

# Bay Area Air Quality Management District

375 Beale Street, Suite 600, San Francisco, CA 94105 (415) 749-5014

<b>REPORT OF LABORATORY ANALYSIS</b>	<b>FL-2</b>
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<b>Meteorology and Measurement Division</b> <b>Laboratory Services Section</b>	<b>To: Sang Thao</b> <b>Person Submitting Sample</b> <b>Enforcement Division</b>
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**Lab Method:** Lab SOP 309 **Lab No: 19-070**  
**Sample Location:** Nustar Energy, 90 San Pablo Ave., Crockett, CA-94525  
**Sample Type:** Nustar tank fire, Sample taken near Cummings Skyway & I-80 W entrance, Up wind of the Fire.  
 Sample taken at 3:12pm on 10/15/19 in SilcoCan ENF-24  
**Source Operation:** Facility Wide **SITE# A-0581**  
**Date Received:** 10/16/2019 **Date Analyzed:** 10/16/2019  
**Analyst:** Hemant Amin *H.Amin* *TC 10/17/19* **Lab Ref:** HA5:112

**RESULTS OF GAS CHROMATOGRAPHIC ANALYSIS FOR AIR TOXICS**

COMPOUND	Restek SilcoCan ENF-24 CONCENTRATION (ppb)	MDL (PPB)	MDL-as run (PPB)
VINYL CHLORIDE	<MDL	0.020	0.032
1,3 BUTADIENE	0.66	0.011	0.018
Ethanol	3.28	0.033	0.053
Acetonitrile	<MDL	0.007	0.011
ACETONE	6.42	0.057	0.091
FREON 11	0.20	0.016	0.026
Acrylonitrile	<MDL	0.011	0.018
Dichloromethane	<MDL	0.013	0.021
FREON 113	0.05	0.006	0.010
MEK	0.83	0.029	0.046
Chloroform	<MDL	0.003	0.005
1,2- DCE	<MDL	0.004	0.006
1,1,1-trichloethane	<MDL	0.003	0.005
BENZENE	1.36	0.009	0.014
CARBON TETRACHLORIDE	0.08	0.002	0.003
TCE	<MDL	0.004	0.006
TOLUENE	0.88	0.010	0.016
1,2-dibromoethane	<MDL	0.003	0.005
PERC	<MDL	0.002	0.003
ET-BENZENE	0.09	0.008	0.013
m,p-Xylene	0.18	0.011	0.018
o-Xylene	0.07	0.011	0.018

N. Recommended  YES REG. \_\_\_ RULE \_\_\_ SEC. \_\_\_  
 NO  
 FURTHER EVALUATION NEEDED  
 FOR INFORMATION ONLY

10/17/19  
**Mairi Beacon** Date  
**Laboratory Services Manager**

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<b>Lab Method:</b>	Lab SOP 309	<b>Lab No:</b> 19-071
<b>Sample Location:</b>	Nustar Energy, 90 San Pablo Ave., Crockett, CA-94525	
<b>Sample Type:</b>	Nustar tank fire & Explosion, Sample taken downwind of plume on I-80 W off ramp and Cumming Skyway. Sample taken at 3:23pm on 10/15/19 in SilcoCan ENF-33	
<b>Source Operation:</b>	Facility Wide	<b>SITE#</b> A-0581
<b>Date Received:</b>	10/16/2019	<b>Date Analyzed:</b> 10/16/2019
<b>Analyst:</b>	Hemant Amin <i>[Signature]</i>	<b>Lab Ref:</b> HA5:112

### RESULTS OF GAS CHROMATOGRAPHIC ANALYSIS FOR AIR TOXICS

COMPOUND	Restek SilcoCan ENF-33 CONCENTRATION (ppb)	MDL (PPB)	MDL-as run (PPB)
VINYL CHLORIDE	<MDL	0.020	0.031
1,3 BUTADIENE	0.66	0.011	0.017
Ethanol	3.24	0.033	0.052
Acetonitrile	<MDL	0.007	0.011
ACETONE	8.01	0.057	0.089
FREON 11	0.20	0.016	0.025
Acrylonitrile	<MDL	0.011	0.017
Dichloromethane	<MDL	0.013	0.020
FREON 113	0.05	0.006	0.009
MEK	1.06	0.029	0.046
Chloroform	<MDL	0.003	0.005
1,2- DCE	<MDL	0.004	0.006
1,1,1-trichloethane	<MDL	0.003	0.005
BENZENE	1.56	0.009	0.014
CARBON TETRACHLORIDE	0.09	0.002	0.003
TCE	<MDL	0.004	0.006
TOLUENE	1.11	0.010	0.016
1,2-dibromoethane	<MDL	0.003	0.005
PERC	<MDL	0.002	0.003
ET-BENZENE	0.14	0.008	0.013
m,p-Xylene	0.43	0.011	0.017
o-Xylene	0.17	0.011	0.017

V. N. Recommended  YES    REG. \_\_\_ RULE \_\_\_ SEC. \_\_\_  
 NO  
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*[Signature]*  
**Mairi Beacon**  
 Laboratory Services Manager

*10/17/19*  
**Date**

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## REPORT OF LABORATORY ANALYSIS

**FL-2**

**Met**eorology and Measurement Division  
Laboratory Services Section

**To: Sang Thao**  
Person Submitting Sample  
Enforcement Division

**Lab Method:** Lab SOP 309 **Lab No:** 19-072  
**Sample Location:** Nustar Energy, 90 San Pablo Ave., Crockett, CA-94525  
**Sample Type:** Nustar tank fire & Explosion, Sample taken downwind of plume on I-80 W and Cumming Skyway. Sample taken at 3:24pm on 10/15/19 in SilcoCan ENF-15  
**Source Operation:** Facility Wide **SITE#** A-0581  
**Date Received:** 10/16/2019 **Date Analyzed:** 10/16/2019  
**Analyst:** Hemant Amin *Hemant Amin* **Lab Ref:** HA5:112

### RESULTS OF GAS CHROMATOGRAPHIC ANALYSIS FOR AIR TOXICS

COMPOUND	Restek SilcoCan ENF-15 CONCENTRATION (ppb)	MDL (PPB)	MDL-as run (PPB)
VINYL CHLORIDE	<MDL	0.020	0.031
1,3 BUTADIENE	1.07	0.011	0.017
Ethanol	3.26	0.033	0.051
Acetonitrile	<MDL	0.007	0.011
ACETONE	8.29	0.057	0.088
FREON 11	0.21	0.016	0.025
Acrylonitrile	<MDL	0.011	0.017
Dichloromethane	<MDL	0.013	0.020
FREON 113	0.05	0.006	0.009
MEK	1.09	0.029	0.045
Chloroform	<MDL	0.003	0.005
1,2- DCE	<MDL	0.004	0.006
1,1,1-trichloethane	<MDL	0.003	0.005
BENZENE	2.28	0.009	0.014
CARBON TETRACHLORIDE	0.09	0.002	0.003
TCE	<MDL	0.004	0.006
TOLUENE	1.59	0.010	0.015
1,2-dibromoethane	<MDL	0.003	0.005
PERC	<MDL	0.002	0.003
ET-BENZENE	0.18	0.008	0.012
m,p-Xylene	0.57	0.011	0.017
o-Xylene	0.22	0.011	0.017

**V. N. Recommended**

YES    REG. \_\_\_ RULE \_\_\_ SEC. \_\_\_

NO

FURTHER EVALUATION NEEDED

FOR INFORMATION ONLY

*Mairi Beacon*

10/17/19

Date

**Mairi Beacon**  
Laboratory Services Manager

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## REPORT OF LABORATORY ANALYSIS

**FL-2**

**Meteorology and Measurement Division  
Laboratory Services Section**

**To: Sang Thao  
Person Submitting Sample  
Enforcement Division**

**Lab Method:** Lab SOP 309 **Lab No:** 19-073  
**Sample Location:** Nustar Energy, 90 San Pablo Ave., Crockett, CA-94525  
**Sample Type:** Nustar tank fire, Sample taken near I-80 W and Cumming Skyway midway towards the main freeway. Sample taken at 3:34pm on 10/15/19 in SilcoCan ENF-17  
**Source Operation:** Facility Wide **SITE#** A-0581  
**Date Received:** 10/16/2019 **Date Analyzed:** 10/16/2019  
**Analyst:** Hemant Amin *[Signature]* **Lab Ref:** HA5:112

### RESULTS OF GAS CHROMATOGRAPHIC ANALYSIS FOR AIR TOXICS

COMPOUND	Restek SilcoCan ENF-15 CONCENTRATION (ppb)	MDL (PPB)	MDL-as run (PPB)
VINYL CHLORIDE	<MDL	0.020	0.031
1,3 BUTADIENE	<MDL	0.011	0.017
Ethanol	3.48	0.033	0.052
Acetonitrile	<MDL	0.007	0.011
ACETONE	6.77	0.057	0.089
FREON 11	0.21	0.016	0.025
Acrylonitrile	<MDL	0.011	0.017
Dichloromethane	<MDL	0.013	0.020
FREON 113	0.05	0.006	0.009
MEK	0.43	0.029	0.046
Chloroform	<MDL	0.003	0.005
1,2- DCE	<MDL	0.004	0.006
1,1,1-trichloethane	<MDL	0.003	0.005
BENZENE	0.77	0.009	0.014
CARBON TETRACHLORIDE	0.09	0.002	0.003
TCE	<MDL	0.004	0.006
TOLUENE	0.72	0.010	0.016
1,2-dibromoethane	<MDL	0.003	0.005
PERC	<MDL	0.002	0.003
ET-BENZENE	0.09	0.008	0.013
m,p-Xylene	0.27	0.011	0.017
o-Xylene	0.10	0.011	0.017

**N. Recommended**

YES      REG. \_\_\_ RULE \_\_\_ SEC. \_\_\_

NO

FURTHER EVALUATION NEEDED

FOR INFORMATION ONLY

*[Signature]*  
**Mairi Beacon**  
Laboratory Services Manager

10/17/19  
Date