Unit

mg/Kg

mg/Kg

Unit

mg/Kg

mg/Kg

%Rec

D %Rec

106

93

Client Sample ID: Matrix Spike Duplicate

%Rec

102

87

%Rec.

Limits

70 - 130

70 - 130

67

88

D

Client Sample ID: Lab Control Sample Dup

%Rec.

Limits

70 - 130

70 - 130

**Client Sample ID: Matrix Spike** 

%Rec.

Limits

70 - 130

70 - 130

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 8715

RPD

6

RPD

Limit

20

20

Prep Batch: 8715

RPD

Limit

20

20

## **QC Association Summary**

Job ID: 880-6702-1 Client: TRC Solutions, Inc. Project/Site: HEP EMSU SDG: Eunice, NM

## **GC Semi VOA**

#### **Analysis Batch: 8697**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6702-1	CS-22	Total/NA	Solid	8015B NM	8715
880-6702-2	CS-23	Total/NA	Solid	8015B NM	8715
880-6702-3	CS-26	Total/NA	Solid	8015B NM	8715
880-6702-4	CS-28	Total/NA	Solid	8015B NM	8715
880-6702-5	CS-29	Total/NA	Solid	8015B NM	8715
MB 880-8715/1-A	Method Blank	Total/NA	Solid	8015B NM	8715
LCS 880-8715/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8715
LCSD 880-8715/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8715
880-6699-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	8715
880-6699-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8715

#### **Analysis Batch: 8701**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6702-6	CS-31	Total/NA	Solid	8015B NM	8705
880-6702-7	CS-32	Total/NA	Solid	8015B NM	8705
880-6702-8	CS-33	Total/NA	Solid	8015B NM	8705
MB 880-8705/1-A	Method Blank	Total/NA	Solid	8015B NM	8705
LCS 880-8705/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8705
LCSD 880-8705/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8705
880-6701-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	8705
880-6701-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8705

#### Prep Batch: 8705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6702-6	CS-31	Total/NA	Solid	8015NM Prep	
880-6702-7	CS-32	Total/NA	Solid	8015NM Prep	
880-6702-8	CS-33	Total/NA	Solid	8015NM Prep	
MB 880-8705/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8705/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8705/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6701-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-6701-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### Prep Batch: 8715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6702-1	CS-22	Total/NA	Solid	8015NM Prep	
880-6702-2	CS-23	Total/NA	Solid	8015NM Prep	
880-6702-3	CS-26	Total/NA	Solid	8015NM Prep	
880-6702-4	CS-28	Total/NA	Solid	8015NM Prep	
880-6702-5	CS-29	Total/NA	Solid	8015NM Prep	
MB 880-8715/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8715/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8715/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6699-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-6699-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 8890**

Lab Sample ID 880-6702-1	Client Sample ID	Prep Type Total/NA	Matrix Solid	Method 8015 NM	Prep Batch
880-6702-2	CS-23	Total/NA	Solid	8015 NM	
880-6702-3	CS-26	Total/NA	Solid	8015 NM	

## **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Job ID: 880-6702-1

SDG: Eunice, NM

## GC Semi VOA (Continued)

#### **Analysis Batch: 8890 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6702-4	CS-28	Total/NA	Solid	8015 NM	
880-6702-5	CS-29	Total/NA	Solid	8015 NM	
880-6702-6	CS-31	Total/NA	Solid	8015 NM	
880-6702-7	CS-32	Total/NA	Solid	8015 NM	
880-6702-8	CS-33	Total/NA	Solid	8015 NM	

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ID: 990 6702 4

Client Sample ID: CS-22 Date Collected: 09/29/21 08:00 Lab Sample ID: 880-6702-1

Matrix: Solid

Date Received: 09/30/21 16:57

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8890	10/05/21 10:42	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8715	10/01/21 09:56	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8697	10/01/21 22:36	AJ	XEN MID

Client Sample ID: CS-23 Lab Sample ID: 880-6702-2

Date Collected: 09/29/21 08:05

Date Received: 09/30/21 16:57

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA Total/NA Total/NA	Analysis Prep Analysis	8015 NM 8015NM Prep 8015B NM		1	10.05 g	10 mL	8890 8715 8697	10/05/21 10:42 10/01/21 09:56 10/01/21 22:57		XEN MID XEN MID XEN MID

Client Sample ID: CS-26 Lab Sample ID: 880-6702-3

Date Collected: 09/29/21 08:20 Matrix: Solid

Date Received: 09/30/21 16:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8890	10/05/21 10:42	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.01 g	10 mL	8715 8697	10/01/21 09:56 10/01/21 23:17		XEN MID XEN MID

Client Sample ID: CS-28

Date Collected: 09/29/21 08:30

Lab Sample ID: 880-6702-4

Matrix: Solid

Date Collected: 09/29/21 08:30
Date Received: 09/30/21 16:57

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8890	10/05/21 10:42	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8715	10/01/21 09:56	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8697	10/01/21 23:37	AJ	XEN MID

Client Sample ID: CS-29 Lab Sample ID: 880-6702-5

Date Collected: 09/29/21 08:35 Matrix: Solid

Date Received: 09/30/21 16:57

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8890	10/05/21 10:42	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8715	10/01/21 09:56	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8697	10/01/21 23:58	AJ	XEN MID

Client Sample ID: CS-31 Lab Sample ID: 880-6702-6

Date Collected: 09/29/21 08:45

Date Received: 09/30/21 16:57

Matrix: Solid

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8890	10/05/21 10:42	AJ	XEN MID

Client Sample ID: CS-31

Date Collected: 09/29/21 08:45

Date Received: 09/30/21 16:57

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

Job ID: 880-6702-1 SDG: Eunice, NM

Lab Sample ID: 880-6702-6

**Matrix: Solid** 

Batch Dil Initial Batch Batch Final Prepared Method Factor Number or Analyzed **Prep Type** Type Run **Amount** Amount **Analyst** Lab 10.00 g Total/NA 8015NM Prep 8705 10/01/21 13:00 XEN MID Prep 10 mL Total/NA 10/01/21 17:30 AJ 8015B NM 8701 XEN MID Analysis 1

Client Sample ID: CS-32 Lab Sample ID: 880-6702-7 Matrix: Solid

Date Collected: 09/29/21 08:50 Date Received: 09/30/21 16:57

Analyst Lab AJ XEN MID

Batch Batch Dil Initial Final Batch Prepared Method **Prep Type** Type **Amount Amount** Number or Analyzed Run **Factor** Total/NA Analysis 8015 NM 8890 10/05/21 10:42 Total/NA Prep 8015NM Prep 10 mL 8705 10/01/21 13:00 DM XEN MID 10.01 g Total/NA Analysis 8015B NM 8701 10/01/21 17:51 AJ XEN MID 1

Lab Sample ID: 880-6702-8 **Client Sample ID: CS-33** 

Date Collected: 09/29/21 08:55 **Matrix: Solid** 

Date Received: 09/30/21 16:57

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8890	10/05/21 10:42	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	8705	10/01/21 13:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8701	10/01/21 18:13	AJ	XEN MID

**Laboratory References:** 

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

## **Accreditation/Certification Summary**

Client: TRC Solutions, Inc. Job ID: 880-6702-1 Project/Site: HEP EMSU SDG: Eunice, NM

### **Laboratory: Eurofins Xenco**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority Texas		rogram ELAP	Identification Number T104704400-21-22	Expiration Date 06-30-22
The following analyte the agency does not	•	ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for wh
Analysis Method	Prep Method	Matrix	Analyte	
8015 NM		Solid	Total TPH	

## **Method Summary**

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

Job ID: 880-6702-1 SDG: Eunice, NM

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Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

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#### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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**CS-22** 

CS-23

CS-26

CS-28

CS-29

CS-31

CS-32

CS-33

Client Sample ID

## **Sample Summary**

09/29/21 08:50 09/30/21 16:57 4.5'

09/29/21 08:55 09/30/21 16:57 4.5'

Matrix

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Solid

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

Lab Sample ID

880-6702-1

880-6702-2

880-6702-3

880-6702-4

880-6702-5

880-6702-6

880-6702-7 880-6702-8 Job ID: 880-6702-1 SDG: Eunice, NM

Collected	Received	Depth
09/29/21 08:00	09/30/21 16:57	4.5'
09/29/21 08:05	09/30/21 16:57	4.5'
09/29/21 08:20	09/30/21 16:57	4.5'
09/29/21 08:30	09/30/21 16:57	4.5'
09/29/21 08:35	09/30/21 16:57	4.5'
09/29/21 08:45	09/30/21 16:57	4.5'

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. Aminimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.  Relinquished by: (Signature)  Received by: (Signature)	8RCRA 13PPM Texas	04.5	C5-25 BUS! 0530	2	De Identification Matrix Sampled Sampled	Yes No (N/A) Temperature Reading O. 3	SAMPLE RECEIPT Temp Blank. Yes No Wet Ice: Yes No Samples Received Intact: Yes No (N/A) Correction Factor: +C. 5	 Project Number: 424943 Project Number: 424943 Project Number: 424943	432 -	ezip Midlad T+ 79705 City		Project Manager & USSE Selving, Bill to: (if different)	Cha Houston, TX (281 Midland, TX (432) 7  Xenco EL Paso, TX (915) Hobbs NM (575) 3  Hobbs NM (575) 3
Co Cu Pb Mn Mo Ni Se Ag Ti U Hg 1631 / 245 1 / 7470 / 7471  bkontractors. It assigns standard terms and conditions bkontractors. It assigns standard terms and conditions ch losses are due to circumstances beyond the control ad. These terms will be enforced unless previously negotiated.  Relinquished by (Signature) Received by (Signature) Date/Time	Ca Cr Co Cu Fe Pb Mg Mn Mo Nı K Se Ag SiO ₂ Na Sr Tl Sn U V Zn				Sample Comments	Zn Acetate+NaOH Zn NaOH+Ascorbic Acid SAPC	NABIS	ANALYSIS REQUEST  Preservative Codes  None NO DI Water H ₂ O	3 1	Reporting Level III Level III PST/UST TRRP Level IV	Program UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐	Work Order Comments	6702

Revised Date: 08/25/2020 Rev 2020.2

## **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc. Job Number: 880-6702-1 SDG Number: Eunice, NM

Login Number: 6702 **List Source: Eurofins Xenco** 

List Number: 1

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

**Eurofins Xenco** Page 21 of 21

# **Environment Testing America**

## **ANALYTICAL REPORT**

Eurofins Xenco, Midland 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6728-1

Laboratory Sample Delivery Group: Eunice, NM Client Project/Site: HEP Eunice EMSU Remediation

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MAMER

Authorized for release by: 10/4/2021 12:24:07 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

Review your project results through

.....LINKS .....

Total Access

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 3/24/2022 9:01:44 AM

Results relate only to the items tested and the sample(s) as received by the laboratory.

intended to be the legally binding equivalent of a traditionally handwritten signature.

This report has been electronically signed and authorized by the signatory. Electronic signature is

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Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU Remediation Laboratory Job ID: 880-6728-1 SDG: Eunice, NM

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#### **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-6728-1 Project/Site: HEP Eunice EMSU Remediation

SDG: Eunice, NM

#### **Qualifiers**

#### **GC Semi VOA**

Qualifier **Qualifier Description** LCS/LCSD RPD exceeds control limits.

U Indicates the analyte was analyzed for but not detected.

#### **Glossary**

MDC

,	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE) EPA recommended "Maximum Contaminant Level" MCL MDA Minimum Detectable Activity (Radiochemistry)

MDL Method Detection Limit Minimum Level (Dioxin) ML MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

Minimum Detectable Concentration (Radiochemistry)

NEG Negative / Absent POS Positive / Present PQL Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

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#### **Case Narrative**

Client: TRC Solutions, Inc.

Job ID: 880-6728-1

Project/Site: HEP Eunice EMSU Remediation

SDG: Eunice, NM

Job ID: 880-6728-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative 880-6728-1

#### Receipt

The samples were received on 10/1/2021 2:45 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.8°C

#### GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Job ID: 880-6728-1 SDG: Eunice, NM

Project/Site: HEP Eunice EMSU Remediation

Lab Sample ID: 880-6728-1

Matrix: Solid

Client Sample ID: SW-12 Date Collected: 09/30/21 13:30

Date Received: 10/01/21 14:45

Method: 8015 NM - Diesel Range O	Organics (DRC	D) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1

Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1
- Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U *1	49.8	mg/Kg		10/01/21 15:30	10/02/21 00:39	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		10/01/21 15:30	10/02/21 00:39	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/01/21 15:30	10/02/21 00:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130			10/01/21 15:30	10/02/21 00:39	1
o-Terphenyl	121		70 - 130			10/01/21 15:30	10/02/21 00:39	1

Client Sample ID: SW-13

Date Collected: 09/30/21 13:40

Lab Sample ID: 880-6728-2

Matrix: Solid

Date Received: 10/01/21 14:45

Method: 8015 NM - Diesel Range Org	anics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U *1	50.0	mg/Kg		10/01/21 15:30	10/02/21 00:59	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 00:59	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 00:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			10/01/21 15:30	10/02/21 00:59	1
o-Terphenyl	111		70 - 130			10/01/21 15:30	10/02/21 00:59	1

Client Sample ID: SW-14

Date Collected: 09/30/21 13:50

Lab Sample ID: 880-6728-3

Matrix: Solid

Date Collected: 09/30/21 13:50 Date Received: 10/01/21 14:45

rganics (DR	O) (GC)						
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<50.0	U	50.0	mg/Kg			10/04/21 10:23	1
Organics (D	RO) (GC)						
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<49.9	U *1	49.9	mg/Kg		10/01/21 15:30	10/02/21 01:19	1
<49.9	U	49.9	mg/Kg		10/01/21 15:30	10/02/21 01:19	1
<49.9	U	49.9	ma/Ka		10/01/21 15:30	10/02/21 01:19	1
	Result <50.0  Organics (D  Result <49.9  <49.9	Result   Qualifier   Companies (DRO) (GC)   Companies (DRO) (GC)   Result   Companies (DRO) (GC)   Companies (DRO) (GC) (GC)   Companies (DRO) (GC)   Companies (DRO) (GC) (GC)   Companies (DRO) (GC) (GC)   Companies (DRO) (GC) (GC) (GC)   Companies (DRO) (GC) (GC) (GC) (GC) (GC) (GC) (GC) (GC	Result   Qualifier   RL	Result          Qualifier          RL          Unit mg/Kg           <50.0	Result          Qualifier          RL          Unit mg/Kg         D mg/Kg           Organics (DRO) (GC)         Result          Qualifier          RL          Unit mg/Kg         D mg/Kg           <49.9 U *1	Result          Qualifier          RL          Unit mg/Kg         D mg/Kg         Prepared           Organics (DRO) (GC)         Result          Qualifier          RL          Unit          D Prepared            <49.9 U*1	Result          Qualifier         RL          Unit mg/Kg         D mg/Kg         Prepared To/04/21 10:23           Organics (DRO) (GC)           Result          Qualifier         RL          Unit mg/Kg         D Prepared P

%Recovery Qualifier Dil Fac Surrogate Limits Prepared Analyzed 1-Chlorooctane 100 70 - 130 10/01/21 15:30 10/02/21 01:19 108 70 - 130 10/01/21 15:30 10/02/21 01:19 o-Terphenyl

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Job ID: 880-6728-1

Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU Remediation SDG: Eunice, NM

**Client Sample ID: SW-15** Date Collected: 09/30/21 14:00

Lab Sample ID: 880-6728-4 Matrix: Solid

Date Received: 10/01/21 14:45

Method: 8015 NM - Diesel Range O	rganics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1
_								

Iotal IPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1
Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U *1	49.9	mg/Kg		10/01/21 15:30	10/02/21 01:40	1
(GRO)-C6-C10	140.0		40.0			40/04/04 45:00	40/00/04 04:40	4
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/01/21 15:30	10/02/21 01:40	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/01/21 15:30	10/02/21 01:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			10/01/21 15:30	10/02/21 01:40	1
o-Terphenyl	108		70 - 130			10/01/21 15:30	10/02/21 01:40	1

**Client Sample ID: SW-16** Lab Sample ID: 880-6728-5

Date Collected: 09/30/21 14:10 **Matrix: Solid** 

Date Received: 10/01/21 14:45

Method: 8015 NM - Diesel Range Org	anics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1

Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		10/01/21 15:30	10/02/21 02:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/01/21 15:30	10/02/21 02:01	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/01/21 15:30	10/02/21 02:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			10/01/21 15:30	10/02/21 02:01	1
o-Terphenyl	107		70 - 130			10/01/21 15:30	10/02/21 02:01	1

## **Surrogate Summary**

Client: TRC Solutions, Inc.

Job ID: 880-6728-1

Project/Site: HEP Eunice EMSU Remediation

SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-6728-1	SW-12	111	121	
880-6728-2	SW-13	102	111	
880-6728-3	SW-14	100	108	
880-6728-4	SW-15	100	108	
880-6728-5	SW-16	101	107	
890-1329-A-4-E MS	Matrix Spike	100	99	
890-1329-A-4-F MSD	Matrix Spike Duplicate	98	98	
LCS 880-8707/2-A	Lab Control Sample	111	107	
LCSD 880-8707/3-A	Lab Control Sample Dup	99	96	
MB 880-8707/1-A	Method Blank	93	100	

1CO = 1-Chlorooctane OTPH = o-Terphenyl

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### QC Sample Results

Client: TRC Solutions, Inc. Job ID: 880-6728-1 Project/Site: HEP Eunice EMSU Remediation SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-8707/1-A

Lab Sample ID: LCS 880-8707/2-A

Lab Sample ID: LCSD 880-8707/3-A

**Matrix: Solid** 

**Analysis Batch: 8697** 

**Matrix: Solid** Analysis Batch: 8697 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 8707

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/01/21 08:12	10/01/21 10:16	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/01/21 08:12	10/01/21 10:16	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 08:12	10/01/21 10:16	1
	***	***						
	MB	MB						

Surrogate	%Recovery Qualifie	r Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93	70 - 130	10/01/21 08:12	10/01/21 10:16	1
o-Terphenyl	100	70 - 130	10/01/21 08:12	10/01/21 10:16	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 8707

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	1266		mg/Kg		127	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	1026		mg/Kg		103	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	111	70 - 130
o-Terphenyl	107	70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 8707

**Analysis Batch: 8697** 

Spike LCSD LCSD %Rec. RPD Added Result Qualifier Limit Analyte Unit %Rec Limits **RPD** 783.3 *1 Gasoline Range Organics 1000 mg/Kg 78 70 - 130 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 909.8 mg/Kg 91 70 - 130 12 20

C10-C28)

**Matrix: Solid** 

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: 890-1329-A-4-E MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

Prep Type: Total/NA **Analysis Batch: 8697** Prep Batch: 8707 Sample Sample

	Sample	Sample	Spike	IVIO	IVIO				MREC.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.8	U *1	997	1022		mg/Kg		103	70 - 130	 
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.8	U	997	895.1		mg/Kg		88	70 - 130	
C10-C28)										

Eurofins Xenco, Midland

Prep Type: Total/NA

Prep Batch: 8707

### **QC Sample Results**

Client: TRC Solutions, Inc.

Job ID: 880-6728-1

Project/Site: HEP Eunice EMSU Remediation

SDG: Eunice, NM

### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-1329-A-4-E MS Client Sample ID: Matrix Spike

Matrix: Solid

C10-C28)

Analysis Batch: 8697

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 890-1329-A-4-F MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid
Analysis Batch: 8697
Prep Type: Total/NA
Prep Batch: 8707

Spike Sample Sample MSD MSD %Rec. RPD Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit Gasoline Range Organics <49.8 U *1 999 951.1 95 70 - 130 7 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.8 U 999 888.0 mg/Kg 87 70 - 130 20

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 98
 70 - 130

 o-Terphenyl
 98
 70 - 130

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### **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6728-1

SDG: Eunice, NM

### GC Semi VOA

### Analysis Batch: 8697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6728-1	SW-12	Total/NA	Solid	8015B NM	8707
880-6728-2	SW-13	Total/NA	Solid	8015B NM	8707
880-6728-3	SW-14	Total/NA	Solid	8015B NM	8707
880-6728-4	SW-15	Total/NA	Solid	8015B NM	8707
880-6728-5	SW-16	Total/NA	Solid	8015B NM	8707
MB 880-8707/1-A	Method Blank	Total/NA	Solid	8015B NM	8707
LCS 880-8707/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8707
LCSD 880-8707/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8707
890-1329-A-4-E MS	Matrix Spike	Total/NA	Solid	8015B NM	8707
890-1329-A-4-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8707

### Prep Batch: 8707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6728-1	SW-12	Total/NA	Solid	8015NM Prep	
880-6728-2	SW-13	Total/NA	Solid	8015NM Prep	
880-6728-3	SW-14	Total/NA	Solid	8015NM Prep	
880-6728-4	SW-15	Total/NA	Solid	8015NM Prep	
880-6728-5	SW-16	Total/NA	Solid	8015NM Prep	
MB 880-8707/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8707/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8707/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1329-A-4-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1329-A-4-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

### Analysis Batch: 8793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6728-1	SW-12	Total/NA	Solid	8015 NM	
880-6728-2	SW-13	Total/NA	Solid	8015 NM	
880-6728-3	SW-14	Total/NA	Solid	8015 NM	
880-6728-4	SW-15	Total/NA	Solid	8015 NM	
880-6728-5	SW-16	Total/NA	Solid	8015 NM	

Eurofins Xenco, Midland

Released to Imaging: 3/24/2022 9:01:44 AM

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Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6728-1 SDG: Eunice, NM

**Client Sample ID: SW-12** 

Lab Sample ID: 880-6728-1

Matrix: Solid

Date Collected: 09/30/21 13:30 Date Received: 10/01/21 14:45

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	8707	10/01/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8697	10/02/21 00:39	AJ	XEN MID

**Client Sample ID: SW-13** Lab Sample ID: 880-6728-2

Date Collected: 09/30/21 13:40 **Matrix: Solid** 

Date Received: 10/01/21 14:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.01 g	10 mL	8707 8697	10/01/21 15:30 10/02/21 00:59	DM AJ	XEN MID XEN MID

Client Sample ID: SW-14 Lab Sample ID: 880-6728-3 Matrix: Solid

Date Collected: 09/30/21 13:50

Date Received: 10/01/21 14:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.03 g	10 mL	8707 8697	10/01/21 15:30 10/02/21 01:19	DM AJ	XEN MID XEN MID

**Client Sample ID: SW-15** Lab Sample ID: 880-6728-4

Date Collected: 09/30/21 14:00

Date Received: 10/01/21 14:45

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8707	10/01/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8697	10/02/21 01:40	AJ	XEN MID

**Client Sample ID: SW-16** Lab Sample ID: 880-6728-5 Matrix: Solid

Date Collected: 09/30/21 14:10

Date Received: 10/01/21 14:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.03 g	10 mL	8707 8697	10/01/21 15:30 10/02/21 02:01	DM AJ	XEN MID XEN MID

**Laboratory References:** 

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Matrix: Solid** 

Eurofins Xenco, Midland

### **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.

Job ID: 880-6728-1

Project/Site: HEP Eunice EMSU Remediation

SDG: Eunice, NM

### Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pr	ogram	Identification Number	<b>Expiration Date</b>
Texas	NE	ELAP	T104704400-21-22	06-30-22
,	• •	it the laboratory is not certifi	fied by the governing authority. This list ma	ay include analytes for w
the agency does not of	• •	it the laboratory is not certifi	fied by the governing authority. This list ma	ay include analytes for w
0 ,	• •	it the laboratory is not certifi  Matrix	fied by the governing authority. This list ma	ay include analytes for w

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### **Method Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6728-1

SDG: Eunice, NM

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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### **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU Remediation

Job ID: 880-6728-1

SDG: Eunice, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-6728-1	SW-12	Solid	09/30/21 13:30	10/01/21 14:45
880-6728-2	SW-13	Solid	09/30/21 13:40	10/01/21 14:45
880-6728-3	SW-14	Solid	09/30/21 13:50	10/01/21 14:45
880-6728-4	SW-15	Solid	09/30/21 14:00	10/01/21 14:45
880-6728-5	SW-16	Solid	09/30/21 14:10	10/01/21 14:45

*** eurofins

City, State ZIP

Midland TX, 79705 10 Desta Drive, #130E

City, State ZIP Address. Company Name

Company Name Project Manager

TRC

RUSSELL SEBRING

Bill to (if different)

Environment Testing Xenco

# **Chain of Custody**

Midland TX (432) 704-5440 San Antonio, TX (210) 509-3334 EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199 Houston TX (281) 240-4200 Dallas TX (214) 902-0300

Wo 880-6728 Chain of Custody
Work Order Comments
Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project.
Reporting Level III Level III PST/UST TRRP Level IV
Deliverables EDD ADapT Other

Phone	432 250 4465			Email	rsebring@trccompanies.com	compa	anies.c	ÖM						Γġ	Deliverables EDD	bles	EDD		≥	ADaPT 🗆		Other	<b>1</b> **	
Project Name	HEP Eunice EN	/ISU R	Eunice EMSU Remediation	Turn	Turn Around						≥	ANALYSIS		REQUEST	ST					_	P	eserv	ative	Preservative Codes
Project Number	45	454378		Routine	Rush >///Code	//Code														z	None NO	ō	ا م	DI Water: H ₂ O
Project Location	Euni	Eunice NM		Due Date											$\dashv$			_		$\Box$	Cool Cool	<u>3</u>	<b>S</b>	MeOH Me
Sampler's Name.	Russell Sebring/Misti Bryant	ing/Mis	tı Bryant	TAT starts the	TAT starts the day received by	<														T (	HCL HC	ဂြ	<b>.</b>	HNO, HN
PO#				the lab if reco	the lab if received by 4 30pm															T :	H. SO. H.	Ţ (	z :	NaOH Na
SAMPLE RECEIPT	Temp Blank.	ank.	Yes/No	) Wet Ice	CYON NO	eter								<del></del>		.,					H,PO, HP	품 ;	:	-
Samples Received Intact:	$\operatorname{\subset}$	ĕ ŏ	<b># 1</b>	Ď	١_٦	ram															OSHe!	NaHSO, NARIS	ñ	
Cooler Custody Seals.	$\prec$		Correction Factor	actor	j,															<del>-</del>		Na.S.O. NaSO.	j d	
Sample Custody Seals	Yes		Temperature Reading	Reading	0)															7	n Ace	Zn Acetate+NaOH, Zn	֓֞֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	7 _n
Total Containers.			Corrected Temperature	emperature.	\ S		···													7 1	laOH+	Ascort	on Ac	NaOH+Ascorbic Acid SAPC
Sample Identification		Matrix	Date	Time	Depth Grab/	# of	Н	loride	ld											· 1	, l	mnle	3	Sample Comments
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SW-12		S	9/30/2021	1330	Comp	7	×				L	_	_	_			_							
SW-13		S	9/30/2021	1340	Comp	ا ا	×																	
SW-14		S	9/30/2021	1350	Comp	า 1	×					_	-		_	_			_					
SW-15		S	9/30/2021	1400	Comp	า 1	×					_	-	_	_		_							
SW-16		S	9/30/2021	1410	Comp	Դ <b>р</b> 1	×						_		_	_	_			_				
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Total 200.7 / 6010	10 200.8 / 6020:	)20:		8RCRA 13PPM	M Texas 11	≥	Sb As	As Ba E	Be B (	Cd Ca	Cr Co	o Cu Fe		ŏ ≤	Pb Mg Mn Mo Ni K Se Ag	S _o		Se /	g SiO ₂	) ₂	Na Sr	TI Sn U V Zn	< <	, Zu
Circle Method(s) and Metal(s) to be analyzed	d Metal(s) to be	analy	zed	TCLP / SPLP 6010		8RCRA	Sb A	Sb As Ba Be		Cd Cr Co Cu Pb Mn	<u>င</u>	PB	II	o Z	Mo Ni Se Ag TI U	g ∏	C		g 16	31/2	45 1	Hg 1631/2451/7470	) /747	171
Notice Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotia	ocument and relinqu o will be liable only fo mum charge of \$85.0	ishment or the cos 0 will be	of samples cons it of samples an applied to each	stitutes a valid pu id shall not assu project and a ch	ırchase order fro me any responsil ıarge of \$5 for ea	om client bility for a ich samp	company any losse le submit	y to Euro	fins Xen enses in urofins >	co, its af curred b (enco, bu	filiates a y the cliu	nd subc ent if sur	ontracton losse to hese to	ors. It a	ctors. It assigns standard terms and conditions ses are due to circumstances beyond the control terms will be enforced unless previously negotiated.	standa rcumst	d term	s and c eyond reviou	ondition he cont	rol tiated.				
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### **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc.

Job Number: 880-6728-1 SDG Number: Eunice, NM

List Source: Eurofins Xenco, Midland

Login Number: 6728 List Number: 1 Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

**Eurofins Xenco, Midland** 

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### **Environment Testing America**

### **ANALYTICAL REPORT**

Eurofins Xenco 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6730-1

Laboratory Sample Delivery Group: Eunice, NM

Client Project/Site: HEP Eunice EMSU

Revision: 2

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MEAMER

Authorized for release by: 1/7/2022 4:42:31 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS

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**Have a Question?** 



Visit us at:

www.eurofinsus.com/Env

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU

Laboratory Job ID: 880-6730-1

SDG: Eunice, NM

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### **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-6730-1 Project/Site: HEP Eunice EMSU SDG: Eunice, NM

### **Qualifiers**

### **GC Semi VOA**

Qualifier **Qualifier Description** 

LCS/LCSD RPD exceeds control limits.

U Indicates the analyte was analyzed for but not detected.

### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

**DER** Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

Detection Limit (DoD/DOE) DΙ

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Decision Level Concentration (Radiochemistry) DLC

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit MLMinimum Level (Dioxin) Most Probable Number MPN MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL **Practical Quantitation Limit** 

**PRES** Presumptive QC **Quality Control** 

Relative Error Ratio (Radiochemistry) RER

RL Reporting Limit or Requested Limit (Radiochemistry)

**RPD** Relative Percent Difference, a measure of the relative difference between two points

**TEF** Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) **TEQ** 

**TNTC** Too Numerous To Count

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### **Case Narrative**

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU

Job ID: 880-6730-1

SDG: Eunice, NM

Job ID: 880-6730-1

**Laboratory: Eurofins Xenco** 

Narrative

Job Narrative 880-6730-1

### **REVISION**

The report being provided is a revision of the original report sent on 10/6/2021. The report (revision 2) is being revised due to Per client email, removed sample depths from sample name.

Report revision history

The report being provided is a revision of the original report sent on 10/6/2021. The report (revision 2) is being revised due to Per client email, removed sample depths from sample name.

Revision 1 - 11/10/2021 - Reason - MS/MSD missing on final report.

### Receipt

The samples were received on 10/1/2021 2:48 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.8°C

### GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client: TRC Solutions, Inc.

Job ID: 880-6730-1 SDG: Eunice, NM

Project/Site: HEP Eunice EMSU

Client Sample ID: CS-34 Lab Sample ID: 880-6730-1 Date Collected: 09/30/21 09:30 **Matrix: Solid** 

Date Received: 10/01/21 14:48 Sample Depth: 3

Method: 8015 NM - Diesel Range	Organic	s (DRO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/06/21 10:56	1

Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	49.8	mg/Kg		10/01/21 15:30	10/02/21 02:21	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/01/21 15:30	10/02/21 02:21	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/01/21 15:30	10/02/21 02:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			10/01/21 15:30	10/02/21 02:21	1
o-Terphenyl	114		70 - 130			10/01/21 15:30	10/02/21 02:21	1

**Client Sample ID: CS-35** Lab Sample ID: 880-6730-2 Date Collected: 09/30/21 09:35 Matrix: Solid

Date Received: 10/01/21 14:48

Sample Depth: 3

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Prepared Analyte Result Qualifier RL Unit Analyzed Dil Fac Total TPH <50.0 U 50.0 mg/Kg 10/06/21 10:56

<del>-</del> -							
Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)				
Analyte	Result	Qualifier	RL	Unit	D Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0	mg/Kg	10/01/21 15:30	10/02/21 02:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg	10/01/21 15:30	10/02/21 02:41	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg	10/01/21 15:30	10/02/21 02:41	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130		10/01/21 15:30	10/02/21 02:41	1
o-Terphenyl	110		70 - 130		10/01/21 15:30	10/02/21 02:41	1

Client Sample ID: CS-36 Lab Sample ID: 880-6730-3

Date Collected: 09/30/21 09:40 Date Received: 10/01/21 14:48

Sample Depth: 3

Method: 8015 NM - Diesel Ran	ige Organic	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/06/21 10:56	1

Method: 8015B NM - Diesel Rar	nge Organi	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0	mg/Kg		10/01/21 15:30	10/02/21 03:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 03:02	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 03:02	1

**Eurofins Xenco** 

Matrix: Solid

Job ID: 880-6730-1

SDG: Eunice, NM

**Matrix: Solid** 

**Matrix: Solid** 

Lab Sample ID: 880-6730-3

Lab Sample ID: 880-6730-4

10/01/21 15:30 10/02/21 03:42

Project/Site: HEP Eunice EMSU **Client Sample ID: CS-36** 

Client: TRC Solutions, Inc.

Date Collected: 09/30/21 09:40

Date Received: 10/01/21 14:48

Sample Depth: 3

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103	70 - 130	10/01/21 15:30	10/02/21 03:02	1
o-Terphenyl	113	70 - 130	10/01/21 15:30	10/02/21 03:02	1

Client Sample ID: CS-37

Date Collected: 09/30/21 09:45 Date Received: 10/01/21 14:48

Sample Depth: 3

Method: 8015 NM - Diesel Rang	e Organic	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/06/21 10:56	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	49.8	mg/Kg		10/01/21 15:30	10/02/21 03:22	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/01/21 15:30	10/02/21 03:22	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/01/21 15:30	10/02/21 03:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			10/01/21 15:30	10/02/21 03:22	1
o-Ternhenyl	110		70 - 130			10/01/21 15:30	10/02/21 03:22	1

**Client Sample ID: CS-38** Lab Sample ID: 880-6730-5 Date Collected: 09/30/21 09:50 **Matrix: Solid** 

Date Received: 10/01/21 14:48

Sample Depth: 3

(GRO)-C6-C10

Diesel Range Organics (Over

N	Method: 8015 NM - Diesel Ra	nge Organic	s (DRO) (GC	<del>;</del> )					
_ A	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ī	otal TPH	<50.0	U	50.0	mg/Kg			10/06/21 10:56	1
A	Method: 8015B NM - Diesel F Analyte Gasoline Range Organics		Qualifier	RL 50.0	Unit mg/Kg	D	Prepared 10/01/21 15:30	Analyzed 10/02/21 03:42	Dil Fac

C10-C28) Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg	10/01/21 15:30	10/02/21 03:42	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130		10/01/21 15:30	10/02/21 03:42	1
o-Terphenyl	115		70 - 130		10/01/21 15:30	10/02/21 03:42	1

50.0

mg/Kg

<50.0 U

Matrix: Solid

Matrix: Solid

Lab Sample ID: 880-6730-6

10/01/21 15:30 10/02/21 04:03

Job ID: 880-6730-1 Project/Site: HEP Eunice EMSU SDG: Eunice, NM

**Client Sample ID: CS-39** 

Client: TRC Solutions, Inc.

Date Collected: 09/30/21 09:55

Date Received: 10/01/21 14:48

Sample Depth: 3

Method: 8015 NM - Diesel Ran	ge Organics (DRO) (	GC)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	5280	50.0	mg/Kg			10/06/21 10:56	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1410	*1	249	mg/Kg		10/01/21 15:30	10/02/21 04:03	5
Diesel Range Organics (Over C10-C28)	3580		249	mg/Kg		10/01/21 15:30	10/02/21 04:03	5
Oll Range Organics (Over C28-C36)	287		249	mg/Kg		10/01/21 15:30	10/02/21 04:03	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130			10/01/21 15:30	10/02/21 04:03	5

**Client Sample ID: CS-40** Lab Sample ID: 880-6730-7

70 - 130

Date Collected: 09/30/21 10:00 Date Received: 10/01/21 14:48

Sample Depth: 3

o-Terphenyl

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

108

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/06/21 10:56	1

Total IPH	<50.0	U	50.0	mg/Kg			10/06/21 10:56	1
Method: 8015B NM - Diesel Ra	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U *1	50.0	mg/Kg		10/01/21 15:30	10/02/21 04:23	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 04:23	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 04:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			10/01/21 15:30	10/02/21 04:23	1
o-Terphenyl	116		70 - 130			10/01/21 15:30	10/02/21 04:23	1

**Client Sample ID: CS-41** Lab Sample ID: 880-6730-8 Matrix: Solid

Date Collected: 09/30/21 10:05 Date Received: 10/01/21 14:48

Sample Depth: 3

Method: 8015 NM - Diesel Range (	<b>Organic</b>	s (DRO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/06/21 10:56	1
Method: 8015B NM - Diesel Range	_	ics (DRO) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Method, ou 135 MW - Diesel Kai	ige Organi	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/01/21 15:30	10/02/21 00:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/01/21 15:30	10/02/21 00:39	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/01/21 15:30	10/02/21 00:39	1

Job ID: 880-6730-1 SDG: Eunice, NM

Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU

Lab Sample ID: 880-6730-8

Client Sample ID: CS-41 Date Collected: 09/30/21 10:05

Date Received: 10/01/21 14:48

**Matrix: Solid** 

Sample Depth: 3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	10/01/21 15:30	10/02/21 00:39	1
o-Terphenyl	107		70 - 130	10/01/21 15:30	10/02/21 00:39	1

Lab Sample ID: 880-6730-9

Client Sample ID: CS-42 Date Collected: 09/30/21 10:10

**Matrix: Solid** 

Date Received: 10/01/21 14:48

Sample Depth: 3

Method: 8015 NM - Diesel Rang	ge Organics (DRO) (G0	C)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			10/06/21 10:56	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac <49.8 U Gasoline Range Organics 49.8 mg/Kg 10/01/21 15:30 10/02/21 00:59 (GRO)-C6-C10 <49.8 U 10/01/21 15:30 10/02/21 00:59 Diesel Range Organics (Over 49.8 mg/Kg C10-C28) Oll Range Organics (Over C28-C36) <49.8 U 49.8 mg/Kg 10/01/21 15:30 10/02/21 00:59 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 102 70 - 130 10/01/21 15:30 10/02/21 00:59 1-Chlorooctane 108 70 - 130 10/01/21 15:30 10/02/21 00:59 o-Terphenyl

Client Sample ID: CS-43 Lab Sample ID: 880-6730-10 Date Collected: 09/30/21 10:15 **Matrix: Solid** 

Date Received: 10/01/21 14:48

Sample Depth: 3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/06/21 10:56	1
Method: 8015B NM - Diesel Ra	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 01:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 01:19	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 01:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130			10/01/21 15:30	10/02/21 01:19	1
o-Terphenyl	127		70 - 130			10/01/21 15:30	10/02/21 01:19	1

Job ID: 880-6730-1 SDG: Eunice, NM

Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU

**Client Sample ID: CS-44** Date Collected: 09/30/21 10:20 Lab Sample ID: 880-6730-11

Date Received: 10/01/21 14:48

Matrix: Solid

Sample Depth: 3

Method: 8015 NM - Diesel Range (	<b>Organic</b>	s (DRO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/06/21 10:56	1

Analyte	Result	Qualifier	KL	Unit	ט	Prepared	Anaiyzea	DII Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/06/21 10:56	1
Method: 8015B NM - Diesel Ra	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/01/21 15:30	10/02/21 01:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/01/21 15:30	10/02/21 01:40	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/01/21 15:30	10/02/21 01:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130			10/01/21 15:30	10/02/21 01:40	1
o-Terphenyl	99		70 - 130			10/01/21 15:30	10/02/21 01:40	1

Lab Sample ID: 880-6730-12 **Client Sample ID: CS-45** Date Collected: 09/30/21 10:25

**Matrix: Solid** 

Date Received: 10/01/21 14:48

Sample Depth: 3

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.0	U	50.0	mg/Kg			10/06/21 10:56	1	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/01/21 15:30	10/02/21 02:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/01/21 15:30	10/02/21 02:01	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/01/21 15:30	10/02/21 02:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130			10/01/21 15:30	10/02/21 02:01	1
o-Terphenyl	123		70 - 130			10/01/21 15:30	10/02/21 02:01	1

**Client Sample ID: CS-46** Lab Sample ID: 880-6730-13 **Matrix: Solid** 

Date Collected: 09/30/21 10:30

Date Received: 10/01/21 14:48

Sample Depth: 3

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/06/21 10:56	1

Method: 8015B NM - Diesel Rai	nge Organi	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	Ū	49.9	mg/Kg		10/01/21 15:30	10/02/21 02:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/01/21 15:30	10/02/21 02:21	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/01/21 15:30	10/02/21 02:21	1

Job ID: 880-6730-1

Matrix: Solid

Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU

SDG: Eunice, NM

Lab Sample ID: 880-6730-13

**Client Sample ID: CS-46** 

Date Collected: 09/30/21 10:30 Date Received: 10/01/21 14:48

Sample Depth: 3

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98	70 - 130	10/01/21 15:30	10/02/21 02:21	1
o-Terphenyl	102	70 - 130	10/01/21 15:30	10/02/21 02:21	1

**Client Sample ID: CS-47** Lab Sample ID: 880-6730-14 Date Collected: 09/30/21 10:35 **Matrix: Solid** 

Date Received: 10/01/21 14:48

Sample Depth: 3

Method: 8015 NM - Diesel Rang	e Organic	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/06/21 10:56	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/01/21 15:30	10/02/21 02:41	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/01/21 15:30	10/02/21 02:41	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/01/21 15:30	10/02/21 02:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130			10/01/21 15:30	10/02/21 02:41	1
o-Terphenyl	109		70 - 130			10/01/21 15:30	10/02/21 02:41	1

**Client Sample ID: CS-48** Lab Sample ID: 880-6730-15 Date Collected: 09/30/21 10:40 **Matrix: Solid** 

Date Received: 10/01/21 14:48

Sample Depth: 3

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/06/21 10:56	1
Method: 8015B NM - Diesel Ra	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 03:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 03:02	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 03:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			10/01/21 15:30	10/02/21 03:02	1
o-Terphenyl	102		70 - 130			10/01/21 15:30	10/02/21 03:02	1

Job ID: 880-6730-1 SDG: Eunice, NM

Project/Site: HEP Eunice EMSU

Client Sample ID: CS-49

Client: TRC Solutions, Inc.

Date Collected: 09/30/21 10:45

Date Received: 10/01/21 14:48 Sample Depth: 3

Lab Sample ID: 880-6730-16

Matrix: Solid

Method: 8015 NM - Diesel Range Organics (DRO) (GC)AnalyteResult TOTAL TPHQualifier QualifierRL MIT TOTAL TPHUnit MIT TOTAL TPHDescription of the property of the pr

Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg	_	10/01/21 15:30	10/02/21 03:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 03:22	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 03:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130			10/01/21 15:30	10/02/21 03:22	1
o-Terphenyl	125		70 - 130			10/01/21 15:30	10/02/21 03:22	1

Client Sample ID: CS-50

Lab Sample ID: 880-6730-17

Date Collected: 09/30/21 10:50

Matrix: Solid

Date Collected: 09/30/21 10:50 Date Received: 10/01/21 14:48

Sample Depth: 3

 Method: 8015 NM - Diesel Range Organics (DRO) (GC)

 Analyte
 Result | Qualifier | RL | Unit | mg/Kg
 D | Prepared | Analyzed | Dil Fac |

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/01/21 15:30	10/02/21 03:42	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/01/21 15:30	10/02/21 03:42	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/01/21 15:30	10/02/21 03:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130			10/01/21 15:30	10/02/21 03:42	1
o-Terphenyl	111		70 - 130			10/01/21 15:30	10/02/21 03:42	1

Client Sample ID: CS-51 Lab Sample ID: 880-6730-18

Date Collected: 09/30/21 10:55 Date Received: 10/01/21 14:48

Sample Depth: 3

Method: 8015 NM - Diesel Range Organics (DRO) (GC)
Analyte Result Qualifier RL Unit mg/Kg D Prepared Analyzed Dil Fac

| Total TPH | Solution | Total TPH | Total

Method: 8015B NM - Diesel Rai	nge Organi	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 04:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 04:03	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 15:30	10/02/21 04:03	1

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Matrix: Solid

### **Client Sample Results**

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU

Job ID: 880-6730-1

SDG: Eunice, NM

Client Sample ID: CS-51 Lab Sample ID: 880-6730-18

Date Collected: 09/30/21 10:55

Matrix: Solid

Date Received: 10/01/21 14:48

Sample Depth: 3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130	10/01/21 15:30	10/02/21 04:03	1
o-Terphenyl	119		70 - 130	10/01/21 15:30	10/02/21 04:03	1

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### **Surrogate Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU

Job ID: 880-6730-1
SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

			Pei	rcent Surrogate Recovery (Accept
		1CO1	OTPH1	, ,
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-6730-1	CS-34	104	114	
880-6730-2	CS-35	99	110	
880-6730-3	CS-36	103	113	
880-6730-4	CS-37	97	110	
880-6730-5	CS-38	104	115	
880-6730-6	CS-39	122	108	
880-6730-7	CS-40	107	116	
880-6730-8	CS-41	104	107	
880-6730-9	CS-42	102	108	
880-6730-10	CS-43	122	127	
880-6730-11	CS-44	96	99	
880-6730-12	CS-45	115	123	
880-6730-13	CS-46	98	102	
880-6730-14	CS-47	96	109	
880-6730-15	CS-48	98	102	
880-6730-16	CS-49	121	125	
880-6730-17	CS-50	111	111	
880-6730-18	CS-51	115	119	
890-1329-A-4-E MS	Matrix Spike	100	99	
890-1329-A-4-F MSD	Matrix Spike Duplicate	98	98	
890-1329-A-6-E MS	Matrix Spike	97	93	
890-1329-A-6-F MSD	Matrix Spike Duplicate	91	84	
LCS 880-8707/2-A	Lab Control Sample	111	107	
LCS 880-8709/2-A	Lab Control Sample	98	91	
LCSD 880-8707/3-A	Lab Control Sample Dup	99	96	
LCSD 880-8709/3-A	Lab Control Sample Dup	97	90	
MB 880-8707/1-A	Method Blank	93	100	
MB 880-8709/1-A	Method Blank	97	105	
Surrogate Legend				

Surrogate Legend

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Client: TRC Solutions, Inc. Job ID: 880-6730-1 Project/Site: HEP Eunice EMSU SDG: Eunice, NM

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-8707/1-A

Lab Sample ID: LCS 880-8707/2-A

Lab Sample ID: LCSD 880-8707/3-A

**Matrix: Solid** 

Matrix: Solid

**Analysis Batch: 8697** 

**Analysis Batch: 8697** 

**Client Sample ID: Method Blank** 

**Prep Type: Total/NA** 

Prep Batch: 8707

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/01/21 08:12	10/01/21 10:16	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/01/21 08:12	10/01/21 10:16	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 08:12	10/01/21 10:16	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	10/01/21 08:12	10/01/21 10:16	1
o-Terphenyl	100		70 - 130	10/01/21 08:12	10/01/21 10:16	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 8707

	Spil	re LCS	LCS				%Rec.	
Analyte	Adde	ed Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	100	1266		mg/Kg		127	70 - 130	
Diesel Range Organics (Over C10-C28)	100	00 1026		mg/Kg		103	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	111	70 - 130
o-Terphenyl	107	70 - 130

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

**Analysis Batch: 8697** Prep Batch: 8707

	Spik	e LCSD	LCSD				%Rec.		RPD
Analyte	Adde	d Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	100	783.3	*1	mg/Kg	_	78	70 - 130	47	20
(GRO)-C6-C10									
Diesel Range Organics (Over	100	0 909.8		mg/Kg		91	70 - 130	12	20
C10-C28\									

C10-C28)

**Matrix: Solid** 

LCSD LCSD

Surrogate	%Recovery Qualitie	er Limits
1-Chlorooctane	99	70 - 130
o-Terphenyl	96	70 - 130

Lab Sample ID: 890-1329-A-4-E MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA

Prep Batch: 8707 **Analysis Batch: 8697** 

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	997	1022		mg/Kg		103	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.8	U	997	895.1		mg/Kg		88	70 - 130	

Client: TRC Solutions, Inc. Job ID: 880-6730-1 Project/Site: HEP Eunice EMSU SDG: Eunice, NM

### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-1329-A-4-E MS

**Matrix: Solid** 

**Analysis Batch: 8697** 

Client Sample ID: Matrix Spike

**Prep Type: Total/NA** 

Prep Batch: 8707

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 100 70 - 130 o-Terphenyl 99 70 - 130

Lab Sample ID: 890-1329-A-4-F MSD

**Matrix: Solid** 

**Analysis Batch: 8697** 

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 8707

RPD MSD MSD Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit <49.8 U *1 Gasoline Range Organics 999 951.1 mg/Kg 95 70 - 130 20 (GRO)-C6-C10 Diesel Range Organics (Over <49.8 U 999 888.0 mg/Kg 87 70 - 130 20 C10-C28)

MSD MSD

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 98 70 - 130 70 - 130 o-Terphenyl 98

Lab Sample ID: MB 880-8709/1-A

**Matrix: Solid** 

**Analysis Batch: 8699** 

Client Sample ID: Method Blank **Prep Type: Total/NA** 

Prep Batch: 8709

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/01/21 08:14	10/01/21 10:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 08:14	10/01/21 10:16	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 08:14	10/01/21 10:16	1

MB MB

MB MB

%Recovery Qualifier Surrogate Limits Prepared Analyzed Dil Fac 1-Chlorooctane 97 70 - 130 10/01/21 08:14 10/01/21 10:16 105 70 - 130 10/01/21 08:14 10/01/21 10:16 o-Terphenyl

Lab Sample ID: LCS 880-8709/2-A

**Matrix: Solid** 

**Analysis Batch: 8699** 

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Prep Batch: 8709

7 mary old Batom dood								Datoiii oi oo
	Spike	LCS	LCS				%Rec.	
Analyte	Added	l Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	771.1		mg/Kg		77	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	908.2		mg/Kg		91	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	91		70 - 130

Client: TRC Solutions, Inc. Job ID: 880-6730-1 Project/Site: HEP Eunice EMSU SDG: Eunice, NM

### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-8709/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 8699** Prep Batch: 8709 LCSD LCSD RPD Spike %Rec. Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Gasoline Range Organics 1000 829.0 mg/Kg 83 70 - 130 20 (GRO)-C6-C10 1000 878.4 Diesel Range Organics (Over mg/Kg 88 70 - 130 3 20 C10-C28)

	LCSD LCSD	
Surrogate	%Recovery Qualifie	r Limits
1-Chlorooctane	97	70 - 130
o-Terphenyl	90	70 - 130

91

84

Lab Sample ID: 890-1329-A-6-E MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 8699** Prep Batch: 8709 Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier D %Rec Limits Unit Gasoline Range Organics <49.8 U 997 952.8 96 70 - 130 mg/Kg (GRO)-C6-C10 997 Diesel Range Organics (Over <49.8 U 861.1 mg/Kg 86 70 - 130 C10-C28) MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 97 70 - 130 o-Terphenyl 93 70 - 130

Lab Sample ID: 890-1329 Matrix: Solid Analysis Batch: 8699	-A-6-F MSD					Client	Samp	le ID: N	latrix Spil Prep Ty Prep		al/NA
_	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	999	920.7		mg/Kg		92	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.8	U	999	784.1		mg/Kg		78	70 - 130	9	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								

70 - 130

70 - 130

**Eurofins Xenco** 

1-Chlorooctane

o-Terphenyl

### **QC Association Summary**

Job ID: 880-6730-1 Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU SDG: Eunice, NM

### **GC Semi VOA**

### **Analysis Batch: 8697**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6730-1	CS-34	Total/NA	Solid	8015B NM	8707
880-6730-2	CS-35	Total/NA	Solid	8015B NM	8707
880-6730-3	CS-36	Total/NA	Solid	8015B NM	8707
880-6730-4	CS-37	Total/NA	Solid	8015B NM	8707
880-6730-5	CS-38	Total/NA	Solid	8015B NM	8707
880-6730-6	CS-39	Total/NA	Solid	8015B NM	8707
880-6730-7	CS-40	Total/NA	Solid	8015B NM	8707
MB 880-8707/1-A	Method Blank	Total/NA	Solid	8015B NM	8707
LCS 880-8707/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8707
LCSD 880-8707/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8707
890-1329-A-4-E MS	Matrix Spike	Total/NA	Solid	8015B NM	8707
890-1329-A-4-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8707

### **Analysis Batch: 8699**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6730-8	CS-41	Total/NA	Solid	8015B NM	8709
880-6730-9	CS-42	Total/NA	Solid	8015B NM	8709
880-6730-10	CS-43	Total/NA	Solid	8015B NM	8709
880-6730-11	CS-44	Total/NA	Solid	8015B NM	8709
880-6730-12	CS-45	Total/NA	Solid	8015B NM	8709
880-6730-13	CS-46	Total/NA	Solid	8015B NM	8709
880-6730-14	CS-47	Total/NA	Solid	8015B NM	8709
880-6730-15	CS-48	Total/NA	Solid	8015B NM	8709
880-6730-16	CS-49	Total/NA	Solid	8015B NM	8709
880-6730-17	CS-50	Total/NA	Solid	8015B NM	8709
880-6730-18	CS-51	Total/NA	Solid	8015B NM	8709
MB 880-8709/1-A	Method Blank	Total/NA	Solid	8015B NM	8709
LCS 880-8709/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8709
LCSD 880-8709/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8709
890-1329-A-6-E MS	Matrix Spike	Total/NA	Solid	8015B NM	8709
890-1329-A-6-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8709

### Prep Batch: 8707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6730-1	CS-34	Total/NA	Solid	8015NM Prep	
880-6730-2	CS-35	Total/NA	Solid	8015NM Prep	
880-6730-3	CS-36	Total/NA	Solid	8015NM Prep	
880-6730-4	CS-37	Total/NA	Solid	8015NM Prep	
880-6730-5	CS-38	Total/NA	Solid	8015NM Prep	
880-6730-6	CS-39	Total/NA	Solid	8015NM Prep	
880-6730-7	CS-40	Total/NA	Solid	8015NM Prep	
MB 880-8707/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8707/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8707/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1329-A-4-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1329-A-4-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

### Prep Batch: 8709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6730-8	CS-41	Total/NA	Solid	8015NM Prep	
880-6730-9	CS-42	Total/NA	Solid	8015NM Prep	

### **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU

Job ID: 880-6730-1

SDG: Eunice, NM

### **GC Semi VOA (Continued)**

### Prep Batch: 8709 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6730-10	CS-43	Total/NA	Solid	8015NM Prep	
880-6730-11	CS-44	Total/NA	Solid	8015NM Prep	
880-6730-12	CS-45	Total/NA	Solid	8015NM Prep	
880-6730-13	CS-46	Total/NA	Solid	8015NM Prep	
880-6730-14	CS-47	Total/NA	Solid	8015NM Prep	
880-6730-15	CS-48	Total/NA	Solid	8015NM Prep	
880-6730-16	CS-49	Total/NA	Solid	8015NM Prep	
880-6730-17	CS-50	Total/NA	Solid	8015NM Prep	
880-6730-18	CS-51	Total/NA	Solid	8015NM Prep	
MB 880-8709/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8709/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8709/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1329-A-6-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1329-A-6-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

### **Analysis Batch: 8973**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6730-1	CS-34	Total/NA	Solid	8015 NM	_
880-6730-2	CS-35	Total/NA	Solid	8015 NM	
880-6730-3	CS-36	Total/NA	Solid	8015 NM	
880-6730-4	CS-37	Total/NA	Solid	8015 NM	
880-6730-5	CS-38	Total/NA	Solid	8015 NM	
880-6730-6	CS-39	Total/NA	Solid	8015 NM	
880-6730-7	CS-40	Total/NA	Solid	8015 NM	
880-6730-8	CS-41	Total/NA	Solid	8015 NM	
880-6730-9	CS-42	Total/NA	Solid	8015 NM	
880-6730-10	CS-43	Total/NA	Solid	8015 NM	
880-6730-11	CS-44	Total/NA	Solid	8015 NM	
880-6730-12	CS-45	Total/NA	Solid	8015 NM	
880-6730-13	CS-46	Total/NA	Solid	8015 NM	
880-6730-14	CS-47	Total/NA	Solid	8015 NM	
880-6730-15	CS-48	Total/NA	Solid	8015 NM	
880-6730-16	CS-49	Total/NA	Solid	8015 NM	
880-6730-17	CS-50	Total/NA	Solid	8015 NM	
880-6730-18	CS-51	Total/NA	Solid	8015 NM	

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Job ID: 880-6730-1

SDG: Eunice, NM

Project/Site: HEP Eunice EMSU Client Sample ID: CS-34

Client: TRC Solutions, Inc.

Date Collected: 09/30/21 09:30 Date Received: 10/01/21 14:48

Lab Sample ID: 880-6730-1

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8973	10/06/21 10:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8707	10/01/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8697	10/02/21 02:21	AJ	XEN MID

**Client Sample ID: CS-35** Lab Sample ID: 880-6730-2

Date Collected: 09/30/21 09:35 **Matrix: Solid** Date Received: 10/01/21 14:48

Batch **Batch** Dil Initial Final Batch Prepared Method Amount **Prep Type** Type Run **Factor** Amount Number or Analyzed Analyst Lab Total/NA 8015 NM 8973 10/06/21 10:56 AJ XEN MID Analysis Total/NA 8015NM Prep 10.00 g 10 mL 8707 10/01/21 15:30 DM XEN MID Prep Total/NA Analysis 10/02/21 02:41 AJ XEN MID 8015B NM 1 8697

Client Sample ID: CS-36 Lab Sample ID: 880-6730-3

Date Collected: 09/30/21 09:40 **Matrix: Solid** 

Date Received: 10/01/21 14:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8973	10/06/21 10:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8707	10/01/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8697	10/02/21 03:02	AJ	XEN MID

Lab Sample ID: 880-6730-4 **Client Sample ID: CS-37** 

Date Collected: 09/30/21 09:45 **Matrix: Solid** Date Received: 10/01/21 14:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8973	10/06/21 10:56		XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	8707	10/01/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8697	10/02/21 03:22	AJ	XEN MID

Client Sample ID: CS-38 Lab Sample ID: 880-6730-5

Date Collected: 09/30/21 09:50 Matrix: Solid

Date Received: 10/01/21 14:48

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8973	10/06/21 10:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8707	10/01/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8697	10/02/21 03:42	AJ	XEN MID

Client Sample ID: CS-39 Lab Sample ID: 880-6730-6

Date Collected: 09/30/21 09:55 **Matrix: Solid** Date Received: 10/01/21 14:48

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8973	10/06/21 10:56	AJ	XEN MID

Job ID: 880-6730-1

Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU

SDG: Eunice, NM

**Client Sample ID: CS-39** Date Collected: 09/30/21 09:55 Lab Sample ID: 880-6730-6

Date Received: 10/01/21 14:48

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8707	10/01/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		5			8697	10/02/21 04:03	AJ	XEN MID

Lab Sample ID: 880-6730-7

**Client Sample ID: CS-40** Date Collected: 09/30/21 10:00 Matrix: Solid

Date Received: 10/01/21 14:48

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8973	10/06/21 10:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8707	10/01/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8697	10/02/21 04:23	AJ	XEN MID

Client Sample ID: CS-41 Lab Sample ID: 880-6730-8

Date Collected: 09/30/21 10:05 Matrix: Solid

Date Received: 10/01/21 14:48

Prep Type Total/NA	Batch Type Analysis	Batch Method 8015 NM	Run	Factor	Initial Amount	Final Amount	Batch Number 8973	Prepared or Analyzed 10/06/21 10:56	Analyst	Lab XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.02 g	10 mL	8709 8699		DM	XEN MID XEN MID

Client Sample ID: CS-42 Lab Sample ID: 880-6730-9

Date Collected: 09/30/21 10:10 **Matrix: Solid** Date Received: 10/01/21 14:48

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8973	10/06/21 10:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	8709	10/01/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8699	10/02/21 00:59	AJ	XEN MID

Client Sample ID: CS-43 Lab Sample ID: 880-6730-10

Date Collected: 09/30/21 10:15 Date Received: 10/01/21 14:48

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8973	10/06/21 10:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8709	10/01/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8699	10/02/21 01:19	AJ	XEN MID

Client Sample ID: CS-44 Lab Sample ID: 880-6730-11

Date Collected: 09/30/21 10:20 **Matrix: Solid** Date Received: 10/01/21 14:48

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8973	10/06/21 10:56	AJ	XEN MID

**Eurofins Xenco** 

**Matrix: Solid** 

Project/Site: HEP Eunice EMSU Client Sample ID: CS-44

Client: TRC Solutions, Inc.

Date Collected: 09/30/21 10:20 Date Received: 10/01/21 14:48

Lab Sample ID: 880-6730-11

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8709	10/01/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8699	10/02/21 01:40	AJ	XEN MID

Lah Sample ID: 880-6730-12 **Client Sample ID: CS-45** 

Date Collected: 09/30/21 10:25 Date Received: 10/01/21 14:48

Lab	Samp	IE ID.	000-07	00-12
			Matrix:	Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8973	10/06/21 10:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8709	10/01/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8699	10/02/21 02:01	AJ	XEN MID

Lab Sample ID: 880-6730-13 **Client Sample ID: CS-46** Date Collected: 09/30/21 10:30

Date Received: 10/01/21 14:48

**Matrix: Solid** 

		Batch	Batch		Dil	Initial	Final	Batch	Prepared		
P	rep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Ī	otal/NA	Analysis	8015 NM		1			8973	10/06/21 10:56	AJ	XEN MID
Т	otal/NA	Prep	8015NM Prep			10.03 g	10 mL	8709	10/01/21 15:30	DM	XEN MID
Т	otal/NA	Analysis	8015B NM		1			8699	10/02/21 02:21	AJ	XEN MID

Client Sample ID: CS-47 Lab Sample ID: 880-6730-14

Date Collected: 09/30/21 10:35 Date Received: 10/01/21 14:48

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8973	10/06/21 10:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8709	10/01/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8699	10/02/21 02:41	AJ	XEN MID

**Client Sample ID: CS-48** Lab Sample ID: 880-6730-15

Date Collected: 09/30/21 10:40 Date Received: 10/01/21 14:48

**Matrix: Solid** 

Prep Type Total/NA	Batch Type Analysis	Batch Method 8015 NM	Run	Dil Factor	Initial Amount	Final Amount	Batch Number 8973	Prepared or Analyzed 10/06/21 10:56	Analyst AJ	Lab XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.00 g	10 mL	8709 8699	10/01/21 15:30 10/02/21 03:02		XEN MID XEN MID

**Client Sample ID: CS-49** Lab Sample ID: 880-6730-16

Date Collected: 09/30/21 10:45 Date Received: 10/01/21 14:48

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8973	10/06/21 10:56	AJ	XEN MID

**Eurofins Xenco** 

**Matrix: Solid** 

Job ID: 880-6730-1 SDG: Eunice, NM

Client Sample ID: CS-49 Lab Sample ID: 880-6730-16 Date Collected: 09/30/21 10:45

**Matrix: Solid** 

Date Received: 10/01/21 14:48

Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8709	10/01/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8699	10/02/21 03:22	AJ	XEN MID

**Client Sample ID: CS-50** Lab Sample ID: 880-6730-17

Date Collected: 09/30/21 10:50 **Matrix: Solid** Date Received: 10/01/21 14:48

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8973	10/06/21 10:56	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	8709	10/01/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			8699	10/02/21 03:42	AJ	XEN MID

**Client Sample ID: CS-51** Lab Sample ID: 880-6730-18 Date Collected: 09/30/21 10:55 **Matrix: Solid** 

Date Received: 10/01/21 14:48

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Method Amount Number or Analyzed Type Run **Factor Amount** Analyst Lab Total/NA 8015 NM 8973 10/06/21 10:56 AJ XEN MID Analysis Prep Total/NA 8015NM Prep 10.01 g 10 mL 8709 10/01/21 15:30 DM XEN MID Total/NA Analysis 8015B NM 1 8699 10/02/21 04:03 AJ XEN MID

**Laboratory References:** 

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

### **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP Eunice EMSU

Job ID: 880-6730-1

SDG: Eunice, NM

### **Laboratory: Eurofins Xenco**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority Texas		ogram ELAP	T104704400-21-22	Expiration Date 06-30-22
The following analyte the agency does not o		ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for which
Analysis Method	Prep Method	Matrix	Analyte	
8015 NM		Solid	Total TPH	

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### **Method Summary**

Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU Job ID: 880-6730-1

SDG: Eunice, NM

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

CS-51

### **Sample Summary**

Client: TRC Solutions, Inc. Project/Site: HEP Eunice EMSU

880-6730-18

Job ID: 880-6730-1 SDG: Eunice, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-6730-1	CS-34	Solid	09/30/21 09:30	10/01/21 14:48	
880-6730-2	CS-35	Solid	09/30/21 09:35	10/01/21 14:48	3
880-6730-3	CS-36	Solid	09/30/21 09:40	10/01/21 14:48	3
880-6730-4	CS-37	Solid	09/30/21 09:45	10/01/21 14:48	3
880-6730-5	CS-38	Solid	09/30/21 09:50	10/01/21 14:48	3
880-6730-6	CS-39	Solid	09/30/21 09:55	10/01/21 14:48	3
880-6730-7	CS-40	Solid	09/30/21 10:00	10/01/21 14:48	3
880-6730-8	CS-41	Solid	09/30/21 10:05	10/01/21 14:48	3
880-6730-9	CS-42	Solid	09/30/21 10:10	10/01/21 14:48	3
880-6730-10	CS-43	Solid	09/30/21 10:15	10/01/21 14:48	3
880-6730-11	CS-44	Solid	09/30/21 10:20	10/01/21 14:48	3
880-6730-12	CS-45	Solid	09/30/21 10:25	10/01/21 14:48	3
880-6730-13	CS-46	Solid	09/30/21 10:30	10/01/21 14:48	3
880-6730-14	CS-47	Solid	09/30/21 10:35	10/01/21 14:48	3
880-6730-15	CS-48	Solid	09/30/21 10:40	10/01/21 14:48	3
880-6730-16	CS-49	Solid	09/30/21 10:45	10/01/21 14:48	3
880-6730-17	CS-50	Solid	09/30/21 10:50	10/01/21 14:48	3

Solid

09/30/21 10:55 10/01/21 14:48 3

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### Seurofins

City, State ZIP Address. Company Name Project Manager

Midland TX, 79705 10 Desta Drive, #130E

City, State ZIP

Reporting Level II Level III PST/UST TRRP

Level IV

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐

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www.xenco.com

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**Work Order Comments** 

TRC

RUSSELL SEBRING

Bill to (if different)

Company Name

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# **Chain of Custody**

Midland TX (432) 704-5440 San Antonio TX (210) 509-3334 EL Paso TX (915) 585-3443 Lubbock TX (806) 794-1296 Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199 Houston TX (281) 240-4200 Dallas, TX (214) 902-0300

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880-6730 Chain
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Project Name. HEP EL	Eunice EMSU Remediation	mediation	Turn Around	round						ANALYSIS REQUEST	SIS RE	OUES:					Press	Preservative Codes
Project Number	454378		Routine	Rush	Pres.					_					_	-	Nono NO	DI Water II O
Project Location	Eunice NM		Due Date				-			-	-	1		_	-	-		U Water n ₂ O
**	Russell Sebring/Misti Bryant	$\dashv$	TAT starts the day received by	dav received by													ביי כיי	MeOH Me
		$\perp$	the lab if received by 4 30pm	ved by 4 30pm	5												2 2	HNC ₃ . HN
SAMPLE RECEIPT	Temp Blank.	Yes No	Wet Ice	Yes No	eter										·		П ₂ оО ₄ П ₂	NaCH Na
$\frac{\pi}{}$		Thermometer ID:	<del>,</del>		am										<del></del>		N3FO4 HT	
-	۱ ۲	N/A) Correction Factor	otor:	オが	Par												NahoO4 NABIS	ABIS
1			:	1	_												Na ₂ S ₂ O ₃ NaSO ₃	aSO ₃
Seals.	Yes No (N/A	Temperature Reading	Reading	1.3							<b></b>						Zn Acetate+NaOH Zn	+NaOH Zn
Total Containers:	0	Corrected Temperature	nperature.	20	<b></b>		!										NaOH+Asc	NaOH+Ascorbic Acid SAPC
Sample Identification	Matrix	Date Sampled	Time I	Depth Grab/	# of Cont	ТРН	Chloride 										Samp	Sample Comments
CS-34 @ 3'	S	9/30/2021	930	з С	-	×				-	_	1		_	+	-		
CS-35 @ 3	S	9/30/2021	935	з С		×					$\dashv$			-	-			
CS-36 @ 3	S	9/30/2021	940		_	×					-	T			-			
CS-37 @ 3	S	9/30/2021	945		-	×	-				$\dashv$	+		_	-	+		
CS-38 @ 3	S	9/30/2021	950	3 C	>	×				_	-			_	+			
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CS-40 @ 3	S	9/30/2021	1000		_	×				$\dashv$				4		1		
CS-41@3	S	9/30/2021	1005	3 C		×				-				_	$\dashv$	+		
CS-42 @ 3	S	9/30/2021	1010	3 C	_	×				$\dashv$	+			_	$\dashv$	+		
CS-43 @ 3	S	9/30/2021	1015	3 C	1	×												
Total 200.7 / 6010 20	200.8 / 6020:	8RC	8RCRA 13PPM	/ Texas 11	Al Sb	S	Ba Be	В Cd C	Ca Cr	ნ ც	Fe	Mg	în Mo	Z.	Se Ac	SIO,	Pb Mg Mn Mo Ni K Se Ag SiO, Na Sr Ti Sn U V Zn	ân U V Zn
Circle Method(s) and Metal(s) to be analyzed	(s) to be analyz	ed	TCLP / SPL	TCLP / SPLP 6010 8RCRA		Sb As	Ba Be	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	င္ပ္ပ	u Pb N	/In Mo	Nı Se	Ag T	c	Į	1631	Hg 1631/2451/7470/7471	70 / 7471
Notice Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco. But not analyzed These terms will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco. But not analyzed These terms will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco. But not analyzed These terms will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco. But not analyzed These terms will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco. But not analyzed These terms will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco. But not analyzed the each project and a charge of \$5 for each sample submitted to Eurofins Xenco.	nd relinquishment of ble only for the cost je of \$85.00 will be ap	samples constit of samples and oplied to each p	utes a valid pure shall not assume oject and a char	chase order from any responsibilinge of \$5 for each	client co ty for any	mpany to / losses o	Eurofins r expense	Xenco, its s incurred	affiliates by the c	and subco	ntractors h losses	rs. It assigns standard terms and conditions sare due to circumstances beyond the control	ns stand	ard term tances b	and cor	ditions		
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# **Chain of Custody**

Houston, TX (281) 240-4200 Dallas TX (214) 902-0300 Midland TX (432) 704-5440 San Antonio TX (210) 509-3334

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Troject Manager   RUSSELL SEBRING   Bill to (if different)   Company Name   Trotal Z00.7   60-10   200.8   62-02   Email   Sebring@ltcoombanies com   Total Z00.7   60-10   200.8   62-02   Emril Company Name   Elumines   Rulinguisted by 'Signature'   Faccines   Sebring with the applied to sexth project and at sharge of \$15 for each sample subminimum charge \$15 for each	Revised Date 08/25/2020 Rev 2020.2		0						F		
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Project Manager   Project Ma	) (e)	Received by: (Signatur	Relinquished by: (Signature)	Date/Time		ture)	d by (Signa	Receive		y (Signature)	Relinquished b
Moderation   March		ircumstances beyond the control forced unless previously negotiated.	ncurred by the client if such losses are due to c Kenco, but not analyzed. These terms will be en	any losses or expenses in the submitted to Eurofins	h samp	ne any responsible arge of \$5 for each	d shall not assu project and a ch	applied to each	5.00 will be	nimum charge of \$8	of Eurofins Xenco. A mi
Manager   RUSSELL SEBRING   Bill to (if different)		standard terms and conditions	ico, its affiliates and subcontractors. It assigns	company to Eurofins Xer	n client	ırchase order fror	titutes a valid pu	of samples cons	quishment	document and relin	Notice: Signature of this
Manager   RUSSELL SEBRING   RUSSELL SEBRING   RUSSELL SEBRING   RUSSELL SCANDARY Name   RUSSELL SEBRING   RUSSELL SEB	/747		1_	Sb As Ba Be	CRA	LP 6010 8F	TCLP / SP	zed	be analy	nd Metal(s) to	Circle Method(s) a
Manager   RUSSELL SEBRING   Russell Direc, #130E   Company Name   Russell Sebring/Mist Bryant   Russell Sebring/Mi	TI Sn U V	Ag SiO ₂	Ca Cr Co Cu Fe Pb	As Ba Be B	≥	- 11	- 1	8F	6020:		Total 200.7 / 6
Manager   RUSSELL SEBRING   Transport											
Mannager   RUSSELL SEBRING   TRC   Troing #130E   Troing Address   Troi											
Manager   RUSSELL SEBRING   TRC   Company Name   TRC   Company Name   Company				×	_		1055	9/30/2021	S	@45	CS-51
Manager   RUSSELL SEBRING   Bill to (if different)				×	1		1050	9/30/2021	S	@45	CS-50
Manager   RUSSELL SEBRING   Bill to (if different)				×		Г	1045	9/30/2021	S	@45	CS-49
Manager         RUSSELL SEBRING         Bill to (if different)           ny Name:         TRC         Company Name           s.         10 Desta Drive, #130E         Address.         City, State ZIP         Address.         Amalysis Regulation         Femality (gebring@(rocompanies.com)           Name.         HEP Eunice EMSU Remediation         Turn Around         Pres.         ANALYSIS REQUIRED           Number         Eunice NM         Due Date         Rush (Pres.)         Pres.           Location         Eunice NM         Ves No         Wet 10ex/Vet				×			1040	9/30/2021	S	@45	CS-48
Manager         INJUSSELL SEBRING         Bill to (if different)           s.         10 Desta Drive, #130E         Company Name           s.         10 Desta Drive, #130E         Company Name           ate ZIP         Midland TX, 79705         Email Isebring@frecompanies.com           Name         432 250 4465         Email Isebring@frecompanies.com           Name: Location         Email Isebring@frecompanies.com           Name: Received by 430pm         Pres.         ANALYSIS REQ           LERECEIPT         Temp Blank         Yes No No NA Cogree/for Factor         Yes No No NA Cogree/for Factor         Yes No No NA Cogree/for Factor         Part Imperature         Sample Identification         Matrix Sampled         Date Time         Comp Cont Depth Comp Cont Depth Comp Cont Depth Comp Cont Depth Comp Depth Comp Cont Depth Comp Depth C				×	1		1035	9/30/2021	S	@45	CS-47
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Manager         RUSSELL SEBRING         Bill to (if different)         If different)         Company Name         TRC         Address.				×			1025	9/30/2021	S	@45	CS-45
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Manager         RUSSELL SEBRING         Bill to (if different)           ny Name:         TRC         Company Name         Company Name           s.         10 Desta Drive, #130E         Address.         Address.           ste ZIP:         Midland TX, 79705         Email resetring@trocompanies.com           Name.         HEP Eunice EMSU Remediation         Turn Around         Pres.           Number:         454378         □ Routine □ Rush         Pres.           Location         Eunice NM Eunice NMist Bryant The lab if received by 4,30pm         TAT starts the day received by 4,30pm         ANALYSIS REQ.           *** Pres. No         Thermomelga-#D         Yes No         Yes No         Yes No	Na ₂ S ₂ O ₃ NaSO ₃				⊥F		actor	Correction F	1	res	Cooler Cusiouy Sea
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Manager         RUSSELL SEBRING         Bill to (if different)           ny Name:         TRC         Company Name         Company Name           s.         10 Desta Drive, #130E         Address.         Address.           ste ZIP:         Midland TX, 79705         City, State ZIP         ZIP           d 32 250 4465         Email restring@trccompanies.com         ANALYSIS REQUIST Remediation         Number         454378         ANALYSIS REQUIST Rush           Number         Eunice NIM         Due Date         Pres. Code         ANALYSIS REQUIST Rush           Location         Eunice NIM         TAT starts the day received by         TAT starts the day received by				-	L	eived by 4,30pm	the lab if rec				PO#:
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Manager         RUSSELL SEBRING         Bill to (if different)           ny Name:         TRC         Company Name           s.         10 Desta Drive, #130E         Address.           ate ZIP:         Midland TX, 79705         City, State ZIP           432 250 4465         Email         rsebrling@trccompanies.com           Name.         HEP Eunice EMSU Remediation         Turn Around         ANALYSIS REQ           Number:         454378         Routine         Rush         Pres.	_						Due Date		Inice NN	m	Project Location
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lanager     RUSSELL SEBRING     Bill to (if different)       / Name:     TRC     Company Name       10 Desta Drive, #130E     Address.		ing Level II ☐ Level III ☐ PST	Reporti			City, State ZIP			79705	Midland TX,	City, State ZIP
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RUSSELL SEBRING Bill to (if different)	nfields RRC Superfund	m: UST/PST ☐ PRP ☐ Brown	Progra		Эē	Company Nam				TRC	Company Name:
	Comments	Work Order C			nt)	Bill to (if differe			BRING	RUSSELL SE	Project Manager
			ock, TX (806) 794-1296	X (915) 585-3443 Lubb	aso T				No.	-	
EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296					!	!			E - 1 23 C. 2		

### **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc. Job Number: 880-6730-1 SDG Number: Eunice, NM

Login Number: 6730 **List Source: Eurofins Xenco** 

List Number: 1

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

**Eurofins Xenco** Page 28 of 28

# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Midland 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6745-1

Laboratory Sample Delivery Group: Eunice, NM

Client Project/Site: HEP EMSU

Revision: 2

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

JURAMER

Authorized for release by: 2/4/2022 12:08:21 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

.....LINKS .....

Review your project results through

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www.eurofinsus.com/Env

Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Laboratory Job ID: 880-6745-1

SDG: Eunice, NM

# **Table of Contents**

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QC Association Summary	16
Lab Chronicle	18
Certification Summary	22
Method Summary	23
Sample Summary	24
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# **Definitions/Glossary**

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Job ID: 880-6745-1

SDG: Eunice, NM

Qualifiers

**GC Semi VOA** 

Qualifier Description

S1- Surrogate recovery exceeds control limits, low biased.
U Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CFL Contains Free Liquid
CFU Colony Forming Unit
CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

#### **Case Narrative**

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Job ID: 880-6745-1

SDG: Eunice, NM

Job ID: 880-6745-1

**Laboratory: Eurofins Midland** 

Narrative

Job Narrative 880-6745-1

#### **REVISION**

The report being provided is a revision of the original report sent on 10/4/2021. The report (revision 2) is being revised due to Per client email, corrected sample IDs.

Report revision history

The report being provided is a revision of the original report sent on 10/4/2021. The report (revision 2) is being revised due to Per client email, corrected sample IDs.

Revision 1 - 1/7/2022 - Reason - Per client email, removed sample depths from sample name.

#### Receipt

The samples were received on 10/1/2021 4:04 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

#### GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SW-24 (880-6745-8). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client Sample ID: SW-17

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Date Collected: 10/01/21 08:00 Date Received: 10/01/21 16:04

Sample Depth: 2.25'

Lab Sample ID: 880-6745-1

10/01/21 17:11 10/02/21 11:14

Matrix: Solid

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 10/04/21 10:23 Total TPH <50.0 U 50.0 mg/Kg Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte Result Qualifier RL Unit Analyzed Dil Fac Prepared <49.9 U 49.9 10/01/21 17:11 10/02/21 11:14 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 49.9 mg/Kg 10/01/21 17:11 10/02/21 11:14 C10-C28) Oll Range Organics (Over C28-C36) <49.9 U 49.9 mg/Kg 10/01/21 17:11 10/02/21 11:14 %Recovery Qualifier Surrogate Limits Prepared Analyzed Dil Fac 1-Chlorooctane 95 70 - 130 10/01/21 17:11 10/02/21 11:14

Client Sample ID: SW-18 Lab Sample ID: 880-6745-2 Date Collected: 10/01/21 08:05 Matrix: Solid

70 - 130

105

Date Received: 10/01/21 16:04

Sample Depth: 2.25'

o-Terphenyl

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 10/04/21 10:23 Total TPH <50.0 U 50.0 mg/Kg

Method: 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac <50.0 U Gasoline Range Organics 50.0 mg/Kg 10/01/21 17:11 10/02/21 12:18 (GRO)-C6-C10 Diesel Range Organics (Over 10/01/21 17:11 10/02/21 12:18 <50.0 U 50.0 mg/Kg C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 10/01/21 17:11 10/02/21 12:18 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 10/01/21 17:11 10/02/21 12:18 94 70 - 130o-Terphenyl 103 70 - 130 10/01/21 17:11 10/02/21 12:18

Client Sample ID: SW-19 Lab Sample ID: 880-6745-3

Date Collected: 10/01/21 08:10 Date Received: 10/01/21 16:04

Sample Depth: 2.25'

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier Unit RL D Prepared Analyzed Dil Fac Total TPH <50 0 U 50.0 10/04/21 10:23 mg/Kg

Method: 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Gasoline Range Organics <49.9 U 49.9 mg/Kg 10/01/21 17:11 10/02/21 12:39 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 10/02/21 12:39 49.9 mq/Kq 10/01/21 17:11 C10-C28) Oll Range Organics (Over C28-C36) <49.9 U 49.9 mg/Kg 10/01/21 17:11 10/02/21 12:39

**Eurofins Midland** 

Matrix: Solid

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

**Client Sample ID: SW-19** Lab Sample ID: 880-6745-3 Date Collected: 10/01/21 08:10

Matrix: Solid

Sample Depth: 2.25'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	10/01/21 17:11	10/02/21 12:39	1
o-Terphenyl	104		70 - 130	10/01/21 17:11	10/02/21 12:39	1

Lab Sample ID: 880-6745-4 Client Sample ID: SW-20

Date Collected: 10/01/21 08:15 **Matrix: Solid** 

Date Received: 10/01/21 16:04

Date Received: 10/01/21 16:04

Sample Depth: 1.5'

Method: 8015 NM - Diesel Range Organics (DRO) (GC)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 13:00	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 13:00	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 13:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130			10/01/21 17:11	10/02/21 13:00	1

101 70 - 130 10/01/21 17:11 10/02/21 13:00 o-Terphenyl **Client Sample ID: SW-21** Lab Sample ID: 880-6745-5

Date Collected: 10/01/21 08:20 Date Received: 10/01/21 16:04

Sample Depth: 1.5'

Method: 8015 NM - Diesel F	Range Organics	(DRO) (GC)						
Analyte	Result C	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	J	50.0	mg/Kg			10/04/21 10:23	1
Method: 8015B NM - Diesel	Range Organic	s (DRO) (GC	<b>(</b> )					
Analyte	Result C	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Caralina Danas Onnanias			FO 0			10/01/01 17:11	10/00/01 12:00	

Gasoline Range Organics (GRO)-C6-C10	<50.0 U	50.0	mg/Kg	10/01/21 17:11	10/02/21 13:22	1
Diesel Range Organics (Over C10-C28)	<50.0 U	50.0	mg/Kg	10/01/21 17:11	10/02/21 13:22	1
Oll Range Organics (Over C28-C36)	<50.0 U	50.0	mg/Kg	10/01/21 17:11	10/02/21 13:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130	10/01/21 17:11	10/02/21 13:22	1
o-Terphenyl	100		70 - 130	10/01/21 17:11	10/02/21 13:22	1

**Matrix: Solid** 

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

Lab Sample ID: 880-6745-6

Matrix: Solid

Client Sample ID: SW-22 Date Collected: 10/01/21 08:25

Date Received: 10/01/21 16:04

Sample Depth: 2.25'

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1

Analyto	itesuit	Qualifici		Oilit		ricparca	Allulyzou	Dii i uo
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1
Method: 8015B NM - Diesel Ra	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/01/21 17:11	10/02/21 13:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/01/21 17:11	10/02/21 13:43	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/01/21 17:11	10/02/21 13:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130			10/01/21 17:11	10/02/21 13:43	1
o-Terphenyl	104		70 - 130			10/01/21 17:11	10/02/21 13:43	1

Client Sample ID: SW-23

Date Collected: 10/01/21 08:30

Lab Sample ID: 880-6745-7

Matrix: Solid

Date Received: 10/01/21 16:04

Sample Depth: 2.25'

Method: 8015 NM - Diesel Ran	ige Organics	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 14:04	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 14:04	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 14:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130			10/01/21 17:11	10/02/21 14:04	
o-Terphenyl	105		70 - 130			10/01/21 17:11	10/02/21 14:04	1

Client Sample ID: SW-24

Date Collected: 10/01/21 08:35

Lab Sample ID: 880-6745-8

Matrix: Solid

Date Collected: 10/01/21 08:35 Date Received: 10/01/21 16:04

Sample Depth: 2.25'

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg	:		10/04/21 10:23	1

Method: 8015B NM - Diesel Ra	nge Organi	ics (DRO) (	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 14:25	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 14:25	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 14:25	1

**Eurofins Midland** 

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Client: TRC Solutions, Inc. Job ID: 880-6745-1 Project/Site: HEP EMSU SDG: Eunice, NM

Client Sample ID: SW-24 Lab Sample ID: 880-6745-8 Date Collected: 10/01/21 08:35

Matrix: Solid

Sample Depth: 2.25'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	10/01/21 17:11	10/02/21 14:25	1
o-Terphenyl	52	S1-	70 - 130	10/01/21 17:11	10/02/21 14:25	1

Client Sample ID: SW-25

Lab Sample ID: 880-6745-9 **Matrix: Solid** 

Date Collected: 10/01/21 08:40 Date Received: 10/01/21 16:04

Date Received: 10/01/21 16:04

Sample Depth: 2.25'

Method: 8015 NM - Diesel Range	<b>Organic</b>	s (DRO) (G0	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1

Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/01/21 17:11	10/02/21 14:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/01/21 17:11	10/02/21 14:46	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/01/21 17:11	10/02/21 14:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			10/01/21 17:11	10/02/21 14:46	1
o-Terphenyl	101		70 - 130			10/01/21 17:11	10/02/21 14:46	1

Lab Sample ID: 880-6745-10 **Client Sample ID: SW-26** Date Collected: 10/01/21 08:45 **Matrix: Solid** 

Date Received: 10/01/21 16:04

Sample Depth: 2.25'

Method: 8015 NM - Diesel R	ange Organic	s (DRO) (GC	<b>;</b> )					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1
Method: 8015B NM - Diesel	Range Organi	ics (DRO) (G	iC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	ma/Ka		10/01/21 17:11	10/02/21 15:08	

/21 15:08	1
/04 45.00	4
21 15:08	1
/21 15:08	1
21 13.00	'
alyzed Dil F	Fac
/	/21 15:08 /21 15:08 <i>alyzed Dil</i>

1-Chlorooctane 95 70 - 130 10/01/21 17:11 10/02/21 15:08 102 70 - 130 o-Terphenyl 10/01/21 17:11 10/02/21 15:08

Client: TRC Solutions, Inc. Job ID: 880-6745-1 Project/Site: HEP EMSU SDG: Eunice, NM

**Client Sample ID: SW-27** Lab Sample ID: 880-6745-11

Date Collected: 10/01/21 08:50 Matrix: Solid Date Received: 10/01/21 16:04

Sample Depth: 2.25'

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1
<del>-</del>								

Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 15:51	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 15:51	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 15:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			10/01/21 17:11	10/02/21 15:51	1
o-Terphenyl	104		70 - 130			10/01/21 17:11	10/02/21 15:51	1

**Client Sample ID: SW-28** Lab Sample ID: 880-6745-12 Date Collected: 10/01/21 10:00 **Matrix: Solid** 

Date Received: 10/01/21 16:04

Sample Depth: 2'

Method: 8015 NM - Diesel Ran	ge Organics (D	RO) (GC)					
Analyte	Result Qua	lifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			10/04/21 10:23	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/01/21 17:11	10/02/21 16:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 17:11	10/02/21 16:13	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 17:11	10/02/21 16:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130			10/01/21 17:11	10/02/21 16:13	1
o-Terphenyl	99		70 - 130			10/01/21 17:11	10/02/21 16:13	1

**Client Sample ID: SW-28** Lab Sample ID: 880-6745-13

Date Collected: 10/01/21 10:05 Date Received: 10/01/21 16:04

Sample Depth: 5'

Method: 8015 NM - Diesel Ran	ige Organic	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1

Method: 8015B NM - Diesel Rar	nge Organi	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/01/21 17:11	10/02/21 16:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/01/21 17:11	10/02/21 16:34	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/01/21 17:11	10/02/21 16:34	1

**Eurofins Midland** 

Matrix: Solid

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

Job ID: 880-6745-1 SDG: Eunice, NM

**Client Sample ID: SW-28** 

Date Received: 10/01/21 16:04

Lab Sample ID: 880-6745-13 Date Collected: 10/01/21 10:05 Matrix: Solid

Sample Depth: 5'

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94	70 - 130	10/01/21 17:11	10/02/21 16:34	1
o-Terphenyl	102	70 - 130	10/01/21 17:11	10/02/21 16:34	1

**Client Sample ID: SW-29** Lab Sample ID: 880-6745-14 Date Collected: 10/01/21 10:10

**Matrix: Solid** 

Date Received: 10/01/21 16:04

Sample Depth: 2'

Method: 8015 NM - D	iesel Range Organic	s (DRO) (G0	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1
Mothod: 004ED NM	Discal Banga Organi	ine (DDO) (C	20)					

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 16:56	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 16:56	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 16:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130			10/01/21 17:11	10/02/21 16:56	1
o-Terphenyl	94		70 - 130			10/01/21 17:11	10/02/21 16:56	1

Lab Sample ID: 880-6745-15 **Client Sample ID: SW-29** Date Collected: 10/01/21 10:15 **Matrix: Solid** 

Date Received: 10/01/21 16:04

Sample Depth: 5'

Method: 8015 NM - Diesel R	ange Organics (DRO) (G	C)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			10/04/21 10:23	1
Method: 8015B NM - Diesel	Range Organics (DRO) (	GC)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0 U	50.0	mg/Kg		10/01/21 17:11	10/02/21 17:17	1

	0/5 0 !!!!					
Oll Range Organics (Over C28-C36)	<50.0 U	50.0	mg/Kg	10/01/21 17:11	10/02/21 17:17	1
Diesel Range Organics (Over C10-C28)	<50.0 U	50.0	mg/Kg	10/01/21 17:11	10/02/21 17:17	1
Gasoline Range Organics (GRO)-C6-C10	<50.0 U	50.0	mg/Kg	10/01/21 17:11	10/02/21 17:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared Analy	yzed Dil Fac
1-Chlorooctane	94		70 - 130	10/01/21 17:11 10/02/2	1 17:17 1
o-Terphenyl	102		70 - 130	10/01/21 17:11 10/02/2	1 17:17 1

Client Sample ID: SW-30

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Date Collected: 10/01/21 10:20 Date Received: 10/01/21 16:04

Sample Depth: 2'

Lab Sample ID: 880-6745-16

Prepared

. Matrix: Solid

Analyzed

10/01/21 17:11 10/02/21 17:38

10/01/21 17:11 10/02/21 17:38

Method: 8015 NM - Diesel Rang	e Organic	s (DRO) (G0	<b>C)</b>					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1
– Method: 8015B NM - Diesel Ran	nge Organ	ics (DRO) (0	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 17:38	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 17:38	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 17:38	1

Client Sample ID: SW-30

Lab Sample ID: 880-6745-17

Date Collected: 10/01/21 10:25

Matrix: Solid

Limits

70 - 130

70 - 130

%Recovery Qualifier

91

95

Date Received: 10/01/21 16:04

Cample Denth: 5'

Sample Depth: 5'

Surrogate

o-Terphenyl

1-Chlorooctane

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 17:59	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 17:59	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/01/21 17:11	10/02/21 17:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130			10/01/21 17:11	10/02/21 17:59	1
o-Terphenyl	105		70 - 130			10/01/21 17:11	10/02/21 17:59	1

Client Sample ID: SW-31 Lab Sample ID: 880-6745-18

Date Collected: 10/01/21 10:30 Date Received: 10/01/21 16:04

Sample Depth: 2'

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (G0	<b>C</b> )					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/04/21 10:23	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)												
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac				
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/01/21 17:11	10/02/21 18:20	1				
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/01/21 17:11	10/02/21 18:20	1				
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/01/21 17:11	10/02/21 18:20	1				

**Eurofins Midland** 

Matrix: Solid

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Dil Fac

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# **Client Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-6745-1 Project/Site: HEP EMSU SDG: Eunice, NM

Client Sample ID: SW-31 Lab Sample ID: 880-6745-18

Date Collected: 10/01/21 10:30 **Matrix: Solid** Date Received: 10/01/21 16:04

Sample Depth: 2'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	10/01/21 17:11	10/02/21 18:20	1
o-Terphenyl	101		70 - 130	10/01/21 17:11	10/02/21 18:20	1

Lab Sample ID: 880-6745-19 Client Sample ID: SW-31 **Matrix: Solid** 

Date Collected: 10/01/21 10:35

Date Received: 10/01/21 16:04

Sample Depth: 5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg		-	10/04/21 10:23	1
- Method: 8015B NM - Diesel Rai	nge Organi	ics (DRO) (G	SC)					
	-							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	<b>Result</b> <49.9		<b>RL</b> 49.9	Mg/Kg	<u>D</u>	Prepared 10/01/21 17:11	Analyzed 10/02/21 18:41	Dil Fac
Gasoline Range Organics		U			<u>D</u>			Dil Fac

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 92 70 - 130 10/01/21 17:11 10/02/21 18:41 99 70 - 130 10/01/21 17:11 10/02/21 18:41 o-Terphenyl

# **Surrogate Summary**

Client: TRC Solutions, Inc.

Job ID: 880-6745-1

Project/Site: HEP EMSU

SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

				ent Surrogate Re
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-6745-1	SW-17	95	105	
880-6745-1 MS	SW-17	107	110	
880-6745-1 MSD	SW-17	110	108	
880-6745-2	SW-18	94	103	
880-6745-3	SW-19	96	104	
880-6745-4	SW-20	94	101	
880-6745-5	SW-21	94	100	
880-6745-6	SW-22	96	104	
880-6745-7	SW-23	96	105	
880-6745-8	SW-24	96	52 S1-	
880-6745-9	SW-25	95	101	
880-6745-10	SW-26	95	102	
880-6745-11	SW-27	95	104	
880-6745-12	SW-28	92	99	
880-6745-13	SW-28	94	102	
880-6745-14	SW-29	90	94	
880-6745-15	SW-29	94	102	
880-6745-16	SW-30	91	95	
880-6745-17	SW-30	96	105	
880-6745-18	SW-31	93	101	
880-6745-19	SW-31	92	99	
LCS 880-8754/2-A	Lab Control Sample	100	102	
LCSD 880-8754/3-A	Lab Control Sample Dup	103	107	
MB 880-8754/1-A	Method Blank	94	106	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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Client: TRC Solutions, Inc. Project/Site: HEP EMSU

Job ID: 880-6745-1 SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-8754/1-A

**Matrix: Solid** 

**Analysis Batch: 8764** 

**Client Sample ID: Method Blank** 

**Prep Type: Total/NA** 

Prep Batch: 8754

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/01/21 17:11	10/02/21 10:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/01/21 17:11	10/02/21 10:10	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/01/21 17:11	10/02/21 10:10	1
	MD	MD						

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94	·	70 - 130	10/01/21 17:11	10/02/21 10:10	1
o-Terphenyl	106		70 - 130	10/01/21 17:11	10/02/21 10:10	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** Prep Batch: 8754

**Matrix: Solid Analysis Batch: 8764** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	888.1		mg/Kg		89	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	947.7		mg/Kg		95	70 - 130	

Lab Sample ID: LCS 880-8754/2-A

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	100	70 - 130
o-Terphenyl	102	70 - 130

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Lab Sample ID: LCSD 880-8754/3-A **Matrix: Solid** 

**Analysis Batch: 8764** 

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier RPD Limit Analyte Unit D %Rec Limits Gasoline Range Organics 1000 905.1 mg/Kg 91 70 - 130 20 (GRO)-C6-C10 1000 Diesel Range Organics (Over 959.0 mg/Kg 96 70 - 130 20 C10-C28)

LCSD LCSD

Surrogate	%Recovery Qualifier	r Limits
1-Chlorooctane	103	70 - 130
o-Terphenyl	107	70 - 130

Lab Sample ID: 880-6745-1 MS

**Matrix: Solid** 

**Analysis Batch: 8764** 

Client Sample ID: SW-17 Prep Type: Total/NA

Prep Batch: 8754

Prep Batch: 8754

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	995	859.8		mg/Kg		85	70 - 130	
Diesel Range Organics (Over	<49.9	U	995	914.1		mg/Kg		92	70 - 130	

# **QC Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-6745-1 Project/Site: HEP EMSU SDG: Eunice, NM

# Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-6745-1 MS

**Matrix: Solid** 

**Analysis Batch: 8764** 

Client Sample ID: SW-17
Prep Type: Total/NA
Prep Batch: 8754

MS MS %Recovery Qualifier Surrogate Limits 1-Chlorooctane 107 70 - 130 o-Terphenyl 110 70 - 130

Lab Sample ID: 880-6745-1 MSD

**Matrix: Solid** 

Analysis Batch: 8764

Analysis Daten. 0704									ı icp	Dateii.	0104
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	953.8		mg/Kg		94	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	<49.9	U	997	908.7		mg/Kg		91	70 - 130	1	20

MSD MSD %Recovery Qualifier Surrogate Limits 1-Chlorooctane 110 70 - 130 108 70 - 130 o-Terphenyl

Client Sample ID: SW-17 Prep Type: Total/NA

Prep Batch: 8754

# **QC Association Summary**

Job ID: 880-6745-1 Client: TRC Solutions, Inc. Project/Site: HEP EMSU SDG: Eunice, NM

## **GC Semi VOA**

#### Prep Batch: 8754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6745-1	SW-17	Total/NA	Solid	8015NM Prep	
880-6745-2	SW-18	Total/NA	Solid	8015NM Prep	
880-6745-3	SW-19	Total/NA	Solid	8015NM Prep	
880-6745-4	SW-20	Total/NA	Solid	8015NM Prep	
880-6745-5	SW-21	Total/NA	Solid	8015NM Prep	
880-6745-6	SW-22	Total/NA	Solid	8015NM Prep	
880-6745-7	SW-23	Total/NA	Solid	8015NM Prep	
880-6745-8	SW-24	Total/NA	Solid	8015NM Prep	
880-6745-9	SW-25	Total/NA	Solid	8015NM Prep	
880-6745-10	SW-26	Total/NA	Solid	8015NM Prep	
880-6745-11	SW-27	Total/NA	Solid	8015NM Prep	
880-6745-12	SW-28	Total/NA	Solid	8015NM Prep	
880-6745-13	SW-28	Total/NA	Solid	8015NM Prep	
880-6745-14	SW-29	Total/NA	Solid	8015NM Prep	
880-6745-15	SW-29	Total/NA	Solid	8015NM Prep	
880-6745-16	SW-30	Total/NA	Solid	8015NM Prep	
880-6745-17	SW-30	Total/NA	Solid	8015NM Prep	
880-6745-18	SW-31	Total/NA	Solid	8015NM Prep	
880-6745-19	SW-31	Total/NA	Solid	8015NM Prep	
MB 880-8754/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8754/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8754/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6745-1 MS	SW-17	Total/NA	Solid	8015NM Prep	
880-6745-1 MSD	SW-17	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 8764**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6745-1	SW-17	Total/NA	Solid	8015B NM	8754
880-6745-2	SW-18	Total/NA	Solid	8015B NM	8754
880-6745-3	SW-19	Total/NA	Solid	8015B NM	8754
880-6745-4	SW-20	Total/NA	Solid	8015B NM	8754
880-6745-5	SW-21	Total/NA	Solid	8015B NM	8754
880-6745-6	SW-22	Total/NA	Solid	8015B NM	8754
880-6745-7	SW-23	Total/NA	Solid	8015B NM	8754
880-6745-8	SW-24	Total/NA	Solid	8015B NM	8754
880-6745-9	SW-25	Total/NA	Solid	8015B NM	8754
880-6745-10	SW-26	Total/NA	Solid	8015B NM	8754
880-6745-11	SW-27	Total/NA	Solid	8015B NM	8754
880-6745-12	SW-28	Total/NA	Solid	8015B NM	8754
880-6745-13	SW-28	Total/NA	Solid	8015B NM	8754
880-6745-14	SW-29	Total/NA	Solid	8015B NM	8754
880-6745-15	SW-29	Total/NA	Solid	8015B NM	8754
880-6745-16	SW-30	Total/NA	Solid	8015B NM	8754
880-6745-17	SW-30	Total/NA	Solid	8015B NM	8754
880-6745-18	SW-31	Total/NA	Solid	8015B NM	8754
880-6745-19	SW-31	Total/NA	Solid	8015B NM	8754
MB 880-8754/1-A	Method Blank	Total/NA	Solid	8015B NM	8754
LCS 880-8754/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8754
LCSD 880-8754/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8754
880-6745-1 MS	SW-17	Total/NA	Solid	8015B NM	8754
880-6745-1 MSD	SW-17	Total/NA	Solid	8015B NM	8754

# **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Job ID: 880-6745-1

SDG: Eunice, NM

## **GC Semi VOA**

#### **Analysis Batch: 8793**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6745-1	SW-17	Total/NA	Solid	8015 NM	
880-6745-2	SW-18	Total/NA	Solid	8015 NM	
880-6745-3	SW-19	Total/NA	Solid	8015 NM	
880-6745-4	SW-20	Total/NA	Solid	8015 NM	
880-6745-5	SW-21	Total/NA	Solid	8015 NM	
880-6745-6	SW-22	Total/NA	Solid	8015 NM	
880-6745-7	SW-23	Total/NA	Solid	8015 NM	
880-6745-8	SW-24	Total/NA	Solid	8015 NM	
880-6745-9	SW-25	Total/NA	Solid	8015 NM	
880-6745-10	SW-26	Total/NA	Solid	8015 NM	
880-6745-11	SW-27	Total/NA	Solid	8015 NM	
880-6745-12	SW-28	Total/NA	Solid	8015 NM	
880-6745-13	SW-28	Total/NA	Solid	8015 NM	
880-6745-14	SW-29	Total/NA	Solid	8015 NM	
880-6745-15	SW-29	Total/NA	Solid	8015 NM	
880-6745-16	SW-30	Total/NA	Solid	8015 NM	
880-6745-17	SW-30	Total/NA	Solid	8015 NM	
880-6745-18	SW-31	Total/NA	Solid	8015 NM	
880-6745-19	SW-31	Total/NA	Solid	8015 NM	

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Matrix: Solid

XEN MID

Matrix: Solid

Date Collected: 10/01/21 08:00 Date Received: 10/01/21 16:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	8754	10/01/21 17:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8764	10/02/21 11:14	AJ	XEN MID

Client Sample ID: SW-18

Date Collected: 10/01/21 08:05

Lab Sample ID: 880-6745-2

Matrix: Solid

Date Collected: 10/01/21 08:05 Date Received: 10/01/21 16:04

<u> </u>	p Type	Batch Type Analysis	Batch Method 8015 NM	Run	Dil Factor	Initial Amount	Final Amount	Batch Number 8793	Prepared or Analyzed 10/04/21 10:23	Analyst AJ	Lab XEN MID
	al/NA al/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.01 g	10 mL	8754 8764	10/01/21 17:11 10/02/21 12:18		XEN MID XEN MID

Client Sample ID: SW-19

Date Collected: 10/01/21 08:10

Lab Sample ID: 880-6745-3

Matrix: Solid

Date Received: 10/01/21 16:04

Batch Batch Dil Initial Final Batch Prepared **Factor Prep Type** Type Method Run **Amount** Amount Number or Analyzed Analyst Lab Total/NA Analysis 8015 NM 8793 10/04/21 10:23 AJ XEN MID Total/NA 8754 10/01/21 17:11 AM Prep 8015NM Prep 10.03 g 10 mL XEN MID

Client Sample ID: SW-20

Date Collected: 10/01/21 08:15

Lab Sample ID: 880-6745-4

Matrix: Solid

8764

10/02/21 12:39 AJ

1

Date Received: 10/01/21 16:04

Analysis

8015B NM

Total/NA

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	8754	10/01/21 17:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8764	10/02/21 13:00	AJ	XEN MID

Client Sample ID: SW-21 Lab Sample ID: 880-6745-5

Date Collected: 10/01/21 08:20 Date Received: 10/01/21 16:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	8754	10/01/21 17:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8764	10/02/21 13:22	AJ	XEN MID

Client Sample ID: SW-22 Lab Sample ID: 880-6745-6

Date Collected: 10/01/21 08:25 Date Received: 10/01/21 16:04

_										
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM					8793	10/04/21 10:23	AJ	XEN MID

**Eurofins Midland** 

**Matrix: Solid** 

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

Lab Sample ID: 880-6745-6

Matrix: Solid

**Client Sample ID: SW-22** Date Collected: 10/01/21 08:25

Date Received: 10/01/21 16:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	8754	10/01/21 17:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8764	10/02/21 13:43	AJ	XEN MID

**Client Sample ID: SW-23** Lab Sample ID: 880-6745-7 Matrix: Solid

Date Collected: 10/01/21 08:30 Date Received: 10/01/21 16:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	8754	10/01/21 17:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8764	10/02/21 14:04	AJ	XEN MID

**Client Sample ID: SW-24** Lab Sample ID: 880-6745-8 Date Collected: 10/01/21 08:35 Matrix: Solid

Date Received: 10/01/21 16:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8754	10/01/21 17:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8764	10/02/21 14:25	AJ	XEN MID

**Lab Sample ID: 880-6745-9 Client Sample ID: SW-25** Date Collected: 10/01/21 08:40 **Matrix: Solid** 

Date Received: 10/01/21 16:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.02 g	10 mL	8754 8764	10/01/21 17:11 10/02/21 14:46	AM AJ	XEN MID XEN MID

Client Sample ID: SW-26 Lab Sample ID: 880-6745-10

Date Collected: 10/01/21 08:45 Date Received: 10/01/21 16:04

Dran Time	Batch	Batch	Dun	Dil	Initial	Final	Batch	Prepared	Amelyet	Lab
Prep Type Total/NA	Analysis	Method 8015 NM	Run	Factor 1	Amount	Amount	Number 8793	or Analyzed 10/04/21 10:23	Analyst AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	8754	10/01/21 17:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8764	10/02/21 15:08	AJ	XEN MID

Client Sample ID: SW-27 Lab Sample ID: 880-6745-11

Date Collected: 10/01/21 08:50 Date Received: 10/01/21 16:04

Released to Imaging: 3/24/2022 9:01:44 AM

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID

**Eurofins Midland** 

**Matrix: Solid** 

**Matrix: Solid** 

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

Job ID: 880-6745-1 SDG: Eunice, NM

Client Sample ID: SW-27 Date Collected: 10/01/21 08:50 Lab Sample ID: 880-6745-11

Date Received: 10/01/21 16:04

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	8754	10/01/21 17:11	AM	XEN MID
_Total/NA	Analysis	8015B NM		1			8764	10/02/21 15:51	AJ	XEN MID

Lab Sample ID: 880-6745-12

Date Collected: 10/01/21 10:00 Date Received: 10/01/21 16:04

Client Sample ID: SW-28

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	8754	10/01/21 17:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8764	10/02/21 16:13	AJ	XEN MID

**Client Sample ID: SW-28** Lab Sample ID: 880-6745-13 Date Collected: 10/01/21 10:05

**Matrix: Solid** 

Date Received: 10/01/21 16:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8754	10/01/21 17:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8764	10/02/21 16:34	AJ	XEN MID

Client Sample ID: SW-29 Lab Sample ID: 880-6745-14

**Matrix: Solid** 

Date Collected: 10/01/21 10:10 Date Received: 10/01/21 16:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8754	10/01/21 17:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8764	10/02/21 16:56	AJ	XEN MID

Client Sample ID: SW-29 Lab Sample ID: 880-6745-15

Date Collected: 10/01/21 10:15 Date Received: 10/01/21 16:04

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	8754	10/01/21 17:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8764	10/02/21 17:17	AJ	XEN MID

Client Sample ID: SW-30 Lab Sample ID: 880-6745-16

Date Collected: 10/01/21 10:20 **Matrix: Solid** Date Received: 10/01/21 16:04

Batch Batch Dil Initial Final Batch Prepared Number Method or Analyzed **Prep Type** Type Run **Factor** Amount Amount Analyst Lab Analysis 8015 NM 8793 10/04/21 10:23 AJ XEN MID Total/NA

Client Sample ID: SW-30 Lab Sample ID: 880-6745-16 Date Collected: 10/01/21 10:20

**Matrix: Solid** 

Date Received: 10/01/21 16:04

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8754	10/01/21 17:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8764	10/02/21 17:38	AJ	XEN MID

**Lab Sample ID: 880-6745-17** Client Sample ID: SW-30

Date Collected: 10/01/21 10:25 **Matrix: Solid** Date Received: 10/01/21 16:04

Batch Batch Dil Initial Final Batch Prepared Method **Prep Type** Type **Amount Amount** Number or Analyzed Run **Factor** Analyst Lab Total/NA Analysis 8015 NM 8793 10/04/21 10:23 AJ XEN MID Total/NA Prep 8015NM Prep 10 mL 8754 10/01/21 17:11 AM XEN MID 10.05 g Total/NA Analysis 8015B NM 8764 10/02/21 17:59 AJ XEN MID 1

Client Sample ID: SW-31 Lab Sample ID: 880-6745-18 Date Collected: 10/01/21 10:30 **Matrix: Solid** 

Date Received: 10/01/21 16:04

Batch Batch Dil Initial Final Batch Prepared Method Number **Prep Type** Type Run **Factor Amount** Amount or Analyzed Analyst Lab Total/NA 8015 NM 8793 10/04/21 10:23 AJ XEN MID Analysis Total/NA Prep 8015NM Prep 10.03 g 10 mL 8754 10/01/21 17:11 AM XEN MID Total/NA Analysis 8015B NM 1 8764 10/02/21 18:20 AJ XEN MID

Lab Sample ID: 880-6745-19 Client Sample ID: SW-31

Date Collected: 10/01/21 10:35 **Matrix: Solid** 

Date Received: 10/01/21 16:04

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			8793	10/04/21 10:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8754	10/01/21 17:11	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8764	10/02/21 18:41	AJ	XEN MID

**Laboratory References:** 

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP EMSU

Job ID: 880-6745-1

SDG: Eunice, NM

## **Laboratory: Eurofins Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analyte	e are included in this reno	ort but the laboratory is r	not certified by the governing authority	This list may include analytes for y
,	•	ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for v
the agency does not	offer certification.	•		This list may include analytes for v
,	•	ort, but the laboratory is r  Matrix Solid	not certified by the governing authority.  Analyte Total TPH	This list may include analytes for v

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# **Method Summary**

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

Job ID: 880-6745-1 SDG: Eunice, NM

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

#### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### **Laboratory References:**

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# **Sample Summary**

Client: TRC Solutions, Inc. Project/Site: HEP EMSU

Job ID: 880-6745-1 SDG: Eunice, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-6745-1	SW-17	Solid	10/01/21 08:00	10/01/21 16:04	2.25'
880-6745-2	SW-18	Solid	10/01/21 08:05	10/01/21 16:04	2.25'
880-6745-3	SW-19	Solid	10/01/21 08:10	10/01/21 16:04	2.25'
880-6745-4	SW-20	Solid	10/01/21 08:15	10/01/21 16:04	1.5'
880-6745-5	SW-21	Solid	10/01/21 08:20	10/01/21 16:04	1.5'
880-6745-6	SW-22	Solid	10/01/21 08:25	10/01/21 16:04	2.25'
880-6745-7	SW-23	Solid	10/01/21 08:30	10/01/21 16:04	2.25'
880-6745-8	SW-24	Solid	10/01/21 08:35	10/01/21 16:04	2.25'
880-6745-9	SW-25	Solid	10/01/21 08:40	10/01/21 16:04	2.25'
880-6745-10	SW-26	Solid	10/01/21 08:45	10/01/21 16:04	2.25'
880-6745-11	SW-27	Solid	10/01/21 08:50	10/01/21 16:04	2.25'
880-6745-12	SW-28	Solid	10/01/21 10:00	10/01/21 16:04	2'
880-6745-13	SW-28	Solid	10/01/21 10:05	10/01/21 16:04	5'
880-6745-14	SW-29	Solid	10/01/21 10:10	10/01/21 16:04	2'
880-6745-15	SW-29	Solid	10/01/21 10:15	10/01/21 16:04	5'
880-6745-16	SW-30	Solid	10/01/21 10:20	10/01/21 16:04	2'
880-6745-17	SW-30	Solid	10/01/21 10:25	10/01/21 16:04	5'
880-6745-18	SW-31	Solid	10/01/21 10:30	10/01/21 16:04	2'
880-6745-19	SW-31	Solid	10/01/21 10:35	10/01/21 16:04	5'

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	ions trol	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable to circumstances beyond the control of service. Eurofins Xenco will be liable from the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control	to Eurofins Xenco, its affiliates and rexpenses incurred by the client it	ase order from client company y responsibility for any losses o	samples constitutes a valid purch samples and shall not assume an	cument and relinquishment of s vill be liable only for the cost of	of service. Eurofins Xenco w
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Zn Acetate+NaOH Zn	Zn Aceta		H	C	¥	s. Yes No N/A	Sample Custody Seals.
Na ₂ S ₂ O ₃ NaSO ₃	Na ₂ S ₂ O ₃		Pa	0.0	Correction Factor	Yes No (	Cooler Custody Seals.
NABIS	NaHSO 4 NABIS			148	Thermometer ID	$oldsymbol{\perp}$	Samples Received Intact:
	H ₃ PO ₄ HP		O i	$\vdash$	(Yes No Wet Ice	<del> </del>	SAMPLE RECEIPT
	H ₂ SO ₄ H ₂			if received by 4.30pm			PO #
•	HCL. HC			TAT starts the day received by		Mish Bryant	Sampler's Name
	Cool Cool				<b>VM</b> Due Date	BUNGE N/M	Project Location
IO DI Water H.O	None NO		Pres. Code	ine Mrush 24L	Routine	428993	Project Number
Preservative Codes	Pre	ANALYSIS REQUEST		Turn Around		HEP EMSN	Project Name
Other:		Deliverables	Por St.	Email Russel		452-250-4465	Phone
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			Chain of City				

Revised Date: 08/25/2020 Rev. 2020.2

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State of Project: A ,	Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐	Work Order Comments	www.xenco.com Page of	Loc: 880 6745 Work

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NaOH+Ascorbic Acid SAPC		PH	Corrected Temperature		Total Containers.
Zn Acetate+NaOH Zn		+ •	Temperature Reading	Yes No N/A	Sample Custody Seals
Na ₂ S ₂ O ₃ NaSO ₃			Correction Factor	res No N/A	Cooler Custody Seals
NaHSO 4. NABIS		aram >15	Thermometer ID	Yes No	Samples Received Intact:
		eters	Yes No Wet Ice: Yes No	Temp Blank.	SAMPLE RECEIPT
H ₂ SO ₂ H ₂ NaOH Na		<u> </u>	the lab, if received by 4:30pm	1	PO#
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None NO DI Water H O		Pres.	Routine Rush 29h Pres.	428993	Project Number
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2/4/2022 (Rev. 2)

# **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc. Job Number: 880-6745-1 SDG Number: Eunice, NM

Login Number: 6745 **List Source: Eurofins Midland** 

List Number: 1

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Xenco 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6803-1

Laboratory Sample Delivery Group: 454378

Client Project/Site: HEP: Eunice EMSU Remediation

Revision: 1

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

JURAMER

Authorized for release by: 1/7/2022 4:46:41 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

.....LINKS

Review your project results through

**Have a Question?** 



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.
Project/Site: HEP: Eunice EMSU Remediation

Laboratory Job ID: 880-6803-1 SDG: 454378

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QC Association Summary	10
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Sample Summary	14
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# **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-6803-1

Project/Site: HEP: Eunice EMSU Remediation SDG: 454378

#### **Qualifiers**

#### **GC Semi VOA**

Qualifier **Qualifier Description** *1 LCS/LCSD RPD exceeds control limits.

S1+ Surrogate recovery exceeds control limits, high biased. U Indicates the analyte was analyzed for but not detected.

#### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery **CFL** Contains Free Liquid CFU Colony Forming Unit **CNF** Contains No Free Liquid

Duplicate Error Ratio (normalized absolute difference) **DER** 

Dil Fac **Dilution Factor** 

Detection Limit (DoD/DOE) DL

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

Method Detection Limit MDL Minimum Level (Dioxin) ML MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

**Practical Quantitation Limit PQL** 

**PRES** Presumptive **Quality Control** QC

**RER** Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

**RPD** Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF **TEQ** Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

**Eurofins Xenco** 

#### **Case Narrative**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6803-1

SDG: 454378

Job ID: 880-6803-1

**Laboratory: Eurofins Xenco** 

Narrative

Job Narrative 880-6803-1

#### **REVISION**

The report being provided is a revision of the original report sent on 10/7/2021. The report (revision 1) is being revised due to Per client email, removed sample depths from sample name.

Report revision history

#### Receipt

The samples were received on 10/5/2021 12:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.3°C

#### GC Semi VOA

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-8972 and analytical batch 880-8955 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-8972/1-A). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6803-1

SDG: 454378

**Client Sample ID: CS-54** 

Date Collected: 10/04/21 09:40

Lab Sample ID: 880-6803-1 **Matrix: Solid** 

Date Received: 10/05/21 12:30 Sample Depth: 9

Method: 8015 NM - Diesel Rar	nge Organics (DRO) (GC)				
Analyte	Result Qualifier	RL	Unit	D	Prepared

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4750	250	mg/Kg			10/07/21 09:20	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	588		250	mg/Kg		10/06/21 10:40	10/07/21 02:36	5
Diesel Range Organics (Over C10-C28)	3690	*1	250	mg/Kg		10/06/21 10:40	10/07/21 02:36	5
Oll Range Organics (Over C28-C36)	472		250	mg/Kg		10/06/21 10:40	10/07/21 02:36	5

Surrogate	%Recovery (	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	10/06/21 10:40	10/07/21 02:36	5
o-Terphenyl	104		70 - 130	10/06/21 10:40	10/07/21 02:36	5

Lab Sample ID: 880-6803-2 **Client Sample ID: CS-55** Date Collected: 10/04/21 09:40 Matrix: Solid

Date Received: 10/05/21 12:30

Sample Depth: 9

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	5480		249	mg/Kg			10/07/21 09:20	1

Method: 8015B N	<b>M</b> - Diesel Range	<b>Organics</b>	(DRO) (GC)

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1190	249	mg/Kg		10/06/21 10:40	10/07/21 02:57	5
Diesel Range Organics (Over C10-C28)	3770 *1	249	mg/Kg		10/06/21 10:40	10/07/21 02:57	5
Oll Range Organics (Over C28-C36)	520	249	mg/Kg		10/06/21 10:40	10/07/21 02:57	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	10/06/21 10:40	10/07/21 02:57	5
o-Terphenyl	105		70 - 130	10/06/21 10:40	10/07/21 02:57	5

**Client Sample ID: CS-58** Date Collected: 10/04/21 10:00 Date Received: 10/05/21 12:30

Sample Depth: 9

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ı	Method: 8015 NM - Diesel Range Organics (DRO) (GC)
	wethou. 0013 NW - Dieser Kange Organics (DICO)

mountain containin	Dissert italige organis	· (=::=) (==	- /					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	692		49.9	mg/Kg			10/07/21 09:20	1

N/I - 4     -	OOAED NIKE	<ul> <li>Diesel Range</li> </ul>	O	$\alpha$
MOTHOR	XIII SK NIM	- I IIDEDI RANGO	Circanice (LIN	U 11 / (2/ / 1

		- / ( - /					
Analyte	Result Qu	ualifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	64.8	49.9	mg/Kg		10/06/21 10:40	10/07/21 03:18	1
(GRO)-C6-C10							
Diesel Range Organics (Over	562 *1	49.9	mg/Kg		10/06/21 10:40	10/07/21 03:18	1
C10_C28\							

**Eurofins Xenco** 

**Matrix: Solid** 

Lab Sample ID: 880-6803-3

**Matrix: Solid** 

**Matrix: Solid** 

Lab Sample ID: 880-6803-3

Lab Sample ID: 880-6803-4

# **Client Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-6803-1

Project/Site: HEP: Eunice EMSU Remediation SDG: 454378

**Client Sample ID: CS-58** 

Date Collected: 10/04/21 10:00 Date Received: 10/05/21 12:30

Sample Depth: 9

Method: 8015B NM - Diese	l Range Organi	ics (DRO)	(GC) (Continue	ed)				
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	65.0		49.9	mg/Kg		10/06/21 10:40	10/07/21 03:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			10/06/21 10:40	10/07/21 03:18	1
o-Terphenyl	105		70 - 130			10/06/21 10:40	10/07/21 03:18	1

**Client Sample ID: CS-59** 

Date Collected: 10/04/21 10:05

Date Received: 10/05/21 12:30

Sample Depth: 9

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1980		249	mg/Kg			10/07/21 09:20	1
Method: 8015B NM - Diesel Ra	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	505		249	mg/Kg		10/06/21 10:40	10/07/21 03:39	5
(GRO)-C6-C10								
Diesel Range Organics (Over	1470	*1	249	mg/Kg		10/06/21 10:40	10/07/21 03:39	5
C10-C28)								
Oll Range Organics (Over C28-C36)	<249	U	249	mg/Kg		10/06/21 10:40	10/07/21 03:39	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			10/06/21 10:40	10/07/21 03:39	5
o-Terphenyl	104		70 - 130			10/06/21 10:40	10/07/21 03:39	5

**Eurofins Xenco** 

# **Surrogate Summary**

Client: TRC Solutions, Inc.

Job ID: 880-6803-1

Project/Site: HEP: Eunice EMSU Remediation SDG: 454378

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

			Percent Surroga	ate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-6803-1	CS-54	114	104	
880-6803-2	CS-55	118	105	
880-6803-3	CS-58	99	105	
880-6803-4	CS-59	106	104	
880-6805-A-2-B MS	Matrix Spike	115	113	
880-6805-A-2-C MSD	Matrix Spike Duplicate	117	115	
LCS 880-8972/2-A	Lab Control Sample	105	105	
LCSD 880-8972/3-A	Lab Control Sample Dup	112	110	
MB 880-8972/1-A	Method Blank	120	132 S1+	
Surrogate Legend				

OTPH = o-Terphenyl

Eurofins Xenco

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Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6803-1

SDG: 454378

### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-8972/1-A

Lab Sample ID: LCS 880-8972/2-A

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 8955** 

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 8972

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/06/21 10:40	10/06/21 20:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/06/21 10:40	10/06/21 20:31	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/06/21 10:40	10/06/21 20:31	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	10/06/21 10:40	10/06/21 20:31	1
o-Terphenyl	132	S1+	70 - 130	10/06/21 10:40	10/06/21 20:31	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 8972

**Analysis Batch: 8955** Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit Limits D %Rec 1000 906.4 91 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 999.9 100 mg/Kg 70 - 130C10-C28)

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	105	70 - 130
o-Terphenyl	105	70 - 130

Client Sample ID: Lab Control Sample Dup

126

70 - 130

Prep Type: Total/NA Prep Batch: 8972

9

23

**RPD** 

Limit

20

20

**Analysis Batch: 8955** 

Lab Sample ID: LCSD 880-8972/3-A

Spike LCSD LCSD %Rec. Added Result Qualifier Analyte Unit Limits RPD D %Rec Gasoline Range Organics 1000 994.2 mg/Kg 99 70 - 130

1000

(GRO)-C6-C10 Diesel Range Organics (Over

C10-C28)

**Matrix: Solid** 

LCSD LCSD Curronata

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	112	70 - 130
o-Terphenyl	110	70 - 130

Lab Sample ID: 880-6805-A-2-B MS **Client Sample ID: Matrix Spike Matrix: Solid** Prep Type: Total/NA

1260 *1

mg/Kg

**Analysis Batch: 8955** 

Analysis Batch: 8955									Prep	Batch: 8972
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1027		mg/Kg		101	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U *1	997	999.4		mg/Kg		95	70 - 130	

**Eurofins Xenco** 

# **QC Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-6803-1 Project/Site: HEP: Eunice EMSU Remediation

SDG: 454378

# Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-6805-A-2-B MS

**Matrix: Solid** 

**Analysis Batch: 8955** 

Client Sample ID: Matrix Spike

**Prep Type: Total/NA** 

Prep Batch: 8972

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 880-6805-A-2-C MSD

**Matrix: Solid** 

Analysis balch: 0955	naiysis balcii: 0900 Prep Balcii: 0972										
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1147		mg/Kg		113	70 - 130	11	20
Diesel Range Organics (Over	<50.0	U *1	1000	1033		mg/Kg		98	70 - 130	3	20

C10-C28)

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane			70 - 130
o-Terphenvl	115		70 - 130

**Client Sample ID: Matrix Spike Duplicate** 

Prep Type: Total/NA

D

# **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6803-1

SDG: 454378

#### **GC Semi VOA**

#### **Analysis Batch: 8955**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6803-1	CS-54	Total/NA	Solid	8015B NM	8972
880-6803-2	CS-55	Total/NA	Solid	8015B NM	8972
880-6803-3	CS-58	Total/NA	Solid	8015B NM	8972
880-6803-4	CS-59	Total/NA	Solid	8015B NM	8972
MB 880-8972/1-A	Method Blank	Total/NA	Solid	8015B NM	8972
LCS 880-8972/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8972
LCSD 880-8972/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8972
880-6805-A-2-B MS	Matrix Spike	Total/NA	Solid	8015B NM	8972
880-6805-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8972

#### Prep Batch: 8972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6803-1	CS-54	Total/NA	Solid	8015NM Prep	
880-6803-2	CS-55	Total/NA	Solid	8015NM Prep	
880-6803-3	CS-58	Total/NA	Solid	8015NM Prep	
880-6803-4	CS-59	Total/NA	Solid	8015NM Prep	
MB 880-8972/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8972/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8972/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6805-A-2-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-6805-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 9044**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6803-1	CS-54	Total/NA	Solid	8015 NM	
880-6803-2	CS-55	Total/NA	Solid	8015 NM	
880-6803-3	CS-58	Total/NA	Solid	8015 NM	
880-6803-4	CS-59	Total/NA	Solid	8015 NM	

Job ID: 880-6803-1

SDG: 454378

**Client Sample ID: CS-54** 

Date Collected: 10/04/21 09:40 Date Received: 10/05/21 12:30 Lab Sample ID: 880-6803-1

**Matrix: Solid** 

		Batch	Batch		Dil	Initial	Final	Batch	Prepared		
	Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
	Total/NA	Analysis	8015 NM		1			9044	10/07/21 09:20	AJ	XEN MID
	Total/NA	Prep	8015NM Prep			10.02 g	10 mL	8972	10/06/21 10:40	AM	XEN MID
l	Total/NA	Analysis	8015B NM		5			8955	10/07/21 02:36	AJ	XEN MID

Lab Sample ID: 880-6803-2 **Client Sample ID: CS-55** 

Date Collected: 10/04/21 09:40 **Matrix: Solid** 

Date Received: 10/05/21 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9044	10/07/21 09:20	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		5	10.05 g	10 mL	8972 8955	10/06/21 10:40 10/07/21 02:57		XEN MID XEN MID

**Client Sample ID: CS-58** Lab Sample ID: 880-6803-3 Date Collected: 10/04/21 10:00 **Matrix: Solid** 

Date Received: 10/05/21 12:30

Prep Type Total/NA	Batch Type Analysis	Batch Method 8015 NM	Run	Dil Factor	Initial Amount	Final Amount	Batch Number 9044	Prepared or Analyzed 10/07/21 09:20	Analyst AJ	Lab XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.02 g	10 mL	8972 8955	10/06/21 10:40 10/07/21 03:18		XEN MID XEN MID

**Client Sample ID: CS-59** Lab Sample ID: 880-6803-4 Date Collected: 10/04/21 10:05 **Matrix: Solid** 

Date Received: 10/05/21 12:30

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9044	10/07/21 09:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	8972	10/06/21 10:40	AM	XEN MID
Total/NA	Analysis	8015B NM		5			8955	10/07/21 03:39	AJ	XEN MID

**Laboratory References:** 

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# **Accreditation/Certification Summary**

Client: TRC Solutions, Inc. Job ID: 880-6803-1 Project/Site: HEP: Eunice EMSU Remediation

SDG: 454378

### **Laboratory: Eurofins Xenco**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pro	ogram	Identification Number	Expiration Date
Texas	NE	LAP	T104704400-21-22	06-30-22
				This list as an in about a small star for and
the agency does not		rt, but the laboratory is i	not certified by the governing authority.	This list may include analytes for wh
• ,		rt, but the laboratory is i Matrix	not certified by the governing authority.  Analyte	This list may include analytes for wh

# **Method Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6803-1

SDG: 454378

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

#### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Xenco

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# **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6803-1

SDG: 454378

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-6803-1	CS-54	Solid	10/04/21 09:40	10/05/21 12:30	9
880-6803-2	CS-55	Solid	10/04/21 09:40	10/05/21 12:30	9
880-6803-3	CS-58	Solid	10/04/21 10:00	10/05/21 12:30	9
880-6803-4	CS-59	Solid	10/04/21 10:05	10/05/21 12:30	9

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Relinquished by (Signature)

Received by: (Signature)

service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control Furofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated

2 2 2

Date/Time

Relinquished by (Signature)

Received by: (Signature)

Date/Time

08/25/2020 Rev 2020.2

			Control of the contro	Houston Midland TX								Worl	k Order	Work Order No. 980-18803
	- Xero	100		EL Paso	1	0000	Chain of Custody	or Custoc	Ž				9	
				Hobb	s NM (5:	75) 392-78	Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199	ad NM (5	75) 988-3	199				
											J ]	WW	www.xenco.com	o.com
roject Manager F	RUSSELL SEBRING	6)		Bill to (if different)							 [		Work Ord	Work Order Comments
Company Name   1	TRC			Company Name	l [®]						P 7	ogram: UST/PST [	]PRP[]B	Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund
Address	10 Desta Drive, #130E	I I I		Address.							Sta	State of Project:		
City, State ZIP	Midland TX, 79705			City, State ZIP							I	porting Level II 🔲 I	Level III [	Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
hone /	432 250 4465		Email	rsebring@trccompanies.com	nedwo	es.com					De	)eliverables EDD [	<b>□</b>	ADaPT Other
oject Name	HEP Eunice EMSU Remediation	Remediation	Turn	Turn Around					ANA	ANALYSIS REQUEST	EQUE	ST		Proceryative Codes
roject Number	454378		Routine	✓ Rush	Pres.						_			None NO DI Water: H.O
Project Location	Eunice NM	X	Due Date	3 DAY							-			<del></del>
Sampler's Name	Russell Sebring/Misti Bryant	Aisti Bryant	TAT starts the	TAT starts the day received by										
Ċ.			nie ias ii iece	aved by 4 aupm	ers									H ₂ S0 ₄ , H ₂ NaOH Na
מאויירם אחטתויים	1 emp t	Yes (No	Wet Ice	Yes No	me									H ₃ PO ₄ HP
color Custody Socia			5	1100	ara									NaHSO ₄ NABIS
Sample Custody Seals	Yes No	Nemperature Reading	Reading	2										Na ₂ S ₂ O ₃ NaSO ₃
otal Containers.		Corrected Temperature	emperature	53			-							NaOH+Ascorbic Acid SAPC
Sample Identification	fication Matrix	ix Date Sampled	Time Sampled	Depth Comp	Grab/ # of Comp Cont	TPH Chlorid	Hold							Sample Comments
CS-54@9	S	10/4/2021	940	9 Comp	<u>-</u>	×								
CS-55@9	S 80	10/4/2021	940	9 Comp		×			-					
CS-58@9	)9 S	10/4/2021	1000	9 Comp	1	×								
CS-59@9	<u>8</u> 9	10/4/2021	1005	9 Comp		×								
						-					+			
			11 1	11 1			$\  \vdash$							
Total 200.7 / 6010	0 200.8 / 6020:		8RCRA 13PPM	M Texas 11	Al Sb	As Ba	Ве В	Ca Ca	Cr Co	Cu Fe	Pb Mg	Pb Mg Mn Mo Ni K Se		SiO ₂ Na Sr Tl Sn U V Zn
Dircle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 163	d Metal(s) to be ana	alyzed	TCLP / SPLP 6010	LP 6010 8R	CRA S	àb As E	3a Be C	d Cr C	o Cu F	b Mn N	λο Ni	Se Ag TI U	Hg 16	Hg 1631/2451/7470/7471
otice Signature of this do	lotice. Signature of this document and relinquishment of samples constitutes a valid purchase order from client if service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for a	nt of samples cons	stitutes a valid pu	rchase order from	client co	npany to E	urofins Xe	∩co, its affi	lates and	ubcontrac	tors. It as	signs standard terms	and condition	ons

Page 15 of 16

# **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc.

Job Number

Job Number: 880-6803-1 SDG Number: 454378

Login Number: 6803 List Source: Eurofins Xenco

List Number: 1

Creator: Phillips, Kerianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Xenco 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6804-1

Laboratory Sample Delivery Group: 454378

Client Project/Site: HEP: Eunice EMSU Remediation

Revision: 2

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MEAMER

Authorized for release by: 1/7/2022 4:31:07 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS

Review your project results through

**Have a Question?** 



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.
Project/Site: HEP: Eunice EMSU Remediation

Laboratory Job ID: 880-6804-1 SDG: 454378

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# **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-6804-1

Project/Site: HEP: Eunice EMSU Remediation SDG: 454378

#### Qualifiers

#### **GC Semi VOA**

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.
01	

### Glossary

Ciocoary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

	indicates a bilduori, recarraines, re-extraction, or additional initial initia
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOF)

LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)

MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RLReporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points **RPD** 

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

#### **Case Narrative**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6804-1

SDG: 454378

Job ID: 880-6804-1

**Laboratory: Eurofins Xenco** 

**Narrative** 

Job Narrative 880-6804-1

#### Comments

No additional comments.

#### Revision

The report being provided is a revision of the original report sent on 10/7/2021. The report (revision 1) is being revised due to: Added narrative regarding low surrogate recoveries.

The samples were received on 10/5/2021 12:39 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

#### **Receipt Exceptions**

Added narrative regarding low surrogate recoveries

#### GC Semi VOA

Method 8015B NM: The laboratory control sample (LCS) associated with preparation batch 880-8972 and analytical batch 880-8955 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015B NM: Surrogate recovery for the following sample was outside control limits: (MB 880-8972/1-A). Evidence of matrix interferences is not obvious.

Method 8015B NM: Surrogate recovery for the following sample was outside control limits: CS-60@4.5 (880-6804-1). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **Organic Prep**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: TRC Solutions, Inc.

20 S1-

Job ID: 880-6804-1 Project/Site: HEP: Eunice EMSU Remediation SDG: 454378

**Client Sample ID: CS-60** Lab Sample ID: 880-6804-1

Date Collected: 10/04/21 15:30 **Matrix: Solid** Date Received: 10/05/21 12:39

Sample Depth: 4.5

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
	Analyte	Result	Qualifier	RL	U	nit D	Prepared	Analyzed	Dil Fac
	Total TPH	1440		49.9	m	g/Kg		10/07/21 09:03	1

_ Iotal IPH	1440		49.9	mg/Kg			10/07/21 09:03	1
- Method: 8015B NM - Diesel F	Range Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	317		49.9	mg/Kg		10/06/21 10:40	10/07/21 02:15	1
Diesel Range Organics (Over C10-C28)	1000	*1	49.9	mg/Kg		10/06/21 10:40	10/07/21 02:15	1
Oll Range Organics (Over C28-C36)	124		49.9	mg/Kg		10/06/21 10:40	10/07/21 02:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	26	S1-	70 - 130			10/06/21 10:40	10/07/21 02:15	1

Client Sample ID: CS-61 Lab Sample ID: 880-6804-2

70 - 130

Date Collected: 10/04/21 15:35 Matrix: Solid

Date Received: 10/05/21 12:39

Sample Depth: 4.5

o-Terphenyl

Method: 8015 NM - Dies	sel Range Organics (DRO	O) (GC)					
Analyte	Result Qualific	er RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	690	50.0	mg/Kg			10/07/21 09:03	1
Method: 8015B NM - Die	esel Range Organics (DF	RO) (GC)					
Analyte	Result Qualific	er RL	Unit	D	Prepared	Analyzed	Dil Fac

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/06/21 10:40	10/07/21 00:29	1
(GRO)-C6-C10								
Diesel Range Organics (Over	618	*1	50.0	mg/Kg		10/06/21 10:40	10/07/21 00:29	1
C10-C28)								
Oll Range Organics (Over	72.0		50.0	mg/Kg		10/06/21 10:40	10/07/21 00:29	1
C28-C36)								

Surrogate	%Recovery C	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	10/06/21 10:40	10/07/21 00:29	1
o-Terphenyl	104		70 - 130	10/06/21 10:40	10/07/21 00:29	1

Client Sample ID: CS-62 Date Collected: 10/04/21 15:40 Date Received: 10/05/21 12:39

Sample Depth: 4.5

Method: 8015 NM - Diesel Ran	ge Organics (DRO) (G0	C)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	817	50.0	mg/Kg			10/07/21 09:03	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)								
Analyte	Result Qualifie	er RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	56.5	50.0	mg/Kg		10/06/21 10:40	10/07/21 00:07	1	
Diesel Range Organics (Over C10-C28)	679 *1	50.0	mg/Kg		10/06/21 10:40	10/07/21 00:07	1	

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**Matrix: Solid** 

10/06/21 10:40 10/07/21 02:15

Lab Sample ID: 880-6804-3

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6804-1

SDG: 454378

**Matrix: Solid** 

**Matrix: Solid** 

Client Sample ID: CS-62

Date Collected: 10/04/21 15:40 Date Received: 10/05/21 12:39 Lab Sample ID: 880-6804-3 Matrix: Solid

Lab Sample ID: 880-6804-4

Lab Sample ID: 880-6804-5

Sample Depth: 4.5

Method: 8015B NM - Diesel Ra	nge Organics (DRO) (G	C) (Continued)	
Analyto	Posult Qualifier	DI	- 11

 Analyte
 Result Oil Range Organics (Over
 Result 81.1
 Qualifier Substituting Substituting

C28-C36)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	21	S1-	70 - 130	10/06/21 10:40	10/07/21 00:07	1
o-Terphenyl	21	S1-	70 - 130	10/06/21 10:40	10/07/21 00:07	1

**Client Sample ID: CS-63** 

Date Collected: 10/04/21 15:45

Date Received: 10/05/21 12:39

Sample Depth: 4.5

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	136		49.8	ma/Ka			10/07/21 09:03	

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Method: 60156 NW - Diesel Ka	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/06/21 10:40	10/07/21 00:50	1
Diesel Range Organics (Over C10-C28)	136	*1	49.8	mg/Kg		10/06/21 10:40	10/07/21 00:50	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/06/21 10:40	10/07/21 00:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			10/06/21 10:40	10/07/21 00:50	

	Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzea	DII Fac
	1-Chlorooctane	98	70 - 130	10/06/21 10:40	10/07/21 00:50	1
L	o-Terphenyl	104	70 - 130	10/06/21 10:40	10/07/21 00:50	1

Client Sample ID: CS-64
Date Collected: 10/04/21 15:50

Date Received: 10/05/21 12:39

Sample Depth: 4.5

Method: 8015 NM - Diesel Range (	Organics (DRO) (0	3C)
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Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	145	49.9	ma/Ka			10/07/21 09:20		

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/06/21 10:40	10/07/21 01:11	1
Diesel Range Organics (Over C10-C28)	145	*1	49.9	mg/Kg		10/06/21 10:40	10/07/21 01:11	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/06/21 10:40	10/07/21 01:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	10/06/21 10:40	10/07/21 01:11	1
o-Terphenyl	103		70 - 130	10/06/21 10:40	10/07/21 01:11	1

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# **Client Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-6804-1 SDG: 454378

Project/Site: HEP: Eunice EMSU Remediation Lab Sample ID: 880-6804-6 **Client Sample ID: CS-65** 

Date Collected: 10/04/21 15:55 Matrix: Solid Date Received: 10/05/21 12:39

Sample Depth: 4.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	188		49.8	mg/Kg			10/07/21 09:20	1
Method: 8015B NM - Diesel Ra	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/06/21 10:40	10/07/21 01:32	1
Diesel Range Organics (Over C10-C28)	188	*1	49.8	mg/Kg		10/06/21 10:40	10/07/21 01:32	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/06/21 10:40	10/07/21 01:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130			10/06/21 10:40	10/07/21 01:32	1
o-Terphenyl	102		70 - 130			10/06/21 10:40	10/07/21 01:32	1

# **Surrogate Summary**

Job ID: 880-6804-1 Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Remediation SDG: 454378

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

**Matrix: Solid Prep Type: Total/NA** 

			Percent S	urrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
380-6804-1	CS-60	26 S1-	20 S1-	
880-6804-2	CS-61	100	104	
880-6804-3	CS-62	21 S1-	21 S1-	
380-6804-4	CS-63	98	104	
880-6804-5	CS-64	97	103	
880-6804-6	CS-65	96	102	
880-6805-A-2-B MS	Matrix Spike	115	113	
880-6805-A-2-C MSD	Matrix Spike Duplicate	117	115	
LCS 880-8972/2-A	Lab Control Sample	105	105	
LCSD 880-8972/3-A	Lab Control Sample Dup	112	110	
	Method Blank	120	132 S1+	

OTPH = o-Terphenyl

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6804-1

SDG: 454378

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-8972/1-A

Lab Sample ID: LCS 880-8972/2-A

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 8955** 

**Analysis Batch: 8955** 

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 8972

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/06/21 10:40	10/06/21 20:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/06/21 10:40	10/06/21 20:31	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/06/21 10:40	10/06/21 20:31	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	10/06/21 10:40	10/06/21 20:31	1
o-Terphenyl	132	S1+	70 - 130	10/06/21 10:40	10/06/21 20:31	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 8972

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit Limits %Rec 1000 906.4 91 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 999.9 100 mg/Kg 70 - 130C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	105		70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

**Analysis Batch: 8955** 

**Matrix: Solid** 

Lab Sample ID: LCSD 880-8972/3-A

Prep Batch: 8972 Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier RPD Limit Analyte Unit %Rec Limits Gasoline Range Organics 1000 994.2 mg/Kg 99 70 - 130 9 20 (GRO)-C6-C10 1000 Diesel Range Organics (Over 1260 *1 mg/Kg 126 70 - 130 23 20

C10-C28)

LCSD LCSD

Surrogate	%Recovery Qu	alifier L	imits
1-Chlorooctane	112	7	0 - 130
o-Terphenyl	110	7	0 - 130

Lab Sample ID: 880-6805-A-2-B MS **Client Sample ID: Matrix Spike Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 8955									Prep	Batch: 8972
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1027		mg/Kg		101	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U *1	997	999.4		mg/Kg		95	70 - 130	

# **QC Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-6804-1 Project/Site: HEP: Eunice EMSU Remediation

SDG: 454378

# Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-6805-A-2-B MS

**Matrix: Solid** 

**Analysis Batch: 8955** 

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 8972

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 880-6808	Client Sample ID: Matrix S									
Matrix: Solid									Prep Ty	/pe:
Analysis Batch: 8955									Prep	Bat
-	Sample	Sample	Spike	MSD	MSD				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	R

RPD RPD Limit <50.0 U Gasoline Range Organics 1000 1147 mg/Kg 113 70 - 130 11 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 70 - 130 20 <50.0 U *1 1033 mg/Kg 98 3 C10-C28)

MSD MSD %Recovery Qualifier Limits Surrogate 1-Chlorooctane 117 70 - 130 70 - 130 o-Terphenyl 115

**Duplicate** 

: Total/NA

atch: 8972

# **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6804-1 SDG: 454378

# GC Semi VOA

**Analysis Batch: 8955** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6804-1	CS-60	Total/NA	Solid	8015B NM	8972
880-6804-2	CS-61	Total/NA	Solid	8015B NM	8972
880-6804-3	CS-62	Total/NA	Solid	8015B NM	8972
880-6804-4	CS-63	Total/NA	Solid	8015B NM	8972
880-6804-5	CS-64	Total/NA	Solid	8015B NM	8972
880-6804-6	CS-65	Total/NA	Solid	8015B NM	8972
MB 880-8972/1-A	Method Blank	Total/NA	Solid	8015B NM	8972
LCS 880-8972/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	8972
LCSD 880-8972/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	8972
880-6805-A-2-B MS	Matrix Spike	Total/NA	Solid	8015B NM	8972
880-6805-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	8972

#### Prep Batch: 8972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6804-1	CS-60	Total/NA	Solid	8015NM Prep	
880-6804-2	CS-61	Total/NA	Solid	8015NM Prep	
880-6804-3	CS-62	Total/NA	Solid	8015NM Prep	
880-6804-4	CS-63	Total/NA	Solid	8015NM Prep	
880-6804-5	CS-64	Total/NA	Solid	8015NM Prep	
880-6804-6	CS-65	Total/NA	Solid	8015NM Prep	
MB 880-8972/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-8972/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-8972/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6805-A-2-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-6805-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 9044**

Released to Imaging: 3/24/2022 9:01:44 AM

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6804-1	CS-60	Total/NA	Solid	8015 NM	
880-6804-2	CS-61	Total/NA	Solid	8015 NM	
880-6804-3	CS-62	Total/NA	Solid	8015 NM	
880-6804-4	CS-63	Total/NA	Solid	8015 NM	
880-6804-5	CS-64	Total/NA	Solid	8015 NM	
880-6804-6	CS-65	Total/NA	Solid	8015 NM	

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Lab Sample ID: 880-6804-1

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9044	10/07/21 09:03	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	8972	10/06/21 10:40	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8955	10/07/21 02:15	AJ	XEN MID

Client Sample ID: CS-61 Lab Sample ID: 880-6804-2

Date Collected: 10/04/21 15:35 **Matrix: Solid** Date Received: 10/05/21 12:39

Batch **Batch** Dil Initial **Final Batch** Prepared Factor Number or Analyzed **Prep Type** Type Method Run Amount Amount **Analyst** Lab 9044 10/07/21 09:03 AJ Total/NA Analysis 8015 NM XEN MID Total/NA 8972 10/06/21 10:40 AM XEN MID Prep 8015NM Prep 10.01 g 10 mL Total/NA 10/07/21 00:29 AJ Analysis 8015B NM 1 8955 XEN MID

Client Sample ID: CS-62 Lab Sample ID: 880-6804-3

Date Collected: 10/04/21 15:40 Matrix: Solid

Date Received: 10/05/21 12:39

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Factor Type Method Run **Amount** Amount Number or Analyzed Analyst Lab Total/NA Analysis 8015 NM 9044 10/07/21 09:03 AJ XEN MID Total/NA 10/06/21 10:40 AM Prep 8015NM Prep 10.01 g 10 mL 8972 **XEN MID** Analysis Total/NA 8015B NM 1 8955 10/07/21 00:07 AJ XEN MID

**Client Sample ID: CS-63** Lab Sample ID: 880-6804-4

Date Collected: 10/04/21 15:45 Matrix: Solid Date Received: 10/05/21 12:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9044	10/07/21 09:03	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	8972	10/06/21 10:40	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8955	10/07/21 00:50	AJ	XEN MID

Client Sample ID: CS-64 Lab Sample ID: 880-6804-5

Date Collected: 10/04/21 15:50 Matrix: Solid

Date Received: 10/05/21 12:39

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9044	10/07/21 09:20	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	8972	10/06/21 10:40	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8955	10/07/21 01:11	AJ	XEN MID

Client Sample ID: CS-65 Lab Sample ID: 880-6804-6

Matrix: Solid Date Collected: 10/04/21 15:55 Date Received: 10/05/21 12:39

_	Batch	Batch	_	Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9044	10/07/21 09:20	AJ	XEN MID

#### Lab Chronicle

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6804-1

SDG: 454378

Client Sample ID: CS-65

Lab Sample ID: 880-6804-6

Matrix: Solid

Date Collected: 10/04/21 15:55 Date Received: 10/05/21 12:39

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	8972	10/06/21 10:40	AM	XEN MID
Total/NA	Analysis	8015B NM		1			8955	10/07/21 01:32	AJ	XEN MID

#### **Laboratory References:**

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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# **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.
Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6804-1 SDG: 454378

**Laboratory: Eurofins Xenco** 

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority Texas		rogram IELAP	Identification Number T104704400-21-22	Expiration Date 06-30-22
The following analyte the agency does not o	•	oort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for which
Analysis Method	Prep Method	Matrix	Analyte	
8015 NM		Solid	Total TPH	

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# **Method Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6804-1

SDG: 454378

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

#### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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# **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6804-1

SDG: 454378

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-6804-1	CS-60	Solid	10/04/21 15:30	10/05/21 12:39	4.5
880-6804-2	CS-61	Solid	10/04/21 15:35	10/05/21 12:39	4.5
880-6804-3	CS-62	Solid	10/04/21 15:40	10/05/21 12:39	4.5
880-6804-4	CS-63	Solid	10/04/21 15:45	10/05/21 12:39	4.5
880-6804-5	CS-64	Solid	10/04/21 15:50	10/05/21 12:39	4.5
880-6804-6	CS-65	Solid	10/04/21 15:55	10/05/21 12:39	4.5

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Project Manager

RUSSELL SEBRING

Company Name

TRC

City, State ZIP

10 Desta Drive, #130E Midland TX, 79705 432 250 4465

# Chain of Custody

Houston, TX (281) 240-4200 Dallas TX (214) 902-0300 lidland TX (432) 704-5440 San Antonio TX (210) 509-3334 EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199

Work Order No: _

	10000	10005 (410) (3/3) 382-7330 Callsbad (110) (3/3) 888-3199	,	•
		THE PERSON NAMED IN COLUMN NAM	www.xenco.com ² age 1 of 1	1 of1
Bill to	Bill to. (if different)		Work Order Comments	
Com	Company Name		Program. UST/PST PRP Brownfields RRC Superfund	RC Superfund
Address	ess		State of Project:	]
City,	City, State ZIP		Reporting Level III Level III PST/UST TRRP Level IV	RP ☐ Level IV☐
Email. rsebi	ring@trcco	Email. rsebring@trccompanies.com	Deliverables EDD	her
Turn Around	lnd.	ANALYS		Preservative Codes
Routine 📝 Rush		Pres.	Non	DI Water: H ₂ O
Date 3	3 DAY		Cool Cool	

4 5 Comp 1 1	4.5 Comp 1	4.5 Comp 1		- 11 1	2d Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco. In the project is a submitted to Eurofins Xenco.		Received by (Signature)   Date/I ime   Relinquished by (Signature)   Received by (Signature)
					밁	등 공	CO CU Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na CU Pb Mn Mo Ni Se Ag Ti U Hg 1631/24: sa and subcontractors. It assigns standard terms and conditions client if such losses are due to circumstances beyond the control analyzed. These terms will be enforced unless previously negotiated.	Mg Mn Mo Ni K Se Ni Se Ag TI U  It assigns standard terms and are due to circumstances beyond are due to circumstances previous ms will be enforced unless previous ture)  Received b

Revised Date 08/25/2020 Rev 2020.2

# **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc.

Job Number: 880-6804-1 SDG Number: 454378

**List Source: Eurofins Xenco** 

Login Number: 6804 List Number: 1

Creator: Phillips, Kerianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Released to Imaging: 3/24/2022 9:01:44 AM

# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Xenco 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6806-1

Laboratory Sample Delivery Group: 454378

Client Project/Site: HEP: Eunice EMSU Remediation

Revision: 1

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

JURAMER

Authorized for release by: 1/7/2022 4:33:21 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

.....LINKS

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Results relate only to the items tested and the sample(s) as received by the laboratory.

intended to be the legally binding equivalent of a traditionally handwritten signature.

This report has been electronically signed and authorized by the signatory. Electronic signature is

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Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Remediation

Laboratory Job ID: 880-6806-1 SDG: 454378

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# **Definitions/Glossary**

Client: TRC Solutions, Inc.

Job ID: 880-6806-1

Project/Site: HEP: Eunice EMSU Remediation SDG: 454378

**Qualifiers** 

GC Semi VOA
Qualifier Qualifier Description

*1 LCS/LCSD RPD exceeds control limits.

U Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CFL Contains Free Liquid
CFU Colony Forming Unit
CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

**Eurofins Xenco** 

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#### Case Narrative

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6806-1

SDG: 454378

Job ID: 880-6806-1

**Laboratory: Eurofins Xenco** 

Narrative

Job Narrative 880-6806-1

#### **REVISION**

The report being provided is a revision of the original report sent on 10/14/2021. The report (revision 1) is being revised due to Per client email, removed sample depths from sample name.

Report revision history

#### Receipt

The samples were received on 10/5/2021 12:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.3°C

#### GC Semi VOA

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-9438 and analytical batch 880-9428 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6806-1

SDG: 454378

**Client Sample ID: CS-52** 

Date Collected: 10/04/21 09:00 Date Received: 10/05/21 12:30 Lab Sample ID: 880-6806-1

Matrix: Solid

Sample Depth: 8'

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/13/21 15:17	1

Total TPH	<49.9	U	49.9	mg/Kg			10/13/21 15:17	1
Method: 8015B NM - Diesel Ra	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		10/14/21 09:34	10/14/21 13:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/14/21 09:34	10/14/21 13:58	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/14/21 09:34	10/14/21 13:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130			10/14/21 09:34	10/14/21 13:58	1
o-Terphenyl	105		70 - 130			10/14/21 09:34	10/14/21 13:58	1

**Client Sample ID: CS-53** Lab Sample ID: 880-6806-2 Date Collected: 10/04/21 09:05 **Matrix: Solid** 

Date Received: 10/05/21 12:30

Sample Depth: 8'

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (G	SC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/13/21 15:17	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	49.8	mg/Kg		10/14/21 09:34	10/14/21 15:02	,
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/14/21 09:34	10/14/21 15:02	•
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/14/21 09:34	10/14/21 15:02	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	89		70 - 130			10/14/21 09:34	10/14/21 15:02	
o-Terphenyl	95		70 - 130			10/14/21 09:34	10/14/21 15:02	

**Client Sample ID: CS-56** Lab Sample ID: 880-6806-3 Matrix: Solid

Date Collected: 10/04/21 09:15

Date Received: 10/05/21 12:30

Sample Depth: 8'

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (0	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/13/21 15:17	1

Mothod: 904ED NM Diocel Do	ngo Organ	ios (DBO) (	CC)					
Method: 8015B NM - Diesel Ra Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		10/14/21 09:34	10/14/21 15:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/14/21 09:34	10/14/21 15:23	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/14/21 09:34	10/14/21 15:23	1

**Matrix: Solid** 

# **Client Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-6806-1 Project/Site: HEP: Eunice EMSU Remediation

SDG: 454378 Lab Sample ID: 880-6806-3 **Client Sample ID: CS-56** 

Date Collected: 10/04/21 09:15 Matrix: Solid Date Received: 10/05/21 12:30

Sample Depth: 8'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	10/14/21 09:34	10/14/21 15:23	1
o-Terphenyl	101		70 - 130	10/14/21 09:34	10/14/21 15:23	1

**Client Sample ID: CS-57** Lab Sample ID: 880-6806-4

Date Collected: 10/04/21 09:20 Date Received: 10/05/21 12:30

Sample Depth: 8'

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (G0	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/13/21 15:17	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	49.8	mg/Kg		10/14/21 09:34	10/14/21 15:45	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/14/21 09:34	10/14/21 15:45	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/14/21 09:34	10/14/21 15:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			10/14/21 09:34	10/14/21 15:45	1
o-Terphenyl	101		70 - 130			10/14/21 09:34	10/14/21 15:45	1

# **Surrogate Summary**

Job ID: 880-6806-1 Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Remediation SDG: 454378

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

**Matrix: Solid** Prep Type: Total/NA

			Percent Sur	rogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-6806-1	CS-52	96	105	
880-6806-1 MS	CS-52	93	88	
880-6806-1 MSD	CS-52	93	89	
880-6806-2	CS-53	89	95	
880-6806-3	CS-56	93	101	
880-6806-4	CS-57	93	101	
LCS 880-9438/2-A	Lab Control Sample	97	94	
LCSD 880-9438/3-A	Lab Control Sample Dup	85	83	
MB 880-9438/1-A	Method Blank	85	90	
Surrogate Legend				
1CO = 1-Chlorooctane	)			
OTPH = o-Terphenyl				

OTPH = o-Terphenyl

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6806-1

SDG: 454378

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-9438/1-A

Lab Sample ID: LCS 880-9438/2-A

**Matrix: Solid** 

**Analysis Batch: 9428** 

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 9438

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/14/21 09:34	10/14/21 12:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/14/21 09:34	10/14/21 12:54	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/14/21 09:34	10/14/21 12:54	1
_	MB	MB				_		

Surrogate	%Recovery Qu	ualifier Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	85	70 - 130	10/14/21 09:34	10/14/21 12:54	1
o-Terphenyl	90	70 - 130	10/14/21 09:34	10/14/21 12:54	1

**Client Sample ID: Lab Control Sample** 

Prep Batch: 9438

Prep Batch: 9438

**Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 9428** LCS LCS Spike %Rec.

Added Result Qualifier Unit Limits Analyte D %Rec 1000 980.1 98 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 1069 107 mg/Kg 70 - 130C10-C28)

LCS LCS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 97 70 - 130 70 - 130 o-Terphenyl 94

Lab Sample ID: LCSD 880-9438/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 9428** 

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier RPD Limit Analyte Unit %Rec Limits 774.1 *1 Gasoline Range Organics 1000 mg/Kg 77 70 - 130 23 20 (GRO)-C6-C10 1000 Diesel Range Organics (Over 874.0 mg/Kg 87 70 - 130 20 20

C10-C28)

LCSD LCSD

Surrogate	%Recovery Qualifie	er Limits
1-Chlorooctane	85	70 - 130
o-Terphenyl	83	70 - 130

Lab Sample ID: 880-6806-1 MS Client Sample ID: CS-52 **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 9428

Analysis Batch: 9428									Prep	Batch: 9438
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	997	886.2		mg/Kg		85	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U	997	914.4		mg/Kg		90	70 - 130	

# **QC Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-6806-1 Project/Site: HEP: Eunice EMSU Remediation

SDG: 454378

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-6806-1 MS Client Sample ID: CS-52

**Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 9428** Prep Batch: 9438

MS MS %Recovery Qualifier Surrogate Limits 1-Chlorooctane 93 70 - 130 o-Terphenyl 88 70 - 130

Lab Sample ID: 880-6806-1 MSD Client Sample ID: CS-52

**Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 9428** Prep Batch: 9438

RPD MSD MSD Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit <49.9 U *1 Gasoline Range Organics 1000 932.1 mg/Kg 89 70 - 130 5 20 (GRO)-C6-C10

Diesel Range Organics (Over 1000 935.1 92 <49.9 U mg/Kg 70 - 130 2 C10-C28)

MSD MSD %Recovery Qualifier Limits Surrogate 1-Chlorooctane 93 70 - 130 89 70 - 130 o-Terphenyl

# **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6806-1

SDG: 454378

#### **GC Semi VOA**

#### **Analysis Batch: 9387**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6806-1	CS-52	Total/NA	Solid	8015 NM	
880-6806-2	CS-53	Total/NA	Solid	8015 NM	
880-6806-3	CS-56	Total/NA	Solid	8015 NM	
880-6806-4	CS-57	Total/NA	Solid	8015 NM	

#### **Analysis Batch: 9428**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6806-1	CS-52	Total/NA	Solid	8015B NM	9438
880-6806-2	CS-53	Total/NA	Solid	8015B NM	9438
880-6806-3	CS-56	Total/NA	Solid	8015B NM	9438
880-6806-4	CS-57	Total/NA	Solid	8015B NM	9438
MB 880-9438/1-A	Method Blank	Total/NA	Solid	8015B NM	9438
LCS 880-9438/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9438
LCSD 880-9438/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9438
880-6806-1 MS	CS-52	Total/NA	Solid	8015B NM	9438
880-6806-1 MSD	CS-52	Total/NA	Solid	8015B NM	9438

#### Prep Batch: 9438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6806-1	CS-52	Total/NA	Solid	8015NM Prep	
880-6806-2	CS-53	Total/NA	Solid	8015NM Prep	
880-6806-3	CS-56	Total/NA	Solid	8015NM Prep	
880-6806-4	CS-57	Total/NA	Solid	8015NM Prep	
MB 880-9438/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9438/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9438/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6806-1 MS	CS-52	Total/NA	Solid	8015NM Prep	
880-6806-1 MSD	CS-52	Total/NA	Solid	8015NM Prep	

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Lab Sample ID: 880-6806-1

**Client Sample ID: CS-52** 

Date Collected: 10/04/21 09:00 Date Received: 10/05/21 12:30

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9387	10/13/21 15:17	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	9438	10/14/21 09:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9428	10/14/21 13:58	AJ	XEN MID

Lab Sample ID: 880-6806-2 **Client Sample ID: CS-53** 

Date Collected: 10/04/21 09:05 Date Received: 10/05/21 12:30

**Matrix: Solid** 

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9387	10/13/21 15:17	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	9438	10/14/21 09:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9428	10/14/21 15:02	AJ	XEN MID

**Client Sample ID: CS-56** Lab Sample ID: 880-6806-3

Date Collected: 10/04/21 09:15 **Matrix: Solid** 

Date Received: 10/05/21 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9387	10/13/21 15:17	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.02 g	10 mL	9438 9428	10/14/21 09:34 10/14/21 15:23		XEN MID XEN MID

**Client Sample ID: CS-57** Lab Sample ID: 880-6806-4 **Matrix: Solid** 

Date Collected: 10/04/21 09:20 Date Received: 10/05/21 12:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9387	10/13/21 15:17	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	9438	10/14/21 09:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9428	10/14/21 15:45	A.J	XFN MID

**Laboratory References:** 

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# **Accreditation/Certification Summary**

Client: TRC Solutions, Inc. Job ID: 880-6806-1 Project/Site: HEP: Eunice EMSU Remediation

SDG: 454378

# **Laboratory: Eurofins Xenco**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	LAP	T104704400-21-22	06-30-22
the agency does not	•	ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for v
· ,	•	ort, but the laboratory is r Matrix	not certified by the governing authority.  Analyte	This list may include analytes for v

# **Method Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6806-1

SDG: 454378

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

#### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Xenco

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# **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6806-1

SDG: 454378

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-6806-1	CS-52	Solid	10/04/21 09:00	10/05/21 12:30	8'
880-6806-2	CS-53	Solid	10/04/21 09:05	10/05/21 12:30	8'
880-6806-3	CS-56	Solid	10/04/21 09:15	10/05/21 12:30	8'
880-6806-4	CS-57	Solid	10/04/21 09:20	10/05/21 12:30	8'

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Xenco

TWOTES TOSTE

City, State ZIP

Midland TX, 79705 10 Desta Drive, #130E

City, State ZIP

Reporting Level II Level III PST/UST TRRP Level IV

Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐

Work Order Comments

으

Company Name Project Manager

TRO

RUSSELL SEBRING

Bill to (if different) Company Name

# Chain of Cus

Midland, TX (432) 704-5440 San Antoni EL Paso, TX (915) 585-3443 Lubbock Hobbs NM (575) 392-7550, Carlsbad Nivi (~ ~, ~-

880-6806 Chain of Custody

der No:
98 88
0-6
80 <b>6</b>

Phone.	432 250 4465			Email	Email rsebring@trccompanies.com	trecome	anies,	com						Delive	Deliverables EDD	EDD		Α	ADaPT []	☐ Other	ier:
Project Name.	HEP Eunice EMSU Remediation	ISU Remed	liation	Turn	Turn Around						A	ANALYSIS REQUEST	SREC	UEST						Preser	Preservative Codes
Project Number	45	454378	[4]	✓ Routine	Rush	ဂ္ဂန္	Pres. Code												z	None NO	DI Water: H₂O
Project Location	Euni	Eunice NM	ם	Due Date				-												Cool Cool	MeOH Me
Sampler's Name.	Russell	Russell Sebring	T	AT starts the	TAT starts the day received by	<del>d</del> by													I	HCL HC	HNO: HN
PO#:				he lab if recu	the lab if received by 4 30pm		5					•							I	H,S04 H,	NaOH Na
SAMPLE RECEIPT	Temp Blank:	y	Yes(No)	Wet Ice	(Yes) No		iete												I	H,PO, HP	
Samples Received Intact:	(Yes	No Ther	Thermometer ID		8 dt		ran													NaHSO, NABIS	BIS
Cooler Custody Seals.	Y	(NUA)   Correction Factor	ection Fact	or.	С Т		Pa											······································	z	Na ₂ S ₂ O ₃ NaSO ₃	iSO ₃
Sample Custody Seals		(NUA Tem	Temperature Reading	eading	S T		under Erreite												7	Zn Acetate+NaOH Zn	NaOH Zn
Total Containers.	.,	Com	Corrected Temperature	perature	5.3														z	laOH+Asco	NaOH+Ascorbic Acid SAPC
Sample Identification		Matrix Sar	Date Sampled S	Time Sampled	Depth c	Grab/ # of Comp Cont	C # of TPH	HOLD				.,				····			<del></del> 1	Sampl	Sample Comments
CS-52@8		S 10/	10/4/2021	900	8' C	Comp	1	×													
CS-53@8		S 10/2	10/4/2021	905	8' C		<u>-1</u>	×													
CS-56@8		S 10/2	10/4/2021	915	e C	Comp		×													
CS-57@8		S 10/2	10/4/2021	920	e, C	Comp		×													
						-	-	<b> </b>					T								
								_													
							-	-			-	-	F					<u></u>	<u></u>		
Total 200.7 / 6010	10 200.8 / 6020:	20:	8RC	RA 13PF	8RCRA 13PPM Texas 11 Al Sb As Ba Be B	3 11 AI	Sb A	s Ba	Be B	od Ca	Cd Ca Cr Co	Cu Fe Pb		Mg M	n Mo	Z	Se /	g Sic	) ₂ Na	Sr TI Sr	Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	d Metal(s) to be	analyzed		TCLP / SF	TCLP / SPLP 6010 8RCRA	8RCR/	A Sb	As Ba	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo	d Cr (	Cu	Pb Mr	Mo	Nı Se Ag TI∪	Ag T	<u></u>		Hg 16	31/2	Hg 1631/2451/7470/7471	0 / 7471
Notice. Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	ocument and relinqui will be liable only fo num charge of \$85.0	shment of sam r the cost of sa 0 will be applie	ples constitu mples and si d to each pro	tes a valid pu hall not assun ject and a ch	rchase order ne any respor arge of \$5 for	from clien sibility for each sam	t compa r any los ple subn	ny to Eur ses or ex nitted to	ofins Xenu penses in Eurofins X	co, its aff curred by enco, bu	lliates and the client t not analy	subcont if such le	actors. osses an	It assigns standard terms and conditions edue to circumstances beyond the contro will be enforced unless previously negotit	s standa circumst	rd term ances b	s and co	ondition: he contr	ol siated.		
Relinguished by (Signature)	(Signature)		Received	Received by (Signature)	ture)		اي	Date/Time	ē	Reli	Relinquished by (Signat	id by: (	Signat	ture)		Recei	ved b	y (Sıg	Received by (Signature)	(e	Date/Time

Revised Date 08/25/2020 Rev 2020.2

# **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc.

Job Number: 880-6806-1 SDG Number: 454378

**List Source: Eurofins Xenco** 

Login Number: 6806 List Number: 1

Creator: Phillips, Kerianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Xenco 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6937-1

Laboratory Sample Delivery Group: Eunice NM Client Project/Site: HEP: Eunice EMSU Remediation

Revision: 1

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MRAMER

Authorized for release by: 1/7/2022 4:34:37 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

.....LINKS

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Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Remediation Laboratory Job ID: 880-6937-1 SDG: Eunice NM

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# **Definitions/Glossary**

Client: TRC Solutions, Inc.

Job ID: 880-6937-1

Project/Site: HEP: Eunice EMSU Remediation SDG: Eunice NM

#### **Qualifiers**

#### **GC Semi VOA**

Qualifier

	·
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

**Qualifier Description** 

### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"
MDA Minimum Detectable Activity (Radiochemistry)
MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

#### Case Narrative

Client: TRC Solutions, Inc.

Job ID: 880-6937-1 Project/Site: HEP: Eunice EMSU Remediation SDG: Eunice NM

Job ID: 880-6937-1

**Laboratory: Eurofins Xenco** 

**Narrative** 

Job Narrative 880-6937-1

#### REVISION

The report being provided is a revision of the original report sent on 10/8/2021. The report (revision 1) is being revised due to Per client email, removed sample depths from sample name.

Report revision history

#### Receipt

The samples were received on 10/7/2021 8:09 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.7°C

#### GC Semi VOA

Method 8015MOD NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-9049 and analytical batch 880-9027 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD NM: Surrogate recovery for the following samples were outside control limits: CS-75 (880-6937-1), CS-76 (880-6937-2), CS-77 (880-6937-3), CS-78 (880-6937-4), CS-79 (880-6937-5), CS-80 (880-6937-6), CS-82 (880-6937-8), (MB 880-9049/1-A), (880-6937-A-1-B MS) and (880-6937-A-1-C MSD). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: TRC Solutions, Inc. Job ID: 880-6937-1 Project/Site: HEP: Eunice EMSU Remediation SDG: Eunice NM

**Client Sample ID: CS-75** Lab Sample ID: 880-6937-1 Date Collected: 10/06/21 13:00 **Matrix: Solid** 

Date Received: 10/07/21 08:09

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	53.8		49.9	mg/Kg			10/08/21 18:05	1
Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		10/07/21 09:44	10/07/21 20:49	1
(GRO)-C6-C10								
Diesel Range Organics (Over	53.8	F1	49.9	mg/Kg		10/07/21 09:44	10/07/21 20:49	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/07/21 09:44	10/07/21 20:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	129		70 - 130			10/07/21 09:44	10/07/21 20:49	

**Client Sample ID: CS-76** Lab Sample ID: 880-6937-2 **Matrix: Solid** 

70 - 130

160 S1+

Date Collected: 10/06/21 13:05 Date Received: 10/07/21 08:09

o-Terphenyl

Method: 8015 NM - Diesel Rang	ge Organics (DRO) (GC	3)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	326	49.8	mg/Kg			10/08/21 18:05	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/07/21 09:44	10/07/21 21:55	1
Diesel Range Organics (Over C10-C28)	326		49.8	mg/Kg		10/07/21 09:44	10/07/21 21:55	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/07/21 09:44	10/07/21 21:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			10/07/21 09:44	10/07/21 21:55	1
o-Terphenyl	132	S1+	70 - 130			10/07/21 09:44	10/07/21 21:55	1

**Client Sample ID: CS-77** Lab Sample ID: 880-6937-3 **Matrix: Solid** 

Date Collected: 10/06/21 13:10 Date Received: 10/07/21 08:09

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4530		250	mg/Kg			10/08/21 18:05	1
Method: 8015B NM - Diesel I	Range Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	764		250	mg/Kg		10/07/21 09:44	10/07/21 22:17	5
Diesel Range Organics (Over C10-C28)	3350		250	mg/Kg		10/07/21 09:44	10/07/21 22:17	5
Oll Range Organics (Over C28-C36)	417		250	mg/Kg		10/07/21 09:44	10/07/21 22:17	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130			10/07/21 09:44	10/07/21 22:17	5
o-Terphenyl	135	S1+	70 - 130			10/07/21 09:44	10/07/21 22:17	5

**Eurofins Xenco** 

10/07/21 09:44 10/07/21 20:49

Client: TRC Solutions, Inc. Job ID: 880-6937-1 Project/Site: HEP: Eunice EMSU Remediation SDG: Eunice NM

**Client Sample ID: CS-78** Lab Sample ID: 880-6937-4 Date Collected: 10/06/21 13:15 **Matrix: Solid** 

Date Received: 10/07/21 08:09

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2780	249	mg/Kg			10/08/21 18:05	1
Method: 8015B NM - Diesel Ra	ange Organics (DRO) (G	iC)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	Result Qualifier 289	<b>RL</b> 249	Unit mg/Kg		Prepared 10/07/21 09:44		Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)							

%Recovery Qualifier Limits Prepared Surrogate Analyzed Dil Fac 1-Chlorooctane 70 - 130 10/07/21 09:44 10/07/21 22:39 o-Terphenyl 143 S1+ 70 - 130 10/07/21 09:44 10/07/21 22:39 5

Client Sample ID: CS-79 Lab Sample ID: 880-6937-5 **Matrix: Solid** 

Date Collected: 10/06/21 13:20 Date Received: 10/07/21 08:09

C28-C36)

Method: 8015 NM - Diesel Rang	ge Organics	s (DRO) (GO	<b>C</b> )					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1260		49.9	mg/Kg			10/08/21 18:05	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/07/21 09:44	10/07/21 23:01	1
Diesel Range Organics (Over C10-C28)	1140		49.9	mg/Kg		10/07/21 09:44	10/07/21 23:01	1
Oll Range Organics (Over C28-C36)	123		49.9	mg/Kg		10/07/21 09:44	10/07/21 23:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130			10/07/21 09:44	10/07/21 23:01	1
o-Terphenvl	147	S1+	70 - 130			10/07/21 09:44	10/07/21 23:01	1

Lab Sample ID: 880-6937-6 **Client Sample ID: CS-80** Date Collected: 10/06/21 13:25

Date Received: 10/07/21 08:09

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	210		50.0	mg/Kg			10/08/21 18:05	1
Method: 8015B NM - Diesel Ra	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/07/21 09:44	10/07/21 23:23	1
Diesel Range Organics (Over C10-C28)	210		50.0	mg/Kg		10/07/21 09:44	10/07/21 23:23	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/07/21 09:44	10/07/21 23:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130			10/07/21 09:44	10/07/21 23:23	

**Eurofins Xenco** 

**Matrix: Solid** 

Job ID: 880-6937-1 SDG: Eunice NM

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Lab Sample ID: 880-6937-6

**Matrix: Solid** 

**Client Sample ID: CS-80** Date Collected: 10/06/21 13:25 Date Received: 10/07/21 08:09

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	133	S1+	70 - 130	10/07/21 09:44	10/07/21 23:23	1

**Client Sample ID: CS-81** Lab Sample ID: 880-6937-7

Date Collected: 10/06/21 13:30 **Matrix: Solid** 

Date Received: 10/07/21 08:09

Method: 8015 NM - Diesel Range Organics (DRO) (GC)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	575		50.0	mg/Kg			10/08/21 18:05	1

Method: 8015B NM - Diesel	Range Organics (DRO) (	(GC)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0 U	50.0	mg/Kg		10/07/21 09:44	10/07/21 23:45	1
Diesel Range Organics (Over C10-C28)	511	50.0	mg/Kg		10/07/21 09:44	10/07/21 23:45	1
Oll Range Organics (Over C28-C36)	64.3	50.0	mg/Kg		10/07/21 09:44	10/07/21 23:45	1
Surrogato	%Pocovory Qualifier	l imite			Propared	Analyzod	Dil Eac

Surrogate	701 GCOVETY	Qualifier	Liiiits	riepaieu	Allalyzeu	Diriac
1-Chlorooctane	99		70 - 130	10/07/21 09:44	10/07/21 23:45	1
o-Terphenyl	120		70 - 130	10/07/21 09:44	10/07/21 23:45	1

**Client Sample ID: CS-82** Lab Sample ID: 880-6937-8 **Matrix: Solid** 

Date Collected: 10/06/21 13:35 Date Received: 10/07/21 08:09

Method: 8015 NM - Diesel Ran	ge Organics (DRO) (GC	;)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	55.5	49.8	mg/Kg			10/08/21 18:05	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/07/21 09:44	10/08/21 00:07	1
Diesel Range Organics (Over C10-C28)	55.5		49.8	mg/Kg		10/07/21 09:44	10/08/21 00:07	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/07/21 09:44	10/08/21 00:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	131	S1+	70 - 130			10/07/21 09:44	10/08/21 00:07	1
o-Terphenyl	160	S1+	70 - 130			10/07/21 09:44	10/08/21 00:07	1

# **Surrogate Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6937-1

SDG: Eunice NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limit	s)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-6937-1	CS-75	129	160 S1+	
880-6937-1 MS	CS-75	128	139 S1+	
880-6937-1 MSD	CS-75	126	136 S1+	
880-6937-2	CS-76	107	132 S1+	
880-6937-3	CS-77	119	135 S1+	
880-6937-4	CS-78	122	143 S1+	
880-6937-5	CS-79	126	147 S1+	
880-6937-6	CS-80	112	133 S1+	
880-6937-7	CS-81	99	120	
880-6937-8	CS-82	131 S1+	160 S1+	
LCS 880-9049/2-A	Lab Control Sample	109	126	
LCSD 880-9049/3-A	Lab Control Sample Dup	102	115	
MB 880-9049/1-A	Method Blank	125	162 S1+	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Xenco

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Client: TRC Solutions, Inc. Job ID: 880-6937-1 Project/Site: HEP: Eunice EMSU Remediation

SDG: Eunice NM

# Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-9049/1-A

Lab Sample ID: LCS 880-9049/2-A

**Matrix: Solid** 

**Analysis Batch: 9027** 

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 9049

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	Ū	50.0	mg/Kg		10/07/21 09:44	10/07/21 19:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/07/21 09:44	10/07/21 19:43	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/07/21 09:44	10/07/21 19:43	1
	MB	MB						

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130	10/07/21 09:44	10/07/21 19:43	1
o-Terphenyl	162	S1+	70 - 130	10/07/21 09:44	10/07/21 19:43	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

**Matrix: Solid Analysis Batch: 9027** Prep Batch: 9049 LCS LCS Spike %Rec.

Analyte Added Result Qualifier Unit D %Rec Limits 1000 931.1 93 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 mg/Kg 70 - 130 Diesel Range Organics (Over 1000 1197 120 C10-C28)

LCS LCS

ICSD ICSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	126		70 - 130

Lab Sample ID: LCSD 880-9049/3-A Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** 

**Analysis Batch: 9027** 

Prep Type: Total/NA Prep Batch: 9049

	<b>Spike</b>	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	850.3		mg/Kg		85	70 - 130	9	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1106		mg/Kg		111	70 - 130	8	20
C10-C28)									

	LCSD LCSD	
Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	102	70 - 130
o-Terphenyl	115	70 - 130

Lab Sample ID: 880-6937-1 MS **Client Sample ID: CS-75 Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 9027									Prep	Batch: 9049
_	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1190		mg/Kg		117	70 - 130	
Diesel Range Organics (Over C10-C28)	53.8	F1	997	1382	F1	mg/Kg		133	70 - 130	

# **QC Sample Results**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6937-1

SDG: Eunice NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

MS MS

Lab Sample ID: 880-6937-1 MS Client Sample ID: CS-75

Matrix: Solid

**Analysis Batch: 9027** 

Client Sample ID: CS-75 Prep Type: Total/NA Prep Batch: 9049

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 128
 70 - 130

 o-Terphenyl
 139
 \$1+
 70 - 130

Lab Sample ID: 880-6937-1 MSD Client Sample ID: CS-75

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 9027 Prep Batch: 9049

Analysis Batch: 9027

Sample Sample Spike MSD MSD Service Result Qualifier Added Result Qualifier Unit D Rec Limits RPD Limit

<49.9 U Gasoline Range Organics 1000 1041 mg/Kg 102 70 - 130 13 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 20 53.8 F1 1360 F1 mg/Kg 131 70 - 130 2 C10-C28)

 Surrogate
 %Recovery 126
 Qualifier 70 - 130
 Limits 70 - 130

 1-Chlorooctane
 126
 70 - 130

 o-Terphenyl
 136
 S1+
 70 - 130

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# **QC Association Summary**

Job ID: 880-6937-1 Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Remediation

SDG: Eunice NM

#### **GC Semi VOA**

#### **Analysis Batch: 9027**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6937-1	CS-75	Total/NA	Solid	8015B NM	9049
880-6937-2	CS-76	Total/NA	Solid	8015B NM	9049
880-6937-3	CS-77	Total/NA	Solid	8015B NM	9049
880-6937-4	CS-78	Total/NA	Solid	8015B NM	9049
880-6937-5	CS-79	Total/NA	Solid	8015B NM	9049
880-6937-6	CS-80	Total/NA	Solid	8015B NM	9049
880-6937-7	CS-81	Total/NA	Solid	8015B NM	9049
880-6937-8	CS-82	Total/NA	Solid	8015B NM	9049
MB 880-9049/1-A	Method Blank	Total/NA	Solid	8015B NM	9049
LCS 880-9049/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9049
LCSD 880-9049/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9049
880-6937-1 MS	CS-75	Total/NA	Solid	8015B NM	9049
880-6937-1 MSD	CS-75	Total/NA	Solid	8015B NM	9049

#### Prep Batch: 9049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6937-1	CS-75	Total/NA	Solid	8015NM Prep	
880-6937-2	CS-76	Total/NA	Solid	8015NM Prep	
880-6937-3	CS-77	Total/NA	Solid	8015NM Prep	
880-6937-4	CS-78	Total/NA	Solid	8015NM Prep	
880-6937-5	CS-79	Total/NA	Solid	8015NM Prep	
880-6937-6	CS-80	Total/NA	Solid	8015NM Prep	
880-6937-7	CS-81	Total/NA	Solid	8015NM Prep	
880-6937-8	CS-82	Total/NA	Solid	8015NM Prep	
MB 880-9049/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9049/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9049/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6937-1 MS	CS-75	Total/NA	Solid	8015NM Prep	
880-6937-1 MSD	CS-75	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 9142**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6937-1	CS-75	Total/NA	Solid	8015 NM	
880-6937-2	CS-76	Total/NA	Solid	8015 NM	
880-6937-3	CS-77	Total/NA	Solid	8015 NM	
880-6937-4	CS-78	Total/NA	Solid	8015 NM	
880-6937-5	CS-79	Total/NA	Solid	8015 NM	
880-6937-6	CS-80	Total/NA	Solid	8015 NM	
880-6937-7	CS-81	Total/NA	Solid	8015 NM	
880-6937-8	CS-82	Total/NA	Solid	8015 NM	

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Lab Sample ID: 880-6937-1

**Client Sample ID: CS-75** Date Collected: 10/06/21 13:00

**Matrix: Solid** 

Date Received: 10/07/21 08:09

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	9049	10/07/21 09:44	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9027	10/07/21 20:49	AJ	XEN MID

**Client Sample ID: CS-76** Lab Sample ID: 880-6937-2

Date Collected: 10/06/21 13:05 **Matrix: Solid** Date Received: 10/07/21 08:09

Batch **Batch** Dil Initial Final Batch Prepared Method Number Analyst **Prep Type** Type Run **Factor** Amount Amount or Analyzed Lab 8015 NM 9142 10/08/21 18:05 AJ XEN MID Total/NA Analysis Total/NA 8015NM Prep 10.05 g 10 mL 9049 10/07/21 09:44 DM XEN MID Prep Total/NA Analysis 9027 10/07/21 21:55 AJ XEN MID 8015B NM 1

**Client Sample ID: CS-77** Lab Sample ID: 880-6937-3

Date Collected: 10/06/21 13:10 Matrix: Solid

Date Received: 10/07/21 08:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	9049	10/07/21 09:44	DM	XEN MID
Total/NA	Analysis	8015B NM		5			9027	10/07/21 22:17	AJ	XEN MID

Lab Sample ID: 880-6937-4 **Client Sample ID: CS-78** 

Date Collected: 10/06/21 13:15 **Matrix: Solid** Date Received: 10/07/21 08:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	9049	10/07/21 09:44	DM	XEN MID
Total/NA	Analysis	8015B NM		5			9027	10/07/21 22:39	AJ	XEN MID

**Client Sample ID: CS-79** Lab Sample ID: 880-6937-5

Date Collected: 10/06/21 13:20 Matrix: Solid

Date Received: 10/07/21 08:09

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	9049	10/07/21 09:44	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9027	10/07/21 23:01	AJ	XEN MID

Client Sample ID: CS-80 Lab Sample ID: 880-6937-6

Date Collected: 10/06/21 13:25 **Matrix: Solid** Date Received: 10/07/21 08:09

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID

Date Received: 10/07/21 08:09

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6937-1 SDG: Eunice NM

**Client Sample ID: CS-80** Lab Sample ID: 880-6937-6 Date Collected: 10/06/21 13:25

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	9049	10/07/21 09:44	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9027	10/07/21 23:23	AJ	XEN MID

**Client Sample ID: CS-81** Lab Sample ID: 880-6937-7

Matrix: Solid

Date Collected: 10/06/21 13:30 Date Received: 10/07/21 08:09

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	9049	10/07/21 09:44	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9027	10/07/21 23:45	AJ	XEN MID

Client Sample ID: CS-82 Lab Sample ID: 880-6937-8 Date Collected: 10/06/21 13:35 Matrix: Solid

Date Received: 10/07/21 08:09

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Method Amount Number Type Run **Factor Amount** or Analyzed Analyst Lab Total/NA 8015 NM 9142 10/08/21 18:05 AJ XEN MID Analysis Prep Total/NA 8015NM Prep 10.05 g 10 mL 9049 10/07/21 09:44 DM XEN MID Total/NA Analysis 8015B NM 1 9027 10/08/21 00:07 AJ XEN MID

**Laboratory References:** 

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6937-1

SDG: Eunice NM

### **Laboratory: Eurofins Xenco**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pro	ogram	Identification Number	Expiration Date	
Texas	NE	LAP	T104704400-21-22	06-30-22	
The following analyte	s are included in this reno	rt but the laboratory is r	not certified by the governing authority	This list may include analytes for w	
The following analyte the agency does not	•	rt, but the laboratory is r	not certified by the governing authority.	This list may include analytes for w	
0 ,	•	rt, but the laboratory is r Matrix	not certified by the governing authority.  Analyte	This list may include analytes for w	

Eurofins Xenco

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# **Method Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6937-1

SDG: Eunice NM

Eunice	NM	

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

#### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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# **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6937-1

SDG: Eunice NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-6937-1	CS-75	Solid	10/06/21 13:00	10/07/21 08:09
880-6937-2	CS-76	Solid	10/06/21 13:05	10/07/21 08:09
880-6937-3	CS-77	Solid	10/06/21 13:10	10/07/21 08:09
880-6937-4	CS-78	Solid	10/06/21 13:15	10/07/21 08:09
880-6937-5	CS-79	Solid	10/06/21 13:20	10/07/21 08:09
880-6937-6	CS-80	Solid	10/06/21 13:25	10/07/21 08:09
880-6937-7	CS-81	Solid	10/06/21 13:30	10/07/21 08:09
880-6937-8	CS-82	Solid	10/06/21 13:35	10/07/21 08:09

eurofins

City, State ZIP

Midland TX, 79705 10 Desta Drive, #130E Company Name. Project Manager

TRC C

RUSSELL SEBRING

Bill to (if different)

Company Name

State of Project:

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐ **Work Order Comments** 

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Xenco Environment Testing

# Chain of Cus

Houston TX (281) 240-4200 Dallas Midland TX (432) 704-5440 San Antonic EL Paso, TX (915) 585-3443 Lubbock, Hobbs, NM (575) 392-7550 Carlsbad, N

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	6937	•

Relinquished by: (Signature) Received by: (Signature)
of service. Eurofins Xenco will be liable only for the cost of samples consumers a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco, will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco, A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.
Cu Pb Mn Mo Ni Se Ag Ti U Hg 1631/2451/7470
Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2
REQUEST
Deliverables EDD
Reporting Level II  Level III PST/JST TRRP Level IV

# **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc.

Job Number: 880-6937-1

SDG Number: Eunice NM

Login Number: 6937 List Source: Eurofins Xenco

List Number: 1

Creator: Phillips, Kerianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is	N/A	

Released to Imaging: 3/24/2022 9:01:44 AM

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<6mm (1/4").

# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Xenco 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6938-1

Laboratory Sample Delivery Group: Eunice NM Client Project/Site: HEP: Eunice EMSU Remediation

Revision: 1

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MEAMER

Authorized for release by: 1/7/2022 4:28:13 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

.....LINKS

Review your project results through

**Have a Question?** 



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Remediation Laboratory Job ID: 880-6938-1 SDG: Eunice NM

# **Table of Contents**

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# **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-6938-1

Project/Site: HEP: Eunice EMSU Remediation SDG: Eunice NM

#### **Qualifiers**

#### **GC Semi VOA**

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	

DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)

EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)

MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)

MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL **Practical Quantitation Limit** 

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RLReporting Limit or Requested Limit (Radiochemistry)

**RPD** Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

#### Case Narrative

Client: TRC Solutions, Inc.

Job ID: 880-6938-1 Project/Site: HEP: Eunice EMSU Remediation SDG: Eunice NM

Job ID: 880-6938-1

**Laboratory: Eurofins Xenco** 

**Narrative** 

Job Narrative 880-6938-1

#### REVISION

The report being provided is a revision of the original report sent on 10/8/2021. The report (revision 1) is being revised due to Per client email, removed sample depths from sample name.

Report revision history

#### Receipt

The samples were received on 10/7/2021 8:09 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.7°C

#### GC Semi VOA

Method 8015MOD NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-9049 and analytical batch 880-9027 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD NM: Surrogate recovery for the following samples were outside control limits: CS-66 (880-6938-1), CS-67 (880-6938-2), CS-68 (880-6938-3), CS-70 (880-6938-5), CS-71 (880-6938-6), CS-73 (880-6938-8), CS-74 (880-6938-9), (MB 880-9049/1-A), (880-6937-A-1-A), (880-6937-A-1-B MS) and (880-6937-A-1-C MSD). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: TRC Solutions, Inc. Job ID: 880-6938-1 Project/Site: HEP: Eunice EMSU Remediation SDG: Eunice NM

Client Sample ID: CS-66

Date Collected: 10/06/21 10:00 Date Received: 10/07/21 08:09

Sample Depth: 4.5

Lab Sample ID: 880-6938-1

Matrix: Solid

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 10/08/21 18:05 **Total TPH** 49.9 58.9 mg/Kg

Method: 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac <49.9 U 49.9 10/07/21 09:44 10/08/21 00:29 Gasoline Range Organics mg/Kg (GRO)-C6-C10 **Diesel Range Organics (Over** 58.9 49.9 mg/Kg 10/07/21 09:44 10/08/21 00:29 C10-C28) Oll Range Organics (Over C28-C36) <49.9 U 49.9 mg/Kg 10/07/21 09:44 10/08/21 00:29 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 10/07/21 09:44 10/08/21 00:29 1-Chlorooctane 128 70 - 130 70 - 130 10/07/21 09:44 10/08/21 00:29 o-Terphenyl 155 S1+

Client Sample ID: CS-67 Lab Sample ID: 880-6938-2 Matrix: Solid

Date Collected: 10/06/21 10:05 Date Received: 10/07/21 08:09

Sample Depth: 4.5

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac **Total TPH** 54.3 49.8 mg/Kg 10/08/21 18:05

Method: 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Gasoline Range Organics <49.8 U 49.8 mg/Kg 10/07/21 09:44 10/08/21 00:51 (GRO)-C6-C10 **Diesel Range Organics (Over** 10/07/21 09:44 10/08/21 00:51 54.3 49.8 mg/Kg C10-C28) Oll Range Organics (Over C28-C36) <49.8 U 49.8 mg/Kg 10/07/21 09:44 10/08/21 00:51 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 10/07/21 09:44 10/08/21 00:51 118 70 - 130 10/07/21 09:44 10/08/21 00:51 o-Terphenyl 139 S1+ 70 - 130

Client Sample ID: CS-68 Lab Sample ID: 880-6938-3

Date Collected: 10/06/21 10:10 Date Received: 10/07/21 08:09

Sample Depth: 4.5

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	112		49.9	mg/Kg			10/08/21 18:05	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/07/21 09:44	10/08/21 01:34	1
Diesel Range Organics (Over C10-C28)	112		49.9	mg/Kg		10/07/21 09:44	10/08/21 01:34	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/07/21 09:44	10/08/21 01:34	1

**Eurofins Xenco** 

Matrix: Solid

Job ID: 880-6938-1

Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Remediation SDG: Eunice NM

**Client Sample ID: CS-68** Lab Sample ID: 880-6938-3

Date Collected: 10/06/21 10:10 **Matrix: Solid** Date Received: 10/07/21 08:09

Sample Depth: 4.5

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1-Chlorooctane	112		70 - 130	10/07/21 09:44	10/08/21 01:34	1
Į	o-Terphenyl	132	S1+	70 - 130	10/07/21 09:44	10/08/21 01:34	1

Lab Sample ID: 880-6938-4 Client Sample ID: CS-69 **Matrix: Solid** 

Date Collected: 10/06/21 10:15 Date Received: 10/07/21 08:09

Sample Depth: 4.5

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Total TPH	<50.0	U	50.0	mg/Kg			10/08/21 18:05	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/07/21 09:44	10/08/21 01:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/07/21 09:44	10/08/21 01:56	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/07/21 09:44	10/08/21 01:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			10/07/21 09:44	10/08/21 01:56	1
o-Terphenyl	126		70 - 130			10/07/21 09:44	10/08/21 01:56	1

**Client Sample ID: CS-70** Lab Sample ID: 880-6938-5

Date Collected: 10/06/21 10:20 Date Received: 10/07/21 08:09

Sample Depth: 4.5

Method: 8015 NM - Diesel R	ange Organic	s (DRO) (GO	<b>(</b> )					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/08/21 18:05	1
Method: 8015B NM - Diesel	Range Organi	ics (DRO) (G	SC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Pange Organics	10.0</td <td>П</td> <td>40 Q</td> <td>ma/Ka</td> <td></td> <td>10/07/21 00:44</td> <td>10/08/21 02:18</td> <td></td>	П	40 Q	ma/Ka		10/07/21 00:44	10/08/21 02:18	

Diesel Range Organics (Over C10-C28)	<49.9 U	49.9	mg/Kg	10/07/21 09:44 10/08/21 02:18	1
Oll Range Organics (Over C28-C36)	<49.9 U	49.9	mg/Kg	10/07/21 09:44 10/08/21 02:18	1

Surrogate	%Recovery Quality	ier Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107	70 - 130	10/07/21 09:44	10/08/21 02:18	1
o-Terphenyl	132 S1+	70 - 130	10/07/21 09:44	10/08/21 02:18	1

**Matrix: Solid** 

Job ID: 880-6938-1 SDG: Eunice NM

Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Remediation

**Client Sample ID: CS-71** Lab Sample ID: 880-6938-6

Date Collected: 10/06/21 10:25 **Matrix: Solid** Date Received: 10/07/21 08:09

Sample Depth: 4.5

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Total TPH	230		49.8	mg/Kg			10/08/21 18:05	1

Method: 8015B NM - Diesel R	ethod: 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/07/21 09:44	10/08/21 02:40	1		
Diesel Range Organics (Over C10-C28)	230		49.8	mg/Kg		10/07/21 09:44	10/08/21 02:40	1		
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/07/21 09:44	10/08/21 02:40	1		
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac		
1-Chlorooctane	120		70 - 130			10/07/21 09:44	10/08/21 02:40	1		
o-Terphenyl	137	S1+	70 - 130			10/07/21 09:44	10/08/21 02:40	1		

**Client Sample ID: CS-72** Lab Sample ID: 880-6938-7 Date Collected: 10/06/21 10:30 **Matrix: Solid** 

Date Received: 10/07/21 08:09

Sample Depth: 4.5

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	503		50.0	mg/Kg			10/08/21 18:05	1	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/07/21 09:44	10/08/21 03:02	1
Diesel Range Organics (Over C10-C28)	451		50.0	mg/Kg		10/07/21 09:44	10/08/21 03:02	1
Oll Range Organics (Over C28-C36)	51.5		50.0	mg/Kg		10/07/21 09:44	10/08/21 03:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130			10/07/21 09:44	10/08/21 03:02	1
o-Terphenyl	102		70 - 130			10/07/21 09:44	10/08/21 03:02	1

**Client Sample ID: CS-73** Lab Sample ID: 880-6938-8 Matrix: Solid

Date Collected: 10/06/21 10:35 Date Received: 10/07/21 08:09

Sample Depth: 4.5

Sethod: 8015B NM - Diesel Range Organics (DRO) (GC) salyte         Result Soline Range Organics         Qualifier         RL Soline Range Organics         Unit Major Maj									
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Total TPH	57.1	49.9	mg/Kg			10/08/21 18:05	1		
- Method: 8015B NM - Diesel Rar	ge Organics (DRO	) (GC)							
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Gasoline Range Organics (GRO)-C6-C10	<49.9 U	49.9	mg/Kg		10/07/21 09:44	10/08/21 03:24	1		
Diesel Range Organics (Over C10-C28)	57.1	49.9	mg/Kg		10/07/21 09:44	10/08/21 03:24	1		
Oll Range Organics (Over C28-C36)	<49.9 U	49.9	mg/Kg		10/07/21 09:44	10/08/21 03:24	1		

Date Received: 10/07/21 08:09

# **Client Sample Results**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6938-1

SDG: Eunice NM

Client Sample ID: CS-73 Lab State Collected: 10/06/21 10:35

Lab Sample ID: 880-6938-8

Matrix: Solid

Sample Depth: 4.5

Si	urrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-	Chlorooctane	127		70 - 130	10/07/21 09:44	10/08/21 03:24	1
0-	Terphenyl	157	S1+	70 - 130	10/07/21 09:44	10/08/21 03:24	1

Client Sample ID: CS-74 Lab Sample ID: 880-6938-9

Date Collected: 10/06/21 10:40 Date Received: 10/07/21 08:09

Sample Depth: 4.5

Method: 8015 NM - Diesel Range Organics (DRO) (GC)								
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	142	49.8	mg/Kg			10/08/21 18:05	1	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/07/21 09:44	10/08/21 03:46	1
Diesel Range Organics (Over C10-C28)	142		49.8	mg/Kg		10/07/21 09:44	10/08/21 03:46	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/07/21 09:44	10/08/21 03:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130			10/07/21 09:44	10/08/21 03:46	1
o-Terphenyl	135	S1+	70 - 130			10/07/21 09:44	10/08/21 03:46	1

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**Matrix: Solid** 

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OTPH = o-Terphenyl

# **Surrogate Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6938-1

SDG: Eunice NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

			Percent Surrogate Recovery (Accep	tance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	70-130)	
880-6937-A-1-B MS	Matrix Spike	128	39 S1+	
380-6937-A-1-C MSD	Matrix Spike Duplicate	126	36 S1+	
880-6938-1	CS-66	128	55 S1+	
880-6938-2	CS-67	118	39 S1+	
880-6938-3	CS-68	112	32 S1+	
880-6938-4	CS-69	104	126	
880-6938-5	CS-70	107	32 S1+	
880-6938-6	CS-71	120	37 S1+	
880-6938-7	CS-72	86	102	
880-6938-8	CS-73	127	57 S1+	
880-6938-9	CS-74	108	35 S1+	
LCS 880-9049/2-A	Lab Control Sample	109	126	
LCSD 880-9049/3-A	Lab Control Sample Dup	102	115	
	Method Blank	125	62 S1+	

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Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6938-1

SDG: Eunice NM

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-9049/1-A

Lab Sample ID: LCS 880-9049/2-A

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 9027** 

**Analysis Batch: 9027** 

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 9049

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/07/21 09:44	10/07/21 19:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/07/21 09:44	10/07/21 19:43	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/07/21 09:44	10/07/21 19:43	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130	10/07/21 09:44	10/07/21 19:43	1
o-Terphenyl	162	S1+	70 - 130	10/07/21 09:44	10/07/21 19:43	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 9049

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit Limits D %Rec 1000 931.1 93 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 1197 120 mg/Kg 70 - 130 C10-C28)

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	109	70 - 130
o-Terphenyl	126	70 - 130

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 880-9049/3-A **Matrix: Solid** 

**Analysis Batch: 9027** 

Prep Type: Total/NA Prep Batch: 9049

	<b>Бріке</b>	LC2D	LC2D				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	850.3		mg/Kg		85	70 - 130	9	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1106		mg/Kg		111	70 - 130	8	20
C10-C28)									

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	102	70 - 130
o-Terphenyl	115	70 - 130

Lab Sample ID: 880-6937-A-1-B MS Client Sample ID: Matrix Spike **Matrix: Solid** 

**Analysis Batch: 9027** 

Prep Type: Total/NA Prep Batch: 9049

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1190		mg/Kg		117	70 - 130	
Diesel Range Organics (Over C10-C28)	53.8	F1	997	1382	F1	mg/Kg		133	70 - 130	

# **QC Sample Results**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6938-1

SDG: Eunice NM

### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-6937-A-1-B MS

Matrix: Solid

**Analysis Batch: 9027** 

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9049

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 128
 70 - 130

 o-Terphenyl
 139
 \$1+
 70 - 130

Lab Sample ID: 880-6937-A-1-C MSD

**Analysis Batch: 9027** 

Matrix: Solid

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 9049

RPD MSD MSD Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit <49.9 U Gasoline Range Organics 1000 1041 mg/Kg 102 70 - 130 13 20 (GRO)-C6-C10 1000 20 Diesel Range Organics (Over 53.8 F1 1360 F1 mg/Kg 131 70 - 130 2 C10-C28)

MSD MSDSurrogate%RecoveryQualifierLimits1-Chlorooctane12670 - 13

 1-Chlorooctane
 126
 70 - 130

 o-Terphenyl
 136 S1+
 70 - 130

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# **QC Association Summary**

Job ID: 880-6938-1 Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Remediation SDG: Eunice NM

# **GC Semi VOA**

#### **Analysis Batch: 9027**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6938-1	CS-66	Total/NA	Solid	8015B NM	9049
880-6938-2	CS-67	Total/NA	Solid	8015B NM	9049
880-6938-3	CS-68	Total/NA	Solid	8015B NM	9049
880-6938-4	CS-69	Total/NA	Solid	8015B NM	9049
880-6938-5	CS-70	Total/NA	Solid	8015B NM	9049
880-6938-6	CS-71	Total/NA	Solid	8015B NM	9049
880-6938-7	CS-72	Total/NA	Solid	8015B NM	9049
880-6938-8	CS-73	Total/NA	Solid	8015B NM	9049
880-6938-9	CS-74	Total/NA	Solid	8015B NM	9049
MB 880-9049/1-A	Method Blank	Total/NA	Solid	8015B NM	9049
LCS 880-9049/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9049
LCSD 880-9049/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9049
880-6937-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	9049
880-6937-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	9049

#### Prep Batch: 9049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6938-1	CS-66	Total/NA	Solid	8015NM Prep	
880-6938-2	CS-67	Total/NA	Solid	8015NM Prep	
880-6938-3	CS-68	Total/NA	Solid	8015NM Prep	
880-6938-4	CS-69	Total/NA	Solid	8015NM Prep	
880-6938-5	CS-70	Total/NA	Solid	8015NM Prep	
880-6938-6	CS-71	Total/NA	Solid	8015NM Prep	
880-6938-7	CS-72	Total/NA	Solid	8015NM Prep	
880-6938-8	CS-73	Total/NA	Solid	8015NM Prep	
880-6938-9	CS-74	Total/NA	Solid	8015NM Prep	
MB 880-9049/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9049/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9049/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6937-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-6937-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 9142**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6938-1	CS-66	Total/NA	Solid	8015 NM	
880-6938-2	CS-67	Total/NA	Solid	8015 NM	
880-6938-3	CS-68	Total/NA	Solid	8015 NM	
880-6938-4	CS-69	Total/NA	Solid	8015 NM	
880-6938-5	CS-70	Total/NA	Solid	8015 NM	
880-6938-6	CS-71	Total/NA	Solid	8015 NM	
880-6938-7	CS-72	Total/NA	Solid	8015 NM	
880-6938-8	CS-73	Total/NA	Solid	8015 NM	
880-6938-9	CS-74	Total/NA	Solid	8015 NM	

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Lab Sample ID: 880-6938-1

**Matrix: Solid** 

Client Sample ID: CS-66 Date Collected: 10/06/21 10:00 Date Received: 10/07/21 08:09

Batch Dil Batch Initial Final Batch Prepared Method or Analyzed **Prep Type** Type Run **Factor Amount** Amount Number **Analyst** Lab Total/NA 8015 NM 9142 10/08/21 18:05 AJ Analysis XEN MID Total/NA Prep 8015NM Prep 10.02 g 10 mL 9049 10/07/21 09:44 DM XEN MID Total/NA Analysis 8015B NM 1 9027 10/08/21 00:29 AJ XEN MID

Client Sample ID: CS-67 Lab Sample ID: 880-6938-2

Date Collected: 10/06/21 10:05 **Matrix: Solid** 

Date Received: 10/07/21 08:09

Prep Type Total/NA	Batch Type Analysis	Batch Method 8015 NM	Run	Dil Factor	Initial Amount	Final Amount	Batch Number 9142	Prepared or Analyzed 10/08/21 18:05	Analyst AJ	Lab XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.05 g	10 mL	9049 9027	10/07/21 09:44 10/08/21 00:51	DM AJ	XEN MID XEN MID

**Client Sample ID: CS-68** Lab Sample ID: 880-6938-3 Date Collected: 10/06/21 10:10 **Matrix: Solid** 

Date Received: 10/07/21 08:09

Batch Batch Dil Initial Final Batch Prepared Factor **Prep Type** Type Method Run **Amount** Amount Number or Analyzed Analyst Lab Total/NA Analysis 8015 NM 9142 10/08/21 18:05 AJ XEN MID Total/NA 10/07/21 09:44 DM Prep 8015NM Prep 10.02 g 10 mL 9049 XEN MID Analysis Total/NA 8015B NM 1 9027 10/08/21 01:34 AJ XEN MID

Client Sample ID: CS-69 Lab Sample ID: 880-6938-4

Date Collected: 10/06/21 10:15 Date Received: 10/07/21 08:09

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	9049	10/07/21 09:44	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9027	10/08/21 01:56	AJ	XEN MID

**Client Sample ID: CS-70** Lab Sample ID: 880-6938-5

Date Collected: 10/06/21 10:20 Date Received: 10/07/21 08:09

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	9049	10/07/21 09:44	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9027	10/08/21 02:18	AJ	XEN MID

Client Sample ID: CS-71 Lab Sample ID: 880-6938-6

Date Collected: 10/06/21 10:25 Date Received: 10/07/21 08:09

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID

**Eurofins Xenco** 

**Matrix: Solid** 

Matrix: Solid

Matrix: Solid

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6938-1 SDG: Eunice NM

Lab Sample ID: 880-6938-6

**Client Sample ID: CS-71** Date Collected: 10/06/21 10:25 Date Received: 10/07/21 08:09

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	9049	10/07/21 09:44	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9027	10/08/21 02:40	AJ	XEN MID

Client Sample ID: CS-72 Lab Sample ID: 880-6938-7 Date Collected: 10/06/21 10:30 Matrix: Solid

Date Received: 10/07/21 08:09

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	9049	10/07/21 09:44	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9027	10/08/21 03:02	AJ	XEN MID

**Client Sample ID: CS-73** Lab Sample ID: 880-6938-8 Date Collected: 10/06/21 10:35 Matrix: Solid

Date Received: 10/07/21 08:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	Amount	Amount	9142	10/08/21 18:05		XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.02 g	10 mL	9049 9027	10/07/21 09:44 10/08/21 03:24		XEN MID XEN MID

Client Sample ID: CS-74 Lab Sample ID: 880-6938-9 Date Collected: 10/06/21 10:40 **Matrix: Solid** 

Date Received: 10/07/21 08:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA Total/NA	Prep Analvsis	8015NM Prep 8015B NM		1	10.04 g	10 mL	9049 9027	10/07/21 09:44 10/08/21 03:46		XEN MID

**Laboratory References:** 

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Eurofins Xenco** 

# **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6938-1

SDG: Eunice NM

## **Laboratory: Eurofins Xenco**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority Texas		rogram IELAP	Identification Number	Expiration Date 06-30-22
• ,	•	oort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for w
the agency does not	Juei ceruncation.			
Analysis Method	Prep Method	Matrix	Analyte	

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# **Method Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6938-1

SDG: Eunice NM

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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# **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-6938-1

SDG: Eunice NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-6938-1	CS-66	Solid	10/06/21 10:00	10/07/21 08:09	4.5
880-6938-2	CS-67	Solid	10/06/21 10:05	10/07/21 08:09	4.5
880-6938-3	CS-68	Solid	10/06/21 10:10	10/07/21 08:09	4.5
880-6938-4	CS-69	Solid	10/06/21 10:15	10/07/21 08:09	4.5
880-6938-5	CS-70	Solid	10/06/21 10:20	10/07/21 08:09	4.5
880-6938-6	CS-71	Solid	10/06/21 10:25	10/07/21 08:09	4.5
880-6938-7	CS-72	Solid	10/06/21 10:30	10/07/21 08:09	4.5
880-6938-8	CS-73	Solid	10/06/21 10:35	10/07/21 08:09	4.5
880-6938-9	CS-74	Solid	10/06/21 10:40	10/07/21 08:09	4.5

Se curofins

Project Manager

RUSSELL SEBRING

Company Name

RC

Midland TX, 79705 10 Desta Drive, #130E

Company Name Bill to (if different)

State of Project:

Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐

**Work Order Comments** 

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Environment Testing

# Chain o

Houston TX (281) 240-420 Midland TX (432) 704-5440 EL Paso TX (915) 585-344

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	880-6938 Chain of Custody		

Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199 www xenco com

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$\dashv$	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	-	ture)	Received by (Signature)	Receive	ure)	by (Signal	Relinquished by (Signature)
	tors. It assigns standard terms and conditions es are due to circumstances beyond the control terms will be enforced unless previously negotiated.	revoice - Sulfiature of this occurrent and reinquisnment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$8.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiat	pany to Eurofins Xenco, osses or expenses inculbritted to Eurofins Xen	ity for any l	urchase order from me any responsibili narge of \$5 for each	titutes a valid pu d shall not assu project and a ch	or samples cons st of samples an applied to each	the only for the costs of \$85.00 will be	enco will be lia	of Eurofins Xenco. An
7470	Ag TI U Hg 1631/2451/7470	Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	Sb As Ba Be Cd	8RCRA SI	'LP 6010 8R	TCLP / SPLP 6010	zed	(s) to be analy	and Metal	Circle Method(s) and Metal(s) to be analyzed
TI Sn U	Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr T	Cd Ca Cr Co Cu Fe Pb Mg Mi	As Ba Be B	Al Sb	M Texas 11	8RCRA 13PPM		200.8 / 6020:	6010 2	Total 200.7 / 6010
			×	-	4 5 Comp	1040	10/6/2021	S	CS-74@4 5	CS-7
			×	-	4 5 Comp	1035	10/6/2021	S	CS-73@4 5	CS-7;
			×		4 5 Comp	1030	10/6/2021	S	CS-72@4 5	CS-7;
			×		4 5 Comp	1025	10/6/2021	S	CS-71@4 5	CS-7:
			×	_1	4 5 Comp	1020	10/6/2021	S	CS-70@4 5	CS-70
			×		4 5 Comp	1015	10/6/2021	S	CS-69@4 5	CS-69
			×		4 5 Comp	1010	10/6/2021	S	CS-68@4 5	CS-6
			×	1	4 5 Comp	1005	10/6/2021	S	CS-67@4 5	CS-6:
			×		4 5 Comp	1000	10/6/2021	S	CS-66@4 5	CS-66
Sample Comments	Sı		TPH Chlorid Hold	# of Cont	Depth Grab/ Comp	Time Sampled	Date Sampled	Matrix	Sample Identification	Sample Id
Ascort	NaOH+Ascorbic Acid SAPC		e		50 7	emperature	Corrected Temperature			Total Containers.
ate+Na	Zn Acetate+NaOH Zn				5,2	Reading	Temperature Reading	Yes No (N/A	Ľ	Sample Custody Seals
Nas	Na ₂ S ₂ O ₂ NaSO ₂			Pa	705	actor	N/A Correction Factor	Yes No (N/A)	Ĺ	Cooler Custody Seals
NAB	NaHSO, NABIS			ıran	JOB	T	Thermometer ID	Yes No	Intact:	Samples Received Intact
£ ,	H,PO, HP			nete	Yes No	Wet Ice.	Yes( No	Temp Blank	EIPT	SAMPLE RECEIPT
<del>,</del> (	H ₂ SO ₄ H ₂			rs	the lab if received by 4 30pm	the lab if rec				PO#:
,	HCL HC				day received by	TAT starts the	sti Bryant	Russell Sebring/Misti Bryant	Russ	Sampler's Name
<u>ŏ</u>	Cool Cool				2442	Due Date		Eunice NM		Project Location
Õ	None			Pres. Code	₹ Rush	Routine		454378		Project Number
Preservative Codes		ANALYSIS REQUEST			Turn Around	Turn	emediation	Eunice EMSU Remediation	HEP E	Project Name
Other	Deliverables EDD ADaPT	Delive	3s.com	ompani	rsebring@trccompanies.com	Email		4465	432 250 4465	Phone
J TRF	Reporting Level III Level III L PST/UST L TRRP	Repon			City, State ZIP			Midland 1X, /9/05	Midland	City, State ZIP

1/7/2022 (Rev. 1)

# **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc.

Job Number: 880-6938-1

SDG Number: Eunice NM

Login Number: 6938 List Source: Eurofins Xenco

List Number: 1

Creator: Phillips, Kerianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Xenco 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-7055-1

Laboratory Sample Delivery Group: Eunice, NM Client Project/Site: HEP:Eunice EMSU Remediation

Revision: 2

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MEAMER

Authorized for release by: 1/7/2022 4:25:40 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

-----LINKS

Review your project results through



Visit us at:

www.eurofinsus.com/Env
Released to Imaging: 3/24/2022 9:01:44 AM

Results relate only to the items tested and the sample(s) as received by the laboratory.

intended to be the legally binding equivalent of a traditionally handwritten signature.

This report has been electronically signed and authorized by the signatory. Electronic signature is

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Client: TRC Solutions, Inc.
Project/Site: HEP:Eunice EMSU Remediation

Laboratory Job ID: 880-7055-1 SDG: Eunice, NM

# **Table of Contents**

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# **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-7055-1 Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

**Qualifiers** 

**GC Semi VOA** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery **CFL** Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

Duplicate Error Ratio (normalized absolute difference) **DER** 

Dil Fac **Dilution Factor** 

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

Estimated Detection Limit (Dioxin) **EDL** LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit MLMinimum Level (Dioxin) MPN Most Probable Number Method Quantitation Limit MQL

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

**PQL Practical Quantitation Limit** 

**PRES** Presumptive QC **Quality Control** 

**RER** Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

**RPD** Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

Too Numerous To Count **TNTC** 

**Eurofins Xenco** 

### **Case Narrative**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7055-1

SDG: Eunice, NM

Job ID: 880-7055-1

**Laboratory: Eurofins Xenco** 

Narrative

Job Narrative 880-7055-1

### REVISION

The report being provided is a revision of the original report sent on 10/12/2021. The report (revision 2) is being revised due to Per client email, removed sample depths from sample name.

Report revision history

The report being provided is a revision of the original report sent on 10/12/2021. The report (revision 2) is being revised due to Per client email, removed sample depths from sample name.

Revision 1 - 11/3/2021 - Reason - MS/MSD missing on final report.

### Receipt

The samples were received on 10/11/2021 12:18 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.5°C

#### GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7055-1

SDG: Eunice, NM

**Client Sample ID: CS-24** 

Date Collected: 10/06/21 08:55 Date Received: 10/11/21 12:18

**Matrix: Solid** 

Lab Sample ID: 880-7055-1

Sample Depth: 4.5'

Method: 8015 NM - Diesel Rar	nge Organics (D	RO) (GC)					
Analyte	Result Qua	lifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			10/11/21 10:08	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/11/21 15:52	10/12/21 06:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/11/21 15:52	10/12/21 06:30	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/11/21 15:52	10/12/21 06:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130			10/11/21 15:52	10/12/21 06:30	1
o-Terphenyl	128		70 - 130			10/11/21 15:52	10/12/21 06:30	1

Lab Sample ID: 880-7055-2 **Client Sample ID: CS-25** Date Collected: 10/06/21 08:50 **Matrix: Solid** 

Date Received: 10/11/21 12:18

Sample Depth: 4.5'

Method: 8015 NM - Diesel Ran	ige Organics	(DRO) (GO	<b>C</b> )					
Analyte	Result C	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8 L		49.8	mg/Kg			10/11/21 10:08	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/11/21 15:52	10/12/21 06:51	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/11/21 15:52	10/12/21 06:51	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/11/21 15:52	10/12/21 06:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130			10/11/21 15:52	10/12/21 06:51	1
o-Terphenyl	128		70 - 130			10/11/21 15:52	10/12/21 06:51	1

OTPH = o-Terphenyl

# **Surrogate Summary**

Client: TRC Solutions, Inc.

Job ID: 880-7055-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

**Matrix: Solid Prep Type: Total/NA** 

			Percent	Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-7055-1	CS-24	113	128	
880-7055-2	CS-25	112	128	
890-1384-A-61-E MS	Matrix Spike	95	92	
890-1384-A-61-F MSD	Matrix Spike Duplicate	110	112	
LCS 880-9249/2-A	Lab Control Sample	88	85	
LCSD 880-9249/3-A	Lab Control Sample Dup	93	92	
MB 880-9249/1-A	Method Blank	104	121	
Surrogate Legend				
1CO = 1-Chlorooctane				

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7055-1

SDG: Eunice, NM

# Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-9249/1-A

**Matrix: Solid** 

**Analysis Batch: 9176** 

**Client Sample ID: Method Blank** 

**Prep Type: Total/NA** 

Prep Batch: 9249

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/11/21 15:52	10/12/21 05:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/11/21 15:52	10/12/21 05:28	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/11/21 15:52	10/12/21 05:28	1
	MB	MB						

Surrogate	%Recovery Qual	ifier Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104	70 - 130	10/11/21 15:52	10/12/21 05:28	1
o-Terphenyl	121	70 - 130	10/11/21 15:52	10/12/21 05:28	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** Prep Batch: 9249

**Analysis Batch: 9176** 

Lab Sample ID: LCS 880-9249/2-A

**Matrix: Solid** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	 1000	996.0		mg/Kg		100	70 - 130	 -
(GRO)-C6-C10 Diesel Range Organics (Over	1000	907.1		mg/Kg		91	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	88	70 - 130
o-Terphenyl	85	70 - 130

**Client Sample ID: Lab Control Sample Dup** Prep Type: Total/NA

**Matrix: Solid** 

Lab Sample ID: LCSD 880-9249/3-A

Analysis Batch: 9176							Prep	Batch:	9249
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	938.8		mg/Kg		94	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	891.4		mg/Kg		89	70 - 130	2	20

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	92		70 - 130

Lab Sample ID: 890-1384-A-61-E MS **Client Sample ID: Matrix Spike** Prep Type: Total/NA

**Matrix: Solid** 

Analysis Batch: 9176									Prep	Batch: 9	249
	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1107		mg/Kg		109	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	913.7		mg/Kg		90	70 - 130		

**Eurofins Xenco** 

# **QC Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-7055-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-1384-A-61-E MS

**Matrix: Solid** 

**Analysis Batch: 9176** 

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 9249

MS MS %Recovery Qualifier Limits Surrogate 1-Chlorooctane 95 70 - 130 o-Terphenyl 92 70 - 130

Lab Sample ID: 890-1384-A-61-F MSD

**Matrix: Solid** 

**Analysis Batch: 9176** 

Client Sample	ID: Matrix Spik	e Duplicate
	Prep Typ	e: Total/NA

Prep Batch: 9249

RPD MSD MSD Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit <49.9 U Gasoline Range Organics 1000 1158 mg/Kg 114 70 - 130 4 20 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 1000 1075 106 20 mg/Kg 70 - 130 16 C10-C28)

MSD MSD

Surrogate	%Recovery Qualified	r Limits
1-Chlorooctane	110	70 - 130
o-Terphenyl	112	70 - 130

# **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7055-1 SDG: Eunice, NM

## **GC Semi VOA**

### **Analysis Batch: 9176**

Lab Sample ID MB 880-9249/1-A	Client Sample ID  Method Blank	Prep Type Total/NA	Matrix Solid	Method 8015B NM	Prep Batch 9249
LCS 880-9249/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9249
LCSD 880-9249/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9249
890-1384-A-61-E MS	Matrix Spike	Total/NA	Solid	8015B NM	9249
890-1384-A-61-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	9249

### **Analysis Batch: 9178**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7055-1	CS-24	Total/NA	Solid	8015B NM	9249
880-7055-2	CS-25	Total/NA	Solid	8015B NM	9249

### **Analysis Batch: 9187**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7055-1	CS-24	Total/NA	Solid	8015 NM	
880-7055-2	CS-25	Total/NA	Solid	8015 NM	

### Prep Batch: 9249

Lab Sample ID Client Sample ID		Prep Type	Matrix	Method	Prep Batch
880-7055-1	CS-24	Total/NA	Solid	8015NM Prep	•
880-7055-2	CS-25	Total/NA	Solid	8015NM Prep	
MB 880-9249/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9249/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9249/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1384-A-61-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1384-A-61-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Eurofins Xenco

1/7/2022 (Rev. 2)

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### **Lab Chronicle**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7055-1

SDG: Eunice, NM

**Client Sample ID: CS-24** 

Date Collected: 10/06/21 08:55 Date Received: 10/11/21 12:18

Lab Sample ID: 880-7055-1

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9187	10/11/21 10:08	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	9249	10/11/21 15:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9178	10/12/21 06:30	AJ	XEN MID

**Client Sample ID: CS-25** Lab Sample ID: 880-7055-2

Date Collected: 10/06/21 08:50 **Matrix: Solid** 

Date Received: 10/11/21 12:18

	Туре	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/	/NA	Analysis	8015 NM		1			9187	10/11/21 10:08	AJ	XEN MID
Total/	/NA	Prep	8015NM Prep			10.05 g	10 mL	9249	10/11/21 15:52	DM	XEN MID
Total/	/NA	Analysis	8015B NM		1			9178	10/12/21 06:51	AJ	XEN MID

**Laboratory References:** 

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Eurofins Xenco** 

# **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.

Job ID: 880-7055-1

Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

**Laboratory: Eurofins Xenco** 

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pro	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analyte	s are included in this repo	ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for wh
The following analyte the agency does not		ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for wh
,		ort, but the laboratory is r Matrix	not certified by the governing authority.  Analyte	This list may include analytes for wh

# **Method Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

**Method Description** 

Microextraction

Diesel Range Organics (DRO) (GC)

Diesel Range Organics (DRO) (GC)

Job ID: 880-7055-1

XEN MID

SDG: Eunice, NM

Protocol	Laboratory	
SW846	XEN MID	_
SW846	XEN MID	

SW846

### **Protocol References:**

Method

8015 NM

8015B NM

8015NM Prep

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### **Laboratory References:**

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Eurofins Xenco** 

# **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7055-1

SDG: Eunice, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-7055-1	CS-24	Solid	10/06/21 08:55	10/11/21 12:18	4.5'
880-7055-2	CS-25	Solid	10/06/21 08:50	10/11/21 12:18	4.5'

Seurofins.

Xenco

Tivionnent Testing

Project Manager

RUSSELL SEBRING

Company Name

TRO.

Midland TX, 79705 10 Desta Drive, #130E

Address

Bill to: (if different) Company Name.

Chain of Cus

Houston, TX (281) 240-4200 Dallas T Midland TX (432) 704-5440 San Antonio EL Paso TX (915) 585-3443, Lubbock, Hobbs NM (575) 392-7550 Carlsbad N

tody	
TX (214) 902-0300	
TX (210) 509-3334	V 880-7055 Chain of Custody
TX (806) 794-1296	
NM (575) 988-3199	
	www.xenco.com Page of
	Work Order Comments
	Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐
	State of Project:
	Reporting Level III ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV☐
	Deliverables EDD ADaPT Other

City, State ZIP Midland TX, 79705	, 79705			City, State ZIP									eporting	Level		<u>q</u>		repoiling rever in Chester in Chest/Ost Chicker C	RP Level IVL
Phone 432 250 4465	65		Email	rsebring@trccompanies com	compa	nies co	M					L g	eliveral	Deliverables, EDD			ADaPT []	Other:	er
Project Name HEP Eunice EMSU Remediation	e EMSU Re	mediation	Turn .	Turn Around						ANAL	ANALYSIS R	REQUEST	TS					Presen	Preservative Codes
er.	454378		Routine	Rush	Pres.			_	$\dashv$			_		-	1		1	None NO	DI Water H ₂ O
Project Location E	Eunice NM	_	Due Date	24-12	`			_	$\dashv$			$\dashv$	$\dashv$	$\dashv$	$\dagger$	T	$\prod$	Cool Cool	
	Russell Sebring/Misti Bryant	Щ	TAT starts the	TAT starts the day received by										<u></u>	*****			HCL HC	HNO. HN
PO#.			the lab if rece	the lab if received by 4 30pm					······									H.SO. H.	en HOen
SAMPLE RECEIPT Tem	Temp Blank.	Yes No	)Wet Ice.	Yes	eter														
Samples Received Intact: Yes		Thermometer ID	ਰ		ram													Name Of Name	a S
Yes	o NA	Correction Factor	Ctor	デ び で	Pa				••••••										3 5
V .		Soli econoli 1 o	:															Na ₂ S ₂ O ₃ NaSO ₃	SO
Sample Custody Seals. Yes	NO N/A	Temperature Reading	Reading	0	<u> </u>													Zn Acetate+NaOH Zn	łaOH Zn
Total Containers.		Corrected Temperature	nperature	Ly Emy	<u> </u>		· 											NaOH+Ascorbic Acid SAPC	bic Acid S
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth Grab/	# of Cont	TPH	Chloride	Hold				,						Sample	Sample Comments
CS-24@4 5	S	10/6/2021	855	4 5' Comp	р 1	×						_		-					
CS-25@4 5	(S)	10/6/2021	850	4 5 Comp	<u>0</u>	×						_		-	1	1			
					$\top$									-					
								_				-	-						
												_	$\dashv$	+	$\top$				
									-			_							
Total 200.7 / 6010 200.8	200.8 / 6020:		8RCRA 13PPM	M Texas 11	1 Al s	Al Sb As Ba Be	Ва Ве	Φ	Cd Ca C	Cr Co Cu Fe	ù Fe	Pb Mo	Mn	Mo N	X Se	Ą	Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr	a Sr TI Sn	) U V Zn
Circle Method(s) and Metal(s) to be analyzed	o be analyz	ed	TCLP / SPI	TCLP / SPLP 6010 8RCRA	CRA	Sb As Ba Be	Ba E	Se Cd	Cd Cr Co Cu Pb Mn Mo Ni Se Ag	Cu P	Mn	Mo N	Se A	g TI U		Нg	1631/;	Hg 1631/2451/7470	0 /7471
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco. Dut not analyzed. These terms will be enforced unless previously negotiat	linquishment of only for the cost \$85.00 will be ap	samples const of samples and oplied to each p	tutes a valid pu shall not assun roject and a ch:	rchase order from ne any responsib arge of \$5 for eac	m client c ility for a ch sample	ompany i ny losses submitt	to Eurofi or expe	ns Xenc	o, its affilia urred by th	tes and su e client if ot analyze	bcontraction los	ctors. It a	ussigns s	tors. It assigns standard terms and conditions es are due to circumstances beyond the control terms will be enforced unless previously negotiated.	terms ar	d condit	ions ontrol		
Relinguished by: (Signature)	7	Received	Received by: (Signature)	ure)	$\dashv$	Date/Time	Time		Relinq	Relinquished by: (Signature)	oy. (Sig	nature		₽ Re	ceived	by: (S	Received by: (Signature)	e)	Date/Time
N C					ð	en e	I	2											
3						7		4											
(S					_							-							

# **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc. Job Number: 880-7055-1 SDG Number: Eunice, NM

**List Source: Eurofins Xenco** 

Login Number: 7055 List Number: 1

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Midland 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6967-1

Laboratory Sample Delivery Group: Eunice, NM Client Project/Site: HEP:Eunice EMSU Draw

Revision: 3

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MRAMER

Authorized for release by: 2/4/2022 12:13:05 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS

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www.eurofinsus.com/Env

Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Draw

Laboratory Job ID: 880-6967-1

SDG: Eunice, NM

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# **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-6967-1 Project/Site: HEP:Eunice EMSU Draw

SDG: Eunice, NM

### **Qualifiers**

### **GC Semi VOA**

Qualifier	Qualifier Description
*_	LCS and/or LCSD is outside acceptance limits, low biased.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

### HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not
	applicable.
U	Indicates the analyte was analyzed for but not detected.

Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)

MQL NC

MDL

MPN

ML

Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

Practical Quantitation Limit PQL

**PRES** Presumptive QC **Quality Control** 

**RER** Relative Error Ratio (Radiochemistry)

Method Detection Limit

Minimum Level (Dioxin)

Most Probable Number

Method Quantitation Limit

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF TEQ Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

### **Case Narrative**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Draw

Job ID: 880-6967-1

SDG: Eunice, NM

Job ID: 880-6967-1

**Laboratory: Eurofins Midland** 

Narrative

Job Narrative 880-6967-1

### **REVISION**

The report being provided is a revision of the original report sent on 10/11/2021. The report (revision 3) is being revised due to Per client email, corrected sample IDs.

Report revision history

The report being provided is a revision of the original report sent on 10/11/2021. The report (revision 3) is being revised due to Per client email, corrected sample IDs.

Revision 2 - 1/7/2022 - Reason - Per client email, removed sample depths from sample name.

Revision 2 - 1/7/2022 - Reason - Per client email, removed sample depths from sample name.

Revision 1 - 11/3/2021 - Reason - Per client email, correct sample IDs to match COC.

### Receipt

The samples were received on 10/7/2021 3:24 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

### GC Semi VOA

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-9091 and analytical batch 880-9084 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-9091/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-9093/1-A). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

### HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Job ID: 880-6967-1

**Matrix: Solid** 

Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Draw

SDG: Eunice, NM

Lab Sample ID: 880-6967-1

10/08/21 08:27 10/08/21 14:27

**Client Sample ID: SW-32** 

Date Collected: 10/07/21 11:30

Date Received: 10/07/21 15:24

Sample Depth: 2.25

Method: 8015 NM - Diesel Ran	ige Organics	s (DRO) (0	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/08/21 18:05	1

Total TPH	<49.9	U	49.9	mg/Kg	·	10/08/21 18:05	1
- Method: 8015B NM - Diesel Ra	ange Organ	ics (DRO)	(GC)				
Analyte	Result	Qualifier	RL	Unit	D Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg	10/08/21 08:27	10/08/21 13:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9	mg/Kg	10/08/21 08:27	10/08/21 13:21	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg	10/08/21 08:27	10/08/21 13:21	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130		10/08/21 08:27	10/08/21 13:21	1
o-Terphenyl	84		70 - 130		10/08/21 08:27	10/08/21 13:21	1

Method: 300.0 - Anions, Ion C	hromatography - Solub	le					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1700	25.0	mg/Kg			10/08/21 10:38	5

**Client Sample ID: SW-33** Lab Sample ID: 880-6967-2 Date Collected: 10/07/21 11:35 **Matrix: Solid** 

Date Received: 10/07/21 15:24

Sample Depth: 2.25

Diesel Range Organics (Over

C10-C28)

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/08/21 18:05	1
Method: 8015B NM - Diese	I Range Organi	ics (DRO) (G	C)					
	•		•	Unit	_	Bronored	Analyzad	Dil Eos
Method: 8015B NM - Diese Analyte	•	ics (DRO) (G Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
	•	Qualifier	•	Unit mg/Kg	<u>D</u>	Prepared 10/08/21 08:27	Analyzed 10/08/21 14:27	Dil Fa

Oll Range Organics (Over C28-C36)	<49.8 L	U	49.8	mg/Kg	10/08/21 08:27	10/08/21 14:27	1
Surrogate	%Recovery (	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130		10/08/21 08:27	10/08/21 14:27	1
o-Terphenyl	98		70 - 130		10/08/21 08:27	10/08/21 14:27	1

49.8

mg/Kg

mg/Kg

Method: 300.0 - Anions, Ion Ch	nromatography - Soluble	)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

5.00

Client Sample ID: SW-34 Lab Sample ID: 880-6967-3

Date Collected: 10/07/21 11:40 Date Received: 10/07/21 15:24

Sample Depth: 2.25

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

<49.8 U *-

193

Wethou. 0013 NW - Diesel Kan	ge Organics	(DRO) (GC)					
Analyte	Result Q	Qualifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	238	49.9	mg/Kg			10/08/21 18:05	1

**Eurofins Midland** 

10/08/21 10:45

**Matrix: Solid** 

Client: TRC Solutions, Inc. Job ID: 880-6967-1

Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

**Client Sample ID: SW-34** Lab Sample ID: 880-6967-3 Date Collected: 10/07/21 11:40

**Matrix: Solid** Date Received: 10/07/21 15:24

Sample Depth: 2.25

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	171		49.9	mg/Kg		10/08/21 08:27	10/08/21 14:58	1
Diesel Range Organics (Over C10-C28)	66.8	*_	49.9	mg/Kg		10/08/21 08:27	10/08/21 14:58	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/08/21 08:27	10/08/21 14:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130			10/08/21 08:27	10/08/21 14:58	1
o-Terphenyl	96		70 - 130			10/08/21 08:27	10/08/21 14:58	1

**Client Sample ID: SW-35** Lab Sample ID: 880-6967-4 **Matrix: Solid** 

1180

4.98

mg/Kg

Date Collected: 10/07/21 11:45 Date Received: 10/07/21 15:24

Sample Depth: 2.25

**Chloride** 

C10-C28)

Method: 8015 NM - Diesel Ran	nge Organics	(DRO) (GC)						
Analyte	Result C	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	194		49.8	mg/Kg			10/08/21 18:05	1
<del>_</del> .								
Method: 8015B NM - Diesel Ra	ange Organic	s (DRO) (GC	<b>(</b> )					
Method: 8015B NM - Diesel Ra Analyte	ange Organic Result C		RL	Unit	D	Prepared	Analyzed	Dil Fac
			•	Unit mg/Kg	<u>D</u>	Prepared 10/08/21 08:27	Analyzed 10/08/21 15:20	Dil Fac

Oll Range Organics (Over C28-C36)	<49.8 U	49.8	mg/Kg	10/08/21 08:27	10/08/21 15:20	1
Surrogate	%Recovery Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	89	70 - 130		10/08/21 08:27	10/08/21 15:20	1
o-Terphenyl	97	70 - 130		10/08/21 08:27	10/08/21 15:20	1

Method: 300.0 - Anions, Ion Cl	hromatogra	phy - Solu	ble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	126		4.95	mg/Kg			10/08/21 10:59	1

Lab Sample ID: 880-6967-5 **Client Sample ID: SW-36** Date Collected: 10/07/21 11:50 Matrix: Solid

Date Received: 10/07/21 15:24

Sample Depth: 2.25

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9 U	49.9	mg/Kg			10/08/21 18:05	1
Method: 8015B NM - Diesel		(GC)					
		• •	Unit	D	Prepared	Analyzed	Dil Fac
Method: 8015B NM - Diesel Analyte	Range Organics (DRO) Result Qualifier	(GC)	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
		• •	Unit mg/Kg	<u>D</u>	Prepared 10/08/21 08:27	Analyzed 10/08/21 15:42	Dil Fa

**Eurofins Midland** 

10/08/21 10:52

Client: TRC Solutions, Inc. Job ID: 880-6967-1

Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

**Client Sample ID: SW-36** Lab Sample ID: 880-6967-5 Date Collected: 10/07/21 11:50 **Matrix: Solid** 

Date Received: 10/07/21 15:24 Sample Depth: 2.25

Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC) (Continue	d)				
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9	mg/Kg		10/08/21 08:27	10/08/21 15:42	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/08/21 08:27	10/08/21 15:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			10/08/21 08:27	10/08/21 15:42	1
o-Terphenyl	92		70 - 130			10/08/21 08:27	10/08/21 15:42	1

Method: 300.0 - Anions, Ion Chromatography - Soluble Result Qualifier Prepared Analyte RL Unit D Analyzed Dil Fac Chloride 1100 5.04 mg/Kg 10/08/21 11:06

Client Sample ID: SW-37 Lab Sample ID: 880-6967-6 **Matrix: Solid** 

Date Collected: 10/07/21 11:55 Date Received: 10/07/21 15:24

Sample Depth: 2.25

Method: 8015 NM - Diesel Ran	ge Organics	s (DRO) (0	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/08/21 18:05	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/08/21 08:35	10/08/21 13:19	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/08/21 08:35	10/08/21 13:19	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/08/21 08:35	10/08/21 13:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			10/08/21 08:35	10/08/21 13:19	1
o-Terphenyl	112		70 - 130			10/08/21 08:35	10/08/21 13:19	1

Method: 300.0 - Anions, Ion Ch	nromatography - So	luble					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	63.6	5.00	mg/Kg			10/08/21 11:28	1

# **Surrogate Summary**

Client: TRC Solutions, Inc.

Job ID: 880-6967-1

Project/Site: HEP:Eunice EMSU Draw

SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

			Percent Su	rrogate Recovery (Acceptance Limits)
		1001	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-6967-1	SW-32	82	84	
880-6967-1 MS	SW-32	95	90	
880-6967-1 MSD	SW-32	98	93	
880-6967-2	SW-33	90	98	
880-6967-3	SW-34	89	96	
880-6967-4	SW-35	89	97	
880-6967-5	SW-36	87	92	
880-6967-6	SW-37	102	112	
880-6967-6 MS	SW-37	102	100	
880-6967-6 MSD	SW-37	102	105	
LCS 880-9091/2-A	Lab Control Sample	69 S1-	71	
LCS 880-9093/2-A	Lab Control Sample	90	95	
LCSD 880-9091/3-A	Lab Control Sample Dup	81	85	
LCSD 880-9093/3-A	Lab Control Sample Dup	100	107	
MB 880-9091/1-A	Method Blank	92	103	
MB 880-9093/1-A	Method Blank	114	131 S1+	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Draw

Job ID: 880-6967-1 SDG: Eunice, NM

# Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-9091/1-A

**Matrix: Solid** 

**Analysis Batch: 9084** 

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 9091

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/08/21 08:27	10/08/21 12:16	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/08/21 08:27	10/08/21 12:16	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/08/21 08:27	10/08/21 12:16	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130	10/08/21 08:27	10/08/21 12:16	1
o-Terphenyl	103		70 - 130	10/08/21 08:27	10/08/21 12:16	1

**Client Sample ID: Lab Control Sample** 

**Matrix: Solid Prep Type: Total/NA** Prep Batch: 9091 **Analysis Batch: 9084** LCS LCS Spike %Rec.

Analyte Added Result Qualifier Unit D %Rec Limits 1000 751.0 75 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 mg/Kg Diesel Range Organics (Over 1000 694.0 *-70 - 130 69 C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	69	S1-	70 - 130
o-Terphenyl	71		70 - 130

Lab Sample ID: LCSD 880-9091/3-A

Lab Sample ID: LCS 880-9091/2-A

**Matrix: Solid** 

**Analysis Batch: 9084** 

Client	Sample	ID:	Lab	Contr	ol	Sar	nple	Dup
				_	_			

Prep Type: Total/NA Prep Batch: 9091

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier Limit Analyte Unit Limits RPD %Rec Gasoline Range Organics 1000 807.7 70 - 130 mg/Kg 81 20 (GRO)-C6-C10 1000 Diesel Range Organics (Over 775.5 mg/Kg 78 70 - 130 11 20

C10-C28)

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	81	70 - 130
o-Terphenyl	85	70 - 130

Lab Sample ID: 880-6967-1 MS

**Matrix: Solid** 

**Analysis Batch: 9084** 

Client Sample ID: SW-32 Prep Type: Total/NA

Prep Batch: 9091

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	852.1		mg/Kg		83	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U *-	997	782.7		mg/Kg		76	70 - 130	

Client: TRC Solutions, Inc. Job ID: 880-6967-1 Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

# Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

MS MS %Recovery Qualifier

Lab Sample ID: 880-6967-1 MS

Limits

70 - 130

70 - 130

**Matrix: Solid** 

Surrogate

**Analysis Batch: 9084** 

**Client Sample ID: SW-32 Prep Type: Total/NA** Prep Batch: 9091

1-Chlorooctane 95 o-Terphenyl 90

Client Sample ID: SW-32 Lab Sample ID: 880-6967-1 MSD

Prep Type: Total/NA Prep Batch: 9091

**Matrix: Solid Analysis Batch: 9084** 

MR MR

RPD MSD MSD Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics <49.9 U 1000 881.7 mg/Kg 86 70 - 130 3 20 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U *-1000 827.1 mg/Kg 80 70 - 130 6 20

C10-C28)

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 98 70 - 130 70 - 130 o-Terphenyl 93

Lab Sample ID: MB 880-9093/1-A

**Matrix: Solid** 

**Analysis Batch: 9088** 

Client Sample ID: Method Blank **Prep Type: Total/NA** 

Prep Batch: 9093

	IAID	IVID						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/08/21 08:35	10/08/21 12:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/08/21 08:35	10/08/21 12:13	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/08/21 08:35	10/08/21 12:13	1

MB MB %Recovery Qualifier Surrogate Limits Prepared Analyzed Dil Fac 10/08/21 08:35 10/08/21 12:13 1-Chlorooctane 114 70 - 130 70 - 130 10/08/21 08:35 10/08/21 12:13 o-Terphenyl 131 S1+

Lab Sample ID: LCS 880-9093/2-A

**Matrix: Solid** 

**Analysis Batch: 9088** 

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA Prep Batch: 9093

LCS LCS Spike %Rec. Added Result Qualifier Unit %Rec Limits Analyte 1000 Gasoline Range Organics 776.9 78 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 900.9 mg/Kg 90 70 - 130 C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	95		70 - 130

Client: TRC Solutions, Inc. Job ID: 880-6967-1 Project/Site: HEP:Eunice EMSU Draw

SDG: Eunice, NM

# Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-9093/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 9088** Prep Batch: 9093 LCSD LCSD Spike %Rec. **RPD** Added Result Qualifier %Rec Limits RPD Limit Analyte Unit Gasoline Range Organics 1000 835.1 mg/Kg 84 70 - 130 7 20 (GRO)-C6-C10 1000 Diesel Range Organics (Over 1036 104 70 - 130 mg/Kg 20 14 C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 70 - 130 100 70 - 130 o-Terphenyl 107

Client Sample ID: SW-37 Lab Sample ID: 880-6967-6 MS **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 9088** Prep Batch: 9093 Sample Sample Spike MS MS %Rec.

Analyte Result Qualifier Added Result Qualifier Limits Unit D %Rec Gasoline Range Organics <49.9 U 997 890.3 86 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 997 1025 mg/Kg 103 70 - 130 C10-C28)

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 102 70 - 130 o-Terphenyl 100 70 - 130

Lab Sample ID: 880-6967-6 MSD Client Sample ID: SW-37 **Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 9088** Prep Batch: 9093

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	981.0		mg/Kg		94	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	1078		mg/Kg		108	70 - 130	5	20

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 102 70 - 130 105 70 - 130 o-Terphenyl

### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-9075/1-A **Client Sample ID: Method Blank Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 9100** 

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			10/08/21 09:05	1

Lab Sample ID: LCS 880-9075/2-A

# **QC Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-6967-1 Project/Site: HEP:Eunice EMSU Draw

**Client Sample ID: Lab Control Sample** 

SDG: Eunice, NM

# Method: 300.0 - Anions, Ion Chromatography (Continued)

Matrix: Solid							Prep Type	: Soluble
Analysis Batch: 9100								
•	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	253.0		mg/Kg		101	90 - 110	

Lab Sample ID: LCSD 880-9075/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** 

**Prep Type: Soluble** 

**Analysis Batch: 9100** 

Spike LCSD LCSD %Rec. **RPD** Result Qualifier Added Unit D %Rec Limits RPD Limit Analyte 250 90 - 110 Chloride 253.3 mg/Kg 101 0

Lab Sample ID: 880-6967-5 MS Client Sample ID: SW-36

**Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 9100** 

Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier Limits **Analyte** Unit D %Rec Chloride 1100 252 1323 4 90 - 110 mg/Kg

Lab Sample ID: 880-6967-5 MSD Client Sample ID: SW-36 **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 9100** 

Spike MSD MSD %Rec. **RPD** Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 1100 252 1321 4 mg/Kg 86 90 - 110 0 20

# **QC Association Summary**

Job ID: 880-6967-1 Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

GC Semi VOA

### **Analysis Batch: 9084**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6967-1	SW-32	Total/NA	Solid	8015B NM	9091
880-6967-2	SW-33	Total/NA	Solid	8015B NM	9091
880-6967-3	SW-34	Total/NA	Solid	8015B NM	9091
880-6967-4	SW-35	Total/NA	Solid	8015B NM	9091
880-6967-5	SW-36	Total/NA	Solid	8015B NM	9091
MB 880-9091/1-A	Method Blank	Total/NA	Solid	8015B NM	9091
LCS 880-9091/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9091
LCSD 880-9091/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9091
880-6967-1 MS	SW-32	Total/NA	Solid	8015B NM	9091
880-6967-1 MSD	SW-32	Total/NA	Solid	8015B NM	9091

### **Analysis Batch: 9088**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6967-6	SW-37	Total/NA	Solid	8015B NM	9093
MB 880-9093/1-A	Method Blank	Total/NA	Solid	8015B NM	9093
LCS 880-9093/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9093
LCSD 880-9093/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9093
880-6967-6 MS	SW-37	Total/NA	Solid	8015B NM	9093
880-6967-6 MSD	SW-37	Total/NA	Solid	8015B NM	9093

### Prep Batch: 9091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6967-1	SW-32	Total/NA	Solid	8015NM Prep	
880-6967-2	SW-33	Total/NA	Solid	8015NM Prep	
880-6967-3	SW-34	Total/NA	Solid	8015NM Prep	
880-6967-4	SW-35	Total/NA	Solid	8015NM Prep	
880-6967-5	SW-36	Total/NA	Solid	8015NM Prep	
MB 880-9091/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9091/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9091/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6967-1 MS	SW-32	Total/NA	Solid	8015NM Prep	
880-6967-1 MSD	SW-32	Total/NA	Solid	8015NM Prep	

### Prep Batch: 9093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6967-6	SW-37	Total/NA	Solid	8015NM Prep	
MB 880-9093/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9093/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9093/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6967-6 MS	SW-37	Total/NA	Solid	8015NM Prep	
880-6967-6 MSD	SW-37	Total/NA	Solid	8015NM Prep	

### **Analysis Batch: 9142**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6967-1	SW-32	Total/NA	Solid	8015 NM	
880-6967-2	SW-33	Total/NA	Solid	8015 NM	
880-6967-3	SW-34	Total/NA	Solid	8015 NM	
880-6967-4	SW-35	Total/NA	Solid	8015 NM	
880-6967-5	SW-36	Total/NA	Solid	8015 NM	
880-6967-6	SW-37	Total/NA	Solid	8015 NM	

# **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Draw SDG

Job ID: 880-6967-1 SDG: Eunice, NM

## HPLC/IC

Leach Batch: 9075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6967-1	SW-32	Soluble	Solid	DI Leach	
880-6967-2	SW-33	Soluble	Solid	DI Leach	
880-6967-3	SW-34	Soluble	Solid	DI Leach	
880-6967-4	SW-35	Soluble	Solid	DI Leach	
880-6967-5	SW-36	Soluble	Solid	DI Leach	
880-6967-6	SW-37	Soluble	Solid	DI Leach	
MB 880-9075/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-9075/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-9075/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-6967-5 MS	SW-36	Soluble	Solid	DI Leach	
880-6967-5 MSD	SW-36	Soluble	Solid	DI Leach	

### **Analysis Batch: 9100**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6967-1	SW-32	Soluble	Solid	300.0	9075
880-6967-2	SW-33	Soluble	Solid	300.0	9075
880-6967-3	SW-34	Soluble	Solid	300.0	9075
880-6967-4	SW-35	Soluble	Solid	300.0	9075
880-6967-5	SW-36	Soluble	Solid	300.0	9075
880-6967-6	SW-37	Soluble	Solid	300.0	9075
MB 880-9075/1-A	Method Blank	Soluble	Solid	300.0	9075
LCS 880-9075/2-A	Lab Control Sample	Soluble	Solid	300.0	9075
LCSD 880-9075/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	9075
880-6967-5 MS	SW-36	Soluble	Solid	300.0	9075
880-6967-5 MSD	SW-36	Soluble	Solid	300.0	9075

Eurofins Midland

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Project/Site: HEP:Eunice EMSU Draw

**Client Sample ID: SW-32** 

Client: TRC Solutions, Inc.

Date Collected: 10/07/21 11:30 Date Received: 10/07/21 15:24 Lab Sample ID: 880-6967-1

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	9091	10/08/21 08:27	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9084	10/08/21 13:21	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	9075	10/08/21 08:00	CH	XEN MID
Soluble	Analysis	300.0		5			9100	10/08/21 10:38	CH	XEN MID

Lab Sample ID: 880-6967-2 **Client Sample ID: SW-33** Date Collected: 10/07/21 11:35 **Matrix: Solid** 

Date Received: 10/07/21 15:24

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	9091	10/08/21 08:27	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9084	10/08/21 14:27	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	9075	10/08/21 08:00	CH	XEN MID
Soluble	Analysis	300.0		1			9100	10/08/21 10:45	CH	XEN MID

Lab Sample ID: 880-6967-3 Client Sample ID: SW-34 **Matrix: Solid** 

Date Collected: 10/07/21 11:40 Date Received: 10/07/21 15:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	9091	10/08/21 08:27	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9084	10/08/21 14:58	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	9075	10/08/21 08:00	СН	XEN MID
Soluble	Analysis	300.0		1			9100	10/08/21 10:52	CH	XEN MID

**Client Sample ID: SW-35** Lab Sample ID: 880-6967-4 Date Collected: 10/07/21 11:45 **Matrix: Solid** 

Date Received: 10/07/21 15:24

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MII
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	9091	10/08/21 08:27	DM	XEN MII
Total/NA	Analysis	8015B NM		1			9084	10/08/21 15:20	AJ	XEN MII
Soluble	Leach	DI Leach			5.05 g	50 mL	9075	10/08/21 08:00	CH	XEN MII
Soluble	Analysis	300.0		1			9100	10/08/21 10:59	CH	XEN MII

**Client Sample ID: SW-36** Lab Sample ID: 880-6967-5 Date Collected: 10/07/21 11:50 Matrix: Solid

Date Received: 10/07/21 15:24

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	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8015 NM					9142	10/08/21 18:05	AJ	XEN MID	

#### **Lab Chronicle**

Client: TRC Solutions, Inc. Job ID: 880-6967-1 Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

**Client Sample ID: SW-36** 

Lab Sample ID: 880-6967-5 Date Collected: 10/07/21 11:50 **Matrix: Solid** 

Date Received: 10/07/21 15:24

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	9091	10/08/21 08:27	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9084	10/08/21 15:42	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	9075	10/08/21 08:00	CH	XEN MID
Soluble	Analysis	300.0		1			9100	10/08/21 11:06	CH	XEN MID

Lab Sample ID: 880-6967-6 **Client Sample ID: SW-37** 

Date Collected: 10/07/21 11:55 **Matrix: Solid** 

Date Received: 10/07/21 15:24

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	9093	10/08/21 08:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9088	10/08/21 13:19	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	9075	10/08/21 08:00	CH	XEN MID
Soluble	Analysis	300.0		1			9100	10/08/21 11:28	CH	XEN MID

**Laboratory References:** 

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Eurofins Midland** 

# **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.

Job ID: 880-6967-1

Project/Site: HEP:Eunice EMSU Draw

SDG: Eunice, NM

#### **Laboratory: Eurofins Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-21-22	06-30-22
• ,		ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes t
The following analyte the agency does not		ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes t
• ,		ort, but the laboratory is r Matrix	not certified by the governing authority.  Analyte	This list may include analytes

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# **Method Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Draw

Job ID: 880-6967-1

SDG: Eunice, NM

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Midland

# **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Draw

Job ID: 880-6967-1

SDG: Eunice, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-6967-1	SW-32	Solid	10/07/21 11:30	10/07/21 15:24	2.25
880-6967-2	SW-33	Solid	10/07/21 11:35	10/07/21 15:24	2.25
880-6967-3	SW-34	Solid	10/07/21 11:40	10/07/21 15:24	2.25
880-6967-4	SW-35	Solid	10/07/21 11:45	10/07/21 15:24	2.25
880-6967-5	SW-36	Solid	10/07/21 11:50	10/07/21 15:24	2.25
880-6967-6	SW-37	Solid	10/07/21 11:55	10/07/21 15:24	2.25

Rejunquished by (Signature)  Received by (Signature)	Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 AI Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo N Curcle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofine Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	1	02.28		*	-23	Sample Identification  Matrix  Matrix  Sampled  Matrix  Sampled  Sampled  Depth  Comp  Cont  Ont  Ont  Ont  Ont  Ont  Ont  Ont	d Temperature: 2, i	Seals. Yes No (N/A ) Temperature Reading . O	Yes No WAA Correction Factor +0,5 Para	Vet Ice: (Yes) No meters	the lab, if received by 4.30pm	Euxice Die Due Date 24M2	Project Number: 454378	Project Name HER Living Elin Si Non Turn Around	Phone 432.750 4465 Email REST RSEBRINGE MUG.	2 76705	10 DESTA ON #136E	Company Name (12C)	Project Manager Russeu Se Bandy Bill to: (if different)	eurofins Environment Testing 880-6967
I losses are due to circumstances beyond the control These terms will be enforced unless previous? Relinquished by (Signature)	Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ o Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631  ntractors. It assigns standard terms and conditions														ANALYSIS REQUEST	Phones co	Repo	State of Pi			880-6967 Chain of
y negotiated.  Received by: (Signature)	Ni K Se Ag SiO ₂ Na Sr Hg 1631/2451,						Sa	NaOH+ <i>t</i>	Zn Acet:	NaHSO	H ₃ PO ₄ . HP	HCL HC	Cool Cool	None NO	Dre	Peliverables EDD ADaPT □	Reporting Level II Level III PST/UST TRRP	rrogram: USI/PSI PRP Brownfields State of Project:		www.xenco.com Page	hain of Custody
Date/Time	П Sn U V Zn /7470 /7471						Sample Comments	NaOH+Ascorbic Acid SAPC	Zn Acetate+NaOH Zn	NaHSO 4 NABIS			ool MeOH Me	בו אמרואכ	econstitus Codos		☐ TRRP ☐ Level IV ☐	RRC Superfund	i	leof	

# **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc. Job Number: 880-6967-1 SDG Number: Eunice, NM

Login Number: 6967 **List Source: Eurofins Midland** 

List Number: 1

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Xenco 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-6968-1

Laboratory Sample Delivery Group: Eunice, NM Client Project/Site: HEP:Eunice EMSU Draw

Revision: 2

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MRAMER

Authorized for release by: 1/7/2022 4:26:45 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

-----LINKS

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lotal Access

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Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Draw

Laboratory Job ID: 880-6968-1

SDG: Eunice, NM

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# **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-6968-1 Project/Site: HEP:Eunice EMSU Draw

SDG: Eunice, NM

**Qualifiers** 

**GC Semi VOA** Qualifier **Qualifier Description** 

Surrogate recovery exceeds control limits, high biased. S1+ Indicates the analyte was analyzed for but not detected. U

HPLC/IC

Qualifier **Qualifier Description** 

U Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

n Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery **CFL** Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

**DER** Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

DL Detection Limit (DoD/DOE)

 $\mathsf{DL},\,\mathsf{RA},\,\mathsf{RE},\,\mathsf{IN}$ Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE) MCL EPA recommended "Maximum Contaminant Level"

Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit MLMinimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

**PQL Practical Quantitation Limit** 

**PRES** Presumptive QC **Quality Control** 

**RER** Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) **TEQ** 

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Draw

Job ID: 880-6968-1

SDG: Eunice, NM

Job ID: 880-6968-1

**Laboratory: Eurofins Xenco** 

Narrative

Job Narrative 880-6968-1

#### REVISION

The report being provided is a revision of the original report sent on 10/11/2021. The report (revision 2) is being revised due to Per client email, removed sample depths from sample name.

Report revision history

The report being provided is a revision of the original report sent on 10/11/2021. The report (revision 2) is being revised due to Per client email, removed sample depths from sample name.

Revision 1 - 10/18/2021 - Reason - Per client email, corrected sample ID.

#### Receipt

The samples were received on 10/7/2021 3:25 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

#### GC Semi VOA

Method 8015MOD NM: Surrogate recovery for the following sample was outside control limits: (MB 880-9093/1-A). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Job ID: 880-6968-1

Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

Client Sample ID: CS-83

Date Collected: 10/07/21 10:00 Date Received: 10/07/21 15:25

Sample Depth: 4.5

Lab Sample ID: 880-6968-1 Matrix: Solid

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 10/08/21 18:05 **Total TPH** 49.9 100 mg/Kg

Method: 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac <49.9 U 49.9 10/08/21 08:25 10/08/21 13:21 Gasoline Range Organics mg/Kg (GRO)-C6-C10 **Diesel Range Organics (Over** 49.9 mg/Kg 10/08/21 08:25 10/08/21 13:21 100 C10-C28) Oll Range Organics (Over C28-C36) <49.9 U 49.9 mg/Kg 10/08/21 08:25 10/08/21 13:21 %Recovery Qualifier Limits Prepared Analyzed Dil Fac Surrogate

70 - 130

70 - 130

98

107

Method: 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 5.00 mg/Kg 10/08/21 13:46 Chloride 16.4

Client Sample ID: CS-84

Date Collected: 10/07/21 10:05 Date Received: 10/07/21 15:25

Sample Depth: 4.5

1-Chlorooctane

o-Terphenyl

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac <49.8 U Total TPH 49.8 mg/Kg 10/08/21 18:05

Result Qualifier Analyte RL Unit D Prepared Analyzed Dil Fac Gasoline Range Organics <49.8 U 49.8 10/08/21 08:25 10/08/21 14:27 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 10/08/21 08:25 <49.8 U 49.8 mg/Kg 10/08/21 14:27 C10-C28) 10/08/21 08:25 10/08/21 14:27 Oll Range Organics (Over C28-C36) <49.8 U 49.8 mg/Kg

%Recovery Qualifier Limits Dil Fac Surrogate Prepared Analyzed 10/08/21 08:25 1-Chlorooctane 96 70 - 130 10/08/21 14:27 106 70 - 130 10/08/21 08:25 10/08/21 14:27 o-Terphenyl

Method: 300.0 - Anions, Ion Chromatography - Soluble

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 4.99 mg/Kg 10/08/21 14:04 Chloride 221

**Client Sample ID: CS-85** Lab Sample ID: 880-6968-3 **Matrix: Solid** 

Date Collected: 10/07/21 10:10 Date Received: 10/07/21 15:25

Sample Depth: 4.5

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac **Total TPH** 369 49.9 mg/Kg 10/08/21 18:05

**Eurofins Xenco** 

10/08/21 08:25 10/08/21 13:21

10/08/21 08:25 10/08/21 13:21

Lab Sample ID: 880-6968-2

Matrix: Solid

Client: TRC Solutions, Inc. Job ID: 880-6968-1 Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

**Client Sample ID: CS-85** Lab Sample ID: 880-6968-3 Date Collected: 10/07/21 10:10 Matrix: Solid Date Received: 10/07/21 15:25

Sample Depth: 4.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/08/21 08:25	10/08/21 14:58	1
Diesel Range Organics (Over C10-C28)	317		49.9	mg/Kg		10/08/21 08:25	10/08/21 14:58	1
Oll Range Organics (Over C28-C36)	51.5		49.9	mg/Kg		10/08/21 08:25	10/08/21 14:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			10/08/21 08:25	10/08/21 14:58	1
o-Terphenyl	105		70 - 130			10/08/21 08:25	10/08/21 14:58	1
-	Chromatogra	nhy - Solu	ıble					
Method: 300.0 - Anions, Ion	Cilionialogia	ipily - Colo						
Method: 300.0 - Anions, Ion Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Lab Sample ID: 880-6968-4 **Client Sample ID: CS-86** Date Collected: 10/07/21 10:15 Matrix: Solid

Date Received: 10/07/21 15:25

Sample Depth: 4.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	113		49.8	mg/Kg			10/08/21 18:05	1
Method: 8015B NM - Diesel Ra	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		10/08/21 08:25	10/08/21 15:20	1
(GRO)-C6-C10								
Diesel Range Organics (Over	113		49.8	mg/Kg		10/08/21 08:25	10/08/21 15:20	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/08/21 08:25	10/08/21 15:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			10/08/21 08:25	10/08/21 15:20	1
o-Terphenyl	103		70 - 130			10/08/21 08:25	10/08/21 15:20	1
Method: 300.0 - Anions, Ion C	hromatogra	nhy - Solu	ıble					
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Method. 300.0 - Amons, fon Ci	iroinatography - Solub	16					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	380	4.97	mg/Kg			10/08/21 14:17	1

**Client Sample ID: CS-87** Lab Sample ID: 880-6968-5 Date Collected: 10/07/21 10:20 Matrix: Solid

Date Received: 10/07/21 15:25

Sample Depth: 4.5

Method: 8015 NM - Diesel Ran	ge Organics (DRO) (GO	<b>C</b> )					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	3860	249	mg/Kg			10/08/21 18:05	1

# **Client Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-6968-1 Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

Client Sample ID: CS-87

Date Collected: 10/07/21 10:20 Date Received: 10/07/21 15:25

Sample Depth: 4.5

.ab Sample II	): 880-6968-5
---------------	---------------

**Matrix: Solid** 

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	643		249	mg/Kg		10/08/21 08:25	10/08/21 15:42	5
Diesel Range Organics (Over C10-C28)	2880		249	mg/Kg		10/08/21 08:25	10/08/21 15:42	5
Oll Range Organics (Over C28-C36)	334		249	mg/Kg		10/08/21 08:25	10/08/21 15:42	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			10/08/21 08:25	10/08/21 15:42	5
o-Terphenyl	98		70 - 130			10/08/21 08:25	10/08/21 15:42	5

Method: 300.0 - Anions, Ion Chromatography - Soluble Result Qualifier Analyte RLUnit Dil Fac Prepared Analyzed 865 10/08/21 14:23 Chloride 4.95 mg/Kg

Client Sample ID: CS-88 Lab Sample ID: 880-6968-6 Date Collected: 10/07/21 10:25 Matrix: Solid

Date Received: 10/07/21 15:25

Sample Depth: 4.5

Method: 8015 NM - Diesel F	Range Organic	s (DRO) (GO	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	113		49.8	mg/Kg			10/08/21 18:05	1
Method: 8015B NM - Diese	l Range Organ	ics (DRO) (0	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ossalina Danas Ossasias		11	40.0			10/00/21 00:21	10/00/21 11/25	- 1

Gasoline Range Organics	<49.8	U	49.8	mg/Kg	10/08/21 08:34	10/08/21 14:25	1
(GRO)-C6-C10							
Diesel Range Organics (Over	113		49.8	mg/Kg	10/08/21 08:34	10/08/21 14:25	1
C10-C28)							
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg	10/08/21 08:34	10/08/21 14:25	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analvzed	Dil Fac
	,						
1-Chlorooctane	87		70 ₋ 130		10/08/21 08:34	10/08/21 14:25	1

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Method: 300.0 - Anions, Ion Chrom	atography - Solub	ole						
o-Terphenyl	95	70 - 130		1	10/08/21 08:34	10/08/21 14:25	1	
1 Gillor Godiano	07	70 - 700			0/00/21 00.01	10/00/21 11.20	,	

4.98 **Client Sample ID: CS-89** Lab Sample ID: 880-6968-7

1050

mg/Kg

Date Collected: 10/07/21 10:30 Date Received: 10/07/21 15:25

Sample Depth: 4.5

Chloride

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/08/21 18:05	1

10/08/21 14:42

**Eurofins Xenco** 

**Matrix: Solid** 

Job ID: 880-6968-1

Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

**Client Sample ID: CS-89** Lab Sample ID: 880-6968-7

Date Collected: 10/07/21 10:30 **Matrix: Solid** Date Received: 10/07/21 15:25

Sample Depth: 4.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/08/21 08:34	10/08/21 13:19	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/08/21 08:34	10/08/21 13:19	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/08/21 08:34	10/08/21 13:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			10/08/21 08:34	10/08/21 13:19	1
o-Terphenyl	93		70 - 130			10/08/21 08:34	10/08/21 13:19	1
Method: 300.0 - Anions, Ion C	hromatogra	phy - Solu	ible					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

5.05 10/08/21 14:48 Chloride 893 mg/Kg Client Sample ID: CS-90 Lab Sample ID: 880-6968-8

Date Collected: 10/07/21 10:35

Date Received: 10/07/21 15:25

Sample Depth: 4.5

Method: 8015 NM - Diesel Rang	ge Organic	s (DRO) (G0	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	134		49.9	mg/Kg			10/08/21 18:05	1
Method: 8015B NM - Diesel Ra	nge Organ	ics (DRO) (0	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/08/21 08:34	10/08/21 14:51	1
Diesel Range Organics (Over C10-C28)	134		49.9	mg/Kg		10/08/21 08:34	10/08/21 14:51	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/08/21 08:34	10/08/21 14:51	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87	70 - 130	10/08/21 08:34	10/08/21 14:51	1
o-Terphenyl	95	70 - 130	10/08/21 08:34	10/08/21 14:51	1
_					

Method: 300.0 - Anions, Ion Ci	hromatography - Solut	ole					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	357	4.99	mg/Kg			10/08/21 14:54	1

**Client Sample ID: CS-91** Lab Sample ID: 880-6968-9 Date Collected: 10/07/21 10:40 **Matrix: Solid** 

Date Received: 10/07/21 15:25

Sample Depth: 4.5

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<u></u>	49.8	mg/Kg			10/08/21 18:05	
Mothod: 901EP NM Diocol	Pango Organics (DPO) (C	:C)					
Method: 8015B NM - Diesel	Range Organics (DRO) (G	iC)					
Method: 8015B NM - Diesel Analyte	Range Organics (DRO) (G	iC)	Unit	D	Prepared	Analyzed	Dil Fac

**Eurofins Xenco** 

**Matrix: Solid** 

Project/Site: HEP:Eunice EMSU Draw

Job ID: 880-6968-1

SDG: Eunice, NM

Client Sample ID: CS-91

Client: TRC Solutions, Inc.

Date Collected: 10/07/21 10:40

Date Received: 10/07/21 15:25

Sample Depth: 4.5

Lab Sample ID: 880-6968-9

**Matrix: Solid** 

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued) Result Qualifier Analyte RL Unit D Prepared Analyzed Dil Fac 49.8 10/08/21 08:34 10/08/21 15:13 **Diesel Range Organics (Over** 152 mg/Kg C10-C28) Oll Range Organics (Over C28-C36) 10/08/21 08:34 10/08/21 15:13 <49.8 U 49 8 mg/Kg %Recovery Qualifier Surrogate Limits Prepared Analyzed Dil Fac 1-Chlorooctane 92 70 - 130 10/08/21 08:34 10/08/21 15:13 o-Terphenyl 100 70 - 130 10/08/21 08:34 10/08/21 15:13

Method: 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 5.04 10/08/21 15:01 **Chloride** 42.9 mg/Kg

Client Sample ID: CS-92 Lab Sample ID: 880-6968-10 Matrix: Solid

Date Collected: 10/07/21 10:45 Date Received: 10/07/21 15:25

Sample Depth: 4.5

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Analyzed Dil Fac Prepared **Total TPH** 10/08/21 18:05 388 49.9 mg/Kg

Method: 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac **Gasoline Range Organics** 49.9 10/08/21 08:34 10/08/21 15:35 50.0 mg/Kg (GRO)-C6-C10 **Diesel Range Organics (Over** 49.9 mg/Kg 10/08/21 08:34 10/08/21 15:35 338 C10-C28) Oll Range Organics (Over C28-C36) <49.9 U 10/08/21 08:34 10/08/21 15:35 49.9 mg/Kg Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 91 70 - 130 10/08/21 08:34 10/08/21 15:35 o-Terphenyl 98 70 - 130 10/08/21 08:34 10/08/21 15:35

Method: 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier Unit RL Prepared Analyzed Dil Fac 10/08/21 15:07 4.98 **Chloride** 305 mg/Kg

Client Sample ID: CS-93 Lab Sample ID: 880-6968-11 Date Collected: 10/07/21 10:50 Matrix: Solid

Date Received: 10/07/21 15:25

Sample Depth: 4.5

Method: 8015 NM - Diesel Range Organics (DRO) (GC)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/08/21 18:05	1
_								

Method: 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result Qualifi	er RL	Unit	D	Prepared	Analyzed	Dil Fac		
Gasoline Range Organics (GRO)-C6-C10	<49.8 U	49.8	mg/Kg		10/08/21 08:35	10/08/21 14:25	1		
Diesel Range Organics (Over C10-C28)	<49.8 U	49.8	mg/Kg		10/08/21 08:35	10/08/21 14:25	1		

# **Client Sample Results**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Draw

Job ID: 880-6968-1

SDG: Eunice, NM

Client Sample ID: CS-93 Lab Sample ID: 880-6968-11

Date Collected: 10/07/21 10:50 Matrix: Solid
Date Received: 10/07/21 15:25

Sample Depth: 4.5

inge Organi	ics (DRO)	(GC) (Continued)					
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<49.8	U	49.8	mg/Kg		10/08/21 08:35	10/08/21 14:25	1
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
102		70 - 130			10/08/21 08:35	10/08/21 14:25	1
115		70 - 130			10/08/21 08:35	10/08/21 14:25	1
	Result <49.8 %Recovery	Result   Qualifier	Result         Qualifier         RL           <49.8	<49.8	Result          Qualifier          RL          Unit mg/Kg         D mg/Kg           %Recovery 102         Qualifier          Limits          70 - 130         To - 130 <td< td=""><td>Result         Qualifier         RL         Unit         D         Prepared           &lt;49.8</td>         U         49.8         mg/Kg         10/08/21 08:35           %Recovery         Qualifier         Limits         Prepared           102         70 - 130         10/08/21 08:35</td<>	Result         Qualifier         RL         Unit         D         Prepared           <49.8	Result          Qualifier         RL          Unit mg/Kg         D / 10/08/21 08:35         Prepared mode of 10/08/21 14:25         Analyzed of 10/08/21 14:25           %Recovery 102         Qualifier

Method: 300.0 - Anions, Ion Ch	iromatography - Solubl	le					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	488	4.95	mg/Kg			10/08/21 15:13	1

Client Sample ID: CS-94

Date Collected: 10/07/21 10:55

Lab Sample ID: 880-6968-12

Matrix: Solid

Date Received: 10/07/21 15:25

Sample Depth: 4.5

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Total TPH	<49.9	U	49.9	mg/Kg			10/08/21 18:05	1
Ì									

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/08/21 08:35	10/08/21 14:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/08/21 08:35	10/08/21 14:51	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/08/21 08:35	10/08/21 14:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			10/08/21 08:35	10/08/21 14:51	1
o-Terphenyl	120		70 - 130			10/08/21 08:35	10/08/21 14:51	1

Method: 300.0 - Anions, Ion Chromatography - Soluble								
	Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	1870	25.2	mg/Kg			10/08/21 15:32	5

Client Sample ID: CS-95

Date Collected: 10/07/21 11:00

Lab Sample ID: 880-6968-13

Matrix: Solid

Date Received: 10/07/21 15:25

Sample Depth: 4.5

tal TPH <49.8 U 49.8 mg/Kg 10/08/21 18:05 1											
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Total TPH	<49.8	U	49.8	mg/Kg			10/08/21 18:05	1			
- Method: 8015B NM - Diesel Rar	nge Organ	ics (DRO) (G	SC)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		10/08/21 08:35	10/08/21 15:13	1			
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		10/08/21 08:35	10/08/21 15:13	1			
C10-C28)											
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/08/21 08:35	10/08/21 15:13	1			

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# **Client Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-6968-1 Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

**Client Sample ID: CS-95** Lab Sample ID: 880-6968-13

Date Collected: 10/07/21 11:00 **Matrix: Solid** Date Received: 10/07/21 15:25

Sample Depth: 4.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	10/08/21 08:35	10/08/21 15:13	1
o-Terphenyl	120		70 - 130	10/08/21 08:35	10/08/21 15:13	1

Method: 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac 10/08/21 15:38 Chloride 3470 24.9 mg/Kg

Client Sample ID: CS-96 Lab Sample ID: 880-6968-14 Date Collected: 10/07/21 11:05 **Matrix: Solid** 

Date Received: 10/07/21 15:25

Sample Depth: 4.5

(GRO)-C6-C10

o-Terphenyl

Method: 8015 NM - Die:	sel Range Organics	s (DRO) (GC	3)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4230		249	mg/Kg			10/08/21 18:05	1
Method: 8015B NM - Di	iosal Bango Organi	os (DBO) (G	C)					
	•		•		_			
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<249	U	249	mg/Kg		10/08/21 08:35	10/08/21 15:35	5

1-Chlorooctane	111	70 - 130		10/08/21 08:35	10/08/21 15:35	5
Surrogate	%Recovery Qualifier	Limits		Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	536	249	mg/Kg	10/08/21 08:35	10/08/21 15:35	5
Diesel Range Organics (Over C10-C28)	3690	249	mg/Kg	10/08/21 08:35	10/08/21 15:35	5

10/08/21 08:35 10/08/21 15:35

119

Method: 300.0 - Anions, Ion Chromatography - Soluble								
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	203	4.98	mg/Kg			10/08/21 15:57	1	

70 - 130

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# **Surrogate Summary**

Client: TRC Solutions, Inc.

Job ID: 880-6968-1

Project/Site: HEP:Eunice EMSU Draw

SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

		1001	OTPH1	urrogate Recovery (Acceptance Limits)
b Sample ID	Client Sample ID	(70-130)	(70-130)	
0-6967-A-6-C MS	Matrix Spike	102	100	
0-6967-A-6-D MSD	Matrix Spike Duplicate	102	105	
0-6968-1	CS-83	98	107	
0-6968-1 MS	CS-83	114	112	
0-6968-1 MSD	CS-83	111	111	
0-6968-2	CS-84	96	106	
0-6968-3	CS-85	99	105	
)-6968-4	CS-86	95	103	
0-6968-5	CS-87	107	98	
)-6968-6	CS-88	87	95	
)-6968-7	CS-89	88	93	
-6968-7 MS	CS-89	89	90	
6968-7 MSD	CS-89	83	85	
-6968-8	CS-90	87	95	
-6968-9	CS-91	92	100	
-6968-10	CS-92	91	98	
-6968-11	CS-93	102	115	
-6968-12	CS-94	105	120	
6968-13	CS-95	106	120	
-6968-14	CS-96	111	119	
8 880-9090/2-A	Lab Control Sample	96	95	
8 880-9092/2-A	Lab Control Sample	109	116	
S 880-9093/2-A	Lab Control Sample	90	95	
SD 880-9090/3-A	Lab Control Sample Dup	97	93	
SD 880-9092/3-A	Lab Control Sample Dup	94	97	
SD 880-9093/3-A	Lab Control Sample Dup	100	107	
880-9090/1-A	Method Blank	110	122	
880-9092/1-A	Method Blank	94	102	
880-9093/1-A	Method Blank	114	131 S1+	

#### Surrogate Legend

1CO = 1-Chlorooctane OTPH = o-Terphenyl

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Job ID: 880-6968-1 Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

Analyzed

**Prep Type: Total/NA** Prep Batch: 9090

Prep Type: Total/NA

**Client Sample ID: CS-83** Prep Type: Total/NA

**Client Sample ID: Method Blank** 

Prepared

10/08/21 08:25 10/08/21 12:16

10/08/21 08:25 10/08/21 12:16

**Client Sample ID: Lab Control Sample** 

**Client Sample ID: Lab Control Sample Dup** 

**Prep Type: Total/NA** Prep Batch: 9090

Dil Fac

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

%Recovery Qualifier

110

122

Lab Sample ID: MB 880-9090/1-A

**Matrix: Solid** 

**Analysis Batch: 9082** 

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/08/21 08:25	10/08/21 12:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/08/21 08:25	10/08/21 12:16	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/08/21 08:25	10/08/21 12:16	1
	MB	MB						

Limits

70 - 130

70 - 130

Lab Sample ID: LCS 880-9090/2-A

**Matrix: Solid** 

Surrogate

o-Terphenyl

1-Chlorooctane

**Analysis Batch: 9082** 

_	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	854.4		mg/Kg		85	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	923.8		mg/Kg		92	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	95		70 - 130

Lab Sample ID: LCSD 880-9090/3-A

**Matrix: Solid** 

Analysis Batch: 9082							Prep	Batcn:	atch: 9090			
	Spike	LCSD	LCSD				%Rec.		RPD			
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit			
Gasoline Range Organics	1000	1016		mg/Kg		102	70 - 130	17	20			
(GRO)-C6-C10												
Diesel Range Organics (Over	1000	1002		mg/Kg		100	70 - 130	8	20			
C10-C28)												

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 880-6968-1 MS

**Matrix: Solid** 

Analysis Batch: 9082									Prep	Batch: 909	90
	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	959.3		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)	100		997	1024		mg/Kg		93	70 - 130		

Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Draw

Job ID: 880-6968-1 SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-6968-1 MS **Matrix: Solid** 

**Analysis Batch: 9082** 

**Client Sample ID: CS-83** Prep Type: Total/NA

Prep Batch: 9090

Prep Type: Total/NA

MS MS %Recovery Qualifier Surrogate Limits 1-Chlorooctane 114 70 - 130 o-Terphenyl 112 70 - 130

Lab Sample ID: 880-6968-1 MSD **Client Sample ID: CS-83** 

**Matrix: Solid** 

Analysis Batch: 9082									Prep	<b>Batch:</b>	9090
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<49.9	U	1000	938.3		mg/Kg		91	70 - 130	2	20
(GRO)-C6-C10											
Diesel Range Organics (Over	100		1000	1022		mg/Kg		92	70 - 130	0	20

C10-C28)

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	111		70 - 130

Lab Sample ID: MB 880-9092/1-A

**Matrix: Solid** 

**Analysis Batch: 9086** 

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 9092

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/08/21 08:34	10/08/21 12:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/08/21 08:34	10/08/21 12:13	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/08/21 08:34	10/08/21 12:13	1

MB MB %Recovery Qualifier Dil Fac Surrogate Limits Prepared Analyzed 70 - 130 1-Chlorooctane 94 10/08/21 08:34 10/08/21 12:13 102 70 - 130 10/08/21 08:34 10/08/21 12:13 o-Terphenyl

Lab Sample ID: LCS 880-9092/2-A

**Matrix: Solid** 

**Analysis Batch: 9086** 

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9092

7 manyolo Datom occo								
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	965.8		mg/Kg		97	70 - 130	<del></del> ; <del></del> ;
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	950.5		mg/Kg		95	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	116		70 - 130

Client: TRC Solutions, Inc. Job ID: 880-6968-1 Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-9092/3-A

**Matrix: Solid** 

**Analysis Batch: 9086** 

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Prep Batch: 9092

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier %Rec Limits RPD Limit Analyte Unit D Gasoline Range Organics 1000 810.0 mg/Kg 81 70 - 130 18 20 (GRO)-C6-C10 1000 Diesel Range Organics (Over 822.3 82 70 - 130 mg/Kg 14 20

C10-C28)

o-Terphenyl

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 70 - 130 94

> 97 70 - 130 Client Sample ID: CS-89

**Matrix: Solid Prep Type: Total/NA Analysis Batch: 9086** Prep Batch: 9092

Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier D %Rec Limits Analyte Unit Gasoline Range Organics <49.9 U 997 795.3 80 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 997 762.7 mg/Kg 74 70 - 130 C10-C28)

MS MS Qualifier Surrogate %Recovery Limits 1-Chlorooctane 89 70 - 130 o-Terphenyl 90 70 - 130

Lab Sample ID: 880-6968-7 MSD

Lab Sample ID: 880-6968-7 MS

**Matrix: Solid** 

Client Sample ID: CS-89 Prep Type: Total/NA **Analysis Batch: 9086** Prep Batch: 9092

Spike MSD MSD %Rec. RPD Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics Ū 1000 792.3 79 20 <49.9 70 - 130 n mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 1000 732.4 71 70 - 130 20 mg/Kg

C10-C28)

MSD MSD

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 83 70 - 130 85 70 - 130 o-Terphenyl

Lab Sample ID: MB 880-9093/1-A

**Matrix: Solid** 

**Analysis Batch: 9088** 

**Client Sample ID: Method Blank Prep Type: Total/NA** 

Prep Batch: 9093

MB MB Result Qualifier Analyte RL Unit D Analyzed Dil Fac Prepared 10/08/21 08:35 10/08/21 12:13 Gasoline Range Organics <50.0 U 50.0 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 10/08/21 08:35 10/08/21 12:13 mg/Kg C10-C28) 50.0 10/08/21 08:35 10/08/21 12:13 Oll Range Organics (Over C28-C36) <50.0 U mg/Kg

Client: TRC Solutions, Inc. Job ID: 880-6968-1 Project/Site: HEP:Eunice EMSU Draw

SDG: Eunice, NM

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-9093/1-A

**Matrix: Solid** 

**Analysis Batch: 9088** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 9093

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	10/08/21 08:35	10/08/21 12:13	1
o-Terphenyl	131	S1+	70 - 130	10/08/21 08:35	10/08/21 12:13	1

Lab Sample ID: LCS 880-9093/2-A

**Matrix: Solid** 

**Analysis Batch: 9088** 

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Prep Batch: 9093

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 776.9 mg/Kg 78 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 1000 900.9 mg/Kg 90 70 - 130 C10-C28)

LCS LCS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 90 70 - 130 70 - 130 o-Terphenyl 95

Lab Sample ID: LCSD 880-9093/3-A

**Matrix: Solid** 

**Analysis Batch: 9088** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 9093

Spike LCSD LCSD **RPD** Added Result Qualifier Limits Limit Analyte Unit D %Rec RPD Gasoline Range Organics 1000 835.1 mg/Kg 84 70 - 130 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 1036 mg/Kg 104 70 - 130 14 20

C10-C28)

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	100	70 - 130
o-Terphenyl	107	70 - 130

Lab Sample ID: 880-6967-A-6-C MS

**Matrix: Solid** 

**Analysis Batch: 9088** 

Client Sample ID: Matrix Spike **Prep Type: Total/NA** 

Prep Batch: 9093

Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier Limits Analyte Unit %Rec <49.9 U 997 890.3 86 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 997 1025 mg/Kg 103 70 - 130 C10-C28)

MS MS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	100		70 - 130

Client: TRC Solutions, Inc. Job ID: 880-6968-1 Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-6967-A-6-D MSD **Client Sample ID: Matrix Spike Duplicate** 

**Matrix: Solid Analysis Batch: 9088**  Prep Type: Total/NA Prep Batch: 9093

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	981.0		mg/Kg		94	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	1078		mg/Kg		108	70 - 130	5	20

MSD MSD %Recovery Qualifier Limits

Surrogate 1-Chlorooctane 70 - 130 102 105 70 - 130 o-Terphenyl

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-9081/1-A **Client Sample ID: Method Blank Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 9116** 

MB MB Result Qualifier RL Unit Analyte Prepared Analyzed Dil Fac 5.00 Chloride <5.00 U mg/Kg 10/08/21 13:27

Lab Sample ID: LCS 880-9081/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 9116** 

LCS LCS Spike %Rec. Analyte Added Result Qualifier Limits Unit D %Rec Chloride 250 259.8 mg/Kg 104 90 - 110

Lab Sample ID: LCSD 880-9081/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 9116** 

Spike LCSD LCSD RPD %Rec. **Analyte** Added Result Qualifier Unit D %Rec Limits RPD Limit Chloride 250 259.9 mg/Kg 104 90 - 110 0

Lab Sample ID: 880-6968-1 MS Client Sample ID: CS-83 **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 9116** 

MS MS Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 16.4 250 285.7 mg/Kg 108 90 - 110

Lab Sample ID: 880-6968-1 MSD Client Sample ID: CS-83 **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 9116** 

MSD MSD %Rec. **RPD** Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit 250 Chloride 16.4 283.2 107 90 - 110 mg/Kg

# **QC Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-6968-1 Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-6968-11 MS Client Sample ID: CS-93 **Prep Type: Soluble** 

**Matrix: Solid Analysis Batch: 9116** 

%Rec. Sample Sample Spike MS MS Result Qualifier Added Analyte Result Qualifier Unit D %Rec Limits Chloride 248 488 739.7 mg/Kg 102 90 - 110

Lab Sample ID: 880-6968-11 MSD Client Sample ID: CS-93 **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 9116** 

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	488		248	736.5		mg/Kg		101	90 - 110	0	20

# **QC Association Summary**

Job ID: 880-6968-1 Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

# **GC Semi VOA**

#### **Analysis Batch: 9082**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6968-1	CS-83	Total/NA	Solid	8015B NM	9090
880-6968-2	CS-84	Total/NA	Solid	8015B NM	9090
880-6968-3	CS-85	Total/NA	Solid	8015B NM	9090
880-6968-4	CS-86	Total/NA	Solid	8015B NM	9090
880-6968-5	CS-87	Total/NA	Solid	8015B NM	9090
MB 880-9090/1-A	Method Blank	Total/NA	Solid	8015B NM	9090
LCS 880-9090/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9090
LCSD 880-9090/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9090
880-6968-1 MS	CS-83	Total/NA	Solid	8015B NM	9090
880-6968-1 MSD	CS-83	Total/NA	Solid	8015B NM	9090

#### **Analysis Batch: 9086**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6968-6	CS-88	Total/NA	Solid	8015B NM	9092
880-6968-7	CS-89	Total/NA	Solid	8015B NM	9092
880-6968-8	CS-90	Total/NA	Solid	8015B NM	9092
880-6968-9	CS-91	Total/NA	Solid	8015B NM	9092
880-6968-10	CS-92	Total/NA	Solid	8015B NM	9092
MB 880-9092/1-A	Method Blank	Total/NA	Solid	8015B NM	9092
LCS 880-9092/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9092
LCSD 880-9092/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9092
880-6968-7 MS	CS-89	Total/NA	Solid	8015B NM	9092
880-6968-7 MSD	CS-89	Total/NA	Solid	8015B NM	9092

#### **Analysis Batch: 9088**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6968-11	CS-93	Total/NA	Solid	8015B NM	9093
880-6968-12	CS-94	Total/NA	Solid	8015B NM	9093
880-6968-13	CS-95	Total/NA	Solid	8015B NM	9093
880-6968-14	CS-96	Total/NA	Solid	8015B NM	9093
MB 880-9093/1-A	Method Blank	Total/NA	Solid	8015B NM	9093
LCS 880-9093/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9093
LCSD 880-9093/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9093
880-6967-A-6-C MS	Matrix Spike	Total/NA	Solid	8015B NM	9093
880-6967-A-6-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	9093

#### Prep Batch: 9090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6968-1	CS-83	Total/NA	Solid	8015NM Prep	-
880-6968-2	CS-84	Total/NA	Solid	8015NM Prep	
880-6968-3	CS-85	Total/NA	Solid	8015NM Prep	
880-6968-4	CS-86	Total/NA	Solid	8015NM Prep	
880-6968-5	CS-87	Total/NA	Solid	8015NM Prep	
MB 880-9090/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9090/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9090/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6968-1 MS	CS-83	Total/NA	Solid	8015NM Prep	
880-6968-1 MSD	CS-83	Total/NA	Solid	8015NM Prep	

# **QC Association Summary**

Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Draw

Job ID: 880-6968-1 SDG: Eunice, NM

#### **GC Semi VOA**

#### Prep Batch: 9092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6968-6	CS-88	Total/NA	Solid	8015NM Prep	
880-6968-7	CS-89	Total/NA	Solid	8015NM Prep	
880-6968-8	CS-90	Total/NA	Solid	8015NM Prep	
880-6968-9	CS-91	Total/NA	Solid	8015NM Prep	
880-6968-10	CS-92	Total/NA	Solid	8015NM Prep	
MB 880-9092/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9092/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9092/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6968-7 MS	CS-89	Total/NA	Solid	8015NM Prep	
880-6968-7 MSD	CS-89	Total/NA	Solid	8015NM Prep	

#### Prep Batch: 9093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6968-11	CS-93	Total/NA	Solid	8015NM Prep	
880-6968-12	CS-94	Total/NA	Solid	8015NM Prep	
880-6968-13	CS-95	Total/NA	Solid	8015NM Prep	
880-6968-14	CS-96	Total/NA	Solid	8015NM Prep	
MB 880-9093/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9093/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9093/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6967-A-6-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-6967-A-6-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 9142**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6968-1	CS-83	Total/NA	Solid	8015 NM	
880-6968-2	CS-84	Total/NA	Solid	8015 NM	
880-6968-3	CS-85	Total/NA	Solid	8015 NM	
880-6968-4	CS-86	Total/NA	Solid	8015 NM	
880-6968-5	CS-87	Total/NA	Solid	8015 NM	
880-6968-6	CS-88	Total/NA	Solid	8015 NM	
880-6968-7	CS-89	Total/NA	Solid	8015 NM	
880-6968-8	CS-90	Total/NA	Solid	8015 NM	
880-6968-9	CS-91	Total/NA	Solid	8015 NM	
880-6968-10	CS-92	Total/NA	Solid	8015 NM	
880-6968-11	CS-93	Total/NA	Solid	8015 NM	
880-6968-12	CS-94	Total/NA	Solid	8015 NM	
880-6968-13	CS-95	Total/NA	Solid	8015 NM	
880-6968-14	CS-96	Total/NA	Solid	8015 NM	

#### HPLC/IC

#### Leach Batch: 9081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6968-1	CS-83	Soluble	Solid	DI Leach	
880-6968-2	CS-84	Soluble	Solid	DI Leach	
880-6968-3	CS-85	Soluble	Solid	DI Leach	
880-6968-4	CS-86	Soluble	Solid	DI Leach	
880-6968-5	CS-87	Soluble	Solid	DI Leach	
880-6968-6	CS-88	Soluble	Solid	DI Leach	
880-6968-7	CS-89	Soluble	Solid	DI Leach	

# **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Draw

Job ID: 880-6968-1

SDG: Eunice, NM

# HPLC/IC (Continued)

#### Leach Batch: 9081 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6968-8	CS-90	Soluble	Solid	DI Leach	
880-6968-9	CS-91	Soluble	Solid	DI Leach	
880-6968-10	CS-92	Soluble	Solid	DI Leach	
880-6968-11	CS-93	Soluble	Solid	DI Leach	
880-6968-12	CS-94	Soluble	Solid	DI Leach	
880-6968-13	CS-95	Soluble	Solid	DI Leach	
880-6968-14	CS-96	Soluble	Solid	DI Leach	
MB 880-9081/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-9081/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-9081/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-6968-1 MS	CS-83	Soluble	Solid	DI Leach	
880-6968-1 MSD	CS-83	Soluble	Solid	DI Leach	
880-6968-11 MS	CS-93	Soluble	Solid	DI Leach	
880-6968-11 MSD	CS-93	Soluble	Solid	DI Leach	

#### **Analysis Batch: 9116**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-6968-1	CS-83	Soluble	Solid	300.0	9081
880-6968-2	CS-84	Soluble	Solid	300.0	9081
880-6968-3	CS-85	Soluble	Solid	300.0	9081
880-6968-4	CS-86	Soluble	Solid	300.0	9081
880-6968-5	CS-87	Soluble	Solid	300.0	9081
880-6968-6	CS-88	Soluble	Solid	300.0	9081
880-6968-7	CS-89	Soluble	Solid	300.0	9081
880-6968-8	CS-90	Soluble	Solid	300.0	9081
880-6968-9	CS-91	Soluble	Solid	300.0	9081
880-6968-10	CS-92	Soluble	Solid	300.0	9081
880-6968-11	CS-93	Soluble	Solid	300.0	9081
880-6968-12	CS-94	Soluble	Solid	300.0	9081
880-6968-13	CS-95	Soluble	Solid	300.0	9081
880-6968-14	CS-96	Soluble	Solid	300.0	9081
MB 880-9081/1-A	Method Blank	Soluble	Solid	300.0	9081
LCS 880-9081/2-A	Lab Control Sample	Soluble	Solid	300.0	9081
LCSD 880-9081/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	9081
880-6968-1 MS	CS-83	Soluble	Solid	300.0	9081
880-6968-1 MSD	CS-83	Soluble	Solid	300.0	9081
880-6968-11 MS	CS-93	Soluble	Solid	300.0	9081
880-6968-11 MSD	CS-93	Soluble	Solid	300.0	9081

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Client: TRC Solutions, Inc. Job ID: 880-6968-1 Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

**Client Sample ID: CS-83** 

Lab Sample ID: 880-6968-1 Date Collected: 10/07/21 10:00 **Matrix: Solid** 

Date Received: 10/07/21 15:25

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	9090	10/08/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9082	10/08/21 13:21	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	9081	10/07/21 16:15	CH	XEN MID
Soluble	Analysis	300.0		1			9116	10/08/21 13:46	CH	XEN MID

Client Sample ID: CS-84 Lab Sample ID: 880-6968-2

Date Collected: 10/07/21 10:05 Date Received: 10/07/21 15:25

•	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	9090	10/08/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9082	10/08/21 14:27	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	9081	10/07/21 16:15	CH	XEN MID
Soluble	Analysis	300.0		1			9116	10/08/21 14:04	CH	XEN MID

Lab Sample ID: 880-6968-3 **Client Sample ID: CS-85 Matrix: Solid** 

Date Collected: 10/07/21 10:10 Date Received: 10/07/21 15:25

Prep Type Total/NA	Batch Type Analysis	Batch Method 8015 NM	Run	Pactor 1	Initial Amount	Final Amount	Batch Number 9142	Prepared or Analyzed 10/08/21 18:05	Analyst AJ	Lab XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.02 g	10 mL	9090 9082	10/08/21 08:25 10/08/21 14:58		XEN MID XEN MID
Soluble Soluble	Leach Analysis	DI Leach 300.0		1	5.02 g	50 mL	9081 9116	10/07/21 16:15 10/08/21 14:11		XEN MID XEN MID

Lab Sample ID: 880-6968-4 **Client Sample ID: CS-86** Date Collected: 10/07/21 10:15 **Matrix: Solid** 

Date Received: 10/07/21 15:25

-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	9090	10/08/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9082	10/08/21 15:20	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	9081	10/07/21 16:15	CH	XEN MID
Soluble	Analysis	300.0		1			9116	10/08/21 14:17	CH	XEN MID

**Client Sample ID: CS-87** Lab Sample ID: 880-6968-5

Date Collected: 10/07/21 10:20 Date Received: 10/07/21 15:25

_										
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM					9142	10/08/21 18:05	AJ	XEN MID

**Eurofins Xenco** 

Matrix: Solid

**Matrix: Solid** 

Released to Imaging: 3/24/2022 9:01:44 AM

Job ID: 880-6968-1

Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Draw SDG: Eunice, NM

**Client Sample ID: CS-87** Lab Sample ID: 880-6968-5

Date Collected: 10/07/21 10:20 **Matrix: Solid** Date Received: 10/07/21 15:25

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	9090	10/08/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		5			9082	10/08/21 15:42	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	9081	10/07/21 16:15	CH	XEN MID
Soluble	Analysis	300.0		1			9116	10/08/21 14:23	CH	XEN MID

**Client Sample ID: CS-88** Lab Sample ID: 880-6968-6 Date Collected: 10/07/21 10:25 Matrix: Solid

Date Received: 10/07/21 15:25

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	9092	10/08/21 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9086	10/08/21 14:25	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	9081	10/07/21 16:15	CH	XEN MID
Soluble	Analysis	300.0		1			9116	10/08/21 14:42	CH	XEN MID

**Client Sample ID: CS-89** Lab Sample ID: 880-6968-7 **Matrix: Solid** 

Date Collected: 10/07/21 10:30

Date Received: 10/07/21 15:25

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	9092	10/08/21 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9086	10/08/21 13:19	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	9081	10/07/21 16:15	CH	XEN MID
Soluble	Analysis	300.0		1			9116	10/08/21 14:48	CH	XEN MID

Client Sample ID: CS-90 Lab Sample ID: 880-6968-8 Date Collected: 10/07/21 10:35 **Matrix: Solid** 

Date Received: 10/07/21 15:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	9092	10/08/21 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9086	10/08/21 14:51	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	9081	10/07/21 16:15	CH	XEN MID
Soluble	Analysis	300.0		1			9116	10/08/21 14:54	CH	XEN MID

**Client Sample ID: CS-91** Lab Sample ID: 880-6968-9 Date Collected: 10/07/21 10:40 Matrix: Solid

Date Received: 10/07/21 15:25

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID

Date Received: 10/07/21 15:25

Job ID: 880-6968-1 SDG: Eunice, NM

Client Sample ID: CS-91 Lab Sample ID: 880-6968-9 Date Collected: 10/07/21 10:40

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	9092	10/08/21 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9086	10/08/21 15:13	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	9081	10/07/21 16:15	CH	XEN MID
Soluble	Analysis	300.0		1			9116	10/08/21 15:01	CH	XEN MID

Client Sample ID: CS-92 Lab Sample ID: 880-6968-10 Date Collected: 10/07/21 10:45

Date Received: 10/07/21 15:25

Matrix: Solid

	Batch	Batch	_	Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	9092	10/08/21 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9086	10/08/21 15:35	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	9081	10/07/21 16:15	СН	XEN MID
Soluble	Analysis	300.0		1			9116	10/08/21 15:07	CH	XEN MID

Client Sample ID: CS-93 Lab Sample ID: 880-6968-11

Date Collected: 10/07/21 10:50 **Matrix: Solid** 

Date Received: 10/07/21 15:25

Dil Initial Final **Batch** Batch **Batch** Prepared **Prep Type** Type Method Run **Factor Amount** Amount Number or Analyzed Analyst Lab Total/NA 8015 NM 9142 10/08/21 18:05 AJ XEN MID Analysis Total/NA Prep 8015NM Prep 10.05 g 10 mL 9093 10/08/21 08:35 DM XEN MID Total/NA 8015B NM 9088 10/08/21 14:25 AJ **XEN MID** Analysis 1 Soluble Leach DI Leach 5.05 g 50 mL 9081 10/07/21 16:15 CH XEN MID 300.0 9116 10/08/21 15:13 CH XEN MID Soluble Analysis 1

Client Sample ID: CS-94 Lab Sample ID: 880-6968-12 **Matrix: Solid** 

Date Collected: 10/07/21 10:55 Date Received: 10/07/21 15:25

Batch Dil Initial Batch Final **Batch** Prepared Method **Prep Type** Type Factor **Amount Amount** Number or Analyzed Run Analyst Lab Total/NA Analysis 8015 NM 9142 10/08/21 18:05 XEN MID Total/NA 8015NM Prep 9093 10/08/21 08:35 DM XEN MID Prep 10.02 g 10 ml Total/NA 8015B NM 9088 10/08/21 14:51 AJ XEN MID Analysis 1 Soluble Leach DI Leach 9081 10/07/21 16:15 CH XEN MID 4.96 g 50 mL Soluble Analysis 300.0 5 9116 10/08/21 15:32 CH XEN MID

Client Sample ID: CS-95 Lab Sample ID: 880-6968-13

Date Collected: 10/07/21 11:00 Date Received: 10/07/21 15:25

Batch Batch Dil Initial **Batch Prepared** Final Method or Analyzed **Prep Type** Type Run Factor **Amount** Amount Number Analyst Lab 9142 10/08/21 18:05 XEN MID Total/NA Analysis 8015 NM AJ

**Eurofins Xenco** 

**Matrix: Solid** 

#### **Lab Chronicle**

Client: TRC Solutions, Inc.

Job ID: 880-6968-1

Project/Site: HEP:Eunice EMSU Draw

SDG: Eunice, NM

Client Sample ID: CS-95 Lab Sample ID: 880-6968-13

Date Collected: 10/07/21 11:00 Matrix: Solid
Date Received: 10/07/21 15:25

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	9093	10/08/21 08:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9088	10/08/21 15:13	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	9081	10/07/21 16:15	CH	XEN MID
Soluble	Analysis	300.0		5			9116	10/08/21 15:38	CH	XEN MID

Client Sample ID: CS-96

Date Collected: 10/07/21 11:05

Lab Sample ID: 880-6968-14

Matrix: Solid

Date Received: 10/07/21 15:25

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9142	10/08/21 18:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	9093	10/08/21 08:35	DM	XEN MID
Total/NA	Analysis	8015B NM		5			9088	10/08/21 15:35	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	9081	10/07/21 16:15	CH	XEN MID
Soluble	Analysis	300.0		1			9116	10/08/21 15:57	CH	XEN MID

**Laboratory References:** 

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Eurofins Xenco** 

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# **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.

Job ID: 880-6968-1

Project/Site: HEP:Eunice EMSU Draw

SDG: Eunice, NM

#### **Laboratory: Eurofins Xenco**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analyte	e are included in this reno	ort but the laboratory is r	not certified by the governing authority	This list may include analytes for
,	•	ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for
the agency does not	offer certification.	•		This list may include analytes for
,	•	ort, but the laboratory is r  Matrix Solid	not certified by the governing authority.  Analyte Total TPH	This list may include analytes for

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# **Method Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Draw

Job ID: 880-6968-1

SDG: Eunice, NM

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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# **Sample Summary**

Client: TRC Solutions, Inc.

880-6968-14

Project/Site: HEP:Eunice EMSU Draw

CS-96

Job ID: 880-6968-1 SDG: Eunice, NM

Client Sample ID Lab Sample ID Matrix Collected Received Depth 880-6968-1 **CS-83** Solid 10/07/21 10:00 10/07/21 15:25 4.5 CS-84 Solid 10/07/21 10:05 10/07/21 15:25 4.5 880-6968-2 880-6968-3 CS-85 Solid 10/07/21 10:10 10/07/21 15:25 4.5 CS-86 Solid 10/07/21 10:15 10/07/21 15:25 4.5 880-6968-4 880-6968-5 CS-87 Solid 10/07/21 10:20 10/07/21 15:25 4.5 880-6968-6 CS-88 Solid 10/07/21 10:25 10/07/21 15:25 4.5 880-6968-7 CS-89 Solid 10/07/21 10:30 10/07/21 15:25 4.5 880-6968-8 CS-90 Solid 10/07/21 10:35 10/07/21 15:25 4.5 CS-91 Solid 10/07/21 10:40 10/07/21 15:25 4.5 880-6968-9 CS-92 Solid 10/07/21 10:45 10/07/21 15:25 4.5 880-6968-10 880-6968-11 CS-93 Solid 10/07/21 10:50 10/07/21 15:25 4.5 CS-94 Solid 10/07/21 10:55 10/07/21 15:25 4.5 880-6968-12 CS-95 Solid 10/07/21 11:00 10/07/21 15:25 4.5 880-6968-13

Solid

10/07/21 11:05 10/07/21 15:25 4.5

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S		A A	Relinquished by: (Signature) Received by: (Signature)	or Eurofins Xenco. Aminimum charge of \$85.00 will be applied to each project and a charge of \$5 for each samples submitted to Eurofins Xenco, but not analyzed. These terms and conditions of Eurofins Xenco, it affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously nego	Wite Constitution (s) and interaction of the part of t	8RCR,	(5-72045 V W 1045 V	4.5	0 84,5	543	5-08 045 1015		CS-85645 1010	6	(5-83e45 5 tours 1000 45	Sample Identification Matrix Sampled Sampled Depth	lotal Containers   Corrected Temperature	Seals. Yes No N/A	Yes No WA Correction Factor	act: (Yes) No Thermometer ID	SAMPLE RECEIPT Temp Blank.   Yes No   Wet Ice: (Ye		ler's Name: Russian Semant TAT starts the c	Due Date	Project Number 454378 Routine	Project Name: HAI Charke Elms & R - Turn Around	0 4465 Email .	City State ZIP: MOLAND TX 75 705 City S	Address 10 Paga On. #130 E Address.		Project Manager Russeu Sign war Bill to	88	Xenco	seurofins Environment Testing
6	4	18131 1615	Date/Time Relinquished by (Signature)	client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and co for any losses or expenses incurred by the client if such losses are due to circumstances beyond the sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previor	010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag	s 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg	\$		- 2 2 2	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	4	- 9/		- ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	5 64 1 00	Grab/ # of Comp Cont	PH	>/	Pa	aram	(Yes No ete		ceived by	Him	sh Code	NALYSIS REQUEST	RSBRING CTRCCO-PANICS COLD	e ZIP			Bill to (if different)	880-6968 Chain of Custody	8969-6968	
			Received by (Signature) Date/Time	and conditions and the control previously negotiated.	Ag Tl U Hg 1631/2451/7470/7471	Vi K Se Ag								01177		Sample Comments	NaOH+Ascorbic Acid SAPC	Zn Acetate+NaOH Zn	Na ₂ S ₂ O ₃ NaSO ₃	NaHSO 4 NABIS	H, PO, HP	~		Coo Cool Moon Mo	None NO DI Water H.O.	Preservative Codes		Reporting Level II   Level III   PST/UST   TRRP   Level IV	roject:	Program: UST/PST PRP Brownfields RRC Superfund	Work Order Comments		968 8.	

City State ZIP Address.

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Address

State of Project:

Reporting Level II | Level III |

PST/UST

TRRP _

Level IV

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Project Manager Company Name

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DEBRING.

Bill to. (if different)

Company Name

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# Chain of Custody

Houston, TX (281) 240-4200, Dallas TX (214) 902-0300 Midland, TX (432) 704-5440 San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550 Carlsbad, NM (575) 988-3199

Environment Testing
Xenco

Program:	***************************************		
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	Work Ord		696 <b>3</b>
Brownfields 🗌	Work Order Comments	n Page_	
RRC 🗌		N	
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Phone	(944°057.764	46)	Email	108-1340	24	your con	CXCHWA C 1000 - CANACOCO	Deliverables. EL	ADaPI L	Other:
Project Name	HEP: EUNIGEMSH REG	SW Rin	Turn Around	round			ANALYSIS REQUEST	JEST	-TO	Preservative Codes
Project Number	454378		Routine	Rush	Oode Pres.				None NO	NO DI Water: H,O
Project Location	Eusice Km		Due Date	AZZ					(00) (00)	
Sampler's Name	Russeu Schwy		TAT starts the day received by	ay received by					HCL HC	
PO#			the lab, if received by 4.30pm	ved by 4.30pm					H ₂ S0 4 H ₂	
SAMPLE RECEIPT	<del>Jen</del> p Blank.	(Yes)No	Wet Ice	(Yes) No	eters	•			H,PO, HP	
Samples Received Intact:	ct: (Yes))Na-	Thermometer ID:	ē	80	rame	کوتی			NaHSC	NaHSO 4 NABIS
Cooler Custody Seals.	Yes No (N/A)	Correction Factor	actor	さらなっ	Pai	10		- Canadar	Na ₂ S ₂	Na ₂ S ₂ O ₃ NaSO ₃
Sample Custody Seals	Yes No (N/A	Temperature Reading	Reading	<u>-</u>		511			Zn Ace	Zn Acetate+NaOH Zn
Total Containers.	-	Corrected Temperature	mperature:	7.4		46			NaOH	NaOH+Ascorbic Acid SAPC
Sample Identification	fication   Matrix	Date X Sampled	Time Sampled	Depth Comp	# of	Ci				Sample Comments
C5-9304.5	34.8	70,721	1056	45 600		1				
CS-840 4.5	5 4.5 I		1053							
CS-9504.	e4.5		1100		Angos)	1				
C5-9604.	e4,5 4	4	1105	*	-	1				10.
WARREST PROJECT CONTRACT CONTR										
										And the state of t
Total 200.7 / 6010	200.8 / 6020:		8RCRA 13PPN	٠,	sy qs It	Al Sb As Ba Be B Cd Ca	Ca Cr Co Cu Fe Pb Mg	18	Mn Mo Ni K Se Ag SiO ₂ Na Sr Tl Sn U V Zn	1 U V Zn
le Method(s) a	Circle Method(s) and Metal(s) to be analyzed	nalyzed	TCLP / SPLP 6010	11	RA Sb /	s Ba Be Cd Cr	8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni S	Se Ag TI U	Hg 1631/2451/7470/747	0 / 7471
: Signature of this docui ice. Eurofins Xenco will fins Xenco. A minimum	ment and relinquishment of sar Il be liable only for the cost of sa charge of \$85,00 will be appli	nples constitutes a vamples and shall not a	alid purchase order assume any respon	from client company sibility for any losses o	to Eurofins X	enco, its affiliates and su curred by the client if su	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors, it assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of 885 (0) will be applied to part and a charge of 85 for each complete instances to see the control of t	rms and conditions eyond the control		
Relinguished by (Signature)	(Signature)	Received b	Received by (Signature)		D	Date/Time	Relinquished by (Signature)	ture) Rece	Received by: (Signature)	Date/Time
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Revised Date: 08/25/2020 Rev 2020.2

# **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc.

Job Number: 880-6968-1

SDG Number: Eunice, NM

Login Number: 6968 List Source: Eurofins Xenco

List Number: 1

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Xenco 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-7394-1

Laboratory Sample Delivery Group: Eunice NM

Client Project/Site: HEP: Eunice EMSU

Revision: 2

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MRAMER

Authorized for release by: 1/7/2022 4:17:22 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS .....

Review your project results through



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www.eurofinsus.com/Env

Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.

Laboratory Job ID: 880-7394-1

Project/Site: HEP: Eunice EMSU

SDG: Eunice NM

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# **Definitions/Glossary**

Client: TRC Solutions, Inc.

Job ID: 880-7394-1

Project/Site: HEP: Eunice EMSU

SDG: Eunice NM

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**Qualifiers** 

**GC Semi VOA** 

Qualifier Qualifier Description

S1- Surrogate recovery exceeds control limits, low biased.
U Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CFL Contains Free Liquid
CFU Colony Forming Unit
CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent
POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

**Eurofins Xenco** 

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### **Case Narrative**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU

SDG: Eunice NM

Job ID: 880-7394-1

**Laboratory: Eurofins Xenco** 

Narrative

Job Narrative 880-7394-1

### **REVISION**

The report being provided is a revision of the original report sent on 10/22/2021. The report (revision 2) is being revised due to Per client email, removed sample depths from sample name.

Report revision history

The report being provided is a revision of the original report sent on 10/22/2021. The report (revision 2) is being revised due to Per client email, removed sample depths from sample name.

Revision 1 - 10/27/2021 - Reason - Deepers on final report 10/27/2021.

### Receipt

The samples were received on 10/20/2021 9:01 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.5°C

#### GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (880-7394-A-1-B MS). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client: TRC Solutions, Inc. Job ID: 880-7394-1 Project/Site: HEP: Eunice EMSU SDG: Eunice NM

**Client Sample ID: CS-78** Lab Sample ID: 880-7394-1 Date Collected: 10/19/21 16:15

**Matrix: Solid** 

Date Received: 10/20/21 09:01 Sample Depth: 4.5

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (G	iC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	480		49.8	mg/Kg	_		10/22/21 20:36	1

Total TPH	480		49.8	mg/Kg			10/22/21 20:36	1
- Method: 8015B NM - Diesel I	Range Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/21/21 08:52	10/22/21 14:44	1
Diesel Range Organics (Over C10-C28)	409		49.8	mg/Kg		10/21/21 08:52	10/22/21 14:44	1
Oll Range Organics (Over C28-C36)	71.4		49.8	mg/Kg		10/21/21 08:52	10/22/21 14:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			10/21/21 08:52	10/22/21 14:44	1
o-Terphenyl	107		70 - 130			10/21/21 08:52	10/22/21 14:44	1

**Client Sample ID: CS-79** Lab Sample ID: 880-7394-3

Date Collected: 10/19/21 16:25 **Matrix: Solid** 

Date Received: 10/20/21 09:01

Sample Depth: 4.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4970		250	mg/Kg			10/22/21 20:36	1
Method: 8015B NM - Diesel R	ange Organi	cs (DRO) (G	SC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	1070		250	mg/Kg		10/21/21 08:52	10/22/21 16:18	5
(GRO)-C6-C10								
Diesel Range Organics (Over	3480		250	mg/Kg		10/21/21 08:52	10/22/21 16:18	5
C10-C28)								
Oll Range Organics (Over	418		250	mg/Kg		10/21/21 08:52	10/22/21 16:18	5
C28-C36)								

**Client Sample ID: CS-79** Lab Sample ID: 880-7394-4 **Matrix: Solid** 

70 - 130

70 - 130

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Date Collected: 10/19/21 16:30 Date Received: 10/20/21 09:01

Sample Depth: 5.5

1-Chlorooctane

o-Terphenyl

Method: 8015 NM - Diesel Rang	ge Organics (	(DRO) (GC)						
Analyte	Result Q	ualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	399		49.9	mg/Kg			10/27/21 12:19	1

Method: 8015B NM - Diesel R	ange Organio	cs (DRO) (G	iC)					
Analyte	Result (	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9 l	U	49.9	mg/Kg		10/26/21 16:36	10/27/21 18:07	1
Diesel Range Organics (Over C10-C28)	336		49.9	mg/Kg		10/26/21 16:36	10/27/21 18:07	1

**Eurofins Xenco** 

10/21/21 08:52 10/22/21 16:18

10/21/21 08:52 10/22/21 16:18

Client: TRC Solutions, Inc. Job ID: 880-7394-1 Project/Site: HEP: Eunice EMSU SDG: Eunice NM

**Client Sample ID: CS-79** Lab Sample ID: 880-7394-4

Date Collected: 10/19/21 16:30 **Matrix: Solid** Date Received: 10/20/21 09:01

Sample Depth: 5.5

Analyte	Result Quali	fier RL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	62.5	49.9	mg/Kg		10/26/21 16:36	10/27/21 18:07	1
Surrogate	%Recovery Quali	fier Limits			Prepared	Analyzed	Dil Fac
Surrogate 1-Chlorooctane	%Recovery Quality	<u>Limits</u> 70 - 130				Analyzed 10/27/21 18:07	Dil Fac

**Client Sample ID: CS-76** Lab Sample ID: 880-7394-5 **Matrix: Solid** 

Date Collected: 10/19/21 15:55 Date Received: 10/20/21 09:01

Sample Depth: 4.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	408		49.9	mg/Kg			10/22/21 20:36	1
- Method: 8015B NM - Diesel F	Range Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/21/21 08:52	10/22/21 16:39	1
Diesel Range Organics (Over C10-C28)	349		49.9	mg/Kg		10/21/21 08:52	10/22/21 16:39	1
Oll Range Organics (Over C28-C36)	59.1		49.9	mg/Kg		10/21/21 08:52	10/22/21 16:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

1-Chlorooctane 101 70 - 130 10/21/21 08:52 10/22/21 16:39 10/21/21 08:52 10/22/21 16:39 o-Terphenyl 110 70 - 130 **Client Sample ID: CS-77** 

Date Collected: 10/19/21 16:05 Date Received: 10/20/21 09:01

Released to Imaging: 3/24/2022 9:01:44 AM

Sample Depth: 4.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/22/21 20:36	1
Method: 8015B NM - Diesel Ra	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/21/21 08:52	10/22/21 16:59	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/21/21 08:52	10/22/21 16:59	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/21 08:52	10/22/21 16:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			10/21/21 08:52	10/22/21 16:59	1
o-Terphenyl	112		70 - 130			10/21/21 08:52	10/22/21 16:59	1

**Eurofins Xenco** 

Lab Sample ID: 880-7394-7

Matrix: Solid

**Matrix: Solid** 

Lab Sample ID: 880-7394-9

Client: TRC Solutions, Inc. Job ID: 880-7394-1 Project/Site: HEP: Eunice EMSU SDG: Eunice NM

**Client Sample ID: CS-80** 

Date Collected: 10/19/21 16:35 Date Received: 10/20/21 09:01

Sample Depth: 4.5

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (0	SC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/22/21 20:36	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/21/21 08:52	10/22/21 17:20	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/21/21 08:52	10/22/21 17:20	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/21/21 08:52	10/22/21 17:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			10/21/21 08:52	10/22/21 17:20	1
o-Terphenyl	111		70 - 130			10/21/21 08:52	10/22/21 17:20	1

Lab Sample ID: 880-7394-11 **Client Sample ID: CS-81** Date Collected: 10/19/21 16:45 **Matrix: Solid** 

Date Received: 10/20/21 09:01

Sample Depth: 4.5

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result Qua	alifier RL	Unit	D	Prepared	Analyzed	Dil Fac		
Total TPH	<49.8 U	49.8	mg/Kg			10/22/21 20:36	1		

Method: 8015B NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/21/21 08:52	10/22/21 17:40	1		
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/21/21 08:52	10/22/21 17:40	1		
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/21/21 08:52	10/22/21 17:40	1		
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac		
1-Chlorooctane	110		70 - 130			10/21/21 08:52	10/22/21 17:40	1		
o-Terphenyl	122		70 - 130			10/21/21 08:52	10/22/21 17:40	1		

# **Surrogate Summary**

Job ID: 880-7394-1 Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU SDG: Eunice NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

**Matrix: Solid Prep Type: Total/NA** 

				ent Surrogate Recovery (Acceptance Limits)
		1CO1	ОТРН1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-7394-1	CS-78	100	107	
880-7394-1 MS	CS-78	105	9 S1-	
880-7394-1 MSD	CS-78	106	100	
880-7394-3	CS-79	116	96	
880-7394-4	CS-79	111	123	
880-7394-5	CS-76	101	110	
880-7394-7	CS-77	101	112	
880-7394-9	CS-80	102	111	
880-7394-11	CS-81	110	122	
890-1448-A-4-F MS	Matrix Spike	104	102	
890-1448-A-4-G MSD	Matrix Spike Duplicate	101	99	
LCS 880-10059/2-A	Lab Control Sample	98	100	
LCS 880-10652/2-A	Lab Control Sample	88	95	
LCSD 880-10059/3-A	Lab Control Sample Dup	108	112	
LCSD 880-10652/3-A	Lab Control Sample Dup	77	83	
MB 880-10059/1-A	Method Blank	110	115	
MB 880-10652/1-A	Method Blank	109	128	

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Client: TRC Solutions, Inc. Job ID: 880-7394-1 Project/Site: HEP: Eunice EMSU SDG: Eunice NM

# Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-10059/1-A

Lab Sample ID: LCS 880-10059/2-A

**Matrix: Solid** 

**Analysis Batch: 10159** 

Client	Sample	ID:	Method	Blanl	K

Prep Type: Total/NA

Prep Batch: 10059

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/21/21 08:52	10/22/21 13:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/21/21 08:52	10/22/21 13:37	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/21 08:52	10/22/21 13:37	1
	MD	MD						

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110	·	70 - 130	10/21/21 08:52	10/22/21 13:37	1
o-Terphenyl	115		70 - 130	10/21/21 08:52	10/22/21 13:37	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

**Matrix: Solid Prep Type: Total/NA** Prep Batch: 10059 **Analysis Batch: 10159** LCS LCS Spike %Rec.

Analyte Added Result Qualifier Unit D %Rec Limits 1000 929.6 93 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 8.008 80 mg/Kg 70 - 130 C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	100		70 - 130

**Client Sample ID: Lab Control Sample Dup** Lab Sample ID: LCSD 880-10059/3-A

**Matrix: Solid** 

Analysis Batch: 10159							Prep E	atch: 1	10059
-	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	1075		mg/Kg		108	70 - 130	15	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	882.9		mg/Kg		88	70 - 130	10	20
C10 C20)									

C10-C28)

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	112		70 - 130

Lab Sample ID: 880-7394-1 MS

**Matrix: Solid** 

**Analysis Batch: 10159** 

Client Sample ID: CS-78
Prep Type: Total/NA
Dran Bataby 40050

Prep Batch: 10059

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	996	1129		mg/Kg		113	70 - 130	
Diesel Range Organics (Over C10-C28)	409		996	1302		mg/Kg		90	70 - 130	

# Project/Site: HEP: Eunice EMSU Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-7394-1 MS

**Matrix: Solid** 

**Analysis Batch: 10159** 

Client: TRC Solutions, Inc.

Client Sample ID: CS-78

**Prep Type: Total/NA** 

Prep Batch: 10059

MS MS %Recovery Qualifier Surrogate

Limits 1-Chlorooctane 105 70 - 130 o-Terphenyl 9 S1-70 - 130

Lab Sample ID: 880-7394-1 MSD Client Sample ID: CS-78

**Matrix: Solid Prep Type: Total/NA** 

Prep Batch: 10059 **Analysis Batch: 10159** 

RPD MSD MSD %Rec. Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics <49.8 U 994 1158 mg/Kg 117 70 - 130 3 20 (GRO)-C6-C10 Diesel Range Organics (Over 409 994 1268 mg/Kg 86 70 - 130 3 20 C10-C28)

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 106 70 - 130 70 - 130

100

Lab Sample ID: MB 880-10652/1-A

**Matrix: Solid** 

o-Terphenyl

**Analysis Batch: 10661** 

Client Sample ID: Method Blank **Prep Type: Total/NA** 

Prep Batch: 10652

MB MB Result Qualifier Unit Analyte RL D Prepared Analyzed Dil Fac Gasoline Range Organics <50.0 U 50.0 mg/Kg 10/26/21 16:36 10/27/21 10:17 (GRO)-C6-C10 50.0 mg/Kg Diesel Range Organics (Over <50.0 U 10/26/21 16:36 10/27/21 10:17 C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 10/26/21 16:36 10/27/21 10:17 mg/Kg

MB MB %Recovery Qualifier Surrogate Limits Prepared Analyzed Dil Fac 1-Chlorooctane 109 70 - 130 10/26/21 16:36 10/27/21 10:17 128 70 - 130 10/26/21 16:36 10/27/21 10:17 o-Terphenyl

Lab Sample ID: LCS 880-10652/2-A

**Matrix: Solid** 

**Analysis Batch: 10661** 

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Prep Batch: 10652

LCS LCS Spike %Rec. Added %Rec Limits Analyte Result Qualifier Unit 1000 1296 Gasoline Range Organics 130 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 781.6 mg/Kg 78 70 - 130 C10-C28)

LCS LCS

Surrogate	%Recovery Qualifie	r Limits
1-Chlorooctane	88	70 - 130
o-Terphenyl	95	70 - 130

Client: TRC Solutions, Inc. Job ID: 880-7394-1 Project/Site: HEP: Eunice EMSU SDG: Eunice NM

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-10652/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA Prep Batch: 10652 **Analysis Batch: 10661** 

/ many one Date mi 1000 i										
	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	1146		mg/Kg		115	70 - 130	12	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	757.1		mg/Kg		76	70 - 130	3	20	

C10-C28)

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	77		70 - 130
o-Terphenyl	83		70 - 130

Lab Sample ID: 890-1448-A-4-F MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 10661** Prep Batch: 10652 Sample Sample Spike MS MS %Rec.

Analyte **Result Qualifier** Added Result Qualifier Limits Unit D %Rec Gasoline Range Organics <49.9 U 997 1197 120 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 997 922.5 mg/Kg 90 70 - 130 C10-C28)

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 104 70 - 130 o-Terphenyl 102 70 - 130

Lab Sample ID: 890-1448-A-4-G MSD

**Matrix: Solid** 

Analysis Batch: 10661									Prep E	Batch: 1	10652
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1125		mg/Kg		112	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	914.6		mg/Kg		88	70 - 130	1	20

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 101 70 - 130 99 70 - 130 o-Terphenyl

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Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

# **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU

Job ID: 880-7394-1
SDG: Eunice NM

# **GC Semi VOA**

### Prep Batch: 10059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7394-1	CS-78	Total/NA	Solid	8015NM Prep	
880-7394-3	CS-79	Total/NA	Solid	8015NM Prep	
880-7394-5	CS-76	Total/NA	Solid	8015NM Prep	
880-7394-7	CS-77	Total/NA	Solid	8015NM Prep	
880-7394-9	CS-80	Total/NA	Solid	8015NM Prep	
880-7394-11	CS-81	Total/NA	Solid	8015NM Prep	
MB 880-10059/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10059/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10059/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-7394-1 MS	CS-78	Total/NA	Solid	8015NM Prep	
880-7394-1 MSD	CS-78	Total/NA	Solid	8015NM Prep	

### **Analysis Batch: 10159**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7394-1	CS-78	Total/NA	Solid	8015B NM	10059
880-7394-3	CS-79	Total/NA	Solid	8015B NM	10059
880-7394-5	CS-76	Total/NA	Solid	8015B NM	10059
880-7394-7	CS-77	Total/NA	Solid	8015B NM	10059
880-7394-9	CS-80	Total/NA	Solid	8015B NM	10059
880-7394-11	CS-81	Total/NA	Solid	8015B NM	10059
MB 880-10059/1-A	Method Blank	Total/NA	Solid	8015B NM	10059
LCS 880-10059/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10059
LCSD 880-10059/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10059
880-7394-1 MS	CS-78	Total/NA	Solid	8015B NM	10059
880-7394-1 MSD	CS-78	Total/NA	Solid	8015B NM	10059

### **Analysis Batch: 10307**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7394-1	CS-78	Total/NA	Solid	8015 NM	
880-7394-3	CS-79	Total/NA	Solid	8015 NM	
880-7394-5	CS-76	Total/NA	Solid	8015 NM	
880-7394-7	CS-77	Total/NA	Solid	8015 NM	
880-7394-9	CS-80	Total/NA	Solid	8015 NM	
880-7394-11	CS-81	Total/NA	Solid	8015 NM	

### Prep Batch: 10652

Lab Sample ID 880-7394-4	Client Sample ID	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-10652/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10652/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1448-A-4-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1448-A-4-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

### **Analysis Batch: 10661**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7394-4	CS-79	Total/NA	Solid	8015B NM	10652
MB 880-10652/1-A	Method Blank	Total/NA	Solid	8015B NM	10652
LCS 880-10652/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10652
LCSD 880-10652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10652
890-1448-A-4-F MS	Matrix Spike	Total/NA	Solid	8015B NM	10652

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# **QC Association Summary**

Job ID: 880-7394-1 Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU SDG: Eunice NM

# GC Semi VOA (Continued)

### **Analysis Batch: 10661 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1448-A-4-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	10652

### **Analysis Batch: 10676**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7394-4	CS-79	Total/NA	Solid	8015 NM	

**Client Sample ID: CS-78** 

Lab Sample ID: 880-7394-1

**Matrix: Solid** 

Date Collected: 10/19/21 16:15 Date Received: 10/20/21 09:01

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10307	10/22/21 20:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	10059	10/21/21 08:52	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			10159	10/22/21 14:44	AJ	XEN MID

Lab Sample ID: 880-7394-3 **Client Sample ID: CS-79** 

Date Collected: 10/19/21 16:25 **Matrix: Solid** 

Date Received: 10/20/21 09:01

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10307	10/22/21 20:36	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		5	10.02 g	10 mL	10059 10159	10/21/21 08:52 10/22/21 16:18		XEN MID XEN MID

**Client Sample ID: CS-79** Lab Sample ID: 880-7394-4

Date Collected: 10/19/21 16:30 **Matrix: Solid** 

Date Received: 10/20/21 09:01

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10676	10/27/21 12:19	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.02 g	10 mL	10652 10661	10/26/21 16:36 10/27/21 18:07		XEN MID XEN MID

**Client Sample ID: CS-76** Lab Sample ID: 880-7394-5 **Matrix: Solid** 

Date Collected: 10/19/21 15:55

Date Received: 10/20/21 09:01

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10307	10/22/21 20:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	10059	10/21/21 08:52	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			10159	10/22/21 16:39	AJ	XEN MID

**Client Sample ID: CS-77** Lab Sample ID: 880-7394-7 Date Collected: 10/19/21 16:05 Matrix: Solid

Date Received: 10/20/21 09:01

Γ	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10307	10/22/21 20:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	10059	10/21/21 08:52	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			10159	10/22/21 16:59	AJ	XEN MID

**Client Sample ID: CS-80** Lab Sample ID: 880-7394-9

Date Collected: 10/19/21 16:35 Date Received: 10/20/21 09:01

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10307	10/22/21 20:36	AJ	XEN MID

**Eurofins Xenco** 

**Matrix: Solid** 

### **Lab Chronicle**

Client: TRC Solutions, Inc. Job ID: 880-7394-1 Project/Site: HEP: Eunice EMSU SDG: Eunice NM

**Client Sample ID: CS-80** Lab Sample ID: 880-7394-9

**Matrix: Solid** 

Date Collected: 10/19/21 16:35 Date Received: 10/20/21 09:01

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	10059	10/21/21 08:52	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			10159	10/22/21 17:20	AJ	XEN MID

**Client Sample ID: CS-81** Lab Sample ID: 880-7394-11

Date Collected: 10/19/21 16:45 Matrix: Solid Date Received: 10/20/21 09:01

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10307	10/22/21 20:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	10059	10/21/21 08:52	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			10159	10/22/21 17:40	AJ	XEN MID

**Laboratory References:** 

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.

Job ID: 880-7394-1

Project/Site: HEP: Eunice EMSU

SDG: Eunice NM

### **Laboratory: Eurofins Xenco**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority Texas		<b>ogram</b> ELAP	T104704400-21-22	Expiration Date 06-30-22
The following analyte the agency does not o	•	ort, but the laboratory is i	not certified by the governing authority.	This list may include analytes for which
Analysis Method	Prep Method	Matrix	Analyte	
8015 NM		Solid	Total TPH	

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# **Method Summary**

Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Job ID: 880-7394-1

SDG: Eunio

се	NM	

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# **Sample Summary**

Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Job ID: 880-7394-1 SDG: Eunice NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-7394-1	CS-78	Solid	10/19/21 16:15	10/20/21 09:01	4.5
880-7394-3	CS-79	Solid	10/19/21 16:25	10/20/21 09:01	4.5
880-7394-4	CS-79	Solid	10/19/21 16:30	10/20/21 09:01	5.5
880-7394-5	CS-76	Solid	10/19/21 15:55	10/20/21 09:01	4.5
880-7394-7	CS-77	Solid	10/19/21 16:05	10/20/21 09:01	4.5
880-7394-9	CS-80	Solid	10/19/21 16:35	10/20/21 09:01	4.5
880-7394-11	CS-81	Solid	10/19/21 16:45	10/20/21 09:01	4.5

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Program:

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Work Order Comments

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Reporting Level II | Level III | PST/UST | TRRP | Level IV |

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Project Manager ompany Name ddress.

Bill to (if different)

Company Name

# Chain of Custody

Midland, TX (432) 704-5440 San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392 7550 Carlsbad, NM (575) 988-3199 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

The second secon	880-7394 Chain of Custody			

Received by: (Signature) Date/Time				***************************************		
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	re) Recei	ne Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by (Signature)	Relinguish
	is and conditions ond the control previously negotiated	of service. Eurofins Xenco will be liable only for the cost of samples consultates a value purchase order from client complany to Eurofins Xenco, its affiliates and subcontractors, it assigns standard terms and conditions of service. Eurofins Xenco, will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated	from client company to Eurofins Xenco, its bility for any losses or expenses incurred the care sample submitted to Eurofins Xenco	riples constitutes a valid purchase order riples and shall not assume any respons d to each project and a charge of \$5 for	(enco will be liable only for the cost of sa minimum charge of \$85.00 will be applic	of service. Eurofins ) of Eurofins Xenco. A
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A CO N C T C 11 V Z	M5 M5 N1 V C5	Cd Ca Ca Ca Ea Bh M	13PPM Tayas 11 Al Sh As Ba I	8RCRA 13PPN	/6010 200.8 / 6020:	Total 200.7 / 6010
			5,6, 1	\$ 1610	5-77 esis	65-7
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			5.5"	1600	CS-760515	25-26
			4,54	15.25	0045	65-76045
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- 1			45	159/	5-45 8 4.5	65-75
-			557     "	1620	C575	CS-78855
* 15 CHO+DNO >1500			1 1 2-1/5/	1015 Kalmod	045' 5	CS-78e45
Sample Comments			Depth Grab/ # of J~	Date Time Sampled Sampled	Sample Identification Matrix	Sample
NaOH+Ascorbic Acid SAPC		<i>Y</i>	65	Corrected Temperature	S.	i otai Containers
Zn Acetate+NaOH Zn		····	14 14	Temperature Reading	y Seals. Yes No N/A	Sample Custody Seals.
Na ₂ S ₂ O ₃ NaSO ₃		2	P	Correction Factor	_	Cooler Custody Seals.
NaHSO 4 NABIS			aram	Thermometer ID	Yes	Samples Received Intact:
			Yes	Mes No Wet Ice		SAMPLE RECEIPT
2				the lab, if received by 4:30pm		PO #
			ay received by	TAT starts the day received by	12. SEBRING	Sampler's Name
Cool Cool MeOH Me				Due Date	Ewsice PM	Project Location
None NO DI Water H ₂ O			Thrush La Pres.	Routine	3184318	Project Number
Preservative Codes	EST	ANALYSIS REQUEST		Rich Turn Around	Holitumics Ensu	Project Name
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Address

Project Manager ompany Name

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Bill to (if different)

Address Company Name

State of Project: Program.

UST/PST PRP Brownfields RRC

Superfund

Work Order Comments

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# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

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Work Order No: 7394

City, State ZIP	City State ZIP	P	Reporting Level      Level    PST/UST   TRRP   Level  V	TRRP   Level IV
Phone	Email RS	REGBRING & TRECON PAULO COM	Deliverables EDD ☐ ADaPT ☐ Ot	Other:
Project Name: Helituria EASW	Turn Around	ANALYSIS REOUEST		Preservative Codes
Project Number:	壶	BHN Pres.	None	DI Water: H.O
Project Location	Due Date			MaOH Ma
Sampler's Name	TAT starts the day received by	*	HCL. HC	HNO ₃ HN
PO#	the lab, if received by 4.30pm		H ₂ SO ₄ H ₂	NaOH Na
SAMPLE RECEIPT Temp Blank.	Yes No Wet Ice. Yes No	eters	Н, РО. НР	
tact: (	1		N. OOHEN	IARIS
Yes No (N/A)	Correction Factor:	-	Na S.O. NaSO	200
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sample identification Matrix	d Sampled Depth		Sampl	Sample Comments
CS-80 C45 S	Marziel 1635 457 C	(a.p. 1 V ,		
(S-80 05.5	1646 5.5			
(5-810 4)	1645 4.5+			
(2-8162.2)	A 1850 221			- Anna Anna Anna Anna Anna Anna Anna Ann
Total 200.7 / 6010 200.8 / 6020:	8RCRA 13PPM Texas	11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb M	ig Mn Mo Ni K Se Ag SiO ₂ Na Sr Tl Sn	U V Zn
Circle Method(s) and Metal(s) to be analyzed	lyzed TCLP / SPLP 6010	8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni	Se Ag TI U Hg 1631/2451/7470/7471	471
Notice: Signature of this document and relinquishment of sample of service. Eurofins Xenco will be liable only for the cost of sample of Eurofins Xenco. A minimum charge of \$85.00 will be applied a	es constitutes a valid purchase order from client co les and shall not assume any responsibility for any I op each project and a charge of \$5 for each sample	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	erns and conditions beyond the control less previously negotiated,	
Relinquished by (Signature)	Received by: (Signature)	Date/Time Relinquished by: (Signature)	iture) Received by (Signature)	Date/Time
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			Revise	Revised Date: 08/25/2020 Rev 2020.2

### Login Sample Receipt Checklist

Client: TRC Solutions, Inc.

Job Number: 880-7394-1

SDG Number: Eunice NM

Login Number: 7394 List Source: Eurofins Xenco

List Number: 1 Creator: Kramer, Jessica

Answer Comment Question The cooler's custody seal, if present, is intact. N/A Sample custody seals, if present, are intact. N/A The cooler or samples do not appear to have been compromised or True tampered with. Samples were received on ice. True Cooler Temperature is acceptable. True Cooler Temperature is recorded. True COC is present. True True COC is filled out in ink and legible. COC is filled out with all pertinent information. True Is the Field Sampler's name present on COC? True There are no discrepancies between the containers received and the COC. True Samples are received within Holding Time (excluding tests with immediate True HTs) Sample containers have legible labels. True Containers are not broken or leaking. True True Sample collection date/times are provided. Appropriate sample containers are used. True True Sample bottles are completely filled. Sample Preservation Verified. True There is sufficient vol. for all requested analyses, incl. any requested True MS/MSDs Containers requiring zero headspace have no headspace or bubble is N/A

Euronnis Aerico

Released to Imaging: 3/24/2022 9:01:44 AM

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<6mm (1/4").

# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Xenco 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-7396-1

Laboratory Sample Delivery Group: Eunice, NM

Client Project/Site: HEP: Euince EMSU

Revision: 1

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

JURAMER

Authorized for release by: 1/7/2022 4:18:40 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS .....

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_____

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.

Laboratory Job ID: 880-7396-1

Project/Site: HEP: Euince EMSU

SDG: Eunice, NM

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# **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-7396-1 Project/Site: HEP: Euince EMSU SDG: Eunice, NM

**Qualifiers** 

**GC Semi VOA** 

Qualifier **Qualifier Description** 

F1 MS and/or MSD recovery exceeds control limits. U Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit **CNF** Contains No Free Liquid

**DER** Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

Detection Limit (DoD/DOE) DΙ

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Decision Level Concentration (Radiochemistry) DLC

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit MLMinimum Level (Dioxin) Most Probable Number MPN MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL **Practical Quantitation Limit** 

**PRES** Presumptive QC **Quality Control** 

Relative Error Ratio (Radiochemistry) RER

RL Reporting Limit or Requested Limit (Radiochemistry)

**RPD** Relative Percent Difference, a measure of the relative difference between two points

**TEF** Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) TEQ

**TNTC** Too Numerous To Count

### **Case Narrative**

Client: TRC Solutions, Inc.

Project/Site: HEP: Euince EMSU

Job ID: 880-7396-1

SDG: Eunice, NM

Job ID: 880-7396-1

**Laboratory: Eurofins Xenco** 

Narrative

Job Narrative 880-7396-1

### **REVISION**

The report being provided is a revision of the original report sent on 10/22/2021. The report (revision 1) is being revised due to Per client email, removed sample depths from sample name.

Report revision history

### Receipt

The samples were received on 10/20/2021 9:19 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.5°C

### GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-10061 and analytical batch 880-10051 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Job ID: 880-7396-1 Client: TRC Solutions, Inc.

Project/Site: HEP: Euince EMSU SDG: Eunice, NM

**Client Sample ID: CS-59** Lab Sample ID: 880-7396-1 Date Collected: 10/19/21 11:30 **Matrix: Solid** Date Received: 10/20/21 09:19

Sample Depth: 10'

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	69.3		50.0	mg/Kg			10/21/21 16:18	1
_								

Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	50.0	mg/Kg		10/21/21 09:42	10/21/21 12:43	1
Diesel Range Organics (Over C10-C28)	69.3		50.0	mg/Kg		10/21/21 09:42	10/21/21 12:43	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 12:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			10/21/21 09:42	10/21/21 12:43	1
o-Terphenyl	116		70 - 130			10/21/21 09:42	10/21/21 12:43	1

Client Sample ID: CS-54 Lab Sample ID: 880-7396-3 Date Collected: 10/19/21 11:40 **Matrix: Solid** 

Date Received: 10/20/21 09:19

Sample Depth: 10'

Method: 8015 NM - Diesel Ran	ge Organics	(DRO) (G	iC)					
Analyte	Result (	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	59.1		50.0	mg/Kg			10/21/21 16:18	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 13:42	1
Diesel Range Organics (Over C10-C28)	59.1		50.0	mg/Kg		10/21/21 09:42	10/21/21 13:42	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 13:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			10/21/21 09:42	10/21/21 13:42	1
o-Terphenyl	115		70 - 130			10/21/21 09:42	10/21/21 13:42	1

**Client Sample ID: CS-55** Lab Sample ID: 880-7396-5 Date Collected: 10/19/21 11:50 Matrix: Solid

Date Received: 10/20/21 09:19

Sample Depth: 10'

Method: 8015 NM - Diesel Ran	ge Organics	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	52.8		49.9	mg/Kg			10/21/21 16:18	1

L	-				0 0				
	- Method: 8015B NM - Diesel Ra	nge Organ	ics (DRO) (	GC)					
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/21/21 09:42	10/21/21 14:02	1
	Diesel Range Organics (Over C10-C28)	52.8		49.9	mg/Kg		10/21/21 09:42	10/21/21 14:02	1
	Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/21/21 09:42	10/21/21 14:02	1

Job ID: 880-7396-1

SDG: Eunice, NM

**Client Sample ID: CS-55** 

Project/Site: HEP: Euince EMSU

Client: TRC Solutions, Inc.

Date Collected: 10/19/21 11:50 Date Received: 10/20/21 09:19

Sample Depth: 10'

Lab	Samp	le l	ID:	88	30	-7	39	6-5	•
							_		

**Matrix: Solid** 

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	10/21/21 09:42	10/21/21 14:02	1
o-Terphenyl	114		70 - 130	10/21/21 09:42	10/21/21 14:02	1

Lab Sample ID: 880-7396-7 Client Sample ID: CS-60 Date Collected: 10/19/21 14:00 **Matrix: Solid** 

Date Received: 10/20/21 09:19

Sample Depth: 5.5'

Method: 8015 NM - Diesel Rang	je Organic	s (DRO) (G0	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	521		49.8	mg/Kg			10/21/21 16:18	1

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8 U	49.8	mg/Kg		10/21/21 09:42	10/21/21 14:22	1
Diesel Range Organics (Over C10-C28)	467	49.8	mg/Kg		10/21/21 09:42	10/21/21 14:22	1
Oll Range Organics (Over C28-C36)	54.1	49.8	mg/Kg		10/21/21 09:42	10/21/21 14:22	1

Surrogate	Minecovery Quantilei	Liiiits	riepaieu	Allalyzeu	Diriac
1-Chlorooctane	105	70 - 130	10/21/21 09:42	10/21/21 14:22	1
o-Terphenyl	110	70 - 130	10/21/21 09:42	10/21/21 14:22	1

**Client Sample ID: CS-101** Lab Sample ID: 880-7396-9 Date Collected: 10/19/21 14:15 **Matrix: Solid** 

Date Received: 10/20/21 09:19

Sample Depth: 5.5'

Method: 8015 NM - Diesel Ra	nge Organics (DRO) (GC	<b>;</b> )					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	389	49.9	mg/Kg			10/21/21 16:18	1
Method: 8015B NM - Diesel R	ange Organics (DRO) (G	SC)					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9 U	49.9	mg/Kg		10/21/21 09:42	10/21/21 14:42	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg	10/21/21 09:42	10/21/21 14:42	1
Diesel Range Organics (Over C10-C28)	389		49.9	mg/Kg	10/21/21 09:42	10/21/21 14:42	1
(GRO)-C6-C10							

106 <u>10/21/21 09:42</u> <u>10/21/21 14:42</u> 1-Chlorooctane 70 - 130 o-Terphenyl 111 70 - 130 10/21/21 09:42 10/21/21 14:42

# **Surrogate Summary**

Client: TRC Solutions, Inc.

Job ID: 880-7396-1

Project/Site: HEP: Euince EMSU

SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

		1001	ОТРН1	
Lab Sample ID	Client Sample ID	(70-130)	70-130)	
880-7396-1	CS-59	107	116	
880-7396-1 MS	CS-59	111	106	
880-7396-1 MSD	CS-59	117	115	
880-7396-3	CS-54	107	115	
880-7396-5	CS-55	105	114	
880-7396-7	CS-60	105	110	
880-7396-9	CS-101	106	111	
LCS 880-10061/2-A	Lab Control Sample	104	103	
LCSD 880-10061/3-A	Lab Control Sample Dup	101	102	
MB 880-10061/1-A	Method Blank	106	116	

1CO = 1-Chlorooctane OTPH = o-Terphenyl

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Client: TRC Solutions, Inc. Job ID: 880-7396-1 Project/Site: HEP: Euince EMSU SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-10061/1-A

Lab Sample ID: LCS 880-10061/2-A

Lab Sample ID: LCSD 880-10061/3-A

**Matrix: Solid** 

Matrix: Solid

**Analysis Batch: 10051** 

**Analysis Batch: 10051** 

**Client Sample ID: Method Blank** 

**Prep Type: Total/NA** 

Prep Batch: 10061

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1
	MR	MR						

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	10/21/21 09:42	10/21/21 11:42	1
o-Terphenyl	116		70 - 130	10/21/21 09:42	10/21/21 11:42	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 10061

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	974.4		mg/Kg		97	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	874.6		mg/Kg		87	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	104	70 - 130
o-Terphenyl	103	70 - 130

**Client Sample ID: Lab Control Sample Dup** 

**Prep Type: Total/NA** Prep Batch: 10061

**Analysis Batch: 10051** 

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	886.7		mg/Kg		89	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	851.4		mg/Kg		85	70 - 130	3	20

**Matrix: Solid** 

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	101	70 - 130
o-Terphenyl	102	70 - 130

Lab Sample ID: 880-7396-1 MS **Client Sample ID: CS-59 Prep Type: Total/NA** 

Prep Batch: 10061

	Sample	Sample	Эріке	IVIO	IVIO				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	1000	1264		mg/Kg		126	70 - 130	
Diesel Range Organics (Over C10-C28)	69.3		1000	1021		mg/Kg		95	70 - 130	

**Eurofins Xenco** 

**Matrix: Solid** 

**Analysis Batch: 10051** 

Released to Imaging: 3/24/2022 9:01:44 AM

# **QC Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-7396-1 Project/Site: HEP: Euince EMSU SDG: Eunice, NM

# Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-7396-1 MS **Client Sample ID: CS-59** 

**Matrix: Solid** 

**Analysis Batch: 10051** 

**Prep Type: Total/NA** Prep Batch: 10061

MS MS %Recovery Qualifier Surrogate Limits 1-Chlorooctane 111 70 - 130 o-Terphenyl 106 70 - 130

Lab Sample ID: 880-7396-1 MSD

**Matrix: Solid** 

Analysis Ratch: 10051

Analysis Batch: 10051									Prep E	atch: 1	10061
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	997	1312	F1	mg/Kg		132	70 - 130	4	20
Diesel Range Organics (Over	69.3		997	1071		mg/Kg		101	70 - 130	5	20

C10-C28)

	MSD MSD	
Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	117	70 - 130
o-Terphenyl	115	70 - 130

Client Sample ID: CS-59 Prep Type: Total/NA

# **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Euince EMSU

Job ID: 880-7396-1
SDG: Eunice, NM

# **GC Semi VOA**

### **Analysis Batch: 10051**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7396-1	CS-59	Total/NA	Solid	8015B NM	10061
880-7396-3	CS-54	Total/NA	Solid	8015B NM	10061
880-7396-5	CS-55	Total/NA	Solid	8015B NM	10061
880-7396-7	CS-60	Total/NA	Solid	8015B NM	10061
880-7396-9	CS-101	Total/NA	Solid	8015B NM	10061
MB 880-10061/1-A	Method Blank	Total/NA	Solid	8015B NM	10061
LCS 880-10061/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10061
LCSD 880-10061/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10061
880-7396-1 MS	CS-59	Total/NA	Solid	8015B NM	10061
880-7396-1 MSD	CS-59	Total/NA	Solid	8015B NM	10061

### Prep Batch: 10061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7396-1	CS-59	Total/NA	Solid	8015NM Prep	
880-7396-3	CS-54	Total/NA	Solid	8015NM Prep	
880-7396-5	CS-55	Total/NA	Solid	8015NM Prep	
880-7396-7	CS-60	Total/NA	Solid	8015NM Prep	
880-7396-9	CS-101	Total/NA	Solid	8015NM Prep	
MB 880-10061/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10061/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10061/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-7396-1 MS	CS-59	Total/NA	Solid	8015NM Prep	
880-7396-1 MSD	CS-59	Total/NA	Solid	8015NM Prep	

### **Analysis Batch: 10145**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7396-1	CS-59	Total/NA	Solid	8015 NM	
880-7396-3	CS-54	Total/NA	Solid	8015 NM	
880-7396-5	CS-55	Total/NA	Solid	8015 NM	
880-7396-7	CS-60	Total/NA	Solid	8015 NM	
880-7396-9	CS-101	Total/NA	Solid	8015 NM	

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Job ID: 880-7396-1 SDG: Eunice, NM

Client: TRC Solutions, Inc. Project/Site: HEP: Euince EMSU

**Client Sample ID: CS-59** 

Lab Sample ID: 880-7396-1

**Matrix: Solid** 

Date Collected: 10/19/21 11:30 Date Received: 10/20/21 09:19

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10145	10/21/21 16:18	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	10061	10/21/21 09:42	AM	XEN MID
Total/NA	Analysis	8015B NM		1			10051	10/21/21 12:43	AJ	XEN MID

Lab Sample ID: 880-7396-3 Client Sample ID: CS-54

Matrix: Solid Date Collected: 10/19/21 11:40

Date Received: 10/20/21 09:19

Prep Type Total/NA	Batch Type Analysis	Batch Method 8015 NM	Run	Dil Factor	Initial Amount	Final Amount	Batch Number 10145	Prepared or Analyzed 10/21/21 16:18	Analyst AJ	Lab XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.01 g	10 mL	10061 10051	10/21/21 09:42 10/21/21 13:42		XEN MID XEN MID

**Client Sample ID: CS-55** Lab Sample ID: 880-7396-5

Date Collected: 10/19/21 11:50 **Matrix: Solid** 

Date Received: 10/20/21 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10145	10/21/21 16:18	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.02 g	10 mL	10061 10051	10/21/21 09:42 10/21/21 14:02		XEN MID XEN MID

**Client Sample ID: CS-60** Lab Sample ID: 880-7396-7 **Matrix: Solid** 

Date Collected: 10/19/21 14:00 Date Received: 10/20/21 09:19

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10145	10/21/21 16:18	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	10061	10/21/21 09:42	AM	XEN MID
Total/NA	Analysis	8015B NM		1			10051	10/21/21 14:22	AJ	XEN MID

Lab Sample ID: 880-7396-9 **Client Sample ID: CS-101** Date Collected: 10/19/21 14:15

Date Received: 10/20/21 09:19

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10145	10/21/21 16:18	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	10061	10/21/21 09:42	AM	XEN MID
Total/NA	Analysis	8015B NM		1			10051	10/21/21 14:42	AJ	XEN MID

**Laboratory References:** 

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Eurofins Xenco** 

Matrix: Solid

# **Accreditation/Certification Summary**

Client: TRC Solutions, Inc. Job ID: 880-7396-1 Project/Site: HEP: Euince EMSU SDG: Eunice, NM

### **Laboratory: Eurofins Xenco**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pro	ogram	Identification Number	Expiration Date
Texas	NE	LAP	T104704400-21-22	06-30-22
The following analyte	s are included in this reno	rt but the laboratory is r	not certified by the governing authority	This list may include analytes for w
The following analyte the agency does not	•	rt, but the laboratory is r	not certified by the governing authority.	This list may include analytes for w
0 ,	•	rt, but the laboratory is r Matrix	not certified by the governing authority.  Analyte	This list may include analytes for w

# **Method Summary**

Job ID: 880-7396-1 Client: TRC Solutions, Inc. Project/Site: HEP: Euince EMSU

SDG: Eunice, NM

**Method Description** Protocol Laboratory Diesel Range Organics (DRO) (GC) SW846 XEN MID Diesel Range Organics (DRO) (GC) SW846 XEN MID

#### Method 8015 NM 8015B NM 8015NM Prep Microextraction SW846 XEN MID

### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### **Laboratory References:**

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Euince EMSU

Job ID: 880-7396-1 SDG: Eunice, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-7396-1	CS-59	Solid	10/19/21 11:30	10/20/21 09:19	10'
880-7396-3	CS-54	Solid	10/19/21 11:40	10/20/21 09:19	10'
880-7396-5	CS-55	Solid	10/19/21 11:50	10/20/21 09:19	10'
880-7396-7	CS-60	Solid	10/19/21 14:00	10/20/21 09:19	5.5'
880-7396-9	CS-101	Solid	10/19/21 14:15	10/20/21 09:19	5.5'

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Circle Method(s) and Metal(s) to

## Chain of Custody

SAMPLE RECEIPT

Cooler Custody Seals Samples Received Intact: Sampler's Name

Project Location

Project Number

Project Name

Address

Project Manager Company Name

City, State ZIP

Revised Date: 08/25/2020 Rev 2020.2

#### **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc.

Job Number: 880-7396-1

SDG Number: Eunice, NM

Login Number: 7396 List Source: Eurofins Xenco

List Number: 1

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

ge 7,00**j** ,00

### **Environment Testing America**

#### **ANALYTICAL REPORT**

Eurofins Midland 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-7398-1

Laboratory Sample Delivery Group: Eunice, NM

Client Project/Site: HEP: Euince EMSU

Revision: 2

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MAMER

Authorized for release by: 2/4/2022 12:15:53 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS .....

Review your project results through

**Have a Question?** 



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.

Laboratory Job ID: 880-7398-1

Project/Site: HEP: Euince EMSU

SDG: Eunice, NM

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#### **Definitions/Glossary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Euince EMSU

SDG: Eunice, NM

#### **Qualifiers**

#### **GC Semi VOA**

 Qualifier
 Qualifier Description

 F1
 MS and/or MSD recovery exceeds control limits.

 U
 Indicates the analyte was analyzed for but not detected.

#### Glossary

Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)
LOD Limit of Detection (DoD/DOE)
LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent
POS Positive / Present
PQL Practical Quantitativ

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Released to Imaging: 3/24/2022 9:01:44 AM

#### Case Narrative

Client: TRC Solutions, Inc.

Project/Site: HEP: Euince EMSU

Job ID: 880-7398-1

SDG: Eunice, NM

Job ID: 880-7398-1

**Laboratory: Eurofins Midland** 

Narrative

Job Narrative 880-7398-1

#### **REVISION**

The report being provided is a revision of the original report sent on 10/22/2021. The report (revision 2) is being revised due to Per client email, requesting to change sample ID from CS-07 to CS-7.

Report revision history

The report being provided is a revision of the original report sent on 10/22/2021. The report (revision 2) is being revised due to Per client email, requesting to change sample ID from CS-07 to CS-7.

Revision 1 - 1/7/2022 - Reason - Per client email, removed sample depths from sample name.

#### Receipt

The samples were received on 10/20/2021 9:23 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.5°C

#### GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-10061 and analytical batch 880-10051 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Job ID: 880-7398-1

Lab Sample ID: 880-7398-1

Client: TRC Solutions, Inc. Project/Site: HEP: Euince EMSU

SDG: Eunice, NM

Client Sample ID: CS-7

Date Collected: 10/19/21 10:00 Date Received: 10/20/21 09:23

**Matrix: Solid** 

Sample Depth: 4.5'

Method: 8015 NM - Diesel Rang	e Organic	s (DRO) (GO	<b>;</b> )					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	140		50.0	mg/Kg			10/21/21 16:18	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 15:01	1
Diesel Range Organics (Over C10-C28)	140		50.0	mg/Kg		10/21/21 09:42	10/21/21 15:01	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 15:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			10/21/21 09:42	10/21/21 15:01	1
o-Terphenyl	112		70 - 130			10/21/21 09:42	10/21/21 15:01	1

**Client Sample ID: CS-97** Lab Sample ID: 880-7398-3

Date Collected: 10/19/21 10:10 **Matrix: Solid** Date Received: 10/20/21 09:23

Sample Depth: 4.5'

	Method: 8015 NM - Diesel Ran	ge Organics	s (DRO) (G	C)					
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
۱	Total TPH	154		49.9	mg/Kg			10/21/21 16:18	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/21/21 09:42	10/21/21 15:21	1
Diesel Range Organics (Over C10-C28)	154		49.9	mg/Kg		10/21/21 09:42	10/21/21 15:21	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/21/21 09:42	10/21/21 15:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			10/21/21 09:42	10/21/21 15:21	1
o-Terphenyl	111		70 - 130			10/21/21 09:42	10/21/21 15:21	1

Client Sample ID: CS-98 Lab Sample ID: 880-7398-5 Matrix: Solid

Date Collected: 10/19/21 10:20 Date Received: 10/20/21 09:23

Sample Depth: 4.5'

Method: 8015 NM - Diesel Ran	ge Organics (DF	RO) (GC)					
Analyte	Result Quali	ifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	128	50.0	mg/Kg			10/21/21 16:18	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 15:41	1		
Diesel Range Organics (Over C10-C28)	128		50.0	mg/Kg		10/21/21 09:42	10/21/21 15:41	1		
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 15:41	1		

Job ID: 880-7398-1

Client: TRC Solutions, Inc. Project/Site: HEP: Euince EMSU

SDG: Eunice, NM

Client Sample ID: CS-98

Lab Sample ID: 880-7398-5

Date Collected: 10/19/21 10:20 Date Received: 10/20/21 09:23

Matrix: Solid

Sample Depth: 4.5'

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1-Chlorooctane	103		70 - 130	10/21/21 09:42	10/21/21 15:41	1
L	o-Terphenyl	109		70 - 130	10/21/21 09:42	10/21/21 15:41	1

Client Sample ID: CS-99

Lab Sample ID: 880-7398-7 Date Collected: 10/19/21 10:30

Matrix: Solid

Date Received: 10/20/21 09:23 Sample Depth: 4.5'

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Result Qualifier Analyte RL Unit D Prepared Analyzed Dil Fac 10/21/21 16:18 **Total TPH** 50.0 mg/Kg 91.0

Method: 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac <50.0 U 50.0 10/21/21 09:42 10/21/21 16:00 Gasoline Range Organics mg/Kg (GRO)-C6-C10 **Diesel Range Organics (Over** 91.0 50.0 mg/Kg 10/21/21 09:42 10/21/21 16:00 C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 10/21/21 09:42 10/21/21 16:00 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 10/21/21 09:42 10/21/21 16:00 1-Chlorooctane 102 70 - 130 107 70 - 130 10/21/21 09:42 10/21/21 16:00 o-Terphenyl

Client Sample ID: CS-100 Lab Sample ID: 880-7398-9

Date Collected: 10/19/21 10:40 Matrix: Solid

Date Received: 10/20/21 09:23

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Sample Depth: 4.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	142		49.8	mg/Kg			10/21/21 16:18	1
- Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/21/21 09:42	10/21/21 16:20	1
Diesel Range Organics (Over C10-C28)	142		49.8	mg/Kg		10/21/21 09:42	10/21/21 16:20	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/21/21 09:42	10/21/21 16:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			10/21/21 09:42	10/21/21 16:20	1
o-Terphenyl	108		70 - 130			10/21/21 09:42	10/21/21 16:20	1

#### **Surrogate Summary**

Job ID: 880-7398-1 Client: TRC Solutions, Inc. Project/Site: HEP: Euince EMSU SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

**Matrix: Solid Prep Type: Total/NA** 

		1CO1	Percent Surrogate Recovery (A DTPH1	,
Lab Sample ID	Client Sample ID	(70-130)	70-130)	
880-7396-A-1-B MS	Matrix Spike	111	106	
880-7396-A-1-C MSD	Matrix Spike Duplicate	117	115	
880-7398-1	CS-7	106	112	
880-7398-3	CS-97	106	111	
880-7398-5	CS-98	103	109	
880-7398-7	CS-99	102	107	
880-7398-9	CS-100	101	108	
LCS 880-10061/2-A	Lab Control Sample	104	103	
LCSD 880-10061/3-A	Lab Control Sample Dup	101	102	
MB 880-10061/1-A	Method Blank	106	116	

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Client: TRC Solutions, Inc. Job ID: 880-7398-1 Project/Site: HEP: Euince EMSU SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-10061/1-A

Lab Sample ID: LCS 880-10061/2-A

Lab Sample ID: LCSD 880-10061/3-A

**Matrix: Solid** 

Matrix: Solid

**Analysis Batch: 10051** 

**Analysis Batch: 10051** 

**Client Sample ID: Method Blank** 

**Prep Type: Total/NA** 

Prep Batch: 10061

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/21 09:42	10/21/21 11:42	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106	·	70 - 130	10/21/21 09:42	10/21/21 11:42	1
o-Terphenyl	116		70 - 130	10/21/21 09:42	10/21/21 11:42	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 10061

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	974.4		mg/Kg		97	70 - 130	
(GRO)-C6-C10 Diesel Range Organics (Over	1000	874.6		mg/Kg		87	70 - 130	
C10-C28)								

LCS LCS

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	104	70 - 130
o-Terphenyl	103	70 - 130

**Client Sample ID: Lab Control Sample Dup** 

**Prep Type: Total/NA** Prep Batch: 10061

**Analysis Batch: 10051** 

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	886.7		mg/Kg		89	70 - 130	9	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	851.4		mg/Kg		85	70 - 130	3	20
A A 1									

C10-C28)

**Matrix: Solid** 

	_005 _005	
Surrogate	%Recovery Qualifie	r Limits
1-Chlorooctane	101	70 - 130
o-Terphenyl	102	70 - 130

Lab Sample ID: 880-7396-A-1-B MS Client Sample ID: Matrix Spike **Prep Type: Total/NA** 

**Matrix: Solid** 

Analysis Batch: 10051									Prep I	Batch: 10061
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	1000	1264		mg/Kg		126	70 - 130	
Diesel Range Organics (Over C10-C28)	69.3		1000	1021		mg/Kg		95	70 - 130	

#### **QC Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-7398-1 Project/Site: HEP: Euince EMSU SDG: Eunice, NM

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-7396-A-1-B MS

**Matrix: Solid** 

**Analysis Batch: 10051** 

Client Sample ID: Matrix Spike

**Prep Type: Total/NA** 

Prep Batch: 10061

MS MS %Recovery Qualifier Surrogate Limits 1-Chlorooctane 111 70 - 130 o-Terphenyl 106 70 - 130

Lab Sample ID: 880-7396-A-1-C MSD

**Matrix: Solid** 

**Analysis Batch: 10051** 

Client Sample	ID: Matrix	Spike D	uplicate
---------------	------------	---------	----------

Prep Type: Total/NA

Prep Batch: 10061

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	997	1312	F1	mg/Kg		132	70 - 130	4	20
Diesel Range Organics (Over	69.3		997	1071		mg/Kg		101	70 - 130	5	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	115		70 - 130

#### **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Euince EMSU

Job ID: 880-7398-1
SDG: Eunice, NM

#### **GC Semi VOA**

#### **Analysis Batch: 10051**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7398-1	CS-7	Total/NA	Solid	8015B NM	10061
880-7398-3	CS-97	Total/NA	Solid	8015B NM	10061
880-7398-5	CS-98	Total/NA	Solid	8015B NM	10061
880-7398-7	CS-99	Total/NA	Solid	8015B NM	10061
880-7398-9	CS-100	Total/NA	Solid	8015B NM	10061
MB 880-10061/1-A	Method Blank	Total/NA	Solid	8015B NM	10061
LCS 880-10061/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10061
LCSD 880-10061/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10061
880-7396-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	10061
880-7396-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	10061

#### Prep Batch: 10061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7398-1	CS-7	Total/NA	Solid	8015NM Prep	
880-7398-3	CS-97	Total/NA	Solid	8015NM Prep	
880-7398-5	CS-98	Total/NA	Solid	8015NM Prep	
880-7398-7	CS-99	Total/NA	Solid	8015NM Prep	
880-7398-9	CS-100	Total/NA	Solid	8015NM Prep	
MB 880-10061/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10061/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10061/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-7396-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-7396-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 10145**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7398-1	CS-7	Total/NA	Solid	8015 NM	
880-7398-3	CS-97	Total/NA	Solid	8015 NM	
880-7398-5	CS-98	Total/NA	Solid	8015 NM	
880-7398-7	CS-99	Total/NA	Solid	8015 NM	
880-7398-9	CS-100	Total/NA	Solid	8015 NM	

Job ID: 880-7398-1

SDG: Eunice, NM

Client Sample ID: CS-7

Project/Site: HEP: Euince EMSU

Client: TRC Solutions, Inc.

Date Collected: 10/19/21 10:00 Date Received: 10/20/21 09:23

Lab Sample ID: 880-7398-1

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10145	10/21/21 16:18	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	10061	10/21/21 09:42	AM	XEN MID
Total/NA	Analysis	8015B NM		1			10051	10/21/21 15:01	AJ	XEN MID

**Client Sample ID: CS-97** Lab Sample ID: 880-7398-3

Date Collected: 10/19/21 10:10 Date Received: 10/20/21 09:23

**Matrix: Solid** 

 Prep Type otal/NA	Batch Type Analysis	Batch Method 8015 NM	Run	Dil Factor	Initial Amount	Final Amount	Batch Number 10145	<b>Prepared or Analyzed</b> 10/21/21 16:18	Analyst AJ	Lab XEN MID
ōtal/NA ōtal/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.02 g	10 mL	10061 10051	10/21/21 09:42 10/21/21 15:21	AM AJ	XEN MID XEN MID

Client Sample ID: CS-98 Lab Sample ID: 880-7398-5 Matrix: Solid

Date Collected: 10/19/21 10:20 Date Received: 10/20/21 09:23

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Type Method Run Factor Amount **Amount** Number or Analyzed Analyst Lab Total/NA Analysis 8015 NM 10145 10/21/21 16:18 AJ XEN MID Total/NA Prep 8015NM Prep 10.00 g 10 mL 10061 10/21/21 09:42 AM **XEN MID** Total/NA Analysis 8015B NM 1 10051 10/21/21 15:41 AJ **XEN MID** 

Client Sample ID: CS-99 Lab Sample ID: 880-7398-7 Date Collected: 10/19/21 10:30 **Matrix: Solid** 

Date Received: 10/20/21 09:23

Dil Batch **Batch** Initial Final **Batch** Prepared Method Prep Type Type Run **Factor Amount Amount** Number or Analyzed Analyst Lab 8015 NM Total/NA 10/21/21 16:18 AJ Analysis 10145 XEN MID Total/NA 8015NM Prep 10.01 g 10061 10/21/21 09:42 AM XEN MID Prep 10 mL Total/NA 8015B NM 10/21/21 16:00 AJ **XEN MID** Analysis 10051 1

Client Sample ID: CS-100 Lab Sample ID: 880-7398-9

Date Collected: 10/19/21 10:40 Date Received: 10/20/21 09:23

Released to Imaging: 3/24/2022 9:01:44 AM

Dil Batch Batch Initial Final **Batch** Prepared **Prep Type** Method Run **Factor Amount Amount** Number or Analyzed Type Analyst Lab Total/NA 8015 NM 10145 10/21/21 16:18 AJ XEN MID Analysis Total/NA Prep 8015NM Prep 10.04 g 10 mL 10061 10/21/21 09:42 AM XEN MID Total/NA Analysis 8015B NM 10051 10/21/21 16:20 AJ XEN MID 1

**Laboratory References:** 

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Eurofins Midland** 

Matrix: Solid

#### **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.

Job ID: 880-7398-1

Project/Site: HEP: Euince EMSU

SDG: Eunice, NM

#### **Laboratory: Eurofins Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pr	ogram	Identification Number	Expiration Date	
Texas		ELAP	T104704400-21-22	06-30-22	
• ,		ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes t	
The following analyte the agency does not		ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes t	
• ,		ort, but the laboratory is r Matrix	not certified by the governing authority.  Analyte	This list may include analytes	

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#### **Method Summary**

Client: TRC Solutions, Inc. Project/Site: HEP: Euince EMSU Job ID: 880-7398-1

SDG: Eu

unice,	NM	

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID

#### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

#### **Sample Summary**

Client: TRC Solutions, Inc. Project/Site: HEP: Euince EMSU Job ID: 880-7398-1

SDG: Eunice, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-7398-1	CS-7	Solid	10/19/21 10:00	10/20/21 09:23	4.5'
880-7398-3	CS-97	Solid	10/19/21 10:10	10/20/21 09:23	4.5'
880-7398-5	CS-98	Solid	10/19/21 10:20	10/20/21 09:23	4.5'
880-7398-7	CS-99	Solid	10/19/21 10:30	10/20/21 09:23	4.5'
880-7398-9	CS-100	Solid	10/19/21 10:40	10/20/21 09:23	4.5'

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Xenco

Sampler's Name Project Location Project Number roject Name

ELWICE NOW

te ZIP:

172850r

Droi 2838

Bill to (if different)

Company Name

437.750 4465

Email

RSESPING CTPCCORPANIES, CO-

City State ZIP

Address.

Left Eurice Eusy

925 hsh

Routine

Rush 4211 Pres.

Turn Around

ANALYSIS REQUEST

Deliverables

EDO [

ADaPT 🔲

Other:

Level IV

None NO

DI Water: H₂O

Preservative Codes

Reporting Level II Level III PST/UST TRRP

State of Project:

Program: UST/PST PRP Brownfields

Superfund

Work Order Comments

MOLYD LY TELDS

10 DESTA DA

#130€

Hobbs, NM (575) 392 7:	<b>Nenco</b> EL Paso, TX (915) 585-3-		Houston, TX (281) 240	Chain	
Hobbs, NM (575) 392 7550 Carlsbad, NM (575) 988-3199	EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300	Chain of Custody	
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Sample Comments			font Ha	Time Depth Comp	trix Date Sampled	on Matrix	Sample Identification
NaOH+Ascorbic Acid SAPC	N.		PH	imperature 0.5	Corrected Temperature		Total Containers:
Zn Acetate+NaOH Zn	[2]		,	Reading 6.4	Temperature Reading	Yes No N/A	Sample Custody Seals.
Na ,S ,O , NaSO ,	Z. :		Pa	actor: $\delta \cdot )$	Correction Factor	Yes No (N/A	Cooler Custody Seals.
NaHSO , NABIS	Z .:		rame	7	- 1	Yes No	Samples Received Intact:
H_BO . HB	Ē.		eters	Wet Ice Yes No	Yes No	Temp Blank.	SAMPLE RECEIPT
H,SO, H				the lab, if received by 4.30pm			PO#
HCI HC	I (			TAT starts the day received by		R Sci Specials	_
Cool Cool				Due Date		Chair No	Project Location 6

2/4/2022 (Rev. 2)

#### **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc.

Job Number: 880-7398-1

SDG Number: Eunice, NM

Login Number: 7398 List Source: Eurofins Midland

List Number: 1

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

,c 400 bj 703

#### **Environment Testing America**

#### **ANALYTICAL REPORT**

**Eurofins Midland** 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-7399-1

Laboratory Sample Delivery Group: Eunice. NM

Client Project/Site: HEP: Euince EMSU

Revision: 2

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

RAMER

Authorized for release by: 2/4/2022 12:04:18 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

.....LINKS .....

**Review your project** results through

**Have a Question?** 



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: TRC Solutions, Inc. Laboratory Job ID: 880-7399-1 Project/Site: HEP: Euince EMSU

SDG: Eunice. NM

#### **Table of Contents**

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Sample Summary	16
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#### **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-7399-1 Project/Site: HEP: Euince EMSU SDG: Eunice. NM

#### **Qualifiers**

#### **GC Semi VOA** Qualifier

Qualifier	Qualifier Description					
S1-	Surrogate recovery exceeds control limits, low biased.					
S1+	Surrogate recovery exceeds control limits, high biased.					
U	Indicates the analyte was analyzed for but not detected.					

#### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)

EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCI	FPA recommended "Maximum Contam

MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDI	Method Detection Limit

MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL **Practical Quantitation Limit** 

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RLReporting Limit or Requested Limit (Radiochemistry)

**RPD** Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

#### Case Narrative

Client: TRC Solutions, Inc.

Project/Site: HEP: Euince EMSU

Job ID: 880-7399-1

SDG: Eunice. NM

Job ID: 880-7399-1

**Laboratory: Eurofins Midland** 

Narrative

Job Narrative 880-7399-1

#### **REVISION**

The report being provided is a revision of the original report sent on 10/22/2021. The report (revision 2) is being revised due to Per client email, corrected sample ID from SW-37 to SW-46.

Report revision history

The report being provided is a revision of the original report sent on 10/22/2021. The report (revision 2) is being revised due to Per client email, corrected sample ID from SW-37 to SW-46.

Revision 1 - 1/7/2022 - Reason - Per client email, removed sample depths from sample name.

#### Receipt

The samples were received on 10/20/2021 9:26 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.5°C

#### GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SW-38 (880-7399-2) and (880-7394-A-1-B MS). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client: TRC Solutions, Inc. Job ID: 880-7399-1 Project/Site: HEP: Euince EMSU SDG: Eunice. NM

**Client Sample ID: SW-46** 

Date Collected: 10/19/21 11:00 Date Received: 10/20/21 09:26

Sample Depth: 9'

Lab Sample ID: 880-7399-1

Matrix: Solid

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			10/22/21 20:36	1
Total TPH <50.0 U 50.0 mg/Kg 10/22/21 20:36 1  Method: 8015B NM - Diesel Range Organics (DRO) (GC)							
Method: 8015B NM - Diesel	Range Organics (DRO)	(GC)					
Method: 8015B NM - Diesel Analyte	Range Organics (DRO) Result Qualifier	•	Unit	D	Prepared	Analyzed	Dil Fac

Diesel Range Organics (Over <50.0 U 50.0 mg/Kg 10/21/21 08:52 10/22/21 18:01 C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 10/21/21 08:52 10/22/21 18:01 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 111 70 - 130 10/21/21 08:52 10/22/21 18:01 123 70 - 130 10/21/21 08:52 10/22/21 18:01 o-Terphenyl

Client Sample ID: SW-38 Lab Sample ID: 880-7399-2 Date Collected: 10/19/21 11:05 Matrix: Solid

Date Received: 10/20/21 09:26

Sample Depth: 9'

Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit **Prepared** Analyzed Dil Fac **Total TPH** 469 50.0 mg/Kg 10/22/21 20:36

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/21/21 08:52	10/22/21 18:21	1
Diesel Range Organics (Over C10-C28)	414		50.0	mg/Kg		10/21/21 08:52	10/22/21 18:21	1
Oll Range Organics (Over C28-C36)	54.9		50.0	mg/Kg		10/21/21 08:52	10/22/21 18:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130			10/21/21 08:52	10/22/21 18:21	

o-Terphenyl 131 S1+ 70 - 130 10/21/21 08:52 10/22/21 18:21 Client Sample ID: SW-39 Lab Sample ID: 880-7399-3

Date Collected: 10/19/21 11:10 Date Received: 10/20/21 09:26

Sample Depth: 9'

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (0	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/22/21 20:36	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)											
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/21/21 08:52	10/22/21 18:44	1			
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/21/21 08:52	10/22/21 18:44	1			
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/21/21 08:52	10/22/21 18:44	1			

**Eurofins Midland** 

Matrix: Solid

Job ID: 880-7399-1

SDG: Eunice. NM

Project/Site: HEP: Euince EMSU **Client Sample ID: SW-39** 

Date Received: 10/20/21 09:26

Client: TRC Solutions, Inc.

Lab Sample ID: 880-7399-3 Date Collected: 10/19/21 11:10

**Matrix: Solid** 

**Matrix: Solid** 

Sample Depth: 9'

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1-Chlorooctane	109		70 - 130	10/21/21 08:52	10/22/21 18:44	1
L	o-Terphenyl	122		70 - 130	10/21/21 08:52	10/22/21 18:44	1

Lab Sample ID: 880-7399-4 Client Sample ID: SW-40 **Matrix: Solid** 

Date Collected: 10/19/21 11:15 Date Received: 10/20/21 09:26

Sample Depth: 9'

Method: 8015 NM - Diesel Rang	e Organic	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/22/21 20:36	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/21/21 08:52	10/22/21 19:04	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/21/21 08:52	10/22/21 19:04	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/21/21 08:52	10/22/21 19:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			10/21/21 08:52	10/22/21 19:04	1
o-Terphenyl	118		70 - 130			10/21/21 08:52	10/22/21 19:04	1

Lab Sample ID: 880-7399-5 Client Sample ID: SW-41

Date Collected: 10/19/21 11:20 Date Received: 10/20/21 09:26

Sample Depth: 9'

(GRO)-C6-C10

1-Chlorooctane

o-Terphenyl

Method: 8015 NM - Diesel R	ange Organic	s (DRO) (GC	<del>;</del> )					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			10/22/21 20:36	1
Method: 8015B NM - Diesel	Range Organi	ics (DRO) (G	iC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/21/21 08:52	10/22/21 19:45	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg	10/21/21 08:52	10/22/21 19:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg	10/21/21 08:52	10/22/21 19:45	1

70 - 130

70 - 130

113

122

**Eurofins Midland** 

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10/21/21 08:52 10/22/21 19:45

10/21/21 08:52 10/22/21 19:45

**Matrix: Solid** 

Lab Sample ID: 880-7399-6

#### **Client Sample Results**

Client: TRC Solutions, Inc.

Project/Site: HEP: Euince EMSU

SDG: Eunice. NM

Client Sample ID: SW-42

Date Collected: 10/19/21 11:25 Date Received: 10/20/21 09:26

Sample Depth: 6'

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (G	iC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/22/21 20:36	1

Method: 8015B NM - Diesel Ranalyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/21/21 08:52	10/22/21 20:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/21/21 08:52	10/22/21 20:05	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/21/21 08:52	10/22/21 20:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130			10/21/21 08:52	10/22/21 20:05	1
o-Terphenvl	121		70 - 130			10/21/21 08:52	10/22/21 20:05	1

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#### **Surrogate Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Euince EMSU

SDG: Eunice. NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

			Percent	Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-7394-A-1-B MS	Matrix Spike	105	9 S1-	
880-7394-A-1-C MSD	Matrix Spike Duplicate	106	100	
880-7399-1	SW-46	111	123	
880-7399-2	SW-38	119	131 S1+	
880-7399-3	SW-39	109	122	
880-7399-4	SW-40	104	118	
880-7399-5	SW-41	113	122	
880-7399-6	SW-42	108	121	
LCS 880-10059/2-A	Lab Control Sample	98	100	
LCSD 880-10059/3-A	Lab Control Sample Dup	108	112	
MB 880-10059/1-A	Method Blank	110	115	
Surrogate Legend				
1CO = 1-Chlorooctane				
OTPH = o-Terphenyl				

Client: TRC Solutions, Inc. Job ID: 880-7399-1 Project/Site: HEP: Euince EMSU SDG: Eunice. NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-10059/1-A

Lab Sample ID: LCS 880-10059/2-A

Lab Sample ID: LCSD 880-10059/3-A

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 10159** 

**Analysis Batch: 10159** 

Client	Samp	le	ID:	Method	В	lani	k
Sileiit	Janip	16	ID.	Methou	0	aiii	n

Prep Type: Total/NA

Prep Batch: 10059

	MR	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/21/21 08:52	10/22/21 13:37	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/21/21 08:52	10/22/21 13:37	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/21 08:52	10/22/21 13:37	1

MB MB

Surrogate	%Recovery Qua	alifier Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110	70 - 130	10/21/21 08:52	10/22/21 13:37	1
o-Terphenyl	115	70 - 130	10/21/21 08:52	10/22/21 13:37	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 10059

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	929.6		mg/Kg		93	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	8.008		mg/Kg		80	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	98	70 - 130
o-Terphenyl	100	70 - 130

**Client Sample ID: Lab Control Sample Dup** 

**Matrix: Solid** Prep Type: Total/NA Prep Batch: 10059

**Analysis Batch: 10159** 

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier RPD Limit Analyte Unit D %Rec Limits Gasoline Range Organics 1000 1075 mg/Kg 108 70 - 130 15 20 (GRO)-C6-C10 1000 Diesel Range Organics (Over 882.9 mg/Kg 88 70 - 130 10 20

C10-C28)

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	108	70 - 130
o-Terphenyl	112	70 - 130

Lab Sample ID: 880-7394-A-1-B MS Client Sample ID: Matrix Spike

**Matrix: Solid** 

Analysis Batch: 10159									Prep I	Batch: 10059
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.8	U	996	1129		mg/Kg		113	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	409		996	1302		mg/Kg		90	70 - 130	
C10-C28)										

**Eurofins Midland** 

2/4/2022 (Rev. 2)

Prep Type: Total/NA

#### **QC Sample Results**

Job ID: 880-7399-1 Client: TRC Solutions, Inc. Project/Site: HEP: Euince EMSU SDG: Eunice. NM

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-7394-A-1-B MS

**Matrix: Solid** 

**Analysis Batch: 10159** 

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 10059

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 105 70 - 130 o-Terphenyl 9 S1-70 - 130

Lab Sample ID: 880-7394-A-1-C MSD

**Matrix: Solid** 

**Analysis Batch: 10159** 

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10059

RPD MSD MSD %Rec. Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit <49.8 U Gasoline Range Organics 994 1158 mg/Kg 117 70 - 130 3 20 (GRO)-C6-C10 994 20 Diesel Range Organics (Over 409 1268 mg/Kg 86 70 - 130 3 C10-C28)

MSD MSD Surrogate %Recovery Qualifier

Limits 1-Chlorooctane 106 70 - 130 70 - 130 o-Terphenyl 100

#### **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Euince EMSU

Job ID: 880-7399-1
SDG: Eunice. NM

#### **GC Semi VOA**

#### Prep Batch: 10059

<b>Lab Sample ID</b> 880-7399-1	Client Sample ID SW-46	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
880-7399-2	SW-38	Total/NA	Solid	8015NM Prep	
880-7399-3	SW-39	Total/NA	Solid	8015NM Prep	
880-7399-4	SW-40	Total/NA	Solid	8015NM Prep	
880-7399-5	SW-41	Total/NA	Solid	8015NM Prep	
880-7399-6	SW-42	Total/NA	Solid	8015NM Prep	
MB 880-10059/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10059/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10059/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-7394-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-7394-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 10159**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7399-1	SW-46	Total/NA	Solid	8015B NM	10059
880-7399-2	SW-38	Total/NA	Solid	8015B NM	10059
880-7399-3	SW-39	Total/NA	Solid	8015B NM	10059
880-7399-4	SW-40	Total/NA	Solid	8015B NM	10059
880-7399-5	SW-41	Total/NA	Solid	8015B NM	10059
880-7399-6	SW-42	Total/NA	Solid	8015B NM	10059
MB 880-10059/1-A	Method Blank	Total/NA	Solid	8015B NM	10059
LCS 880-10059/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10059
LCSD 880-10059/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10059
880-7394-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	10059
880-7394-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	10059

#### **Analysis Batch: 10308**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7399-1	SW-46	Total/NA	Solid	8015 NM	<u> </u>
880-7399-2	SW-38	Total/NA	Solid	8015 NM	
880-7399-3	SW-39	Total/NA	Solid	8015 NM	
880-7399-4	SW-40	Total/NA	Solid	8015 NM	
880-7399-5	SW-41	Total/NA	Solid	8015 NM	
880-7399-6	SW-42	Total/NA	Solid	8015 NM	

**Client Sample ID: SW-46** 

Project/Site: HEP: Euince EMSU

Client: TRC Solutions, Inc.

Lab Sample ID: 880-7399-1

**Matrix: Solid** 

Date Collected: 10/19/21 11:00 Date Received: 10/20/21 09:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10308	10/22/21 20:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	10059	10/21/21 08:52	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			10159	10/22/21 18:01	AJ	XEN MID

Lab Sample ID: 880-7399-2 **Client Sample ID: SW-38** 

Date Collected: 10/19/21 11:05 **Matrix: Solid** Date Received: 10/20/21 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10308	10/22/21 20:36	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.01 g	10 mL	10059 10159	10/21/21 08:52 10/22/21 18:21		XEN MID XEN MID

Client Sample ID: SW-39 Lab Sample ID: 880-7399-3 **Matrix: Solid** 

Date Collected: 10/19/21 11:10

Date Received: 10/20/21 09:26

Pron Type	Batch	Batch Method	Dun	Dil	Initial	Final	Batch	Prepared	Analyst	Lob
Prep Type Total/NA	Type Analysis	8015 NM	_ Run	Factor 1	Amount	Amount	Number 10308	or Analyzed 10/22/21 20:36	Analyst AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.05 g	10 mL	10059 10159	10/21/21 08:52 10/22/21 18:44		XEN MID XEN MID

**Client Sample ID: SW-40** Lab Sample ID: 880-7399-4

Date Collected: 10/19/21 11:15 **Matrix: Solid** Date Received: 10/20/21 09:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10308	10/22/21 20:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	10059	10/21/21 08:52	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			10159	10/22/21 19:04	AJ	XEN MID

Client Sample ID: SW-41 Lab Sample ID: 880-7399-5

Date Collected: 10/19/21 11:20 Matrix: Solid

Date Received: 10/20/21 09:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10308	10/22/21 20:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	10059	10/21/21 08:52	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			10159	10/22/21 19:45	AJ	XEN MID

Client Sample ID: SW-42 Lab Sample ID: 880-7399-6

Date Collected: 10/19/21 11:25 **Matrix: Solid** Date Received: 10/20/21 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10308	10/22/21 20:36	AJ	XEN MID

#### **Lab Chronicle**

Client: TRC Solutions, Inc. Job ID: 880-7399-1 Project/Site: HEP: Euince EMSU SDG: Eunice. NM

**Client Sample ID: SW-42** Lab Sample ID: 880-7399-6

Date Collected: 10/19/21 11:25 **Matrix: Solid** 

Date Received: 10/20/21 09:26

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	10059	10/21/21 08:52	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			10159	10/22/21 20:05	AJ	XEN MID

#### **Laboratory References:**

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

#### **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Euince EMSU

SDG: Eunice. NM

#### **Laboratory: Eurofins Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority Texas		ogram ELAP	T104704400-21-22	Expiration Date 06-30-22
The following analyte the agency does not o		ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for which
Analysis Method	Prep Method	Matrix	Analyte	
8015 NM		Solid	Total TPH	

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Microextraction

XEN MID

#### **Method Summary**

Client: TRC Solutions, Inc.

Job ID: 880-7399-1

Project/Site: HEP: Euince EMSU

SDG: Eunice. NM

 Method Description
 Protocol
 Laboratory

 Diesel Range Organics (DRO) (GC)
 SW846
 XEN MID

 Diesel Range Organics (DRO) (GC)
 SW846
 XEN MID

SW846

#### **Protocol References:**

Method

8015 NM

8015B NM

8015NM Prep

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### **Laboratory References:**

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Eurofins Midland** 

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#### **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Euince EMSU

Job ID: 880-7399-1 SDG: Eunice. NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-7399-1	SW-46	Solid	10/19/21 11:00	10/20/21 09:26	9'
880-7399-2	SW-38	Solid	10/19/21 11:05	10/20/21 09:26	9'
880-7399-3	SW-39	Solid	10/19/21 11:10	10/20/21 09:26	9'
880-7399-4	SW-40	Solid	10/19/21 11:15	10/20/21 09:26	9'
880-7399-5	SW-41	Solid	10/19/21 11:20	10/20/21 09:26	9'
880-7399-6	SW-42	Solid	10/19/21 11:25	10/20/21 09:26	6'

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# Environment Testing Xenco

Address City State ZIP

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Bill to (if different) Company Name

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Project Manager Company Name

## Chain of Custody

Houston, TX (281) 240-4200, Dallas TX (214) 902-0300 Midland, TX (432) 704-5440 San Antonio, TX (210) 509-3334 EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199

J	Work  880-7399 Chain of Custody  www.xenco.com  Page  T  of
<u> </u>	Work Order Comments
	Program. UST/PST PRP Brownfields RRC Superfund
L	Reporting Level III   Level III   PST/UST   TRRP   Level IV
<u></u>	Deliverables EDD ADaPT Other

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		4	101	- A CONTRACTOR OF THE PROPERTY		
		$\frac{\mathcal{J}}{2}$	10.20.	THE THE	1	My Car
Received by (Signature) Date/Time	ture) Received	e Relinquished by: (Signati	Date/Time	Received by: (Signature)	ignature) Re	Relinquished by: (Signature)
	is and conditions yond the control s previously negotiated.	www.ex signature or runs document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	n client company to Eurofins Xenco, its a y for any losses or expenses incurred by th sample submitted to Eurofins Xenco, I	nstitutes a valid purchase order fror nd shall not assume any responsibilit ch project and a charge of \$5 for each	ent and relinquishment of samples or eliable only for the cost of samples a charge of \$85.00 will be applied to ea	f service. Eurofins Xenco will the fervice. Eurofins Xenco will the feurofins Xenco. A minimum
пу 1031/2431/74/0/74/1		אר כא בי כס כא ו ס אווו ואוס ואו ט				offer Clause - Cable 1
9 MII MONIK SEAG SIO2 NA SY II SNOVZA	MIN WIO NI K SE AG	א כא כגילט לוי Py Wa Wa Ni מיכת רמיבורט רמיבושים או	·	בוסי אויביו ^{טי}	Circle Method(s) and Metal(s) to be analyzed	Circle Method(s) ar
2 V II 3 II 3 IV 63	Ma Ma Ni V Ca A	B Cd Ca Cr Ca Cr Ea Dh M	밁	8RCRA 13PPM	200.8 / 6020:	Total 2007/6010
			6	1/25 (	6.	Sw-420
			21	1120	20	200 - H 6
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			1-63-7	, 00/1 120 M	34 S	1
Sample Comments			Depth   Grab/ # of	Date Time De Sampled Sampled De	Matrix	Sample Identification
NaOH+Ascorbic Acıd SAPC			PI	Corrected Temperature	0	Total Containers:
Zn Acetate+NaOH Zn			F. 7.0	Temperature Reading	Yes No NA Te	Sample Custody Seals:
Na ₂ S ₂ O ₃ NaSO ₃			Pi	Correction Factor	NO (N/A)	Cooler Custody Seals.
NaHSO 4 NABIS			aram	Thermometer ID	Yes No	Samples Received Intact:
			Yes No	Yes No Wet Ice	Temp Blank.	SAMPLE RECEIPT
J				the lab, if received by 4:30pm		PO #
			eceived by	TAT starts the day received by	K SERSOWY	Sampler's Name:
				Due Date	Elimete Ph	Project Location
None NO DI Water: H ₂ O			XIRush S/RC Code	Routine	454378	Project Number
Preservative Codes	UEST	ANALYSIS REQU	nd	Pr Turn Around	200	Project Name
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#### **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc. Job Number: 880-7399-1 SDG Number: Eunice. NM

Login Number: 7399 **List Source: Eurofins Midland** 

List Number: 1

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Midland 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-7487-1

Laboratory Sample Delivery Group: Eunice,NM Client Project/Site: HEP:Eunice EMSU Remediation

Revision: 2

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MRAMER

Authorized for release by: 2/4/2022 11:52:37 AM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

.....LINKS

Review your project results through

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Remediation Laboratory Job ID: 880-7487-1 SDG: Eunice,NM

# **Table of Contents**

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Chain of Custody	23
Receipt Checklists	

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#### **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-7487-1 Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

#### **Qualifiers**

#### **GC Semi VOA**

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.

Indicates the analyte was analyzed for but not detected.

#### HPLC/IC

MS and/or MSD recovery exceeds control limits. U Indicates the analyte was analyzed for but not detected.

#### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this repo	rt.

¤ Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery **CFL** Contains Free Liquid **CFU** Colony Forming Unit CNF Contains No Free Liquid

**DER** Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Decision Level Concentration (Radiochemistry) DLC

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit Minimum Level (Dioxin) ML MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

**Practical Quantitation Limit PQL** 

**PRES** Presumptive **Quality Control** QC

**RER** Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RI

**RPD** Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) **TEF TEQ** Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

#### Case Narrative

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7487-1 SDG: Eunice,NM

Job ID: 880-7487-1

**Laboratory: Eurofins Midland** 

Narrative

Job Narrative 880-7487-1

#### **REVISION**

The report being provided is a revision of the original report sent on 11/2/2021. The report (revision 2) is being revised due to Per client email, corrected sample date to 10/22/21 for sample 3,4, and 5.

Report revision history

The report being provided is a revision of the original report sent on 11/2/2021. The report (revision 2) is being revised due to Per client email, corrected sample date to 10/22/21 for sample 3,4, and 5.

Revision 1 - 1/10/2022 - Reason - Per client email, removed sample depths from sample name.

#### Receipt

The samples were received on 10/22/2021 3:45 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

#### GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-1450-A-1-D). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-10846 and analytical batch 880-10885 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-10272 and analytical batch 880-10330 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client: TRC Solutions, Inc. Job ID: 880-7487-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

**Client Sample ID: CS-87** Lab Sample ID: 880-7487-1

Date Collected: 10/21/21 16:15 **Matrix: Solid** Date Received: 10/22/21 15:45

Sample Depth: 6.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	6820		250	mg/Kg			10/27/21 12:13	1
Method: 8015B NM - Diesel I	Range Organi	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1530		250	mg/Kg		10/22/21 16:46	10/24/21 03:07	5
Diesel Range Organics (Over C10-C28)	4790		250	mg/Kg		10/22/21 16:46	10/24/21 03:07	5
Oll Range Organics (Over C28-C36)	496		250	mg/Kg		10/22/21 16:46	10/24/21 03:07	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130			10/22/21 16:46	10/24/21 03:07	5
o-Terphenyl	107		70 - 130			10/22/21 16:46	10/24/21 03:07	5

Method: 300.0 - Anions, Ion Chromatography - Soluble Result Qualifier Analyte RL Unit Prepared Analyzed Dil Fac Chloride 542 5.05 10/24/21 00:38 mg/Kg

Client Sample ID: CS-87 Lab Sample ID: 880-7487-2 **Matrix: Solid** 

Date Collected: 10/21/21 16:20 Date Received: 10/22/21 15:45

Sample Depth: 7.5

Method: 8015 NM - Diesel Ra Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1680		49.8	mg/Kg			10/27/21 13:36	1
Method: 8015B NM - Diesel I	Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	349		49.8	mg/Kg		10/27/21 13:40	10/28/21 03:50	1
Diesel Range Organics (Over C10-C28)	1220		49.8	mg/Kg		10/27/21 13:40	10/28/21 03:50	1
Oll Range Organics (Over C28-C36)	109		49.8	mg/Kg		10/27/21 13:40	10/28/21 03:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			10/27/21 13:40	10/28/21 03:50	1
o-Terphenyl	105		70 - 130			10/27/21 13:40	10/28/21 03:50	1

Client Sample ID: CS-87 Lab Sample ID: 880-7487-3

Date Collected: 10/22/21 10:00 Date Received: 10/22/21 15:45

Sample Depth: 8

Method: 8015 NM - Diesel Ran	ge Organics	(DRO) (G	<b>C</b> )					
Analyte	Result (	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4980		249	mg/Kg			10/29/21 13:47	1

**Eurofins Midland** 

**Matrix: Solid** 

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7487-1
SDG: Eunice,NM

Client Sample ID: CS-87

Date Collected: 10/22/21 10:00

Lab Sample ID: 880-7487-3

Matrix: Solid

Date Collected: 10/22/21 10:00
Date Received: 10/22/21 15:45

Sample Depth: 8

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1330		249	mg/Kg		10/28/21 14:47	10/29/21 12:53	5
Diesel Range Organics (Over C10-C28)	3650		249	mg/Kg		10/28/21 14:47	10/29/21 12:53	5
Oll Range Organics (Over C28-C36)	<249	U	249	mg/Kg		10/28/21 14:47	10/29/21 12:53	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	151	S1+	70 - 130			10/28/21 14:47	10/29/21 12:53	5
o-Terphenyl	96		70 - 130			10/28/21 14:47	10/29/21 12:53	5

Client Sample ID: CS-87

Date Collected: 10/22/21 10:05

Lab Sample ID: 880-7487-4

Matrix: Solid

Date Collected: 10/22/21 10:05 Date Received: 10/22/21 15:45

Sample Depth: 9

Method: 8015 NM - Diesel Ran	ge Organics (DRO) (GO	<b>;</b> )					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2080	249	mg/Kg			11/01/21 12:32	1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	658		249	mg/Kg		10/29/21 16:10	10/30/21 19:38	5
Diesel Range Organics (Over C10-C28)	1420		249	mg/Kg		10/29/21 16:10	10/30/21 19:38	5
Oll Range Organics (Over C28-C36)	<249	U	249	mg/Kg		10/29/21 16:10	10/30/21 19:38	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			10/29/21 16:10	10/30/21 19:38	5
o-Terphenyl	111		70 - 130			10/29/21 16:10	10/30/21 19:38	5

Client Sample ID: CS-87 Lab Sample ID: 880-7487-5

Date Collected: 10/22/21 10:10 Date Received: 10/22/21 15:45

Released to Imaging: 3/24/2022 9:01:44 AM

Sample Depth: 10

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Total TPH	442		49.9	mg/Kg			11/01/21 19:25	1
			(556) (6						

Method: 8015B NM - Diesel R	ethod: 8015B NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Gasoline Range Organics (GRO)-C6-C10	49.9	*1	49.9	mg/Kg		11/01/21 14:28	11/02/21 03:04	1			
Diesel Range Organics (Over C10-C28)	392		49.9	mg/Kg		11/01/21 14:28	11/02/21 03:04	1			
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/01/21 14:28	11/02/21 03:04	1			
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac			
1-Chlorooctane	96		70 - 130			11/01/21 14:28	11/02/21 03:04	1			
o-Terphenyl	109		70 - 130			11/01/21 14:28	11/02/21 03:04	1			

**Eurofins Midland** 

2

3

7

0

10

10

14

880-7487-5 Matrix: Solid

#### **Surrogate Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7487-1

SDG: Eunice,NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

	au	1001	ОТРН1	gate Recovery (Acceptance Limits)
<b>Lab Sample ID</b> 880-7487-1	Client Sample ID CS-87	<u>(70-130)</u>	( <b>70-130)</b>	
880-7487-2	CS-87	104	107	
880-7487-3	CS-87	151 S1+	96	
880-7487-4	CS-87	105	111	
880-7487-5	CS-87	96	109	
880-7562-A-17-I MS	Matrix Spike	87	88	
880-7562-A-17-J MSD	Matrix Spike Duplicate	87	89	
880-7623-A-1-H MS	Matrix Spike	95	91	
880-7623-A-1-I MSD	Matrix Spike Duplicate	92	92	
890-1445-A-42-D MSD	Matrix Spike Duplicate	94	98	
890-1445-A-42-E MS	Matrix Spike	89	92	
890-1450-A-1-E MS	Matrix Spike	111	113	
890-1450-A-1-F MSD	Matrix Spike Duplicate	127	129	
890-1488-A-21-C MS	Matrix Spike	101	98	
890-1488-A-21-D MSD	Matrix Spike Duplicate	86	83	
LCS 880-10277/2-A	Lab Control Sample	101	100	
LCS 880-10752/2-A	Lab Control Sample	87	94	
LCS 880-10846/2-A	Lab Control Sample	104	105	
LCS 880-10989/2-A	Lab Control Sample	89	97	
LCS 880-11155/2-A	Lab Control Sample	81	92	
LCSD 880-10277/3-A	Lab Control Sample Dup	105	106	
LCSD 880-10752/3-A	Lab Control Sample Dup	87	92	
LCSD 880-10846/3-A	Lab Control Sample Dup	98	103	
LCSD 880-10989/3-A	Lab Control Sample Dup	95	105	
LCSD 880-11155/3-A	Lab Control Sample Dup	76	86	
MB 880-10277/1-A	Method Blank	111	126	
MB 880-10752/1-A	Method Blank	124	143 S1+	
MB 880-10846/1-A	Method Blank	96	111	
MB 880-10989/1-A	Method Blank	102	115	
MB 880-11155/1-A	Method Blank	92	105	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

**5** 

4

7

9

11

40

14

#### **QC Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-7487-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-10277/1-A

Lab Sample ID: LCS 880-10277/2-A

Lab Sample ID: LCSD 880-10277/3-A

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 10309** 

**Analysis Batch: 10309** 

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 10277

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/22/21 16:46	10/23/21 21:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/22/21 16:46	10/23/21 21:07	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/22/21 16:46	10/23/21 21:07	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	10/22/21 16:46	10/23/21 21:07	1
o-Terphenyl	126		70 - 130	10/22/21 16:46	10/23/21 21:07	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 10277

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	924.8		mg/Kg	<u> </u>	92	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	921.0		mg/Kg		92	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	101	70 - 130
o-Terphenyl	100	70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

**Analysis Batch: 10309** Prep Batch: 10277

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	862.2		mg/Kg		86	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	1000	873.0		mg/Kg		87	70 - 130	5	20

**Matrix: Solid** 

LCSD LCSD

Surrogate	%Recovery Qua	lifier Limits
1-Chlorooctane	105	70 - 130
o-Terphenyl	106	70 - 130

Lab Sample ID: 890-1445-A-42-D MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid Analysis Batch: 10309** 

Prep Batch: 10277 Spike MSD MSD **RPD** Sample Sample %Rec. Analyte Result Qualifier Added Result Qualifier Unit Limits **RPD** Limit <49.9 U F1 <49.9 U F1 Gasoline Range Organics 997 mg/Kg 0 70 - 130 NC 20 (GRO)-C6-C10 Diesel Range Organics (Over 79.2 F1 997 84.08 F1 mg/Kg 0.5 70 - 130 20

C10-C28)

**Eurofins Midland** 

Prep Type: Total/NA

Client: TRC Solutions, Inc. Job ID: 880-7487-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-1445-A-42-D MSD

**Matrix: Solid** 

**Analysis Batch: 10309** 

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 10277

MSD MSD %Recovery Qualifier Surrogate Limits 1-Chlorooctane 94 70 - 130 o-Terphenyl 98 70 - 130

Lab Sample ID: 890-1445-A-42-E MS

**Matrix: Solid** 

Gasoline Range Organics

(GRO)-C6-C10

**Analysis Batch: 10309** MS MS Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit

1000

1000

RL

50.0

50.0

50.0

Spike

Added

1000

1000

<50.0 U F1

79.66 F1

mg/Kg

mg/Kg

Unit

mg/Kg

mg/Kg

mg/Kg

Unit

mg/Kg

mg/Kg

LCS LCS

927.4

920.2

Result Qualifier

<49.9 U F1

<50.0 U

<50.0 U

Diesel Range Organics (Over 79.2 F1 C10-C28) MS MS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	92		70 - 130

Lab Sample ID: MB 880-10752/1-A

**Matrix: Solid** 

C10-C28)

**Analysis Batch: 10661** 

Diesel Range Organics (Over

MB MB

Result Qualifier Analyte Gasoline Range Organics <50.0 U (GRO)-C6-C10

Oll Range Organics (Over C28-C36) MB MB %Recovery Qualifier Surrogate Limits

1-Chlorooctane 70 - 130 124 70 - 130 o-Terphenyl 143 S1+

Lab Sample ID: LCS 880-10752/2-A **Matrix: Solid** 

**Analysis Batch: 10661** 

Analyte Gasoline Range Organics

Diesel Range Organics (Over C10-C28)

(GRO)-C6-C10

LCS LCS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 87 70 - 130 70 - 130 o-Terphenyl 94

**Client Sample ID: Matrix Spike** 

**Prep Type: Total/NA** 

Prep Batch: 10277 %Rec.

%Rec Limits 0 70 - 130

70 - 130

0.04

Client Sample ID: Method Blank **Prep Type: Total/NA** 

Prep Batch: 10752

D	Prepared	Analyzed	Dil Fac		
_	10/27/21 13:40	10/27/21 19:28	1		
	10/27/21 13:40	10/27/21 19:28	1		
	10/27/21 13:40	10/27/21 19:28	1		

Prepared Analyzed Dil Fac 10/27/21 13:40 10/27/21 19:28 10/27/21 13:40 10/27/21 19:28

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

%Rec

93

92

Prep Batch: 10752

%Rec.

Limits 70 - 130

70 - 130

Spike

Added

1000

1000

Limits 70 - 130

70 - 130

Spike

Added

997

997

Client: TRC Solutions, Inc. Job ID: 880-7487-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

LCSD LCSD

MS MS

1192

1095

Result Qualifier

1115

770.0

Result Qualifier

Unit

mg/Kg

mg/Kg

Unit

mg/Kg

mg/Kg

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

LCSD LCSD

%Recovery Qualifier

87

92

Sample Sample

<49.9 U

65.1

Result Qualifier

Lab Sample ID: LCSD 880-10752/3-A

**Matrix: Solid** 

(GRO)-C6-C10

Analyte

C10-C28)

Surrogate

o-Terphenyl

Analyte

C10-C28)

1-Chlorooctane

**Matrix: Solid** 

(GRO)-C6-C10

**Analysis Batch: 10661** 

Gasoline Range Organics

Diesel Range Organics (Over

**Analysis Batch: 10661** 

Gasoline Range Organics

Diesel Range Organics (Over

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 10752 %Rec. **RPD** %Rec Limits RPD Limit 111 70 - 130 18 20

77 70 - 13018 20

Cilent	Sample I	D: Mai	ırıx əp	IK
	Prep	Type:	Total/	N

Prep Batch: 10752 %Rec.

Limits D %Rec 120 70 - 130 103 70 - 130

	IVIS		
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 890-1450-A-1-F MSD

Lab Sample ID: 890-1450-A-1-E MS

**Matrix: Solid** 

**Analysis Batch: 10661** 

**Client Sample ID: Matrix Spike Duplicate** 

Prep Type: Total/NA Prep Batch: 10752

Spike MSD MSD %Rec. RPD Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 1000 Gasoline Range Organics <49.9 U 1221 122 70 - 130 2 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 65.1 1000 1233 117 70 - 130 12 20 mg/Kg C10-C28)

Limits

MSD MSD %Recovery Qualifier

Surrogate 1-Chlorooctane 127 70 - 130 129 70 - 130 o-Terphenyl

**Matrix: Solid Analysis Batch: 10885** 

Lab Sample ID: MB 880-10846/1-A

**Client Sample ID: Method Blank** Prep Type: Total/NA

Prep Batch: 10846

MB MB Result Qualifier Analyte RL Unit Analyzed Dil Fac Prepared 10/28/21 14:47 10/29/21 10:52 Gasoline Range Organics <50.0 U 50.0 mg/Kg (GRO)-C6-C10 10/28/21 14:47 10/29/21 10:52 <50.0 U 50.0 Diesel Range Organics (Over mg/Kg C10-C28) mg/Kg Oll Range Organics (Over C28-C36) <50.0 U 50.0 10/28/21 14:47 10/29/21 10:52

Client: TRC Solutions, Inc.

Job ID: 880-7487-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-10846/1-A

**Matrix: Solid** 

**Analysis Batch: 10885** 

**Client Sample ID: Method Blank** 

**Prep Type: Total/NA** 

Prep Batch: 10846

MB MB %Recovery Qualifier Limits Prepared Analyzed Dil Fac Surrogate 1-Chlorooctane 96 70 - 130 10/28/21 14:47 10/29/21 10:52 o-Terphenyl 111 70 - 130 10/28/21 14:47 10/29/21 10:52

Lab Sample ID: LCS 880-10846/2-A

**Analysis Batch: 10885** 

**Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Total/NA** 

Prep Batch: 10846

LCS LCS %Rec. Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 1093 mg/Kg 109 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 1000 922.2 mg/Kg 92 70 - 130 C10-C28)

LCS LCS

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 104 70 - 130 70 - 130 o-Terphenyl 105

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 880-10846/3-A **Matrix: Solid** 

**Analysis Batch: 10885** 

**Prep Type: Total/NA** 

Prep Batch: 10846

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier Limits **RPD** Limit **Analyte** Unit D %Rec 70 - 130 Gasoline Range Organics 1000 998.3 mg/Kg 100 9 20 (GRO)-C6-C10 1000 Diesel Range Organics (Over 915.7 mg/Kg 92 70 - 13020 C10-C28)

LCSD LCSD

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 98 70 - 130 o-Terphenyl 103 70 - 130

Lab Sample ID: 890-1488-A-21-C MS Client Sample ID: Matrix Spike **Matrix: Solid** 

**Analysis Batch: 10885** 

**Prep Type: Total/NA** Prep Batch: 10846

Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier Limits Analyte Unit %Rec Gasoline Range Organics <49.9 U F2 997 1253 121 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 997 927.0 mg/Kg 91 70 - 130

C10-C28)

MS MS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	98		70 - 130

Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7487-1

SDG: Eunice, NM

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-1488-A-21-D MSD

**Matrix: Solid** 

**Analysis Batch: 10885** 

**Client Sample ID: Matrix Spike Duplicate** 

**Prep Type: Total/NA** 

Prep Batch: 10846

-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<49.9	U F2	1000	1006	F2	mg/Kg		96	70 - 130	22	20
(GRO)-C6-C10 Diesel Range Organics (Over	<49.9	U	1000	779.6		mg/Kg		76	70 - 130	17	20

C10-C28)

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	83		70 - 130

Client Sample ID: Method Blank

**Prep Type: Total/NA** 

Prep Batch: 10989

Lab Sample ID: MB 880-10989/1-A

**Matrix: Solid** 

**Analysis Batch: 10996** 

MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/29/21 16:10	10/30/21 10:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/29/21 16:10	10/30/21 10:43	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/29/21 16:10	10/30/21 10:43	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	10/29/21 16:10	10/30/21 10:43	1
o-Terphenyl	115		70 - 130	10/29/21 16:10	10/30/21 10:43	1

Lab Sample ID: LCS 880-10989/2-A

**Matrix: Solid** 

**Analysis Batch: 10996** 

Client Sample	ID: Lab (	Control	Sample
	Pron	Type:	Total/NA

Prep Batch: 10989

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	 1000	791.7		mg/Kg		79	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	947.9		mg/Kg		95	70 - 130	

C10-C28)

LCS LCS

Surrogate	%Recovery Qual	lifier Limits
1-Chlorooctane	89	70 - 130
o-Terphenyl	97	70 - 130

Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** 

**Analysis Batch: 10996** 

Lab Sample ID: LCSD 880-10989/3-A

Prep Type: Total/NA Prep Batch: 10989

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	829.2		mg/Kg		83	70 - 130	5	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	914.5		mg/Kg		91	70 - 130	4	20
C10-C28)									

Client: TRC Solutions, Inc. Job ID: 880-7487-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-10989/3-A

**Matrix: Solid** 

**Analysis Batch: 10996** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 10989

LCSD LCSD %Recovery Qualifier Surrogate

Limits 1-Chlorooctane 95 70 - 130 o-Terphenyl 105 70 - 130

Client Sample ID: Matrix Spike Lab Sample ID: 880-7623-A-1-H MS

**Matrix: Solid** 

**Analysis Batch: 10996** 

**Prep Type: Total/NA** 

Prep Batch: 10989

MS MS %Rec. Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Gasoline Range Organics <49.9 U 997 893.1 mg/Kg 87 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 997 857.8 mg/Kg 86 70 - 130

C10-C28)

MS MS %Recovery Surrogate Qualifier Limits 1-Chlorooctane 95 70 - 130 70 - 130 o-Terphenyl 91

Lab Sample ID: 880-7623-A-1-I MSD **Client Sample ID: Matrix Spike Duplicate** 

**Matrix: Solid** 

**Analysis Batch: 10996** 

**Prep Type: Total/NA** 

Prep Batch: 10989 %Rec. **RPD** 

Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier Limits **RPD** Limit Analyte Unit D %Rec <49.9 U 70 - 130 Gasoline Range Organics 1000 899.9 mg/Kg 88 20 (GRO)-C6-C10 1000 70 - 130 Diesel Range Organics (Over <49.9 U 883.4 mg/Kg 88 20

C10-C28)

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 92 70 - 130 o-Terphenyl 92 70 - 130

Lab Sample ID: MB 880-11155/1-A **Client Sample ID: Method Blank** 

**Matrix: Solid** 

**Analysis Batch: 11030** 

**Prep Type: Total/NA** 

Prep Batch: 11155

Result Qualifier **Analyte** RL Unit Prepared Analyzed Dil Fac Gasoline Range Organics <50.0 U 50.0 11/01/21 14:28 11/01/21 21:24 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg 11/01/21 14:28 11/01/21 21:24 C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 11/01/21 14:28 11/01/21 21:24

MB MB

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130	11/01/21 14:28	11/01/21 21:24	1
o-Terphenyl	105		70 - 130	11/01/21 14:28	11/01/21 21:24	1

Client: TRC Solutions, Inc. Job ID: 880-7487-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-11155/2-A

**Matrix: Solid** 

**Analysis Batch: 11030** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA Prep Batch: 11155

Spike LCS LCS %Rec. Added Result Qualifier %Rec Limits Analyte Unit D Gasoline Range Organics 1000 786.0 mg/Kg 79 70 - 130 (GRO)-C6-C10 1000 Diesel Range Organics (Over 812.9 mg/Kg 81 70 - 130

C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	92		70 - 130

**Client Sample ID: Lab Control Sample Dup** 

Lab Sample ID: LCSD 880-11155/3-A **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 11030** 

Prep Batch: 11155

LCSD LCSD Spike %Rec. **RPD** Added Result Qualifier Limits **RPD** Limit Analyte Unit D %Rec Gasoline Range Organics 1000 1123 70 - 130 35 20 mg/Kg 112 (GRO)-C6-C10 Diesel Range Organics (Over 1000 856.1 mg/Kg 86 70 - 130 5 20

C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 76 70 - 130 o-Terphenyl 86 70 - 130

Client Sample ID: Matrix Spike Lab Sample ID: 880-7562-A-17-I MS

**Matrix: Solid** 

**Analysis Batch: 11030** 

Prep Type: Total/NA Prep Batch: 11155

Spike MS MS %Rec. Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits <49.9 U *1 997 70 - 130 Gasoline Range Organics 980.3 96 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 997 784.9 77 70 - 130 mg/Kg C10-C28)

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 87 70 - 130 88 70 - 130 o-Terphenyl

Lab Sample ID: 880-7562-A-17-J MSD

**Matrix: Solid** 

**Analysis Batch: 11030** 

**Client Sample ID: Matrix Spike Duplicate** Prep Type: Total/NA

Prep Batch: 11155

Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Added Result Qualifier Limits RPD Limit Analyte Unit D %Rec <49.9 U*1 1000 Gasoline Range Organics 983.7 mg/Kg 96 70 - 1300 20 (GRO)-C6-C10 <49.9 U 1000 808.4 mg/Kg 79 70 - 130 3 20 Diesel Range Organics (Over

C10-C28)

MSD MSD %Recovery Qualifier Surrogate Limits 1-Chlorooctane 70 - 130 87

Prep Batch: 11155

**Prep Type: Soluble** 

%Rec.

Client Sample ID: Matrix Spike Duplicate

#### QC Sample Results

Client: TRC Solutions, Inc. Job ID: 880-7487-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-7562-A-17-J MSD Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

**Matrix: Solid** 

**Analysis Batch: 11030** 

MSD MSD

Surrogate %Recovery Qualifier Limits o-Terphenyl 89 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-10272/1-A Client Sample ID: Method Blank

Matrix: Solid

**Analysis Batch: 10330** 

MB MB

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 10/23/21 21:32 mg/Kg

Lab Sample ID: LCS 880-10272/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

LCS LCS

**Analysis Batch: 10330** 

Added Result Qualifier Limits Analyte Unit %Rec 250 Chloride 250.2 mg/Kg 100 90 - 110

Spike

Lab Sample ID: LCSD 880-10272/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 10330** 

LCSD LCSD Spike %Rec. **RPD** Added Analyte Result Qualifier Unit D %Rec Limits **RPD** Limit Chloride 250 251.5 101 90 - 110 20 mg/Kg

Lab Sample ID: 880-7448-A-11-C MS **Client Sample ID: Matrix Spike Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 10330** 

MS MS Sample Sample Spike %Rec. **Analyte** Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 11400 F1 5010 16360 mg/Kg 98 90 - 110

Lab Sample ID: 880-7448-A-11-D MSD

**Matrix: Solid** 

**Analysis Batch: 10330** 

MSD MSD **RPD** Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 11400 F1 5010 15710 F1 mg/Kg 85 90 - 110

**Eurofins Midland** 

**Prep Type: Soluble** 

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7487-1 SDG: Eunice,NM

#### **GC Semi VOA**

#### Prep Batch: 10277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7487-1	CS-87	Total/NA	Solid	8015NM Prep	
MB 880-10277/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10277/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10277/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1445-A-42-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	
890-1445-A-42-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 10309**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7487-1	CS-87	Total/NA	Solid	8015B NM	10277
MB 880-10277/1-A	Method Blank	Total/NA	Solid	8015B NM	10277
LCS 880-10277/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10277
LCSD 880-10277/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10277
890-1445-A-42-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	10277
890-1445-A-42-E MS	Matrix Spike	Total/NA	Solid	8015B NM	10277

#### **Analysis Batch: 10661**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7487-2	CS-87	Total/NA	Solid	8015B NM	10752
MB 880-10752/1-A	Method Blank	Total/NA	Solid	8015B NM	10752
LCS 880-10752/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10752
LCSD 880-10752/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10752
890-1450-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	10752
890-1450-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	10752

#### **Analysis Batch: 10676**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7487-1 880-7487-2	CS-87 CS-87	Total/NA Total/NA	Solid Solid	8015 NM 8015 NM	
880-7487-3	CS-87	Total/NA	Solid	8015 NM	

#### Prep Batch: 10752

<b>Lab Sample ID</b> 880-7487-2	Client Sample ID CS-87	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-10752/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10752/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10752/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1450-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1450-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### Prep Batch: 10846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7487-3	CS-87	Total/NA	Solid	8015NM Prep	
MB 880-10846/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10846/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10846/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1488-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1488-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Job ID: 880-7487-1 Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice,NM

**GC Semi VOA** 

Analy	vsis	<b>Batch:</b>	10885
Allai	yolo	Datell.	10000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7487-3	CS-87	Total/NA	Solid	8015B NM	10846
MB 880-10846/1-A	Method Blank	Total/NA	Solid	8015B NM	10846
LCS 880-10846/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10846
LCSD 880-10846/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10846
890-1488-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	10846
890-1488-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	10846

#### Prep Batch: 10989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7487-4	CS-87	Total/NA	Solid	8015NM Prep	
MB 880-10989/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10989/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10989/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-7623-A-1-H MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-7623-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 10996**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7487-4	CS-87	Total/NA	Solid	8015B NM	10989
MB 880-10989/1-A	Method Blank	Total/NA	Solid	8015B NM	10989
LCS 880-10989/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10989
LCSD 880-10989/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10989
880-7623-A-1-H MS	Matrix Spike	Total/NA	Solid	8015B NM	10989
880-7623-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	10989

#### **Analysis Batch: 11030**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7487-5	CS-87	Total/NA	Solid	8015B NM	11155
MB 880-11155/1-A	Method Blank	Total/NA	Solid	8015B NM	11155
LCS 880-11155/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11155
LCSD 880-11155/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11155
880-7562-A-17-I MS	Matrix Spike	Total/NA	Solid	8015B NM	11155
880-7562-A-17-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11155

#### **Analysis Batch: 11118**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7487-4	CS-87	Total/NA	Solid	8015 NM	
880-7487-5	CS-87	Total/NA	Solid	8015 NM	

#### Prep Batch: 11155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7487-5	CS-87	Total/NA	Solid	8015NM Prep	
MB 880-11155/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11155/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11155/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-7562-A-17-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-7562-A-17-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7487-1 SDG: Eunice,NM

#### HPLC/IC

#### Leach Batch: 10272

<b>Lab Sample ID</b> 880-7487-1	Client Sample ID CS-87	Prep Type Soluble	Matrix Solid	Method DI Leach	Prep Batch
MB 880-10272/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-10272/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-10272/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-7448-A-11-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-7448-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

#### **Analysis Batch: 10330**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7487-1	CS-87	Soluble	Solid	300.0	10272
MB 880-10272/1-A	Method Blank	Soluble	Solid	300.0	10272
LCS 880-10272/2-A	Lab Control Sample	Soluble	Solid	300.0	10272
LCSD 880-10272/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	10272
880-7448-A-11-C MS	Matrix Spike	Soluble	Solid	300.0	10272
880-7448-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	10272

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Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7487-1 SDG: Eunice, NM

Client Sample ID: CS-87

Lab Sample ID: 880-7487-1

**Matrix: Solid** 

Date Collected: 10/21/21 16:15 Date Received: 10/22/21 15:45

Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Analysis	8015 NM		1			10676	10/27/21 12:13	AJ	XEN MID
Prep	8015NM Prep			9.99 g	10 mL	10277	10/22/21 16:46	AJ	XEN MID
Analysis	8015B NM		5			10309	10/24/21 03:07	AJ	XEN MID
Leach	DI Leach			4.95 g	50 mL	10272	10/22/21 16:34	SC	XEN MID
Analysis	300.0		1			10330	10/24/21 00:38	CH	XEN MID
	Type Analysis Prep Analysis Leach	Type         Method           Analysis         8015 NM           Prep         8015NM Prep           Analysis         8015B NM           Leach         DI Leach	Type Method Run  Analysis 8015 NM  Prep 8015NM Prep Analysis 8015B NM  Leach DI Leach	Type         Method         Run         Factor           Analysis         8015 NM         1           Prep         8015NM Prep         4           Analysis         8015B NM         5           Leach         DI Leach	Type         Method         Run         Factor         Amount           Analysis         8015 NM         1         1           Prep         8015NM Prep         9.99 g           Analysis         8015B NM         5           Leach         DI Leach         4.95 g	Type         Method         Run         Factor         Amount         Amount           Analysis         8015 NM         1         9.99 g         10 mL           Prep         8015NM Prep         5         5           Leach         DI Leach         4.95 g         50 mL	Type         Method         Run         Factor         Amount         Amount         Number           Analysis         8015 NM         1         1         10676           Prep         8015NM Prep         9.99 g         10 mL         10277           Analysis         8015B NM         5         10309           Leach         DI Leach         4.95 g         50 mL         10272	Type         Method         Run         Factor         Amount         Amount         Number         or Analyzed           Analysis         8015 NM         1         1         10676         10/27/21 12:13           Prep         8015NM Prep         9.99 g         10 mL         10277         10/22/21 16:46           Analysis         8015B NM         5         10309         10/24/21 03:07           Leach         DI Leach         4.95 g         50 mL         10272         10/22/21 16:34	Type         Method         Run         Factor         Amount         Amount         Number         or Analyzed         Analyst           Analysis         8015 NM         1         1         10676         10/27/21 12:13         AJ           Prep         8015NM Prep         9.99 g         10 mL         10277         10/22/21 16:46         AJ           Analysis         8015B NM         5         10309         10/24/21 03:07         AJ           Leach         DI Leach         4.95 g         50 mL         10272         10/22/21 16:34         SC

Lab Sample ID: 880-7487-2

Date Collected: 10/21/21 16:20

Date Received: 10/22/21 15:45

**Client Sample ID: CS-87** 

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1		-	10676	10/27/21 13:36	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	10752	10/27/21 13:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			10661	10/28/21 03:50	AJ	XEN MID

Client Sample ID: CS-87

Lab Sample ID: 880-7487-3

Date Collected: 10/22/21 10:00 Date Received: 10/22/21 15:45 **Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10676	10/29/21 13:47	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	10846	10/28/21 14:47	DM	XEN MID

Client Sample ID: CS-87

Analysis

8015B NM

Total/NA

Lab Sample ID: 880-7487-4

10/29/21 12:53 AJ

10885

Date Collected: 10/22/21 10:05

**Matrix: Solid** 

XEN MID

Date Received: 10/22/21 15:45

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			11118	11/01/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	10989	10/29/21 16:10	DM	XEN MID
Total/NA	Analysis	8015B NM		5			10996	10/30/21 19:38	AJ	XEN MID

**Client Sample ID: CS-87** 

**Lab Sample ID: 880-7487-5** 

**Matrix: Solid** 

Date Collected: 10/22/21 10:10 Date Received: 10/22/21 15:45

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1		-	11118	11/01/21 19:25	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	11155	11/01/21 14:28	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11030	11/02/21 03:04	AJ	XEN MID

**Laboratory References:** 

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

# **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job

Job ID: 880-7487-1 SDG: Eunice,NM

#### **Laboratory: Eurofins Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority Texas		ogram	Identification Number	Expiration Date		
		LAP	T104704400-21-22	06-30-22		
the following analyte the agency does not	•	rt, but the laboratory is r	not certified by the governing authority.	This list may include analytes for w		
,	•	rt, but the laboratory is r Matrix	not certified by the governing authority.  Analyte	This list may include analytes for w		

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#### **Method Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7487-1

SDG: Eunice,NM

ratory	
MID	
MID	

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

### **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7487-1

SDG: Eunice,NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-7487-1	CS-87	Solid	10/21/21 16:15	10/22/21 15:45	6.5
880-7487-2	CS-87	Solid	10/21/21 16:20	10/22/21 15:45	7.5
880-7487-3	CS-87	Solid	10/22/21 10:00	10/22/21 15:45	8
880-7487-4	CS-87	Solid	10/22/21 10:05	10/22/21 15:45	9
880-7487-5	CS-87	Solid	10/22/21 10:10	10/22/21 15:45	10

Securofins

City, State ZIP

Midland TX, 79705 10 Desta Drive, #130E ompany Name.

TRC

Company Name Bill to (if different)

State of Project

Reporting Level III ☐ Level III ☐ PST/UST ☐ TRRP ☐

Level IV

Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐

**Work Order Comments** 

www xenco com

City, State ZIP

RUSSELL SEBRING

Xenco Environment Testing

# **Chain of Custody**

Midland TX (432) 704-5440 San Antonio TX (210) 509-3334 EL Paso TX (915) 585-3443 Lubbock TX (806) 794-1296 Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199 Houston TX (281) 240-4200 Dallas, TX (214) 902-0300

	Work	
•	880-7487 Chain of Custody	

G	8	100	Relipquished by (S	of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will/he applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	Notice Signature of this document and relinguishment of samples constitutes a valid purchase order from site of composition of the composition of	Circle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010					CS-87@11	CS-87@10	CS-87@9	CS-87@8	CS-87@7 5	CS-87@6 5	Sample Identification	Total Containers.	Sample Custody Seals.	Cooler Custody Seals:	Campica received illiaet.	Samples Received Intac	SAMPLE RECEIPT	PO#:	Sampler's Name	Project Location	Project Number	Project Name HE	Phone 43
			(Signature)	Il be liable only for the cos n charge of \$85.00 wil/be	ment and relinguishment	Metal(s) to be analy	200.8 / 6020:					1 8	S	S	S	5 S	5	ation Matrix		Yes No MA	No No	+	7	Temp Blank.		Russell Sebring/Misti Bryant	Eunice NM	454378	HEP Eunice EMSU Remediation	432 250 4465
			Received	t of samples and applied to each	of samples cons	zed						10 22 21	10 22 21	10 22 21	10 22 21	10 21 21	10 21 21	Date Sampled	Corrected Temperature	Temperature Reading	Correction Factor	The monte in		Yes A	$\Box$				emediation	
	,		Received by (Signature)	d shall not assur	titutes a valid nu	TCLP / SP	8RCRA 13PPM	11 1				1015	1010	1005	1000	1620	1615	Time Sampled	emperature:	Reading	actor:	Ē	5	Wet Ice	the lab if rece	TAT starts the	Due Date	Routine	Turn	Email
			lyre)	me any responsit	irchaea ovdar fro	TCLP / SPLP 6010 8RCRA	M Texas 11					 11 Comp	10 Comp	9 Comp	8 Comp	7 5 Comp	6 5 Comp	Depth Grab/	7 0	42	C		κλ	Na. No.	the lab if received by 4 30pm	TAT starts the day received by		√ Rush 24	Turn Around	Email rsebring@trccompanies com
		10		oility for ar	Bolione	CRA :						 р -1	<u>-1</u>	-1	<u>p</u>	р 1	р -1	Grab/ # of Comp Cont		<u> </u>	P	ara	me	eter				Code		compar
	びら	8	Date/Time	y losses o		Sb As	Al Sb As Ba	_	-	1							×	TPH									·			ies con
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6	4	N	Rel	s incurred		C C																								
			ınquısh	by the cli-		င္ပ	Cd Ca Cr Co Cu Fe Pb	_		+																			<u> </u>	
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			Relinquished by: (Signature)	itractors. losses are ese terms																									S REQ	
-			<u>е</u>	It assigns : due to cir will be enf		Ni Se Aa TI U	Mg Mn Mo Ni K	_	$\bot$		_					-													UEST	Deliverables. EDD
			Rec	standard cumstand orced unit			Mo N	-	+	+	$\frac{1}{2}$		$\dashv$	$\dashv$		_									<del>-</del>					bles. ED
			eived b	terms and es beyond ess previo			K Se																							ŏ
			Received by (Signature)	It assigns standard terms and conditions to due to circumstances beyond the control will be enforced unless previously negotians.	3	Ha 16:	Ag SiC	-	-	-	4	_														, <del>.</del>				AB
			ature)	s rol tiated.	01.2.70	Ha 1631 / 245 1 / 7470 / 7471	Se Ag SiO ₂ Na Sr Tl Sn U V Zn	-		-							If G		NaOH	Zn Ac	Na ₂ S ₂	NaHS	H ₃ FO ₄ HF	200	H-S0. H-	HO HO		None NO		ADaPT 🗆
+						1 / 7470	TI Sn							-		0	RO+D	Sample	+Ascort	Zn Acetate+NaOH Zn	Na ₂ S ₂ O ₃ NaSO ₃	NaHSO ₄ NABIS	Ţ Ţ	;	Ţ ;	5	00 00	N O	reserv	Other
			Date/Time		11411	17471	υVZn							***************************************		Deeper	If GRO+DRO > 1500 Run	Sample Comments	NaOH+Ascorbic Acid SAPC	aOH Zn	Õ	ŝ		Na Ciri	en HOen	HNO. HN	MeOH Me	DI Water: H ₂ 0	Preservative Codes	Ť.

#### **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc. Job Number: 880-7487-1 SDG Number: Eunice,NM

Login Number: 7487 **List Source: Eurofins Midland** 

List Number: 1

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Xenco, Midland 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-7488-1

Laboratory Sample Delivery Group: Eunice, NM Client Project/Site: HEP:Eunice EMSU Remediation

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

CRAMER

Authorized for release by: 10/27/2021 12:28:38 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

**Review your project** results through

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Remediation Laboratory Job ID: 880-7488-1 SDG: Eunice, NM

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#### **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-7488-1 Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

#### **Qualifiers**

**GC Semi VOA** 

Qualifier **Qualifier Description** 

F1 MS and/or MSD recovery exceeds control limits. U Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description** 

F1 MS and/or MSD recovery exceeds control limits. U Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery **CFL** Contains Free Liquid CFU Colony Forming Unit **CNF** Contains No Free Liquid

**DER** Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

Detection Limit (DoD/DOE) DL

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Decision Level Concentration (Radiochemistry) DLC

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) Limit of Quantitation (DoD/DOE) LOQ

EPA recommended "Maximum Contaminant Level" MCL Minimum Detectable Activity (Radiochemistry) MDA Minimum Detectable Concentration (Radiochemistry) MDC

MDL Method Detection Limit MLMinimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

Negative / Absent NEG POS Positive / Present

PQL **Practical Quantitation Limit** 

**PRES** Presumptive QC Quality Control

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

**RPD** Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) **TEF TEQ** Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

Eurofins Xenco, Midland

#### **Case Narrative**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation SD0

Job ID: 880-7488-1 SDG: Eunice, NM

Job ID: 880-7488-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative 880-7488-1

#### Receipt

The samples were received on 10/22/2021 3:48 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

#### GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-10272 and analytical batch 880-10330 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Job ID: 880-7488-1

Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

Client Sample ID: CS-102 @6

Lab Sample ID: 880-7488-1

Date Collected: 10/21/21 16:25 Date Received: 10/22/21 15:48

**Matrix: Solid** 

Sample Depth: 6

Method: 8015 NM - Diesel Ran	ige Organics (	(DRO) (GC)					
Analyte	Result Qu	ualifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	612	49.9	mg/Kg			10/27/21 12:13	1

_ IOTAI IPH _	612		49.9	mg/Kg			10/2//21 12:13	1
Method: 8015B NM - Diesel F Analyte		ics (DRO) Qualifier	(GC)	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9		49.9	mg/Kg	_ =	10/22/21 16:46		1
Diesel Range Organics (Over C10-C28)	537		49.9	mg/Kg		10/22/21 16:46	10/24/21 03:27	1
Oll Range Organics (Over C28-C36)	75.2		49.9	mg/Kg		10/22/21 16:46	10/24/21 03:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			10/22/21 16:46	10/24/21 03:27	1
o-Terphenyl	106		70 - 130			10/22/21 16:46	10/24/21 03:27	1

Method: 300.0 - Anions, lo	on Chromatograph	ny - Soluble					
Analyte	Result Q	ualifier R	L Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1060	5.0	4 mg/Kg			10/24/21 00:45	1

Client Sample ID: CS-103 @6 Date Collected: 10/21/21 16:35

Lab Sample ID: 880-7488-3

10/22/21 16:46 10/24/21 03:47

**Matrix: Solid** 

Date Received: 10/22/21 15:48 Sample Depth: 6

o-Terphenyl

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1070		50.0	mg/Kg			10/27/21 12:13	1
Method: 8015B NM - Diesel F	Range Organ	ics (DRO) (	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/22/21 16:46	10/24/21 03:47	1
Diesel Range Organics (Over C10-C28)	946		50.0	mg/Kg		10/22/21 16:46	10/24/21 03:47	1
OII Range Organics (Over C28-C36)	125		50.0	mg/Kg		10/22/21 16:46	10/24/21 03:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			10/22/21 16:46	10/24/21 03:47	-

Method: 300.0 - Anions, Ion Cl	hromatogra	phy - Solu	ble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	792		5.03	mg/Kg			10/24/21 00:52	1

70 - 130

110

Eurofins Xenco, Midland

Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Remediation

Lab Sample ID: 880-7488-5

Lab Sample ID: 880-7488-6

**Matrix: Solid** 

Job ID: 880-7488-1 SDG: Eunice, NM

**Matrix: Solid** 

Client Sample ID: CS-104@4.5

Date Collected: 10/21/21 16:25

Date Received: 10/22/21 15:48

Sample Depth: 4.5

Method: 8015 NM - Diesel Ran	ge Organics	s (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	74.0		49.8	mg/Kg			10/27/21 12:13	1

	74.0		43.0	mg/rkg			10/21/21 12.13	'
Method: 8015B NM - Diesel Ra Analyte	•	ics (DRO) Qualifier	(GC)	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/22/21 16:46	10/24/21 04:07	1
Diesel Range Organics (Over C10-C28)	74.0		49.8	mg/Kg		10/22/21 16:46	10/24/21 04:07	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/22/21 16:46	10/24/21 04:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			10/22/21 16:46	10/24/21 04:07	1
o-Terphenyl	110		70 - 130			10/22/21 16:46	10/24/21 04:07	1

Method: 300.0 - Anions, Ion C	hromatography - Soluk	ole					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23.6	4.97	mg/Kg			10/24/21 01:00	1

Client Sample ID: CS-105 @4.5

Date Collected: 10/21/21 16:25

Date Received: 10/22/21 15:48

Sample Depth: 4.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/27/21 12:13	1
Method: 8015B NM - Diesel R	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/22/21 16:46	10/24/21 04:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/22/21 16:46	10/24/21 04:27	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/22/21 16:46	10/24/21 04:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			10/22/21 16:46	10/24/21 04:27	1
o-Terphenyl	108		70 - 130			10/22/21 16:46	10/24/21 04:27	1
Method: 300.0 - Anions, Ion C	hromatogra	phy - Solu	ible					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.0		4.99	mg/Kg			10/24/21 01:07	

Eurofins Xenco, Midland

#### **Surrogate Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7488-1

SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

			Perce	ent Surrogate Recov
		1001	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-7488-1	CS-102 @6	101	106	
880-7488-3	CS-103 @6	106	110	
880-7488-5	CS-104@4.5	104	110	
880-7488-6	CS-105 @4.5	103	108	
890-1445-A-42-D MSD	Matrix Spike Duplicate	94	98	
890-1445-A-42-E MS	Matrix Spike	89	92	
LCS 880-10277/2-A	Lab Control Sample	101	100	
LCSD 880-10277/3-A	Lab Control Sample Dup	105	106	
MB 880-10277/1-A	Method Blank	111	126	
Surrogate Legend				
1CO = 1-Chlorooctane				
OTPH = o-Terphenyl				

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Client: TRC Solutions, Inc. Job ID: 880-7488-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-10277/1-A

Lab Sample ID: LCS 880-10277/2-A

Lab Sample ID: LCSD 880-10277/3-A

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 10309** 

**Analysis Batch: 10309** 

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

Prep Batch: 10277

	MB	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		10/22/21 16:46	10/23/21 21:07	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		10/22/21 16:46	10/23/21 21:07	1
C10-C28)								
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/22/21 16:46	10/23/21 21:07	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	10/22/21 16:46	10/23/21 21:07	1
o-Terphenyl	126		70 - 130	10/22/21 16:46	10/23/21 21:07	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 10277

	Spike	LCS LC	S			%Rec.	
Analyte	Added	Result Qu	ualifier Unit	D %	Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	924.8	mg/Kg		92	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	921.0	mg/Kg		92	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	101	70 - 130
o-Terphenyl	100	70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

**Analysis Batch: 10309** Prep Batch: 10277

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	 1000	862.2		mg/Kg		86	70 - 130	7	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	873.0		mg/Kg		87	70 - 130	5	20
C10 C28)									

C10-C28)

**Matrix: Solid** 

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: 890-1445-A-42-D MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid Analysis Batch: 10309** 

Prep Batch: 10277 Spike MSD MSD %Rec. **RPD** Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit <49.9 U F1 <49.9 U F1 Gasoline Range Organics 997 mg/Kg 0 70 - 130 NC (GRO)-C6-C10 Diesel Range Organics (Over 79.2 F1 997 84.08 F1 mg/Kg 0.5 70 - 130 20

C10-C28)

Eurofins Xenco, Midland

Prep Type: Total/NA

Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7488-1 SDG: Eunice, NM

**Prep Type: Total/NA** 

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-1445-A-42-D MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA

Prep Batch: 10277 **Analysis Batch: 10309** 

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 890-1445-A-42-E MS **Client Sample ID: Matrix Spike** 

**Matrix: Solid** 

**Analysis Batch: 10309** 

Prep Batch: 10277 MS MS %Rec. Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Gasoline Range Organics <49.9 U F1 1000 <50.0 U F1 mg/Kg 0 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 79.2 F1 1000 79.66 F1 mg/Kg 0.04 70 - 130 C10-C28)

MS MS %Recovery Surrogate Qualifier Limits 1-Chlorooctane 89 70 - 130 70 - 130 o-Terphenyl 92

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-10272/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 10330** 

MB MB RL Unit Analyte Result Qualifier Prepared Analyzed Dil Fac 10/23/21 21:32 Chloride 5.00 <5.00 U mg/Kg

Lab Sample ID: LCS 880-10272/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 10330** 

Spike LCS LCS %Rec. Analyte Added Result Qualifier D %Rec Limits Unit 250 250.2 100 Chloride mg/Kg 90 - 110

Lab Sample ID: LCSD 880-10272/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** 

**Analysis Batch: 10330** 

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier Limits Analyte Unit %Rec RPD Limit Chloride 250 251.5 mg/Kg 101 90 - 110 0

Lab Sample ID: 880-7448-A-11-C MS **Client Sample ID: Matrix Spike Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 10330** 

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Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 11400 F1 5010 16360 90 - 110 mg/Kg 98

Eurofins Xenco, Midland

**Prep Type: Soluble** 

#### **QC Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-7488-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-7448-A-11-D MSD **Client Sample ID: Matrix Spike Duplicate Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 10330** 

-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	11400	F1	5010	15710	F1	mg/Kg		85	90 - 110	4	20

Client: TRC Solutions, Inc.

Job ID: 880-7488-1

Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

**GC Semi VOA** 

Prep Batch: 10277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7488-1	CS-102 @6	Total/NA	Solid	8015NM Prep	
880-7488-3	CS-103 @6	Total/NA	Solid	8015NM Prep	
880-7488-5	CS-104@4.5	Total/NA	Solid	8015NM Prep	
880-7488-6	CS-105 @4.5	Total/NA	Solid	8015NM Prep	
MB 880-10277/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10277/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10277/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1445-A-42-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	
890-1445-A-42-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

**Analysis Batch: 10309** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7488-1	CS-102 @6	Total/NA	Solid	8015B NM	10277
880-7488-3	CS-103 @6	Total/NA	Solid	8015B NM	10277
880-7488-5	CS-104@4.5	Total/NA	Solid	8015B NM	10277
880-7488-6	CS-105 @4.5	Total/NA	Solid	8015B NM	10277
MB 880-10277/1-A	Method Blank	Total/NA	Solid	8015B NM	10277
LCS 880-10277/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10277
LCSD 880-10277/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10277
890-1445-A-42-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	10277
890-1445-A-42-E MS	Matrix Spike	Total/NA	Solid	8015B NM	10277

**Analysis Batch: 10676** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7488-1	CS-102 @6	Total/NA	Solid	8015 NM	
880-7488-3	CS-103 @6	Total/NA	Solid	8015 NM	
880-7488-5	CS-104@4.5	Total/NA	Solid	8015 NM	
880-7488-6	CS-105 @4.5	Total/NA	Solid	8015 NM	

**HPLC/IC** 

Leach Batch: 10272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7488-1	CS-102 @6	Soluble	Solid	DI Leach	
880-7488-3	CS-103 @6	Soluble	Solid	DI Leach	
880-7488-5	CS-104@4.5	Soluble	Solid	DI Leach	
880-7488-6	CS-105 @4.5	Soluble	Solid	DI Leach	
MB 880-10272/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-10272/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-10272/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-7448-A-11-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-7448-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

**Analysis Batch: 10330** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7488-1	CS-102 @6	Soluble	Solid	300.0	10272
880-7488-3	CS-103 @6	Soluble	Solid	300.0	10272
880-7488-5	CS-104@4.5	Soluble	Solid	300.0	10272
880-7488-6	CS-105 @4.5	Soluble	Solid	300.0	10272
MB 880-10272/1-A	Method Blank	Soluble	Solid	300.0	10272
LCS 880-10272/2-A	Lab Control Sample	Soluble	Solid	300.0	10272

Eurofins Xenco, Midland

Page 11 of 18

Job ID: 880-7488-1 Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

#### **HPLC/IC (Continued)**

#### **Analysis Batch: 10330 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-10272/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	10272
880-7448-A-11-C MS	Matrix Spike	Soluble	Solid	300.0	10272
880-7448-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	10272

**Matrix: Solid** 

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10676	10/27/21 12:13	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	10277	10/22/21 16:46	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			10309	10/24/21 03:27	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	10272	10/22/21 16:34	SC	XEN MID
Soluble	Analysis	300.0		1			10330	10/24/21 00:45	CH	XEN MID

Lab Sample ID: 880-7488-3

Lab Sample ID: 880-7488-6

Date Collected: 10/21/21 16:35 Date Received: 10/22/21 15:48

Client Sample ID: CS-103 @6

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10676	10/27/21 12:13	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	10277	10/22/21 16:46	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			10309	10/24/21 03:47	AJ	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	10272	10/22/21 16:34	SC	XEN MID
Soluble	Analysis	300.0		1			10330	10/24/21 00:52	CH	XEN MID

Lab Sample ID: 880-7488-5 Client Sample ID: CS-104@4.5

Date Collected: 10/21/21 16:25

**Matrix: Solid** 

**Matrix: Solid** 

Date Received: 10/22/21 15:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10676	10/27/21 12:13	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.04 g	10 mL	10277 10309	10/22/21 16:46 10/24/21 04:07		XEN MID XEN MID
Soluble Soluble	Leach Analysis	DI Leach 300.0		1	5.03 g	50 mL	10272 10330	10/22/21 16:34 10/24/21 01:00		XEN MID XEN MID

Client Sample ID: CS-105 @4.5

Date Collected: 10/21/21 16:25

Date Received: 10/22/21 15:48

Prep Type Total/NA	Batch Type Analysis	Batch Method 8015 NM	Run	Factor 1	Initial Amount	Final Amount	Batch Number 10676	Prepared or Analyzed 10/27/21 12:13	Analyst AJ	Lab XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.02 g	10 mL	10277 10309	10/22/21 16:46 10/24/21 04:27		XEN MID XEN MID
Soluble Soluble	Leach Analysis	DI Leach 300.0		1	5.01 g	50 mL	10272 10330	10/22/21 16:34 10/24/21 01:07		XEN MID XEN MID

**Laboratory References:** 

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Xenco, Midland

## **Accreditation/Certification Summary**

Client: TRC Solutions, Inc. Job ID: 880-7488-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

#### **Laboratory: Eurofins Xenco, Midland**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-21-22	06-30-22
• ,		ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes t
The following analyte the agency does not		ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes t
• ,		ort, but the laboratory is r Matrix	not certified by the governing authority.  Analyte	This list may include analytes

Eurofins Xenco, Midland

### **Method Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7488-1

SDG: Eunice, NM

Method	Method Description	Protocol	Laboratory
3015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
00.0	Anions, Ion Chromatography	MCAWW	XEN MID
015NM Prep	Microextraction	SW846	XEN MID
Ol Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Xenco, Midland

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## **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7488-1

SDG: Eunice, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-7488-1	CS-102 @6	Solid	10/21/21 16:25	10/22/21 15:48	6
880-7488-3	CS-103 @6	Solid	10/21/21 16:35	10/22/21 15:48	6
880-7488-5	CS-104@4.5	Solid	10/21/21 16:25	10/22/21 15:48	4.5
880-7488-6	CS-105 @4.5	Solid	10/21/21 16:25	10/22/21 15:48	4.5

Circle Method(s) and Metal(s)

Relinquished by (Signature)

Received by (Signature)

Ō

Date/Time

Relinquished by (Signature)

Received by (Signature)

Date/Time

Revised Date 08/25/2020 Rev 2020.2

arvice. Eurofins Xenco will be liable

Signature of this document and

Total 200.7 / 6010

CS-105@4.5 CS-104@4.5

CS-103@6 CS-103@7

CS-102@7 CS-102@6

13 14

# SE CHOTINS

Project Manager

RUSSELL SEBRING

TRC

Environment Testing

## **Chain of Custody**

Midland, TX (432) 704-5440 San Antonio TX (210) 509-3334 EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199 Houston TX (281) 240-4200, Dallas TX (214) 902-0300

432 250 4465	Email rsebring@trccompanies.com	compani	es.com			Deliverables EDD	ADaPT Other	
HEP Eunice EMSU Remediation	ion Turn Around				ANALYSIS REQUEST	QUEST	Preservative Codes	
454378	☐ Routine ☑ Rush	Pres. Code					None NO DI Water H.O	
Eunice NM	Due Date 24 Hz						_	
Russell Sebring/Misti Bryant		<u> </u>					HCL HC HNO HN	
	the lab if received by 4 30pm						,	
IPT Temp Blank. Yes No	lo ) Wet Ice (Yes)No	ete					Ü	
ntact: Yes No Thermometer ID		ran					Natiso, Naris	12
s. Yes No /NIA Correction	Correction Factor ().	Pa					Na.S.O. Na.SO.	of 1
als Yes No Win Yempera	Yemperature Reading						Zn Acetate+NaOH Zn	7 1
Correcte	Corrected Temperature   ) - ()		)				NaOH+Ascorbic Acid SAPC	മ 1
ntification Matrix Date	Time	# of	oride	d 				) a n
	Sampled Depuis		Chl	Hole			Sample Comments	_
2 <u>006</u> S 10 21 21	1 1625 6 Comp	<u>1</u>	×				IFGRO+ one > 1500	
2@7 S 10 21 21	1 1630 7 Comp	1		×			Rus Duspen	
3@6 s 10 21 21	1 1635 6 Comp	<u>ਰ</u>	×				- 1	
3@7 S 10 21 21	1 1640 7 Comp	ъ 1		×				
@4.5 S 10 22 21	1 1625 4 5 Comp	<u>1</u>	×					
@4.5 S 10 22 21	1625	7	×					
		-						
		_						
010 200.8 / 6020:	8RCRA 13PPM Texas 11 Al Sb As Ba Be	1 Al Sb	As Ba B	B Cd Ca Cr	Co Cu Fe P	B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag	g SiO ₂ Na Sr Tl Sn ∪ V Zn	
nd Metal(s) to be analyzed	TCLP / SPLP 6010 8RCRA	RCRA S	b As Bal	3e Cd Cr Co	Cu Pb Mn Mo		Hg 1631/2451/7470/7471	
document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions to will be liable only for the cost of samples and shall not assume any responsibility for any losses or expensor increased by the client to the cost of samples and shall not assume any responsibility for any losses or expensor increased by the client to the cost of samples and shall not assume any responsibility for any losses or expensor increased by the client to the cost of samples and shall not assume any responsibility for any losses or expensor increased by the client to the cost of samples and shall not assume any responsibility for any losses or expensor increased by the client to the cost of samples and shall not assume any responsibility for any losses or expensor increased by the client to the cost of samples and shall not assume any responsibility for any losses or expensor increased by the client to the cost of samples and shall not assume any responsibility for any losses or expensor increased by the client to the cost of samples and shall not assume any responsibility for any losses or expensor increased by the client to the cost of samples and shall not assume any losses or expensor increased by the cost of samples and shall not assume any losses or expensor increased by the cost of samples and shall not assume any losses or expensor increased by the cost of samples and shall not assume any losses or expensor increased by the cost of samples and samples are considered by the cost of samples and samples are considered by the cost of samples are considered by the cost of samples and samples are considered by the cost of samples are considered by the	constitutes a valid purchase order fr	om client con	pany to Eurof	ns Xenco, its affiliate	s and subcontracto	rs. It assigns standard terms and co	onditions	
imum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	each project and a charge of \$5 for e	ach sample s	ubmitted to Eu	rofins Xenco, but not	client if such losse: analyzed. These te	s are due to circumstances beyond the rms will be enforced unless previously	he control ly negotiated.	

Cooler Custody Seals.

otal Containers ample Custody Seals

Sample Identification

Samples Received Intact:

SAMPLE RECEIPT

Sampler's Name

roject Location

Project Name Phone

City, State ZIP

Midland TX, 79705 10 Desta Drive, #130E

Address City, State ZIP

Reporting Level II Level III PST/UST TRRP Level IV

Program. UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

Work Order Comments

www xenco com

Page

State of Project:

Bill to. (if different) Company Name

ddress. ompany Name

Project Number

#### **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc.

Job Number: 880-7488-1

SDG Number: Eunice, NM

List Source: Eurofins Xenco, Midland

Login Number: 7488 List Number: 1

<6mm (1/4").

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is	N/A	

4

10/27/2021

## **Environment Testing America**

## **ANALYTICAL REPORT**

**Eurofins Xenco** 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-7489-1

Laboratory Sample Delivery Group: Eunice, NM Client Project/Site: HEP:Eunice EMSU Remediation

Revision: 1

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

RAMER

Authorized for release by: 1/10/2022 9:04:35 AM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

.....LINKS .....

**Review your project** results through

**Have a Question?** Ask-

Expert

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www.eurofinsus.com/Env

Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Remediation Laboratory Job ID: 880-7489-1 SDG: Eunice, NM

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#### **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-7489-1 Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

**Qualifiers** 

**GC Semi VOA** 

Qualifier **Qualifier Description** 

F1 MS and/or MSD recovery exceeds control limits. U Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description** 

U Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

n Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery **CFL** Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

**DER** Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

DL Detection Limit (DoD/DOE)

 $\mathsf{DL},\,\mathsf{RA},\,\mathsf{RE},\,\mathsf{IN}$ Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit MLMinimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

**PQL Practical Quantitation Limit** 

**PRES** Presumptive QC **Quality Control** 

**RER** Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) **TEQ** 

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7489-1 SDG: Eunice, NM

Job ID: 880-7489-1

**Laboratory: Eurofins Xenco** 

Narrative

Job Narrative 880-7489-1

#### REVISION

The report being provided is a revision of the original report sent on 11/2/2021. The report (revision 1) is being revised due to Per client email, removed sample depths from sample name.

Report revision history

#### Receipt

The samples were received on 10/22/2021 3:50 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

#### GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Job ID: 880-7489-1

Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Lab Sample ID: 880-7489-1 Client Sample ID: SW-35A Date Collected: 10/21/21 11:45 **Matrix: Solid** Date Received: 10/22/21 15:50

Sample Depth: 2.25

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/27/21 12:19	1
Method: 8015B NM - Diesel Ra	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/22/21 16:46	10/24/21 04:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/22/21 16:46	10/24/21 04:47	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/22/21 16:46	10/24/21 04:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			10/22/21 16:46	10/24/21 04:47	1
o-Terphenyl	109		70 - 130			10/22/21 16:46	10/24/21 04:47	1

Method: 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Chloride 1650 25.2 mg/Kg 10/24/21 04:56

Client Sample ID: SW-35B Lab Sample ID: 880-7489-2 Date Collected: 10/21/21 11:50 **Matrix: Solid** 

Date Received: 10/22/21 15:50

Sample Depth: 2.25

Method: 300.0 - Anions, Ion Cl	hromatography	y - Soluble					
Analyte	Result Qu	alifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	365	5.00	mg/Kg			10/30/21 14:38	1

Client Sample ID: SW-36A Lab Sample ID: 880-7489-4 **Matrix: Solid** 

Date Collected: 10/21/21 11:30 Date Received: 10/22/21 15:50

Sample Depth: 2.25

		(550) (						
Method: 8015 NM - Diesel Rai Analyte	•	S (DRO) (C Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			10/27/21 12:19	1
Method: 8015B NM - Diesel R	ange Organi	ics (DRO)	(GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/22/21 16:46	10/24/21 05:07	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/22/21 16:46	10/24/21 05:07	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/22/21 16:46	10/24/21 05:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			10/22/21 16:46	10/24/21 05:07	1
o-Terphenyl	107		70 - 130			10/22/21 16:46	10/24/21 05:07	1
- Method: 300.0 - Anions, Ion C	hromatogra	phy - Solu	ıble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1180		25.2	mg/Kg			10/24/21 05:03	5

**Matrix: Solid** 

Matrix: Solid

Lab Sample ID: 880-7489-5

10/22/21 16:46 10/24/21 05:27

#### **Client Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-7489-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Client Sample ID: SW-36B

Date Collected: 10/21/21 11:35 Date Received: 10/22/21 15:50

Sample Depth: 2.25

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Chloride	787	5.00	mg/Kg			10/30/21 14:46	1		

Lab Sample ID: 880-7489-6 Client Sample ID: SW-36C

Date Collected: 10/21/21 11:40 Date Received: 10/22/21 15:50

Sample Depth: 2.25

Method: 300.0 - Anions, Ion Chromatography - Soluble								
	Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	180	5.00	mg/Kg			11/01/21 19:59	1

Client Sample ID: SW-32A Lab Sample ID: 880-7489-7 **Matrix: Solid** 

Date Collected: 10/21/21 11:00 Date Received: 10/22/21 15:50

Sample Depth: 2.25

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
l	Total TPH	<49.8	U	49.8	mg/Kg			10/27/21 12:19	1

Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/22/21 16:46	10/24/21 05:27	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/22/21 16:46	10/24/21 05:27	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/22/21 16:46	10/24/21 05:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			10/22/21 16:46	10/24/21 05:27	1

Method: 300.0 - Anions, Ion Chromatography - Soluble								
	Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	3170	24.9	mg/Kg			10/24/21 05:10	5

70 - 130

110

Client Sample ID: SW-32B Lab Sample ID: 880-7489-8 **Matrix: Solid** 

Date Collected: 10/21/21 11:05 Date Received: 10/22/21 15:50

Sample Depth: 2.25

o-Terphenyl

Method: 300.0 - Anions, Ion Chromatography - Soluble									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	2270		24.8	mg/Kg			10/30/21 15:07	5

#### **Client Sample Results**

Client: TRC Solutions, Inc.

Job ID: 880-7489-1

Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

Client Sample ID: SW-32C Lab Sample ID: 880-7489-9

Date Collected: 10/21/21 11:10 Matrix: Solid
Date Received: 10/22/21 15:50

Sample Depth: 2.25

Method: 300.0 - Anions, Ion Chromatography - Soluble								
	Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	275	5.00	mg/Kg			11/01/21 20:17	1

Client Sample ID: SW-34A

Date Collected: 10/21/21 11:15

Lab Sample ID: 880-7489-10

Matrix: Solid

Date Collected: 10/21/21 11:15 Date Received: 10/22/21 15:50

Sample Depth: 2.25

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Total TPH	<50.0	U	50.0	mg/Kg			10/28/21 17:05	1

Method: 8015B NM - Diesel R	ange Organ	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/22/21 16:46	10/27/21 18:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/22/21 16:46	10/27/21 18:27	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/22/21 16:46	10/27/21 18:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			10/22/21 16:46	10/27/21 18:27	1

Method: 300.0 - Anions, Ion Chromatography - Soluble									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	1070		4.99	mg/Kg			10/24/21 05:17	1

70 - 130

117

Client Sample ID: SW-34B

Date Collected: 10/21/21 11:20

Lab Sample ID: 880-7489-11

Matrix: Solid

Date Collected: 10/21/21 11:20 Date Received: 10/22/21 15:50

Sample Depth: 2.25

o-Terphenyl

Method: 300.0 - Anions, Ion Chromatography - Soluble									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	1070		5.04	mg/Kg			10/30/21 15:14	1

Client Sample ID: SW-34C

Date Collected: 10/21/21 11:25

Lab Sample ID: 880-7489-12

Matrix: Solid

Date Received: 10/22/21 15:50 Sample Depth: 2.25

Method: 300.0 - Anions, Ion Cl	hromatography - Solub	ole					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36.8	4.98	mg/Kg			11/01/21 20:23	1

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10/22/21 16:46 10/27/21 18:27

#### **Surrogate Summary**

Job ID: 880-7489-1 Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

**Matrix: Solid Prep Type: Total/NA** 

			Percent Surrogate	Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-7489-1	SW-35A	102	109	
880-7489-4	SW-36A	103	107	
880-7489-7	SW-32A	103	110	
880-7489-10	SW-34A	103	117	
890-1445-A-42-D MSD	Matrix Spike Duplicate	94	98	
890-1445-A-42-E MS	Matrix Spike	89	92	
LCS 880-10277/2-A	Lab Control Sample	101	100	
LCSD 880-10277/3-A	Lab Control Sample Dup	105	106	
MB 880-10277/1-A	Method Blank	111	126	
Surrogate Legend				

OTPH = o-Terphenyl

#### QC Sample Results

Client: TRC Solutions, Inc. Job ID: 880-7489-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-10277/1-A

Lab Sample ID: LCS 880-10277/2-A

**Matrix: Solid Analysis Batch: 10309** 

Surrogate

o-Terphenyl

1-Chlorooctane

**Matrix: Solid** 

**Analysis Batch: 10309** 

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 10277

MB MB Result Qualifier RL Unit D Analyzed Dil Fac Analyte Prepared Gasoline Range Organics <50.0 U 50.0 mg/Kg 10/22/21 16:46 10/23/21 21:07 (GRO)-C6-C10 Diesel Range Organics (Over 50.0 10/22/21 16:46 10/23/21 21:07 <50.0 U mg/Kg C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 10/22/21 16:46 10/23/21 21:07

MB MB %Recovery Qualifier Limits Prepared Analyzed Dil Fac 70 - 130 10/22/21 16:46 10/23/21 21:07 111 126 70 - 130 10/22/21 16:46 10/23/21 21:07

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA Prep Batch: 10277

Spike LCS LCS %Rec. Added Result Qualifier Limits Analyte Unit D %Rec 1000 mg/Kg 92 70 - 130 Gasoline Range Organics 924.8 (GRO)-C6-C10 mg/Kg Diesel Range Organics (Over 1000 921.0 92 70 - 130C10-C28)

LCS LCS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 101 70 - 130 o-Terphenyl 100 70 - 130

Lab Sample ID: LCSD 880-10277/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 10309** 

Prep Batch: 10277 Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier %Rec Limits **RPD** Limit Analyte Unit D Gasoline Range Organics 1000 862.2 mg/Kg 86 70 - 130 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 873.0 mg/Kg 87 70 - 130 5 20 C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 105 70 - 130 106 70 - 130 o-Terphenyl

**Client Sample ID: Matrix Spike Duplicate** 

**Matrix: Solid Prep Type: Total/NA** Prep Batch: 10277 **Analysis Batch: 10309** 

MSD MSD **RPD** Sample Sample Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit <49.9 U F1 Gasoline Range Organics 997 <49.9 U F1 mg/Kg 0 70 - 130 NC 20 (GRO)-C6-C10 79.2 F1 997 84.08 F1 0.5 70 - 130 20 Diesel Range Organics (Over mq/Kq C10-C28)

Lab Sample ID: 890-1445-A-42-D MSD

#### QC Sample Results

Client: TRC Solutions, Inc. Job ID: 880-7489-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-1445-A-42-D MSD

**Matrix: Solid** 

**Analysis Batch: 10309** 

Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

Prep Batch: 10277

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 94 70 - 130 o-Terphenyl 98 70 - 130

Lab Sample ID: 890-1445-A-42-E MS **Client Sample ID: Matrix Spike** 

**Analysis Batch: 10309** 

**Matrix: Solid Prep Type: Total/NA** 

Prep Batch: 10277 %Rec. Limits

MS MS Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Gasoline Range Organics <49.9 U F1 1000 <50.0 U F1 0 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 79.2 F1 1000 79.66 F1 mg/Kg 0.04 70 - 130 C10-C28)

MS MS

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 89 70 - 130 70 - 130 o-Terphenyl 92

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-10275/1-A Client Sample ID: Method Blank **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 10331** 

MB MB

Unit Analyte Result Qualifier RL Prepared Analyzed Dil Fac Chloride 5.00 10/24/21 01:43 <5.00 U mg/Kg

Lab Sample ID: LCS 880-10275/2-A

**Matrix: Solid** 

**Analysis Batch: 10331** 

Spike LCS LCS %Rec. Analyte Added Result Qualifier D %Rec Limits Unit 250 Chloride 252.6 mg/Kg 101 90 - 110

Lab Sample ID: LCSD 880-10275/3-A Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** 

**Analysis Batch: 10331** 

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier Analyte Unit %Rec Limits RPD Limit Chloride 250 256.0 mg/Kg 102 90 - 110

Lab Sample ID: 880-7474-A-11-B MS

**Matrix: Solid** 

Analysis Ratch: 10331

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Alialysis Datell. 10001										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	44.0		251	298.2		mg/Kg		101	90 - 110	

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**Client Sample ID: Lab Control Sample Prep Type: Soluble** 

**Prep Type: Soluble** 

**Prep Type: Soluble** 

**Client Sample ID: Matrix Spike** 

Client: TRC Solutions, Inc. Job ID: 880-7489-1 Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-7474-A-11-C MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 10331** 

Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Analyte D Chloride 44.0 251 297.0 mg/Kg 101 90 - 110 0 20

Lab Sample ID: MB 880-10750/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 10952** 

MB MB

Result Qualifier RL Unit D Dil Fac Analyte Prepared Analyzed 5.00 Chloride <5.00 U mg/Kg 10/30/21 13:34

Lab Sample ID: LCS 880-10750/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 10952** 

Spike LCS LCS %Rec. Added Result Qualifier Limits Analyte Unit D %Rec Chloride 250 241.7 97 90 - 110 mg/Kg

Lab Sample ID: LCSD 880-10750/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 10952** 

Spike LCSD LCSD **RPD** %Rec. Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Chloride 250 241.8 mg/Kg 90 - 110

Lab Sample ID: 880-7517-A-1-E MS **Client Sample ID: Matrix Spike Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 10952** 

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 21.7 248 254.8 94 mg/Kg 90 - 110

Lab Sample ID: 880-7517-A-1-F MSD

**Matrix: Solid** 

**Analysis Batch: 10952** 

Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Added %Rec Limits **RPD** Analyte Result Qualifier Unit D Limit 248 254.9 Chloride 21.7 mg/Kg 94 90 - 110

Lab Sample ID: MB 880-10751/1-A Client Sample ID: Method Blank **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 11105** 

MB MB Result Qualifier RL Unit D Analyte Prepared Analyzed Dil Fac 5.00 Chloride <5.00 U mg/Kg 11/01/21 17:56

Lab Sample ID: LCS 880-10751/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 11105** 

Spike LCS LCS %Rec. Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 244.7 mg/Kg 98 90 - 110

**Eurofins Xenco** 

Client Sample ID: Matrix Spike Duplicate

**Prep Type: Soluble** 

#### **QC Sample Results**

Job ID: 880-7489-1 Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 880-10751/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 11105** 

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	245.5		mg/Kg		98	90 - 110	0	20	

Lab Sample ID: 880-7624-A-6-D MS **Client Sample ID: Matrix Spike** 

**Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 11105** Sample Sample Spike MS MS %Rec.

**Analyte** Result Qualifier Added Result Qualifier Unit D %Rec Limits Chloride <4.99 U 250 103 90 - 110 259.9 mg/Kg

Lab Sample ID: 880-7624-A-6-E MSD **Client Sample ID: Matrix Spike Duplicate** 

**Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 11105** Sample Sample Spike MSD MSD

%Rec. RPD Result Qualifier Analyte Added Result Qualifier Limits RPD Limit Unit %Rec Chloride <4.99 U 250 259.8 103 90 - 110 20 mg/Kg

## **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7489-1 SDG: Eunice, NM

#### **GC Semi VOA**

#### Prep Batch: 10277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7489-1	SW-35A	Total/NA	Solid	8015NM Prep	
880-7489-4	SW-36A	Total/NA	Solid	8015NM Prep	
880-7489-7	SW-32A	Total/NA	Solid	8015NM Prep	
880-7489-10	SW-34A	Total/NA	Solid	8015NM Prep	
MB 880-10277/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-10277/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-10277/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1445-A-42-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	
890-1445-A-42-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 10309**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7489-1	SW-35A	Total/NA	Solid	8015B NM	10277
880-7489-4	SW-36A	Total/NA	Solid	8015B NM	10277
880-7489-7	SW-32A	Total/NA	Solid	8015B NM	10277
MB 880-10277/1-A	Method Blank	Total/NA	Solid	8015B NM	10277
LCS 880-10277/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	10277
LCSD 880-10277/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	10277
890-1445-A-42-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	10277
890-1445-A-42-E MS	Matrix Spike	Total/NA	Solid	8015B NM	10277

#### **Analysis Batch: 10661**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7489-10	SW-34A	Total/NA	Solid	8015B NM	10277

#### **Analysis Batch: 10676**

<b>Lab Sample ID</b> 880-7489-1	Client Sample ID SW-35A	Prep Type Total/NA	Matrix Solid	Method 8015 NM	Prep Batch
880-7489-4	SW-36A	Total/NA	Solid	8015 NM	
880-7489-7	SW-32A	Total/NA	Solid	8015 NM	

#### **Analysis Batch: 10877**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7489-10	SW-34A	Total/NA	Solid	8015 NM	<u> </u>

#### HPLC/IC

#### Leach Batch: 10275

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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7489-1	SW-35A	Soluble	Solid	DI Leach	
880-7489-4	SW-36A	Soluble	Solid	DI Leach	
880-7489-7	SW-32A	Soluble	Solid	DI Leach	
880-7489-10	SW-34A	Soluble	Solid	DI Leach	
MB 880-10275/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-10275/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-10275/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-7474-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-7474-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7489-1 SDG: Eunice, NM

#### HPLC/IC

#### **Analysis Batch: 10331**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7489-1	SW-35A	Soluble	Solid	300.0	10275
880-7489-4	SW-36A	Soluble	Solid	300.0	10275
880-7489-7	SW-32A	Soluble	Solid	300.0	10275
880-7489-10	SW-34A	Soluble	Solid	300.0	10275
MB 880-10275/1-A	Method Blank	Soluble	Solid	300.0	10275
LCS 880-10275/2-A	Lab Control Sample	Soluble	Solid	300.0	10275
LCSD 880-10275/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	10275
880-7474-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	10275
880-7474-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	10275

#### Leach Batch: 10750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7489-2	SW-35B	Soluble	Solid	DI Leach	
880-7489-5	SW-36B	Soluble	Solid	DI Leach	
880-7489-8	SW-32B	Soluble	Solid	DI Leach	
880-7489-11	SW-34B	Soluble	Solid	DI Leach	
MB 880-10750/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-10750/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-10750/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-7517-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
880-7517-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

#### Leach Batch: 10751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7489-6	SW-36C	Soluble	Solid	DI Leach	
880-7489-9	SW-32C	Soluble	Solid	DI Leach	
880-7489-12	SW-34C	Soluble	Solid	DI Leach	
MB 880-10751/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-10751/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-10751/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-7624-A-6-D MS	Matrix Spike	Soluble	Solid	DI Leach	
880-7624-A-6-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

#### **Analysis Batch: 10952**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7489-2	SW-35B	Soluble	Solid	300.0	10750
880-7489-5	SW-36B	Soluble	Solid	300.0	10750
880-7489-8	SW-32B	Soluble	Solid	300.0	10750
880-7489-11	SW-34B	Soluble	Solid	300.0	10750
MB 880-10750/1-A	Method Blank	Soluble	Solid	300.0	10750
LCS 880-10750/2-A	Lab Control Sample	Soluble	Solid	300.0	10750
LCSD 880-10750/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	10750
880-7517-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	10750
880-7517-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	10750

#### **Analysis Batch: 11105**

<b>Lab Sample ID</b> 880-7489-6	Client Sample ID SW-36C	Prep Type Soluble	Matrix Solid	Method 300.0	Prep Batch 10751
880-7489-9	SW-32C	Soluble	Solid	300.0	10751
880-7489-12	SW-34C	Soluble	Solid	300.0	10751
MB 880-10751/1-A	Method Blank	Soluble	Solid	300.0	10751

## **QC Association Summary**

Job ID: 880-7489-1 Client: TRC Solutions, Inc. Project/Site: HEP:Eunice EMSU Remediation

SDG: Eunice, NM

#### **HPLC/IC (Continued)**

#### **Analysis Batch: 11105 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-10751/2-A	Lab Control Sample	Soluble	Solid	300.0	10751
LCSD 880-10751/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	10751
880-7624-A-6-D MS	Matrix Spike	Soluble	Solid	300.0	10751
880-7624-A-6-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	10751

Job ID: 880-7489-1

SDG: Eunice, NM

Client Sample ID: SW-35A

Date Collected: 10/21/21 11:45 Date Received: 10/22/21 15:50 Lab Sample ID: 880-7489-1

**Matrix: Solid** 

**Matrix: Solid** 

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10676	10/27/21 12:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	10277	10/22/21 16:46	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			10309	10/24/21 04:47	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	10275	10/22/21 16:40	SC	XEN MID
Soluble	Analysis	300.0		5			10331	10/24/21 04:56	CH	XEN MID

Client Sample ID: SW-35B Lab Sample ID: 880-7489-2 **Matrix: Solid** 

Date Collected: 10/21/21 11:50 Date Received: 10/22/21 15:50

Dil Initial Batch Batch **Batch** Final Prepared Method Number **Prep Type** Type Run **Factor** Amount Amount or Analyzed Analyst Lab 10750 Soluble DI Leach 5 g 50 mL 10/29/21 14:36 SC XEN MID Leach

Soluble Analysis 300.0 1 10952 10/30/21 14:38 CH XEN MID Client Sample ID: SW-36A Lab Sample ID: 880-7489-4

Date Collected: 10/21/21 11:30 Date Received: 10/22/21 15:50

Dil Initial Batch Batch Final Batch Prepared **Prep Type** Type Method Run **Factor Amount** Amount Number or Analyzed **Analyst** Lab ĀJ Total/NA Analysis 8015 NM 10676 10/27/21 12:19 XEN MID Total/NA Prep 8015NM Prep 10.03 q 10 mL 10277 10/22/21 16:46 AJ **XEN MID** Total/NA Analysis 8015B NM 1 10309 10/24/21 05:07 AJ XEN MID Soluble Leach DI Leach 4.97 g 50 mL 10275 10/22/21 16:40 SC XEN MID Soluble 300.0 5 10331 10/24/21 05:03 CH **XEN MID** Analysis

Client Sample ID: SW-36B Lab Sample ID: 880-7489-5

Date Collected: 10/21/21 11:35 Date Received: 10/22/21 15:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	10750	10/29/21 14:36	SC	XEN MID
Soluble	Analysis	300.0		1			10952	10/30/21 14:46	CH	XEN MID

Client Sample ID: SW-36C Lab Sample ID: 880-7489-6 Date Collected: 10/21/21 11:40 Matrix: Solid

Date Received: 10/22/21 15:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	10751	11/01/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1			11105	11/01/21 19:59	CH	XEN MID

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Lab Sample ID: 880-7489-7

Matrix: Solid

Job ID: 880-7489-1

SDG: Eunice, NM

Date Collected: 10/21/21 11:00 Date Received: 10/22/21 15:50

Client Sample ID: SW-32A

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10676	10/27/21 12:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	10277	10/22/21 16:46	AJ	XEN MID
Total/NA	Analysis	8015B NM		1			10309	10/24/21 05:27	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	10275	10/22/21 16:40	SC	XEN MID
Soluble	Analysis	300.0		5			10331	10/24/21 05:10	CH	XEN MID

Client Sample ID: SW-32B **Lab Sample ID: 880-7489-8 Matrix: Solid** 

Date Collected: 10/21/21 11:05 Date Received: 10/22/21 15:50

Batch Batch Dil Initial Final **Batch** Prepared **Prep Type** Method Amount Amount Number or Analyzed Type Run **Factor** Analyst Lab Soluble DI Leach 10750 10/29/21 14:36 SC Leach 5.05 g 50 mL XEN MID Soluble Analysis 300.0 5 10952 10/30/21 15:07 CH XEN MID

Client Sample ID: SW-32C Lab Sample ID: 880-7489-9 **Matrix: Solid** 

Date Collected: 10/21/21 11:10

Date Received: 10/22/21 15:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	10751	11/01/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1			11105	11/01/21 20:17	CH	XEN MID

Client Sample ID: SW-34A Lab Sample ID: 880-7489-10 **Matrix: Solid** 

Date Collected: 10/21/21 11:15 Date Received: 10/22/21 15:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			10877	10/28/21 17:05	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.01 g	10 mL	10277 10661	10/22/21 16:46 10/27/21 18:27		XEN MID
Soluble Soluble	Leach Analysis	DI Leach 300.0		1	5.01 g	50 mL	10275 10331	10/22/21 16:40 10/24/21 05:17		XEN MID

Lab Sample ID: 880-7489-11 Client Sample ID: SW-34B Date Collected: 10/21/21 11:20 **Matrix: Solid** 

Date Received: 10/22/21 15:50

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	10750	10/29/21 14:36	SC	XEN MID
Soluble	Analysis	300.0		1			10952	10/30/21 15:14	CH	XEN MID

#### **Lab Chronicle**

Client: TRC Solutions, Inc. Job ID: 880-7489-1 Project/Site: HEP:Eunice EMSU Remediation SDG: Eunice, NM

Client Sample ID: SW-34C Lab Sample ID: 880-7489-12

Date Collected: 10/21/21 11:25 **Matrix: Solid** Date Received: 10/22/21 15:50

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	10751	11/01/21 13:34	SC	XEN MID
Soluble	Analysis	300.0		1			11105	11/01/21 20:23	CH	XEN MID

#### **Laboratory References:**

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

## **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job I
SD

Job ID: 880-7489-1 SDG: Eunice, NM

#### **Laboratory: Eurofins Xenco**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pro	ogram	Identification Number	Expiration Date
Texas	NE	LAP	T104704400-21-22	06-30-22
				T
The following analyte the agency does not	•	rt, but the laboratory is r	not certified by the governing authority.	This list may include analytes for w
• • •	•	rt, but the laboratory is r Matrix	not certified by the governing authority.  Analyte	This list may include analytes for w

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### **Method Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7489-1

SDG: Eunice, NM

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### **Laboratory References:**

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

## **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP:Eunice EMSU Remediation

Job ID: 880-7489-1

SDG: Eunice, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-7489-1	SW-35A	Solid	10/21/21 11:45	10/22/21 15:50	2.25
880-7489-2	SW-35B	Solid	10/21/21 11:50	10/22/21 15:50	2.25
880-7489-4	SW-36A	Solid	10/21/21 11:30	10/22/21 15:50	2.25
880-7489-5	SW-36B	Solid	10/21/21 11:35	10/22/21 15:50	2.25
880-7489-6	SW-36C	Solid	10/21/21 11:40	10/22/21 15:50	2.25
880-7489-7	SW-32A	Solid	10/21/21 11:00	10/22/21 15:50	2.25
880-7489-8	SW-32B	Solid	10/21/21 11:05	10/22/21 15:50	2.25
880-7489-9	SW-32C	Solid	10/21/21 11:10	10/22/21 15:50	2.25
880-7489-10	SW-34A	Solid	10/21/21 11:15	10/22/21 15:50	2.25
880-7489-11	SW-34B	Solid	10/21/21 11:20	10/22/21 15:50	2.25
880-7489-12	SW-34C	Solid	10/21/21 11:25	10/22/21 15:50	2.25

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Environment Testing

City, State ZIP Address. Company Name Project Manager

Midland TX, 79705 10 Desta Drive, #130E

City, State ZIP

Company Name Bill to (if different)

RO

RUSSELL SEBRING

## Chain of Custon

Houston TX (281) 240-4200 Dallas TX (21 Midland TX (432) 704-5440 San Antonio TX ( EL Paso TX (915) 585-3443, Lubbock, TX (80 Hobbs NM (575) 392-7550 Carlsbad NM (57

Worl 880-7489 Chain of Custody  www.xenco.com Page of 2  Work Order Comments  Program: UST/PST   PRP   Brownfields   RRC   Superfund   State of Project.  Reporting Level III   PST/UST   TRRP   Level IV   Deliverables FDD   ADDIT   Chor
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Phone. 4	432 250 4465			Email	Email rsebring@trccompanies.com	duoool	anies.	com						Deli	Deliverables. EDD	s. ED		١	ADaPT 🗆		Other	
Project Name. H	HEP Eunice EMSU Remediation	ISU Reme	diation	Turn	Turn Around						≥	ANALYSIS RE	IS RE	QUEST	Ä					Prese	ervativ	Preservative Codes
Project Number	454	454378		Routine	2 Rush 4 8	Code	<del>ъ</del> .	-												None NO		DI Water: H ₂ O
Project Location	Eunic	Eunice NM	0	Due Date								-	+		1	1				Cool		Mach Ma
Sampler's Name.	Russell Sebring/Misti Bryant	ng/Mistı Br	_	TAT starts the day received by	dav received	₹														ביים ביים		NEOT NE
PO#:				the lab if received by 4 30pm	ived by 4 30p			···			•••••					-,				ב היים		Noou No
SAMPLE RECEIPT	Temp Blank.	-	Yes №	) Wet Ice	(Yes) No	eter	<del></del>													H BO HB		NaOn Na
Samples Received Intact			ส₩	ਰ																Notice N	5	
Cooler Custody Seals.	Yes No	列	Correction Factor	ctor		Par														NamoU4 NABIS	ABIO	
Sample Custody Seals	Yes		Temperature Reading	Reading	2															Na ₂ S ₂ O ₃ NaSO ₃	aso ₃	
otal Containers			Policion C	Cuality.	*	L	<u></u>													Zn Acetate+NaOH Zn	+NaOH	1 Zn
lotal Containers.		Con	Corrected Temperature	nperature	/ C	<u></u>		e												NaOH+Asc	orbic A	NaOH+Ascorbic Acid SAPC
Sample Identification		Matrix Sai	Date Sampled	Time Sampled	Depth Grab/	ab/ # of mp Cont	<u>≓ ♣  </u> TPH	Chloride	Hold				•••••••••••••••••••••••••••••••••••••••							Sam	ple Co	Sample Comments
SW-35A@2 25		S 10:	10 21 21	1145	2 25 Comp	т 1	×	×			_	+	+	$\dashv$	$\dashv$					if TPH	100	If TPH > 100 or Chlorida
SW-35B@2 25		S 10 2	10 21 21	1150	2.25 Comp	를 			×			$\dashv$	+	+	+	7	1			· · · · · · · · · · · · · · · · · · ·	0 Run	>600 Run deeper
SW-35C@2 25		S 10:	10 21 21	155	2 25 Comp	를			×			$\dashv$	1	1	1							
SW-36A@2 25		S 102	10 21 21	1130	2 25 Comp	mp 1	×	×				1		1	$\dashv$							
SW-36B@2 25		S 102	10 21 21	1135	2 25 Comp	mp 1			×		_	$\dashv$		$\dashv$	$\dashv$	1						
SW-36C@2 25		S 10:	10 21 21	1140	2 25 Comp	mp 1	$\neg \parallel$		×		_	$\dashv$	-	-	+	1						
														$\dashv$	$\dashv$	1	1					
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	Ш					-				l	╟	-	-	$\  \cdot \ $	$\  \cdot \ $	╟						
Total 200.7 / 6010	0 200.8 / 6020:	20:	8RC	8RCRA 13PPM	M Texas 11	11 ≥	Al Sb As	s Ba Be	3e B (	Cd Ca	Cr Co	o Cu Fe	Fe P	Mg	Mn v	<u>Z</u>	K Se	Ag s	O ₂ N	Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	sn U	V Zn
Circle Method(s) and Metal(s) to be analyzed	metal(s) to be	analyzed		TCLP / SPLP 6010 8RCRA	LP 6010 8	RCRA	Sb /	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Be C	Cr (	S S	Pb N	n Mo	N S	e Ag	    -		넁 1	631 /	Hg 1631 / 245 1 / 7470 / 7471	70 /7	471
Notice Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a pharce of \$6 for each sample submitted to Eurofine Xenco. A minimum charge of \$85.00 will be applied to each project and a pharce of \$6 for each sample submitted to Eurofine Xenco.	cument and relinquis will be liable only for num charge of \$85.00	shment of san the cost of sa	nples constr amples and ed to each p	tutes a valid pu shall not assur	irchase order fi ne any respons arge of \$5 for a	rom clien sibility for	t compar	ny to Eur	ofins Xen	co, its at	filiates a y the cli	nd subco	ntracto	s. It ass	signs sta	ndard t	erms and	d condit	ons			
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SE CHIOTINS Xenco

Environment Testing

City, State ZIP

Midland TX, 79705

City, State ZIP

Company Name Bill to (if different)

State of Project:

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

**Work Order Comments** 

www xenco.com

Reporting Level II Level III PST/UST TRRP

Level IV

10 Desta Drive, #130E

Company Name Project Manager

TR C

RUSSELL SEBRING

## **Chain of Custody**

Midland TX (432) 704-5440 San Antonio TX (210) 509-3334 EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199 Houston TX (281) 240-4200 Dallas TX (214) 902-0300

Work Order No:	
7489	

Phone 4	432 250 4465			Email	Email rsebring@trccompanies.com	ccomp	anies	.com						D	Deliverables EDD	es E	8	Ш	ADa	ADaPT 🔲	0	Other:	
Project Name H	HEP Eunice EMSU Remediation	/ISU Re	mediation	Turn	Turn Around		-					ANALYSIS RE	SIS R	EQUEST	ST						Prese	rvativ	Preservative Codes
Project Number	45,	454378		Routine	☑ Rush 48	Code	¥ %													NO ₂	None NO		DI Water: H ₂ O
Project Location	Euni	Eunice NM		Due Date									$\dashv$		-	-	-	$\dashv$	1	3	Cool Cool		Macon Mo
Sampler's Name.	Russell Sebring/Misti Bryant	ng/Mist	Bryant	TAT starts the	TAT starts the day received by	₹														HC.	HCL HC		HNO, HN
PO#:				the lab if rec	the lab if received by 4 30pm										<u></u>					H :	H, SO, H,		NaOd Na
SAMPLE RECEIPT	Temp Blank		Yes No	Wet Ice	Yes No	eter														T	H,PO. HP		1400
Samples Received Intact:				er ID	- 1	ram														ב ע ב	NaHSO, NARIS	BRIS	
Cooler Custody Seals.	¥	N/A	Correction Factor	actor		Pa														N S	Na.S.O. NaSO.	aso,	
Sample Custody Seals		r A/N	Temperature Reading	e Reading																7n A	Zn Acetate+NaOH Zn		4 Zn
Total Containers.			Corrected T	Corrected Temperature													<b></b>			NaC	H+Asc	orbic A	NaOH+Ascorbic Acid SAPC
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth Comp	ab/ # of mp Cont	<u>큐 녹  </u> TPH	Chloride	Hold				<u></u>				· · · ·				Sami	ole Cc	Sample Comments
SW-32A@2.25		S	10 21 21	1100	2 25 Comp	mp 1		-				_			-	$\dashv$	+	$\dashv$	-	_	TPH	100	rf TPH > 100 or Chloride
SW-32B@2.25		S	10 21 21	1105	2 25 Comp	mp 1			×							1		-			>60	0 Run	>600 Run deeper
SW-32C@2.25		S	10 21 21	1110	2 25 Comp	mp 1			×							1	$\dashv$	$\dashv$	-				
SW-34A@2.25		S	10 21 21	1115	2 25 Comp	mp 1	×	×				_		_	$\dashv$		-	-	$\dashv$				
SW-34B@2.25		S	10 21 21	1120	2 25 Comp	mp 1			×				_		$\dashv$	-	1						
SW-34C@2.25		S	10 21 21	1125	2 25 Comp	mp 1			×										$\dashv$				
																-			+				
															H	$\vdash$	Н	H	H	H			
Total 200.7 / 6010	0 200.8 / 6020:	)20:		8RCRA 13PPM	PM Texas 11	11 A	Sb A	Sb As Ba	Be B	S	Ca Cr Co Cu Fe Pb	Co CI	ı Fe	- 11	M	Mo	= X ()	è Ag	SiO ₂	Na s	ĭII.	Sn US	Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	d Metal(s) to be	analyz	ed	TCLP / SF	TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo	3RCRA	Sb	As Ba	a Be	Cd Cr	င္ပ	u Pb	Mn		Ni Se Ag	I U		占	163	/ 245	Hg 1631/2451/7470	70 /7	/7471
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	cument and relinqui	shment of	samples con	stitutes a valid p	urchase order f	rom clien	it compa	ny to E	urofins X	enco, its	affiliates	and sub	contrac	tors. It a	ssigns s	tandarc	terms	and cor	ditions				
of Euroffins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Euroffins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	um charge of \$85.0	0 will be ap	of salliples at	project and a c	harge of \$5 for	each sam	nple sub	mitted to	Eurofin	s Xenco,	but not	lient if s	These	es are du terms wil	are due to circumstances beyond the control ms will be enforced unless previously negotiat	orced u	nces bey	ond the	negotia	ted.			
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		$\frac{1}{1}$								4													
Ch										<b>5</b>					_						$\downarrow$		

Revised Date: 08/25/2020 Rev 2020.2

1/10/2022 (Rev. 1)

#### **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc.

Job Number: 880-7489-1

SDG Number: Eunice, NM

Login Number: 7489 List Source: Eurofins Xenco

List Number: 1

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

## **Environment Testing America**

## **ANALYTICAL REPORT**

**Eurofins Xenco** 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-7547-1

Laboratory Sample Delivery Group: Eunice, NM Client Project/Site: HEP: Eunice EMSU Draw

Revision: 2

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

RAMER

Authorized for release by: 1/10/2022 9:07:14 AM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

.....LINKS .....

**Review your project** results through

**Have a Question?** 



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: TRC Solutions, Inc.

Laboratory Job ID: 880-7547-1

Project/Site: HEP: Eunice EMSU Draw

SDG: Eunice, NM

## **Table of Contents**

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#### **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-7547-1 Project/Site: HEP: Eunice EMSU Draw

SDG: Eunice, NM

**Qualifiers** 

**GC Semi VOA** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**HPLC/IC** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

**DER** Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

Negative / Absent NEG POS Positive / Present

PQL Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

Relative Error Ratio (Radiochemistry) RER

RL Reporting Limit or Requested Limit (Radiochemistry)

**RPD** Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) TEQ

**TNTC** Too Numerous To Count

Released to Imaging: 3/24/2022 9:01:44 AM

#### **Case Narrative**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Draw

Job ID: 880-7547-1

SDG: Eunice, NM

Job ID: 880-7547-1

**Laboratory: Eurofins Xenco** 

Narrative

Job Narrative 880-7547-1

#### **REVISION**

The report being provided is a revision of the original report sent on 10/28/2021. The report (revision 2) is being revised due to Per client email, removed sample depths from sample name.

Report revision history

The report being provided is a revision of the original report sent on 10/28/2021. The report (revision 2) is being revised due to Per client email, removed sample depths from sample name.

Revision 1 - 11/3/2021 - Reason - Changed collection date to 10/22/2021.

#### Receipt

The sample was received on 10/25/2021 4:40 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.7°C

#### GC Semi VOA

Method 8015MOD_NM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 860-28361.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Xenco 1/10/2022 (Rev. 2)

**Matrix: Solid** 

Lab Sample ID: 880-7547-1

## **Client Sample Results**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Draw

Job ID: 880-7547-1

SDG: Eunice, NM

**Client Sample ID: CS-96** 

Date Collected: 10/22/21 12:05 Date Received: 10/25/21 16:40

Sample Depth: 5'

<u> </u>								
Method: 8015 NM - Diesel R	ange Organics	(DRO) (GC	<b>(</b> )					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
T-4-LTDLL			F0.0				40/00/04 40:00	

Iotal IPH -	<50.0	U	50.0	mg/Kg			10/28/21 10:30	1
Method: 8015B NM - Diesel Ra	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/27/21 14:00	10/27/21 18:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/27/21 14:00	10/27/21 18:37	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/27/21 14:00	10/27/21 18:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		65 - 130			10/27/21 14:00	10/27/21 18:37	1
o-Terphenyl	108		65 - 130			10/27/21 14:00	10/27/21 18:37	1

Method: 300.0 - Anions, Ion Chromatography												
Analyte	Result Qualit	fier RL	Unit	D	Prepared	Analyzed	Dil Fac					
Chloride	<10.0 U	10.0	mg/Kg		10/28/21 11:34	10/28/21 13:27	1					

Eurofins Xenco

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#### **Surrogate Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Draw

Job ID: 880-7547-1

SDG: Eunice, NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid Prep Type: Total/NA

•		Percent Surrogate F			
		1001	OTPH1		
Lab Sample ID	Client Sample ID	(65-130)	(65-130)		
880-7547-1	CS-96	94	108		
LCS 860-28361/2-A	Lab Control Sample	117	100		
LCSD 860-28361/3-A	Lab Control Sample Dup	123	106		
MB 860-28361/1-A	Method Blank	96	108		
Surrogate Legend					
1CO = 1-Chlorooctane					
OTPH = o-Terphenyl					

Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Draw

Job ID: 880-7547-1 SDG: Eunice, NM

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 860-28361/1-A

Lab Sample ID: LCS 860-28361/2-A

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 28260** 

**Analysis Batch: 28260** 

**Client Sample ID: Method Blank** 

**Prep Type: Total/NA** 

Prep Batch: 28361

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	Ū	50.0	mg/Kg		10/27/21 14:00	10/27/21 17:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/27/21 14:00	10/27/21 17:43	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/27/21 14:00	10/27/21 17:43	1
	MB	MB						

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96	<del></del>	65 - 130	10/27/21 14:00	10/27/21 17:43	1
o-Terphenyl	108		65 - 130	10/27/21 14:00	10/27/21 17:43	1

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Batch: 28361

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	868.0		mg/Kg		87	70 - 135	
Diesel Range Organics (Over C10-C28)	997	1066		mg/Kg		107	70 - 135	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	117	65 - 130
o-Terphenyl	100	65 - 130

Lab Sample ID: LCSD 860-28361/3-A **Client Sample ID: Lab Control Sample Dup** Prep Type: Total/NA

**Matrix: Solid** 

Analysis Batch: 28260					Prep Batch: 28361				
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	945.1		mg/Kg		94	70 - 135	8	35
(GRO)-C6-C10									
Diesel Range Organics (Over	997	1127		mg/Kg		113	70 - 135	6	35

C10-C28)

LCSD LCSD

Surrogate	%Recovery (	Qualifier	Limits
1-Chlorooctane	123		65 - 130
o-Terphenyl	106		65 - 130

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-28471/1-A **Client Sample ID: Method Blank Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 28485							Prep Batch:	28471
-	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg		10/28/21 11:34	10/28/21 08:58	1

**Eurofins Xenco** 

Lab Sample ID: 880-7547-1 MSD

Matrix: Solid

# **QC Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-7547-1 Project/Site: HEP: Eunice EMSU Draw

SDG: Eunice, NM

Client Sample ID: CS-96

Prep Type: Total/NA

# Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 860-28471/2-A				Clie	nt Sar	mple ID	: Lab Control	Sample
Matrix: Solid							Prep Type: T	otal/NA
Analysis Batch: 28485							Prep Batch	: <b>28471</b>
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	100	96.50		mg/Kg		96	80 - 120	

Lab Sample ID: LCSD 860-28471/3-A		Client Sample ID: Lab Control Sample Dup								
Matrix: Solid							<b>Prep Ty</b>	pe: Tot	al/NA	
Analysis Batch: 28485							Prep E	atch: 2	28471	
	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	100	96.80		mg/Kg		97	80 - 120	0	20	

Lab Sample ID: 880-7547-1 I Matrix: Solid Analysis Batch: 28485	MS							Client Sample ID: CS Prep Type: Total/ Prep Batch: 28				
	Sample	Sample	Spike	MS	MS				%Rec.			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Chloride	<10.0	U	99.8	124.1		mg/Kg		116	80 - 120			

Analysis Batch: 28485									Prep E	Batch: 2	28471
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	<10.0	U	99.8	127.2		mg/Kg		119	80 - 120	2	20

# **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Draw

Job ID: 880-7547-1 SDG: Eunice, NM

# **GC Semi VOA**

#### **Analysis Batch: 26106**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7547-1	CS-96	Total/NA	Solid	8015 NM	

#### **Analysis Batch: 28260**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7547-1	CS-96	Total/NA	Solid	8015B NM	28361
MB 860-28361/1-A	Method Blank	Total/NA	Solid	8015B NM	28361
LCS 860-28361/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	28361
LCSD 860-28361/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	28361

#### Prep Batch: 28361

<b>Lab Sample ID</b> 880-7547-1	Client Sample ID CS-96	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 860-28361/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 860-28361/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 860-28361/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

#### **HPLC/IC**

#### Prep Batch: 28471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7547-1	CS-96	Total/NA	Solid	300_Prep	<del></del>
MB 860-28471/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 860-28471/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
LCSD 860-28471/3-A	Lab Control Sample Dup	Total/NA	Solid	300_Prep	
880-7547-1 MS	CS-96	Total/NA	Solid	300_Prep	
880-7547-1 MSD	CS-96	Total/NA	Solid	300_Prep	

#### **Analysis Batch: 28485**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7547-1	CS-96	Total/NA	Solid	300.0	28471
MB 860-28471/1-A	Method Blank	Total/NA	Solid	300.0	28471
LCS 860-28471/2-A	Lab Control Sample	Total/NA	Solid	300.0	28471
LCSD 860-28471/3-A	Lab Control Sample Dup	Total/NA	Solid	300.0	28471
880-7547-1 MS	CS-96	Total/NA	Solid	300.0	28471
880-7547-1 MSD	CS-96	Total/NA	Solid	300.0	28471

Eurofins Xenco

1/10/2022 (Rev. 2)

#### **Lab Chronicle**

Client: TRC Solutions, Inc. Job ID: 880-7547-1 Project/Site: HEP: Eunice EMSU Draw SDG: Eunice, NM

Lab Sample ID: 880-7547-1 **Client Sample ID: CS-96** 

Date Collected: 10/22/21 12:05 **Matrix: Solid** Date Received: 10/25/21 16:40

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			26106	10/28/21 10:30	DD	XEN STF
Total/NA	Prep	8015NM Prep			10 g	10 mL	28361	10/27/21 14:00	SAR	XEN STF
Total/NA	Analysis	8015B NM		1			28260	10/27/21 18:37	T1S	XEN STF
Total/NA	Prep	300_Prep			5.00 g	50 mL	28471	10/28/21 11:34	DTN	XEN STF
Total/NA	Analysis	300.0		1			28485	10/28/21 13:27	DTN	XEN STF

#### **Laboratory References:**

XEN STF = Eurofins Xenco, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

# **Accreditation/Certification Summary**

Client: TRC Solutions, Inc. Job ID: 880-7547-1 Project/Site: HEP: Eunice EMSU Draw SDG: Eunice, NM

#### **Laboratory: Eurofins Xenco**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority		rogram	Identification Number	Expiration Date	
Texas	NE	ELAP	T104704215-21-44	06-30-22	
The following analyte the agency does not		ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for whic	
	5		A 1 (		
Analysis Method	Prep Method	Matrix	Analyte		
Analysis Method 8015 NM	Prep Method	Matrix Solid	Analyte Total TPH		
	Prep Method 8015NM Prep			er C10-C28)	
8015 NM	·	Solid	Total TPH	,	

Eurofins Xenco

# **Method Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Draw

Job ID: 880-7547-1

SDG: Eunice, NM

Method	Method Description	Protocol	Laboratory
3015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN STF
3015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN STF
0.00	Anions, Ion Chromatography	MCAWW	XEN STF
00_Prep	Anions, Ion Chromatography, 10% Wt/Vol	MCAWW	XEN STF
015NM Prep	Microextraction	SW846	XEN STF

#### **Protocol References:**

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### **Laboratory References:**

XEN STF = Eurofins Xenco, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Eurofins Xenco

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# **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Draw

Job ID: 880-7547-1

SDG: Eunice, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-7547-1	CS-96	Solid	10/22/21 12:05	10/25/21 16:40	5'

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Environment Testing

Address City State ZIP

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State of Project: Program.

UST/PST PRP Brownfields Work Order Comments

RRC

Superfund [

Bill to: (if different) Company Name

Company Name

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# Chain of Custody

Houston, TX (281) 240-4200, Dallas TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392 7550, Carlsbad NM (575) 988-3199

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880-7547 Ch
880-7547 Chain of Clistock

Revised Date: 08/25/2020 Rev 2020.2	Rev				
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		2	2 Tribbic		ON
Date/Time	Received by: (Signature)	Relinquished by (Signature)	Date/Time	(Signature)	Belinquished by (Signature) Received by
	ions trol regotiated.	subcontractors. It assigns standard terms and condition the control to the contro	fins Xenco, its affiliates and s ses incurred by the client if s urofins Xenco, but not analy	lid purchase order from client company to Euro ssume any responsibility for any losses or exper a charge of \$5 for each sample submitted to b	voice: Sylantine or this occument aira relinquistiment or samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.
/7471	Hg 1631/2451/7470/	8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	b As Ba Be Cd C	TCLP / SPLP 6010 8RCRA S	Circle Method(s) and Metal(s) to be analyzed
V Zn	Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Tl Sn U	Cd Ca Cr Co Cu Fe Pb Mg Mn Mo	Al Sb As Ba Be B Cd	8RCRA 13PPM Texas 11 AI Sb	
***************************************					
			× >	7 0 0	5-70CS 2 WY
Sample Comments	Sam			Depth	entification Matrix
CONTRACTOR OFFI			† / /	Grab/	
NaOH+Ascorbic Acid SAPC	NaOH+Asc		0 i	nperature: 2-7	
STOCING 3	Zn Accessor 3		4	Reading 2	s: Yes No N/A
Naso	OSEN O SEN		8		Yes AND NIA
	H ₃ FO ₄ HF		X Up		tact: Yes No Thern
NaOH Na	H ₂ SO ₄ H ₂				SAMPLE RECEIPT Temp Blank. Yes No
	HCL. HC		5	the lab, if received by 4.30pm	PO#
меон ме	Cool Cool			Due Date	Derett Sin
DI Water: H ₂ O	None NO			Routine Rush 24/12 Code	-
Preservative Codes	Pres	ANALYSIS REQUEST		Turn Around	Project Name HAP Europe Emon Row
Other:	EDD ADaPT	Peliverables	RSEBAING TRUCO - PANIES-CO	Email RSEBBITA	Phone 437 250 4465
TRRP Level IV	Reporting Level II Level III PST/UST TRRP Level IV			City State ZIP	City state Zir Milletasy (x +1 +0)
			-		

# **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc.

Job Number: 880-7547-1

SDG Number: Eunice, NM

List Source: Eurofins Xenco

Login Number: 7547 List Number: 1

Creator: Teel, Brianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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# **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc.

Job Number: 880-7547-1

SDG Number: Eunice, NM

Login Number: 7547 List Source: Eurofins Xenco
List Number: 2 List Creation: 10/27/21 02:38 PM

Creator: Palmar, Pedro

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Xenco 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-8013-1

Laboratory Sample Delivery Group: Eunice NM Client Project/Site: HEP: Eunice EMSU Remediation

Revision: 1

For:

TRC Solutions, Inc. 2057 Commerce Drive Midland, Texas 79703

Attn: Russell Sebring

MRAMER

Authorized for release by: 1/10/2022 9:09:39 AM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS

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Released to Imaging: 3/24/2022 9:01:44 AM

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: TRC Solutions, Inc.
Project/Site: HEP: Eunice EMSU Remediation

Laboratory Job ID: 880-8013-1 SDG: Eunice NM

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# **Definitions/Glossary**

Client: TRC Solutions, Inc. Job ID: 880-8013-1 Project/Site: HEP: Eunice EMSU Remediation

SDG: Eunice NM

#### **Qualifiers**

#### **GC Semi VOA**

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**HPLC/IC** 

Qualifier **Qualifier Description** 

F1 MS and/or MSD recovery exceeds control limits. U Indicates the analyte was analyzed for but not detected.

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

n Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery **CFL** Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

**DER** Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

DL Detection Limit (DoD/DOE)

 $\mathsf{DL},\,\mathsf{RA},\,\mathsf{RE},\,\mathsf{IN}$ Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE) MCL

EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit MLMinimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

**PQL Practical Quantitation Limit** 

**PRES** Presumptive QC **Quality Control** 

**RER** Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) **TEQ** 

**TNTC** Too Numerous To Count

**Eurofins Xenco** 

#### **Case Narrative**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-8013-1

SDG: Eunice NM

Job ID: 880-8013-1

**Laboratory: Eurofins Xenco** 

**Narrative** 

Job Narrative 880-8013-1

#### REVISION

The report being provided is a revision of the original report sent on 11/9/2021. The report (revision 1) is being revised due to Per client email, removed sample depths from sample name.

Report revision history

#### Receipt

The samples were received on 11/5/2021 2:52 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.7°C

#### GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

Method 300 ORGFM 28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-11446 and analytical batch 880-11458 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Job ID: 880-8013-1

Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Remediation

SDG: Eunice NM

**Client Sample ID: SW-43** 

Lab Sample ID: 880-8013-1

Date Collected: 11/04/21 14:00 Date Received: 11/05/21 14:52 **Matrix: Solid** 

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/08/21 15:54	1
Method: 8015B NM - Diesel Ra	ange Organi	ics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/05/21 15:11	11/06/21 20:19	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/05/21 15:11	11/06/21 20:19	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/05/21 15:11	11/06/21 20:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			11/05/21 15:11	11/06/21 20:19	1
o-Terphenyl	109		70 - 130			11/05/21 15:11	11/06/21 20:19	1

Client Sample ID: SW-44 Lab Sample ID: 880-8013-2

4.98

mg/Kg

Date Collected: 11/04/21 14:05

360

**Matrix: Solid** 

11/07/21 18:32

Date Received: 11/05/21 14:52

Chloride

Method: 8015 NM - Diesel Ran	ige Organics (	DRO) (GC)					
Analyte	Result Qu	ualifier	RL	Unit D	Prepared	Analyzed	Dil Fac
Total TPH	50.2		49.9	mg/Kg		11/08/21 16:33	1
Method: 8015B NM - Diesel Ra	ange Organics	(DRO) (GC)					
Analyte	Result Qu	ualifier	RL	Unit D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9 U		19.9	mg/Kg	11/05/21 15:11	11/06/21 20:40	1
Diesel Range Organics (Over C10-C28)	50.2	2	19.9	mg/Kg	11/05/21 15:11	11/06/21 20:40	1
Oll Range Organics (Over C28-C36)	<49.9 U	2	19.9	mg/Kg	11/05/21 15:11	11/06/21 20:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	11/05/21 15:11	11/06/21 20:40	1
o-Terphenyl	119		70 - 130	11/05/21 15:11	11/06/21 20:40	1

Method: 300.0 - Anions, Ion Ch	iromatography - Solubl	le					
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	390	4.96	mg/Kg			11/07/21 18:43	1

**Client Sample ID: SW-45** Lab Sample ID: 880-8013-3 Date Collected: 11/04/21 14:10 Matrix: Solid

Date Received: 11/05/21 14:52

Method: 8015 NM - Diesel Ran	ge Organic	s (DRO) (0	GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			11/08/21 16:33	1

**Eurofins Xenco** 

Chloride

# **Client Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-8013-1 Project/Site: HEP: Eunice EMSU Remediation SDG: Eunice NM

**Client Sample ID: SW-45** Lab Sample ID: 880-8013-3

Date Collected: 11/04/21 14:10 **Matrix: Solid** Date Received: 11/05/21 14:52

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		11/05/21 15:11	11/06/21 21:01	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		11/05/21 15:11	11/06/21 21:01	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/05/21 15:11	11/06/21 21:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			11/05/21 15:11	11/06/21 21:01	1
o-Terphenyl	91		70 - 130			11/05/21 15:11	11/06/21 21:01	1
Method: 300.0 - Anions, Ion C	hromatogra	phy - Solu	ıble					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

4.95

mg/Kg

163

11/07/21 18:53

# **Surrogate Summary**

Job ID: 880-8013-1 Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Remediation SDG: Eunice NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

**Matrix: Solid Prep Type: Total/NA** 

		Percent S	urrogate Recovery (Acceptance Limits)
	1CO1	OTPH1	
Client Sample ID	(70-130)	(70-130)	
SW-43	102	109	
SW-44	101	119	
SW-45	87	91	
Matrix Spike	110	99	
Matrix Spike Duplicate	101	91	
Lab Control Sample	98	91	
Lab Control Sample Dup	111	98	
Method Blank	107	121	
	SW-43 SW-44 SW-45 Matrix Spike Matrix Spike Duplicate Lab Control Sample Lab Control Sample Dup	Client Sample ID         (70-130)           SW-43         102           SW-44         101           SW-45         87           Matrix Spike         110           Matrix Spike Duplicate         101           Lab Control Sample         98           Lab Control Sample Dup         111	Client Sample ID

OTPH = o-Terphenyl

Eurofins Xenco

# QC Sample Results

Client: TRC Solutions, Inc. Job ID: 880-8013-1 Project/Site: HEP: Eunice EMSU Remediation SDG: Eunice NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-11611/1-A

Lab Sample ID: LCS 880-11611/2-A

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 11626** 

**Analysis Batch: 11626** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 11611

MB MB Result Qualifier RL Unit Prepared Analyzed Dil Fac Analyte 11/05/21 15:11 11/06/21 12:08 Gasoline Range Organics <50.0 U 50.0 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 11/05/21 15:11 11/06/21 12:08 mg/Kg C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 11/05/21 15:11 11/06/21 12:08 mg/Kg

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107	70 - 130	11/05/21 15:11	11/06/21 12:08	1
o-Terphenyl	121	70 - 130	11/05/21 15:11	11/06/21 12:08	1

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 11611

Prep Type: Total/NA

LCS LCS Spike %Rec. Added Result Qualifier Unit Limits Analyte %Rec 1000 908.8 91 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 890.7 mg/Kg 89 70 - 130C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	91		70 - 130

Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** 

Lab Sample ID: LCSD 880-11611/3-A

**Analysis Batch: 11626** 

Prep Batch: 11611 Spike LCSD LCSD %Rec. **RPD** Added Limit Analyte Result Qualifier %Rec Limits RPD Unit Gasoline Range Organics 1000 768.0 mg/Kg 77 70 - 130 17 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 966.3 mg/Kg 97 70 - 130 8 20

C10-C28)

LCSD LCSD

Surrogate	%Recovery C	Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 890-1530-A-1-F MS **Client Sample ID: Matrix Spike Prep Type: Total/NA** 

**Matrix: Solid** 

**Analysis Batch: 11626** 

Prep Batch: 11611 Spike MS MS Sample Sample %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits <49.9 U Gasoline Range Organics 997 1153 mg/Kg 116 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 997 1066 105 70 - 130 mq/Kq C10-C28)

**Eurofins Xenco** 

Client: TRC Solutions, Inc. Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-8013-1

SDG: Eunice NM

#### Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-1530-A-1-F MS

**Matrix: Solid** 

**Analysis Batch: 11626** 

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 11611

	IVIS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane			70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 890-1530-A-1-G MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid Prep Type: Total/NA Analysis Batch: 11626** Prep Batch: 11611

RPD MSD MSD %Rec. Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics <49.9 U 1000 1224 mg/Kg 122 70 - 130 6 20 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 1000 958.9 mg/Kg 94 70 - 130 11 20 C10-C28)

MSD MSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 101 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-11446/1-A **Client Sample ID: Method Blank** 

70 - 130

**Matrix: Solid** 

o-Terphenyl

**Analysis Batch: 11458** 

MB MB

91

RL Unit Analyte Result Qualifier Prepared Analyzed Dil Fac 11/07/21 14:01 Chloride <5.00 U 5.00 mg/Kg

Lab Sample ID: LCS 880-11446/2-A

**Matrix: Solid** 

**Analysis Batch: 11458** 

Spike LCS LCS %Rec. Analyte Added Result Qualifier D %Rec Limits Unit 250 245.1 98 Chloride mg/Kg 90 - 110

Lab Sample ID: LCSD 880-11446/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** 

**Analysis Batch: 11458** 

Spike LCSD LCSD %Rec. Added Result Qualifier Limits Analyte Unit %Rec RPD Limit Chloride 250 245.1 mg/Kg 98 90 - 110 0

Lab Sample ID: 880-7991-A-2-B MS **Client Sample ID: Matrix Spike Prep Type: Soluble** 

**Matrix: Solid** 

**Analysis Batch: 11458** 

Released to Imaging: 3/24/2022 9:01:44 AM

7 maryoro Batom 11 100	Sample San	nple Spike	MS	MS				%Rec.
Analyte	Result Qua	alifier Added	Result	Qualifier	Unit	D	%Rec	Limits
Chloride	266 F1	252	470.1	F1	mg/Kg	_	81	90 - 110

**Eurofins Xenco** 

**Prep Type: Soluble** 

**Prep Type: Soluble** 

**Prep Type: Soluble** 

**Client Sample ID: Lab Control Sample** 

**RPD** 

# **QC Sample Results**

Client: TRC Solutions, Inc. Job ID: 880-8013-1 Project/Site: HEP: Eunice EMSU Remediation

SDG: Eunice NM

# Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-7991-A-2-C MSD **Client Sample ID: Matrix Spike Duplicate Prep Type: Soluble Matrix: Solid** 

**Analysis Batch: 11458** 

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	266	F1	252	472.0	F1	mg/Kg		82	90 - 110	0	20

# **QC Association Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-8013-1 SDG: Eunice NM

#### GC Semi VOA

#### **Analysis Batch: 11598**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8013-1	SW-43	Total/NA	Solid	8015 NM	
880-8013-2	SW-44	Total/NA	Solid	8015 NM	
880-8013-3	SW-45	Total/NA	Solid	8015 NM	

#### Prep Batch: 11611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8013-1	SW-43	Total/NA	Solid	8015NM Prep	
880-8013-2	SW-44	Total/NA	Solid	8015NM Prep	
880-8013-3	SW-45	Total/NA	Solid	8015NM Prep	
MB 880-11611/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11611/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11611/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1530-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1530-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

#### **Analysis Batch: 11626**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8013-1	SW-43	Total/NA	Solid	8015B NM	11611
880-8013-2	SW-44	Total/NA	Solid	8015B NM	11611
880-8013-3	SW-45	Total/NA	Solid	8015B NM	11611
MB 880-11611/1-A	Method Blank	Total/NA	Solid	8015B NM	11611
LCS 880-11611/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11611
LCSD 880-11611/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11611
890-1530-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	11611
890-1530-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11611

#### HPLC/IC

#### Leach Batch: 11446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8013-1	SW-43	Soluble	Solid	DI Leach	<u> </u>
880-8013-2	SW-44	Soluble	Solid	DI Leach	
880-8013-3	SW-45	Soluble	Solid	DI Leach	
MB 880-11446/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11446/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11446/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-7991-A-2-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-7991-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

#### **Analysis Batch: 11458**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8013-1	SW-43	Soluble	Solid	300.0	11446
880-8013-2	SW-44	Soluble	Solid	300.0	11446
880-8013-3	SW-45	Soluble	Solid	300.0	11446
MB 880-11446/1-A	Method Blank	Soluble	Solid	300.0	11446
LCS 880-11446/2-A	Lab Control Sample	Soluble	Solid	300.0	11446
LCSD 880-11446/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11446
880-7991-A-2-B MS	Matrix Spike	Soluble	Solid	300.0	11446
880-7991-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	11446

**Eurofins Xenco** 

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Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-8013-1

SDG: Eunice NM

Client Sample ID: SW-43

Date Collected: 11/04/21 14:00 Date Received: 11/05/21 14:52

Lab Sample ID: 880-8013-1

**Matrix: Solid** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			11598	11/08/21 15:54	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11626	11/06/21 20:19	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	11446	11/06/21 16:00	SC	XEN MID
Soluble	Analysis	300.0		1			11458	11/07/21 18:32	CH	XEN MID

Lab Sample ID: 880-8013-2 Client Sample ID: SW-44 **Matrix: Solid** 

Date Collected: 11/04/21 14:05 Date Received: 11/05/21 14:52

Batch Dil Initial Final Batch Prepared Batch **Prep Type** Method Amount Number Type Run **Factor** Amount or Analyzed **Analyst** Lab Total/NA 8015 NM 11598 11/08/21 16:33 AJ XEN MID Analysis Total/NA Prep 8015NM Prep 11611 11/05/21 15:11 DM XEN MID 10.03 g 10 mL Total/NA 8015B NM 11/06/21 20:40 AJ Analysis 11626 XEN MID 1 Soluble DI Leach 11446 11/06/21 16:00 SC XEN MID Leach 5.04 g 50 mL 11458 11/07/21 18:43 CH Soluble Analysis 300.0 XEN MID 1

Client Sample ID: SW-45 Lab Sample ID: 880-8013-3

Date Collected: 11/04/21 14:10

Date Received: 11/05/21 14:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			11598	11/08/21 16:33	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	11611	11/05/21 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11626	11/06/21 21:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	11446	11/06/21 16:00	SC	XEN MID
Soluble	Analysis	300.0		1			11458	11/07/21 18:53	CH	XEN MID

**Laboratory References:** 

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

**Eurofins Xenco** 

Matrix: Solid

# **Accreditation/Certification Summary**

Client: TRC Solutions, Inc.

Job ID: 880-8013-1

Project/Site: HEP: Eunice EMSU Remediation

SDG: Eunice NM

#### **Laboratory: Eurofins Xenco**

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pro	ogram	Identification Number	Expiration Date	
Texas	NE	LAP	T104704400-21-22	06-30-22	
The following analyte	s are included in this reno	rt but the laboratory is r	not certified by the governing authority	This list may include analytes for w	
The following analyte the agency does not	•	rt, but the laboratory is r	not certified by the governing authority.	This list may include analytes for w	
0 ,	•	rt, but the laboratory is r Matrix	not certified by the governing authority.  Analyte	This list may include analytes for w	

**Eurofins Xenco** 

# **Method Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-8013-1

SDG: Eunice NM

nice	INIVI	

Method	Method Description	Protocol	Laboratory
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

XEN MID = Eurofins Xenco, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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# **Sample Summary**

Client: TRC Solutions, Inc.

Project/Site: HEP: Eunice EMSU Remediation

Job ID: 880-8013-1

SDG: Eunice NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-8013-1	SW-43	Solid	11/04/21 14:00	11/05/21 14:52
880-8013-2	SW-44	Solid	11/04/21 14:05	11/05/21 14:52
880-8013-3	SW-45	Solid	11/04/21 14:10	11/05/21 14:52

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Project Manager
Company Name.
Address.
City, State ZIP

Midland TX, 79705

City, State ZIP

Reporting Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Program: UST/PST | PRP | Brownfields | RRC | Superfund |

**Work Order Comments** 

www xenco com

Page

앜

State of Project:

10 Desta Drive, #130E

TRC

RUSSELL SEBRING

Bill to: (if different)

Company Name

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# Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300 Midland, TX (432) 704-5440 San Antonio TX (210) 509-3334 EL Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550 Carlsbad NM (575) 988-3199

Xenco Xenco

Work	
880-8013 Chain of Custody	

Project Name: HEP Eunice EMISU Remediation   Turn Around   ANALYSIS REQUEST    454378	ANALYSIS REQUE  ANALYSIS REQUE
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# **Login Sample Receipt Checklist**

Client: TRC Solutions, Inc.

Job Number: 880-8013-1

SDG Number: Eunice NM

Login Number: 8013 List Source: Eurofins Xenco

List Number: 1 Creator: Kramer, Jessica

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is	N/A	

03 0j 703

<6mm (1/4").



Photograph No. 1

Date: 1/6/2021

Direction:

Aerial

Description:

Aerial view of initial release



Photograph No. 2

Date: 3/18/2021

Direction: Northwest

Description: View of delineation

Photograph No. 3

Date: 3/18/2021 Direction:

Southwest

Description: View of delineation activities: TT-1/Area 1

Photograph No. 4

Date: 3/18/2021

Direction: Southeast

Description: View of delineation activities: TT-4/Area 4



Photograph No. 5

Date: 3/18/2021 Direction:

Southwest

Description: View of delineation

activities: TT-5/Area 5



Photograph No. 6

Date: 3/18/2021

Direction: Southeast

Description: View of delineation activities: TT-6/Area 6



Photograph No. 7

Date: 3/18/2021

Direction: Southeast.

Description:

View of delineation activities: TT- 7/Area 7



Photograph No. 8

Date: 3/18/2021

Direction: Southwest

Description:

View of delineation activities: TT-11/Area 11



Photograph No. 9

Date:

9/28/2021

Direction: Northeast

Description:

View of remediation activities in Area 1



Photograph No. 10

Date: 9/28/2021

Direction: Southwest

Description:

View of remediation activities in Areas 1 and 2



Photograph No. 11

Date: 9/28/2021

Direction: Southwest

Description:
View of additional
remediation activities in
Areas 1 and 2



Photograph No. 12

Date: 9/28/2021

Direction: North

Description:

View of remediation activities in Areas 3 and 6



Photograph No. 13

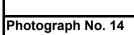
Date: 9/28/2021

Direction: Southeast

Description:

View of additional remediation activities in

Area 4



Date: 9/28/2021

Direction: Southeast

Description:
View of additional
remediation activities in
Area 5



Photograph No. 15

Date:

9/28/2021

Direction:

Southeast

Description:

View of additional remediation activities in

Areas 6 and 7



Photograph No. 16

Date:

9/28/2021

Direction:

East

Description:

View of remediation activities in Area 8



Photograph No. 17

Date:

9/28/2021 Direction:

Northwest

Description:

View of remediation

activities in Areas 10 and 11



Photograph No. 18

Date: 9/28/2021

Direction: Northwest

Description:

View of remediation activities in Area 9



Photograph No. 19

Date:

9/28/2021

Direction:

North

Description:

View of remediation activities in Areas 8 to 11



Photograph No. 20

Date: 9/28/2021

Direction: Southwest

Description:

Overview of remediation activities in Area 1-3.



Photograph No. 21

Date: 9/28/2021

Direction:

South

Description:

Backfill activites in Area 1



Photograph No. 22

Date: 10/7/2021

Direction: North

Description:

Backfill activites in Area 2 and 3



Photograph No. 23

Date:

10/7/2021

Direction:

Southeast

Description:

Backfill activities in Areas 4

and 5



Photograph No. 24

Date:

10/7/2021

Direction: Southwest

Description:

Backfill activities in Areas 3

to 5



Photograph No. 25

Date:

10/7/2021

Direction:

Southeast

Description:

Backfill activities in Area 6



Photograph No. 26

Date:

10/7/2021

Direction:

Southeast

Description:

**Backfill activities in Areas 7** and 8



Photograph No. 23

Date:

10/7/2021

Direction: Southeast

Description:

Backfill activities in Areas 8

and 9



Photograph No. 24

Date: 10/7/2021

Direction: Northwest

Description:

Backfill activities in Area 9 to 11





**Appendix B: Disposal Tickets and Transporter Manifests** 

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street Artesia, NIM88210

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, POBOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: approx. 1,500 cubicyards

FACILITY CONTACT:

Holly Energy Partners Melanie Nolan

1602 W. Main St., Artesia, NM88210

Signature: Welanie Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M MataTrucking, PO BOX 1263, Hobbs, NM, 88241

RUCKING

Name:

5 Signature: <

Date: 🖒

**DISPOSAL SITE:** J&L Landfarm

P.O. Box 356

Permit # NM-01-0023 Hobbs, NM88241

Date: 3-5 Signature:_

Holly Energy Partners Melanie Nolan Care Of: Direct Bill:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 – Michelle Kuhn

Date:	5.3.21
Generator:	Hally Exposed Matres
Job #:	175 # 74.19 H
Trucking Co:	The Topuspole It 4307
Site Location:	Furtice Consu
Total Yards/Day:	200, 1111
Landfarm Representative:	ative:

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LOCATION OF MATERIAL:	Site: Eunice EMSU Location: 32.492667, -103.256611 Lea County, New Mexico NMPA:N/A
SHIPPERS FACILITY NAME AND ADDRESS:	Holly Energy Partners 1602 W. Main Street Artesia, NM88210

TO ANICO CONTINUES AND ANICO AND ANICO AND ANICO AND ANICO ANICOME.	
I KANSPOK I EKS INAMIE AND ADDRESS: INI Mata Trucking, PO BOX 1263,	
Hobbs, NM, 88241	
DESCRIPTION OF WASTE:	
E&P NON- EXEMPT SOIL	
VOLUME: approx. 1,500 cubicyards	
EACH ITY CONTACT:	
racial Contact:	Signature: Walania Nolan
Melanie Nolan	
Holly Energy Partners	Date: 4/25/2021
TOOZ VV. VIGIII OC, ATTESIA, INIVIOOZIO	100 min (100

Signature: Lalo Date:___ J&L Landfarmi P.O. Box 356 Hobbs, NM88241 Permit # NM-01-0023 M Mata Trucking, PO BOX 1263, Hobbs, NM, DISPOSAL SITE: 88241

Date: 5-03

Name:

NAME OF TRANSPORTER: (DRIVER)

Signature:__

Holly Energy Partners Melanie Nolan Direct Bill: Care Of:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 - Michelle Kuhn

Date: 5. 3.	
Generator: HOlly Envised 4	were y factilles
John Holm	•
Trucking Co: Math	th 151
FUMICE	EWSU
	5 h 0 5
Landfarm Representative:	mil till o

00000		
CIRC TRACIA		
F 70 4	7	
	1	

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street Artesia, NIM88210

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Hobbs, NM, 88241 Mata Trucking, PO BOX 1263,

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: __ approx. 1,500 cubicyards

FACILITY CONTACT:

Holly Energy Partners Melanie Nolan

1602 W. Main St., Artesia, NIM88210

Signature:

Date:

NAME OF TRANSPORTER: (DRIVER)

Frack#03 M Mata Trucking, PO BOX 1263, Hobbs, NM,

88241

Signature Colon Amoyo Name: Jan

Date 5-3-21

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Permit # NM-01-0023 Hobbs, NM88241

Signature:_

Date:

Holly Energy Partners PO # 308022 Melanie Nolan

Care Of: Direct Bill:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 – Michelle Kuhn

Permit# NM-01-0023

Mack#3

Date:	5.3.21
Generator:	Holly Energy Partners
Job #:	J4/ # 44/7
Trucking Co:	1200 NOS Machias
Site Location:	Exprice EM SU
Total Yards/Day: Zoea	20ea IIII
Landfarm Representative.	ntative: (auna)

ADDECC.	ביים
CINC BONCE	
	֡֝֟֝֓֜֝֟֝֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֓֡֓֓֓֓֡֓֓֡֓֡֓֡֓֡
CHIDDEBA	֡֝֝֜֜֜֜֜֝֓֜֜֜֜֓֓֓֓֓֓֓֓֓֜֜֜֓֓֓֓֓֜֜֜֓֓֓֡֓֜֜֡֓֜֜

Holly Energy Partners 1602 W. Main Street Artesia, NIM88210

LOCATION OF MATERIAL:

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

Hobbs, NM, 88241 PO BOX 1263,

DESCRIPTION OF WASTE:

Cubic yards 00 VOLUME: approx. 1,500

E&P NON-EXEMPT SOIL

30

000

Signature:

Date:

FACILITY CONTACT:

Holly Energy Partners 1602 W. Main St., Artesia, NM 88210 Melanie Nolan

NAME OF TRANSPORTER: (DRIVER) M Mata Trucking, PO BOX 1263, Hobbs, NM,

/voca fin

Name ALUGYB JAWUS

Signature:  $\mathcal{GUU}\mathcal{D}$ 3 Date: 2

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Permit # NM-01-0023 Hobbs, NM 88241

Signature:

Date:_

Holly Energy Partners PO # 308022 Melanie Nolan Direct Bill: Care Of:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 – Michelle Kuhn

Date:	12.5.7
Generator:	Holla Freezen Chateres
Job #:	K
Trucking Co:	Meta # 51
Site Location:	Further EMSW
Total Yards/Day:	200
Landfarm Representative:	ntative:

TRANSPORTER'S MANIFEST	Site: Eunice EMSU Location: 32.492667, -103.256611 Lea County, New Mexico NMPA:N/A	op contaminated soil	Signature:	Signature: 18 - 21 - 21 - 21 - 21 - 21 - 21 - 21 -	Signature: Date:	Direct Bill: Holly Energy Partners PO # 308022 Care Of: Melanie Nolan
TRANSPORT	SHIPPERS FACILITY NAME AND ADDRESS: Holly Energy Partners 1602 W. Main Street Artesia, NM88210	TRANSPORTERS NAME AND ADDRESS: M Mata Trucking, POBOX 1263, Hobbs, NM, 88241  DESCRIPTION OF WASTE:  C/ / oc//S  E&P NON- EXEMPT SOIL  VOLUME: approx. 1,500 cubicyards	EACILITY CONTACT:  Melanie Nolan Holly Energy Partners 1602 W. Main St., Artesia, NM88210	MANATOF TRANSPORTER: (DRIVER)  M Mata Trucking, PO BOX 1263, Hobbs, NIM, 88241	DISPOSAL SITE: J&L Landfarm P.O. Box 356 Hobbs, NIM 88241 Permit # NIM-01-0023	

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 – Michelle Kuhn

Date:	5.8.Z	77
Generator:	Holly	ENERGY PARTIERS
:# qof	7+5	7
Trucking Co:	Morta	Cnt
Site Location:	Eunitro	FMSU
	Way IIII	Shulk
Landfarm Representative:	ative:	Jesus Jest

SHIPPERS FACILITY NAME AND ADDRESS:

Holly Energy Partners 1602 W. Main Street Artesia, NIM88210

LOCATION OF MATERIAL:

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: _ approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NM88210

Signature: Walania Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NM,

Signature:_ Name: 🅂

していか Date: 5

> DISPOSAL SITE: J&L Landfarm

P.O. Box 356

Permit # NM-01-0023 Hobbs, NM88241

Signature:

Date:

Holly Energy Partners Melanie Nolan Direct Bill: Care Of:

PO Box 356

Hobbs, NM 88241

575-369-9730 -- David Jett

575-390-7446 – Michelle Kuhn

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M Mata Trucking,

Hobbs, NM, 88241 PO BOX 1263,

DESCRIPTION OF WASTE:

E&P NON- EXEMPT SOIL

VOLUME: approx. 1,500 cubicyards

FACILITY CONTACT:

Holly Energy Partners Melanie Nolan

1602 W. Main St., Artesia, NM88210

Signature: Walanie Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NM, 88241

Fruck #03

Charly Olon H Signature. Olon Name: John

Date 5: 4-31

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Permit # NM-01-0023 Hobbs, NM88241

Signature:_

Date:___

Holly Energy Partners

Melanie Nolan Direct Bill: Care Of:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 – Michelle Kuhn

	fastrages		's # 08		South	
5.4.21	Holly ENRGY	7+1/# 241G	ARROND TONCHING	ENVICE EMBY	20an. 4111	ve: lavid by
Date:	Generator:	; # qof	Trucking Co:	Site Location:	Total Yards/Day:	Landfarm Representative:

ADDRESS:	
NAMEAND	
<b>FACILITY</b>	
SHIPPERS	

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Site: Eunice EMSU Location: 32.492667, -103.256611

LOCATION OF MATERIAL:

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, PO BOX 1263,

Hobbs, NM, 88241

E&P NON-EXEMPT SOIL

DESCRIPTION OF WASTE:

VOLUME: __ approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NM88210

Signature: Walania Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M MataTrucking, PO BOX 1263, Hobbs, NM, 88241

Name: Allege Rumus

Signature alum And

Date: S

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Permit # NM-01-0023 Hobbs, NM 88241

Signature:

Date:_

Direct Bill:

Holly Energy Partners Melanie Nolan Care Of:

> 10ad 1 600 1000-11000

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 - Michelle Kuhn

Date: 5 4 - 2/	
Generator: Holly Enlangy Datalons	1 6
Trucking Co: Math # 51	
Site Location: Fywice FMS W	
Total Yards/Day: 7924 1/11 1	B
Landfarm Representative:	<u> </u>

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Site: Eunice EMSU Location: 32.492667, -103.256611 Lea County, New Mexico

NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

Hobbs, NM, 88241 POBOX 1263,

DESCRIPTION OF WASTE:

conformition ( June

**E&P NON-EXEMPT SOIL** 

0

VOLUME: _ approx. 1,500 cubicyards

Signature: Walania Nolan

4/25/2021 Date:

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NM88210

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NIM, 88241

Thoca 42

Name: Gullermo

Signature: Kullerma land 70 Date: OK

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Permit # NM-01-0023 Hobbs, NIM 88241

Signature:_

Date: 426

Holly Energy Partners Melanie Nolan Direct Bill:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 – Michelle Kuhn

Date:	5-4-21
Generator:	Holly ENORGY Contains
Job #:	T+6 # 24 19
Trucking Co:	MATH # 42
Site Location:	Cyntica EMSU
Total Yards/Day:	700g 1111
Landfarm Representative:_	Caril H

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Location: 32.492667, -103.256611 Site: Eunice EMSU

NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, PO BOX 1263,

Hobbs, NM, 88241

Lea County, New Mexico

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

1602 W. Main St., Artesia, NM88210 Holly Energy Partners

Signature: Melania

4/25/2021 Date:_

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NIM,

からられ Name:

D Signature: Date:

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Permit # NM-01-0023 Hobbs, NIM88241

Signature:__

Date:_

Holly Energy Partners

Melanie Nolan Direct Bill: Care Of:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 -- Michelle Kuhn

Permit# NM-01-0023

0

Date:	5.4-21
Generator:	Holly Energy Jactuens
Job #:	JA # 2419
Trucking Co:	TA JORNS part 72 4707
Site Location:	
Total Yards/Day: 78 cg.	1111
Landfarm Representative:_	Itive:

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Site: Eunice EMSU Location: 32.492667, -103.256611

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: _ approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NIM88210

Signature: Walanie Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

170ck #03 M Mata Trucking, PO BOX 1263, Hobbs, NIM,

Anoro Amojo Signature: JUAN 

Date: 5-5-31

DISPOSAL SITE: J&L Landfarm

P.O. Box 356

Hobbs, NM 88241

Permit # NM-01-0023

Signature:_

Holly Energy Partners Direct Bill:

Melanie Nolan Care Of:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 - Michelle Kuhn

Date:	5.5.21
Generator:	Holly Energy Spetwee
Job #:	Jet #24/9
Trucking Co:	Preson o Trucking 03
Site Location:	Eyapol Emsy
Total Yards/Day:	28 ca 111
Landfarm Representative:	ative: James Jath

SHIPPERS FACILITY NAME AND ADDRESS:

Holly Energy Partners 1602 W. Main Street

LOCATION OF MATERIAL:

Artesia, NIMI88210

Site: Eunice EMSU Location: 32,492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, PO BOX 1263, Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

FACILITY CONTACT:

VOLUME: _ approx. 1,500 cubicyards

Holly Energy Partners 1602 W. Main St., Artesia, NM88210 Melanie Nolan

Signature: Walanie Nolan

4/25/2021

Date:

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NIM, M Mata Trucking, PO 88241

151 JOCAL

Signature: Graffer (mc 160 C I'm mg Name: Gul

Date: O(-C)

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Hobbs, NM 88241 Permit # NM-01-0023

Signature:

Date:_

Holly Energy Partners Melanie Nolan Care Of: Direct Bill:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 - Michelle Kuhn

Saf- 71	tor: Holly ENERGY PARTABES	J+1 # 7419	MATE	ation: France FMSW	ards/Day: 20eg 11/1 3	Landfarm Representative:
Date:	Generator:	Job #:	Trucking Co:	Site Location:	Total Yards/Day:	Landfarm Repre

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Site: Eunice EMSU

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Location: 32.492667, -103.256611 Lea County, New Mexico

NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M Mata Trucking,

Hobbs, NM, 88241 PO BOX 1263,

DESCRIPTION OF WASTE:

**E&P NON- EXEMPT SOIL** 

colo contairing ted.

الانكم/ / الانكامك. 1,500 cubicyards ما الانكامك

FACILITY CONTACT:

Melanie Nolan

1602 W. Main St., Artesia, NM88210 Holly Energy Partners

Signature: Walania Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NIM,

Name: 100 Signatu(e:

Date:

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Permit # NM-01-0023 Hobbs, NIM88241

Signature:___

Date: 54/22

Direct Bill:

Holly Energy Partners Melanie Nolan Care Of:

PO Box 356

Hobbs, NM 88241

575-369-9730 -- David Jett

575-390-7446 -- Michelle Kuhn

	4 SASTANESS				See uds	
5-5-21	Hally Breagus	1+6 th 2419	MATE AT 42	Way or Way	20a. IIII	e:
Date:	Generator:	Job #:	Trucking Co:	Site Location:	Total Yards/Day:	Landfarm Representative:_

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street Artesia, NIM88210

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

Hobbs, NM, 88241 PO BOX 1263,

DESCRIPTION OF WASTE:

VOLUME: approx. 1,500 cubicyards

E&P NON-EXEMPT SOIL

Signature: Walania Nolan

4/25/2021

FACILITY CONTACT:

Melanie Nolan

1602 W. Main St., Artesia, NM88210 Holly Energy Partners

NAME OF TRANSPORTER: (DRIVER)

M MataTrucking, PO BOX 1263, Hobbs, NM, 88241

Name: Alvaso Bamos

Signature: @LLOW) N Date:

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Permit # NM-01-0023 Hobbs, NM88241

Date: 5 Signature:__

Holly Energy Partners Direct Bill:

Melanie Nolan Care Of:

load

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 – Michelle Kuhn

Permit# NM-01-0023

Landfarm Representative. Total Yards/Day:_ Site Location:_ Trucking Co:_ Generator: ]# qor Date:__

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Site: Eunice EMSU

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Location: 32,492667, -103,256611 Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: _ approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NM88210

Signature: Walania Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NIM, 88241

Name:

, ( Signature: 🤇 Date:

**DISPOSAL SITE:** 

J&L Landfarm P.O. Box 356

Permit # NM-01-0023 Hobbs, NM 88241

Signature:_

Date:___

Direct Bill:

Holly Energy Partners Melanie Nolan Care Of:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 - Michelle Kuhn

5-5-21	Hally ENergy fast wing	•	# 5 H Touching #4707	Egwice FIBU	2000, 1111 Stonds	sentative:
Date:	Generator:	Job #:	Trucking Co:	Site Location:	Total Yards/Day:	Landfarm Representative:

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street Artesia, NIM88210

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: _ approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NIM88210

Signature: Welanie

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NIM, 88241

Name: ALUGINO Bannes

LINIMA Signature: ${\mathcal U}_{\mathcal A}$ 

9 Date:

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Hobbs, NIVI 88241 Permit # NIVI-0023

Signature:__ Date:_

Holly Energy Partners Melanie Nolan

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 - Michelle Kuhn

Date: 5 - 6 - 7/	
Generator: Holly Enelgy	53
Job# H 7419	2419
Trucking Co: Moth # [7]	
Site Location:	Emsen
Total Yards/Day:	110 00
Landfarm Representative:	
)	)

SHIPPERS FACIUTY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street Artesia, NIM88210

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, POBOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: _ approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NIM 88210

Signature: Walania

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NM, 88241

Though 151

Signature GLALLEVING 100C Name: Gralletho

12-20 Date: OS

> DISPOSAL SITE: J&L Landfarm

P.O. Box 356

Hobbs, NM 88241 Permit # NM-01-0023

Signature:_ Date:

Direct Bill: Care Of:

Holly Energy Partners Melanie Nolan

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 - Michelle Kuhn

5-6-21	4 Shorty Expags	J+1 # 2419	100 st # 151	Eyalle EMBY	40 suds	ative: Stand Staff
Date: 5 - 6	Generator: "Frolly	Job #: (+/ #	Trucking Co:	Site Location:	Total Yards/Day:	Landfarm Representative:

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, POBOX 1263, Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: _ approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NM 88210

Signature: Welanie

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NM, 88241

Name: Jc

Signature: Date: S

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Hobbs, NM 88241 Permit # NM-01-0023

Signature:

Date:_

Holly Energy Partners Melanie Nolan Care Of: Direct Bill:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 - Michelle Kuhn

Date:	5.6.21
ator:	Holly ENORGE
Job #:	941 # 74P
Trucking Co:	Moth # 117
Site Location:	EUNICE KNSU
Total Yards/Day:	(A) ends
Landfarm Representative:_	My River
	(30 yas 5075)

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street Artesia, NIM 88210

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, PO BOX 1263, Hobbs, NIM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: _ approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NM 88210

Signature: Walania

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NM,

88241

Name:

Signature:

Date: _____

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Hobbs, NIM88241 Permit # NIM-01-0023

Date: \$ Signature:

Holly Energy Partners Melanie Nolan

Direct Bill: Care Of:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 - Michelle Kuhn

Date:	5.6.21
Generator:	Holly Exergin
;; qof	J. C. # 2419
Trucking Co:	The Thank part # 4309
Site Location:	Eyaste EMSU
Total Yards/Day:	1 C+O 64
Landfarm Representative:_	tative:

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners

1602 W. Main Street Artesia, NM88210

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

Hobbs, NM, 88241 PO BOX 1263,

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

approx. 1,500 cubicyards VOLUME:

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners

1602 W. Main St., Artesia, NIM88210

Signature: Walanie Nolan

4/25/2021

Date:

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M Mata Trucking, PO 88241

Name: 🌠

Signature:_

0 Date: 1

DISPOSAL SITE: J&L Landfarm

P.O. Box 356

Permit # NM-01-0023 Hobbs, NM88241

2 Signature:_

Date: *[[*]

Holly Energy Partners Melanie Nolan Care Of: Direct Bill:

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8
흾
SHIPPERS FACILITY NAME AND ADDRESS:
975

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

LOCATION OF MATERIAL:

Site: Eunice EMSU Location: 32.492667, -103.256611 Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Hobbs, NM, 88241 Mata Trucking, PO BOX 1263,

DESCRIPTION OF WASTE:

E&P NON- EXEMPT SOIL

approx. 1,500 cubicyards VOLUME:

FACILITY CONTACT:

1602 W. Main St., Artesia, NIM88210 Holly Energy Partners Melanie Nolan

Signature: Welania Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking. PO BOX 1263, Hobbs, NM, 88241

Y

Name:_

Signature:

Date: 11-1-21

DISPOSAL SITE: J&L Landfarm

Permit # NM-01-0023 Hobbs, NM 88241 P.O. Box 356

Signature:_ Date:_

Direct Bill:

Holly Energy Partners Melanie Nolan Care Of:

Received by OCD: 2/25/2022 9:50:56 AM

## TRANSPORTER'S MANIFEST

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico

NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON- EXEMPT SOIL

approx. 1,500 cubicyards VOLUME:

FACILITY CONTACT:

Melanie Nolan

1602 W. Main St., Artesia, NIM 88210 Holly Energy Partners

Signature: Welanie

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

(Q) # 大きる! BOX 1263, Hobbs, NM, M Mata Trucking, PO

88241

Name: 1005

子記 Signature:

3 i Date: [(-

DISPOSAL SITE:

Hobbs, NM 88241 J&L Landfarm P.O. Box 356

Permit # NM-01-0023

Signature:_ Date:

Holly Energy Partners Melanie Nolan Care Of: Direct Bill:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

Permit# NM-01-0023

575-390-7446 – Michelle Kuhn

2 Total Yards/Day: Landfarm Representative:_ Site Location: Trucking Co:_ Generator: Job #: Date:

in the second

SHIPPERS FACILITY NAME AND ADDRESS;

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Location: 32,492667, -103,256611 Site: Eunice EMSU

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NM88210

Signature: Melanie Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NIM,

88241

N

Name:_

Signature:

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0

Date: 1 1-

DISPOSAL SITE:

Hobbs, NM88241 J&L Landfarm P.O. Box 356

Permit # NM-01-0023

Signature:_

Holly Energy Partners Direct Bill:

Melanie Nolan Care Of:

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Site: Eunice EMSU

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Location: 32.492667, -103.256611 Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON- EXEMPT SOIL

VOLUME: approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

1602 W. Main St., Artesia, NM88210 Holly Energy Partners

Signature: Welanie Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NM,

88241

Name: **Ka** 

Signature:_

60) Date:__

DISPOSAL SITE: J&L Landfarm

P.O. Box 356

Permit # NM-01-0023 Hobbs, NM 88241

Signature: 🕻

Holly Energy Partners Melanie Nolan Care Of: Direct Bill:

SHIPPERS FACILITY NAMEAND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners

Site: Eunice EMSU

1602 W. Main Street Artesia, NIM88210

Location: 32.492667, -103.256611 Lea County, New Mexico

NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NM88210

Signature. Walanie Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NM, 88241

Name // A LOWE

Signature: MMB R Date: 16 3

DISPOSAL SITE: J&L Landfarm

P.O. Box 356

Permit # NM-01-0023 Hobbs, NM 88241

Signature ( Date: 1

Holly Energy Partners Direct Bill:

Melanie Nolan Care Of:

Page 665 of 705

## TRANSPORTER'S MANIFEST

SHIPPERS FACILITY NAMEAND ADDRESS:

LOCATION OF MATERIAL:

Site: Eunice EMSU

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

1602 W. Main St., Artesia, NM88210 Holly Energy Partners

Signature: Melania

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NM,

一个人人人 88241

Name: Jesses

るる Signature: Date: (

DISPOSAL SITE:

Hobbs, NM 88241 J&L Landfarm P.O. Box 356

Permit # NM-01-0023

Date: 1 Signature:_

Holly Energy Partners Melanie Nolan Direct Bill: Care Of:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 -- Michelle Kuhn

Permit# NM-01-0023

Landfarm Representative:_ Site Location Total Yards/Day: ∠ Trucking Co: Generator:_ Job #: Date:__

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 - Michelle Kuhn

Permit# NM-01-0023

no con Landfarm Representative:_ Total Yards/Day:_ Trucking Co Site Location: Generator: Job #: Date:_

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 – Michelle Kuhn

Date:	11-2-21
Generator:	Hally ENGRAL
Job #:	Jr1 # 25
Trucking Co:	Mata #1202
Site Location:	Eyming / EMSW RIMIDING
Total Yards/Day:	(20 va) 1 SO 11/5
Landfarm Representative:	ntative:
	is a second of the second of t

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 - Michelle Kuhn

Date: //- 7-73	
Generator: Tholly CNUGU	
Job#: 1946 # 7502	
Trucking Co: MA + A X S/	ı
Site Location: English FMS10 Resultation	100
Total Yards/Day: (70ea)	•
Landfarm Representative:	

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 – Michelle Kuhn Permit# NM-01-0023

Date:	7.7.11
Generator:	thelly Egilan
Job #:	JAL 4 7502
Trucking Co:	(MATA) BI TRAVIEZO
Site Location:	ENWICE CONSUL REMODIFIEN
Total Yards/Day:	(70ca) 1
Landfarm Representative:	entative:

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Site: Eunice EMSU Location: 32.492667, -103.256611 Lea County, New Mexico

NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M Mata Trucking,

PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

approx. 1,500 cubicyards VOLUME:

FACILITY CONTACT:

Melanie Nolan

1602 W. Main St., Artesia, NM 88210 Holly Energy Partners

Signature: Welanie Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NM,

88241

12 (RUPLE

Name:

Signature:

0 3 Date: 1/-

DISPOSAL SITE: J&L Landfarm

P.O. Box 356

Permit # NM-01-0023 Hobbs, NM88241

Date:___

Holly Energy Partners Melanie Nolan Direct Bill:

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON- EXEMPT SOIL

approx. 1,500 cubicyards VOLUME:

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners

1602 W. Main St., Artesia, NIM88210

Signature: Walanie Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M Mata Trucking, PO 88241

Name:

Signature:_

Date:__

DISPOSAL SITE: J&L Landfarm

P.O. Box 356

Permit # NM-01-0023 Hobbs, NM 88241

Signature: Date:

Direct Bill: Care Of:

Holly Energy Partners Melanie Nolan

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street

Artesia, NM88210

Site: Eunice EMSU Location: 32.492667, -103.256611 Lea County, New Mexico

NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

VOLUME: __ approx. 1,500 cubicyards

E&P NON-EXEMPT SOIL

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NIM88210

Signature: Walania

4/25/2021 Date:_

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M MataTrucking, PO 88241

Name:

Signature:

 $\tilde{\zeta}$ 3 Date:

DISPOSAL SITE:

J&L Landfarm

P.O. Box 356

Permit # NM-01-0023 Hobbs, NM 88241

Signature:

Date: 112

Holly Energy Partners Melanie Nolan Care Of: Direct Bill:

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners

-103.256611 Location: 32.492667, Site: Eunice EMSU

> 1602 W. Main Street Artesia, NM88210

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NIM88210

Signature: Melanie Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M Mata Trucking, PO

Name: JESSE

ã M Signature:_ Date: 16-

DISPOSAL SITE:

Hobbs, NM88241 Permit # NM-01-0023 J&L Landfarm P.O. Box 356

Signature: Date:

Holly Energy Partners Melanie Nolan Direct Bill: Care Of:

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners

1602 W. Main Street

Artesia, NM88210

Location: 32,492667, -103.256611 Site: Eunice EMSU

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

approx. 1,500 cubicyards VOLUME:

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NM 88210

Signature: Welanie Nolan

4/25/2021 Date:__

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M Mata Trucking, PO 88241

Name: Massar | Nata Signature: My

7 Date: 11-3-

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Permit # NM-01-0023 Hobbs, NM88241

Signature:_

Date:

W

Holly Energy Partners Melanie Nolan Direct Bill: Care Of:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 – Michelle Kuhn

Date:	11.5.51
Generator:	Holly Talled of
Job #:	JAC # 1880
Trucking Co:	MATH Slavery VMIller
Site Location:	Eyyle Emsy amy futton
Total Yards/Day:	5000
Landfarm Representative:	e: ( fresh ) The

PO Box 356

Hobbs, NM 88241

575-369-9730 -- David Jett

575-390-7446 - Michelle Kuhn

)ate:	12521
Senerator:	Hally Exergin
ob #:	Tof # 2502 66
rucking Co:	MATH LY 43
ite Location:	Enyce 171150 Aprilation
otal Yards/Day:	Forther.
andfarm Representative:_	ative:
	(920 Total

PO Box 356

Hobbs, NM 88241

575-369-9730 -- David Jett

575-390-7446 -- Michelle Kuhn

Date:	1-5-71
Generator:	Holly ENERGY
Job #:	Tal H Stor
Trucking Co:	Mata 4 12
Site Location:	Eyonico FIBSO Monday Ties
Total Yards/Day:	E WA
Landfarm Representative:_	ive:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 - Michelle Kuhn

Date:	11.5-21
Generator:	Holly Collans
Job #:	141 # 280m
Trucking Co:	Mars 45 5
Site Location:	Eurice Engly Rangfation
Total Yards/Day:	Sound
Landfarm Representative: ِ	ative:
	Cerry M.

SHIPPERS FACILITY NAME AND ADDRESS:

Holly Energy Partners

1602 W. Main Street Artesia, NM88210

LOCATION OF MATERIAL:

Location: 32,492667, -103,256611 Site: Eunice EMSU

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Hobbs, NM, 88241 Mata Trucking, PO BOX 1263,

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: approx. 1,500 cubicyards

FACILITY CONTACT:

1602 W. Main St., Artesia, NIM88210 Melanie Nolan Holly Energy Partners

Signature: Walania Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M MataTrucking, PO

Name

Signature:

S • Ø Ċ Date:4

> DISPOSAL SITE: J&L Landfarm

P.O. Box 356

Permit # NM-01-0023 Hobbs, NM 88241

Signature:_

Date: (17

Holly Energy Partners Melanie Nolan Direct Bill: Care Of:

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street

Location: 32.492667, -103.256611 Site: Eunice EMSU

Artesia, NM88210

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON- EXEMPT SOIL

approx. 1,500 cubicyards VOLUME:

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NM 88210

Signature: Melania Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M Mata Trucking, PO 88241

Name:

000 Signature Date:___

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Permit # NM-01-0023 Hobbs, NM88241

Signature: Date:___

Holly Energy Partners Direct Bill:

Melanie Nolan Care Of:

SHIPPERS FACILITY NAME AND ADDRESS:

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Site: Eunice EMSU Location: 32.492667, -103.256611

LOCATION OF MATERIAL:

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

Hobbs, NM, 88241 PO BOX 1263,

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: _ approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NM 88210

Signature: Walanie Nolan

4/25/2021 Date:_

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NIM, M Mata Trucking, PO

88241

1300 Name:

Signature:

Date: 1/-08-

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Permit # NM-01-0023 Hobbs, NM 88241

Signature:_

Date:

Holly Energy Partners Melanie Nolan Care Of: Direct Bill:

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: _ approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan Holly Energy Partners 1602 W.Main St., Artesia, NM88210

Signature: Welanie Nolan

Date: 4/25/2021

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NM, 88241

m maka

Name: doangala

Signature:

Date: L

DISPOSAL SITE:

J&L Landfarm P.O. Box 356 Hobbs, NIM 88241

Permit # NM-01-0023

A day

Signature:_

Date: 11-95~

Direct Bill: Holly Energy Partners Care Of: Melanie Nolan

PO Box 356

Hobbs, NM 88241

575-369-9730 -- David Jett

575-390-7446 -- Michelle Kuhn

Date:	11.8.51
Generator:	Molly Coveran
Job #:	3+L # 2502
Trucking Co:	Mata # 107
Site Location:	Enrice Forth Proplets
Total Yards/Day:	() (4h g a) 1111 & SO 6 11
Landfarm Representative:	itative:
	The same

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 – Michelle Kuhn

Date:		
Generator: Hally ENM	ENlygy	
Job #: 150 # 25	2502	
Trucking Co: 151	151	
Site Location: Lyny do Ens	ENSU Ren	Jenesty Ton
Total Yards/Day: [ ] [ ] [ ] [ ]		Douth
Landfarm Representative:		

PO Box 356

Hobbs, NM 88241

575-369-9730 -- David Jett

575-390-7446 -- Michelle Kuhn

Date:	16-8-11
Generator:	Holly French
Job #:	5+C # 2507
Trucking Co:	Mato 42
Site Location:	Exerce Ensu Prondiction
Total Yards/Day:	(2004) 11110 Stongs
Landfarm Representative:	tive:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 - Michelle Kuhn

Date:	12-21
Generator:	Hally Edensay
Job #:	TH 4 25.07
Trucking Co:	Math # 05
Site Location:	Eurica Ensu Ring Lister
Total Yards/Day:	(2004) 1116 BUNG
Landfarm Representative:_	ative:

SHIPPERS FACILITY NAME AND ADDRESS:

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

LOCATION OF MATERIAL:

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NM88210

Signature: Melanie Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NM,

Name:

Signature

Date:

DISPOSAL SITE:

Hobbs, NM88241 J&L Landfarm P.O. Box 356

Permit # NM-01-0023

Signature:

Date:

Holly Energy Partners Melanie Nolan Direct Bill:

Care Of:

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners

1602 W. Main Street

Site: Eunice EMSU Location: 32.492667, -103.256611

Artesia, NM88210

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON- EXEMPT SOIL

VOLUME: approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan Holly Energy Partners 1602 W.Main St., Artesia, NM88210

Signature: Walania Nolan

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M Mata Trucking, PO

Name: Salande Signature:

Date:

Signature:

Date:

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Permit # NM-01-0023 Hobbs, NM 88241

LOCATION OF MATERIAL:

SHIPPERS FACILITY NAME AND ADDRESS:

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

-103.256611 Site: Eunice EMSU Location: 32.492667,

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking, PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: _ approx. 1,500 cubicyards

FACILITY CONTACT:

1602 W. Main St., Artesia, NM88210 Melanie Nolan Holly Energy Partners

Signature: Walania Nolan

4/25/2021 Date:__

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M Mata Trucking, PO

Name:

Signature: Date:_

DISPOSAL SITE:

J&L Landfarm

Hobbs, NM88241 P.O. Box 356

Permit # NM-01-0023

Signature:_

Date:

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners

Site: Eunice EMSU Location: 32.492667, -103.256611

1602 W. Main Street Artesia, NM88210

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON- EXEMPT SOIL

VOLUME: _ approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

1602 W. Main St., Artesia, NM88210 Holly Energy Partners

Signature: Walanie Nolan

4/25/2021 Date:_

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M Mata Trucking, PO

Name

Signature:

Date: 16-9-2

DISPOSAL SITE:

Hobbs, NM88241 J&L Landfarm P.O. Box 356

Permit # NM-01-0023

80 ydr

Signature:__ Date:

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON- EXEMPT SOIL

VOLUME: approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

1602 W. Main St., Artesia, NM88210 Holly Energy Partners

Signature: Walania

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M Mata Trucking, PO

(RUCK 101

Name: M

Signature: Date:

> Hobbs, NM 88241 DISPOSAL SITE: J&L Landfarm P.O. Box 356

Permit # NM-01-0023

Signature:_ Date:

Holly Energy Partners Melanie Nolan Direct Bill:

Care Of:

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 - Michelle Kuhn

Date:	12.0.1
Generator:	1701/4 EYERG 57
Job #:	161 4 261
Trucking Co:	MATA H 191 MANING
Site Location:	GUNICA EMSA Jagudin Long
Total Yards/Day:	(28 yde Ca), 1/11 (20 yd c)
Landfarm Representative:	The first

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 -- Michelle Kuhn

Date: 11-9-21	
Generator: #0// C	14 ENRIGH
H 7+C	# 2502
Trucking Co: MATO #	t 10%
Site Location: FUNIAL E	· FASU Rangelotter
Total Yards/Day: ( Toyds: La) 1110	III South
Landfarm Representative:	
	7

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 – Michelle Kuhn

11-9-21	1: MO//4 ENPREN	T672 # 12507	Mata # 151	ion: ENOUNG EMEN James 1250	(26x9x16) -1111	Landfarm Representative:
Date:	Generator:	Job #:	Trucking Co:	Site Location:	Total Yards/Day:	andfarm Repres

PO Box 356

Hobbs, NM 88241

575-369-9730 - David Jett

575-390-7446 - Michelle Kuhn

Date:	13.9.
Generator:	Holly Everan
Job #:	J21 # 7502
Trucking Co:	May #12
Site Location:	EUMICE EMSU Comediation
Total Yards/Day:	1141
Landfarm Representative:	tative:
	Mond for

PO Box 356

Hobbs, NM 88241

575-369-9730 -- David Jett

575-390-7446 – Michelle Kuhn

Date:	109.01
Generator:	Holly Greagy
Job #:	384 Al 2822
Trucking Co:	MATA # 55
Site Location:	Evale PMSU Rendation
Total Yards/Day:	(2048pg) 1119 50mMg
Landfarm Representative:	is the second se

SHIPPERS FACILITY NAME AND ADDRESS:

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

LOCATION OF MATERIAL:

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

PO BOX 1263, Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: approx. 1,500 cubicyards

FACILITY CONTACT:

Holly Energy Partners 1602 W.Main St., Artesia, NM88210 Melanie Nolan

Signature: Walania Nolan 4/25/2021

Date:

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M Mata Trucking, PO 88241

Name

Signature (_

-----

Date:

DISPOSAL SITE. J&L Landfarm

Permit # NM-01-0023 Hobbs, NM88241 P.O. Box 356

Date: 14 4 DAD Signature: 4 dwW

Holly Energy Partners Melanie Nolan

Care Of: Direct Bill:

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Holly Energy Partners 1602 W. Main Street

Site: Eunice EMSU Location: 32.492667, -103.256611

Artesia, NM88210

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON- EXEMPT SOIL

VOLUME: __ approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NIM88210

Signature: Melanie Nolan

4/25/2021 Date:_

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M Mata Trucking, PO 88241

Name: Samoa

Signature:

Date:_

DISPOSAL SITE: J&L Landfarm P.O. Box 356

Hobbs, NM88241 Permit # NM-01-0023

Signature:

Date:___

Holly Energy Partners Melanie Nolan Direct Bill:

Care Of:

SHIPPERS FACILITY NAME AND ADDRESS:

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

LOCATION OF MATERIAL:

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: approx. 1,500 cubicyards

FACILITY CONTACT:

Holly Energy Partners 1602 W. Main St., Artesia, NM 88210 Melanie Nolan

Signature: Melanie

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M Mata Trucking, PO 88241

Signatur Date:

> DISPOSAL SITE: J&L Landfarm P.O. Box 356

Permit # NM-01-0023

Hobbs, NM 88241

Signature:_ Date:_

Holly Energy Partners Melanie Nolan Direct Bill;

Care Of:

SHIPPERS FACILITY NAMEAND ADDRESS:

Holly Energy Partners 1602 W. Main Street

Artesia, NM88210

LOCATION OF MATERIAL:

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

PO BOX 1263,

Hobbs, NM, 88241

E&P NON-EXEMPT SOIL

DESCRIPTION OF WASTE:

VOLUME: approx. 1,500 cubicyards

FACILITY CONTACT:

Holly Energy Partners Melanie Nolan

1602 W. Main St., Artesia, NM88210

Signature: Walania Nolan

4/25/2021 Date:_

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M Mata Trucking, PO

Name:

Signature:

6 Date:_

DISPOSAL SITE: J&L Landfarm

Hobbs, NIM88241 P.O. Box 356

Permit # NM-01-0023

Signature:_ 

Holly Energy Partners Melanie Nolan

Direct Bill: Care Of:

## Transporter's Manifest

SHIPPERS FACILITY NAMEAND ADDRESS:

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

LOCATION OF MATERIAL:

Location: 32.492667, -103.256611 Site: Eunice EMSU

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking PO BOX 1263,

Hobbs, NIM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

approx. 1,500 cubicyards VOLUME

FACILITY CONTACT:

Holiy Energy Partners 1602 W.Main St., Artesia, NM88210 Melanie Nolan

Signature: Melanie

4/25/2021

Date:_

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M Mata Trucking, PO

TRUCK# 109

Name:

Signature: 1625 A. Date: 61

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

So 925

Permit # NM-01-0023 Hobbs, NM88241

Date: 1

Signature:__

Direct Bill:

Holly Energy Partners Melanie Nolan Care Of:

ADDRESS.	֓֝֜֜֜֜֜֜֜֜֜֜֜֓֓֓֓֜֜֜֜֜֓֓֓֓֜֜֜֜֜֜֓֓֓֓֜֜֜֜֓֓֓֜֜֜֜
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Holly Energy Partners 1602 W. Main Street Artesia, NM88210

LOCATION OF MATERIAL:

Site: Eunice EMSU Location: 32.492667, -103.256611

Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: _ approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

Holly Energy Partners 1602 W. Main St., Artesia, NM 88210

Signature: Melanie

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

BOX 1263, Hobbs, NM, M Mata Trucking, PO

Name:

Signature:

Date:

DISPOSAL SITE:

J&L Landfarm P.O. Box 356

Permit # NM-01-0023 Hobbs, NM88241

Signature:

Date:

Holly Energy Partners Melanie Nolan Care Of: Direct Bill:

SHIPPERS FACILITY NAME AND ADDRESS:

LOCATION OF MATERIAL:

Site: Eunice EMSU Location: 32.492667,

Holly Energy Partners 1602 W. Main Street Artesia, NM88210

-103,256611 Lea County, New Mexico NMPA:N/A

TRANSPORTERS NAME AND ADDRESS: M

Mata Trucking,

PO BOX 1263,

Hobbs, NM, 88241

DESCRIPTION OF WASTE:

E&P NON-EXEMPT SOIL

VOLUME: _ approx. 1,500 cubicyards

FACILITY CONTACT:

Melanie Nolan

1602 W. Main St., Artesia, NIM88210 Holly Energy Partners

Signature: Walania

4/25/2021 Date:

NAME OF TRANSPORTER: (DRIVER)

M Mata Trucking, PO BOX 1263, Hobbs, NM, 88241

Spald 0 Name Signature Oscaldo & Date: 11/1/

DISPOSAL SITE:

I&L Landfarm P.O. Box 356

Permit # NM-01-0023 Hobbs, NM88241

Signature:

Date:_

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

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

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

CONDITIONS

Action 84282

#### **CONDITIONS**

Operator:	OGRID:
HOLLY ENERGY PARTNERS - OPERATING, LP	282505
1602 W. Main St.	Action Number:
Artesia, NM 88210	84282
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Crea	ted By		Condition Date
che	nsley	Closure report approved.	3/24/2022