Technical Memorandum

TO: ICF International
Claire Bromund

FROM: Terry A. Hayes Associates Inc.
Anders Sutherland, Senior Environmental Scientist

DATE: April 28, 2021

RE: Broadway Bridge Project – Supplemental Mobile Source Air Toxics Analysis

Background

The City of West Sacramento, in cooperation with the City of Sacramento and the California Department of Transportation (Caltrans), is proposing to construct a new bridge over the Sacramento River south of the Pioneer Bridge (U.S. 50) to provide local interconnectivity across the river and between neighborhoods (Broadway Bridge Project, or "Project"). The Project would be located over the Sacramento River between the cities of West Sacramento and Sacramento, approximately 1,000 feet south of the existing US 50. The total length of the project is approximately one mile from Jefferson Boulevard in West Sacramento to 5th Street and Broadway intersection in Sacramento. Two Build Alternatives are being considered: Alternative B and Alternative C.

To support environmental documentation for the Project, Terry A. Hayes Associates Inc. (TAHA) prepared an Air Quality Report (AQR) consistent with the Caltrans *Annotated Outline* in December 2020. In accordance with Caltrans guidance, the AQR contained a qualitative assessment of environmental effects related to Mobile Source Air Toxics (MSAT) emissions based on the Project having low potential MSAT effects due to the average daily traffic (ADT) on the local roadway network remaining below 140,000 vehicles per day. However, subsequent direction from Caltrans was received following submittal of the AQR requesting that a quantitative MSAT emissions analysis be prepared due to the proximity of sensitive land uses to Project components. This Technical Memorandum was prepared to provide supplemental quantitative analysis of potential MSAT effects that would occur under the baseline 2017 Existing Conditions, the No Build Alternative and Build Alternatives in the opening year of 2030, and the No Build Alternative and Build Alternatives in the horizon year of 2040.

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Traffic Data

Consistent with the AQR, the quantitative MSAT analysis utilized regional transportation modeling data produced for the entire Sacramento Area Council of Governments (SACOG) region, which comprises the counties of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba. Traffic activity data throughout the SACOG region were provided for a representative day in the baseline 2017 year for Existing Conditions, opening year 2030 for the No Build Alternative and Build Alternatives, and horizon year 2040 for the No Build Alternative and Build Alternatives. **Table 1** presents the daily vehicle miles traveled (VMT) that would occur on the regional roadway network for the 2017 baseline year and the 2030 scenarios. The regional VMT data demonstrate that ambient growth is expected to increase SACOG daily VMT by approximately 25.3 percent between 2017 and 2030 for the No Build Alternative. Implementation of Alternative B would reduce SACOG daily VMT by approximately 13,401 vehicle miles relative to the No Build Alternative, which would result in an increase of approximately 20.2 percent relative to the baseline 2017 Existing Conditions. Implementation of Alternative C would reduce SACOG daily VMT by approximately 15,995 vehicle miles relative to the No Build Alternative, which would result in a similar increase as Alternative B relative to the baseline 2017 Existing Conditions.

Table 1. Summary of Daily SACOG Regional Vehicle Miles Traveled – Opening Year 2030.

Speed Range (mph)	Existing Conditions (2017)	No Build Alternative	Alternative B	Alternative C
0-5	10,450	13,002	12,178	12,326
5-10	97,539	141,626	144,687	140,694
10-15	250,088	355,227	355,467	337,309
15-20	6,848,827	8,624,258	8,588,472	8,625,960
20-25	3,101,882	3,717,665	3,694,057	3,687,213
25-30	2,910,591	3,459,556	3,492,570	3,499,847
30-35	5,953,540	7,403,272	7,438,531	7,404,620
35-40	6,521,347	9,584,828	9,499,321	9,478,374
40-45	6,145,961	7,289,934	7,333,080	7,394,919
45-50	2,822,044	4,151,237	4,181,626	4,137,120
50-55	5,704,319	6,662,439	6,603,946	6,646,128
55-60	10,128,856	13,093,948	13,149,596	13,115,952
60-65	3,464,858	3,243,687	3,233,775	3,244,223
65-70	1,863,649	2,219,167	2,219,139	2,219,166
TOTAL	**55,823,951**	**69,959,846**	**69,946,445**	**69,943,851**
Change from Existing Conditions		***14,135,895***	***14,122,494***	***14,119,900***
Percent Change from Existing Conditions		*+25.3%*	*+20.2%*	*+20.2%*
Change from No Build Alternative			***-13,401***	***-15,995***
Percent Change from No Build Alternative			*-0.02%*	*-0.02%*

Table 2 presents the daily VMT for the 2017 baseline year and the 2040 scenarios. SACOG daily regional VMT is anticipated to increase by nearly 35 percent between the baseline 2017 Existing Conditions and the 2040 No Build Alternative due to ambient growth throughout the area. In 2040, implementation of Build Alternative B would produce an increase of approximately 6,230 daily VMT throughout the entire SACOG region relative to the No Build Alternative, representing an increase of approximately 0.02 percent. Implementation of Build Alternative C would produce an increase of approximately 42,893 daily VMT throughout the SACOG region compared to the No Build Alternative, representing an increase of approximately 0.06 percent.

Table 2. Summary of Daily SACOG Regional Vehicle Miles Traveled – Design Year 2040.

Speed Range (mph)	Existing Conditions (2017)	No Build Alternative	Alternative B	Alternative C
0-5	10,450	45,077	43,821	47,254
5-10	97,539	214,995	217,507	216,597
10-15	250,088	506,819	489,519	502,677
15-20	6,848,827	9,487,486	9,461,722	9,483,068
20-25	3,101,882	4,194,189	4,238,409	4,204,869
25-30	2,910,591	4,071,122	4,091,043	4,067,752
30-35	5,953,540	8,358,948	8,403,089	8,423,322
35-40	6,521,347	10,535,221	10,505,968	10,524,718
40-45	6,145,961	8,103,876	8,089,208	8,121,705
45-50	2,822,044	4,375,207	4,351,552	4,349,451
50-55	5,704,319	7,279,442	7,338,498	7,374,517
55-60	10,128,856	12,896,980	12,844,114	12,801,062
60-65	3,464,858	3,004,116	3,006,414	2,999,669
65-70	1,863,649	2,240,735	2,239,579	2,240,445
TOTAL	**55,823,951**	**75,314,213**	**75,320,443**	**75,357,106**
Change from Existing Conditions		***19,490,262***	***19,496,492***	***19,533,155***
Percent Change from Existing Conditions		*+34.9%*	*+35.9%*	*+35.9%*
Change from No Build Alternative			***6,230***	***42,893***
Percent Change from No Build Alternative			*+0.02%*	*+0.06%*

Regulatory Framework

Controlling air toxic emissions became a national priority with the passage of the Clean Air Act Amendments (CAAA) of 1990, whereby Congress mandated that the U.S. EPA regulate 188 air toxics, also known as hazardous air pollutants. The U.S. EPA has assessed this expansive list in its rule on the Control of Hazardous Air Pollutants from Mobile Sources (Federal Register, Vol. 72, No. 37, page 8430, February 26, 2007), and identified a group of 93 compounds emitted from mobile sources that are part of U.S. EPA's Integrated Risk Information System (IRIS) (https://www.epa.gov/iris). In addition, the U.S. EPA identified nine compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers or contributors and non-hazard contributors from the 2011 National Air Toxics Assessment (NATA) (https://www.epa.gov/national-air-toxics-assessment). These are 1,3-butadiene, acetaldehyde, acrolein, benzene, diesel particulate matter (diesel PM), ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter. While the Federal Highway Administration (FHWA) considers these the priority mobile source air toxics, the list is subject to change and may be adjusted in consideration of future U.S. EPA rules.

The 2007 U.S. EPA rule mentioned above requires controls that will dramatically decrease MSAT emissions through cleaner fuels and cleaner engines. According to an FHWA analysis using U.S. EPA's MOVES2014a model, even if vehicle activity (vehicle-miles traveled, VMT) increases by 45 percent from 2010 to 2050 as forecast, a combined reduction of 91 percent in the total annual emission rate for the priority MSATs is projected for the same time period, as shown in **Figure 1**.

Affected Environment

The primary sources of MSAT pollutant emissions in and surrounding the Project area include river boats, rail tracks, and industrial uses including tank farms and corporation yards. The CARB website for monitored data was reviewed for local MSAT data. Monitored MSAT data was not identified within 25 miles of the Project area. There are no active MSAT monitors within 10 miles of the Project area that would be representative of local ambient concentrations because of dispersion caused by distance.

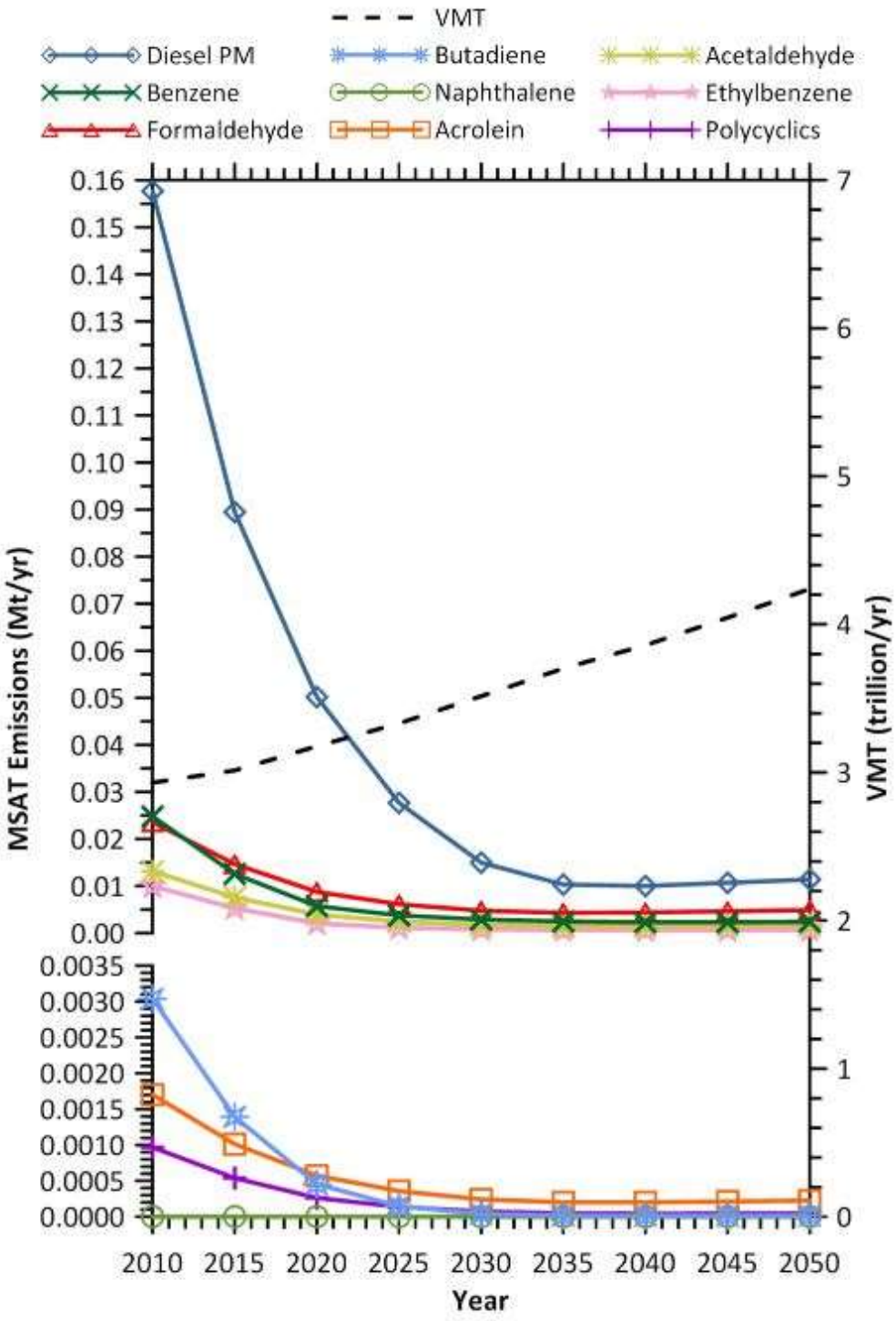

Figure 1. Projected National MSAT Trends, 2010-2050
(Source: https://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/)

Quantitative Analysis

The procedure for analyzing emissions for on-road MSATs is to calculate emission factors using EMFAC or CT-EMFAC and apply the emission factors to speed and VMT data specific to the project area. EMFAC is an emissions model developed by the California Air Resources Board (CARB) that calculates emissions rates for California motor vehicles. Emissions were estimated for all MSATs using CT-EMFAC2017, based on EMFAC and speciation factors provided by CARB and the United States Environmental Protection Agency (USEPA). The latest version of CT-EMFAC, CT-EMFAC2017 released in January 2019, was used to estimate emissions of benzene, 1,3-butadiene, formaldehyde, acrolein, naphthalene, diesel particulate matter, and polycyclic Organic Matter. Daily MSAT emissions were estimated for baseline Existing Conditions in 2017, and the No Build Alternative and both Build Alternatives for the opening year 2030 and horizon year 2040. MSAT emission rates were obtained from the CT-EMFAC2017 model for the 2017, 2030, and 2040 analysis scenarios corresponding to the speed ranges presented in **Table 1** and **Table 2**, above. The daily VMT in each speed range was multiplied by the corresponding MSAT emission factor for the SACOG region, and emissions of each pollutant were summed across all speed ranges to estimate daily emissions in pounds per day (lbs/day) after dividing by the conversion factor 453.592 grams per pound (g/lb.). **Table 3** presents the modeling results for the Baseline, No Build, and Build alternatives, and calculation sheets are provided in the **Appendix** to this memorandum.

Table 3. Summary of Comparative MSAT Emissions Analysis.

Scenario/ Analysis Year	Daily MSAT Emissions (lbs/day)								
	1,3-butadiene	Acetaldehyde	Acrolein	Benzene	Diesel PM	Ethylbenzene	Formaldehyde	Naphthalene	Polycyclic Organic Matter
Baseline (Existing Conditions) 2017	53.18	184.90	11.72	254.94	784.77	99.72	451.56	7.67	11.93
No Build 2030	19.88	43.27	4.38	90.32	155.25	37.51	116.90	3.26	3.40
Build Alternative B 2030	19.87	43.25	4.38	90.27	155.25	37.49	116.83	3.26	3.40
Build Alternative C 2030	19.86	43.23	4.38	90.25	155.24	37.48	116.79	3.26	3.40
No Build 2040	16.90	36.03	3.71	76.05	135.83	31.83	97.28	3.13	2.62
Build Alternative B 2040	16.90	36.02	3.71	76.03	135.78	31.82	97.25	3.13	2.62
Build Alternative C 2040	16.91	36.05	3.71	76.09	135.80	31.84	97.34	3.13	2.62

Daily emissions of all MSATs decrease substantially in 2030 and 2040 for the No Build Alternative and the Build Alternatives compared to Existing Conditions in the baseline 2017 year. In 2030, implementation of Build Alternative B and Build Alternative C would marginally decrease regional MSAT emissions compared to the No Build Alternative, with Build Alternative C daily emissions being

the lowest based on the 15,995 daily VMT reduction from the No Build Alternative. In 2040, although both Build Alternative B and Build Alternative C would produce higher daily VMT than the No Build Alternative, only marginal increases (i.e., less than 0.1 lbs/day) in regional MSAT emissions would occur. Notably, the emissions presented in **Table 3** would be distributed throughout the entire SACOG regional roadway network, and an increase of less than 0.1 lbs/day distributed across hundreds of miles of roadways would result in negligible effects to ambient concentrations of MSATs at sensitive land uses near the Project.

Conclusions

- Regardless of the Build Alternative ultimately selected, daily MSAT emissions on the SACOG roadway network would be lesser than the 2017 baseline Existing Conditions in both the Opening Year of 2030 and the Horizon Year of 2040.
- In the Opening Year of 2030, both Alternative B and Alternative C would result in decreases to regional MSAT emissions relative to the No Build Alternative. The decrease in daily MSAT emissions would be attributed to enhanced connectivity across the Sacramento River providing more efficient local travel routes. Daily MSAT emissions in 2030 would be lower than the baseline 2017 Existing Conditions for the No Build Alternative and Alternatives B and C.
- In the horizon year of 2040, both Alternative B and Alternative C would generate higher daily regional VMT than the No Build Alternative, and associated regional roadway MSAT emissions would be marginally higher for Alternative C. As shown in **Table 3**, Horizon Year 2040 No Build Alternative Emissions would be substantially lower than the baseline 2017 Existing Conditions. Implementation of Alternative B in 2040 would marginally or negligibly decrease MSAT emissions due to enhanced transportation connectivity at the local level. Throughout the entire SACOG region, implementation of Alternative C would increase daily MSAT emissions by less than 0.1 pounds per day for all compounds analyzed.
- Implementation of the Project would serve the local and regional communities by enhancing connectivity across the Sacramento River. There are no Project area roadways with ADT greater than or equal to 140,000 vehicles per day. Implementation of Build Alternative C would increase MSAT emissions throughout the entire SACOG region by less than 0.1 pounds per day, which would have negligible effects on localized pollutant concentrations at nearby sensitive land uses. Therefore, implementation of the Project would not result in adverse air quality effects related to MSATs.

Appendix

Quantitative MSAT Analysis - Emissions Calculations by Speed Bin VMT

				MSAT Daily Emissions (pounds per day)								
Year	**Alternative**	**Speed**	**Daily VMT**	**1,3-Butadiene**	**Acetaldehyde**	**Acrolein**	**Benzene**	**DieselPM**	**Ethylbenzene**	**Formaldehyde**	**Naphthalene**	**POM**
2017	E	5	10,450.3	0.053	0.276	0.011	0.268	0.443	0.098	0.630	0.008	0.014
2017	E	10	97,538.7	0.334	1.913	0.069	1.729	3.401	0.622	4.313	0.054	0.094
2017	E	15	250,088.4	0.593	2.811	0.126	2.967	6.201	1.106	6.506	0.091	0.151
2017	E	20	6,848,827.2	11.888	43.613	2.614	57.448	122.184	22.289	105.504	1.728	2.681
2017	E	25	3,101,881.8	4.080	14.706	0.899	19.663	45.825	7.648	35.686	0.591	0.915
2017	E	30	2,910,590.6	3.186	11.284	0.701	15.304	38.029	5.969	27.460	0.462	0.709
2017	E	35	5,953,539.6	5.257	19.009	1.153	25.312	71.492	9.846	46.072	0.771	1.192
2017	E	40	6,521,346.8	5.061	17.900	1.111	24.320	75.571	9.498	43.568	0.744	1.144
2017	E	45	6,145,960.7	4.414	15.152	0.974	21.124	72.384	8.275	37.100	0.642	0.988
2017	E	50	2,822,044.2	1.980	6.609	0.437	9.442	35.477	3.712	16.268	0.284	0.445
2017	E	55	5,704,319.1	4.068	13.439	0.901	19.354	79.706	7.624	33.133	0.583	0.913
2017	E	60	10,128,855.7	7.727	24.681	1.709	36.637	152.043	14.497	61.277	1.093	1.716
2017	E	65	3,464,857.7	2.908	8.729	0.649	13.693	53.316	5.461	21.966	0.403	0.623
2017	E	70	1,863,649.4	1.634	4.774	0.364	7.674	28.701	3.071	12.083	0.216	0.344
	E Total		**55,823,950.4**	**53.183**	**184.897**	**11.718**	**254.937**	**784.774**	**99.716**	**451.565**	**7.671**	**11.930**
2030	NB	5	13,002.1	0.017	0.061	0.004	0.083	0.045	0.033	0.148	0.003	0.003
2030	NB	10	141,625.6	0.141	0.482	0.030	0.670	0.405	0.265	1.173	0.023	0.027
2030	NB	15	355,227.1	0.247	0.701	0.053	1.152	0.792	0.466	1.775	0.040	0.045
2030	NB	20	8,624,257.7	4.465	10.133	0.990	20.387	15.469	8.428	27.086	0.713	0.763
2030	NB	25	3,717,665.3	1.453	3.188	0.319	6.611	5.817	2.742	8.597	0.234	0.249
2030	NB	30	3,459,555.9	1.124	2.410	0.249	5.110	5.111	2.125	6.547	0.180	0.191
2030	NB	35	7,403,271.7	1.927	4.213	0.425	8.774	11.097	3.642	11.380	0.330	0.330
2030	NB	40	9,584,828.0	2.205	4.754	0.487	10.003	15.622	4.157	12.870	0.384	0.379
2030	NB	45	7,289,934.3	1.556	3.308	0.340	7.046	13.579	2.941	8.997	0.264	0.260
2030	NB	50	4,151,236.9	0.869	1.822	0.192	3.933	9.090	1.636	4.971	0.147	0.148
2030	NB	55	6,662,439.2	1.424	2.983	0.311	6.433	17.398	2.679	8.127	0.242	0.239
2030	NB	60	13,093,947.9	3.021	6.263	0.665	13.660	40.730	5.694	17.136	0.492	0.523
2030	NB	65	3,243,686.9	0.828	1.698	0.183	3.745	11.930	1.564	4.663	0.133	0.143
2030	NB	70	2,219,166.7	0.601	1.257	0.132	2.716	8.165	1.135	3.428	0.080	0.101
	NB Total		**69,959,845.2**	**19.878**	**43.273**	**4.379**	**90.321**	**155.250**	**37.508**	**116.898**	**3.264**	**3.402**

Quantitative MSAT Analysis - Emissions Calculations by Speed Bin VMT

				MSAT Daily Emissions (pounds per day)								
Year	**Alternative**	**Speed**	**Daily VMT**	**1,3-Butadiene**	**Acetaldehyde**	**Acrolein**	**Benzene**	**DieselPM**	**Ethylbenzene**	**Formaldehyde**	**Naphthalene**	**POM**
2030	B	5	12,178.4	0.016	0.057	0.003	0.078	0.042	0.031	0.139	0.003	0.003
2030	B	10	144,686.8	0.144	0.492	0.031	0.684	0.414	0.270	1.198	0.023	0.028
2030	B	15	355,466.7	0.247	0.702	0.054	1.153	0.792	0.466	1.776	0.040	0.045
2030	B	20	8,588,472.0	4.447	10.091	0.986	20.302	15.405	8.394	26.974	0.710	0.760
2030	B	25	3,694,056.9	1.444	3.168	0.317	6.569	5.780	2.725	8.542	0.232	0.247
2030	B	30	3,492,570.3	1.134	2.433	0.252	5.159	5.160	2.146	6.609	0.182	0.193
2030	B	35	7,438,531.5	1.936	4.233	0.427	8.815	11.149	3.659	11.434	0.331	0.332
2030	B	40	9,499,320.9	2.186	4.712	0.482	9.914	15.483	4.120	12.755	0.380	0.376
2030	B	45	7,333,080.0	1.565	3.328	0.342	7.088	13.660	2.958	9.050	0.266	0.261
2030	B	50	4,181,625.9	0.876	1.835	0.194	3.962	9.157	1.648	5.008	0.149	0.149
2030	B	55	6,603,946.3	1.411	2.957	0.308	6.376	17.245	2.656	8.056	0.240	0.237
2030	B	60	13,149,596.0	3.033	6.289	0.668	13.718	40.903	5.719	17.209	0.494	0.525
2030	B	65	3,233,774.7	0.825	1.693	0.182	3.733	11.894	1.559	4.648	0.133	0.142
2030	B	70	2,219,138.6	0.601	1.257	0.132	2.716	8.165	1.135	3.428	0.080	0.101
	B Total		**69,946,445.1**	**19.866**	**43.247**	**4.377**	**90.267**	**155.248**	**37.485**	**116.827**	**3.262**	**3.400**
2030	C	5	12,326.3	0.016	0.058	0.004	0.079	0.043	0.031	0.140	0.003	0.003
2030	C	10	140,693.7	0.140	0.479	0.030	0.665	0.403	0.263	1.165	0.023	0.027
2030	C	15	337,308.8	0.235	0.666	0.051	1.094	0.752	0.442	1.685	0.038	0.043
2030	C	20	8,625,959.8	4.466	10.135	0.990	20.391	15.472	8.430	27.092	0.713	0.763
2030	C	25	3,687,212.9	1.441	3.162	0.316	6.556	5.770	2.720	8.526	0.232	0.247
2030	C	30	3,499,846.6	1.137	2.438	0.252	5.170	5.170	2.150	6.623	0.182	0.194
2030	C	35	7,404,620.0	1.927	4.214	0.425	8.775	11.099	3.642	11.382	0.330	0.331
2030	C	40	9,478,373.6	2.181	4.701	0.481	9.892	15.448	4.111	12.727	0.379	0.375
2030	C	45	7,394,919.5	1.578	3.356	0.345	7.147	13.775	2.983	9.127	0.268	0.264
2030	C	50	4,137,119.8	0.866	1.816	0.192	3.920	9.059	1.631	4.955	0.147	0.147
2030	C	55	6,646,127.7	1.420	2.975	0.310	6.417	17.355	2.672	8.107	0.241	0.238
2030	C	60	13,115,952.3	3.026	6.273	0.666	13.683	40.798	5.704	17.165	0.492	0.523
2030	C	65	3,244,222.5	0.828	1.699	0.183	3.745	11.932	1.564	4.663	0.133	0.143
2030	C	70	2,219,166.3	0.601	1.257	0.132	2.716	8.165	1.135	3.428	0.080	0.101
	C Total		**69,943,849.7**	**19.863**	**43.228**	**4.376**	**90.250**	**155.241**	**37.479**	**116.786**	**3.262**	**3.399**

Quantitative MSAT Analysis - Emissions Calculations by Speed Bin VMT

				MSAT Daily Emissions (pounds per day)								
Year	**Alternative**	**Speed**	**Daily VMT**	**1,3-Butadiene**	**Acetaldehyde**	**Acrolein**	**Benzene**	**DieselPM**	**Ethylbenzene**	**Formaldehyde**	**Naphthalene**	**POM**
2040	NB	5	45,077.0	0.049	0.181	0.010	0.235	0.087	0.092	0.433	0.009	0.009
2040	NB	10	214,995.5	0.168	0.616	0.035	0.800	0.364	0.315	1.475	0.030	0.029
2040	NB	15	506,819.4	0.276	0.815	0.059	1.281	0.697	0.518	2.035	0.049	0.045
2040	NB	20	9,487,486.4	3.829	8.680	0.835	17.354	10.929	7.217	23.076	0.685	0.597
2040	NB	25	4,194,189.2	1.275	2.759	0.281	5.753	4.399	2.406	7.419	0.227	0.198
2040	NB	30	4,071,121.7	1.028	2.160	0.228	4.636	4.238	1.944	5.863	0.189	0.155
2040	NB	35	8,358,948.1	1.696	3.587	0.373	7.629	9.376	3.202	9.702	0.332	0.264
2040	NB	40	10,535,220.8	1.883	3.899	0.420	8.469	13.617	3.543	10.617	0.376	0.290
2040	NB	45	8,103,875.9	1.351	2.725	0.295	6.034	12.570	2.538	7.467	0.263	0.205
2040	NB	50	4,375,207.4	0.714	1.415	0.158	3.185	8.282	1.339	3.898	0.136	0.110
2040	NB	55	7,279,442.4	1.215	2.388	0.265	5.411	16.864	2.284	6.590	0.236	0.186
2040	NB	60	12,896,980.2	2.333	4.611	0.515	10.417	36.484	4.391	12.700	0.428	0.361
2040	NB	65	3,004,115.8	0.604	1.200	0.132	2.696	10.266	1.135	3.302	0.106	0.096
2040	NB	70	2,240,735.3	0.479	0.994	0.105	2.149	7.657	0.903	2.702	0.064	0.075
	NB Total		**75,314,215.1**	**16.901**	**36.030**	**3.713**	**76.048**	**135.829**	**31.826**	**97.280**	**3.130**	**2.619**
2040	B	5	43,821.2	0.048	0.176	0.010	0.228	0.085	0.090	0.420	0.008	0.008
2040	B	10	217,506.9	0.170	0.624	0.036	0.809	0.368	0.318	1.492	0.030	0.030
2040	B	15	489,519.4	0.267	0.787	0.057	1.237	0.673	0.501	1.966	0.047	0.044
2040	B	20	9,461,722.3	3.818	8.657	0.832	17.307	10.899	7.198	23.014	0.683	0.595
2040	B	25	4,238,409.4	1.288	2.788	0.284	5.814	4.445	2.431	7.497	0.229	0.200
2040	B	30	4,091,043.2	1.033	2.170	0.229	4.659	4.259	1.954	5.892	0.190	0.156
2040	B	35	8,403,088.7	1.705	3.606	0.375	7.669	9.425	3.219	9.753	0.333	0.266
2040	B	40	10,505,968.3	1.877	3.888	0.419	8.446	13.579	3.533	10.588	0.375	0.289
2040	B	45	8,089,208.2	1.349	2.721	0.295	6.023	12.547	2.533	7.453	0.263	0.205
2040	B	50	4,351,552.1	0.710	1.408	0.157	3.167	8.238	1.331	3.877	0.136	0.110
2040	B	55	7,338,497.7	1.225	2.407	0.267	5.455	17.001	2.302	6.644	0.238	0.188
2040	B	60	12,844,114.2	2.324	4.592	0.513	10.374	36.334	4.373	12.648	0.426	0.359
2040	B	65	3,006,413.8	0.605	1.201	0.132	2.698	10.273	1.136	3.305	0.106	0.096
2040	B	70	2,239,579.4	0.479	0.993	0.105	2.148	7.653	0.902	2.701	0.064	0.075
	B Total		**75,320,444.8**	**16.898**	**36.017**	**3.712**	**76.034**	**135.780**	**31.821**	**97.249**	**3.129**	**2.619**

Quantitative MSAT Analysis - Emissions Calculations by Speed Bin VMT

				MSAT Daily Emissions (pounds per day)								
Year	**Alternative**	**Speed**	**Daily VMT**	**1,3-Butadiene**	**Acetaldehyde**	**Acrolein**	**Benzene**	**DieselPM**	**Ethylbenzene**	**Formaldehyde**	**Naphthalene**	**POM**
2040	C	5	47,254.3	0.052	0.190	0.011	0.246	0.091	0.097	0.453	0.009	0.009
2040	C	10	216,596.9	0.169	0.621	0.036	0.806	0.367	0.317	1.486	0.030	0.030
2040	C	15	502,677.3	0.274	0.808	0.059	1.271	0.691	0.514	2.018	0.049	0.045
2040	C	20	9,483,067.6	3.827	8.676	0.834	17.346	10.924	7.214	23.066	0.685	0.597
2040	C	25	4,204,868.5	1.278	2.766	0.282	5.768	4.410	2.412	7.438	0.228	0.198
2040	C	30	4,067,752.4	1.027	2.158	0.228	4.632	4.235	1.942	5.859	0.189	0.155
2040	C	35	8,423,322.1	1.709	3.615	0.376	7.687	9.448	3.226	9.777	0.334	0.266
2040	C	40	10,524,717.9	1.881	3.895	0.420	8.461	13.603	3.539	10.607	0.375	0.290
2040	C	45	8,121,704.7	1.354	2.731	0.296	6.047	12.598	2.543	7.483	0.264	0.206
2040	C	50	4,349,451.2	0.710	1.407	0.157	3.166	8.234	1.331	3.875	0.135	0.109
2040	C	55	7,374,516.7	1.231	2.419	0.269	5.482	17.084	2.314	6.676	0.239	0.189
2040	C	60	12,801,062.1	2.316	4.577	0.511	10.339	36.213	4.358	12.605	0.425	0.358
2040	C	65	2,999,669.2	0.603	1.198	0.132	2.692	10.250	1.134	3.297	0.106	0.096
2040	C	70	2,240,444.8	0.479	0.994	0.105	2.148	7.656	0.903	2.702	0.064	0.075
	C Total		**75,357,105.5**	**16.910**	**36.055**	**3.715**	**76.091**	**135.803**	**31.844**	**97.342**	**3.132**	**2.621**

Quantitative MSAT Analysis - SACOG MSAT Emission Factors

EMFAC2017 SACOG Area Emission Rates (grams per mile)

Year	Speed	1,3-Butadiene	Acetaldehyde	Acrolein	Benzene	DieselPM	Ethylbenzene	Formaldehyde	Naphthalene	POM
2017	5	0.002282487	0.011977878	0.000479293	0.011632369	0.019232334	0.004254245	0.027331374	0.00035772	0.00061232
2017	10	0.001554445	0.008895872	0.00032176	0.008039694	0.015818056	0.002891995	0.020055795	0.000252655	0.000439155
2017	15	0.001074703	0.005097843	0.000228983	0.005382133	0.011246279	0.002005981	0.011800744	0.000165778	0.000274659
2017	20	0.000787364	0.002888475	0.000173119	0.003804744	0.00809216	0.001476206	0.006987416	0.000114425	0.000177541
2017	25	0.000596561	0.002150462	0.000131476	0.00287537	0.006701022	0.00111836	0.005218459	8.64291E-05	0.000133786
2017	30	0.000496579	0.001758455	0.000109299	0.00238508	0.005926487	0.000930294	0.004279475	7.19875E-05	0.000110562
2017	35	0.000400519	0.001448299	8.78095E-05	0.001928474	0.005446896	0.000750188	0.00351014	5.87346E-05	9.08357E-05
2017	40	0.00035205	0.001245037	7.7262E-05	0.001691603	0.005256304	0.000660622	0.003030374	5.17369E-05	7.95984E-05
2017	45	0.000325785	0.001118294	7.18894E-05	0.001559034	0.005342208	0.000610699	0.00273807	4.73897E-05	7.29479E-05
2017	50	0.000318279	0.001062352	7.01927E-05	0.001517606	0.005702337	0.000596688	0.00261478	4.5694E-05	7.1448E-05
2017	55	0.000323459	0.00106864	7.16302E-05	0.001539009	0.006337996	0.000606223	0.002634607	4.63907E-05	7.26007E-05
2017	60	0.000346029	0.001105259	7.65212E-05	0.001640693	0.006808827	0.000649206	0.002744133	4.89346E-05	7.68403E-05
2017	65	0.000380716	0.001142701	8.49654E-05	0.001792582	0.006979756	0.000714859	0.002875554	5.27201E-05	8.15171E-05
2017	70	0.000397629	0.001162041	8.86591E-05	0.001867688	0.006985429	0.000747337	0.002940841	5.26555E-05	8.37559E-05
2030	5	0.000607066	0.002128607	0.000129239	0.002897827	0.001575424	0.001140864	0.005159319	9.72432E-05	0.00011726
2030	10	0.000450451	0.001542761	9.6073E-05	0.002144545	0.001297717	0.000847664	0.003755739	7.27869E-05	8.64459E-05
2030	15	0.000315654	0.000895159	6.8283E-05	0.001470693	0.001010886	0.000594663	0.002266187	5.05477E-05	5.75198E-05
2030	20	0.000234842	0.000532926	5.20659E-05	0.001072249	0.000813593	0.000443295	0.001424606	3.75034E-05	4.01416E-05
2030	25	0.000177315	0.000388987	3.88931E-05	0.000806548	0.000709752	0.000334589	0.001048884	2.85368E-05	3.03778E-05
2030	30	0.000147327	0.000315969	3.26899E-05	0.00067005	0.000670102	0.00027868	0.000858392	2.3643E-05	2.50784E-05
2030	35	0.000118068	0.000258135	2.6033E-05	0.000537556	0.000679876	0.000223129	0.000697233	2.01974E-05	2.02487E-05
2030	40	0.000104365	0.000224981	2.3033E-05	0.00047337	0.000739289	0.000196741	0.00060905	1.81536E-05	1.79454E-05
2030	45	9.68191E-05	0.00020586	2.11464E-05	0.000438407	0.000844929	0.000182977	0.000559821	1.64569E-05	1.61634E-05
2030	50	9.49763E-05	0.0001991	2.1033E-05	0.000429765	0.000993249	0.00017878	0.000543213	1.61167E-05	1.61634E-05
2030	55	9.69325E-05	0.000203068	2.11464E-05	0.000437949	0.001184485	0.000182394	0.000553295	1.64569E-05	1.62768E-05
2030	60	0.000104635	0.000216952	2.3033E-05	0.000473206	0.001410944	0.000197265	0.00059363	1.70308E-05	1.81026E-05
2030	65	0.000115721	0.000237513	2.55615E-05	0.000523625	0.001668285	0.000218643	0.000652019	1.86031E-05	1.99454E-05
2030	70	0.000122845	0.000256922	2.69548E-05	0.000555168	0.001668869	0.000232081	0.000700704	1.63996E-05	2.06421E-05
2040	5	0.000495435	0.001819573	0.000104447	0.002360975	0.000876916	0.000928772	0.004352499	8.57925E-05	8.64492E-05
2040	10	0.000354314	0.001300512	7.4539E-05	0.001687447	0.000768057	0.00066406	0.003111127	6.28743E-05	6.19319E-05
2040	15	0.000247151	0.000729321	5.29737E-05	0.001146637	0.000623438	0.000464	0.00182139	4.38933E-05	4.04219E-05
2040	20	0.000183056	0.000415004	3.98987E-05	0.000829705	0.000522502	0.000345056	0.001103265	3.27625E-05	2.85372E-05
2040	25	0.000137839	0.000298343	3.04207E-05	0.000622214	0.000475725	0.000260183	0.000802377	2.45502E-05	2.13778E-05
2040	30	0.000114576	0.000240609	2.53767E-05	0.000516527	0.000472229	0.000216601	0.000653282	2.10876E-05	1.72746E-05
2040	35	9.204E-05	0.000194647	2.02614E-05	0.000413962	0.000508762	0.000173737	0.000526482	1.79995E-05	1.43349E-05
2040	40	8.10566E-05	0.00016787	1.81021E-05	0.000364644	0.000586276	0.000152535	0.000457128	1.61754E-05	1.2478E-05
2040	45	7.56215E-05	0.000152549	1.65209E-05	0.000337715	0.000703564	0.000142041	0.000417939	1.47207E-05	1.1478E-05
2040	50	7.40566E-05	0.000146724	1.63778E-05	0.000330166	0.000858663	0.000138778	0.000404112	1.41285E-05	1.14185E-05
2040	55	7.5738E-05	0.0001488	1.65209E-05	0.000337191	0.001050803	0.0001423	0.000410653	1.47207E-05	1.15944E-05
2040	60	8.20566E-05	0.000162181	1.81021E-05	0.000366355	0.001283156	0.000154435	0.00044665	1.50559E-05	1.26942E-05
2040	65	9.12039E-05	0.000181148	1.99834E-05	0.000406998	0.001549991	0.000171408	0.000498582	1.59802E-05	1.44513E-05
2040	70	9.69443E-05	0.000201182	2.12623E-05	0.000434969	0.001549991	0.00018274	0.000546966	1.29568E-05	1.5149E-05

SACOG Region Vehicle Miles Traveled Distribution

Year	County	Daily VMT	Proportion SACOG VMT
2017	El Dorado (MC) Total	4,085,784	6.5%
	Placer (MC) Total	2,719,766	15.2%
	Placer (SV) Total	6,860,744	
	Sacramento (SV) Total	37,153,060	58.8%
	Sutter (SV) Total	3,618,574	8.8%
	Yolo (SV) Total	6,796,223	10.8%
	Yuba (SV) Total	1,936,842	included with Sutter
2030	El Dorado (MC) Total	4,493,261	6.1%
	Placer (MC) Total	3,249,497	15.7%
	Placer (SV) Total	8,355,539	
	Sacramento (SV) Total	43,068,139	58.3%
	Sutter (SV) Total	4,118,166	8.5%
	Yolo (SV) Total	8,373,316	11.3%
	Yuba (SV) Total	2,180,040	included with Sutter
2040	El Dorado (MC) Total	4,871,959	5.9%
	Placer (MC) Total	3,649,339	15.9%
	Placer (SV) Total	9,404,458	
	Sacramento (SV) Total	47,620,436	58.1%
	Sutter (SV) Total	4,496,168	8.4%
	Yolo (SV) Total	9,538,195	11.6%
	Yuba (SV) Total	2,352,179	included with Sutter

CT-EMFAC2017 Output Files

Yuba-Sutter

FileName:	Yuba(SV)-2017-Annual.EF
CT-EMFAC2017Version:	1.0.2.27401
RunDate:	4/27/20218:51:58PM
Area:	Yuba(SV)
AnalysisYear:	2017
Season:	Annual

VehicleCategory	VMTFraction AcrossCategory	DieselVMT WithinCate	GasVMTFraction WithinCategory
Truck1	0.068	0.702	0.298
Truck2	0.023	0.954	0.046
Non-Truck	0.909	0.016	0.983

PollutantN	1,3-Butadi	Acetaldehy	Acrolein	Benzene	DieselPM	Ethylbenze	Formaldeh	Naphthale	POM
<=5mph	0.003277	0.012264	0.00072	0.015901	0.021685	0.006143	0.029584	0.000452	0.00074
10mph	0.002177	0.008985	0.000473	0.0107	0.017485	0.004075	0.021294	0.000308	0.000518
15mph	0.00146	0.005325	0.000321	0.007055	0.012443	0.002737	0.012901	0.000201	0.000328
20mph	0.001037	0.003123	0.000232	0.004904	0.008972	0.001949	0.007874	0.000136	0.000214
25mph	0.000788	0.002341	0.000177	0.003719	0.007393	0.001481	0.005918	0.000103	0.000162
30mph	0.000631	0.001914	0.000141	0.002983	0.006438	0.001185	0.004815	0.000083	0.000131
35mph	0.000531	0.001617	0.000119	0.002511	0.005787	0.000997	0.004063	0.00007	0.000111
40mph	0.000468	0.001419	0.000105	0.002213	0.005416	0.00088	0.00357	0.000062	0.000098
45mph	0.000434	0.001303	0.000097	0.002048	0.005311	0.000815	0.003284	0.000057	0.000091
50mph	0.000423	0.00126	0.000095	0.001994	0.00546	0.000794	0.00318	0.000056	0.000088
55mph	0.000432	0.001286	0.000097	0.002037	0.005859	0.000812	0.003247	0.000057	0.00009
60mph	0.000462	0.001327	0.000104	0.002168	0.006149	0.000868	0.003375	0.000061	0.000095
65mph	0.000517	0.001375	0.000116	0.002406	0.006238	0.000971	0.00356	0.000067	0.000102
70mph	0.000517	0.001377	0.000116	0.002406	0.006238	0.000971	0.003563	0.000067	0.000102
75mph	0.000517	0.001379	0.000116	0.002407	0.006238	0.000971	0.003567	0.000067	0.000102

FleetAverageRunningExhaustEmissionFactors(grams/veh-mile)

PollutantName	<=5mph	10mph	15mph	20mph	25mph	30mph	35mph	40mph	45mph	50mph	55mph	60mph	65mph	70mph
1,3-Butadiene	0.003277	0.002177	0.00146	0.001037	0.000788	0.000631	0.000531	0.000468	0.000434	0.000423	0.000432	0.000462	0.000517	0.000517
Acetaldehyde	0.012264	0.008985	0.005325	0.003123	0.002341	0.001914	0.001617	0.001419	0.001303	0.00126	0.001286	0.001327	0.001375	0.001377
Acrolein	0.00072	0.000473	0.000321	0.000232	0.000177	0.000141	0.000119	0.000105	0.000097	0.000095	0.000097	0.000104	0.000116	0.000116
Benzene	0.015901	0.0107	0.007055	0.004904	0.003719	0.002983	0.002511	0.002213	0.002048	0.001994	0.002037	0.002168	0.002406	0.002406
DieselPM	0.021685	0.017485	0.012443	0.008972	0.007393	0.006438	0.005787	0.005416	0.005311	0.00546	0.005859	0.006149	0.006238	0.006238
Ethylbenzene	0.006143	0.004075	0.002737	0.001949	0.001481	0.001185	0.000997	0.00088	0.000815	0.000794	0.000812	0.000868	0.000971	0.000971
Formaldehyde	0.029584	0.021294	0.012901	0.007874	0.005918	0.004815	0.004063	0.00357	0.003284	0.00318	0.003247	0.003375	0.00356	0.003563
Naphthalene	0.000452	0.000308	0.000201	0.000136	0.000103	0.000083	0.00007	0.000062	0.000057	0.000056	0.000057	0.000061	0.000067	0.000067
POM	0.00074	0.000518	0.000328	0.000214	0.000162	0.000131	0.000111	0.000098	0.000091	0.000088	0.00009	0.000095	0.000102	0.000102
DEOG	0.136555	0.102349	0.058793	0.032614	0.024317	0.019997	0.016905	0.014798	0.013536	0.013046	0.013299	0.013533	0.013612	0.013634

==========END==========

CT-EMFAC2017 Output Files

FileName:	Yuba(SV)-2030-Annual.EF
CT-EMFAC2017Version:	1.0.2.27401
RunDate:	4/27/20218:52:36PM
Area:	Yuba(SV)
AnalysisYear:	2030
Season:	Annual

VehicleCategory	VMTFraction AcrossCategory	DieselVMT WithinCate	GasVMTFraction WithinCategory
Truck1	0.03	0.654	0.346
Truck2	0.022	0.935	0.064
Non-Truck	0.948	0.019	0.948

PollutantN	1,3-Butadi	Acetaldehy	Acrolein	Benzene	DieselPM	Ethylbenze	Formaldeh	Naphthale	POM
<=5mph	0.000552	0.002305	0.000116	0.002705	0.002179	0.001037	0.005425	0.000082	0.000115
10mph	0.000535	0.001811	0.000114	0.00255	0.001729	0.001007	0.004426	0.000075	0.000104
15mph	0.00036	0.001065	0.000078	0.001691	0.001327	0.000679	0.002677	0.000049	0.000067
20mph	0.000255	0.000622	0.000056	0.001174	0.001032	0.000481	0.001636	0.000034	0.000045
25mph	0.000193	0.000463	0.000042	0.000886	0.0009	0.000364	0.001222	0.000025	0.000034
30mph	0.000154	0.000371	0.000034	0.000707	0.000799	0.00029	0.000978	0.00002	0.000027
35mph	0.000129	0.00031	0.000028	0.000592	0.000737	0.000243	0.000818	0.000017	0.000023
40mph	0.000114	0.000272	0.000025	0.000522	0.000722	0.000214	0.000718	0.000015	0.00002
45mph	0.000105	0.000251	0.000023	0.000484	0.000753	0.000199	0.000662	0.000014	0.000018
50mph	0.000103	0.000242	0.000023	0.000472	0.000816	0.000194	0.000642	0.000014	0.000018
55mph	0.000105	0.000245	0.000023	0.000483	0.000905	0.000199	0.000652	0.000014	0.000018
60mph	0.000114	0.000255	0.000025	0.000518	0.001012	0.000214	0.000683	0.000015	0.00002
65mph	0.000128	0.000271	0.000028	0.000581	0.001129	0.000242	0.000739	0.000017	0.000022
70mph	0.000128	0.000276	0.000028	0.000583	0.001129	0.000242	0.000749	0.000017	0.000022
75mph	0.000128	0.000283	0.000028	0.000585	0.001129	0.000242	0.000762	0.000017	0.000022

FleetAverageRunningExhaustEmissionFactors(grams/veh-mile)

PollutantName	<=5mph	10mph	15mph	20mph	25mph	30mph	35mph	40mph	45mph	50mph	55mph	60mph	65mph	70mph
1,3-Butadiene	0.000552	0.000535	0.00036	0.000255	0.000193	0.000154	0.000129	0.000114	0.000105	0.000103	0.000105	0.000114	0.000128	0.000128
Acetaldehyde	0.002305	0.001811	0.001065	0.000622	0.000463	0.000371	0.00031	0.000272	0.000251	0.000242	0.000245	0.000255	0.000271	0.000276
Acrolein	0.000116	0.000114	0.000078	0.000056	0.000042	0.000034	0.000028	0.000025	0.000023	0.000023	0.000023	0.000025	0.000028	0.000028
Benzene	0.002705	0.00255	0.001691	0.001174	0.000886	0.000707	0.000592	0.000522	0.000484	0.000472	0.000483	0.000518	0.000581	0.000583
DieselPM	0.002179	0.001729	0.001327	0.001032	0.0009	0.000799	0.000737	0.000722	0.000753	0.000816	0.000905	0.001012	0.001129	0.001129
Ethylbenzene	0.001037	0.001007	0.000679	0.000481	0.000364	0.00029	0.000243	0.000214	0.000199	0.000194	0.000199	0.000214	0.000242	0.000242
Formaldehyde	0.005425	0.004426	0.002677	0.001636	0.001222	0.000978	0.000818	0.000718	0.000662	0.000642	0.000652	0.000683	0.000739	0.000749
Naphthalene	0.000082	0.000075	0.000049	0.000034	0.000025	0.00002	0.000017	0.000015	0.000014	0.000014	0.000014	0.000015	0.000017	0.000017
POM	0.000115	0.000104	0.000067	0.000045	0.000034	0.000027	0.000023	0.00002	0.000018	0.000018	0.000018	0.00002	0.000022	0.000022
DEOG	0.025918	0.019226	0.010789	0.005792	0.004273	0.003429	0.002858	0.002494	0.002286	0.002195	0.002206	0.002243	0.002303	0.002374

==========END==========

CT-EMFAC2017 Output Files

FileName:	Yuba(SV)-2040-Annual.EF
CT-EMFAC2017Version:	1.0.2.27401
RunDate:	4/27/20218:52:54PM
Area:	Yuba(SV)
AnalysisYear:	2040
Season:	Annual

VehicleCategory	VMTFraction AcrossCategory	DieselVMT WithinCate	GasVMTFraction WithinCategory
Truck1	0.021	0.589	0.411
Truck2	0.023	0.934	0.066
Non-Truck	0.956	0.02	0.934

PollutantN	1,3-Butadi	Acetaldehy	Acrolein	Benzene	DieselPM	Ethylbenze	Formaldeh	Naphthale	POM
<=5mph	0.000567	0.00171	0.000122	0.002643	0.000784	0.001066	0.004254	0.000081	0.000095
10mph	0.000368	0.001205	0.000079	0.001732	0.000666	0.000691	0.002948	0.000053	0.000063
15mph	0.000247	0.000681	0.000053	0.00114	0.000544	0.000464	0.001728	0.000035	0.00004
20mph	0.000174	0.000371	0.000038	0.000785	0.000437	0.000328	0.001004	0.000023	0.000027
25mph	0.000131	0.000274	0.000029	0.000592	0.000423	0.000248	0.000746	0.000018	0.00002
30mph	0.000104	0.000216	0.000023	0.00047	0.000394	0.000197	0.00059	0.000014	0.000016
35mph	0.000088	0.000178	0.000019	0.000393	0.000379	0.000165	0.000487	0.000012	0.000013
40mph	0.000077	0.000153	0.000017	0.000346	0.000396	0.000145	0.000423	0.00001	0.000012
45mph	0.000072	0.00014	0.000016	0.000321	0.000445	0.000135	0.000387	0.00001	0.000011
50mph	0.00007	0.000133	0.000015	0.000312	0.000513	0.000132	0.000372	0.000009	0.000011
55mph	0.000072	0.000133	0.000016	0.000321	0.000596	0.000136	0.000375	0.00001	0.000011
60mph	0.000078	0.000141	0.000017	0.000346	0.000705	0.000146	0.000399	0.00001	0.000012
65mph	0.000088	0.000154	0.00002	0.000392	0.000828	0.000166	0.000442	0.000012	0.000013
70mph	0.000088	0.00016	0.00002	0.000393	0.000828	0.000167	0.000454	0.000012	0.000013
75mph	0.000089	0.000168	0.00002	0.000395	0.000828	0.000167	0.000469	0.000012	0.000013

FleetAverageRunningExhaustEmissionFactors(grams/veh-mile)

PollutantName	<=5mph	10mph	15mph	20mph	25mph	30mph	35mph	40mph	45mph	50mph	55mph	60mph	65mph	70mph
1,3-Butadiene	0.000567	0.000368	0.000247	0.000174	0.000131	0.000104	0.000088	0.000077	0.000072	0.00007	0.000072	0.000078	0.000088	0.000088
Acetaldehyde	0.00171	0.001205	0.000681	0.000371	0.000274	0.000216	0.000178	0.000153	0.00014	0.000133	0.000133	0.000141	0.000154	0.00016
Acrolein	0.000122	0.000079	0.000053	0.000038	0.000029	0.000023	0.000019	0.000017	0.000016	0.000015	0.000016	0.000017	0.00002	0.00002
Benzene	0.002643	0.001732	0.00114	0.000785	0.000592	0.00047	0.000393	0.000346	0.000321	0.000312	0.000321	0.000346	0.000392	0.000393
DieselPM	0.000784	0.000666	0.000544	0.000437	0.000423	0.000394	0.000379	0.000396	0.000445	0.000513	0.000596	0.000705	0.000828	0.000828
Ethylbenzene	0.001066	0.000691	0.000464	0.000328	0.000248	0.000197	0.000165	0.000145	0.000135	0.000132	0.000136	0.000146	0.000166	0.000167
Formaldehyde	0.004254	0.002948	0.001728	0.001004	0.000746	0.00059	0.000487	0.000423	0.000387	0.000372	0.000375	0.000399	0.000442	0.000454
Naphthalene	0.000081	0.000053	0.000035	0.000023	0.000018	0.000014	0.000012	0.00001	0.00001	0.000009	0.00001	0.00001	0.000012	0.000012
POM	0.000095	0.000063	0.00004	0.000027	0.00002	0.000016	0.000013	0.000012	0.000011	0.000011	0.000011	0.000012	0.000013	0.000013
DEOG	0.017056	0.01238	0.006533	0.003085	0.002242	0.001759	0.001422	0.001208	0.001082	0.001013	0.000987	0.001022	0.001083	0.001164

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CT-EMFAC2017 Output Files

Yolo

FileName:	Yolo(SV)-2017-Annual.EF
CT-EMFAC2017Ver	1.0.2.27401
RunDate:	4/27/20218:50:20PM
Area:	Yolo(SV)
AnalysisYear:	2017
Season:	Annual

VehicleCategory	VMTFraction AcrossCateg	DieselVMTFr WithinCateg	GasVMTFraction WithinCategory
Truck1	0.05	0.561	0.439
Truck2	0.07	0.975	0.024
Non-Truck	0.88	0.013	0.982

PollutantNar	1,3-Butadien	Acetaldehyd	Acrolein	Benzene	DieselPM	Ethylbenzen	Formaldehyc	Naphthalene	POM
<=5mph	0.002345	0.01532	0.000473	0.012421	0.024825	0.004348	0.033956	0.00041	0.000722
10mph	0.001558	0.011388	0.000306	0.008445	0.020584	0.00288	0.024926	0.000287	0.000517
15mph	0.001026	0.006376	0.000209	0.005377	0.014664	0.001904	0.014212	0.000181	0.00031
20mph	0.000711	0.00348	0.00015	0.003574	0.010562	0.001327	0.00801	0.000118	0.000189
25mph	0.000539	0.002583	0.000114	0.002697	0.00879	0.001005	0.005964	0.000089	0.000143
30mph	0.000431	0.002097	0.000091	0.002161	0.007813	0.000803	0.004829	0.000072	0.000116
35mph	0.000361	0.00174	0.000076	0.001808	0.007232	0.000673	0.004013	0.000061	0.000097
40mph	0.000318	0.00149	0.000067	0.001583	0.007029	0.000593	0.003449	0.000053	0.000085
45mph	0.000293	0.00133	0.000063	0.001454	0.007195	0.000547	0.003096	0.000048	0.000078
50mph	0.000285	0.001255	0.000061	0.001407	0.007729	0.000532	0.002935	0.000046	0.000076
55mph	0.000291	0.001258	0.000062	0.00143	0.008629	0.000543	0.002948	0.000047	0.000077
60mph	0.00031	0.001297	0.000067	0.00152	0.009288	0.00058	0.003058	0.000049	0.000081
65mph	0.000347	0.00134	0.000075	0.001682	0.009508	0.00065	0.003204	0.000053	0.000087
70mph	0.000373	0.001368	0.000082	0.001795	0.009517	0.000699	0.003301	0.000053	0.00009
75mph	0.000373	0.001376	0.000082	0.001797	0.009517	0.000699	0.003317	0.000053	0.000091

FleetAverageRunningExhaustEmissionFactors(grams/veh-mile)

PollutantName	<=5mph	10mph	15mph	20mph	25mph	30mph	35mph	40mph	45mph	50mph	55mph	60mph	65mph	70mph
1,3-Butadiene	0.002345	0.001558	0.001026	0.000711	0.000539	0.000431	0.000361	0.000318	0.000293	0.000285	0.000291	0.00031	0.000347	0.000373
Acetaldehyde	0.01532	0.011388	0.006376	0.00348	0.002583	0.002097	0.00174	0.00149	0.00133	0.001255	0.001258	0.001297	0.00134	0.001368
Acrolein	0.000473	0.000306	0.000209	0.00015	0.000114	0.000091	0.000076	0.000067	0.000063	0.000061	0.000062	0.000067	0.000075	0.000082
Benzene	0.012421	0.008445	0.005377	0.003574	0.002697	0.002161	0.001808	0.001583	0.001454	0.001407	0.00143	0.00152	0.001682	0.001795
DieselPM	0.024825	0.020584	0.014664	0.010562	0.00879	0.007813	0.007232	0.007029	0.007195	0.007729	0.008629	0.009288	0.009508	0.009517
Ethylbenzene	0.004348	0.00288	0.001904	0.001327	0.001005	0.000803	0.000673	0.000593	0.000547	0.000532	0.000543	0.00058	0.00065	0.000699
Formaldehyde	0.033956	0.024926	0.014212	0.00801	0.005964	0.004829	0.004013	0.003449	0.003096	0.002935	0.002948	0.003058	0.003204	0.003301
Naphthalene	0.00041	0.000287	0.000181	0.000118	0.000089	0.000072	0.000061	0.000053	0.000048	0.000046	0.000047	0.000049	0.000053	0.000053
POM	0.000722	0.000517	0.00031	0.000189	0.000143	0.000116	0.000097	0.000085	0.000078	0.000076	0.000077	0.000081	0.000087	0.00009
DEOG	0.188127	0.141736	0.077697	0.040798	0.030165	0.02454	0.020318	0.017294	0.01534	0.014376	0.014341	0.014664	0.014865	0.014965

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CT-EMFAC2017 Output Files

FileName:	Yolo(SV)-2030-Annual.EF
CT-EMFAC2017Ver	1.0.2.27401
RunDate:	4/27/20218:50:45PM
Area:	Yolo(SV)
AnalysisYear:	2030
Season:	Annual

VehicleCategory	VMTFraction AcrossCateg	DieselVMTFr WithinCateg	GasVMTFraction WithinCategory
Truck1	0.026	0.567	0.433
Truck2	0.103	0.982	0.015
Non-Truck	0.871	0.015	0.948

FleetAverageRunningExhaustEmissionFactors(grams/veh-mile)

PollutantNar	1,3-Butadien	Acetaldehyd	Acrolein	Benzene	DieselPM	Ethylbenzen	Formaldehyc	Naphthalene	POM
<=5mph	0.00046	0.00213	0.000095	0.002276	0.001619	0.00086	0.004918	0.000085	0.000096
10mph	0.000444	0.00162	0.000094	0.002125	0.001355	0.000833	0.003892	0.000076	0.000086
15mph	0.000298	0.000925	0.000064	0.001398	0.001071	0.00056	0.002294	0.000052	0.000055
20mph	0.00021	0.000547	0.000046	0.00097	0.000881	0.000396	0.001412	0.000039	0.000037
25mph	0.000159	0.000402	0.000035	0.00073	0.000785	0.000299	0.001043	0.000026	0.000028
30mph	0.000126	0.000321	0.000028	0.000581	0.000765	0.000238	0.000833	0.000021	0.000022
35mph	0.000106	0.000267	0.000023	0.000487	0.000814	0.0002	0.000694	0.000021	0.000019
40mph	0.000093	0.000233	0.00002	0.000429	0.000927	0.000176	0.000607	0.00002	0.000017
45mph	0.000086	0.000213	0.000019	0.000396	0.001103	0.000163	0.000556	0.000018	0.000015
50mph	0.000084	0.000206	0.000018	0.000387	0.001337	0.000159	0.000539	0.000015	0.000015
55mph	0.000087	0.000212	0.000019	0.000397	0.001633	0.000163	0.000555	0.000018	0.000016
60mph	0.000094	0.00023	0.00002	0.000429	0.001982	0.000177	0.0006	0.000019	0.000017
65mph	0.000106	0.000258	0.000023	0.000486	0.002383	0.0002	0.000675	0.00002	0.000019
70mph	0.000116	0.000286	0.000025	0.000529	0.002383	0.000218	0.000746	0.000016	0.00002
75mph	0.000116	0.000313	0.000025	0.000536	0.002383	0.000219	0.000799	0.000016	0.000021

PollutantName	<=5mph	10mph	15mph	20mph	25mph	30mph	35mph	40mph	45mph	50mph	55mph	60mph	65mph	70mph
1,3-Butadiene	0.00046	0.000444	0.000298	0.00021	0.000159	0.000126	0.000106	0.000093	0.000086	0.000084	0.000087	0.000094	0.000106	0.000116
Acetaldehyde	0.00213	0.00162	0.000925	0.000547	0.000402	0.000321	0.000267	0.000233	0.000213	0.000206	0.000212	0.00023	0.000258	0.000286
Acrolein	0.000095	0.000094	0.000064	0.000046	0.000035	0.000028	0.000023	0.00002	0.000019	0.000018	0.000019	0.00002	0.000023	0.000025
Benzene	0.002276	0.002125	0.001398	0.00097	0.00073	0.000581	0.000487	0.000429	0.000396	0.000387	0.000397	0.000429	0.000486	0.000529
DieselPM	0.001619	0.001355	0.001071	0.000881	0.000785	0.000765	0.000814	0.000927	0.001103	0.001337	0.001633	0.001982	0.002383	0.002383
Ethylbenzene	0.00086	0.000833	0.00056	0.000396	0.000299	0.000238	0.0002	0.000176	0.000163	0.000159	0.000163	0.000177	0.0002	0.000218
Formaldehyde	0.004918	0.003892	0.002294	0.001412	0.001043	0.000833	0.000694	0.000607	0.000556	0.000539	0.000555	0.0006	0.000675	0.000746
Naphthalene	0.000085	0.000076	0.000052	0.000039	0.000026	0.000021	0.000021	0.00002	0.000018	0.000015	0.000018	0.000019	0.00002	0.000016
POM	0.000096	0.000086	0.000055	0.000037	0.000028	0.000022	0.000019	0.000017	0.000015	0.000015	0.000016	0.000017	0.000019	0.00002
DEOG	0.024337	0.017417	0.009434	0.005178	0.003751	0.003	0.002486	0.002146	0.00195	0.00188	0.001936	0.002093	0.002332	0.002624

END

CT-EMFAC2017 Output Files

FileName:	Yolo(SV)-2040-Annual.EF
CT-EMFAC2017Ver	1.0.2.27401
RunDate:	4/27/20218:51:39PM
Area:	Yolo(SV)
AnalysisYear:	2040
Season:	Annual

VehicleCategory	VMTFraction AcrossCateg	DieselVMTFr WithinCateg	GasVMTFraction WithinCategory
Truck1	0.022	0.558	0.442
Truck2	0.108	0.982	0.015
Non-Truck	0.87	0.015	0.937

PollutantNar	1,3-Butadien	Acetaldehyd	Acrolein	Benzene	DieselPM	Ethylbenzen	Formaldehyc	Naphthalene	POM
<=5mph	0.000372	0.001856	0.000075	0.001853	0.001086	0.000694	0.004229	0.000077	0.000071
10mph	0.000359	0.001401	0.000075	0.001724	0.000956	0.000673	0.003314	0.000068	0.000063
15mph	0.00024	0.000779	0.000051	0.001126	0.000774	0.00045	0.001907	0.000047	0.00004
20mph	0.000169	0.000447	0.000037	0.000776	0.000653	0.000318	0.001144	0.000036	0.000027
25mph	0.000127	0.000325	0.000028	0.000582	0.000604	0.000239	0.000839	0.000023	0.00002
30mph	0.000101	0.000259	0.000022	0.000463	0.000616	0.00019	0.000667	0.000019	0.000016
35mph	0.000085	0.000214	0.000018	0.000388	0.000688	0.00016	0.000553	0.00002	0.000014
40mph	0.000075	0.000185	0.000016	0.000342	0.000821	0.000141	0.000481	0.000019	0.000012
45mph	0.000069	0.000168	0.000015	0.000315	0.001013	0.00013	0.000439	0.000017	0.000011
50mph	0.000068	0.000162	0.000015	0.000307	0.001263	0.000127	0.000425	0.000014	0.000011
55mph	0.00007	0.000168	0.000015	0.000316	0.00157	0.000131	0.000438	0.000017	0.000012
60mph	0.000076	0.000185	0.000016	0.000344	0.001936	0.000142	0.000481	0.000018	0.000013
65mph	0.000086	0.000212	0.000019	0.000391	0.002358	0.000162	0.00055	0.000019	0.000015
70mph	0.000094	0.000241	0.00002	0.000428	0.002358	0.000176	0.000619	0.000013	0.000016
75mph	0.000094	0.00027	0.00002	0.000435	0.002358	0.000177	0.000677	0.000013	0.000016

FleetAverageRunningExhaustEmissionFactors(grams/veh-mile)

PollutantName	<=5mph	10mph	15mph	20mph	25mph	30mph	35mph	40mph	45mph	50mph	55mph	60mph	65mph	70mph
1,3-Butadiene	0.000372	0.000359	0.00024	0.000169	0.000127	0.000101	0.000085	0.000075	0.000069	0.000068	0.00007	0.000076	0.000086	0.000094
Acetaldehyde	0.001856	0.001401	0.000779	0.000447	0.000325	0.000259	0.000214	0.000185	0.000168	0.000162	0.000168	0.000185	0.000212	0.000241
Acrolein	0.000075	0.000075	0.000051	0.000037	0.000028	0.000022	0.000018	0.000016	0.000015	0.000015	0.000015	0.000016	0.000019	0.00002
Benzene	0.001853	0.001724	0.001126	0.000776	0.000582	0.000463	0.000388	0.000342	0.000315	0.000307	0.000316	0.000344	0.000391	0.000428
DieselPM	0.001086	0.000956	0.000774	0.000653	0.000604	0.000616	0.000688	0.000821	0.001013	0.001263	0.00157	0.001936	0.002358	0.002358
Ethylbenzene	0.000694	0.000673	0.00045	0.000318	0.000239	0.00019	0.00016	0.000141	0.00013	0.000127	0.000131	0.000142	0.000162	0.000176
Formaldehyde	0.004229	0.003314	0.001907	0.001144	0.000839	0.000667	0.000553	0.000481	0.000439	0.000425	0.000438	0.000481	0.00055	0.000619
Naphthalene	0.000077	0.000068	0.000047	0.000036	0.000023	0.000019	0.00002	0.000019	0.000017	0.000014	0.000017	0.000018	0.000019	0.000013
POM	0.000071	0.000063	0.00004	0.000027	0.00002	0.000016	0.000014	0.000012	0.000011	0.000011	0.000012	0.000013	0.000015	0.000016
DEOG	0.021356	0.015162	0.007945	0.004179	0.002986	0.002372	0.001947	0.001664	0.001498	0.001437	0.001483	0.001647	0.001894	0.002212

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CT-EMFAC2017 Output Files

Sacramento

FileName:	Sacramento(SV)-2017-Annual.EF			PollutantN	1,3-Butadi	Acetaldehy	Acrolein	Benzene	DieselPM	Ethylbenze	Formaldeh	Naphthaler	POM	DEOG
CT-EMFAC2017Version:	1.0.2.27401			<=5mph	0.002341	0.010064	0.000506	0.011584	0.016128	0.00438	0.023701	0.000346	0.000574	0.115887
RunDate:	4/27/20218:47:26PM			10mph	0.00154	0.007417	0.000328	0.00775	0.013278	0.002876	0.017149	0.000238	0.000402	0.087231
Area:	Sacramento(SV)			15mph	0.001029	0.004207	0.000224	0.005052	0.009388	0.001926	0.009989	0.000153	0.000248	0.04787
AnalysisYear:	2017			20mph	0.000721	0.002343	0.000161	0.003443	0.006703	0.001355	0.005816	0.000103	0.000157	0.025126
Season:	Annual			25mph	0.000545	0.001743	0.000122	0.002597	0.005534	0.001024	0.00434	0.000078	0.000118	0.018584
				30mph	0.000436	0.001414	0.000097	0.002077	0.004884	0.000818	0.003508	0.000063	0.000095	0.01513
==========	==========	==========	==========	35mph	0.000365	0.001176	0.000081	0.001737	0.004487	0.000685	0.002921	0.000053	0.00008	0.012552
				40mph	0.00032	0.001012	0.000071	0.001522	0.004328	0.000602	0.002524	0.000047	0.00007	0.01072
VehicleCategory	VMTFractic	DieselVMT	GasVMTFraction	45mph	0.000296	0.00091	0.000066	0.001403	0.004401	0.000556	0.002284	0.000043	0.000064	0.009555
	AcrossCate	WithinCate	WithinCategory	50mph	0.000288	0.000865	0.000064	0.001361	0.004705	0.000541	0.002181	0.000041	0.000063	0.009006
Truck1	0.041	0.478	0.522	55mph	0.000294	0.000873	0.000066	0.001386	0.005242	0.000552	0.002205	0.000042	0.000064	0.009041
Truck2	0.038	0.903	0.088	60mph	0.000314	0.000904	0.00007	0.001476	0.005628	0.00059	0.0023	0.000044	0.000068	0.009255
Non-Truck	0.921	0.009	0.986	65mph	0.000353	0.000941	0.00008	0.001646	0.005743	0.000664	0.002438	0.000048	0.000073	0.009363
				70mph	0.000377	0.000965	0.000085	0.001752	0.005751	0.00071	0.002524	0.000048	0.000076	0.009417
==========	==========	==========	==========	75mph	0.000377	0.000969	0.000085	0.001753	0.005751	0.00071	0.002532	0.000049	0.000076	0.009467

FleetAverageRunningExhaustEmissionFactors(grams/veh-mile)

PollutantName	<=5mph	10mph	15mph	20mph	25mph	30mph	35mph	40mph	45mph	50mph	55mph	60mph	65mph	70mph	75mph
1,3-Butadiene	0.002341	0.00154	0.001029	0.000721	0.000545	0.000436	0.000365	0.00032	0.000296	0.000288	0.000294	0.000314	0.000353	0.000377	0.000377
Acetaldehyde	0.010064	0.007417	0.004207	0.002343	0.001743	0.001414	0.001176	0.001012	0.00091	0.000865	0.000873	0.000904	0.000941	0.000965	0.000969
Acrolein	0.000506	0.000328	0.000224	0.000161	0.000122	0.000097	0.000081	0.000071	0.000066	0.000064	0.000066	0.00007	0.00008	0.000085	0.000085
Benzene	0.011584	0.00775	0.005052	0.003443	0.002597	0.002077	0.001737	0.001522	0.001403	0.001361	0.001386	0.001476	0.001646	0.001752	0.001753
DieselPM	0.016128	0.013278	0.009388	0.006703	0.005534	0.004884	0.004487	0.004328	0.004401	0.004705	0.005242	0.005628	0.005743	0.005751	0.005751
Ethylbenzene	0.00438	0.002876	0.001926	0.001355	0.001024	0.000818	0.000685	0.000602	0.000556	0.000541	0.000552	0.00059	0.000664	0.00071	0.00071
Formaldehyde	0.023701	0.017149	0.009989	0.005816	0.00434	0.003508	0.002921	0.002524	0.002284	0.002181	0.002205	0.0023	0.002438	0.002524	0.002532
Naphthalene	0.000346	0.000238	0.000153	0.000103	0.000078	0.000063	0.000053	0.000047	0.000043	0.000041	0.000042	0.000044	0.000048	0.000048	0.000049
POM	0.000574	0.000402	0.000248	0.000157	0.000118	0.000095	0.00008	0.00007	0.000064	0.000063	0.000064	0.000068	0.000073	0.000076	0.000076
DEOG	0.115887	0.087231	0.04787	0.025126	0.018584	0.01513	0.012552	0.01072	0.009555	0.009006	0.009041	0.009255	0.009363	0.009417	0.009467

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==========END==========

CT-EMFAC2017 Output Files

FileName:	Sacramento(SV)-2030-MSATI.EF
CT-EMFAC2017Version:	1.0.2.27401
RunDate:	4/27/20218:48:10PM
Area:	Sacramento(SV)
AnalysisYear:	2030
Season:	Annual

VehicleCategory	VMTFractio AcrossCate	DieselVMT WithinCate	GasVMTFraction WithinCategory
Truck1	0.026	0.537	0.463
Truck2	0.042	0.936	0.046
Non-Truck	0.932	0.014	0.946

PollutantN	1,3-Butadi	Acetaldehy	Acrolein	Benzene	DieselPM	Ethylbenze	Formaldeh	Naphthaler	POM	DEOG
<=5mph	0.000727	0.00202	0.000158	0.003384	0.001282	0.00137	0.005142	0.000114	0.000133	0.019847
10mph	0.000472	0.001416	0.000102	0.002215	0.001063	0.00089	0.003543	0.000078	0.000088	0.014324
15mph	0.000317	0.000808	0.000069	0.001463	0.000826	0.000598	0.002098	0.000053	0.000057	0.007627
20mph	0.000224	0.000464	0.00005	0.001016	0.000661	0.000423	0.001272	0.000038	0.000038	0.003888
25mph	0.000169	0.000335	0.000037	0.000763	0.000571	0.000319	0.00093	0.00003	0.000029	0.002724
30mph	0.000134	0.000266	0.00003	0.000607	0.000534	0.000254	0.00074	0.000024	0.000023	0.002162
35mph	0.000112	0.000221	0.000025	0.000507	0.000535	0.000212	0.000615	0.000021	0.000019	0.001782
40mph	0.000099	0.000192	0.000022	0.000446	0.000572	0.000187	0.000536	0.000019	0.000017	0.001529
45mph	0.000092	0.000175	0.00002	0.000413	0.000642	0.000174	0.000492	0.000017	0.000015	0.001374
50mph	0.00009	0.000168	0.00002	0.000403	0.000743	0.000169	0.000474	0.000017	0.000015	0.001304
55mph	0.000092	0.000171	0.00002	0.000412	0.000876	0.000173	0.000482	0.000017	0.000015	0.00131
60mph	0.000099	0.000182	0.000022	0.000445	0.001034	0.000187	0.000517	0.000017	0.000017	0.00138
65mph	0.000112	0.000201	0.000025	0.000503	0.001212	0.000212	0.000575	0.000019	0.000019	0.00149
70mph	0.000122	0.000219	0.000027	0.000546	0.001213	0.000231	0.000625	0.000016	0.00002	0.00162
75mph	0.000122	0.00023	0.000027	0.00055	0.001213	0.000231	0.000648	0.000016	0.00002	0.001778

FleetAverageRunningExhaustEmissionFactors(grams/veh-mile)

PollutantName	<=5mph	10mph	15mph	20mph	25mph	30mph	35mph	40mph	45mph	50mph	55mph	60mph	65mph	70mph	75mph
1,3-Butadiene	0.000727	0.000472	0.000317	0.000224	0.000169	0.000134	0.000112	0.000099	0.000092	0.00009	0.000092	0.000099	0.000112	0.000122	0.000122
Acetaldehyde	0.00202	0.001416	0.000808	0.000464	0.000335	0.000266	0.000221	0.000192	0.000175	0.000168	0.000171	0.000182	0.000201	0.000219	0.00023
Acrolein	0.000158	0.000102	0.000069	0.00005	0.000037	0.00003	0.000025	0.000022	0.00002	0.00002	0.00002	0.000022	0.000025	0.000027	0.000027
Benzene	0.003384	0.002215	0.001463	0.001016	0.000763	0.000607	0.000507	0.000446	0.000413	0.000403	0.000412	0.000445	0.000503	0.000546	0.00055
DieselPM	0.001282	0.001063	0.000826	0.000661	0.000571	0.000534	0.000535	0.000572	0.000642	0.000743	0.000876	0.001034	0.001212	0.001213	0.001213
Ethylbenzene	0.00137	0.00089	0.000598	0.000423	0.000319	0.000254	0.000212	0.000187	0.000174	0.000169	0.000173	0.000187	0.000212	0.000231	0.000231
Formaldehyde	0.005142	0.003543	0.002098	0.001272	0.00093	0.00074	0.000615	0.000536	0.000492	0.000474	0.000482	0.000517	0.000575	0.000625	0.000648
Naphthalene	0.000114	0.000078	0.000053	0.000038	0.00003	0.000024	0.000021	0.000019	0.000017	0.000017	0.000017	0.000017	0.000019	0.000016	0.000016
POM	0.000133	0.000088	0.000057	0.000038	0.000029	0.000023	0.000019	0.000017	0.000015	0.000015	0.000015	0.000017	0.000019	0.00002	0.00002
DEOG	0.019847	0.014324	0.007627	0.003888	0.002724	0.002162	0.001782	0.001529	0.001374	0.001304	0.00131	0.00138	0.00149	0.00162	0.001778

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CT-EMFAC2017 Output Files

FileName:	Sacramento(SV)-2040-MSATI.EF
CT-EMFAC2017Version:	1.0.2.27401
RunDate:	4/27/20218:48:33PM
Area:	Sacramento(SV)
AnalysisYear:	2040
Season:	Annual

VehicleCategory	VMTFractio AcrossCate	DieselVMT WithinCate	GasVMTFraction WithinCategory
Truck1	0.024	0.55	0.45
Truck2	0.044	0.941	0.04
Non-Truck	0.932	0.015	0.932

PollutantN	1,3-Butadi	Acetaldehy	Acrolein	Benzene	DieselPM	Ethylbenze	Formaldeh	Naphthaler	POM	DEOG
<=5mph	0.000587	0.001778	0.000126	0.002735	0.000709	0.001103	0.004416	0.000101	0.000098	0.017689
10mph	0.000381	0.001244	0.000081	0.001789	0.000625	0.000715	0.003043	0.00007	0.000065	0.012738
15mph	0.000255	0.000688	0.000055	0.001172	0.000509	0.000479	0.001753	0.000048	0.000041	0.006512
20mph	0.000179	0.000377	0.000039	0.000808	0.000427	0.000338	0.001023	0.000035	0.000028	0.003084
25mph	0.000135	0.000268	0.00003	0.000605	0.000382	0.000255	0.000738	0.000027	0.000021	0.002089
30mph	0.000107	0.000211	0.000024	0.000481	0.000374	0.000203	0.000584	0.000023	0.000016	0.001637
35mph	0.00009	0.000174	0.00002	0.000402	0.000397	0.00017	0.000483	0.00002	0.000014	0.001332
40mph	0.000079	0.00015	0.000018	0.000354	0.000448	0.000149	0.000419	0.000018	0.000012	0.001126
45mph	0.000074	0.000136	0.000016	0.000328	0.000527	0.000139	0.000383	0.000016	0.000011	0.000998
50mph	0.000072	0.00013	0.000016	0.000319	0.000633	0.000135	0.000368	0.000016	0.000011	0.000934
55mph	0.000074	0.000131	0.000016	0.000327	0.000766	0.000139	0.000373	0.000016	0.000011	0.000927
60mph	0.00008	0.000142	0.000018	0.000355	0.000928	0.000151	0.000404	0.000016	0.000012	0.001
65mph	0.000091	0.000159	0.00002	0.000402	0.001114	0.000171	0.000455	0.000017	0.000014	0.001114
70mph	0.000099	0.000177	0.000022	0.00044	0.001114	0.000187	0.000503	0.000013	0.000015	0.001258
75mph	0.000099	0.00019	0.000022	0.000443	0.001114	0.000187	0.000529	0.000013	0.000015	0.001436

FleetAverageRunningExhaustEmissionFactors(grams/veh-mile)

PollutantName	<=5mph	10mph	15mph	20mph	25mph	30mph	35mph	40mph	45mph	50mph	55mph	60mph	65mph	70mph	75mph
1,3-Butadiene	0.000587	0.000381	0.000255	0.000179	0.000135	0.000107	0.00009	0.000079	0.000074	0.000072	0.000074	0.00008	0.000091	0.000099	0.000099
Acetaldehyde	0.001778	0.001244	0.000688	0.000377	0.000268	0.000211	0.000174	0.00015	0.000136	0.00013	0.000131	0.000142	0.000159	0.000177	0.00019
Acrolein	0.000126	0.000081	0.000055	0.000039	0.00003	0.000024	0.00002	0.000018	0.000016	0.000016	0.000016	0.000018	0.00002	0.000022	0.000022
Benzene	0.002735	0.001789	0.001172	0.000808	0.000605	0.000481	0.000402	0.000354	0.000328	0.000319	0.000327	0.000355	0.000402	0.00044	0.000443
DieselPM	0.000709	0.000625	0.000509	0.000427	0.000382	0.000374	0.000397	0.000448	0.000527	0.000633	0.000766	0.000928	0.001114	0.001114	0.001114
Ethylbenzene	0.001103	0.000715	0.000479	0.000338	0.000255	0.000203	0.00017	0.000149	0.000139	0.000135	0.000139	0.000151	0.000171	0.000187	0.000187
Formaldehyde	0.004416	0.003043	0.001753	0.001023	0.000738	0.000584	0.000483	0.000419	0.000383	0.000368	0.000373	0.000404	0.000455	0.000503	0.000529
Naphthalene	0.000101	0.00007	0.000048	0.000035	0.000027	0.000023	0.00002	0.000018	0.000016	0.000016	0.000016	0.000016	0.000017	0.000013	0.000013
POM	0.000098	0.000065	0.000041	0.000028	0.000021	0.000016	0.000014	0.000012	0.000011	0.000011	0.000011	0.000012	0.000014	0.000015	0.000015
DEOG	0.017689	0.012738	0.006512	0.003084	0.002089	0.001637	0.001332	0.001126	0.000998	0.000934	0.000927	0.001	0.001114	0.001258	0.001436

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CT-EMFAC2017 Output Files

Placer

FileName:	Placer(MC)-2017-MSAT.EF
CT-EMFAC2017Ver	1.0.2.27401
RunDate:	4/27/20218:41:05PM
Area:	Placer(MC)
AnalysisYear:	2017
Season:	Annual

VehicleCategory	VMTFraction AcrossCateg	DieselVMTFr WithinCateg	GasVMTFraction WithinCategory
Truck1	0.047	0.603	0.397
Truck2	0.09	0.989	0.011
Non-Truck	0.863	0.01	0.986

PollutantNar	1,3-Butadien	Acetaldehyd	Acrolein	Benzene	DieselPM	Ethylbenzen	Formaldehyc	Naphthalene	POM	DEOG
<=5mph	0.001355	0.017803	0.000216	0.008611	0.026763	0.002448	0.037121	0.000313	0.000625	0.232552
10mph	0.001216	0.01357	0.000209	0.007332	0.022257	0.002213	0.028596	0.000258	0.000499	0.175227
15mph	0.001051	0.007868	0.000204	0.005705	0.01596	0.001939	0.017154	0.000187	0.00033	0.097816
20mph	0.000956	0.00459	0.000202	0.004767	0.011618	0.001781	0.010574	0.000146	0.000232	0.053308
25mph	0.000727	0.003409	0.000154	0.003612	0.009695	0.001355	0.007881	0.00011	0.000175	0.039386
30mph	0.000708	0.00284	0.000153	0.003439	0.008683	0.001323	0.006734	0.000103	0.000158	0.031678
35mph	0.00049	0.002244	0.000104	0.002424	0.008067	0.000913	0.005205	0.000074	0.000118	0.025775
40mph	0.000432	0.001898	0.000092	0.002123	0.007908	0.000806	0.00443	0.000064	0.000103	0.021596
45mph	0.0004	0.001677	0.000086	0.00195	0.008169	0.000746	0.003943	0.000059	0.000094	0.01887
50mph	0.000397	0.001574	0.000086	0.001921	0.00885	0.000741	0.003736	0.000058	0.000092	0.017464
55mph	0.000395	0.001557	0.000085	0.001909	0.009956	0.000737	0.0037	0.000057	0.000093	0.017256
60mph	0.000426	0.001614	0.000092	0.002048	0.010835	0.000796	0.003861	0.000061	0.000098	0.017668
65mph	0.000427	0.001642	0.000092	0.002058	0.011276	0.000798	0.003918	0.000062	0.000099	0.018047
70mph	0.000427	0.001655	0.000092	0.002062	0.011276	0.000799	0.003944	0.000062	0.0001	0.018224
75mph	0.000428	0.001671	0.000092	0.002066	0.011276	0.000799	0.003976	0.000062	0.0001	0.018443

FleetAverageRunningExhaustEmissionFactors(grams/veh-mile)

PollutantName	<=5mph	10mph	15mph	20mph	25mph	30mph	35mph	40mph	45mph	50mph	55mph	60mph	65mph	70mph	75mph
1,3-Butadiene	0.001355	0.001216	0.001051	0.000956	0.000727	0.000708	0.00049	0.000432	0.0004	0.000397	0.000395	0.000426	0.000427	0.000427	0.000428
Acetaldehyde	0.017803	0.01357	0.007868	0.00459	0.003409	0.00284	0.002244	0.001898	0.001677	0.001574	0.001557	0.001614	0.001642	0.001655	0.001671
Acrolein	0.000216	0.000209	0.000204	0.000202	0.000154	0.000153	0.000104	0.000092	0.000086	0.000086	0.000085	0.000092	0.000092	0.000092	0.000092
Benzene	0.008611	0.007332	0.005705	0.004767	0.003612	0.003439	0.002424	0.002123	0.00195	0.001921	0.001909	0.002048	0.002058	0.002062	0.002066
DieselPM	0.026763	0.022257	0.01596	0.011618	0.009695	0.008683	0.008067	0.007908	0.008169	0.00885	0.009956	0.010835	0.011276	0.011276	0.011276
Ethylbenzene	0.002448	0.002213	0.001939	0.001781	0.001355	0.001323	0.000913	0.000806	0.000746	0.000741	0.000737	0.000796	0.000798	0.000799	0.000799
Formaldehyde	0.037121	0.028596	0.017154	0.010574	0.007881	0.006734	0.005205	0.00443	0.003943	0.003736	0.0037	0.003861	0.003918	0.003944	0.003976
Naphthalene	0.000313	0.000258	0.000187	0.000146	0.00011	0.000103	0.000074	0.000064	0.000059	0.000058	0.000057	0.000061	0.000062	0.000062	0.000062
POM	0.000625	0.000499	0.00033	0.000232	0.000175	0.000158	0.000118	0.000103	0.000094	0.000092	0.000093	0.000098	0.000099	0.0001	0.0001
DEOG	0.232552	0.175227	0.097816	0.053308	0.039386	0.031678	0.025775	0.021596	0.01887	0.017464	0.017256	0.017668	0.018047	0.018224	0.018443

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CT-EMFAC2017 Output Files

FileName:	Placer(MC)-2030-MSAT.EF
CT-EMFAC2017Ver	1.0.2.27401
RunDate:	4/27/20218:43:04PM
Area:	Placer(MC)
AnalysisYear:	2030
Season:	Annual

VehicleCategory	VMTFraction AcrossCateg	DieselVMTFr WithinCateg	GasVMTFraction WithinCategory
Truck1	0.03	0.585	0.415
Truck2	0.097	0.975	0.024
Non-Truck	0.873	0.013	0.95

PollutantNar	1,3-Butadien	Acetaldehyd	Acrolein	Benzene	DieselPM	Ethylbenzen	Formaldehyc	Naphthalene	POM	DEOG
<=5mph	0.000334	0.00241	0.000063	0.001792	0.002122	0.000618	0.005261	0.00006	0.000079	0.029645
10mph	0.000312	0.001739	0.000062	0.001591	0.001769	0.000582	0.00391	0.000051	0.000067	0.020543
15mph	0.000293	0.001062	0.000062	0.001396	0.001393	0.000549	0.002551	0.000043	0.000054	0.011349
20mph	0.000282	0.000712	0.000062	0.001295	0.001151	0.000532	0.001848	0.000039	0.000047	0.006595
25mph	0.000213	0.000527	0.000047	0.000977	0.001026	0.000402	0.001374	0.000029	0.000035	0.004817
30mph	0.000211	0.000459	0.000046	0.000956	0.001019	0.000398	0.001237	0.000028	0.000034	0.003899
35mph	0.000143	0.000351	0.000031	0.000655	0.001099	0.00027	0.000918	0.00002	0.000024	0.003197
40mph	0.000127	0.000306	0.000028	0.000578	0.001276	0.000238	0.000802	0.000017	0.000021	0.002763
45mph	0.000118	0.000281	0.000026	0.000536	0.001543	0.000222	0.000739	0.000016	0.00002	0.002522
50mph	0.000117	0.000277	0.000026	0.000535	0.001898	0.000221	0.000731	0.000016	0.00002	0.002465
55mph	0.000118	0.000284	0.000026	0.000537	0.002338	0.000222	0.000745	0.000016	0.00002	0.002558
60mph	0.000128	0.00031	0.000028	0.000584	0.002859	0.000241	0.000812	0.000018	0.000022	0.002794
65mph	0.000129	0.000336	0.000028	0.000591	0.003457	0.000242	0.000864	0.000018	0.000023	0.003148
70mph	0.00013	0.000369	0.000028	0.0006	0.003457	0.000244	0.00093	0.000018	0.000023	0.003596
75mph	0.000131	0.000409	0.000028	0.000611	0.003457	0.000245	0.001009	0.000019	0.000024	0.004133

FleetAverageRunningExhaustEmissionFactors(grams/veh-mile)

PollutantName	<=5mph	10mph	15mph	20mph	25mph	30mph	35mph	40mph	45mph	50mph	55mph	60mph	65mph	70mph	75mph
1,3-Butadiene	0.000334	0.000312	0.000293	0.000282	0.000213	0.000211	0.000143	0.000127	0.000118	0.000117	0.000118	0.000128	0.000129	0.00013	0.000131
Acetaldehyde	0.00241	0.001739	0.001062	0.000712	0.000527	0.000459	0.000351	0.000306	0.000281	0.000277	0.000284	0.00031	0.000336	0.000369	0.000409
Acrolein	0.000063	0.000062	0.000062	0.000062	0.000047	0.000046	0.000031	0.000028	0.000026	0.000026	0.000026	0.000028	0.000028	0.000028	0.000028
Benzene	0.001792	0.001591	0.001396	0.001295	0.000977	0.000956	0.000655	0.000578	0.000536	0.000535	0.000537	0.000584	0.000591	0.0006	0.000611
DieselPM	0.002122	0.001769	0.001393	0.001151	0.001026	0.001019	0.001099	0.001276	0.001543	0.001898	0.002338	0.002859	0.003457	0.003457	0.003457
Ethylbenzene	0.000618	0.000582	0.000549	0.000532	0.000402	0.000398	0.00027	0.000238	0.000222	0.000221	0.000222	0.000241	0.000242	0.000244	0.000245
Formaldehyde	0.005261	0.00391	0.002551	0.001848	0.001374	0.001237	0.000918	0.000802	0.000739	0.000731	0.000745	0.000812	0.000864	0.00093	0.001009
Naphthalene	0.00006	0.000051	0.000043	0.000039	0.000029	0.000028	0.00002	0.000017	0.000016	0.000016	0.000016	0.000018	0.000018	0.000018	0.000019
POM	0.000079	0.000067	0.000054	0.000047	0.000035	0.000034	0.000024	0.000021	0.00002	0.00002	0.00002	0.000022	0.000023	0.000023	0.000024
DEOG	0.029645	0.020543	0.011349	0.006595	0.004817	0.003899	0.003197	0.002763	0.002522	0.002465	0.002558	0.002794	0.003148	0.003596	0.004133

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CT-EMFAC2017 Output Files

FileName:	Placer(MC)-2040-MSAT.EF
CT-EMFAC2017Ver	1.0.2.27401
RunDate:	4/27/20218:44:42PM
Area:	Placer(MC)
AnalysisYear:	2040
Season:	Annual

VehicleCategory	VMTFraction AcrossCateg	DieselVMTFr WithinCateg	GasVMTFraction WithinCategory
Truck1	0.026	0.567	0.433
Truck2	0.1	0.973	0.027
Non-Truck	0.874	0.014	0.938

PollutantNar	1,3-Butadien	Acetaldehyd	Acrolein	Benzene	DieselPM	Ethylbenzen	Formaldehyc	Naphthalene	POM	DEOG
<=5mph	0.000259	0.002121	0.000048	0.001425	0.001447	0.000477	0.004566	0.00005	0.000058	0.026365
10mph	0.000242	0.001519	0.000047	0.001254	0.001267	0.000449	0.003359	0.000042	0.000049	0.018185
15mph	0.000225	0.000892	0.000047	0.00108	0.001022	0.000421	0.002103	0.000035	0.000039	0.009668
20mph	0.000217	0.000575	0.000047	0.000992	0.000865	0.000407	0.001467	0.000031	0.000033	0.005351
25mph	0.000163	0.00042	0.000035	0.000746	0.000797	0.000307	0.001079	0.000023	0.000025	0.003842
30mph	0.000162	0.000364	0.000035	0.00073	0.000823	0.000304	0.000967	0.000022	0.000024	0.003081
35mph	0.000109	0.000276	0.000024	0.000498	0.00093	0.000206	0.000712	0.000015	0.000017	0.002495
40mph	0.000097	0.000238	0.000021	0.000439	0.001124	0.000181	0.000618	0.000013	0.000015	0.002127
45mph	0.00009	0.000217	0.00002	0.000407	0.0014	0.000169	0.000566	0.000013	0.000014	0.001918
50mph	0.00009	0.000213	0.00002	0.000406	0.001758	0.000168	0.000558	0.000012	0.000014	0.001864
55mph	0.00009	0.000218	0.00002	0.000407	0.002196	0.000169	0.000569	0.000013	0.000014	0.001935
60mph	0.000098	0.000243	0.000021	0.000445	0.002719	0.000184	0.00063	0.000014	0.000016	0.002174
65mph	0.000099	0.000269	0.000021	0.000453	0.00332	0.000185	0.000682	0.000014	0.000017	0.002532
70mph	0.0001	0.000304	0.000021	0.000462	0.00332	0.000187	0.000752	0.000014	0.000017	0.003002
75mph	0.000101	0.000345	0.000021	0.000473	0.00332	0.000189	0.000834	0.000015	0.000018	0.003561

FleetAverageRunningExhaustEmissionFactors(grams/veh-mile)

PollutantName	<=5mph	10mph	15mph	20mph	25mph	30mph	35mph	40mph	45mph	50mph	55mph	60mph	65mph	70mph	75mph
1,3-Butadiene	0.000259	0.000242	0.000225	0.000217	0.000163	0.000162	0.000109	0.000097	0.00009	0.00009	0.00009	0.000098	0.000099	0.0001	0.000101
Acetaldehyde	0.002121	0.001519	0.000892	0.000575	0.00042	0.000364	0.000276	0.000238	0.000217	0.000213	0.000218	0.000243	0.000269	0.000304	0.000345
Acrolein	0.000048	0.000047	0.000047	0.000047	0.000035	0.000035	0.000024	0.000021	0.00002	0.00002	0.00002	0.000021	0.000021	0.000021	0.000021
Benzene	0.001425	0.001254	0.00108	0.000992	0.000746	0.00073	0.000498	0.000439	0.000407	0.000406	0.000407	0.000445	0.000453	0.000462	0.000473
DieselPM	0.001447	0.001267	0.001022	0.000865	0.000797	0.000823	0.00093	0.001124	0.0014	0.001758	0.002196	0.002719	0.00332	0.00332	0.00332
Ethylbenzene	0.000477	0.000449	0.000421	0.000407	0.000307	0.000304	0.000206	0.000181	0.000169	0.000168	0.000169	0.000184	0.000185	0.000187	0.000189
Formaldehyde	0.004566	0.003359	0.002103	0.001467	0.001079	0.000967	0.000712	0.000618	0.000566	0.000558	0.000569	0.00063	0.000682	0.000752	0.000834
Naphthalene	0.00005	0.000042	0.000035	0.000031	0.000023	0.000022	0.000015	0.000013	0.000013	0.000012	0.000013	0.000014	0.000014	0.000014	0.000015
POM	0.000058	0.000049	0.000039	0.000033	0.000025	0.000024	0.000017	0.000015	0.000014	0.000014	0.000014	0.000016	0.000017	0.000017	0.000018
DEOG	0.026365	0.018185	0.009668	0.005351	0.003842	0.003081	0.002495	0.002127	0.001918	0.001864	0.001935	0.002174	0.002532	0.003002	0.003561

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CT-EMFAC2017 Output Files

ElDorado

FileName:	ElDorado(MC)-2017-MSAT.EF			PollutantNar	1,3-Butadien	Acetaldehyd	Acrolein	Benzene	DieselPM	Ethylbenzen	Formaldehyc	Naphthalene	POM	DEOG
CT-EMFAC2017Ver	1.0.2.27401			<=5mph	0.002469	0.009774	0.000537	0.012041	0.017165	0.004622	0.023306	0.000354	0.000575	0.109857
RunDate:	4/27/20216:34:13PM			10mph	0.001627	0.007117	0.00035	0.008042	0.013623	0.003041	0.016678	0.000241	0.0004	0.081707
Area:	ElDorado(MC)			15mph	0.001103	0.004268	0.000241	0.005361	0.009779	0.002066	0.010216	0.000159	0.000256	0.047651
AnalysisYear:	2017			20mph	0.000783	0.002556	0.000174	0.003727	0.007152	0.001469	0.006323	0.000109	0.000168	0.027227
Season:	Annual			25mph	0.000595	0.001926	0.000132	0.002829	0.005877	0.001117	0.004772	0.000081	0.000127	0.020442
				30mph	0.000478	0.00158	0.000106	0.002275	0.005109	0.000896	0.003897	0.000066	0.000104	0.016878
==========				35mph	0.000402	0.001344	0.000089	0.001916	0.0046	0.000754	0.003305	0.000056	0.000088	0.014381
				40mph	0.000355	0.001189	0.000079	0.001694	0.004314	0.000667	0.002923	0.00005	0.000078	0.012711
VehicleCategory	VMTFraction	DieselVMTFr	GasVMTFraction	45mph	0.00033	0.001099	0.000073	0.001571	0.004233	0.000619	0.002704	0.000046	0.000072	0.011733
	AcrossCateg	WithinCateg	WithinCategory	50mph	0.000322	0.001068	0.000071	0.001532	0.004349	0.000604	0.002629	0.000045	0.00007	0.011379
Truck1	0.074	0.692	0.308	55mph	0.00033	0.001092	0.000073	0.001567	0.004661	0.000618	0.002689	0.000046	0.000072	0.011627
Truck2	0.019	0.956	0.043	60mph	0.000352	0.001122	0.000078	0.001667	0.004879	0.000661	0.002784	0.000049	0.000076	0.011784
Non-Truck	0.907	0.017	0.978	65mph	0.000395	0.001162	0.000088	0.001853	0.004955	0.000742	0.002933	0.000054	0.000081	0.011854
				70mph	0.000395	0.001163	0.000088	0.001853	0.004955	0.000742	0.002934	0.000053	0.000081	0.011867

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FleetAverageRunningExhaustEmissionFactors(grams/veh-mile)

PollutantName	<=5mph	10mph	15mph	20mph	25mph	30mph	35mph	40mph	45mph	50mph	55mph	60mph	65mph	70mph	75mph
1,3-Butadiene	0.002469	0.001627	0.001103	0.000783	0.000595	0.000478	0.000402	0.000355	0.00033	0.000322	0.00033	0.000352	0.000395	0.000395	0.000395
Acetaldehyde	0.009774	0.007117	0.004268	0.002556	0.001926	0.00158	0.001344	0.001189	0.001099	0.001068	0.001092	0.001122	0.001162	0.001163	0.001164
Acrolein	0.000537	0.00035	0.000241	0.000174	0.000132	0.000106	0.000089	0.000079	0.000073	0.000071	0.000073	0.000078	0.000088	0.000088	0.000088
Benzene	0.012041	0.008042	0.005361	0.003727	0.002829	0.002275	0.001916	0.001694	0.001571	0.001532	0.001567	0.001667	0.001853	0.001853	0.001853
DieselPM	0.017165	0.013623	0.009779	0.007152	0.005877	0.005109	0.0046	0.004314	0.004233	0.004349	0.004661	0.004879	0.004955	0.004955	0.004955
Ethylbenzene	0.004622	0.003041	0.002066	0.001469	0.001117	0.000896	0.000754	0.000667	0.000619	0.000604	0.000618	0.000661	0.000742	0.000742	0.000742
Formaldehyde	0.023306	0.016678	0.010216	0.006323	0.004772	0.003897	0.003305	0.002923	0.002704	0.002629	0.002689	0.002784	0.002933	0.002934	0.002937
Naphthalene	0.000354	0.000241	0.000159	0.000109	0.000081	0.000066	0.000056	0.00005	0.000046	0.000045	0.000046	0.000049	0.000054	0.000053	0.000053
POM	0.000575	0.0004	0.000256	0.000168	0.000127	0.000104	0.000088	0.000078	0.000072	0.00007	0.000072	0.000076	0.000081	0.000081	0.000081
DEOG	0.109857	0.081707	0.047651	0.027227	0.020442	0.016878	0.014381	0.012711	0.011733	0.011379	0.011627	0.011784	0.011854	0.011867	0.011883

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CT-EMFAC2017 Output Files

FileName:	ElDorado(MC)-2030-MSAT.EF
CT-EMFAC2017Ver	1.0.2.27401
RunDate:	4/27/20216:35:52PM
Area:	ElDorado(MC)
AnalysisYear:	2030
Season:	Annual

VehicleCategory	VMTFraction AcrossCateg	DieselVMTFr WithinCateg	GasVMTFraction WithinCategory
Truck1	0.038	0.555	0.445
Truck2	0.017	0.89	0.108
Non-Truck	0.945	0.017	0.948

PollutantNar	1,3-Butadien	Acetaldehyd	Acrolein	Benzene	DieselPM	Ethylbenzen	Formaldehyc	Naphthalene	POM	DEOG
<=5mph	0.000514	0.002193	0.000107	0.002523	0.002049	0.000964	0.00514	0.000077	0.000108	0.02476
10mph	0.000495	0.001731	0.000106	0.002367	0.001619	0.000932	0.004203	0.00007	0.000098	0.018525
15mph	0.000332	0.001006	0.000072	0.001564	0.001241	0.000627	0.002515	0.000046	0.000063	0.010262
20mph	0.000235	0.00058	0.000052	0.001084	0.000973	0.000444	0.001521	0.000031	0.000042	0.005425
25mph	0.000177	0.000422	0.000039	0.000815	0.000816	0.000335	0.001117	0.000023	0.000031	0.003872
30mph	0.000141	0.000339	0.000031	0.00065	0.000716	0.000267	0.000895	0.000019	0.000025	0.003113
35mph	0.000119	0.000285	0.000026	0.000545	0.000656	0.000224	0.000752	0.000016	0.000021	0.002619
40mph	0.000105	0.000251	0.000023	0.00048	0.000631	0.000198	0.000662	0.000014	0.000018	0.002301
45mph	0.000097	0.000231	0.000021	0.000445	0.000635	0.000183	0.000611	0.000013	0.000017	0.002108
50mph	0.000095	0.000223	0.000021	0.000435	0.000663	0.000179	0.000591	0.000013	0.000017	0.002017
55mph	0.000097	0.000226	0.000021	0.000444	0.000718	0.000183	0.0006	0.000013	0.000017	0.002029
60mph	0.000105	0.000234	0.000023	0.000477	0.000779	0.000197	0.000627	0.000014	0.000018	0.002052
65mph	0.000118	0.000248	0.000026	0.000537	0.000846	0.000224	0.000678	0.000016	0.00002	0.002088
70mph	0.000118	0.00025	0.000026	0.000537	0.000846	0.000224	0.000682	0.000016	0.00002	0.002122
75mph	0.000119	0.000254	0.000026	0.000538	0.000846	0.000224	0.000689	0.000016	0.00002	0.002164

FleetAverageRunningExhaustEmissionFactors(grams/veh-mile)

PollutantName	<=5mph	10mph	15mph	20mph	25mph	30mph	35mph	40mph	45mph	50mph	55mph	60mph	65mph	70mph	75mph
1,3-Butadiene	0.000514	0.000495	0.000332	0.000235	0.000177	0.000141	0.000119	0.000105	0.000097	0.000095	0.000097	0.000105	0.000118	0.000118	0.000119
Acetaldehyde	0.002193	0.001731	0.001006	0.00058	0.000422	0.000339	0.000285	0.000251	0.000231	0.000223	0.000226	0.000234	0.000248	0.00025	0.000254
Acrolein	0.000107	0.000106	0.000072	0.000052	0.000039	0.000031	0.000026	0.000023	0.000021	0.000021	0.000021	0.000023	0.000026	0.000026	0.000026
Benzene	0.002523	0.002367	0.001564	0.001084	0.000815	0.00065	0.000545	0.00048	0.000445	0.000435	0.000444	0.000477	0.000537	0.000537	0.000538
DieselPM	0.002049	0.001619	0.001241	0.000973	0.000816	0.000716	0.000656	0.000631	0.000635	0.000663	0.000718	0.000779	0.000846	0.000846	0.000846
Ethylbenzene	0.000964	0.000932	0.000627	0.000444	0.000335	0.000267	0.000224	0.000198	0.000183	0.000179	0.000183	0.000197	0.000224	0.000224	0.000224
Formaldehyde	0.00514	0.004203	0.002515	0.001521	0.001117	0.000895	0.000752	0.000662	0.000611	0.000591	0.0006	0.000627	0.000678	0.000682	0.000689
Naphthalene	0.000077	0.00007	0.000046	0.000031	0.000023	0.000019	0.000016	0.000014	0.000013	0.000013	0.000013	0.000014	0.000016	0.000016	0.000016
POM	0.000108	0.000098	0.000063	0.000042	0.000031	0.000025	0.000021	0.000018	0.000017	0.000017	0.000017	0.000018	0.00002	0.00002	0.00002
DEOG	0.02476	0.018525	0.010262	0.005425	0.003872	0.003113	0.002619	0.002301	0.002108	0.002017	0.002029	0.002052	0.002088	0.002122	0.002164

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CT-EMFAC2017 Output Files

FileName:	ElDorado(MC)-2040-MSAT.EF			PollutantNar	1,3-Butadien	Acetaldehyd	Acrolein	Benzene	DieselPM	Ethylbenzen	Formaldehyc	Naphthalene	POM	DEOG
CT-EMFAC2017Ver	1.0.2.27401			<=5mph	0.000375	0.001501	0.000078	0.001811	0.000712	0.000703	0.00354	0.000057	0.000068	0.016434
RunDate:	4/27/20216:37:01PM			10mph	0.000366	0.001205	0.000078	0.001722	0.000605	0.000687	0.002945	0.000053	0.000063	0.012422
Area:	ElDorado(MC)			15mph	0.000244	0.000668	0.000053	0.001127	0.000491	0.00046	0.001699	0.000034	0.00004	0.006396
AnalysisYear:	2040			20mph	0.000172	0.000357	0.000038	0.000775	0.000403	0.000325	0.000973	0.000023	0.000027	0.002911
Season:	Annual			25mph	0.000129	0.000251	0.000029	0.00058	0.000354	0.000244	0.000698	0.000017	0.00002	0.001945
				30mph	0.000103	0.000198	0.000023	0.000462	0.000321	0.000195	0.000552	0.000014	0.000016	0.001521
==========				35mph	0.000086	0.000164	0.000019	0.000386	0.000304	0.000163	0.000458	0.000011	0.000013	0.001248
				40mph	0.000076	0.000142	0.000017	0.00034	0.000305	0.000144	0.0004	0.00001	0.000012	0.001067
VehicleCategory	VMTFraction	DieselVMTFr	GasVMTFraction	45mph	0.000071	0.000129	0.000016	0.000315	0.000321	0.000133	0.000365	0.000009	0.000011	0.000947
	AcrossCateg	WithinCateg	WithinCategory	50mph	0.000069	0.000122	0.000015	0.000307	0.000349	0.00013	0.000349	0.000009	0.00001	0.00087
Truck1	0.031	0.476	0.524	55mph	0.000071	0.000122	0.000016	0.000314	0.000389	0.000134	0.000351	0.000009	0.000011	0.000843
Truck2	0.017	0.867	0.132	60mph	0.000077	0.000128	0.000017	0.000339	0.000442	0.000145	0.000372	0.00001	0.000011	0.000861
Non-Truck	0.952	0.016	0.937	65mph	0.000087	0.00014	0.000019	0.000385	0.000502	0.000165	0.000412	0.000011	0.000013	0.000893
				70mph	0.000087	0.000142	0.000019	0.000386	0.000502	0.000165	0.000417	0.000011	0.000013	0.00093
==========				75mph	0.000087	0.000146	0.000019	0.000387	0.000502	0.000165	0.000424	0.000011	0.000013	0.000976

FleetAverageRunningExhaustEmissionFactors(grams/veh-mile)

PollutantName	<=5mph	10mph	15mph	20mph	25mph	30mph	35mph	40mph	45mph	50mph	55mph	60mph	65mph	70mph	75mph
1,3-Butadiene	0.000375	0.000366	0.000244	0.000172	0.000129	0.000103	0.000086	0.000076	0.000071	0.000069	0.000071	0.000077	0.000087	0.000087	0.000087
Acetaldehyde	0.001501	0.001205	0.000668	0.000357	0.000251	0.000198	0.000164	0.000142	0.000129	0.000122	0.000122	0.000128	0.00014	0.000142	0.000146
Acrolein	0.000078	0.000078	0.000053	0.000038	0.000029	0.000023	0.000019	0.000017	0.000016	0.000015	0.000016	0.000017	0.000019	0.000019	0.000019
Benzene	0.001811	0.001722	0.001127	0.000775	0.00058	0.000462	0.000386	0.00034	0.000315	0.000307	0.000314	0.000339	0.000385	0.000386	0.000387
DieselPM	0.000712	0.000605	0.000491	0.000403	0.000354	0.000321	0.000304	0.000305	0.000321	0.000349	0.000389	0.000442	0.000502	0.000502	0.000502
Ethylbenzene	0.000703	0.000687	0.00046	0.000325	0.000244	0.000195	0.000163	0.000144	0.000133	0.00013	0.000134	0.000145	0.000165	0.000165	0.000165
Formaldehyde	0.00354	0.002945	0.001699	0.000973	0.000698	0.000552	0.000458	0.0004	0.000365	0.000349	0.000351	0.000372	0.000412	0.000417	0.000424
Naphthalene	0.000057	0.000053	0.000034	0.000023	0.000017	0.000014	0.000011	0.00001	0.000009	0.000009	0.000009	0.00001	0.000011	0.000011	0.000011
POM	0.000068	0.000063	0.00004	0.000027	0.00002	0.000016	0.000013	0.000012	0.000011	0.00001	0.000011	0.000011	0.000013	0.000013	0.000013
DEOG	0.016434	0.012422	0.006396	0.002911	0.001945	0.001521	0.001248	0.001067	0.000947	0.00087	0.000843	0.000861	0.000893	0.00093	0.000976

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