United States Environmental Protection Agency
Region 7
300 Minnesota Avenue
Kansas City, KS 66101

Date: 09/21/2021

Subject: Transmittal of Sample Analysis Results for ASR #: 9010

Project ID: TJAMNEAIR

Project Description: Ethanol Plant air sampling

From: Margaret E.W. St. Germain, Chief
Laboratory Technology & Analysis Branch
Laboratory Services and Applied Sciences Division

MARGARET ST. GERMAIN Digitally signed by MARGARET ST. GERMAIN Date: 2021.09.20 17:31:34 -05'00'

To: Tabatha Adkins
LSASD/LTAB

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. These results are based on samples as received at the Science and Technology Center. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please ensure that you file this electronic (.pdf only) transmittal in your records management system. The Regional Laboratory will now retain all of the original hardcopy documentation (e.g. COC[s] and the R7LIMS field sheet[s], etc.) according to our LSASD records management system.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the Online ASR Sample/Data Disposition and Customer Survey for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Online ASR Sample/Data Disposition and Customer Survey. It is critical that we receive your response in accordance to RCRA and the laboratory accreditation.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Project Manager: Tabatha Adkins **Org:** LSASD/LTAB **Phone:** 913-551-7128

Project ID: TJAMNEAIR **QAPP Number:** PROCESS PER TJA/CT

Project Desc: Ethanol Plant air sampling

Location: Meade **State:** Nebraska **Program:** Air Enforcement

Purpose: Enforcement **GPRA PRC:** 000A59

Per CTapia (7/27/2021), in support of the state of Nebraska and at request of the state. Set up potential analysis of TO15 analytes following GMAP analysis results estimated to happen in September. Grab air canister samples at state request. This is a possible place holder for sampling that may occur to ensure summas are available at the request from CTapia.

Submitted ASR from the EPA PM (TJA) dated 7/27/2021 noted that this ASR may or may not be part of a litigation hold activity at this time.

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

__ = Field Sample

Units: Specific units in which results are reported.

I.D. = Identification, Species or Other ID
inHg = Inch of Mercury
ug/m3 = Micrograms per Cubic Meter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.
J = The identification of the analyte is acceptable; the reported value is an estimate.
U = The analyte was not detected at or above the reporting limit.
UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

ASR Number: 9010 **Sample Information Summary** **09/21/2021**

Project ID: TJAMNEAIR **Project Desc:** Ethanol Plant air sampling

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 -	__	Air	East side of road across from AltEn facility		09/14/2021	17:19	09/14/2021	17:19	09/17/2021
2 -	__	Air	Cake Dump		09/15/2021	15:38	09/16/2021	11:40	09/17/2021
3 -	__	Air	NE Lagoon, Site A		09/15/2021	15:55	09/16/2021	12:17	09/17/2021
4 -	__	Air	NE Lagoon, Site B		09/15/2021	16:05	09/16/2021	12:19	09/17/2021
5 -	__	Air	K Road Trees		09/15/2021	16:26	09/16/2021	11:55	09/17/2021
6 -	__	Air	University of Nebraska Land		09/15/2021	16:39	09/16/2021	12:47	09/17/2021
7 -	__	Air	Church, Site A		09/15/2021	16:53	09/16/2021	11:38	09/17/2021
8 -	__	Air	Church, Site B		09/15/2021	04:19	09/16/2021	11:37	09/17/2021
9 -	__	Air	K Road Space		09/15/2021	04:58	09/16/2021	11:47	09/17/2021
10 -	__	Air	Digester		09/15/2021	05:03	09/16/2021	12:31	09/17/2021

Analysis	Comments About Results For This Analysis

1 Air VOA Field Parameters

Lab: (Field Measurement)

Method: Measurement of field parameter

Samples: 1-__ 2-__ 3-__ 4-__ 5-__ 6-__ 7-__
8-__ 9-__ 10-__

Comments:
(N/A)

1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3230.4I

Samples: 1-__ 2-__ 3-__ 4-__ 5-__ 6-__ 7-__
8-__ 9-__ 10-__

Comments:
2-Propanol (66%, limit is 70%) was J-coded in samples 1-6. Vinyl Acetate (49%) was J-coded in samples 2-4. Although the analytes in question have been positively identified in the samples, the quantitations are estimated (J-coded) due to the second source calibration check not meeting accuracy specifications. The actual concentration for these analytes may be higher than the reported value.

2-Propanol (66%, limit is 70%) was UJ-coded in samples 7-10. Vinyl Acetate (49%) was UJ-coded in samples 1 and 5-10. trans-1,3-Dichloropropene (65%) was UJ-coded in samples 1-10. These analytes were not found in the samples at or above their reporting limits, however, the reporting limits are estimated (UJ-coded) due to the second source calibration check not meeting accuracy specifications. The actual reporting limits for these analytes may be higher than the reported values.

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
1 Air VOA Field Parameters					
Canister ID	I.D.	804	809	728	741
Regulator ID	I.D.	N/A	183	77	84
Starting Pressure	inHg	28.6	23.3	28.9	28.2
Ending Pressure	inHg	0	0	5	7
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	9.7	36	14	18
Allyl Chloride	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U
Benzene	ug/m3	0.16 U	0.21	0.19	0.19
Benzyl Chloride	ug/m3	4.2 U	4.2 U	4.2 U	4.2 U
Bromodichloromethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Bromoform	ug/m3	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane	ug/m3	0.78 U	0.78 U	0.78 U	0.78 U
1,3-Butadiene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U
2-Butanone	ug/m3	2.9	19	8.9	10
Carbon Disulfide	ug/m3	0.63 U	0.63 U	0.63 U	0.63 U
Carbon Tetrachloride	ug/m3	0.52	0.50	0.52	0.51
Chlorobenzene	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
Chloroethane	ug/m3	0.53 U	0.53 U	0.53 U	0.53 U
Chloroform	ug/m3	0.12 U	0.12 U	0.12 U	0.12 U
Chloromethane	ug/m3	0.96	0.98	0.98	0.98
Cyclohexane	ug/m3	0.70 U	0.70 U	0.70 U	0.70 U
Dibromochloromethane	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
1,2-Dibromoethane	ug/m3	1.6 U	1.6 U	1.6 U	1.6 U
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorodifluoromethane	ug/m3	2.0	1.9	1.9	2.0
1,1-Dichloroethane	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloroethane	ug/m3	0.10 U	0.10 U	0.10 U	0.10 U
1,1-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
1,2-Dichloropropane	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
cis-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
trans-1,3-Dichloropropene	ug/m3	0.46 UJ	0.46 UJ	0.46 UJ	0.46 UJ
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
1,4-Dioxane	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Ethyl Acetate	ug/m3	1.3	21	0.73 U	0.73 U
Ethyl Benzene	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U
4-Ethyltoluene	ug/m3	0.99 U	0.99 U	0.99 U	0.99 U
Heptane	ug/m3	0.83 U	0.83 U	0.83 U	0.83 U
Hexachlorobutadiene	ug/m3	2.2 U	2.2 U	2.2 U	2.2 U
Hexane	ug/m3	0.71 U	0.71 U	0.71 U	0.71 U
2-Hexanone	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
Methyl tert-butyl ether	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
Methylene Chloride	ug/m3	0.70 U	0.70 U	0.70 U	0.70 U
4-Methyl-2-Pentanone	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
Naphthalene	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
2-Propanol	ug/m3	2.8 J	30 J	4.1 J	14 J
Propene	ug/m3	0.35 U	1.4	1.2	0.81
Styrene	ug/m3	0.86 U	0.86 U	0.86 U	0.86 U
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Tetrachloroethene	ug/m3	0.34 U	0.34 U	0.34 U	0.34 U
Tetrahydrofuran	ug/m3	0.60 U	0.60 U	0.60 U	0.60 U
Toluene	ug/m3	0.76 U	2.0	22	3.4
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,1,1-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
1,1,2-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
Trichloroethene	ug/m3	0.14 U	0.14 U	0.14 U	0.14 U
Trichlorofluoromethane	ug/m3	1.1	1.1 U	1.1	1.1 U
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	0.99 U	0.99 U	0.99 U	0.99 U
1,3,5-Trimethylbenzene	ug/m3	0.99 U	0.99 U	0.99 U	0.99 U
2,2,4-Trimethylpentane	ug/m3	0.94 U	0.94 U	0.94 U	0.94 U
Vinyl Acetate	ug/m3	0.71 UJ	1.0 J	0.74 J	0.77 J
Vinyl Bromide	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U
Vinyl Chloride	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U
m and/or p-Xylene	ug/m3	1.8 U	1.8 U	1.8 U	1.8 U
o-Xylene	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U

Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
1 Air VOA Field Parameters					
Canister ID	I.D.	801	803	709	629
Regulator ID	I.D.	181	180	176	151
Starting Pressure	inHg	28	26.2	30.3	28.8
Ending Pressure	inHg	7	0	10	8
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	7.7	7.0	6.5	7.1
Allyl Chloride	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U
Benzene	ug/m3	0.20	0.16 U	0.27	0.24
Benzyl Chloride	ug/m3	4.2 U	4.2 U	4.2 U	4.2 U
Bromodichloromethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Bromoform	ug/m3	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane	ug/m3	0.78 U	0.78 U	0.78 U	0.78 U
1,3-Butadiene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U
2-Butanone	ug/m3	2.3	1.2 U	1.2 U	1.2 U
Carbon Disulfide	ug/m3	0.63 U	0.63 U	0.63 U	0.63 U
Carbon Tetrachloride	ug/m3	0.52	0.53	0.53	0.53
Chlorobenzene	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
Chloroethane	ug/m3	0.53 U	0.53 U	0.53 U	0.53 U
Chloroform	ug/m3	0.12 U	0.12 U	0.12 U	0.12 U
Chloromethane	ug/m3	1.0	1.0	1.1	1.1
Cyclohexane	ug/m3	0.70 U	0.70 U	0.70 U	0.70 U
Dibromochloromethane	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
1,2-Dibromoethane	ug/m3	1.6 U	1.6 U	1.6 U	1.6 U
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorodifluoromethane	ug/m3	2.0	2.1	2.1	2.1
1,1-Dichloroethane	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloroethane	ug/m3	0.10 U	0.10 U	0.10 U	0.10 U
1,1-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
1,2-Dichloropropane	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
cis-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
trans-1,3-Dichloropropene	ug/m3	0.46 UJ	0.46 UJ	0.46 UJ	0.46 UJ
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
1,4-Dioxane	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Ethyl Acetate	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Ethyl Benzene	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U
4-Ethyltoluene	ug/m3	0.99 U	0.99 U	0.99 U	0.99 U
Heptane	ug/m3	0.83 U	0.83 U	0.83 U	0.83 U
Hexachlorobutadiene	ug/m3	2.2 U	2.2 U	2.2 U	2.2 U
Hexane	ug/m3	0.71 U	0.71 U	0.71 U	0.71 U
2-Hexanone	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
Methyl tert-butyl ether	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U

Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
Methylene Chloride	ug/m3	0.70 U	0.70 U	0.70 U	0.70 U
4-Methyl-2-Pentanone	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
Naphthalene	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
2-Propanol	ug/m3	1.2 J	0.50 J	0.50 UJ	0.50 UJ
Propene	ug/m3	0.35 U	0.35 U	0.35 U	0.35 U
Styrene	ug/m3	0.86 U	0.86 U	0.86 U	0.86 U
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Tetrachloroethene	ug/m3	0.34 U	0.34 U	0.34 U	0.34 U
Tetrahydrofuran	ug/m3	0.60 U	0.60 U	0.60 U	0.60 U
Toluene	ug/m3	1.7	0.76 U	0.76 U	0.76 U
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,1,1-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
1,1,2-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
Trichloroethene	ug/m3	0.14 U	0.14 U	0.14 U	0.14 U
Trichlorofluoromethane	ug/m3	1.1	1.1	1.1	1.1
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	0.99 U	0.99 U	0.99 U	0.99 U
1,3,5-Trimethylbenzene	ug/m3	0.99 U	0.99 U	0.99 U	0.99 U
2,2,4-Trimethylpentane	ug/m3	0.94 U	0.94 U	0.94 U	0.94 U
Vinyl Acetate	ug/m3	0.71 UJ	0.71 UJ	0.71 UJ	0.71 UJ
Vinyl Bromide	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U
Vinyl Chloride	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U
m and/or p-Xylene	ug/m3	1.8 U	1.8 U	1.8 U	1.8 U
o-Xylene	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U

Analysis/ Analyte	Units	9-__	10-__
1 Air VOA Field Parameters			
Canister ID	I.D.	684	674
Regulator ID	I.D.	150	152
Starting Pressure	inHg	26	27.5
Ending Pressure	inHg	0	5
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS			
Acetone	ug/m3	6.6	6.6
Allyl Chloride	ug/m3	0.32 U	0.32 U
Benzene	ug/m3	0.16	0.18
Benzyl Chloride	ug/m3	4.2 U	4.2 U
Bromodichloromethane	ug/m3	1.4 U	1.4 U
Bromoform	ug/m3	2.1 U	2.1 U
Bromomethane	ug/m3	0.78 U	0.78 U
1,3-Butadiene	ug/m3	0.45 U	0.45 U
2-Butanone	ug/m3	1.4	1.2 U
Carbon Disulfide	ug/m3	0.63 U	0.63 U
Carbon Tetrachloride	ug/m3	0.53	0.53
Chlorobenzene	ug/m3	0.93 U	0.93 U
Chloroethane	ug/m3	0.53 U	0.53 U
Chloroform	ug/m3	0.12 U	0.12 U
Chloromethane	ug/m3	1.0	1.1
Cyclohexane	ug/m3	0.70 U	0.70 U
Dibromochloromethane	ug/m3	1.7 U	1.7 U
1,2-Dibromoethane	ug/m3	1.6 U	1.6 U
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2 U
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2 U
1,4-Dichlorobenzene	ug/m3	1.2 U	1.2 U
Dichlorodifluoromethane	ug/m3	2.1	2.0
1,1-Dichloroethane	ug/m3	0.82 U	0.82 U
1,2-Dichloroethane	ug/m3	0.10 U	0.10 U
1,1-Dichloroethene	ug/m3	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U
1,2-Dichloropropane	ug/m3	0.93 U	0.93 U
cis-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U
trans-1,3-Dichloropropene	ug/m3	0.46 UJ	0.46 UJ
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	1.4 U
1,4-Dioxane	ug/m3	0.73 U	0.73 U
Ethyl Acetate	ug/m3	0.73 U	0.73 U
Ethyl Benzene	ug/m3	0.88 U	0.88 U
4-Ethyltoluene	ug/m3	0.99 U	0.99 U
Heptane	ug/m3	0.83 U	0.83 U
Hexachlorobutadiene	ug/m3	2.2 U	2.2 U
Hexane	ug/m3	0.71 U	0.71 U
2-Hexanone	ug/m3	1.7 U	1.7 U
Methyl tert-butyl ether	ug/m3	0.73 U	0.73 U

Analysis/ Analyte	Units	9-__	10-__
Methylene Chloride	ug/m3	0.70 U	0.70 U
4-Methyl-2-Pentanone	ug/m3	1.7 U	1.7 U
Naphthalene	ug/m3	1.1 U	1.1 U
2-Propanol	ug/m3	0.50 UJ	0.50 UJ
Propene	ug/m3	0.35 U	0.35 U
Styrene	ug/m3	0.86 U	0.86 U
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.4 U
Tetrachloroethene	ug/m3	0.34 U	0.34 U
Tetrahydrofuran	ug/m3	0.60 U	0.60 U
Toluene	ug/m3	1.0	0.76 U
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.5 U
1,1,1-Trichloroethane	ug/m3	1.1 U	1.1 U
1,1,2-Trichloroethane	ug/m3	1.1 U	1.1 U
Trichloroethene	ug/m3	0.14 U	0.14 U
Trichlorofluoromethane	ug/m3	1.1	1.1
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	0.99 U	0.99 U
1,3,5-Trimethylbenzene	ug/m3	0.99 U	0.99 U
2,2,4-Trimethylpentane	ug/m3	0.94 U	0.94 U
Vinyl Acetate	ug/m3	0.71 UJ	0.71 UJ
Vinyl Bromide	ug/m3	0.88 U	0.88 U
Vinyl Chloride	ug/m3	0.13 U	0.13 U
m and/or p-Xylene	ug/m3	1.8 U	1.8 U
o-Xylene	ug/m3	0.88 U	0.88 U

SAMUEL PORTER

Digitally signed by SAMUEL PORTER
Date: 2021.09.18 12:50:57 -05'00'

Tentatively Identified Compounds from:

Analysis for Volatile Organic Compounds in Whole Air

Sample: **9010-1-__**

Retention Time	Tentatively Identified Compound	Result	Units (Est.*)
5.331	Ethanol	6	ug/m3
7.729	1-Propanol	5	ug/m3
9.316	2-Butanol	4	ug/m3
15.367	Disulfide, dimethyl	0.7	ug/m3

(*) This is a crude estimation based on response relative to an internal standard. An authentic standard has not been run.

Tentatively Identified Compounds from:

Analysis for Volatile Organic Compounds in Whole Air

Sample: **9010-2-__**

Retention Time	Tentatively Identified Compound	Result	Units (Est.*)
5.313	Ethanol	50	ug/m3
6.593	Dimethyl sulfide	6	ug/m3
7.657	2-Fluoropropene	50	ug/m3
10.352	1-Propanol, 2-methyl-	4	ug/m3
11.152	Butanal, 3-methyl-	2	ug/m3
11.877	1-Butanol	6	ug/m3
13.898	Propanoic acid, ethyl ester	1	ug/m3
13.980	n-Propyl acetate	10	ug/m3
14.400	Butanoic acid, methyl ester	1	ug/m3
15.166	1-Butanol, 3-methyl-	4	ug/m3
15.358	Disulfide, dimethyl	8	ug/m3
16.169	Pentanoic acid, 4-oxo-	1	ug/m3
17.931	Butanoic acid, ethyl ester	3	ug/m3
18.296	Propanoic acid, propyl ester	2	ug/m3
21.312	Butanoic acid, propyl ester	5	ug/m3
22.565	Benzaldehyde	1	ug/m3

(*) This is a crude estimation based on response relative to an internal standard. An authentic standard has not been run.

Tentatively Identified Compounds from:

Analysis for Volatile Organic Compounds in Whole Air

Sample: **9010-3-__**

Retention Time	Tentatively Identified Compound	Result	Units (Est.*)
5.377	Ethanol	2	ug/m3
9.317	2-Butanol	3	ug/m3
12.643	2-Pentanone	0.7	ug/m3
17.685	Hexanal	1	ug/m3
24.895	Nonanal	2	ug/m3

(*) This is a crude estimation based on response relative to an internal standard. An authentic standard has not been run.

Tentatively Identified Compounds from:

Analysis for Volatile Organic Compounds in Whole Air

Sample: **9010-4-__**

Retention Time	Tentatively Identified Compound	Result	Units (Est.*)
5.313	Ethanol	20	ug/m3
6.357	Pentane	0.8	ug/m3
7.702	1-Propanol	6	ug/m3
11.915	1-Butanol	2	ug/m3
15.210	2-Pentene	0.7	ug/m3
15.356	Disulfide, dimethyl	10	ug/m3
23.445	Octanal	0.7	ug/m3
24.894	Nonanal	2	ug/m3

(*) This is a crude estimation based on response relative to an internal standard. An authentic standard has not been run.

Tentatively Identified Compounds from:

Analysis for Volatile Organic Compounds in Whole Air

Sample: **9010-5-__**

Retention Time	Tentatively Identified Compound	Result	Units (Est.*)
5.377	Ethanol	2	ug/m3
9.353	2-Butanol	1	ug/m3
24.901	Nonanal	1	ug/m3

(*) This is a crude estimation based on response relative to an internal standard. An authentic standard has not been run.

Tentatively Identified Compounds from:

Analysis for Volatile Organic Compounds in Whole Air

Sample: **9010-6-__**

Retention Time	Tentatively Identified Compound	Result	Units (Est.*)
4.523	Acetaldehyde	0.9	ug/m3
5.395	Ethanol	0.9	ug/m3
23.446	Octanal	0.7	ug/m3
24.895	Nonanal	3	ug/m3

(*) This is a crude estimation based on response relative to an internal standard. An authentic standard has not been run.

Tentatively Identified Compounds from:

Analysis for Volatile Organic Compounds in Whole Air

Sample: **9010-7-__**

Retention Time	Tentatively Identified Compound	Result	Units (Est.*)
5.386	Ethanol	0.9	ug/m3
17.675	Hexanal	2	ug/m3
23.439	Octanal	0.8	ug/m3
24.882	Nonanal	10	ug/m3

(*) This is a crude estimation based on response relative to an internal standard. An authentic standard has not been run.

Tentatively Identified Compounds from:

Analysis for Volatile Organic Compounds in Whole Air

Sample: **9010-8-__**

Retention Time	Tentatively Identified Compound	Result	Units (Est.*)
4.169	Propane	5	ug/m3
4.804	Butane	0.8	ug/m3
5.385	Ethanol	2	ug/m3
6.366	Pentane	3	ug/m3
24.891	Nonanal	1	ug/m3

(*) This is a crude estimation based on response relative to an internal standard. An authentic standard has not been run.

Tentatively Identified Compounds from:

Analysis for Volatile Organic Compounds in Whole Air

Sample: **9010-9-__**

Retention Time	Tentatively Identified Compound	Result	Units (Est.*)
4.169	Propane	0.9	ug/m3

(*) This is a crude estimation based on response relative to an internal standard. An authentic standard has not been run.

Tentatively Identified Compounds from:

Analysis for Volatile Organic Compounds in Whole Air

Sample: **9010-10-__**

Retention Time	Tentatively Identified Compound	Result	Units (Est.*)
5.386	Ethanol	2	ug/m3

(*) This is a crude estimation based on response relative to an internal standard. An authentic standard has not been run.

Tentatively Identified Compounds from:

Analysis for Volatile Organic Compounds in Whole Air

Sample: **9010-990-MB**

Retention Time	Tentatively Identified Compound	Result	Units (Est.*)
	(No TICs found in this sample.)		

(*) This is a crude estimation based on response relative to an internal standard. An authentic standard has not been run.

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

EPA PROJECT MANAGER (Print)	SITE OR SAMPLING EVENT	DATE OF SAMPLE COLLECTION(S)	SHEET
Leland Grooms	Mead, NE	9 (MONTH) 14-16 (DAY) 2021 (YEAR)	1 of 1

CONTENTS OF SHIPMENT

ASR AND SAMPLE NUMBER	TYPE OF CONTAINERS: 1 L PLASTIC BOTTLE	Summa CANISTER	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: WATER	SOIL	SEDIMENT	AIR	OTHER	RECEIVING LABORATORY REMARKS OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBER(S) OF CONTAINERS PER SAMPLE NUMBER										
9010-1		1							✓		
9010-2		1							✓		
9010-3		1							✓		
9010-4		1							✓		
9010-5		1							✓		
9010-6		1							✓		
9010-7		1							✓		
9010-8		1							✓		
9010-9		1							✓		
9010-10		1							✓		
											ASR Complete
											Air canister crates. No temp. needed.
											nr9/17/2021

DESCRIPTION OF SHIPMENT

10 CONTAINER(S) CONSISTING OF 2 CRATE(S)

_____ ICE CHEST(S): OTHER _____

MODE OF SHIPMENT

☐ COMMERCIAL CARRIER _____

☑ SAMPLER CONVEYED _____ (SHIPPING AIRBILL NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (PI/SAMPLER)	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Leland Grooms Digitally signed by Leland Grooms Date: 2021.09.16 20:15:48 -05'00' ○ SEALED ● UNSEALED	NICOLE ROBLEZ Digitally signed by NICOLE ROBLEZ Date: 2021.09.17 13:30:47 -05'00' ○ SEALED ● UNSEALED	STC Analyses
RELINQUISHED BY (PI/SAMPLER) ○ SEALED ○ UNSEALED	RECEIVED BY ○ SEALED ○ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY (PI/SAMPLER) ○ SEALED ○ UNSEALED	RECEIVED BY ○ SEALED ○ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY (PI/SAMPLER) ○ SEALED ○ UNSEALED	RECEIVED BY ○ SEALED ○ UNSEALED	REASON FOR CHANGE OF CUSTODY

7-EPA-0202 (REV 4/17)