

# FTIR Summary Report

**TERRA AIR SERVICES**  
 2950 N. Loop West, Ste 1050  
 Houston, Texas 77029  
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Customer: Tosco SFR

Monitoring Period

Address: 1380 San Pablo Avenue  
 Rodeo, CA 94572-1299

From: 3/1/98 12:00:01 AM  
 To: 3/31/98 11:59:59 PM

Total Hours: 744.00

## North Fenceline

Compound	Path - Average Conc. (ppm)			Detections			Alarms				Path - MDL (ppm)		
	Avg.*	Max*	Min*	Number	Confirmed	False Positive	High Level (ppm)	#	Low Level (ppm)	#	Avg Detect Limit	Max Detect Limit	Min Detect Limit
1,1,1 Trichloroethane	0.000	0.000	0.000	2	0	2	450	0	350	0	0.033	0.980	0.021
1,3 Butadiene	0.000	0.000	0.000	1	0	1	50	0	10	0	0.048	0.743	0.032
2,2,4-Trimethylpentane	0.000	0.000	0.000	0	0	0	0	0	0	0	4.608	147.237	2.496
Acetaldehyde	0.000	0.000	0.000	0	0	0	150	0	25	0	0.707	16.138	0.455
Ammonia	0.000	0.000	0.000	0	0	0	100	0	3	0	0.022	19.525	0.015
Butane	0.000	0.000	0.000	0	0	0	1000	0	800	0	0.464	122.605	0.217
Carbon monoxide	0.369	0.908	0.173	17	16	1	400	0	20	0	0.419	13.733	0.173
Carbonyl sulfide	0.000	0.000	0.000	0	0	0	10	0	1	0	0.018	0.178	0.008
Chlorodifluoromethane	0.000	0.000	0.000	0	0	0	100	0	10	0	0.022	0.387	0.014
Diethanol amine	0.000	0.000	0.000	0	0	0	6	0	0.46	0	0.690	12.520	0.441
Dimethyl sulfide	0.000	0.000	0.000	0	0	0	500	0	50	0	0.556	661.848	0.369
Ethane	0.000	0.000	0.000	0	0	0	3000	0	1000	0	0.198	54.555	0.095
Ethyl benzene	0.000	0.000	0.000	0	0	0	125	0	100	0	0.428	107.766	0.207
Ethylene	0.000	0.000	0.000	0	0	0	2700	0	1000	0	0.045	26.361	0.032
Formaldehyde	0.000	0.000	0.000	110	0	110	2	0	0.3	0	0.044	2.059	0.002
Furan	0.000	0.000	0.000	0	0	0	2300	0	230	0	1.862	25.126	0.968
Hydrogen chloride	0.000	0.000	0.000	100	0	100	20	0	1	0	0.065	7.897	0.005
Hydrogen Cyanide	0.000	0.000	0.000	0	0	0	3	0	0.3	0	0.035	0.888	0.018
Methane	1.259	1.405	1.099	8323	8323	0	5000	0	1000	0	1.496	24.489	1.099
Methyl mercaptan	0.000	0.000	0.000	0	0	0	10	0	0.005	0	1.649	160.662	0.780
Methyl tert-butyl ether	0.321	0.407	0.275	84	7	77	200	0	40	0	0.135	2.298	0.066
n-Hexane	0.000	0.000	0.000	0	0	0	75	0	50	0	0.699	218.913	0.321
n-Octane	0.000	0.000	0.000	0	0	0	375	0	75	0	0.379	83.295	0.176
Naphthalene	0.000	0.000	0.000	0	0	0	15	0	10	0	0.924	172.204	0.641

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	Avg.*	Max*	Min*	Number	Confirmed	False Positive	High Level (ppm)	#	Low Level (ppm)	#	Avg Detect Limit	Max Detect Limit	Min Detect Limit
Nickel carbonyl	0.000	0.000	0.000	0	0	0	0.16	0	0.09	0	0.015	0.155	0.007
Nitrous oxide***	0.248	0.335	0.075	8720	8720	0	NONE	na	NONE	na	1.219	8.370	0.075
Ozone**	0.000	0.000	0.000	660	0	660	NONE	na	NONE	na	0.070	14.269	0.051
Phenol	0.000	0.000	0.000	63	0	63	50	0	5	0	0.119	13.715	0.004
Phosgene	0.000	0.000	0.000	12	0	12	0.2	0	0.003	0	0.007	0.150	0.005
Propane	0.000	0.000	0.000	0	0	0	2500	0	1000	0	0.316	166.695	0.134

Number of Valid Spectra Collected and Analyzed: 8733      Online %: 99.8      Offline %: 0.2

**South Fenceline**

Compound	Path - Average Conc. (ppm)			Detections			Alarms				Path - MDL (ppm)		
	Avg.*	Max*	Min*	Number	Confirmed	False Positive	High Level (ppm)	#	Low Level (ppm)	#	Avg Detect Limit	Max Detect Limit	Min Detect Limit
1,1,1 Trichloroethane	0.000	0.000	0.000	0	0	0	450	0	350	0	0.035	0.069	0.014
1,3 Butadiene	0.000	0.000	0.000	0	0	0	50	0	10	0	0.039	0.062	0.018
2,2,4-Trimethylpentane	0.000	0.000	0.000	0	0	0	0	0	0	0	3.127	18.214	1.061
Acetaldehyde	0.000	0.000	0.000	0	0	0	150	0	25	0	0.654	1.179	0.330
Ammonia	0.000	0.000	0.000	4	0	4	100	0	3	0	0.017	0.027	0.009
Butane	0.000	0.000	0.000	0	0	0	1000	0	800	0	0.405	1.375	0.157
Carbon monoxide	0.375	0.529	0.302	4051	4051	0	400	0	20	0	0.412	5.480	0.302
Carbonyl sulfide	0.000	0.000	0.000	0	0	0	10	0	1	0	0.012	0.164	0.002
Chlorodifluoromethane	0.000	0.000	0.000	0	0	0	100	0	10	0	0.020	0.038	0.010
Diethanol amine	0.000	0.000	0.000	0	0	0	6	0	0.46	0	0.642	1.195	0.323
Dimethyl sulfide	0.000	0.000	0.000	0	0	0	500	0	50	0	0.400	0.637	0.216
Ethane	0.000	0.000	0.000	0	0	0	3000	0	1000	0	0.185	0.603	0.070
Ethyl benzene	0.000	0.000	0.000	0	0	0	125	0	100	0	0.389	1.139	0.148
Ethylene	0.000	0.000	0.000	0	0	0	2700	0	1000	0	0.036	0.060	0.019
Formaldehyde	0.000	0.000	0.000	23	0	23	2	0	0.3	0	0.038	0.160	0.002
Furan	0.000	0.000	0.000	0	0	0	2300	0	230	0	5.877	18.251	2.364
Hydrogen chloride	0.000	0.000	0.000	28	0	28	20	0	1	0	0.056	0.240	0.006
Hydrogen Cyanide	0.000	0.000	0.000	0	0	0	3	0	0.3	0	0.114	0.443	0.047
Methane	1.508	1.894	1.209	7801	7801	0	5000	0	1000	0	1.646	2.634	1.209

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	Avg.*	Max*	Min*	Number	Confirmed	False Positive	High Level (ppm)	#	Low Level (ppm)	#	Avg Detect Limit	Max Detect Limit	Min Detect Limit
Methyl mercaptan	0.000	0.000	0.000	0	0	0	10	0	0.005	0	1.481	5.251	0.551
Methyl tert-butyl ether	0.000	0.000	0.000	0	0	0	200	0	40	0	0.127	0.236	0.064
n-Hexane	0.000	0.000	0.000	0	0	0	75	0	50	0	0.605	2.014	0.229
n-Octane	0.000	0.000	0.000	0	0	0	375	0	75	0	0.333	1.096	0.126
Naphthalene	0.000	0.000	0.000	0	0	0	15	0	10	0	0.633	1.220	0.236
Nickel carbonyl	0.000	0.000	0.000	0	0	0	0.16	0	0.09	0	0.010	0.143	0.002
Nitrous oxide***	0.234	0.497	0.195	8459	8459	0	NONE	na	NONE	na	0.000	0.000	0.000
Ozone**	0.000	0.000	0.000	23	0	23	NONE	na	NONE	na	0.054	0.085	0.029
Phenol	0.000	0.000	0.000	49	0	49	50	0	5	0	0.090	64.248	0.005
Phosgene	0.000	0.000	0.000	0	0	0	0.2	0	0.003	0	0.006	0.010	0.003
Propane	0.000	0.000	0.000	0	0	0	2500	0	1000	0	0.253	0.889	0.097

Number of Valid Spectra Collected and Analyzed: 8459

Online %:

97.9

Offline %:

2.1

\* Zero (0.000) values indicate all concentrations less than the minimum detection limit (<MDL)

\*\* Included as an interfering compound

\*\*\* Included as an ambient quality assurance check compound