

Appendix F

Health Risk Modeling



Santa Susana Field Laboratory Project
Health Risk Assessment
Appendix F

- F.1 HARP Inputs - Unitigated
- F.2 HARP Inputs - Mitigated
- F.3 Soil Vapor Extraction Emissions
- F.4 AERMOD Inputs

F.1 HARP Inputs - Unitigated

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 3

Exposure Duration Bin Distribution

3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 1
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

UM_I_CancerOutput

Daily breathing rate: LongTerm24HR

****Worker Adjustment Factors****

Worker adjustment factors enabled: NO

****Fraction at time at home****

3rd Trimester to 16 years: OFF

16 years to 70 years: ON

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02

Soil mixing depth (m): 0.01

Dermal climate: Warm

HOME GROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden

Fraction leafy: 0.137

Fraction exposed: 0.137

Fraction protected: 0.137

Fraction root: 0.137

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating cancer risk

Cancer risk breakdown by pollutant and receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_UM_INITIAL\hra\UM_I_CancerCancerRisk.csv

Cancer risk total by receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_UM_INITIAL\hra\UM_I_CancerCancerRiskSumByRec.csv

HRA ran successfully

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 12

Exposure Duration Bin Distribution

3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 10
16<30 Years Bin: 0
16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

UM_P_CancerOutput

Daily breathing rate: LongTerm24HR

****Worker Adjustment Factors****

Worker adjustment factors enabled: NO

****Fraction at time at home****

3rd Trimester to 16 years: OFF

16 years to 70 years: ON

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02

Soil mixing depth (m): 0.01

Dermal climate: Warm

HOME GROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden

Fraction leafy: 0.137

Fraction exposed: 0.137

Fraction protected: 0.137

Fraction root: 0.137

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating cancer risk

Cancer risk breakdown by pollutant and receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_UM_PROGRAM\hra\UM_P_CancerCancerRisk.csv

Cancer risk total by receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_UM_PROGRAM\hra\UM_P_CancerCancerRiskSumByRec.csv

HRA ran successfully

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: NCChronic
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Exposure duration are only adjusted for cancer assessments

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Warm

HOMEGROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden
Fraction leafy: 0.137
Fraction exposed: 0.137
Fraction protected: 0.137
Fraction root: 0.137

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating chronic risk

Chronic risk breakdown by pollutant and receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_UM_INITIAL\hra\UM_I_CHINCCChronicRisk.csv

Chronic risk total by receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_UM_INITIAL\hra\UM_I_CHINCCChronicRiskSumByRec.csv

HRA ran successfully

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: NCChronic
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Exposure duration are only adjusted for cancer assessments

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Warm

HOME GROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden
Fraction leafy: 0.137
Fraction exposed: 0.137
Fraction protected: 0.137
Fraction root: 0.137

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating chronic risk

Chronic risk breakdown by pollutant and receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_UM_PROGRAM\hra\UM_P_CHINCCChronicRisk.csv

Chronic risk total by receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_UM_PROGRAM\hra\UM_P_CHINCCChronicRiskSumByRec.csv

HRA ran successfully

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: NCAcute
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Exposure duration are only adjusted for cancer assessments

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

UM_I_AHIOutput

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating acute risk

Acute risk breakdown by pollutant and receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_UM_INITIAL\hra\UM_I_AHINCAcuteRisk.csv

Acute risk total by receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_UM_INITIAL\hra\UM_I_AHINCAcuteRiskSumByRec.csv

HRA ran successfully

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: NCAcute
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Exposure duration are only adjusted for cancer assessments

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

UM_P_AHIOutput

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating acute risk

Acute risk breakdown by pollutant and receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_UM_PROGRAM\hra\UM_P_AHINCAcuteRisk.csv

Acute risk total by receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_UM_PROGRAM\hra\UM_P_AHINCAcuteRiskSumByRec.csv

HRA ran successfully

Santa Susana Field Laboratory

Emissions Summary for HRA

Step 1 - Summarize Emissions Into One Table

Source	Emissions (lbs/day)		Source Type	Pollutant
	Initial	Program		
ASBSR1	1.3	2.6	Fugitive Dust	PM10
ASBSR2	1.5	3.1	Fugitive Dust	PM10
ASBSR3	0.3	0.5	Fugitive Dust	PM10
ASBSR4	0.5	1.0	Fugitive Dust	PM10
ASBSR5	0.7	1.4	Fugitive Dust	PM10
ASBBP1	0.4	0.8	Fugitive Dust	PM10
ASBBP2	0.1	0.2	Fugitive Dust	PM10
ASBBP3	0.2	0.3	Fugitive Dust	PM10
ASDSR1	13.1	6.1	Fugitive Dust	PM10
ASDSR2	0.2	0.1	Fugitive Dust	PM10
ASNSR1	3.0	3.1	Fugitive Dust	PM10
ASNSR2	2.6	2.7	Fugitive Dust	PM10
ASNSR3	0.4	0.4	Fugitive Dust	PM10
LSBCV1	0.3	0.7	Equipment (Diesel)	DPM
LSBCV2	0.3	0.7	Equipment (Diesel)	DPM
LSBCV3	0.1	0.2	Equipment (Diesel)	DPM
LSBCV4	0.1	0.2	Equipment (Diesel)	DPM
LSBCV5	0.1	0.3	Equipment (Diesel)	DPM
LSBBP1	0.1	0.2	Equipment (Diesel)	DPM
LSBBP2	0.02	0.05	Equipment (Diesel)	DPM
LSBBP3	0.03	0.1	Equipment (Diesel)	DPM
LSDVC1	3.7	1.2	Equipment (Diesel)	DPM
LSDVC2	0.1	0.0	Equipment (Diesel)	DPM
LSNVC1	0.6	0.6	Equipment (Diesel)	DPM
LSNVC2	0.5	0.5	Equipment (Diesel)	DPM
LSNVC3	0.1	0.1	Equipment (Diesel)	DPM
LSOHR1	1.1E-03	0.01	On-site Haul Route (Diesel)	DPM
LSOHR2	7.7E-04	0.01	On-site Haul Route (Diesel)	DPM
LSOHR3	3.3E-04	3.5E-03	On-site Haul Route (Diesel)	DPM
LSOHR1	0.03	0.01	On-site Haul Route (Diesel)	DPM
LSOHR2	0	0	On-site Haul Route (Diesel)	DPM
LSOHR3	0.03	0.01	On-site Haul Route (Diesel)	DPM
LSOHR1	2.5E-03	0.01	On-site Haul Route (Diesel)	DPM

Step 2 - Sum emissions by source

Source	lbs/day		
	Initial	Program	Pollutant
ASBSR1	1.3	2.6	PM10
ASBSR2	1.5	3.1	PM10
ASBSR3	0.3	0.5	PM10
ASBSR4	0.5	1.0	PM10
ASBSR5	0.7	1.4	PM10
ASBBP1	0.4	0.8	PM10
ASBBP2	0.1	0.2	PM10
ASBBP3	0.2	0.3	PM10
ASDSR1	13.1	6.1	PM10
ASDSR2	0.2	0.1	PM10
ASNSR1	3.0	3.1	PM10
ASNSR2	2.6	2.7	PM10
ASNSR3	0.4	0.4	PM10
LSOHR1	188.5	168.4	PM10
LSOHR2	16.2	85.6	PM10
LSOHR3	149.7	100.4	PM10
LSBCV1	0.3	0.7	DPM
LSBCV2	0.3	0.7	DPM
LSBCV3	0.1	0.2	DPM
LSBCV4	0.1	0.2	DPM
LSBCV5	0.1	0.3	DPM
LSBBP1	0.1	0.2	DPM
LSBBP2	0.02	0.05	DPM
LSBBP3	0.03	0.1	DPM
LSDVC1	3.7	1.2	DPM
LSDVC2	0.1	0.0	DPM
LSNVC1	0.6	0.6	DPM
LSNVC2	0.5	0.5	DPM
LSNVC3	0.1	0.1	DPM
LSOHR1	0.04	0.03	DPM
LSOHR2	0.003	0.02	DPM
LSOHR3	0.03	0.02	DPM
SLINE3	0.02	0.02	DPM

Step 3 - Calculate Annual Emissions

Source	lbs/year		
	Initial	Program	Pollutant
ASBSR1	331	685	PM10
ASBSR2	391	810	PM10
ASBSR3	67	139	PM10
ASBSR4	120	249	PM10
ASBSR5	174	360	PM10
ASBBP1	99	205	PM10
ASBBP2	20	41	PM10
ASBBP3	41	85	PM10
ASDSR1	3404	1583	PM10
ASDSR2	40	18	PM10
ASNSR1	778	809	PM10
ASNSR2	670	697	PM10
ASNSR3	92	96	PM10
LSOHR1	49023	43776	PM10
LSOHR2	4201	22268	PM10
LSOHR3	38934	26113	PM10
LSBCV1	68	189	DPM
LSBCV2	67	187	DPM
LSBCV3	15	42	DPM
LSBCV4	20	56	DPM
LSBCV5	27	75	DPM
LSBBP1	23	63	DPM
LSBBP2	5	13	DPM
LSBBP3	8	23	DPM
LSDVC1	967	319	DPM
LSDVC2	16	5	DPM
LSNVC1	143	161	DPM
LSNVC2	126	141	DPM
LSNVC3	20	22	DPM
LSOHR1	10	9	DPM
LSOHR2	1	4	DPM
LSOHR3	8	5	DPM
SLINE3	4	4	DPM

Emissions (lbs/day)					lbs/day				lbs/year			
Source	Initial	Program	Source Type	Pollutant	Source	Initial	Program	Pollutant	Source	Initial	Program	Pollutant
LSOHR2	2.4E-03	0.01	On-site Haul Route (Diesel)	DPM	SLINE4	0.03	0.03	DPM	SLINE4	7	7	DPM
LSOHR3	1.6E-03	0.01	On-site Haul Route (Diesel)	DPM	SLINE6	0.03	0.03	DPM	SLINE6	7	7	DPM
LSOHR1	5	58	On-site Haul Route (Dust)	PM10	SLINE7	0.03	0.03	DPM	SLINE7	8	8	DPM
LSOHR2	4	42	On-site Haul Route (Dust)	PM10	SLINE8	0.02	0.02	DPM	SLINE8	5	5	DPM
LSOHR3	2	18	On-site Haul Route (Dust)	PM10	SLINE9	0.04	0.04	DPM	SLINE9	10	10	DPM
LSOHR1	170	65	On-site Haul Route (Dust)	PM10	SLINE10	0.1	0.1	DPM	SLINE10	18	18	DPM
LSOHR2	0	0	On-site Haul Route (Dust)	PM10	SLINE12	0.01	0.01	DPM	SLINE12	2	2	DPM
LSOHR3	140	53	On-site Haul Route (Dust)	PM10	SLINE13	0.02	0.02	DPM	SLINE13	5	5	DPM
LSOHR1	13	46	On-site Haul Route (Dust)	PM10	SLINE14	0.02	0.02	DPM	SLINE14	5	5	DPM
LSOHR2	12	43	On-site Haul Route (Dust)	PM10	SLINE15	0.1	0.1	DPM	SLINE15	17	17	DPM
LSOHR3	8	29	On-site Haul Route (Dust)	PM10								
SLINE3	0	0	Haul Roads (Diesel)	DPM								
SLINE4	2.1E-02	2.1E-02	Haul Roads (Diesel)	DPM								
SLINE6	2.8E-02	2.8E-02	Haul Roads (Diesel)	DPM								
SLINE7	3.0E-02	3.0E-02	Haul Roads (Diesel)	DPM								
SLINE8	1.8E-02	1.8E-02	Haul Roads (Diesel)	DPM								
SLINE9	0	0	Haul Roads (Diesel)	DPM								
SLINE10	0	0	Haul Roads (Diesel)	DPM								
SLINE12	0	0	Haul Roads (Diesel)	DPM								
SLINE13	0	0	Haul Roads (Diesel)	DPM								
SLINE14	0	0	Haul Roads (Diesel)	DPM								
SLINE15	5.7E-02	5.7E-02	Haul Roads (Diesel)	DPM								
SLINE3	1.7E-02	1.7E-02	Haul Roads (Diesel)	DPM								
SLINE4	2.5E-02	2.5E-02	Haul Roads (Diesel)	DPM								
SLINE6	0	0	Haul Roads (Diesel)	DPM								
SLINE7	0	0	Haul Roads (Diesel)	DPM								
SLINE8	0	0	Haul Roads (Diesel)	DPM								
SLINE9	0	0	Haul Roads (Diesel)	DPM								
SLINE10	0	0	Haul Roads (Diesel)	DPM								
SLINE12	6.6E-03	6.6E-03	Haul Roads (Diesel)	DPM								
SLINE13	1.9E-02	1.9E-02	Haul Roads (Diesel)	DPM								
SLINE14	2.0E-02	2.0E-02	Haul Roads (Diesel)	DPM								
SLINE15	6.7E-02	6.7E-02	Haul Roads (Diesel)	DPM								
SLINE3	0	0	Haul Roads (Diesel)	DPM								
SLINE4	0	0	Haul Roads (Diesel)	DPM								
SLINE6	2.8E-02	2.8E-02	Haul Roads (Diesel)	DPM								

Source	Emissions (lbs/day)		Source Type	Pollutant
	Initial	Program		
SLINE7	0	0	Haul Roads (Diesel)	DPM
SLINE8	0	0	Haul Roads (Diesel)	DPM
SLINE9	0	0	Haul Roads (Diesel)	DPM
SLINE10	6.9E-02	6.9E-02	Haul Roads (Diesel)	DPM
SLINE12	0	0	Haul Roads (Diesel)	DPM
SLINE13	0	0	Haul Roads (Diesel)	DPM
SLINE14	0	0	Haul Roads (Diesel)	DPM
SLINE15	5.7E-02	5.7E-02	Haul Roads (Diesel)	DPM
SLINE3	0	0	Haul Roads (Diesel)	DPM
SLINE4	0	0	Haul Roads (Diesel)	DPM
SLINE6	2.9E-02	2.9E-02	Haul Roads (Diesel)	DPM
SLINE7	3.0E-02	3.0E-02	Haul Roads (Diesel)	DPM
SLINE8	0	0	Haul Roads (Diesel)	DPM
SLINE9	3.7E-02	3.7E-02	Haul Roads (Diesel)	DPM
SLINE10	0	0	Haul Roads (Diesel)	DPM
SLINE12	0	0	Haul Roads (Diesel)	DPM
SLINE13	0	0	Haul Roads (Diesel)	DPM
SLINE14	0	0	Haul Roads (Diesel)	DPM
SLINE15	0.1	0.1	Haul Roads (Diesel)	DPM

Source	lbs/day			Source	lbs/year		
	Initial	Program	Pollutant		Initial	Program	Pollutant

Step 4 - Assign lookup values for chemicals in HARP Database

Constituent	Alt Name	Site Soil Concentration of Chemicals (milligrams per kilogram) in Sub-areas								
		3	5A	5B	5C	5D	6	7	8	NBZ
Antimony		1.60E-01	2.60E-01	1.50E-01	3.20E-01	4.60E-01	2.00E-01	8.6	7.80E-01	3.10E-01
Cadmium		3.80E-01	3.80E-01	2.60E-01	2.80E-01	3.60E-01	3.80E-01	2.90E-01	3.30E-01	2.40E-01
Chromium, hexavalent	Chromium, hexavalent (& compounds)	--	6.10E-01	5.30E-01	7.10E-01	6.70E-01	6.60E-01	7.60E-01	5.50E-01	8.40E-01
Lead		1.50E+01	1.70E+01	9.7	1.20E+01	1.20E+01	2.00E+01	1.80E+02	3.30E+01	1.10E+01
Mercury		4.00E-02	6.20E-02	7.10E-02	8.70E-02	4.20E-01	1.90E-01	3.60E-02	5.50E-02	8.30E-01
Selenium		3.20E-01	1.60E-01	4.90E-01	1.60E-01	1.80E-01	3.00E-01	1.60E-01	2.10E-01	3.40E-01
Silver		3.80E-01	3.40E-01	4.20E-01	1.70E-01	8.10E-02	4.60E-01	8.00E-02	5.20E-02	1.60E-01
Zinc		7.70E+01	8.10E+01	7.50E+01	7.90E+01	8.00E+01	8.20E+01	1.00E+02	7.10E+01	6.20E+01
1-Methylnaphthalene		2.70E-03	7.10E-01	1.40E-02	6.80E-03	2.70E-03	2.40E-03	4.10E-02	1.80E-03	2.20E-03
2-Methylnaphthalene	2-Methyl naphthalene	6.50E-03	6.70E-01	1.30E-02	7.40E-03	2.40E-03	3.00E-03	3.30E-02	2.70E-03	2.40E-03
Acenaphthene		9.30E-04	1.10E-01	1.00E-02	1.90E-02	2.60E-02	9.60E-03	1.80E-01	4.20E-03	4.10E-03
Anthracene		3.10E-03	1.90E-02	1.60E-02	1.50E-02	3.80E-02	1.50E-02	1.30E-01	2.80E-03	1.10E-02
Benzo(a)anthracene	Benz[a]anthracene	2.30E-02	4.10E-02	7.80E-02	3.50E-02	7.60E-02	3.60E-02	2.90E-01	1.80E-02	1.40E-02
Benzo(a)pyrene	Benzo[a]pyrene	1.10E-02	2.80E-02	1.20E-01	2.90E-02	5.90E-02	3.40E-02	2.20E-01	1.40E-02	1.30E-02
Benzo(b)fluoranthene	Benzo[b]fluoranthene	2.00E-02	4.00E-02	1.20E-01	3.80E-02	6.40E-02	4.70E-02	2.60E-01	1.40E-02	1.20E-02
Benzo(e)pyrene	Benzo[e]pyrene	8.20E-02	2.40E-02	3.70E-02	1.80E-02	4.40E-02	1.80E-02	1.70E-02	5.20E-02	--
Benzo(g,h,i)perylene	Benzo[g,h,i]perylene	1.60E-02	1.20E-02	2.00E-01	1.60E-02	3.50E-02	1.70E-02	3.50E-02	5.00E-03	6.70E-03
Benzo(k)fluoranthene	Benzo[k]fluoranthene	1.60E-02	2.00E-02	4.40E-02	2.30E-02	5.50E-02	2.40E-02	1.60E-01	9.80E-03	9.60E-03
Bis(2-ethylhexyl)phthalate		1.80E-02	9.50E-02	1.30E-01	5.40E-02	3.00E-02	5.30E-02	9.70E-02	1.90E-02	2.80E-02
Chrysene		9.90E-03	3.20E-02	1.00E-01	3.60E-02	5.30E-02	3.40E-02	2.20E-01	1.10E-02	9.70E-03
Dibenzo(a,h)anthracene	Dibenz[a,h]anthracene	3.30E-03	1.00E-02	3.90E-02	1.10E-02	2.70E-02	9.40E-03	2.50E-02	6.10E-03	7.70E-03
Di-n-octylphthalate	n-Dioctyl phthalate	--	5.00E-02	2.40E-02	1.80E-02	1.30E-02	2.60E-02	2.90E-01	2.00E-02	4.00E-02
Fluoranthene		1.40E-02	5.70E-02	7.20E-02	8.40E-02	9.30E-02	7.70E-02	6.40E-01	1.30E-02	1.60E-02
Fluorene		3.40E-03	4.60E-03	9.90E-03	1.00E-02	1.10E-02	6.30E-03	9.40E-02	2.80E-03	3.80E-03
Indeno(1,2,3-cd)pyrene	Indeno[1,2,3-cd]pyrene	6.30E-03	1.30E-02	2.60E-01	2.00E-02	4.50E-02	1.90E-02	4.40E-02	5.60E-03	8.40E-03
Naphthalene		8.40E-03	7.60E-02	1.60E-02	4.60E-03	2.30E-03	3.10E-03	3.80E-02	3.00E-03	4.90E-03
N-Nitrosodimethylamine		--	7.40E-04	4.40E-03	7.90E-03	2.10E-03	5.80E-02	2.90E-02	--	3.50E-03
Phenanthrene		8.60E-03	5.50E-02	4.60E-02	4.50E-02	3.40E-02	4.70E-02	4.90E-01	7.10E-03	1.00E-02
Pyrene		1.20E-02	5.00E-02	9.80E-02	7.50E-02	8.60E-02	6.80E-02	5.20E-01	1.30E-02	1.30E-02
Aroclor 1254	PCBs {Polychlorinated biphenyls}	3.70E-02	1.20E-02	4.70E-02	3.10E-02	4.00E-02	1.50E-01	2.90E-02	4.30E-02	8.30E-02
Aroclor 1260	PCBs {Polychlorinated biphenyls}	3.90E-02	3.00E-02	3.60E-02	2.50E-02	8.80E-03	4.80E-02	2.40E-02	8.10E-03	1.40E-01
Aroclor 5460	PCBs {Polychlorinated biphenyls}	5.60E-02	1.60E-02	2.00E-02	1.80E-02	6.00E-03	1.70E-01	3.40E-02	7.90E-02	3.60E-02
4,4'-DDD	Dichlorodiphenyldichloroethane {DDD}	9.35E-05								
4,4'-DDE	Dichlorodiphenyldichloroethylene {DDE}	1.79E-03								
4,4'-DDT	DDT {1,1,1-Trichloro-2,2-bis(p-chlorophenyl)ethane}	2.48E-03								
beta-BHC	beta-Hexachlorocyclohexane	7.20E-05								
Chlordane (Technical)	Chlordane	1.96E-03								
delta-BHC	Hexachlorocyclohexanes (mixed or technical grade)	5.55E-05								
Dieldrin		8.08E-05								
MCPA	Chlorophenoxy herbicides	1.42E-01								
MCPP		9.76E-02								

Santa Susana Field Laboratory
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 Environmental Impact Statement
 Appendix G - Table G-6

Step 4 - Assign lookup values f

Constituent	Pollutant ID	Pollutant ID (Alt Name)	Pollutant ID (Lookup)	Max Conc (mg/kg)
Antimony	7440360		7440360	8.60E+00
Cadmium	7440439		7440439	3.80E-01
Chromium, hexavalent		18540299	18540299	8.40E-01
Lead	7439921		7439921	1.80E+02
Mercury	7439976		7439976	8.30E-01
Selenium	7782492		7782492	4.90E-01
Silver	7440224		7440224	4.60E-01
Zinc	7440666		7440666	1.00E+02
1-Methylnaphthalene				
2-Methylnaphthalene		91576	91576	6.70E-01
Acenaphthene	83329		83329	1.80E-01
Anthracene	120127		120127	1.30E-01
Benzo(a)anthracene		56553	56553	2.90E-01
Benzo(a)pyrene		50328	50328	2.20E-01
Benzo(b)fluoranthene		205992	205992	2.60E-01
Benzo(e)pyrene		192972	192972	8.20E-02
Benzo(g,h,i)perylene		191242	191242	2.00E-01
Benzo(k)fluoranthene		207089	207089	1.60E-01
Bis(2-ethylhexyl)phthalate				
Chrysene	218019		218019	2.20E-01
Dibenzo(a,h)anthracene		53703	53703	3.90E-02
Di-n-octylphthalate		117840	117840	2.90E-01
Fluoranthene	206440		206440	6.40E-01
Fluorene	86737		86737	9.40E-02
Indeno(1,2,3-cd)pyrene		193395	193395	2.60E-01
Naphthalene	91203		91203	7.60E-02
N-Nitrosodimethylamine	62759		62759	5.80E-02
Phenanthrene	85018		85018	4.90E-01
Pyrene	129000		129000	5.20E-01
Aroclor 1254		1336363	1336363	1.50E-01
Aroclor 1260		1336363	1336363	1.40E-01
Aroclor 5460		1336363	1336363	1.70E-01
4,4'-DDD		72548	72548	9.35E-05
4,4'-DDE		72559	72559	1.79E-03
4,4'-DDT		50293	50293	2.48E-03
beta-BHC		319857	319857	7.20E-05
Chlordane (Technical)		57749	57749	1.96E-03
delta-BHC		608731	608731	5.55E-05
Dieldrin	60571		60571	8.08E-05
MCPA		1065	1065	1.42E-01
MCPP				

Santa Susana Field Laboratory
 Combined Concentration Data

Copied from file "SSFL All Data Combined.xlsx" - Pivot Table, and DOE Data tab

Chemical Name	CAS No.	Units	Max Conc	Group No.
PCBs	1336363	mg/kg	0.17	2
1-8OctaCDD	3268879	mg/kg	0.268	2
1-3,7-9HxCDD	19408743	mg/kg	0.000492	2
1-4,6-8HpCDD	35822469	mg/kg	0.00301	2
1-8OctaCDF	39001020	mg/kg	0.00094	2
1-4,7,8HxCDD	39227286	mg/kg	0.000252	2
PCB 189	39635319	mg/kg	0.0000607	2
1-3,7,8PeCDD	40321764	mg/kg	0.00015	2
2,3,7,8-TCDF	51207319	mg/kg	0.00000443	2
1-4,7-9HpCDF	55673897	mg/kg	0.0000425	2
2-4,7,8PeCDF	57117314	mg/kg	0.0000146	2
1-3,7,8PeCDF	57117416	mg/kg	0.00000809	2
1-3,6-8HxCDF	57117449	mg/kg	0.0000149	2
1-3,6-8HxCDD	57653857	mg/kg	0.00061	2
2-4,6-8HxCDF	60851345	mg/kg	0.0000226	2
1-4,6-8HpCDF	67562394	mg/kg	0.000831	2
1-4,7,8HxCDF	70648269	mg/kg	0.0000187	2
1-3,7-9HxCDF	72918219	mg/kg	0.0000202	2
SULFATES	9960	mg/kg	7.5	2
Fluorides&cmpds	1101	mg/kg	7	2
Aluminum	7429905	mg/kg	14400	2
Lead	7439921	mg/kg	341	2
Manganese	7439965	mg/kg	2700	2
Mercury	7439976	mg/kg	1.67	2
Nickel	7440020	mg/kg	21	2
Silver	7440224	mg/kg	35.3	2
Thallium	7440280	mg/kg	0.457	2
Antimony	7440360	mg/kg	41.5	2
Arsenic	7440382	mg/kg	8.56	2
Barium	7440393	mg/kg	681	2
Beryllium	7440417	mg/kg	0.713	2
Cadmium	7440439	mg/kg	20.6	2
Chromium	7440473	mg/kg	1420	2
Cobalt	7440484	mg/kg	7.04	2
Copper	7440508	mg/kg	234	2
Vanadium	7440622	mg/kg	39.6	2
Zinc	7440666	mg/kg	546	2
Selenium	7782492	mg/kg	2.66	2
Cr(VI)	18540299	mg/kg	0.793	2
B[a]P	50328	mg/kg	0.341	2
D[a,h]anthracen	53703	mg/kg	0.036	2
B[a]anthracene	56553	mg/kg	0.276	2
Acenaphthene	83329	mg/kg	0.0254	2
Phenanthrene	85018	mg/kg	0.147	2

Pivot Table from Columns A-E

Pivot	CAS No.	2	3	4	9	DOE	Notes	Max Conc (mg/kg)
Max of Max Conc								
Chemical Name								
[D] Acetone	67641	0.0654	0.886	132	132			132
1,1,1-TCA	71556	0.325	0.00299	0				0.325
1,1,2TriClEthan	79005	0.00206		0				0.00206
1,1-DiClEthane	75343			0				0
1,2,3TriClPropn	96184			0				0
1,2,4TriClBenz	120821		0.007	0				0.007
1,2,4TriMeBenze	95636	5.4	0.036	0.002	0.004			5.4
1,2-DiClBenzene	95501	0.001	0.00703	0				0.00703
1,2-DiClEthylene	540590	0.176	0.0924	14	0.00205			14
1,2-DiClPropane	78875		0.000314	0				0.000314
1,3-DiClBenzene	541731	0.0006	0.000448	0				0.0006
1,3-DiClPropene	542756			0				0
1,4-Dioxane	123911	0.02		0				0.02
1-3,6-8HxCDD	57653857	0.00061		30.7	3.38E-08			30.7
1-3,6-8HxCDF	57117449	0.0000149		4.8	7.96E-09			4.8
1-3,7,8PeCDD	40321764	0.00015		6.32	3.9E-09			6.32
1-3,7,8PeCDF	57117416	0.00000809		8.3	9.57E-09			8.3
1-3,7-9HxCDD	19408743	0.000492		20.6	1.76E-08			20.6
1-3,7-9HxCDF	72918219	0.0000202		0.748	2.29E-09			0.748
1-4,6-8HpCDD	35822469	0.00301		536	0.00000112			536
1-4,6-8HpCDF	67562394	0.000831		71.9	0.000138			71.9
1-4,7,8HxCDD	39227286	0.000252		9.53	8.77E-09			9.53
1-4,7,8HxCDF	70648269	0.0000187		8.6	8.61E-09			8.6
1-4,7-9HpCDF	55673897	0.0000425		2.22	1.35E-08			2.22
1-8OctaCDD	3268879	0.268		6140	0.00899			6140
1-8OctaCDF	39001020	0.00094		158	0.000000334			158
2,3,7,8-TCDF	51207319	0.00000443		12.9	3.62E-08			12.9
2,4,5TriClPhenl	95954			0				0
2,4,6TriClPhenl	88062			0				0
2,4-DiClPhenol	120832			0				0
2,4-DiMePhenol	105679	2.88	11.5	0				11.5
2,4-DiNitToluen	121142			0				0
2,4-DiNPhenol	51285			0				0
2,6-DiNitToluen	606202			0				0
2-4,6-8HxCDF	60851345	0.0000226		8.4	0.000009			8.4
2-4,7,8PeCDF	57117314	0.0000146		4.69	5.79E-09			4.69
2-Chlorophenol	95578			0				0
2MeNaphthalene	91576	0.0175		0.041	5.71	0.67		5.71
2-NitroPhenol	88755			0				0
3,3'DiClBenzidn	91941			0				0
4,6-DiNiCresol	534521			0				0

Chemical Name	CAS No.	Units	Max Conc	Group No.									
Fluorene	86737	mg/kg	0.0142	2	4-Nitrophenol	100027			0				0
Naphthalene	91203	mg/kg	0.0162	2	Acenaphthene	83329	0.0254		0.021	0.417	0.18		0.417
2MeNaphthalene	91576	mg/kg	0.0175	2	Acenaphthylene	208968	0.0073		0.0055	0.274			0.274
Anthracene	120127	mg/kg	0.0214	2	Aldrin	309002			0				0
Pyrene	129000	mg/kg	0.328	2	alphaHexClCycHx	319846			0				0
B[g,h,i]perylene	191242	mg/kg	0.138	2	Aluminum	7429905	14400	20000	21000	29300			29300
In[1,2,3-cd]pyr	193395	mg/kg	0.264	2	Aniline	62533			0				0
B[b]fluoranthen	205992	mg/kg	0.383	2	Anthracene	120127	0.0214		0.064	0.441	0.13		0.441
Fluoranthene	206440	mg/kg	0.294	2	Antimony	7440360	41.5	4.52	3.4	2.16	8.6		41.5
B[k]fluoranthen	207089	mg/kg	0.155	2	Arsenic	7440382	8.56	9.7	11	8.68			11
Acenaphthylene	208968	mg/kg	0.0073	2	Azobenzene	103333			0				0
Chrysene	218019	mg/kg	0.187	2	B[a]anthracene	56553	0.276		0.27	0.0132	0.29		0.29
DiethylPhthalat	84662	mg/kg	0.03	2	B[a]P	50328	0.341		0.25	0.0182	0.22		0.341
DiButyl Phthal	84742	mg/kg	268	2	B[b]fluoranthen	205992	0.383		0.3	0.0286	0.26		0.383
ButylBenzPhthal	85687	mg/kg	0.00944	2	B[e]pyrene	192972					0.082		0.082
N-NitrosDiPhAmi	86306	mg/kg	0.35	2	B[g,h,i]perylene	191242	0.138		0.13	0.0254	0.2		0.2
Benzidine	92875	mg/kg	0.347	2	B[k]fluoranthen	207089	0.155		0.11	0.0127	0.16		0.16
o-Cresol	95487	mg/kg	1.05	2	Barium	7440393	681	110	140	161			681
2,4-DiMePhenol	105679	mg/kg	2.88	2	Benzene	71432	0.001		0.07	0.00732			0.07
m-Cresol	108394	mg/kg	43	2	Benzidine	92875	0.347		0				0.347
Phenol	108952	mg/kg	2.84	2	Beryllium	7440417	0.713	1.4	0.83	0.984			1.4
Di2-EthHxPhthal	117817	mg/kg	20.8	2	Bis(2ClEth)Ethr	111444			0				0
n-DiOctylPhthal	117840	mg/kg	2.6	2	BromoDiClMethan	75274		0.009	0	0.007			0.009
1,4-Dioxane	123911	mg/kg	0.02	2	Bromoform	75252							0
[D] Acetone	67641	mg/kg	0.0654	2	ButylBenzPhthal	85687	0.00944	0.127	0.0051	0.0127			0.127
Chloroform	67663	mg/kg	0.00211	2	Cadmium	7440439	20.6	8	49	1.33	0.38	Hotspot.	20.6
Benzene	71432	mg/kg	0.001	2	CCl4	56235			0			Group 4, Coca	0
1,1,1-TCA	71556	mg/kg	0.325	2	CFC-113	76131			0				0
Methyl Bromide	74839	mg/kg	0.0005	2	Chlorobenzn	108907	0.271	0.008	0	0.005			0.271
Vinyl Chloride	75014	mg/kg	0.004	2	ChloroDiBrMetha	124481			0				0
Methylene Chlor	75092	mg/kg	0.59	2	Chloroform	67663	0.00211	0.003	0				0.003
Vinylid Chlorid	75354	mg/kg	0.000324	2	Chromium	7440473	1420	39	100	52.6			1420
MEK	78933	mg/kg	0.00923	2	Chrysene	218019	0.187		0.29	0.0232	0.22		0.29
1,1,2TriClEthan	79005	mg/kg	0.00206	2	Cobalt	7440484	7.04	14	19	9.87			19
TCE	79016	mg/kg	12.2	2	Copper	7440508	234	70.9	71	43.2			234
o-Xylene	95476	mg/kg	0.252	2	Cr(VI)	18540299	0.793	0.768		6.2	0.84	Hotspot.	0.84
1,2-DiClBenzene	95501	mg/kg	0.001	2	CS2	75150			0			Group 9,	0
1,2,4TriMeBenze	95636	mg/kg	5.4	2	Cumene	98828	0.381	0.000432	0				0.381
Cumene	98828	mg/kg	0.381	2	D[a,h]anthracen	53703	0.036		0.041	0.0108	0.039		0.041
Ethyl Benzene	100414	mg/kg	0.0549	2	DBCP	96128			0.009				0.009
Styrene	100425	mg/kg	0.000496	2	DDD	72548					0.0000935		0.0000935
p-DiClBenzene	106467	mg/kg	0.178	2	DDT	50293			0		0.00248		0.00248
Toluene	108883	mg/kg	0.00203	2	Di2-EthHxPhthal	117817	20.8	1.73	0.4	0.425			20.8
Chlorobenzn	108907	mg/kg	0.271	2	Dibenzofuran	132649			0				0
Perc	127184	mg/kg	0.183	2	DiButyl Phthal	84742	268	0.0335	0.0828	0.00893			268
1,2-DiClEthylen	540590	mg/kg	0.176	2	DiClDiFlmethane	75718			0				0
1,3-DiClBenzene	541731	mg/kg	0.0006	2	DiClDiPhEthylen	72559			0		0.00179		0.00179
Xylenes	1330207	mg/kg	0.417	2	Dieldrin	60571			0		0.0000808		0.0000808
PCBs	1336363	mg/kg	5.46	3	DiethylPhthalat	84662	0.03	0.04	0	0.041			0.041
SULFATES	9960	mg/kg	13.7	3	DimethylPhthala	131113			0.00061	0.315			0.315

Chemical Name	CAS No.	Units	Max Conc	Group No.											
Fluorides&cmpds	1101	mg/kg	200	3	EDB	106934				0					0
Aluminum	7429905	mg/kg	20000	3	Ethyl Benzene	100414	0.0549	0.02		0.22	0.0314				0.22
Lead	7439921	mg/kg	59.7	3	Ethyl Chloride	75003				0					0
Manganese	7439965	mg/kg	509	3	Fluoranthene	206440	0.294			0.51	0.0489	0.64			0.64
Mercury	7439976	mg/kg	0.0947	3	Fluorene	86737	0.0142			0.0098	0.563	0.094			0.563
Nickel	7440020	mg/kg	30.9	3	Fluorides&cmpds	1101	7	200		570	3.08				570
Silver	7440224	mg/kg	8.15	3	Formaldehyde	50000		9.48		29	25.6				29
Thallium	7440280	mg/kg	0.636	3	HeptachloEpoxid	1024573				0					0
Antimony	7440360	mg/kg	4.52	3	Heptachlor	76448				0					0
Arsenic	7440382	mg/kg	9.7	3	HexaClBenzene	118741				0					0
Barium	7440393	mg/kg	110	3	HexaClButadiene	87683				0					0
Beryllium	7440417	mg/kg	1.4	3	HexaClEthane	67721				0					0
Cadmium	7440439	mg/kg	8	3	HexClCycPentadi	77474				0					0
Chromium	7440473	mg/kg	39	3	In[1,2,3-cd]pyr	193395	0.264			0.12	0.0177	0.26			0.264
Cobalt	7440484	mg/kg	14	3	Isophorone	78591				0					0
Copper	7440508	mg/kg	70.9	3	Lead	7439921	341	59.7		890	25	180	Hotspots.		180
Vanadium	7440622	mg/kg	58	3	Lindane	58899				0			Group 4, Coca		0
Zinc	7440666	mg/kg	186	3	Manganese	7439965	2700	509		205	586				2700
Selenium	7782492	mg/kg	0.68	3	m-Cresol	108394	43								43
Cr(VI)	18540299	mg/kg	0.768	3	Me t-ButylEther	1634044				0					0
Fluorides&cmpds	1101	mg/kg	7	3	MEK	78933	0.00923	0.014		4.4	0.035				4.4
Aluminum	7429905	mg/kg	15400	3	Mercury	7439976	1.67	0.0947		0.14	0.117	0.83			1.67
Lead	7439921	mg/kg	17.7	3	Methyl Bromide	74839	0.0005			0					0.0005
Manganese	7439965	mg/kg	411	3	Methyl Chloride	74873		0.00204		0					0.00204
Mercury	7439976	mg/kg	0.0133	3	Methylene Chlor	75092	0.59	0.0529		2.3	0.00522				2.3
Nickel	7440020	mg/kg	18.8	3	MethyleneBromid	74953				0					0
Silver	7440224	mg/kg	0.164	3	MIBK	108101		0.00313		0					0.00313
Thallium	7440280	mg/kg	0.192	3	Naphthalene	91203	0.0162			0.07	2	0.076			2
Antimony	7440360	mg/kg	4.15	3	n-DiOctylPhthal	117840	2.6	0.0434		0.0035	0.132	0.29			2.6
Arsenic	7440382	mg/kg	6.57	3	Nickel	7440020	21	30.9		30.1	36.5				36.5
Barium	7440393	mg/kg	100	3	Nitrobenzene	98953				0					0
Beryllium	7440417	mg/kg	1.02	3	N-NitrosDiPhAmi	86306	0.35	0.12		0					0.35
Cadmium	7440439	mg/kg	8	3	N-NitrosDMA	62759				0	0.00862	0.058			0.058
Chromium	7440473	mg/kg	30.2	3	N-NitrosDPRamin	621647				0					0
Cobalt	7440484	mg/kg	11.1	3	o-Cresol	95487	1.05			0					1.05
Copper	7440508	mg/kg	24.6	3	o-Xylene	95476	0.252	0.028		0.006	0.004				0.252
Vanadium	7440622	mg/kg	46.2	3	PCB 189	39635319	0.0000607				0.00319				0.00319
Zinc	7440666	mg/kg	96	3	PCBs	1336363	0.17	5.46		0.69	0.742	0.17			5.46
Selenium	7782492	mg/kg	0.23	3	p-Chloroaniline	106478				0					0
Formaldehyde	50000	mg/kg	9.48	3	PCP	87865				0					0
DiethylPhthalat	84662	mg/kg	0.04	3	p-Cresol	106445				0					0
DiButyl Phthal	84742	mg/kg	0.0335	3	p-DiClBenzene	106467	0.178	0.00335		0.000267					0.178
ButylBenzPhthal	85687	mg/kg	0.127	3	Perc	127184	0.183	0.000943		0.002					0.183
N-NitrosDiPhAmi	86306	mg/kg	0.12	3	Perylene	198550					0.028				0.028
2,4-DiMePhenol	105679	mg/kg	11.5	3	Phenanthrene	85018	0.147			0.25	1.8	0.49			1.8
Phenol	108952	mg/kg	1.39	3	Phenol	108952	2.84	1.39		0					2.84
Di2-EthHxPhthal	117817	mg/kg	1.73	3	Pyrene	129000	0.328			0.46	0.0899	0.52			0.52
n-DiOctylPhthal	117840	mg/kg	0.0434	3	Selenium	7782492	2.66	0.68		1.5	0.779	0.49			2.66
[D] Acetone	67641	mg/kg	0.886	3	Silver	7440224	35.3	8.15		0.52	79.7	0.46			79.7
Chloroform	67663	mg/kg	0.003	3	Styrene	100425	0.000496	0.00788		0	0.000327				0.00788
1,1,1-TCA	71556	mg/kg	0.00299	3	SULFATES	9960	7.5	13.7			56.1				56.1
Methyl Chloride	74873	mg/kg	0.00204	3	t-Butyl Alcohol	75650				0					0
Methylene Chlor	75092	mg/kg	0.0529	3	TCE	79016	12.2	6.74		84	3.63				84
BromoDiClMethan	75274	mg/kg	0.009	3	TetraClEthane	79345				0					0
Vinylid Chlorid	75354	mg/kg	0.00109	3	Thallium	7440280	0.457	0.636		0.73	0.44				0.73
TriClFluorMetha	75694	mg/kg	0.003	3	Toluene	108883	0.00203	0.00144		0.008	0.1				0.1
1,2-DiClPropane	78875	mg/kg	0.000314	3	TriClFluorMetha	75694		0.003		0	0.002				0.003
MEK	78933	mg/kg	0.014	3	Vanadium	7440622	39.6	58		51.5	66.4				66.4
TCE	79016	mg/kg	6.74	3	Vinyl Acetate	108054				0					0
o-Xylene	95476	mg/kg	0.028	3	Vinyl Chloride	75014	0.004			0.062					0.062

Chemical Name	CAS No.	Units	Max Conc	Group No.								
1,2-DiClBenzene	95501	mg/kg	0.00703	3	Vinylid Chlorid	75354	0.000324	0.00109	0.0033	0.00097		0.0033
1,2,4TriMeBenze	95636	mg/kg	0.036	3	Xylenes	1330207	0.417	0.034	6.2	0.011		6.2
Cumene	98828	mg/kg	0.000432	3	Zinc	7440666	546	186	2800	160	100	2800
Ethyl Benzene	100414	mg/kg	0.02	3	betaHexClCycHx	319857					0.000072	0.000072
Styrene	100425	mg/kg	0.00788	3	Chlordane	57749					0.00196	0.00196
p-DiClBenzene	106467	mg/kg	0.00335	3	HexClCycHexanes	608731					0.0000555	0.0000555
MIBK	108101	mg/kg	0.00313	3	Cl-phenoxy herb	1065					0.142	0.142
Toluene	108883	mg/kg	0.00144	3								
Chlorobenzn	108907	mg/kg	0.008	3								
1,2,4TriClBenz	120821	mg/kg	0.007	3								
Perc	127184	mg/kg	0.000943	3								
1,2-DiClEthylen	540590	mg/kg	0.0924	3								
1,3-DiClBenzene	541731	mg/kg	0.000448	3								
Xylenes	1330207	mg/kg	0.034	3								
Fluorides&cmpds	1101	mg/kg	570	4								
Formaldehyde	50000	mg/kg	29	4								
DDT	50293	µg/kg	0	4								
B[a]P	50328	µg/kg	0.25	4								
2,4-DiNPhenol	51285	µg/kg	0	4								
D[a,h]anthracen	53703	µg/kg	0.041	4								
CCl4	56235	µg/kg	0	4								
B[a]anthracene	56553	µg/kg	0.27	4								
Lindane	58899	µg/kg	0	4								
Dieldrin	60571	µg/kg	0	4								
Aniline	62533	µg/kg	0	4								
N-NitrosDMA	62759	µg/kg	0	4								
[D] Acetone	67641	µg/kg	132	4								
Chloroform	67663	µg/kg	0	4								
HexaClEthane	67721	µg/kg	0	4								
Benzene	71432	µg/kg	0.07	4								
1,1,1-TCA	71556	µg/kg	0	4								
DDD	72548	µg/kg	0	4								
DiClDiPhEthylen	72559	µg/kg	0	4								
Methyl Bromide	74839	µg/kg	0	4								
Methyl Chloride	74873	µg/kg	0	4								
MethyleneBromid	74953	µg/kg	0	4								
Ethyl Chloride	75003	µg/kg	0	4								
Vinyl Chloride	75014	µg/kg	0.062	4								
Methylene Chlor	75092	µg/kg	2.3	4								
CS2	75150	µg/kg	0	4								

Chemical Name	CAS No.	Units	Max Conc	Group No.
Bromoform	75252	µg/kg	0	4
BromoDiClMethan	75274	µg/kg	0	4
1,1-DiClEthane	75343	µg/kg	0	4
Vinylid Chlorid	75354	µg/kg	0.0033	4
t-Butyl Alcohol	75650	µg/kg	0	4
TriClFluorMetha	75694	µg/kg	0	4
DiClDiFlmethane	75718	µg/kg	0	4
CFC-113	76131	µg/kg	0	4
Heptachlor	76448	µg/kg	0	4
HexClCycPentadi	77474	µg/kg	0	4
Isophorone	78591	µg/kg	0	4
1,2-DiClPropane	78875	µg/kg	0	4
MEK	78933	µg/kg	4.4	4
1,1,2TriClEthan	79005	µg/kg	0	4
TCE	79016	µg/kg	84	4
TetraClEthane	79345	µg/kg	0	4
Acenaphthene	83329	µg/kg	0.021	4
DiethylPhthalat	84662	µg/kg	0	4
DiButyl Phthal	84742	µg/kg	0.0828	4
Phenanthrene	85018	µg/kg	0.25	4
ButylBenzPhthal	85687	µg/kg	0.0051	4
N-NitrosDiPhAmi	86306	µg/kg	0	4
Fluorene	86737	µg/kg	0.0098	4
HexaClButadiene	87683	µg/kg	0	4
PCP	87865	µg/kg	0	4
2,4,6TriClPhenl	88062	µg/kg	0	4
2-NitroPhenol	88755	µg/kg	0	4
Naphthalene	91203	µg/kg	0.07	4
2MeNaphthalene	91576	µg/kg	0.041	4
3,3'DiClBenzidn	91941	µg/kg	0	4
Benzidine	92875	µg/kg	0	4
o-Xylene	95476	µg/kg	0.006	4
o-Cresol	95487	µg/kg	0	4
1,2-DiClBenzene	95501	µg/kg	0	4
2-Chlorophenol	95578	µg/kg	0	4
1,2,4TriMeBenze	95636	µg/kg	0.002	4
2,4,5TriClPhenl	95954	µg/kg	0	4
DBCP	96128	µg/kg	0.009	4
1,2,3TriClPropn	96184	µg/kg	0	4
Cumene	98828	µg/kg	0	4
Nitrobenzene	98953	µg/kg	0	4
4-Nitrophenol	100027	µg/kg	0	4
Ethyl Benzene	100414	µg/kg	0.22	4
Styrene	100425	µg/kg	0	4
Azobenzene	103333	µg/kg	0	4
2,4-DiMePhenol	105679	µg/kg	0	4
p-Cresol	106445	µg/kg	0	4
p-DiClBenzene	106467	µg/kg	0.000267	4
p-Chloroaniline	106478	µg/kg	0	4
EDB	106934	µg/kg	0	4
Vinyl Acetate	108054	µg/kg	0	4
MIBK	108101	µg/kg	0	4
Toluene	108883	µg/kg	0.008	4
Chlorobenzn	108907	µg/kg	0	4
Phenol	108952	µg/kg	0	4
Bis(2ClEth)Ethr	111444	µg/kg	0	4
Di2-EthHxPhthal	117817	µg/kg	0.4	4
n-DiOctylPhthal	117840	µg/kg	0.0035	4
HexaClBenzene	118741	µg/kg	0	4
Anthracene	120127	µg/kg	0.064	4

Chemical Name	CAS No.	Units	Max Conc	Group No.
1,2,4TriClBenz	120821	µg/kg	0	4
2,4-DiClPhenol	120832	µg/kg	0	4
2,4-DiNitToluen	121142	µg/kg	0	4
1,4-Dioxane	123911	µg/kg	0	4
ChloroDiBrMetha	124481	µg/kg	0	4
Perc	127184	µg/kg	0.002	4
Pyrene	129000	µg/kg	0.46	4
DimethylPhthala	131113	µg/kg	0.00061	4
Dibenzofuran	132649	µg/kg	0	4
B[g,h,i]perylene	191242	µg/kg	0.13	4
In[1,2,3-cd]pyr	193395	µg/kg	0.12	4
B[b]fluoranthen	205992	µg/kg	0.3	4
Fluoranthene	206440	µg/kg	0.51	4
B[k]fluoranthen	207089	µg/kg	0.11	4
Acenaphthylene	208968	µg/kg	0.0055	4
Chrysene	218019	µg/kg	0.29	4
Aldrin	309002	µg/kg	0	4
alphaHexClCycHx	319846	µg/kg	0	4
4,6-DiNiCresol	534521	µg/kg	0	4
1,2-DiClEthylen	540590	µg/kg	14	4
1,3-DiClBenzene	541731	µg/kg	0	4
1,3-DiClPropene	542756	µg/kg	0	4
2,6-DiNitToluen	606202	µg/kg	0	4
N-NitrosDPrAmin	621647	µg/kg	0	4
HeptachloEpoxid	1024573	µg/kg	0	4
Xylenes	1330207	µg/kg	6.2	4
PCBs	1336363	µg/kg	0.69	4
Me t-ButylEther	1634044	µg/kg	0	4
1-8OctaCDD	3268879	pg/g	6140	4
Aluminum	7429905	mg/kg	21000	4
Lead	7439921	mg/kg	890	4
Manganese	7439965	mg/kg	205	4
Mercury	7439976	mg/kg	0.14	4
Nickel	7440020	mg/kg	30.1	4
Silver	7440224	mg/kg	0.52	4
Thallium	7440280	mg/kg	0.73	4
Antimony	7440360	mg/kg	3.4	4
Arsenic	7440382	mg/kg	11	4
Barium	7440393	mg/kg	140	4
Beryllium	7440417	mg/kg	0.83	4

Chemical Name	CAS No.	Units	Max Conc	Group No.
Cadmium	7440439	mg/kg	49	4
Chromium	7440473	mg/kg	100	4
Cobalt	7440484	mg/kg	19	4
Copper	7440508	mg/kg	71	4
Vanadium	7440622	mg/kg	51.5	4
Zinc	7440666	mg/kg	2800	4
Selenium	7782492	mg/kg	1.5	4
Cr(VI)	18540299	mg/kg		4
1-3,7-9HxCDD	19408743	pg/g	20.6	4
1-4,6-8HpCDD	35822469	pg/g	536	4
1-8OctaCDF	39001020	pg/g	158	4
1-4,7,8HxCDD	39227286	pg/g	9.53	4
1-3,7,8PeCDD	40321764	pg/g	6.32	4
2,3,7,8-TCDF	51207319	pg/g	12.9	4
1-4,7-9HpCDF	55673897	pg/g	2.22	4
2-4,7,8PeCDF	57117314	pg/g	4.69	4
1-3,7,8PeCDF	57117416	pg/g	8.3	4
1-3,6-8HxCDF	57117449	pg/g	4.8	4
1-3,6-8HxCDD	57653857	pg/g	30.7	4
2-4,6-8HxCDF	60851345	pg/g	8.4	4
1-4,6-8HpCDF	67562394	pg/g	71.9	4
1-4,7,8HxCDF	70648269	pg/g	8.6	4
1-3,7-9HxCDF	72918219	pg/g	0.748	4
Fluorides&cmpds	1101	mg/kg	3.08	9
SULFATES	9960	mg/kg	56.1	9
Formaldehyde	50000	mg/kg	25.6	9
B[a]P	50328	mg/kg	0.0182	9
D[a,h]anthracen	53703	mg/kg	0.0108	9
B[a]anthracene	56553	mg/kg	0.0132	9
N-NitrosDMA	62759	mg/kg	0.00862	9
[D] Acetone	67641	mg/kg	132	9
Benzene	71432	mg/kg	0.00732	9
Methylene Chlor	75092	mg/kg	0.00522	9
BromoDiClMethan	75274	mg/kg	0.007	9
Vinylid Chlorid	75354	mg/kg	0.00097	9
TriClFluorMetha	75694	mg/kg	0.002	9
MEK	78933	mg/kg	0.035	9
TCE	79016	mg/kg	3.63	9
Acenaphthene	83329	mg/kg	0.417	9
DiethylPhthalat	84662	mg/kg	0.041	9
DiButyl Phthal	84742	mg/kg	0.00893	9
Phenanthrene	85018	mg/kg	1.8	9
ButylBenzPhthal	85687	mg/kg	0.0127	9
Fluorene	86737	mg/kg	0.563	9
Napthalene	91203	mg/kg	2	9
2MeNapthalene	91576	mg/kg	5.71	9
o-Xylene	95476	mg/kg	0.004	9
1,2,4TriMeBenze	95636	mg/kg	0.004	9
Ethyl Benzene	100414	mg/kg	0.0314	9
Styrene	100425	mg/kg	0.000327	9
Toluene	108883	mg/kg	0.1	9
Chlorobenzn	108907	mg/kg	0.005	9
Di2-EthHxPhthal	117817	mg/kg	0.425	9
n-DiOctylPhthal	117840	mg/kg	0.132	9
Anthracene	120127	mg/kg	0.441	9
Pyrene	129000	mg/kg	0.0899	9
DimethylPhthala	131113	mg/kg	0.315	9
B[g,h,i]perylene	191242	mg/kg	0.0254	9
In[1,2,3-cd]pyr	193395	mg/kg	0.0177	9
Perylene	198550	mg/kg	0.028	9

Chemical Name	CAS No.	Units	Max Conc	Group No.
B[b]fluoranthen	205992	mg/kg	0.0286	9
Fluoranthene	206440	mg/kg	0.0489	9
B[k]fluoranthen	207089	mg/kg	0.0127	9
Acenaphthylene	208968	mg/kg	0.274	9
Chrysene	218019	mg/kg	0.0232	9
1,2-DiClEthylen	540590	mg/kg	0.00205	9
Xylenes	1330207	mg/kg	0.011	9
PCBs	1336363	mg/kg	0.742	9
1-8OctaCDD	3268879	mg/kg	0.00899	9
Aluminum	7429905	mg/kg	29300	9
Lead	7439921	mg/kg	25	9
Manganese	7439965	mg/kg	586	9
Mercury	7439976	mg/kg	0.117	9
Nickel	7440020	mg/kg	36.5	9
Silver	7440224	mg/kg	79.7	9
Thallium	7440280	mg/kg	0.44	9
Antimony	7440360	mg/kg	2.16	9
Arsenic	7440382	mg/kg	8.68	9
Barium	7440393	mg/kg	161	9
Beryllium	7440417	mg/kg	0.984	9
Cadmium	7440439	mg/kg	1.33	9
Chromium	7440473	mg/kg	52.6	9
Cobalt	7440484	mg/kg	9.87	9
Copper	7440508	mg/kg	43.2	9
Vanadium	7440622	mg/kg	66.4	9
Zinc	7440666	mg/kg	160	9
Selenium	7782492	mg/kg	0.779	9
Cr(VI)	18540299	mg/kg	6.2	9
1-3,7-9HxCDD	19408743	mg/kg	1.76E-08	9
1-4,6-8HpCDD	35822469	mg/kg	0.00000112	9
1-8OctaCDF	39001020	mg/kg	0.00000334	9
1-4,7,8HxCDD	39227286	mg/kg	8.77E-09	9
PCB 189	39635319	mg/kg	0.00319	9
1-3,7,8PeCDD	40321764	mg/kg	3.9E-09	9
2,3,7,8-TCDF	51207319	mg/kg	3.62E-08	9
1-4,7-9HpCDF	55673897	mg/kg	1.35E-08	9
2-4,7,8PeCDF	57117314	mg/kg	5.79E-09	9
1-3,7,8PeCDF	57117416	mg/kg	9.57E-09	9
1-3,6-8HxCDF	57117449	mg/kg	7.96E-09	9
1-3,6-8HxCDD	57653857	mg/kg	3.38E-08	9

Chemical Name	CAS No.	Units	Max Conc	Group No.
2-4,6-8HxCDF	60851345	mg/kg	0.000009	9
1-4,6-8HpCDF	67562394	mg/kg	0.000138	9
1-4,7,8HxCDF	70648269	mg/kg	8.61E-09	9
1-3,7-9HxCDF	72918219	mg/kg	2.29E-09	9
Antimony	7440360	mg/kg	8.6	DOE
Cadmium	7440439	mg/kg	0.38	DOE
Cr(VI)	18540299	mg/kg	0.84	DOE
Lead	7439921	mg/kg	180	DOE
Mercury	7439976	mg/kg	0.83	DOE
Selenium	7782492	mg/kg	0.49	DOE
Silver	7440224	mg/kg	0.46	DOE
Zinc	7440666	mg/kg	100	DOE
2MeNaphthalene	91576	mg/kg	0.67	DOE
Acenaphthene	83329	mg/kg	0.18	DOE
Anthracene	120127	mg/kg	0.13	DOE
B[a]anthracene	56553	mg/kg	0.29	DOE
B[a]P	50328	mg/kg	0.22	DOE
B[b]fluoranthene	205992	mg/kg	0.26	DOE
B[e]pyrene	192972	mg/kg	0.082	DOE
B[g,h,i]perylene	191242	mg/kg	0.2	DOE
B[k]fluoranthene	207089	mg/kg	0.16	DOE
Chrysene	218019	mg/kg	0.22	DOE
D[a,h]anthracene	53703	mg/kg	0.039	DOE
n-DiOctylPhthal	117840	mg/kg	0.29	DOE
Fluoranthene	206440	mg/kg	0.64	DOE
Fluorene	86737	mg/kg	0.094	DOE
In[1,2,3-cd]pyr	193395	mg/kg	0.26	DOE
Naphthalene	91203	mg/kg	0.076	DOE
N-NitrosDMA	62759	mg/kg	0.058	DOE
Phenanthrene	85018	mg/kg	0.49	DOE
Pyrene	129000	mg/kg	0.52	DOE
PCBs	1336363	mg/kg	0.15	DOE
PCBs	1336363	mg/kg	0.14	DOE
PCBs	1336363	mg/kg	0.17	DOE
DDD	72548	mg/kg	0.0000935	DOE
DiClDiPhEthylen	72559	mg/kg	0.00179	DOE
DDT	50293	mg/kg	0.00248	DOE
betaHexClCycHx	319857	mg/kg	0.000072	DOE
Chlordane	57749	mg/kg	0.00196	DOE
HexClCycHexanes	608731	mg/kg	0.0000555	DOE
Dieldrin	60571	mg/kg	0.0000808	DOE
Cl-phenoxy herb	1065	mg/kg	0.142	DOE

Santa Susana Field Laboratory
Chemical List

← These numbers will be used to calculate emissions for HARP Input. Taken from Combined Conc Data tab and Dioxins tab.

No.	Row Labels	CAS No.	Max	
1	[D] Acetone	67641	132	
2	1,1,1-TCA	71556	0.325	
3	1,1,2TriClEthan	79005	0.00206	
4	1,1-DiClEthane	75343	0	
5	1,2,3TriClPropn	96184	0	
6	1,2,4TriClBenz	120821	0.007	
7	1,2,4TriMeBenzene	95636	5.4	
8	1,2-DiClBenzene	95501	0.00703	
9	1,2-DiClEthylen	540590	14	
10	1,2-DiClPropane	78875	0.000314	
11	1,3-DiClBenzene	541731	0.0006	
12	1,3-DiClPropene	542756	0	
13	1,4-Dioxane	123911	0.02	
14	1-3,6-8HxCDD	57653857		30.7 Dioxins
15	1-3,6-8HxCDF	57117449		4.8 Dioxins
16	1-3,7,8PeCDD	40321764		6.32 Dioxins
17	1-3,7,8PeCDF	57117416		8.3 Dioxins
18	1-3,7-9HxCDD	19408743		20.6 Dioxins
19	1-3,7-9HxCDF	72918219		0.748 Dioxins
20	1-4,6-8HpCDD	35822469		536 Dioxins
21	1-4,6-8HpCDF	67562394		71.9 Dioxins
22	1-4,7,8HxCDD	39227286		9.53 Dioxins
23	1-4,7,8HxCDF	70648269		8.6 Dioxins
24	1-4,7-9HpCDF	55673897		2.22 Dioxins
25	1-8OctaCDD	3268879		6140 Dioxins
26	1-8OctaCDF	39001020		158 Dioxins
27	2,3,7,8-TCDF	51207319		12.9 Dioxins
28	2,4,5TriClPhenl	95954	0	
29	2,4,6TriClPhenl	88062	0	
30	2,4-DiClPhenol	120832	0	
31	2,4-DiMePhenol	105679	11.5	
32	2,4-DiNIToluen	121142	0	
33	2,4-DiNPhenol	51285	0	
34	2,6-DiNIToluen	606202	0	
35	2-4,6-8HxCDF	60851345		8.4 Dioxins
36	2-4,7,8PeCDF	57117314		4.69 Dioxins
37	2-Chlorophenol	95578	0	
38	2MeNaphthalene	91576	5.71	
39	2-NitroPhenol	88755	0	
40	3,3'DiClBenzidn	91941	0	
41	4,6-DiNICresol	534521	0	
42	4-Nitrophenol	100027	0	
43	Acenaphthene	83329	0.417	
44	Acenaphthylene	208968	0.274	
45	Aldrin	309002	0	
46	alphaHexClCycHx	319846	0	
47	Aluminum	7429905	29300	
48	Aniline	62533	0	
49	Anthracene	120127	0.441	
50	Antimony	7440360	41.5	
51	Arsenic	7440382	11	
52	Azobenzene	103333	0	
53	B[a]anthracene	56553	0.29	
54	B[a]P	50328	0.341	
55	B[b]fluoranthen	205992	0.383	
56	B[e]pyrene	192972	0.082	
57	B[g,h,i]perylene	191242	0.2	
58	B[k]fluoranthen	207089	0.16	
59	Barium	7440393	681	
60	Benzene	71432	0.07	
61	Benzidine	92875	0.347	
62	Beryllium	7440417	1.4	
63	Bis(2ClEth)Ethr	111444	0	
64	BromoDiClMethan	75274	0.009	
65	Bromoform	75252	0	
66	ButylBenzPhthal	85687	0.127	
67	Cadmium	7440439	20.6	
68	CCl4	56235	0	
69	CFC-113	76131	0	
70	Chlorobenzn	108907	0.271	
71	ChloroDiBrMetha	124481	0	
72	Chloroform	67663	0.003	
73	Chromium	7440473	1420	
74	Chrysene	218019	0.29	
75	Cobalt	7440484	19	
76	Copper	7440508	234	
77	Cr(VI)	18540299	0.84	
78	CS2	75150	0	
79	Cumene	98828	0.381	
80	D[a,h]anthracen	53703	0.041	
81	DBCP	96128	0.009	
82	DDD	72548	0.0000935	
83	DDT	50293	0.00248	
84	Di2-EthHxPhthal	117817	20.8	
85	Dibenzofuran	132649	0	
86	DiButyl Phthal	84742	268	
87	DiClDiFimethane	75718	0	
88	DiClDiPhEthylen	72559	0.00179	
89	Dieldrin	60571	0.0000808	
90	DiethylPhthalat	84662	0.041	
91	DimethylPhthala	131113	0.315	
92	EDB	106934	0	
93	Ethyl Benzene	100414	0.22	
94	Ethyl Chloride	75003	0	
95	Fluoranthene	206440	0.64	
96	Fluorene	86737	0.563	
97	Fluorides&cmpds	1101	570	

← These numbers will be used to calculate emissions for HARP Input. Taken from Combined Conc Data tab and Dioxins tab.

No.	Row Labels	CAS No.	Max
98	Formaldehyde	50000	29
99	HeptachloEpoxid	1024573	0
100	Heptachlor	76448	0
101	HexaClBenzene	118741	0
102	HexaClButadiene	87683	0
103	HexaClEthane	67721	0
104	HexClCycPentadi	77474	0
105	In[1,2,3-cd]pyr	193395	0.264
106	Isophorone	78591	0
107	Lead	7439921	180
108	Lindane	58899	0
109	Manganese	7439965	2700
110	m-Cresol	108394	43
111	Me t-ButylEther	1634044	0
112	MEK	78933	4.4
113	Mercury	7439976	1.67
114	Methyl Bromide	74839	0.0005
115	Methyl Chloride	74873	0.00204
116	Methylene Chlor	75092	2.3
117	MethyleneBromid	74953	0
118	MIBK	108101	0.00313
119	Naphthalene	91203	2
120	n-DiOctylPhthal	117840	2.6
121	Nickel	7440020	36.5
122	Nitrobenzene	98953	0
123	N-NitrosDiPhAmi	86306	0.35
124	N-NitrosDMA	62759	0.058
125	N-NitrosDPrAmin	621647	0
126	o-Cresol	95487	1.05
127	o-Xylene	95476	0.252
128	PCB 189	39635319	0.00319
129	PCBs	1336363	5.46
130	p-Chloroaniline	106478	0
131	PCP	87865	0
132	p-Cresol	106445	0
133	p-DiClBenzene	106467	0.178
134	Perc	127184	0.183
135	Perylene	198550	0.028
136	Phenanthrene	85018	1.8
137	Phenol	108952	2.84
138	Pyrene	129000	0.52
139	Selenium	7782492	2.66
140	Silver	7440224	79.7
141	Styrene	100425	0.00788
142	SULFATES	9960	56.1
143	t-Butyl Alcohol	75650	0
144	TCE	79016	84
145	TetraClEthane	79345	0
146	Thallium	7440280	0.73
147	Toluene	108883	0.1
148	TriClFluorMetha	75694	0.003
149	Vanadium	7440622	66.4
150	Vinyl Acetate	108054	0
151	Vinyl Chloride	75014	0.062
152	Vinylid Chlorid	75354	0.0033
153	Xylenes	1330207	6.2
154	Zinc	7440666	2800
155	betaHexClCycHx	319857	0.000072
156	Chlordane	57749	0.00196
157	HexClCycHexanes	608731	0.0000555
158	Cl-phenoxy herb	1065	0.142
159	2,3,7,8-TCDD	1746016	0.0001058

Santa Susana Field Laboratory

List of Hotspots and Chemicals

Please see file titled "Hotspots - Fugitive Dust.xlsx" for calculations

Chemical	Concentration (mg/kg)	Location	Chemical			Notes		
			Total Acres	PM10 (lbs/year)	Emissions (lbs/year)			
Cadmium	49	Group 4, Coca site. Test Stand 4	16	416.4	2.0E-02	Page 3-2 of Group 4 RCRA Facility Investigation Report	ASNSR1	Test stand 4 is within the COCA site area
Cr(VI)	6.2	Group 9, Silvernale.	11.8	321.0	2.0E-03	Page 1-8 of SSFL Group9_RI Report	ASDSR1	
Lead	341	Group 2	21.9	550.3	1.9E-01	Page 1-14 of SSFL_GRP2_RFI_Text.pdf	ASDSR1	
Lead	890	Group 4, Coca site	16	416.4	3.7E-01	Page 3-2 of Group 4 RCRA Facility Investigation Report	ASNSR2	
2, 3, 7, 8 - TCDD	4.2E-04	Group 2, ELV	8.6	248.3	1.0E-07	Page 1-14 of SSFL_GRP2_RFI_Text.pdf	ASNSR1	
2, 3, 7, 8 - TCDD	6.5E-04	Group 3, Building 204	4	143.9	9.4E-08	Page 1-18 of SSFL_GRP3_RFI_Text.pdf	ASBSR3	

Santa Susana Field Laboratory
Dioxins List

These values are taken from the file "Dioxin TEQ Summary.xlsx".

Use this for HARP

Group No.	Area	Units	Maximum Detected Concentration	Representative Concentration (mg/kg)	Percent of Maximum
4	Coca	mg/kg	1.8E-05	1.1E-04	3%
4	Delta	mg/kg	2.1E-05		3%
4	PLF	mg/kg	1.5E-06		0%
9	Silvernale	mg/kg	2.2E-08		0%
9	Silvernale	mg/kg	3.5E-08		0%
9	Silvernale	mg/kg	2.8E-08		0%
9	CDFF	mg/kg	3.0E-05		5%
9	CDFF	mg/kg	4.9E-05		8%
9	CDFF	mg/kg	2.7E-05		4%
3	Building 204	mg/kg	6.5E-04		100%
3	Building 204	mg/kg	0.0E+00		0%
3	Building 204	mg/kg	0.0E+00		0%
3	Building 204	mg/kg	0.0E+00		0%
3	Building 204	mg/kg	0.0E+00		0%
3	Building 204	mg/kg	0.0E+00		0%
3	ABFF	mg/kg	4.7E-07		0%
3	ABFF	mg/kg	0.0E+00		0%
3	ABFF	mg/kg	0.0E+00		0%
3	ABFF	mg/kg	0.0E+00		0%
3	ABFF	mg/kg	0.0E+00		0%
3	ABFF	mg/kg	0.0E+00		0%
3	Bravo	mg/kg	3.8E-05		6%
3	Bravo	mg/kg	0.0E+00		0%
3	Bravo	mg/kg	0.0E+00		0%
3	Bravo	mg/kg	0.0E+00		0%
3	Bravo	mg/kg	0.0E+00		0%
3	Bravo	mg/kg	0.0E+00		0%
3	Alfa	mg/kg	1.1E-04		16%
3	Alfa	mg/kg	0.0E+00		0%
3	Alfa	mg/kg	0.0E+00		0%
3	Alfa	mg/kg	0.0E+00		0%
3	Alfa	mg/kg	0.0E+00		0%
3	Alfa	mg/kg	0.0E+00		0%
3	Skyline Road	mg/kg	2.8E-06		0%
3	Skyline Road	mg/kg	0.0E+00		0%
3	Skyline Road	mg/kg	0.0E+00		0%
3	Skyline Road	mg/kg	0.0E+00		0%
3	Skyline Road	mg/kg	0.0E+00		0%
3	Skyline Road	mg/kg	0.0E+00		0%
DOE	3	mg/kg	3.5E-06		1%
DOE	5A	mg/kg	7.1E-06		1%
DOE	5B	mg/kg	6.3E-06		1%
DOE	5C	mg/kg	6.7E-06		1%
DOE	5D	mg/kg	4.4E-06		1%
DOE	6	mg/kg	1.5E-05		2%
DOE	7	mg/kg	6.5E-06		1%
DOE	8	mg/kg	1.8E-06		0%
DOE	NBZ	mg/kg	3.0E-06		0%
2	Area II	mg/kg	5.9E-06		1%
2	Area II	mg/kg	1.6E-05		3%
2	Area II	mg/kg	1.4E-05		2%
2	Ash Pile	mg/kg	4.1E-06		1%
2	Ash Pile	mg/kg	4.0E-06		1%
2	Ash Pile	mg/kg	4.9E-06		1%
2	LOX	mg/kg	2.0E-06		0%
2	LOX	mg/kg	2.0E-06		0%
2	LOX	mg/kg	1.3E-06		0%
2	ELV	mg/kg	2.6E-04		39%
2	ELV	mg/kg	3.8E-04		58%
2	ELV	mg/kg	4.2E-04		64%

Santa Susana Field Laboratory
 Health Table - Unmitigated

Pollutant ID	Pollutant Name	Abbreviated Name	INHALATIONCANCERSLOPEFACTOR	ORALCANCERSLOPEFACTOR	INHALATIONCHRONICREL	ORALCHRONICREL	INHALATIONCHRONIC_REL_BHR	ACUTEREL	ISMULTIPATHWAY	MolWtCorrection
108171262	Chlorinated paraffins (average chain length, C12; approx. 60% Cl by weight)	ChlorParaffins			0.089				FALSE	1
86220420	Nafarelin acetate	Nafarelin Aceta							FALSE	1
77501634	Lactofen	Lactofen							FALSE	1
76180966	IQ (2-Amino-3-methylimidazo[4,5-f]quinoxaline)	IQ							FALSE	1
74472370	2,3,4,4',5'-Pentachlorobiphenyl (PCB 114)	PCB 114	3.9	3.9	1.3	0.00033			TRUE	1
72938219	1,2,3,7,8-Heptachlorodibenzofuran	1-3,7-BHxCDF	13000	13000	0.0004	1.0E-07			TRUE	1
70648269	1,2,3,4,7,8-Hexachlorodibenzofuran	1-4,7-BHxCDF	13000	13000	0.0004	1.0E-07			TRUE	1
70476823	Mitoxantrone hydrochloride	MitoxantroneHCl							FALSE	1
70362504	3,4,4',5'-Tetrachlorobiphenyl (PCB 81)	PCB 81	39	39	0.13	3.30E-05			TRUE	1
69782907	2,3,3',4',4',5'-Hexachlorobiphenyl (PCB 157)	PCB 157	3.9	3.9	1.3	0.00033			TRUE	1
68068377	2-Amino-3-methyl-9H-pyrido[2,3-b] indole [MeA-alpha-C]	MeA-alpha-C							FALSE	1
67730114	Glu-P-1 (2-Amino-6-methylpyridido[1,2-a:3',2'-d]imidazole)	Glu-P-1							FALSE	1
67730103	Glu-P-2 (2-Aminodipyrido[1,2-a:3',2'-d]imidazole)	Glu-P-2							FALSE	1
67562394	1,2,3,4,6,7,8-Heptachlorodibenzofuran	1-4,6-BHxCDF	1300	1300	0.004	1.0E-06			TRUE	1
65510443	2,3,4,4',5'-Pentachlorobiphenyl (PCB 123)	PCB 123	3.9	3.9	1.3	0.00033			TRUE	1
64059194	4-(N-Nitrosomethylamino)-1-(3-pyridyl)-1-butanone (NNK)	4(N-NMeAm)Buta							FALSE	1
62476599	Acifluorfen	Acifluorfen							FALSE	1
62450071	Tri-p-2 (3-Amino-1-methyl-5H-pyrido[4,3-b]indole)	Tri-p-2							FALSE	1
62450060	Tri-p-1 (3-Amino-1,4-dimethyl-5H-pyrido[4,3-b]indole)	Tri-p-1							FALSE	1
62015388	Misoprostol	Misoprostol							FALSE	1
60851345	2,3,4,6,7,8-Hexachlorodibenzofuran	2-4,6-BHxCDF	13000	13000	0.0004	1.0E-07			TRUE	1
60568050	Furmecycloz	Furmecycloz							FALSE	1
60153493	3-(N-Nitrosomethylamino)propionitrile	3(N-NitMeAm)Prp							FALSE	1
59467968	Midazolam hydrochloride	Midazolam HCl							FALSE	1
57835924	4-Nitropyrene	4-Nitropyrene	0.39	1.2					TRUE	1
57653857	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	1-3,6-BHxCDD	13000	13000	0.0004	1.0E-07			TRUE	1
57465288	3,3',4,4',5'-Pentachlorodibenzofuran	PCB 126	13000	13000	0.0004	1.0E-07			TRUE	1
57157449	1,2,3,6,7,8-Hexachlorodibenzofuran	1-3,6-BHxCDF	13000	13000	0.0004	1.0E-07			TRUE	1
57117416	1,2,3,7,8-Pentachlorodibenzofuran	1-3,7,8-BHxCDF	3900	3900	0.0013	3.30E-07			TRUE	1
57117314	2,3,4,7,8-Pentachlorodibenzofuran	2-4,7,8-BHxCDF	39000	39000	0.0013	3.30E-08			TRUE	1
56391572	Netilmicin sulfate	NetilmicinSulfa							FALSE	1
55738540	trans-2-[Dimethylamino]methylimino]-5-[2-(5-nitro-2-furyl)vinyl]-1,3,4-oxadiazol	trans-ZDNMAMMim							FALSE	1
55722275	Total Tetrachlorodibenzofuran	TotalTeTCDF							FALSE	1
55684941	Total Hexachlorodibenzofuran	TotalHexCDF							FALSE	1
55673897	1,2,3,4,7,8,9-Heptachlorodibenzofuran	1-4,7,9HPCDF	1300	1300	0.004	1.0E-06			TRUE	1
54965241	Tamoxifen citrate	TamoxifenCitrat							FALSE	1
54530480	Etretinate	Etretinate							FALSE	1
53973981	Polygeenan	Polygeenan							FALSE	1
52663726	2,3',4,4',5,5'-Hexachlorobiphenyl (PCB 167)	PCB 167	3.9	3.9	1.3	0.00033			TRUE	1
51207319	2,3,7,8-Tetrachlorodibenzofuran	2,3,7,8-TCDF	13000	13000	0.0004	1.0E-07			TRUE	1
49842071	Tobramycin sulfate	TobramycinSulfa							FALSE	1
42397659	1,8-Dinitropyrene	1,8-DiNPyrene	3.9	12					TRUE	1
42397648	1,6-Dinitropyrene	1,6-DiNPyrene	3.9	120					TRUE	1
41903575	Total Tetrachlorodibenzo-p-dioxin	TotalTeTCDD							FALSE	1
41575944	Carboplatin	Carboplatin							FALSE	1
40321764	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	1-3,7,8-BHxCDD	130000	130000	4.0E-05	1.0E-08			TRUE	1
39831555	Amikacin sulfate	AmikacinSulfate							FALSE	1
39635319	2,3,3',4,4',5,5'-Heptachlorobiphenyl (PCB 189)	PCB 189	3.9	3.9	1.3	0.00033			TRUE	1
39300453	Dinocap	Dinocap							FALSE	1
39227286	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	1-4,7,8-BHxCDD	13000	13000	0.0004	1.0E-07			TRUE	1
39156417	2,4-Diaminoanisole sulfate	2,4-DiAmAnisSul							FALSE	1
39001020	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	1-8OctaCDF	39	39	0.13	3.30E-05			TRUE	1
38998753	Total Heptachlorodibenzofuran	TotalHeptaCDF							FALSE	1
38380084	2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 156)	PCB 156	3.9	3.9	1.3	0.00033			TRUE	1
37871004	Total Heptachlorodibenzo-p-dioxin	TotalHeptaCDD							FALSE	1
36791045	Ribavirin	Ribavirin							FALSE	1
36088229	Total Pentachlorodibenzo-p-dioxin	TotalPentaCDD							FALSE	1
35822469	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	1-4,6-BHxCDD	1300	1300	0.004	1.0E-06			TRUE	1
34590948	Dipropylene glycol monomethyl ether	DPGME							FALSE	1
34465468	Total Hexachlorodibenzo-p-dioxin	TotalHexCDD							FALSE	1
34256821	Acetochlor	Acetochlor							FALSE	1
33419420	Etoposide	Etoposide							FALSE	1
32774266	3,3',4,4',5,5'-Hexachlorobiphenyl (PCB 169)	PCB 169	3900	3900	0.0013	3.30E-07			TRUE	1
32598144	2,3,3',4,4'-Pentachlorobiphenyl (PCB 105)	PCB 105	3.9	3.9	1.3	0.00033			TRUE	1
32598133	3,3',4,4'-Tetrachlorobiphenyl (PCB 77)	PCB 77	13	13	0.4	0.0001			TRUE	1
31508006	2,3',4,4',5'-Pentachlorobiphenyl	PCB 118	3.9	3.9	1.3	0.00033			TRUE	1
30402154	Total Pentachlorodibenzofuran	TotalPentaCDF							FALSE	1
28981977	Alprazolam	Alprazolam							FALSE	1
28911015	Triazolam	Triazolam							FALSE	1
28434868	3,3'-Dichloro-4,4'-diaminodiphenyl ether	3,3'DiClDAmPHet							FALSE	1
26995915	Urofollitropin	Urofollitropin							FALSE	1
26471625	Toluene disocyanates	TolueneDiisocyn	0.039		0.008		0.015	2	FALSE	1
26148685	A-alpha-C (2-Amino-9H-pyrido[2,3-b]indole)	A-alpha-C							FALSE	1
25551137	Trimethylbenzenes	TriMeBenzenes							FALSE	1
25321226	Dichlorobenzenes (mixed isomers)	DiClBenzenes							FALSE	1
2521146	Dinitrotoluenes (mixed isomers)	DiNitroToluenes							FALSE	1
25265718	Dipropylene glycol	DPG							FALSE	1
25167833	Tetrachlorophenols	Tetrachloroph							FALSE	1
25154545	Dinitrobenzenes (mixtures of)	DinitroBenz(mix							FALSE	1
25013165	Buylated hydroxyanisole (BHA)	BHA							FALSE	1
24267659	Iodine-131	Iodine-131							FALSE	1
23541506	Daunorubicin hydrochloride	Daunorubic HCl							FALSE	1
23214928	Adriamycin	Adriamycin							FALSE	1
23052173	Halazepam	Halazepam							FALSE	1
2172462	Cyanazine	Cyanazine							FALSE	1
20830813	Daunomycin	Daunomycin							FALSE	1
20816120	Osmium tetroxide	OsmiumTetraOxid							FALSE	1
20325400	3,3'-Dimethylbenzidine dihydrochloride	3,3'DiMeBenzDHCl							FALSE	1
19468743	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	1-3,7,9-BHxCDD	13000	13000	0.0004	1.0E-07			TRUE	1
18883664	Streptozotocin	Streptozotocin							FALSE	1
18662538	Nitriolactic acid, trisodium salt monohydrate	NitrTriAc,tri-s							FALSE	1
18540299	Chromium, hexavalent (& compounds)	Cr(VI)	510	0.5	0.2	0.02			TRUE	1
18378897	Plicamycin	Plicamycin							FALSE	1
17230885	Danzol	Danzol							FALSE	1
16568028	Gyromitrin	Gyromitrin							FALSE	1
16543558	N-Nitrosomonicotine	N-NitrosNorriso							FALSE	1
16071866	Direct Brown 95 (technical grade)	DirBrown95	500						FALSE	1
15972608	Alachlor	Alachlor							FALSE	1
15663271	Cisplatin	Cisplatin							FALSE	1

Santa Susana Field Laboratory
Health Table - Unmitigated

Pollutant ID	Pollutant Name	Abbreviated Name	INHALATIONCANCERSLOPEFACTOR	ORALCANCERSLOPEFACTOR	INHALATIONCHRONICREL	ORALCHRONICREL	INHALATIONCHRONICREL_BHR	ACUTEREL	ISMULTIPATHWAY	MolWtCorrection
15475566	Methotrexate sodium	MethotrexateSod							FALSE	1
54961087	Cycasin	Cycasin							FALSE	1
13909096	1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea (Methyl CCNU)	1(2CE1)MeCCNU							FALSE	1
13765190	Calcium chromate	CalciumChromate	510	0.5	0.2	0.02			TRUE	0.3332
13647353	Trilostane	Trilostane							FALSE	1
13463406	Iron pentacarbonyl	IronPentACrbyl							FALSE	1
13463393	Nickel carbonyl	Ni Carbonyl	0.91		0.014	0.011	0.06	0.2	TRUE	0.3438
13311847	Flutamide	Flutamide							FALSE	1
13256229	N-Nitrososarcosine	N-NitrosoSarcosi							FALSE	1
13121705	Cyhexatin	Cyhexatin							FALSE	1
13010474	1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea (CCNU)	1(2CE1)CCNU							FALSE	1
12510428	Erlonite	Erlonite							FALSE	1
12427382	Maneb	Maneb							FALSE	1
12122677	Zineb	Zineb							FALSE	1
12054487	Nickel hydroxide	Ni Hydroxide	0.91		0.014	0.011	0.06	0.2	TRUE	0.6332
12035722	Nickel subsulfide	Ni Subsulfide	0.91		0.014	0.011	0.06	0.2	TRUE	0.2443
10595956	N-Nitrosomethylethylamine	N-NitrosoMEAmine	22						FALSE	1
10588019	Sodium dichromate	SodiumDichromat	510	0.5	0.2	0.02			TRUE	0.397
10294403	Barium chromate	Barium Chromate	510	0.5	0.2	0.02			TRUE	0.2053
10102440	NITROGEN DIOXIDE	NITROGEN DIOXID						470	FALSE	1
10049044	Chlorine dioxide	ChlorineDioxide			0.6				FALSE	1
10048132	Sterigmatocystin	Sterigmatocysti							FALSE	1
10035106	Hydrogen bromide	HydrogBromide							FALSE	1
10034932	Hydrazine sulfate	HydrazineSulfat							FALSE	1
10028156	OZONE	OZONE						180	FALSE	1
10026138	Phosphorus pentachloride	Phos PentaChlor							FALSE	1
10025873	Phosphorus oxychloride	Phos OxyChlorid							FALSE	1
10024972	Nitrous oxide	Nitrogen oxide							FALSE	1
9006422	Meltriam	Meltriam							FALSE	1
9004664	Iron dextran complex	Iron Dextran Cm							FALSE	1
9002680	Menotropins	Menotropins							FALSE	1
8018017	Mancozeb	Mancozeb							FALSE	1
8014957	Cleum	Cleum						120	FALSE	1
8007452	Coal tars	Coal tars							FALSE	1
8001352	Toxaphene	Toxaphene							FALSE	1
7803512	Phosphine	Phosphine			0.8				FALSE	1
7783002	Bromine pentafluoride	BromiPentFluorid							FALSE	1
7789062	Strontium chromate	StrontiumChrom	510	0.5	0.2	0.02			TRUE	0.2554
7784421	Arsine	Arsine			0.015		0.015	0.2	FALSE	1
7783202	Ammonium sulfate	Ammon Sulfate							FALSE	1
7783075	Hydrogen selenide	HydrogSelenide						5	FALSE	1
7783064	Hydrogen sulfide	H2S			10			42	FALSE	1
7782505	Chlorine	Chlorine			0.2			210	FALSE	1
7782492	Selenium	Selenium			20	0.005			FALSE	1
7758976	Lead chromate	Lead Chromate	510	0.5	0.2	0.02			TRUE	0.1609
7758012	Potassium bromate	Potassi Bromate	0.49						FALSE	1
7726956	Bromine	Bromine							FALSE	1
7723140	Phosphorus	Phosphorus							FALSE	1
7713122	Phosphorus trichloride	Phos TriChlorid							FALSE	1
7693732	Nitric acid	Nitric Acid						86	FALSE	1
7664939	Sulfuric acid	Sulfuric Acid			1			120	FALSE	1
7664417	Ammonia	NH3			200			3200	FALSE	1
7664393	Hydrogen fluoride	HF			14	0.04		240	TRUE	1
7664382	Phosphoric acid	Phosphoric Acid			7				FALSE	1
7647010	Hydrochloric acid	HCl			9			2100	FALSE	1
7550450	Titanium tetrachloride	Titanm TetraCl							FALSE	1
7496028	6-Nitrochrysene	6-Nitrochrysene	39	120					TRUE	1
7487947	Mercuric chloride	Mercuric Cl			0.03	0.00016	0.06	0.6	TRUE	1
7446719	Sulfur trioxide	Sulfur trioxide			1			120	FALSE	1
7446346	Selenium sulfide	Se Sulfide			20	0.005			FALSE	1
7446277	Lead phosphate	Lead Phosphate	0.042	0.0085					TRUE	0.7659
7446095	SULFUR DIOXIDE	SULFUR DIOXIDE						660	FALSE	1
7440666	Zinc	Zinc							FALSE	1
7440622	Vanadium (fume or dust)	Vanadium						30	FALSE	1
7440508	Copper	Copper						100	FALSE	1
7440494	Cobalt	Cobalt							FALSE	1
7440473	Chromium	Chromium							FALSE	1
7440439	Cadmium	Cadmium	15		0.02	0.0005			TRUE	1
7440417	Beryllium	Beryllium	8.4		0.007	0.002			TRUE	1
7440393	Barium	Barium							FALSE	1
7440382	Arsenic	Arsenic	12	1.5	0.015	3.50E-06	0.015	0.2	TRUE	1
7440360	Antimony	Antimony							FALSE	1
7440280	Thallium	Thallium							FALSE	1
7440224	Silver	Silver							FALSE	1
7440200	Nickel	Nickel	0.91		0.014	0.011	0.06	0.2	TRUE	1
7439976	Mercury	Mercury			0.03	0.00016	0.06	0.6	TRUE	1
7439965	Manganese	Manganese			0.09		0.17		FALSE	1
7439921	Lead	Lead	0.042	0.0085					TRUE	1
7429905	Aluminum	Aluminum							FALSE	1
6533002	Norgestrel	Norgestrel							FALSE	1
6484522	Ammonium nitrate	Ammon Nitrate							FALSE	1
6358538	Citrus Red No. 2	Citrus Red 2							FALSE	1
6164983	Chlordimeform	Chlordimeform							FALSE	1
6112761	Mercaptopurine	Mercaptopurine							FALSE	1
6109973	3-Amino-9-ethylcarbazole hydrochloride	3-Amino9EthylCarbaz							FALSE	1
5522430	1-Nitropyrene	1-Nitropyrene	0.39	1.2					TRUE	1
5411223	Benzphetamine hydrochloride	Benzphetam HCl							FALSE	1
5216251	p-alpha.alpha.alpha-Tetrachlorotoluene	p-alphaTeTClTol							FALSE	1
5186021	D and C Red No. 9	D&C Red 9							FALSE	1
4759482	Isoetretinoin	Isoetretinoin							FALSE	1
4680788	C. I. Acid Green 3	CI Acid Gm 3							FALSE	1
4549400	N-Nitrosomethylvinylamine	N-NitrosMeVAmIn							FALSE	1
4342034	Dacarbazine	Dacarbazine							FALSE	1
4170303	Crotonaldehyde	Crotonaldehyde							FALSE	1
3963959	Methacycline hydrochloride	Methacyclin HCl							FALSE	1
3810740	Streptomycin sulfate	StreptomSulfat							FALSE	1
3778732	Ifosfamide	Ifosfamide							FALSE	1
3771195	Nafegopin	Nafegopin							FALSE	1
3761533	Ponceau MX	Ponceau MX							FALSE	1
3697243	5-Methylchrysene	5-MeChrysene	3.9	12					TRUE	1

Santa Susana Field Laboratory
Health Table - Unmitigated

Pollutant ID	Pollutant Name	Abbreviated Name	INHALATIONCANCERSLOPEFACTOR	ORALCANCERSLOPEFACTOR	INHALATIONCHRONICREL	ORALCHRONICREL	INHALATIONCHRONIC_REL_BHR	ACUTEREL	ISMULTIPATHWAY	MolWtCorrection
554132	Lithium carbonate	LithiumCarbonat							FALSE	1
546083	Acetylthiouamic acid	Acetylthioacid							FALSE	1
542881	Bis(chloromethyl) ether	Bis(ClMe)Ether	46						FALSE	1
542756	1,3-Dichloropropene	1,3-DiClPropene							FALSE	1
541731	1,3-Dichlorobenzene	1,3-DiClBenzene							FALSE	1
541413	Ethyl chloroformate	Ethyl ClFormate							FALSE	1
540885	n-Butyl acetate	n-Butyl acetate	0	0	0	0		0	FALSE	1
540841	2,2,4-Trimethylpentane	2,2,4TriMePentn							FALSE	1
540738	1,2-Dimethylhydrazine	1,2-DiMeHydrazin							FALSE	1
540590	1,2-Dichloroethylene	1,2-DiClEthylen							FALSE	1
534521	4,6-Dinitro-o-cresol (and salts)	4,6-DiNitroCresol							FALSE	1
532274	2-Chloroacetophenone	2-ClAcetPhenone							FALSE	1
531828	N-(4-(5-Nitro-2-furyl)-2-thiazolyl)acetamide	NNiFuryThiazAc							FALSE	1
531760	Merphalan	Merphalan							FALSE	1
528290	o-Dinitrobenzene	o-DinitroBenzene							FALSE	1
513371	Dimethylvinylchloride [DMVC]	DlMeVinylCl							FALSE	1
512561	Trimethyl phosphate	TriMethylPhosph							FALSE	1
510156	Chlorobenzilate	Chlorobenzilate							FALSE	1
509148	Tetranitromethane	TetraNitroMetha							FALSE	1
505902	Mustard gas	Mustard gas							FALSE	1
494031	N-N-Bis(2-chloroethyl)-2-naphthylamine (Chlornaphazine)	NNBisClNaph							FALSE	1
492808	Auramine	Auramine							FALSE	1
484208	5-Methoxypsoralen	5-MethoxPsoral							FALSE	1
474259	Chenodiol	Chenodiol							FALSE	1
463581	Carbonyl sulfide	CarbonylSulfide							FALSE	1
446866	Azathioprine	Azathioprine							FALSE	1
443481	Metronidazole	Metronidazole							FALSE	1
434071	Oxymetholone	Oxymetholone							FALSE	1
379793	Ergotamine tartrate	ErgotamineTartr							FALSE	1
373024	Nickel acetate	Ni Acetate	0.91		0.014	0.011		0.06	TRUE	0.3321
366701	Procabazine hydrochloride	ProcabazinHCl							FALSE	1
334883	Diazomethane	Diazomethane							FALSE	1
319577	beta-Hexachlorocyclohexane	betaHexClCycHex	4	4					TRUE	1
319846	alpha-Hexachlorocyclohexane	alphaHexClCycHex	4	4					TRUE	1
315377	Testosterone enanthate	TestosteronEnan							FALSE	1
315220	Monocrotaline	Monocrotaline							FALSE	1
309002	Aldrin	Aldrin							FALSE	1
305033	Chlorambucil	Chlorambucil							FALSE	1
303479	Ochratoxin A	Ochratoxin A							FALSE	1
303344	Lasiocarpine	Lasiocarpine							FALSE	1
302794	all-trans-Retinoic acid	all-transRetiNA							FALSE	1
302705	Nitrogen mustard N-oxide	NitrMustardN-Ox							FALSE	1
302012	Hydrazine	Hydrazine	17		0.2				FALSE	1
301042	Lead acetate	Lead Acetate	0.042	0.0085					TRUE	0.637
299752	Treosulfan	Treosulfan							FALSE	1
271896	Benzo[an]pyrene	Benzo[an]Pyr							FALSE	1
226368	Dibenz[a,h]acridine	D[a,h]acridine	0.39	1.2					TRUE	1
224420	Dibenz[a,j]acridine	D[a,j]acridine	0.39	1.2					TRUE	1
218019	Chrysene	Chrysene	0.039	0.12					TRUE	1
208968	Acenaphthylene	Acenaphthylene							FALSE	1
207089	Benzo[k]fluoranthene	B[k]fluoranthen	0.39	1.2					TRUE	1
206440	Fluoranthene	Fluoranthene							FALSE	1
205992	Benzo[b]fluoranthene	B[b]fluoranthen	0.39	1.2					TRUE	1
205623	Benzo[a]fluoranthene	B[a]fluoranthen	0.39	1.2					TRUE	1
198550	Perylene	Perylene							FALSE	1
194592	7H-Dibenzo[c,g]carbazole	7H-D[c,g]carb	3.9	12					TRUE	1
193395	indeno[1,2,3-cd]pyrene	in[1,2,3-cd]pyr	0.39	1.2					TRUE	1
192972	Benzo[e]pyrene	B[e]pyrene							FALSE	1
192554	Dibenzo[a,h]pyrene	D[a,h]pyrene	3.9	12					TRUE	1
191300	Dibenzo[a,j]pyrene	D[a,j]pyrene	39	120					TRUE	1
191242	Benzo[h,i]perylene	B[h,i]perylene							FALSE	1
189640	Dibenzo[a,h]pyrene	D[a,h]pyrene	39	120					TRUE	1
189559	Dibenzo[a,j]pyrene	D[a,j]pyrene	39	120					TRUE	1
156627	Calcium cyanamide	CalciumCyanamid							FALSE	1
156105	p-Nitrosodiphenylamine	p-NitrosDiPhAmn	0.022						FALSE	1
154938	Bis(chloroethyl nitroso)urea	BisClEtHNiUrea							FALSE	1
154427	Thioguanine	Thioguanine							FALSE	1
151564	Ethyleneimine (Aziridine)	Ethyleneimine							FALSE	1
148823	Melphalan	Melphalan							FALSE	1
147944	Cytarabine	Cytarabine							FALSE	1
143679	Vinblastine sulfate	VinblastineSulf							FALSE	1
143500	Chlordecone (Kepone)	Chlordecone							FALSE	1
141322	Butyl acrylate	Butyl Acrylate							FALSE	1
140885	Ethyl acrylate	Ethyl Acrylate							FALSE	1
140578	Aramite	Aramite							FALSE	1
139113	5-(Morpholinomethyl)-3-[[5-nitrofurfurylidene]amino]-2-oxazolindione	5-MorphMeNFur							FALSE	1
139051	4,4'-Thiodianiline	4,4'Thiodianlin							FALSE	1
139139	Nitrotriacetic acid	NitriTriAcAci							FALSE	1
135206	Cupferron	Cupferron	0.22						FALSE	1
134227	1-Naphthylamine	1-NaphthylAmine							FALSE	1
134292	o-Axisidine hydrochloride	o-Axisidine HCl							FALSE	1
133904	Chloramben	Chloramben							FALSE	1
133073	Folpet	Folpet							FALSE	1
133062	Captan	Captan							FALSE	1
132549	Dibenzofuran	Dibenzofuran							FALSE	1
132274	Sodium o-phenylphenate	Sodium o-PhPhen							FALSE	1
131113	Dimethyl phthalate	DimethylPhthala							FALSE	1
129157	2-Methyl-1-nitroanthraquinone (uncertain purity)	2-MeN1Anthraqn							FALSE	1
129000	Pyrene	Pyrene							FALSE	1
128449	Sodium saccharin	SodiumSaccharin							FALSE	1
127480	Trimethadione	Trimethadione							FALSE	1
127184	Perchloroethylene (Tetrachloroethene)	Perc	0.021		35			20000	FALSE	1
126998	Chloroprene	Chloroprene							FALSE	1
126738	Tributyl phosphate	TributylPhospha							FALSE	1
126727	Tris(2,3-dibromopropyl)phosphate	TriS(DiBrP)Pho							FALSE	1
126078	Griseofulvin	Griseofulvin							FALSE	1
125848	Aminoglutethimide	Aminoglutethami							FALSE	1
124481	Chlorodibromomethane	ChloroDiBrMetha							FALSE	1
124389	Carbon dioxide	CO2							FALSE	1
123911	1,4-Dioxane	1,4-Dioxane	0.027		3000			3000	FALSE	1

F.2 HARP Inputs - Mitigated

M_I_CancerOutput

HARP2 - HRACalc (dated 17023) 7/14/2017 3:34:10 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 3

Exposure Duration Bin Distribution

3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 1
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

M_I_CancerOutput

Daily breathing rate: LongTerm24HR

****Worker Adjustment Factors****

Worker adjustment factors enabled: NO

****Fraction at time at home****

3rd Trimester to 16 years: OFF

16 years to 70 years: ON

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02

Soil mixing depth (m): 0.01

Dermal climate: Warm

HOMEGROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden

Fraction leafy: 0.137

Fraction exposed: 0.137

Fraction protected: 0.137

Fraction root: 0.137

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating cancer risk

Cancer risk breakdown by pollutant and receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_M_INITIAL\hra\M_I_CancerCancerRisk.csv

Cancer risk total by receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_M_INITIAL\hra\M_I_CancerCancerRiskSumByRec.csv

HRA ran successfully

M_P_CancerOutput

HARP2 - HRACalc (dated 17023) 7/14/2017 3:47:46 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 12

Exposure Duration Bin Distribution

3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 10
16<30 Years Bin: 0
16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

M_P_CancerOutput

Daily breathing rate: LongTerm24HR

****Worker Adjustment Factors****

Worker adjustment factors enabled: NO

****Fraction at time at home****

3rd Trimester to 16 years: OFF

16 years to 70 years: ON

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02

Soil mixing depth (m): 0.01

Dermal climate: Warm

HOMEGROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden

Fraction leafy: 0.137

Fraction exposed: 0.137

Fraction protected: 0.137

Fraction root: 0.137

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating cancer risk

Cancer risk breakdown by pollutant and receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_M_PROGRAM\hra\M_P_CancerCancerRisk.csv

Cancer risk total by receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_M_PROGRAM\hra\M_P_CancerCancerRiskSumByRec.csv

HRA ran successfully

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: NCChronic
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Exposure duration are only adjusted for cancer assessments

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Warm

HOMEGROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden
Fraction leafy: 0.137
Fraction exposed: 0.137
Fraction protected: 0.137
Fraction root: 0.137

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating chronic risk

Chronic risk breakdown by pollutant and receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_M_INITIAL\hra\M_I_CHINCCChronicRisk.csv

Chronic risk total by receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_M_INITIAL\hra\M_I_CHINCCChronicRiskSumByRec.csv

HRA ran successfully

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: NCChronic
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Exposure duration are only adjusted for cancer assessments

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Warm

HOMEGROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden
Fraction leafy: 0.137
Fraction exposed: 0.137
Fraction protected: 0.137
Fraction root: 0.137

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating chronic risk

Chronic risk breakdown by pollutant and receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_M_PROGRAM\hra\M_P_CHINCCChronicRisk.csv

Chronic risk total by receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_M_PROGRAM\hra\M_P_CHINCCChronicRiskSumByRec.csv

HRA ran successfully

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: NCAcute
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Exposure duration are only adjusted for cancer assessments

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

M_I_AHIOutput

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating acute risk

Acute risk breakdown by pollutant and receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_M_INITIAL\hra\M_I_AHINCAcuteRisk.csv

Acute risk total by receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_M_INITIAL\hra\M_I_AHINCAcuteRiskSumByRec.csv

HRA ran successfully

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: NCAcute
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Exposure duration are only adjusted for cancer assessments

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

M_P_AHIOutput

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating acute risk

Acute risk breakdown by pollutant and receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_M_PROGRAM\hra\M_P_AHINCAcuteRisk.csv

Acute risk total by receptor saved to:

C:\Users\tsu\Desktop\07132017\SSFL_M_PROGRAM\hra\M_P_AHINCAcuteRiskSumByRec.csv

HRA ran successfully

Santa Susana Field Laboratory

Emissions Summary

Step 1 - Summarize Emissions Into One Table

Source	Emissions (lbs/day)		Source Type	Pollutant
	Initial	Program		
ASBSR1	1.3	2.6	Fugitive Dust	PM10
ASBSR2	1.5	3.1	Fugitive Dust	PM10
ASBSR3	0.3	0.5	Fugitive Dust	PM10
ASBSR4	0.5	1.0	Fugitive Dust	PM10
ASBSR5	0.7	1.4	Fugitive Dust	PM10
ASBBP1	0.4	0.8	Fugitive Dust	PM10
ASBBP2	0.1	0.2	Fugitive Dust	PM10
ASBBP3	0.2	0.3	Fugitive Dust	PM10
ASDSR1	13.1	6.1	Fugitive Dust	PM10
ASDSR2	0.2	0.1	Fugitive Dust	PM10
ASNSR1	3.0	3.1	Fugitive Dust	PM10
ASNSR2	2.6	2.7	Fugitive Dust	PM10
ASNSR3	0.4	0.4	Fugitive Dust	PM10
LSBCV1	0.02	0.1	Equipment (Diesel)	DPM
LSBCV2	0.02	0.1	Equipment (Diesel)	DPM
LSBCV3	0.01	0.01	Equipment (Diesel)	DPM
LSBCV4	0.01	0.02	Equipment (Diesel)	DPM
LSBCV5	0.01	0.03	Equipment (Diesel)	DPM
LSBBP1	0.01	0.02	Equipment (Diesel)	DPM
LSBBP2	1.6E-03	4.4E-03	Equipment (Diesel)	DPM
LSBBP3	2.8E-03	7.9E-03	Equipment (Diesel)	DPM
LSDVC1	0.3	0.1	Equipment (Diesel)	DPM
LSDVC2	5.6E-03	1.8E-03	Equipment (Diesel)	DPM
LSNVC1	0.1	0.1	Equipment (Diesel)	DPM
LSNVC2	0.04	0.05	Equipment (Diesel)	DPM
LSNVC3	6.9E-03	7.8E-03	Equipment (Diesel)	DPM
LSOHR1	7.9E-05	8.4E-04	On-site Haul Route (Diesel)	DPM
LSOHR2	5.8E-05	6.1E-04	On-site Haul Route (Diesel)	DPM
LSOHR3	2.4E-05	2.6E-04	On-site Haul Route (Diesel)	DPM
LSOHR1	2.5E-03	9.4E-04	On-site Haul Route (Diesel)	DPM
LSOHR2	0	0	On-site Haul Route (Diesel)	DPM

Step 2 - Sum emissions by source

Source	lbs/day		Pollutant
	Initial	Program	
ASBSR1	1.3	2.6	PM10
ASBSR2	1.5	3.1	PM10
ASBSR3	0.3	0.5	PM10
ASBSR4	0.5	1.0	PM10
ASBSR5	0.7	1.4	PM10
ASBBP1	0.4	0.8	PM10
ASBBP2	0.1	0.2	PM10
ASBBP3	0.2	0.3	PM10
ASDSR1	13.1	6.1	PM10
ASDSR2	0.2	0.1	PM10
ASNSR1	3.0	3.1	PM10
ASNSR2	2.6	2.7	PM10
ASNSR3	0.4	0.4	PM10
LSOHR1	188.5	168.4	PM10
LSOHR2	16.2	85.6	PM10
LSOHR3	149.7	100.4	PM10
LSBCV1	0.02	0.1	DPM
LSBCV2	0.02	0.1	DPM
LSBCV3	0.005	0.0	DPM
LSBCV4	0.007	0.0	DPM
LSBCV5	0.009	0.0	DPM
LSBBP1	0.008	0.0	DPM
LSBBP2	0.002	0.0	DPM
LSBBP3	0.003	0.0	DPM
LSDVC1	0.3	0.1	DPM
LSDVC2	0.006	0.002	DPM
LSNVC1	0.1	0.1	DPM
LSNVC2	0.044	0.049	DPM
LSNVC3	0.007	0.008	DPM
LSOHR1	0.003	0.002	DPM
LSOHR2	0.0002	0.001	DPM

Step 3 - Calculate Annual Emissions

Source	lbs/year		Pollutant
	Initial	Program	
ASBSR1	330	684	PM10
ASBSR2	391	809	PM10
ASBSR3	67	139	PM10
ASBSR4	120	248	PM10
ASBSR5	174	360	PM10
ASBBP1	99	204	PM10
ASBBP2	20	41	PM10
ASBBP3	41	85	PM10
ASDSR1	3,393	1,579	PM10
ASDSR2	40	18	PM10
ASNSR1	777	807	PM10
ASNSR2	670	695	PM10
ASNSR3	92	96	PM10
LSOHR1	49,023	43,776	PM10
LSOHR2	4,201	22,268	PM10
LSOHR3	38,934	26,113	PM10
LSBCV1	6	17	DPM
LSBCV2	6	17	DPM
LSBCV3	1	4	DPM
LSBCV4	2	5	DPM
LSBCV5	2	7	DPM
LSBBP1	2	6	DPM
LSBBP2	0	1	DPM
LSBBP3	1	2	DPM
LSDVC1	88	29	DPM
LSDVC2	1	0	DPM
LSNVC1	13	15	DPM
LSNVC2	11	13	DPM
LSNVC3	2	2	DPM
LSOHR1	1	1	DPM
LSOHR2	0.1	0.3	DPM

Santa Susana Field Laboratory

Emissions Summary

Step 1 - Summarize Emissions Into One Table

Source	Emissions (lbs/day)		Source Type	Pollutant
	Initial	Program		
LSOHR3	2.0E-03	7.7E-04	On-site Haul Route (Diesel)	DPM
LSOHR1	1.9E-04	6.6E-04	On-site Haul Route (Diesel)	DPM
LSOHR2	1.8E-04	6.3E-04	On-site Haul Route (Diesel)	DPM
LSOHR3	1.2E-04	4.2E-04	On-site Haul Route (Diesel)	DPM
LSOHR1	5	58	On-site Haul Route (Dust)	PM10
LSOHR2	4	42	On-site Haul Route (Dust)	PM10
LSOHR3	2	18	On-site Haul Route (Dust)	PM10
LSOHR1	170	65	On-site Haul Route (Dust)	PM10
LSOHR2	0	0	On-site Haul Route (Dust)	PM10
LSOHR3	140	53	On-site Haul Route (Dust)	PM10
LSOHR1	13	46	On-site Haul Route (Dust)	PM10
LSOHR2	12	43	On-site Haul Route (Dust)	PM10
LSOHR3	8	29	On-site Haul Route (Dust)	PM10
SLINE3	0	0	Haul Roads (Diesel)	DPM
SLINE4	2.1E-03	2.1E-03	Haul Roads (Diesel)	DPM
SLINE6	2.7E-03	2.7E-03	Haul Roads (Diesel)	DPM
SLINE7	2.9E-03	2.9E-03	Haul Roads (Diesel)	DPM
SLINE8	1.7E-03	1.7E-03	Haul Roads (Diesel)	DPM
SLINE9	0	0	Haul Roads (Diesel)	DPM
SLINE10	0	0	Haul Roads (Diesel)	DPM
SLINE12	0	0	Haul Roads (Diesel)	DPM
SLINE13	0	0	Haul Roads (Diesel)	DPM
SLINE14	0	0	Haul Roads (Diesel)	DPM
SLINE15	5.5E-03	5.5E-03	Haul Roads (Diesel)	DPM
SLINE3	1.6E-03	1.6E-03	Haul Roads (Diesel)	DPM
SLINE4	2.4E-03	2.4E-03	Haul Roads (Diesel)	DPM
SLINE6	0	0	Haul Roads (Diesel)	DPM
SLINE7	0	0	Haul Roads (Diesel)	DPM
SLINE8	0	0	Haul Roads (Diesel)	DPM
SLINE9	0	0	Haul Roads (Diesel)	DPM
SLINE10	0	0	Haul Roads (Diesel)	DPM
SLINE12	6.4E-04	6.4E-04	Haul Roads (Diesel)	DPM

Step 2 - Sum emissions by source

Source	lbs/day		Pollutant
	Initial	Program	
LSOHR3	0.002	0.001	DPM
SLINE3	0.002	0.002	DPM
SLINE4	0.002	0.002	DPM
SLINE6	0.003	0.003	DPM
SLINE7	0.003	0.003	DPM
SLINE8	0.002	0.002	DPM
SLINE9	0.004	0.004	DPM
SLINE10	0.007	0.007	DPM
SLINE12	0.001	0.001	DPM
SLINE13	0.002	0.002	DPM
SLINE14	0.002	0.002	DPM
SLINE15	0.006	0.006	DPM

Step 3 - Calculate Annual Emissions

Source	lbs/year		Pollutant
	Initial	Program	
LSOHR3	1	0	DPM
SLINE3	0.4	0.4	DPM
SLINE4	0.6	0.6	DPM
SLINE6	0.7	0.7	DPM
SLINE7	0.8	0.8	DPM
SLINE8	0.5	0.5	DPM
SLINE9	0.9	0.9	DPM
SLINE10	1.7	1.7	DPM
SLINE12	0.2	0.2	DPM
SLINE13	0.5	0.5	DPM
SLINE14	0.5	0.5	DPM
SLINE15	1.7	1.7	DPM

Santa Susana Field Laboratory

Emissions Summary

Step 1 - Summarize Emissions Into One Table

Source	Emissions (lbs/day)		Source Type	Pollutant
	Initial	Program		
SLINE13	1.9E-03	1.9E-03	Haul Roads (Diesel)	DPM
SLINE14	1.9E-03	1.9E-03	Haul Roads (Diesel)	DPM
SLINE15	6.4E-03	6.4E-03	Haul Roads (Diesel)	DPM
SLINE3	0	0	Haul Roads (Diesel)	DPM
SLINE4	0	0	Haul Roads (Diesel)	DPM
SLINE6	2.7E-03	2.7E-03	Haul Roads (Diesel)	DPM
SLINE7	0	0	Haul Roads (Diesel)	DPM
SLINE8	0	0	Haul Roads (Diesel)	DPM
SLINE9	0	0	Haul Roads (Diesel)	DPM
SLINE10	6.6E-03	6.6E-03	Haul Roads (Diesel)	DPM
SLINE12	0	0	Haul Roads (Diesel)	DPM
SLINE13	0	0	Haul Roads (Diesel)	DPM
SLINE14	0	0	Haul Roads (Diesel)	DPM
SLINE15	5.5E-03	5.5E-03	Haul Roads (Diesel)	DPM
SLINE3	0	0	Haul Roads (Diesel)	DPM
SLINE4	0	0	Haul Roads (Diesel)	DPM
SLINE6	2.8E-03	2.8E-03	Haul Roads (Diesel)	DPM
SLINE7	2.9E-03	2.9E-03	Haul Roads (Diesel)	DPM
SLINE8	0	0	Haul Roads (Diesel)	DPM
SLINE9	3.6E-03	3.6E-03	Haul Roads (Diesel)	DPM
SLINE10	0	0	Haul Roads (Diesel)	DPM
SLINE12	0	0	Haul Roads (Diesel)	DPM
SLINE13	0	0	Haul Roads (Diesel)	DPM
SLINE14	0	0	Haul Roads (Diesel)	DPM
SLINE15	5.6E-03	5.6E-03	Haul Roads (Diesel)	DPM

Step 2 - Sum emissions by source

Source	lbs/day		Pollutant
	Initial	Program	

Step 3 - Calculate Annual Emissions

Source	lbs/year		Pollutant
	Initial	Program	

Santa Susana Field Laboratory

Department of Energy Data

Environmental Impact Statement - Area IV and Northern Buffer Zone

Appendix G - Table G-6

Step 4 - Assign lookup values for chemicals in HARP Database

Constituent	Alt Name	Site Soil Concentration of Chemicals (milligrams per kilogram) in Sub-areas								
		3	5A	5B	5C	5D	6	7	8	NBZ
Antimony		1.60E-01	2.60E-01	1.50E-01	3.20E-01	4.60E-01	2.00E-01	8.6	7.80E-01	3.10E-01
Cadmium		3.80E-01	3.80E-01	2.60E-01	2.80E-01	3.60E-01	3.80E-01	2.90E-01	3.30E-01	2.40E-01
Chromium, hexavalent	Chromium, hexavalent (& compounds)	--	6.10E-01	5.30E-01	7.10E-01	6.70E-01	6.60E-01	7.60E-01	5.50E-01	8.40E-01
Lead		1.50E+01	1.70E+01	9.7	1.20E+01	1.20E+01	2.00E+01	1.80E+02	3.30E+01	1.10E+01
Mercury		4.00E-02	6.20E-02	7.10E-02	8.70E-02	4.20E-01	1.90E-01	3.60E-02	5.50E-02	8.30E-01
Selenium		3.20E-01	1.60E-01	4.90E-01	1.60E-01	1.80E-01	3.00E-01	1.60E-01	2.10E-01	3.40E-01
Silver		3.80E-01	3.40E-01	4.20E-01	1.70E-01	8.10E-02	4.60E-01	8.00E-02	5.20E-02	1.60E-01
Zinc		7.70E+01	8.10E+01	7.50E+01	7.90E+01	8.00E+01	8.20E+01	1.00E+02	7.10E+01	6.20E+01
1-Methylnaphthalene		2.70E-03	7.10E-01	1.40E-02	6.80E-03	2.70E-03	2.40E-03	4.10E-02	1.80E-03	2.20E-03
2-Methylnaphthalene	2-Methyl naphthalene	6.50E-03	6.70E-01	1.30E-02	7.40E-03	2.40E-03	3.00E-03	3.30E-02	2.70E-03	2.40E-03
Acenaphthene		9.30E-04	1.10E-01	1.00E-02	1.90E-02	2.60E-02	9.60E-03	1.80E-01	4.20E-03	4.10E-03
Anthracene		3.10E-03	1.90E-02	1.60E-02	1.50E-02	3.80E-02	1.50E-02	1.30E-01	2.80E-03	1.10E-02
Benzo(a)anthracene	Benzo[a]anthracene	2.30E-02	4.10E-02	7.80E-02	3.50E-02	7.60E-02	3.60E-02	2.90E-01	1.80E-02	1.40E-02
Benzo(a)pyrene	Benzo[a]pyrene	1.10E-02	2.80E-02	1.20E-01	2.90E-02	5.90E-02	3.40E-02	2.20E-01	1.40E-02	1.30E-02
Benzo(b)fluoranthene	Benzo[b]fluoranthene	2.00E-02	4.00E-02	1.20E-01	3.80E-02	6.40E-02	4.70E-02	2.60E-01	1.40E-02	1.20E-02
Benzo(e)pyrene	Benzo[e]pyrene	8.20E-02	2.40E-02	3.70E-02	1.80E-02	4.40E-02	1.80E-02	1.70E-02	5.20E-02	--
Benzo(g,h,i)perylene	Benzo[g,h,i]perylene	1.60E-02	1.20E-02	2.00E-01	1.60E-02	3.50E-02	1.70E-02	3.50E-02	5.00E-03	6.70E-03
Benzo(k)fluoranthene	Benzo[k]fluoranthene	1.60E-02	2.00E-02	4.40E-02	2.30E-02	5.50E-02	2.40E-02	1.60E-01	9.80E-03	9.60E-03
Bis(2-ethylhexyl)phthalate		1.80E-02	9.50E-02	1.30E-01	5.40E-02	3.00E-02	5.30E-02	9.70E-02	1.90E-02	2.80E-02
Chrysene		9.90E-03	3.20E-02	1.00E-01	3.60E-02	5.30E-02	3.40E-02	2.20E-01	1.10E-02	9.70E-03
Dibenzo(a,h)anthracene	Dibenz[a,h]anthracene	3.30E-03	1.00E-02	3.90E-02	1.10E-02	2.70E-02	9.40E-03	2.50E-02	6.10E-03	7.70E-03
Di-n-octylphthalate	n-Dioctyl phthalate	--	5.00E-02	2.40E-02	1.80E-02	1.30E-02	2.60E-02	2.90E-01	2.00E-02	4.00E-02
Fluoranthene		1.40E-02	5.70E-02	7.20E-02	8.40E-02	9.30E-02	7.70E-02	6.40E-01	1.30E-02	1.60E-02
Fluorene		3.40E-03	4.60E-03	9.90E-03	1.00E-02	1.10E-02	6.30E-03	9.40E-02	2.80E-03	3.80E-03
Indeno(1,2,3-cd)pyrene	Indeno[1,2,3-cd]pyrene	6.30E-03	1.30E-02	2.60E-01	2.00E-02	4.50E-02	1.90E-02	4.40E-02	5.60E-03	8.40E-03
Naphthalene		8.40E-03	7.60E-02	1.60E-02	4.60E-03	2.30E-03	3.10E-03	3.80E-02	3.00E-03	4.90E-03
N-Nitrosodimethylamine		--	7.40E-04	4.40E-03	7.90E-03	2.10E-03	5.80E-02	2.90E-02	--	3.50E-03
Phenanthrene		8.60E-03	5.50E-02	4.60E-02	4.50E-02	3.40E-02	4.70E-02	4.90E-01	7.10E-03	1.00E-02
Pyrene		1.20E-02	5.00E-02	9.80E-02	7.50E-02	8.60E-02	6.80E-02	5.20E-01	1.30E-02	1.30E-02
Aroclor 1254	PCBs {Polychlorinated biphenyls}	3.70E-02	1.20E-02	4.70E-02	3.10E-02	4.00E-02	1.50E-01	2.90E-02	4.30E-02	8.30E-02
Aroclor 1260	PCBs {Polychlorinated biphenyls}	3.90E-02	3.00E-02	3.60E-02	2.50E-02	8.80E-03	4.80E-02	2.40E-02	8.10E-03	1.40E-01
Aroclor 5460	PCBs {Polychlorinated biphenyls}	5.60E-02	1.60E-02	2.00E-02	1.80E-02	6.00E-03	1.70E-01	3.40E-02	7.90E-02	3.60E-02
4,4'-DDD	Dichlorodiphenyldichloroethane {DDD}	9.35E-05								
4,4'-DDE	Dichlorodiphenyldichloroethylene {DDE}	1.79E-03								
4,4'-DDT	DDT {1,1,1-Trichloro-2,2-bis(p-chlorophenyl)ethane}	2.48E-03								
beta-BHC	beta-Hexachlorocyclohexane	7.20E-05								
Chlordane (Technical)	Chlordane	1.96E-03								
delta-BHC	Hexachlorocyclohexanes (mixed or technical grade)	5.55E-05								
Dieldrin		8.08E-05								
MCPA	Chlorophenoxy herbicides	1.42E-01								
MCPP		9.76E-02								

Santa Susana Field Laboratory
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 Appendix G - Table G-6

Step 4 - Assign lookup values f

Constituent	Pollutant ID	Pollutant ID (Alt Name)	Pollutant ID (Lookup)	Max Conc (mg/kg)
Antimony	7440360		7440360	8.60E+00
Cadmium	7440439		7440439	3.80E-01
Chromium, hexavalent		18540299	18540299	8.40E-01
Lead	7439921		7439921	1.80E+02
Mercury	7439976		7439976	8.30E-01
Selenium	7782492		7782492	4.90E-01
Silver	7440224		7440224	4.60E-01
Zinc	7440666		7440666	1.00E+02
1-Methylnaphthalene				
2-Methylnaphthalene		91576	91576	6.70E-01
Acenaphthene	83329		83329	1.80E-01
Anthracene	120127		120127	1.30E-01
Benzo(a)anthracene		56553	56553	2.90E-01
Benzo(a)pyrene		50328	50328	2.20E-01
Benzo(b)fluoranthene		205992	205992	2.60E-01
Benzo(e)pyrene		192972	192972	8.20E-02
Benzo(g,h,i)perylene		191242	191242	2.00E-01
Benzo(k)fluoranthene		207089	207089	1.60E-01
Bis(2-ethylhexyl)phthalate				
Chrysene	218019		218019	2.20E-01
Dibenzo(a,h)anthracene		53703	53703	3.90E-02
Di-n-octylphthalate		117840	117840	2.90E-01
Fluoranthene	206440		206440	6.40E-01
Fluorene	86737		86737	9.40E-02
Indeno(1,2,3-cd)pyrene		193395	193395	2.60E-01
Naphthalene	91203		91203	7.60E-02
N-Nitrosodimethylamine	62759		62759	5.80E-02
Phenanthrene	85018		85018	4.90E-01
Pyrene	129000		129000	5.20E-01
Aroclor 1254		1336363	1336363	1.50E-01
Aroclor 1260		1336363	1336363	1.40E-01
Aroclor 5460		1336363	1336363	1.70E-01
4,4'-DDD		72548	72548	9.35E-05
4,4'-DDE		72559	72559	1.79E-03
4,4'-DDT		50293	50293	2.48E-03
beta-BHC		319857	319857	7.20E-05
Chlordane (Technical)		57749	57749	1.96E-03
delta-BHC		608731	608731	5.55E-05
Dieldrin	60571		60571	8.08E-05
MCPA		1065	1065	1.42E-01
MCPPE				

Santa Susana Field Laboratory
 Combined Concentration Data

Copied from file "SSFL All Data Combined.xlsx" - Pivot Table, and DOE Data tab

Pivot Table from Columns A-E

Chemical Name	CAS No.	Units	Max Conc	Group No.	Pivot	CAS No.	Group No.	2	3	4	9	DOE	Notes	Max Conc (mg/kg)
PCBs	1336363	mg/kg	0.17	2	Max of Max Conc									
1-8OctaCDD	3268879	mg/kg	0.268	2										
1-3,7-9HxCDD	19408743	mg/kg	0.000492	2										
1-4,6-8HpCDD	35822469	mg/kg	0.00301	2										
1-8OctaCDF	39001020	mg/kg	0.00094	2										
1-4,7,8HxCDD	39227286	mg/kg	0.000252	2										
PCB 189	39635319	mg/kg	0.0000607	2										
1-3,7,8PeCDD	40321764	mg/kg	0.00015	2										
2,3,7,8-TCDF	51207319	mg/kg	0.00000443	2										
1-4,7-9HpCDF	55673897	mg/kg	0.0000425	2										
2-4,7,8PeCDF	57117314	mg/kg	0.0000146	2										
1-3,7,8PeCDF	57117416	mg/kg	0.00000809	2										
1-3,6-8HxCDF	57117449	mg/kg	0.0000149	2										
1-3,6-8HxCDD	57653857	mg/kg	0.00061	2										
2-4,6-8HxCDF	60851345	mg/kg	0.0000226	2										
1-4,6-8HpCDF	67562394	mg/kg	0.000831	2										
1-4,7,8HxCDF	70648269	mg/kg	0.0000187	2										
1-3,7-9HxCDF	72918219	mg/kg	0.0000202	2										
SULFATES	9960	mg/kg	7.5	2										
Fluorides&cmpds	1101	mg/kg	7	2										
Aluminum	7429905	mg/kg	14400	2										
Lead	7439921	mg/kg	341	2										
Manganese	7439965	mg/kg	2700	2										
Mercury	7439976	mg/kg	1.67	2										
Nickel	7440020	mg/kg	21	2										
Silver	7440224	mg/kg	35.3	2										
Thallium	7440280	mg/kg	0.457	2										
Antimony	7440360	mg/kg	41.5	2										
Arsenic	7440382	mg/kg	8.56	2										
Barium	7440393	mg/kg	681	2										
Beryllium	7440417	mg/kg	0.713	2										
Cadmium	7440439	mg/kg	20.6	2										
Chromium	7440473	mg/kg	1420	2										
Cobalt	7440484	mg/kg	7.04	2										
Copper	7440508	mg/kg	234	2										
Vanadium	7440622	mg/kg	39.6	2										
Zinc	7440666	mg/kg	546	2										
Selenium	7782492	mg/kg	2.66	2										
Cr(VI)	18540299	mg/kg	0.793	2										
B[a]P	50328	mg/kg	0.341	2										
D[a,h]anthracen	53703	mg/kg	0.036	2										
B[a]anthracene	56553	mg/kg	0.276	2										
Acenaphthene	83329	mg/kg	0.0254	2										
Phenanthrene	85018	mg/kg	0.147	2										
Fluorene	86737	mg/kg	0.0142	2										
Naphthalene	91203	mg/kg	0.0162	2										
2MeNaphthalene	91576	mg/kg	0.0175	2										
Anthracene	120127	mg/kg	0.0214	2										
Pyrene	129000	mg/kg	0.328	2										
B[g,h,i]perylene	191242	mg/kg	0.138	2										
In[1,2,3-cd]pyr	193395	mg/kg	0.264	2										
B[b]fluoranthen	205992	mg/kg	0.383	2										

Chemical Name	CAS No.	Units	Max Conc	Group No.									
Fluoranthene	206440	mg/kg	0.294	2	Antimony	7440360	41.5	4.52	3.4	2.16	8.6		41.5
B[k]fluoranthene	207089	mg/kg	0.155	2	Arsenic	7440382	8.56	9.7	11	8.68			11
Acenaphthylene	208968	mg/kg	0.0073	2					0				0
Chrysene	218019	mg/kg	0.187	2			0.276		0.27	0.0132	0.29		0.29
DiethylPhthalat	84662	mg/kg	0.03	2			0.341		0.25	0.0182	0.22		0.341
DiButyl Phthal	84742	mg/kg	268	2			0.383		0.3	0.0286	0.26		0.383
ButylBenzPhthal	85687	mg/kg	0.00944	2							0.082		0.082
N-NitrosDiPhAmi	86306	mg/kg	0.35	2			0.138		0.13	0.0254	0.2		0.2
Benzidine	92875	mg/kg	0.347	2			0.155		0.11	0.0127	0.16		0.16
o-Cresol	95487	mg/kg	1.05	2	Barium	7440393	681	110	140	161			681
2,4-DiMePhenol	105679	mg/kg	2.88	2	Benzene	71432	0.001		0.07	0.00732			0.07
m-Cresol	108394	mg/kg	43	2	Benzidine	92875	0.347		0				0.347
Phenol	108952	mg/kg	2.84	2	Beryllium	7440417	0.713	1.4	0.83	0.984			1.4
Di2-EthHxPhthal	117817	mg/kg	20.8	2	Bis(2ClEth)Ethr	111444			0				0
n-DiOctylPhthal	117840	mg/kg	2.6	2	BromoDiClMethan	75274		0.009	0	0.007			0.009
1,4-Dioxane	123911	mg/kg	0.02	2	Bromoform	75252			0				0
[D] Acetone	67641	mg/kg	0.0654	2	ButylBenzPhthal	85687	0.00944	0.127	0.0051	0.0127			0.127
Chloroform	67663	mg/kg	0.00211	2	Cadmium	7440439	20.6	8	49	1.33	0.38	Hotspot. Group 4, Coca site. Test Stand 4	20.6
Benzene	71432	mg/kg	0.001	2	CCl4	56235			0				0
1,1,1-TCA	71556	mg/kg	0.325	2	CFC-113	76131			0				0
Methyl Bromide	74839	mg/kg	0.0005	2	Chlorobenzn	108907	0.271	0.008	0	0.005			0.271
Vinyl Chloride	75014	mg/kg	0.004	2	ChloroDiBrMetha	124481			0				0
Methylene Chlor	75092	mg/kg	0.59	2	Chloroform	67663	0.00211	0.003	0				0.003
Vinylid Chlorid	75354	mg/kg	0.000324	2	Chromium	7440473	1420	39	100	52.6			1420
MEK	78933	mg/kg	0.00923	2	Chrysene	218019	0.187		0.29	0.0232	0.22		0.29
1,1,2TriClEthn	79005	mg/kg	0.00206	2	Cobalt	7440484	7.04	14	19	9.87			19
TCE	79016	mg/kg	12.2	2	Copper	7440508	234	70.9	71	43.2			234
o-Xylene	95476	mg/kg	0.252	2	Cr(VI)	18540299	0.793	0.768		6.2	0.84	Hotspot. Group 9, Silvernale.	0.84
1,2-DiClBenzene	95501	mg/kg	0.001	2	CS2	75150			0				0
1,2,4TriMeBenze	95636	mg/kg	5.4	2	Cumene	98828	0.381	0.000432	0				0.381
Cumene	98828	mg/kg	0.381	2	D[a,h]anthracen	53703	0.036		0.041	0.0108	0.039		0.041
Ethyl Benzene	100414	mg/kg	0.0549	2	DBCP	96128			0.009				0.009
Styrene	100425	mg/kg	0.000496	2	DDD	72548			0		0.0000935		0.0000935
p-DiClBenzene	106467	mg/kg	0.178	2	DDT	50293			0		0.00248		0.00248
Toluene	108883	mg/kg	0.00203	2	Di2-EthHxPhthal	117817	20.8	1.73	0.4	0.425			20.8
Chlorobenzn	108907	mg/kg	0.271	2	Dibenzofuran	132649			0				0
Perc	127184	mg/kg	0.183	2	DiButyl Phthal	84742	268	0.0335	0.0828	0.00893			268
1,2-DiClEthylen	540590	mg/kg	0.176	2	DiClDiFlmethane	75718			0				0
1,3-DiClBenzene	541731	mg/kg	0.0006	2	DiClDiPhEthylen	72559			0		0.00179		0.00179
Xylenes	1330207	mg/kg	0.417	2	Dieldrin	60571			0		0.0000808		0.0000808
PCBs	1336363	mg/kg	5.46	3	DiethylPhthalat	84662	0.03	0.04	0	0.041			0.041
SULFATES	9960	mg/kg	13.7	3	DimethylPhthala	131113			0.00061	0.315			0.315

Chemical Name	CAS No.	Units	Max Conc	Group No.									
Fluorides&cmpds	1101	mg/kg	200	3	EDB	106934			0				0
Aluminum	7429905	mg/kg	20000	3	Ethyl Benzene	100414	0.0549	0.02	0.22	0.0314			0.22
Lead	7439921	mg/kg	59.7	3	Ethyl Chloride	75003			0				0
Manganese	7439965	mg/kg	509	3	Fluoranthene	206440	0.294		0.51	0.0489	0.64		0.64
Mercury	7439976	mg/kg	0.0947	3	Fluorene	86737	0.0142		0.0098	0.563	0.094		0.563
Nickel	7440020	mg/kg	30.9	3	Fluorides&cmpds	1101	7	200	570	3.08			570
Silver	7440224	mg/kg	8.15	3	Formaldehyde	50000		9.48	29	25.6			29
Thallium	7440280	mg/kg	0.636	3	HeptachloEpoxid	1024573			0				0
Antimony	7440360	mg/kg	4.52	3	Heptachlor	76448			0				0
Arsenic	7440382	mg/kg	9.7	3	HexaClBenzene	118741			0				0
Barium	7440393	mg/kg	110	3	HexaClButadiene	87683			0				0
Beryllium	7440417	mg/kg	1.4	3	HexaClEthane	67721			0				0
Cadmium	7440439	mg/kg	8	3	HexClCycPentadi	77474			0				0
Chromium	7440473	mg/kg	39	3	In[1,2,3-cd]pyr	193395	0.264		0.12	0.0177	0.26		0.264
Cobalt	7440484	mg/kg	14	3	Isophorone	78591			0				0
Copper	7440508	mg/kg	70.9	3	Lead	7439921	341	59.7	890	25	180	Hotspots. Group 4, Coca site and Group 2	180
Vanadium	7440622	mg/kg	58	3	Lindane	58899			0				0
Zinc	7440666	mg/kg	186	3	Manganese	7439965	2700	509	205	586			2700
Selenium	7782492	mg/kg	0.68	3	m-Cresol	108394	43						43
Cr(VI)	18540299	mg/kg	0.768	3	Me t-ButylEther	1634044			0				0
Fluorides&cmpds	1101	mg/kg	7	3	MEK	78933	0.00923	0.014	4.4	0.035			4.4
Aluminum	7429905	mg/kg	15400	3	Mercury	7439976	1.67	0.0947	0.14	0.117	0.83		1.67
Lead	7439921	mg/kg	17.7	3	Methyl Bromide	74839	0.0005		0				0.0005
Manganese	7439965	mg/kg	411	3	Methyl Chloride	74873		0.00204	0				0.00204
Mercury	7439976	mg/kg	0.0133	3	Methylene Chlor	75092	0.59	0.0529	2.3	0.00522			2.3
Nickel	7440020	mg/kg	18.8	3	MethyleneBromid	74953			0				0
Silver	7440224	mg/kg	0.164	3	MIBK	108101		0.00313	0				0.00313
Thallium	7440280	mg/kg	0.192	3	Naphthalene	91203	0.0162		0.07	2	0.076		2
Antimony	7440360	mg/kg	4.15	3	n-DiOctylPhthal	117840	2.6	0.0434	0.0035	0.132	0.29		2.6
Arsenic	7440382	mg/kg	6.57	3	Nickel	7440020	21	30.9	30.1	36.5			36.5
Barium	7440393	mg/kg	100	3	Nitrobenzene	98953			0				0
Beryllium	7440417	mg/kg	1.02	3	N-NitrosDiPhAmi	86306	0.35	0.12	0				0.35
Cadmium	7440439	mg/kg	8	3	N-NitrosDMA	62759			0	0.00862	0.058		0.058
Chromium	7440473	mg/kg	30.2	3	N-NitrosDPrAmin	621647			0				0
Cobalt	7440484	mg/kg	11.1	3	o-Cresol	95487	1.05		0				1.05
Copper	7440508	mg/kg	24.6	3	o-Xylene	95476	0.252	0.028	0.006	0.004			0.252
Vanadium	7440622	mg/kg	46.2	3	PCB 189	39635319	0.0000607			0.00319			0.00319
Zinc	7440666	mg/kg	96	3	PCBs	1336363	0.17	5.46	0.69	0.742	0.17		5.46
Selenium	7782492	mg/kg	0.23	3	p-Chloroaniline	106478			0				0
Formaldehyde	50000	mg/kg	9.48	3	PCP	87865			0				0
DiethylPhthalat	84662	mg/kg	0.04	3	p-Cresol	106445			0				0
DiButyl Phthal	84742	mg/kg	0.0335	3	p-DiClBenzene	106467	0.178	0.00335	0.000267				0.178
ButylBenzPhthal	85687	mg/kg	0.127	3	Perc	127184	0.183	0.000943	0.002				0.183
N-NitrosDiPhAmi	86306	mg/kg	0.12	3	Perylene	198550				0.028			0.028
2,4-DiMePhenol	105679	mg/kg	11.5	3	Phenanthrene	85018	0.147		0.25	1.8	0.49		1.8
Phenol	108952	mg/kg	1.39	3	Phenol	108952	2.84	1.39	0				2.84
Di2-EthHxPhthal	117817	mg/kg	1.73	3	Pyrene	129000	0.328		0.46	0.0899	0.52		0.52
n-DiOctylPhthal	117840	mg/kg	0.0434	3	Selenium	7782492	2.66	0.68	1.5	0.779	0.49		2.66
[D] Acetone	67641	mg/kg	0.886	3	Silver	7440224	35.3	8.15	0.52	79.7	0.46		79.7
Chloroform	67663	mg/kg	0.003	3	Styrene	100425	0.000496	0.00788	0	0.000327			0.00788
1,1,1-TCA	71556	mg/kg	0.00299	3	SULFATES	9960	7.5	13.7		56.1			56.1
Methyl Chloride	74873	mg/kg	0.00204	3	t-Butyl Alcohol	75650			0				0
Methylene Chlor	75092	mg/kg	0.0529	3	TCE	79016	12.2	6.74	84	3.63			84
BromoDiClMethan	75274	mg/kg	0.009	3	TetraClEthane	79345			0				0
Vinylid Chlorid	75354	mg/kg	0.00109	3	Thallium	7440280	0.457	0.636	0.73	0.44			0.73
TriClFluorMetha	75694	mg/kg	0.003	3	Toluene	108883	0.00203	0.00144	0.008	0.1			0.1
1,2-DiClPropane	78875	mg/kg	0.000314	3	TriClFluorMetha	75694		0.003	0	0.002			0.003

Chemical Name	CAS No.	Units	Max Conc	Group No.								
MEK	78933	mg/kg	0.014	3	Vanadium	7440622	39.6	58	51.5	66.4		66.4
TCE	79016	mg/kg	6.74	3	Vinyl Acetate	108054			0			0
o-Xylene	95476	mg/kg	0.028	3	Vinyl Chloride	75014	0.004		0.062			0.062
1,2-DiClBenzene	95501	mg/kg	0.00703	3	Vinylid Chlorid	75354	0.000324	0.00109	0.0033	0.00097		0.0033
1,2,4TriMeBenze	95636	mg/kg	0.036	3	Xylenes	1330207	0.417	0.034	6.2	0.011		6.2
Cumene	98828	mg/kg	0.000432	3	Zinc	7440666	546	186	2800	160	100	2800
Ethyl Benzene	100414	mg/kg	0.02	3	betaHexClCycHx	319857					0.000072	0.000072
Styrene	100425	mg/kg	0.00788	3	Chlordane	57749					0.00196	0.00196
p-DiClBenzene	106467	mg/kg	0.00335	3	HexClCycHexanes	608731					0.0000555	0.0000555
MIBK	108101	mg/kg	0.00313	3	Cl-phenoxy herb	1065					0.142	0.142
Toluene	108883	mg/kg	0.00144	3								
Chlorobenzn	108907	mg/kg	0.008	3								
1,2,4TriClBenz	120821	mg/kg	0.007	3								
Perc	127184	mg/kg	0.000943	3								
1,2-DiClEthylen	540590	mg/kg	0.0924	3								
1,3-DiClBenzene	541731	mg/kg	0.000448	3								
Xylenes	1330207	mg/kg	0.034	3								
Fluorides&cmpds	1101	mg/kg	570	4								
Formaldehyde	50000	mg/kg	29	4								
DDT	50293	µg/kg	0	4								
B[a]P	50328	µg/kg	0.25	4								
2,4-DiNPhenol	51285	µg/kg	0	4								
D[a,h]anthracen	53703	µg/kg	0.041	4								
CCl4	56235	µg/kg	0	4								
B[a]anthracene	56553	µg/kg	0.27	4								
Lindane	58899	µg/kg	0	4								
Dieldrin	60571	µg/kg	0	4								
Aniline	62533	µg/kg	0	4								
N-NitrosDMA	62759	µg/kg	0	4								
[D] Acetone	67641	µg/kg	132	4								
Chloroform	67663	µg/kg	0	4								
HexaClEthane	67721	µg/kg	0	4								
Benzene	71432	µg/kg	0.07	4								
1,1,1-TCA	71556	µg/kg	0	4								
DDD	72548	µg/kg	0	4								
DiClDiPhEthylen	72559	µg/kg	0	4								
Methyl Bromide	74839	µg/kg	0	4								
Methyl Chloride	74873	µg/kg	0	4								
MethyleneBromid	74953	µg/kg	0	4								
Ethyl Chloride	75003	µg/kg	0	4								
Vinyl Chloride	75014	µg/kg	0.062	4								
Methylene Chlor	75092	µg/kg	2.3	4								
CS2	75150	µg/kg	0	4								

Chemical Name	CAS No.	Units	Max Conc	Group No.
Bromoform	75252	µg/kg	0	4
BromoDiClMethan	75274	µg/kg	0	4
1,1-DiClEthane	75343	µg/kg	0	4
Vinylid Chlorid	75354	µg/kg	0.0033	4
t-Butyl Alcohol	75650	µg/kg	0	4
TriClFluorMetha	75694	µg/kg	0	4
DiClDiFlmethane	75718	µg/kg	0	4
CFC-113	76131	µg/kg	0	4
Heptachlor	76448	µg/kg	0	4
HexClCycPentadi	77474	µg/kg	0	4
Isophorone	78591	µg/kg	0	4
1,2-DiClPropane	78875	µg/kg	0	4
MEK	78933	µg/kg	4.4	4
1,1,2TriClEthan	79005	µg/kg	0	4
TCE	79016	µg/kg	84	4
TetraClEthane	79345	µg/kg	0	4
Acenaphthene	83329	µg/kg	0.021	4
DiethylPhthalat	84662	µg/kg	0	4
DiButyl Phthal	84742	µg/kg	0.0828	4
Phenanthrene	85018	µg/kg	0.25	4
ButylBenzPhthal	85687	µg/kg	0.0051	4
N-NitrosDiPhAmi	86306	µg/kg	0	4
Fluorene	86737	µg/kg	0.0098	4
HexaClButadiene	87683	µg/kg	0	4
PCP	87865	µg/kg	0	4
2,4,6TriClPhenl	88062	µg/kg	0	4
2-NitroPhenol	88755	µg/kg	0	4
Naphthalene	91203	µg/kg	0.07	4
2MeNaphthalene	91576	µg/kg	0.041	4
3,3'DiClBenzidn	91941	µg/kg	0	4
Benzidine	92875	µg/kg	0	4
o-Xylene	95476	µg/kg	0.006	4
o-Cresol	95487	µg/kg	0	4
1,2-DiClBenzene	95501	µg/kg	0	4
2-Chlorophenol	95578	µg/kg	0	4
1,2,4TriMeBenze	95636	µg/kg	0.002	4
2,4,5TriClPhenl	95954	µg/kg	0	4
DBCP	96128	µg/kg	0.009	4
1,2,3TriClPropn	96184	µg/kg	0	4
Cumene	98828	µg/kg	0	4
Nitrobenzene	98953	µg/kg	0	4
4-Nitrophenol	100027	µg/kg	0	4
Ethyl Benzene	100414	µg/kg	0.22	4
Styrene	100425	µg/kg	0	4
Azobenzene	103333	µg/kg	0	4
2,4-DiMePhenol	105679	µg/kg	0	4
p-Cresol	106445	µg/kg	0	4
p-DiClBenzene	106467	µg/kg	0.000267	4
p-Chloroaniline	106478	µg/kg	0	4
EDB	106934	µg/kg	0	4
Vinyl Acetate	108054	µg/kg	0	4
MIBK	108101	µg/kg	0	4
Toluene	108883	µg/kg	0.008	4
Chlorobenzn	108907	µg/kg	0	4
Phenol	108952	µg/kg	0	4
Bis(2ClEth)Ethr	111444	µg/kg	0	4
Di2-EthHxPhthal	117817	µg/kg	0.4	4

Chemical Name	CAS No.	Units	Max Conc	Group No.
n-DiOctylPhthal	117840	µg/kg	0.0035	4
HexaClBenzene	118741	µg/kg	0	4
Anthracene	120127	µg/kg	0.064	4
1,2,4TriClBenz	120821	µg/kg	0	4
2,4-DiClPhenol	120832	µg/kg	0	4
2,4-DiNitToluen	121142	µg/kg	0	4
1,4-Dioxane	123911	µg/kg	0	4
ChloroDiBrMetha	124481	µg/kg	0	4
Perc	127184	µg/kg	0.002	4
Pyrene	129000	µg/kg	0.46	4
DimethylPhthala	131113	µg/kg	0.00061	4
Dibenzofuran	132649	µg/kg	0	4
B[g,h,i]perylene	191242	µg/kg	0.13	4
In[1,2,3-cd]pyr	193395	µg/kg	0.12	4
B[b]fluoranthen	205992	µg/kg	0.3	4
Fluoranthene	206440	µg/kg	0.51	4
B[k]fluoranthen	207089	µg/kg	0.11	4
Acenaphthylene	208968	µg/kg	0.0055	4
Chrysene	218019	µg/kg	0.29	4
Aldrin	309002	µg/kg	0	4
alphaHexClCycHx	319846	µg/kg	0	4
4,6-DiNiCresol	534521	µg/kg	0	4
1,2-DiClEthylene	540590	µg/kg	14	4
1,3-DiClBenzene	541731	µg/kg	0	4
1,3-DiClPropene	542756	µg/kg	0	4
2,6-DiNitToluen	606202	µg/kg	0	4
N-NitrosDPrAmin	621647	µg/kg	0	4
HeptachloEpoxid	1024573	µg/kg	0	4
Xylenes	1330207	µg/kg	6.2	4
PCBs	1336363	µg/kg	0.69	4
Me t-ButylEther	1634044	µg/kg	0	4
1-8OctaCDD	3268879	pg/g	6140	4
Aluminum	7429905	mg/kg	21000	4
Lead	7439921	mg/kg	890	4
Manganese	7439965	mg/kg	205	4
Mercury	7439976	mg/kg	0.14	4
Nickel	7440020	mg/kg	30.1	4
Silver	7440224	mg/kg	0.52	4
Thallium	7440280	mg/kg	0.73	4
Antimony	7440360	mg/kg	3.4	4
Arsenic	7440382	mg/kg	11	4
Barium	7440393	mg/kg	140	4
Beryllium	7440417	mg/kg	0.83	4

Chemical Name	CAS No.	Units	Max Conc	Group No.
Cadmium	7440439	mg/kg	49	4
Chromium	7440473	mg/kg	100	4
Cobalt	7440484	mg/kg	19	4
Copper	7440508	mg/kg	71	4
Vanadium	7440622	mg/kg	51.5	4
Zinc	7440666	mg/kg	2800	4
Selenium	7782492	mg/kg	1.5	4
Cr(VI)	18540299	mg/kg		4
1-3,7-9HxCDD	19408743	pg/g	20.6	4
1-4,6-8HpCDD	35822469	pg/g	536	4
1-8OctaCDF	39001020	pg/g	158	4
1-4,7,8HxCDD	39227286	pg/g	9.53	4
1-3,7,8PeCDD	40321764	pg/g	6.32	4
2,3,7,8-TCDF	51207319	pg/g	12.9	4
1-4,7-9HpCDF	55673897	pg/g	2.22	4
2-4,7,8PeCDF	57117314	pg/g	4.69	4
1-3,7,8PeCDF	57117416	pg/g	8.3	4
1-3,6-8HxCDF	57117449	pg/g	4.8	4
1-3,6-8HxCDD	57653857	pg/g	30.7	4
2-4,6-8HxCDF	60851345	pg/g	8.4	4
1-4,6-8HpCDF	67562394	pg/g	71.9	4
1-4,7,8HxCDF	70648269	pg/g	8.6	4
1-3,7-9HxCDF	72918219	pg/g	0.748	4
Fluorides&cmpds	1101	mg/kg	3.08	9
SULFATES	9960	mg/kg	56.1	9
Formaldehyde	50000	mg/kg	25.6	9
B[a]P	50328	mg/kg	0.0182	9
D[a,h]anthracen	53703	mg/kg	0.0108	9
B[a]anthracene	56553	mg/kg	0.0132	9
N-NitrosDMA	62759	mg/kg	0.00862	9
[D] Acetone	67641	mg/kg	132	9
Benzene	71432	mg/kg	0.00732	9
Methylene Chlor	75092	mg/kg	0.00522	9
BromoDiClMethan	75274	mg/kg	0.007	9
Vinylid Chlorid	75354	mg/kg	0.00097	9
TriClFluorMetha	75694	mg/kg	0.002	9
MEK	78933	mg/kg	0.035	9
TCE	79016	mg/kg	3.63	9
Acenaphthene	83329	mg/kg	0.417	9
DiethylPhthalat	84662	mg/kg	0.041	9
DiButyl Phthal	84742	mg/kg	0.00893	9
Phenanthrene	85018	mg/kg	1.8	9
ButylBenzPhthal	85687	mg/kg	0.0127	9
Fluorene	86737	mg/kg	0.563	9
Naphthalene	91203	mg/kg	2	9
2MeNaphthalene	91576	mg/kg	5.71	9
o-Xylene	95476	mg/kg	0.004	9
1,2,4TriMeBenze	95636	mg/kg	0.004	9
Ethyl Benzene	100414	mg/kg	0.0314	9
Styrene	100425	mg/kg	0.000327	9
Toluene	108883	mg/kg	0.1	9
Chlorobenzn	108907	mg/kg	0.005	9
Di-2EthHxPhthal	117817	mg/kg	0.425	9
n-DiOctylPhthal	117840	mg/kg	0.132	9
Anthracene	120127	mg/kg	0.441	9
Pyrene	129000	mg/kg	0.0899	9
DimethylPhthala	131113	mg/kg	0.315	9

Chemical Name	CAS No.	Units	Max Conc	Group No.
B[g,h,i]perylene	191242	mg/kg	0.0254	9
In[1,2,3-cd]pyr	193395	mg/kg	0.0177	9
Perylene	198550	mg/kg	0.028	9
B[b]fluoranthen	205992	mg/kg	0.0286	9
Fluoranthene	206440	mg/kg	0.0489	9
B[k]fluoranthen	207089	mg/kg	0.0127	9
Acenaphthylene	208968	mg/kg	0.274	9
Chrysene	218019	mg/kg	0.0232	9
1,2-DiClEthylen	540590	mg/kg	0.00205	9
Xylenes	1330207	mg/kg	0.011	9
PCBs	1336363	mg/kg	0.742	9
1-8OctaCDD	3268879	mg/kg	0.00899	9
Aluminum	7429905	mg/kg	29300	9
Lead	7439921	mg/kg	25	9
Manganese	7439965	mg/kg	586	9
Mercury	7439976	mg/kg	0.117	9
Nickel	7440020	mg/kg	36.5	9
Silver	7440224	mg/kg	79.7	9
Thallium	7440280	mg/kg	0.44	9
Antimony	7440360	mg/kg	2.16	9
Arsenic	7440382	mg/kg	8.68	9
Barium	7440393	mg/kg	161	9
Beryllium	7440417	mg/kg	0.984	9
Cadmium	7440439	mg/kg	1.33	9
Chromium	7440473	mg/kg	52.6	9
Cobalt	7440484	mg/kg	9.87	9
Copper	7440508	mg/kg	43.2	9
Vanadium	7440622	mg/kg	66.4	9
Zinc	7440666	mg/kg	160	9
Selenium	7782492	mg/kg	0.779	9
Cr(VI)	18540299	mg/kg	6.2	9
1-3,7-9HxCDD	19408743	mg/kg	1.76E-08	9
1-4,6-8HpCDD	35822469	mg/kg	0.00000112	9
1-8OctaCDF	39001020	mg/kg	0.000000334	9
1-4,7,8HxCDD	39227286	mg/kg	8.77E-09	9
PCB 189	39635319	mg/kg	0.00319	9
1-3,7,8PeCDD	40321764	mg/kg	3.9E-09	9
2,3,7,8-TCDF	51207319	mg/kg	3.62E-08	9
1-4,7-9HpCDF	55673897	mg/kg	1.35E-08	9
2-4,7,8PeCDF	57117314	mg/kg	5.79E-09	9
1-3,7,8PeCDF	57117416	mg/kg	9.57E-09	9
1-3,6-8HxCDF	57117449	mg/kg	7.96E-09	9
1-3,6-8HxCDD	57653857	mg/kg	3.38E-08	9

Chemical Name	CAS No.	Units	Max Conc	Group No.
2-4,6-8HxCDF	60851345	mg/kg	0.000009	9
1-4,6-8HpCDF	67562394	mg/kg	0.000138	9
1-4,7,8HxCDF	70648269	mg/kg	8.61E-09	9
1-3,7-9HxCDF	72918219	mg/kg	2.29E-09	9
Antimony	7440360	mg/kg	8.6	DOE
Cadmium	7440439	mg/kg	0.38	DOE
Cr(VI)	18540299	mg/kg	0.84	DOE
Lead	7439921	mg/kg	180	DOE
Mercury	7439976	mg/kg	0.83	DOE
Selenium	7782492	mg/kg	0.49	DOE
Silver	7440224	mg/kg	0.46	DOE
Zinc	7440666	mg/kg	100	DOE
2MeNaphthalene	91576	mg/kg	0.67	DOE
Acenaphthene	83329	mg/kg	0.18	DOE
Anthracene	120127	mg/kg	0.13	DOE
B[a]anthracene	56553	mg/kg	0.29	DOE
B[a]P	50328	mg/kg	0.22	DOE
B[b]fluoranthene	205992	mg/kg	0.26	DOE
B[e]pyrene	192972	mg/kg	0.082	DOE
B[g,h,i]perylene	191242	mg/kg	0.2	DOE
B[k]fluoranthene	207089	mg/kg	0.16	DOE
Chrysene	218019	mg/kg	0.22	DOE
D[a,h]anthracene	53703	mg/kg	0.039	DOE
n-DiOctylPhthal	117840	mg/kg	0.29	DOE
Fluoranthene	206440	mg/kg	0.64	DOE
Fluorene	86737	mg/kg	0.094	DOE
In[1,2,3-cd]pyr	193395	mg/kg	0.26	DOE
Naphthalene	91203	mg/kg	0.076	DOE
N-NitrosDMA	62759	mg/kg	0.058	DOE
Phenanthrene	85018	mg/kg	0.49	DOE
Pyrene	129000	mg/kg	0.52	DOE
PCBs	1336363	mg/kg	0.15	DOE
PCBs	1336363	mg/kg	0.14	DOE
PCBs	1336363	mg/kg	0.17	DOE
DDD	72548	mg/kg	0.0000935	DOE
DiClDiPhEthylen	72559	mg/kg	0.00179	DOE
DDT	50293	mg/kg	0.00248	DOE
betaHexClCycHx	319857	mg/kg	0.000072	DOE
Chlordane	57749	mg/kg	0.00196	DOE
HexClCycHexanes	608731	mg/kg	0.0000555	DOE
Dieldrin	60571	mg/kg	0.0000808	DOE
Cl-phenoxy herb	1065	mg/kg	0.142	DOE

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Chemical List

← These numbers will be used to calculate emissions for HARP Input. Taken from Combined Conc Data tab and Dioxins tab.

No.	Row Labels	CAS No.	Max	
1	[D] Acetone	67641	132	
2	1,1,1-TCA	71556	0.325	
3	1,1,2TriClEthan	79005	0.00206	
4	1,1-DiClEthane	75343	0	
5	1,2,3TriClPropn	96184	0	
6	1,2,4TriClBenz	120821	0.007	
7	1,2,4TriMeBenze	95636	5.4	
8	1,2-DiClBenzene	95501	0.00703	
9	1,2-DiClEthylene	540590	14	
10	1,2-DiClPropane	78875	0.000314	
11	1,3-DiClBenzene	541731	0.0006	
12	1,3-DiClPropene	542756	0	
13	1,4-Dioxane	123911	0.02	
14	1-3,6-8HxCDD	57653857		30.7 Dioxins
15	1-3,6-8HxCDF	57117449		4.8 Dioxins
16	1-3,7,8PeCDD	40321764		6.32 Dioxins
17	1-3,7,8PeCDF	57117416		8.3 Dioxins
18	1-3,7-9HxCDD	19408743		20.6 Dioxins
19	1-3,7-9HxCDF	72918219		0.748 Dioxins
20	1-4,6-8HpCDD	35822469		536 Dioxins
21	1-4,6-8HpCDF	67562394		71.9 Dioxins
22	1-4,7,8HxCDD	39227286		9.53 Dioxins
23	1-4,7,8HxCDF	70648269		8.6 Dioxins
24	1-4,7-9HpCDF	55673897		2.22 Dioxins
25	1-8OctaCDD	3268879		6140 Dioxins
26	1-8OctaCDF	39001020		158 Dioxins
27	2,3,7,8-TCDF	51207319		12.9 Dioxins
28	2,4,5TriClPhenl	95954	0	
29	2,4,6TriClPhenl	88062	0	
30	2,4-DiClPhenol	120832	0	
31	2,4-DiMePhenol	105679	11.5	
32	2,4-DiNitToluen	121142	0	
33	2,4-DiNPhenol	51285	0	
34	2,6-DiNitToluen	606202	0	
35	2-4,6-8HxCDF	60851345		8.4 Dioxins
36	2-4,7,8PeCDF	57117314		4.69 Dioxins
37	2-Chlorophenol	95578	0	
38	2MeNaphthalene	91576	5.71	
39	2-NitroPhenol	88755	0	
40	3,3'DiClBenzidn	91941	0	
41	4,6-DiNiCresol	534521	0	
42	4-Nitrophenol	100027	0	

← These numbers will be used to calculate emissions for HARP Input. Taken from Combined Conc Data tab and Dioxins tab.

No.	Row Labels	CAS No.	Max
43	Acenaphthene	83329	0.417
44	Acenaphthylene	208968	0.274
45	Aldrin	309002	0
46	alphaHexClCycHx	319846	0
47	Aluminum	7429905	29300
48	Aniline	62533	0
49	Anthracene	120127	0.441
50	Antimony	7440360	41.5
51	Arsenic	7440382	11
52	Azobenzene	103333	0
53	B[a]anthracene	56553	0.29
54	B[a]P	50328	0.341
55	B[b]fluoranthen	205992	0.383
56	B[e]pyrene	192972	0.082
57	B[g,h,i]perylene	191242	0.2
58	B[k]fluoranthen	207089	0.16
59	Barium	7440393	681
60	Benzene	71432	0.07
61	Benzidine	92875	0.347
62	Beryllium	7440417	1.4
63	Bis(2ClEth)Ethr	111444	0
64	BromoDiClMethan	75274	0.009
65	Bromoform	75252	0
66	ButylBenzPhthal	85687	0.127
67	Cadmium	7440439	20.6
68	CCl4	56235	0
69	CFC-113	76131	0
70	Chlorobenzn	108907	0.271
71	ChloroDiBrMetha	124481	0
72	Chloroform	67663	0.003
73	Chromium	7440473	1420
74	Chrysene	218019	0.29
75	Cobalt	7440484	19
76	Copper	7440508	234
77	Cr(VI)	18540299	0.84
78	CS2	75150	0
79	Cumene	98828	0.381
80	D[a,h]anthracen	53703	0.041
81	DBCP	96128	0.009
82	DDD	72548	0.0000935

← These numbers will be used to calculate emissions for HARP Input. Taken from Combined Conc Data tab and Dioxins tab.

No.	Row Labels	CAS No.	Max
83	DDT	50293	0.00248
84	Di2-EthHxPhthal	117817	20.8
85	Dibenzofuran	132649	0
86	DiButyl Phthal	84742	268
87	DiClDiFlmethane	75718	0
88	DiClDiPhEthylen	72559	0.00179
89	Dieldrin	60571	0.0000808
90	DiethylPhthalat	84662	0.041
91	DimethylPhthala	131113	0.315
92	EDB	106934	0
93	Ethyl Benzene	100414	0.22
94	Ethyl Chloride	75003	0
95	Fluoranthene	206440	0.64
96	Fluorene	86737	0.563
97	Fluorides&cmpds	1101	570
98	Formaldehyde	50000	29
99	HeptachloEpoxid	1024573	0
100	Heptachlor	76448	0
101	HexaClBenzene	118741	0
102	HexaClButadiene	87683	0
103	HexaClEthane	67721	0
104	HexClCycPentadi	77474	0
105	In[1,2,3-cd]pyr	193395	0.264
106	Isophorone	78591	0
107	Lead	7439921	180
108	Lindane	58899	0
109	Manganese	7439965	2700
110	m-Cresol	108394	43
111	Me t-ButylEther	1634044	0
112	MEK	78933	4.4
113	Mercury	7439976	1.67
114	Methyl Bromide	74839	0.0005
115	Methyl Chloride	74873	0.00204
116	Methylene Chlor	75092	2.3
117	MethyleneBromid	74953	0
118	MIBK	108101	0.00313
119	Naphthalene	91203	2
120	n-DiOctylPhthal	117840	2.6
121	Nickel	7440020	36.5
122	Nitrobenzene	98953	0
123	N-NitrosDiPhAmi	86306	0.35
124	N-NitrosDMA	62759	0.058
125	N-NitrosDPrAmin	621647	0
126	o-Cresol	95487	1.05
127	o-Xylene	95476	0.252

← These numbers will be used to calculate emissions for HARP Input. Taken from Combined Conc Data tab and Dioxins tab.

No.	Row Labels	CAS No.	Max
128	PCB 189	39635319	0.00319
129	PCBs	1336363	5.46
130	p-Chloroaniline	106478	0
131	PCP	87865	0
132	p-Cresol	106445	0
133	p-DiClBenzene	106467	0.178
134	Perc	127184	0.183
135	Perylene	198550	0.028
136	Phenanthrene	85018	1.8
137	Phenol	108952	2.84
138	Pyrene	129000	0.52
139	Selenium	7782492	2.66
140	Silver	7440224	79.7
141	Styrene	100425	0.00788
142	SULFATES	9960	56.1
143	t-Butyl Alcohol	75650	0
144	TCE	79016	84
145	TetraClEthane	79345	0
146	Thallium	7440280	0.73
147	Toluene	108883	0.1
148	TriClFluorMetha	75694	0.003
149	Vanadium	7440622	66.4
150	Vinyl Acetate	108054	0
151	Vinyl Chloride	75014	0.062
152	Vinylid Chlorid	75354	0.0033
153	Xylenes	1330207	6.2
154	Zinc	7440666	2800
155	betaHexClCycHx	319857	0.000072
156	Chlordane	57749	0.00196
157	HexClCycHexanes	608731	0.0000555
158	Cl-phenoxy herb	1065	0.142
159	2,3,7,8-TCDD	1746016	0.0001058

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List of Hotspots and Chemicals

Please see file titled "Hotspots - Fugitive Dust.xlsx" for calculations

Chemical	Concentration (mg/kg)	Location	Total Acres	PM10 (lbs/year)	Chemical Emissions (lbs/year)	Notes	
Cadmium	49	Group 4, Coca site. Test Stand 4	16	416.4	2.0E-02	Page 3-2 of Group 4 RCRA Facility Investigation Report	ASNSR1
Cr(VI)	6.2	Group 9, Silvernale.	11.8	321.0	2.0E-03	Page 1-8 of SSFL Group9_RI Report	ASDSR1
Lead	341	Group 2	21.9	550.3	1.9E-01	Page 1-14 of SSFL_GRP2_RFI_Text.pdf	ASDSR1
Lead	890	Group 4, Coca site	16	416.4	3.7E-01	Page 3-2 of Group 4 RCRA Facility Investigation Report	ASNSR2
2, 3, 7, 8 - TCDD	4.2E-04	Group 2, ELV	8.6	248.3	1.0E-07	Page 1-14 of SSFL_GRP2_RFI_Text.pdf	ASNSR1
2, 3, 7, 8 - TCDD	6.5E-04	Group 3, Building 204	4	143.9	9.4E-08	Page 1-18 of SSFL_GRP3_RFI_Text.pdf	ASBSR3

Test stand 4 is within the COCA site area

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Dioxins List

These values are taken from the file "Dioxin TEQ Summary.xlsx".

Use this for HARP

Group No.	Area	Units	Maximum Detected Concentration	Representative Concentration (mg/kg)	Percent of Maximum
4	Coca	mg/kg	1.8E-05	1.1E-04	3%
4	Delta	mg/kg	2.1E-05		3%
4	PLF	mg/kg	1.5E-06		0%
9	Silvernale	mg/kg	2.2E-08		0%
9	Silvernale	mg/kg	3.5E-08		0%
9	Silvernale	mg/kg	2.8E-08		0%
9	CDFF	mg/kg	3.0E-05		5%
9	CDFF	mg/kg	4.9E-05		8%
9	CDFF	mg/kg	2.7E-05		4%
3	Building 204	mg/kg	6.5E-04		100%
3	Building 204	mg/kg	0.0E+00		0%
3	Building 204	mg/kg	0.0E+00		0%
3	Building 204	mg/kg	0.0E+00		0%
3	Building 204	mg/kg	0.0E+00		0%
3	Building 204	mg/kg	0.0E+00		0%
3	ABFF	mg/kg	4.7E-07		0%
3	ABFF	mg/kg	0.0E+00		0%
3	ABFF	mg/kg	0.0E+00		0%
3	ABFF	mg/kg	0.0E+00		0%
3	ABFF	mg/kg	0.0E+00		0%
3	ABFF	mg/kg	0.0E+00		0%
3	Bravo	mg/kg	3.8E-05		6%
3	Bravo	mg/kg	0.0E+00		0%
3	Bravo	mg/kg	0.0E+00		0%
3	Bravo	mg/kg	0.0E+00		0%
3	Bravo	mg/kg	0.0E+00		0%
3	Alfa	mg/kg	1.1E-04		16%
3	Alfa	mg/kg	0.0E+00		0%
3	Alfa	mg/kg	0.0E+00		0%
3	Alfa	mg/kg	0.0E+00		0%

Group No.	Area	Units	Maximum Detected Concentration	Representative	
				Concentration (mg/kg)	Percent of Maximum
3	Alfa	mg/kg	0.0E+00		0%
3	Alfa	mg/kg	0.0E+00		0%
3	Skyline Road	mg/kg	2.8E-06		0%
3	Skyline Road	mg/kg	0.0E+00		0%
3	Skyline Road	mg/kg	0.0E+00		0%
3	Skyline Road	mg/kg	0.0E+00		0%
3	Skyline Road	mg/kg	0.0E+00		0%
3	Skyline Road	mg/kg	0.0E+00		0%
DOE	3	mg/kg	3.5E-06		1%
DOE	5A	mg/kg	7.1E-06		1%
DOE	5B	mg/kg	6.3E-06		1%
DOE	5C	mg/kg	6.7E-06		1%
DOE	5D	mg/kg	4.4E-06		1%
DOE	6	mg/kg	1.5E-05		2%
DOE	7	mg/kg	6.5E-06		1%
DOE	8	mg/kg	1.8E-06		0%
DOE	NBZ	mg/kg	3.0E-06		0%
2	Area II	mg/kg	5.9E-06		1%
2	Area II	mg/kg	1.6E-05		3%
2	Area II	mg/kg	1.4E-05		2%
2	Ash Pile	mg/kg	4.1E-06		1%
2	Ash Pile	mg/kg	4.0E-06		1%
2	Ash Pile	mg/kg	4.9E-06		1%
2	LOX	mg/kg	2.0E-06		0%
2	LOX	mg/kg	2.0E-06		0%
2	LOX	mg/kg	1.3E-06		0%
2	ELV	mg/kg	2.6E-04		39%
2	ELV	mg/kg	3.8E-04		58%
2	ELV	mg/kg	4.2E-04		64%

Santa Susana Field Laboratory
Health Table - Mitigated

Pollutant ID	Pollutant Name	Abbreviated Name	INHALATIONCANCERSLOPEFACTOR	ORALCANCERSLOPEFACTOR	INHALATIONCHRONICREL	ORALCHRONICREL	INHALATIONCHRONICREL_BHR	ACUTEREL	ISMULTIPATHWAY	MolWtCorrection
108171262	Chlorinated paraffins (average chain length, C12; approx. 60% Cl by weight)	ChlorParaffins		0.089					FALSE	1
68220420	Nafarelin acetate	Nafarelin Aceta							FALSE	1
77501634	Lactofen	Lactofen							FALSE	1
76180966	IQ (2-Amino-3-methylimidazo[4,5-f]quinoline)	IQ							FALSE	1
74472370	2,3,4,4',5'-Hexachlorobiphenyl (PCB 114)	PCB 114	3.9	3.9	1.3	0.00033			TRUE	1
12918219	1,2,3,7,8-Pentachlorodibenzofuran	1-3,7-BHxCDF	13000	13000	0.0004	1.00E-07			TRUE	1
70648269	1,2,3,4,7,8-Hexachlorodibenzofuran	1-4,7,8HxCDF	13000	13000	0.0004	1.00E-07			TRUE	1
70476823	Mitoxantrone hydrochloride	MitoxantroneHCl							FALSE	1
70362504	3,4,4',5'-Tetrachlorobiphenyl (PCB 81)	PCB 81	39	39	0.13	3.30E-05			TRUE	1
69782067	2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 157)	PCB 157	3.9	3.9	1.3	0.00033			TRUE	1
68006837	2-Amino-3-methyl-9H-pyrido[2,3-b] indole (MeA-alpha-C)	MeA-alpha-C							FALSE	1
67730114	Glu-P-1 (2-Amino-6-methylpyridin[1,2-a:3',2'-d]imidazole)	Glu-P-1							FALSE	1
67730103	Glu-P-2 (2-Aminopyridin[1,2-a:3',2'-d]imidazole)	Glu-P-2							FALSE	1
67562394	1,2,3,4,6,7,8-Heptachlorodibenzofuran	1-4,6-BHxCDF	1300	1300	0.004	1.00E-06			TRUE	1
65510443	2,3,4,4',5'-Pentachlorobiphenyl (PCB 123)	PCB 123	3.9	3.9	1.3	0.00033			TRUE	1
64091914	4-(N-Nitrosomethylamino)-1-(3-pyridyl)-1-butanone (NNK)	4(N-NiMeAm)Buta							FALSE	1
62476599	Acflufenfen	Acflufenfen							FALSE	1
62450071	Tri-p-2 (3-Amino-1-methyl-5H-pyridol[4,3-b]indole)	Tri-p-2							FALSE	1
62450060	Tri-p-1 (3-Amino-1,4-dimethyl-5H-pyridol[4,3-b]indole)	Tri-p-1							FALSE	1
62015398	Misoprostol	Misoprostol							FALSE	1
60851345	2,3,4,6,7,8-Hexachlorodibenzofuran	2-4,6-BHxCDF	13000	13000	0.0004	1.00E-07			TRUE	1
60568050	Furmecycloz	Furmecycloz							FALSE	1
60151493	3-(N-Nitrosomethylamino)propionitrile	3(N-NiMeAm)Prp							FALSE	1
59467968	Midazolam hydrochloride	Midazolam HCl							FALSE	1
57835924	4-Nitropyrene	4-Nitropyrene	0.39	1.2					TRUE	1
57653857	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	1-3,6-BHxCDD	13000	13000	0.0004	1.00E-07			TRUE	1
57465288	3,3',4,4',5,5'-Hexachlorodibenzofuran (PCB 126)	PCB 126	13000	13000	0.0004	1.00E-07			TRUE	1
57117449	1,2,3,6,7,8-Hexachlorodibenzofuran	1-3,6-BHxCDF	13000	13000	0.0004	1.00E-07			TRUE	1
57117416	1,2,3,7,8-Pentachlorodibenzofuran	1-3,7,8PeCDF	3900	3900	0.0013	3.30E-07			TRUE	1
57117314	2,3,4,7,8-Pentachlorodibenzofuran	2-4,7,8PeCDF	3900	3900	0.0013	3.30E-08			TRUE	1
56391572	Netilmicin sulfate	NetilmicinSulfa							FALSE	1
55738540	trans-2-[(Dimethylamino)methylimino]-5-[2-(5-nitro-2-furylvinyl)-1,3,4-oxadiazol	trans-2DiMAMMtm							FALSE	1
55722275	Total Tetrachlorodibenzofuran	TotalTetraCDF							FALSE	1
55684941	Total Hexachlorodibenzofuran	TotalHexaCDF							FALSE	1
55573957	1,2,3,4,7,8-Pentachlorodibenzofuran	1-4,7-BHxCDF	1300	1300	0.004	1.00E-06			TRUE	1
54965241	Tamoxifen citrate	TamoxifenCitrat							FALSE	1
54350480	Etretinate	Etretinate							FALSE	1
53973981	Polygeenan	Polygeenan							FALSE	1
52663726	2,3,4,4',5,5'-Hexachlorobiphenyl (PCB 167)	PCB 167	3.9	3.9	1.3	0.00033			TRUE	1
51207319	2,3,7,8-Tetrachlorodibenzofuran	2,3,7,8-TCDF	13000	13000	0.0004	1.00E-07			TRUE	1
49842071	Tobramycin sulfate	TobramycinSulfa							FALSE	1
42397659	1,8-Dinitropyrene	1,8-DiNPYrene	3.9	12					TRUE	1
42397648	1,6-Dinitropyrene	1,6-DiNPYrene	3.9	120					TRUE	1
41903575	Total Tetrachlorodibenzo-p-dioxin	TotalTetraCDD							FALSE	1
41575944	Carboplatin	Carboplatin							FALSE	1
40321764	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	1-3,7,8PeCDD	130000	130000	4.00E-05	1.00E-08			TRUE	1
39831555	Amikacin sulfate	AmikacinSulfate							FALSE	1
39625119	2,3,3',4,4',5,5'-Heptachlorobiphenyl (PCB 189)	PCB 189	3.9	3.9	1.3	0.00033			TRUE	1
39300453	Dinocap	Dinocap							FALSE	1
39227286	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	1-4,7,8HxCDD	13000	13000	0.0004	1.00E-07			TRUE	1
39156417	2,4-Diaminonitrole sulfate	2,4-DiAmNiSul							FALSE	1
39001028	1,2,3,4,6,7,8-Pentachlorodibenzofuran	1-4,6,8HxCDF	3.9	3.9	0.13	3.30E-05			TRUE	1
38998753	Total Heptachlorodibenzofuran	TotalHeptaCDF							FALSE	1
38380084	2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 156)	PCB 156	3.9	3.9	1.3	0.00033			TRUE	1
37871004	Total Heptachlorodibenzo-p-dioxin	TotalHeptaCDD							FALSE	1
36791045	Ribavirin	Ribavirin							FALSE	1
36088229	Total Pentachlorodibenzo-p-dioxin	TotalPentaCDD							FALSE	1
35822469	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	1-4,6-BHxCDD	1300	1300	0.004	1.00E-06			TRUE	1
34590948	Dipropylene glycol monomethyl ether	DPGME							FALSE	1
34465468	Total Hexachlorodibenzo-p-dioxin	TotalHexaCDD							FALSE	1
34256821	Acetochlor	Acetochlor							FALSE	1
33419420	Etoposide	Etoposide							FALSE	1
32774166	3,3',4,4',5,5'-Hexachlorobiphenyl (PCB 169)	PCB 169	3900	3900	0.0013	3.30E-07			TRUE	1
32580144	2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 105)	PCB 105	3.9	3.9	1.3	0.00033			TRUE	1
32580133	3,3',4,4',5'-Tetrachlorobiphenyl (PCB 77)	PCB 77	13	13	0.4	0.0001			TRUE	1
31508006	2,3,4,4',5'-Pentachlorobiphenyl	PCB 118	3.9	3.9	1.3	0.00033			TRUE	1
30402154	Total Pentachlorodibenzofuran	TotalPentaCDF							FALSE	1
28981977	Alprazolam	Alprazolam							FALSE	1
28911015	Triazolam	Triazolam							FALSE	1
28434868	3,3'-Dichloro-4,4'-diaminodiphenyl ether	3,3'DiClDiAmPhEt							FALSE	1
26995915	Urofollitropin	Urofollitropin							FALSE	1
26471625	Toluene diisocyanates	TolueneDiisocyn	0.039		0.008			2	FALSE	1
26144865	alpha-ha-C (2-Amino-9H-pyridol[2,3-b]indole)	A-alpha-C							FALSE	1
25551137	Trimethylbenzenes	TriMeBenzens							FALSE	1
25321226	Dichlorobenzenes (mixed isomers)	DiClBenzenes							FALSE	1
25321146	Dinitrotoluenes (mixed isomers)	DiNitroToluenes							FALSE	1
25265718	Dipropylene glycol	DPG							FALSE	1
25167833	Tetrachlorophenols	Tetrachloroph							FALSE	1
25154545	Dinitrobenzenes (mixtures of)	DiNitroBenz(mix							FALSE	1
25013165	Butylated hydroxyanisole (BHA)	BHA							FALSE	1
24267569	Iodine-131	Iodine-131							FALSE	1
23541506	Daunorubicin hydrochloride	Daunorubic HCl							FALSE	1
23214928	Adriamycin	Adriamycin							FALSE	1
23092173	Halazepam	Halazepam							FALSE	1
21725462	Cytosine	Cytosine							FALSE	1
20850813	Daunomycin	Daunomycin							FALSE	1
20816120	Osmium tetroxide	OsmiumTetraOxid							FALSE	1
20325400	3,3'-Dimethoxybenzidine dihydrochloride	3,3'DiMeBenzidHC							FALSE	1
19480743	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	1-3,7-BHxCDD	13000	13000	0.0004	1.00E-07			TRUE	1
18883664	Streptozotocin	Streptozotocin							FALSE	1
18662538	Nitrotriacetic acid, trisodium salt monohydrate	NitrTriAc,Tris							FALSE	1
18540299	Chromium, hexavalent (8 compounds)	Cr(VI)	510	0.5	0.2	0.02			TRUE	1
18378897	Plicamycin	Plicamycin							FALSE	1
17230885	Danazol	Danazol							FALSE	1
16568028	Gyromitrin	Gyromitrin							FALSE	1
16543558	N-Nitrosomnicotine	N-NitrosNomico							FALSE	1
16071866	Direct Brown 95 (technical grade)	DirBrown95	500						FALSE	1
15972608	Abirater	Abirater							FALSE	1
15663271	Cisplatin	Cisplatin							FALSE	1

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15475566	Methotrexate sodium	MethotrexateSod							FALSE	1
14901087	Cycasin	Cycasin							FALSE	1
13909096	1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea [Methyl CCNU]	1(2CE1)MACCNU							FALSE	1
13765190	Calcium chromate	CalciumChromate	510	0.5	0.2	0.02			TRUE	0.3332
13647353	Trilostane	Trilostane							FALSE	1
13463406	Iron pentacarbonyl	IronPentacarbonyl							FALSE	1
13463393	Nickel carbonyl	Ni Carbonyl	0.91		0.014	0.011	0.06	0.2	TRUE	0.3438
13311847	Flutamide	Flutamide							FALSE	1
13256229	N-Nitrososarcosine	N-NitrosoSarcosi							FALSE	1
13121765	Cyhexatin	Cyhexatin							FALSE	1
13010474	1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea (CCNU)	1(2CE1)CCNU							FALSE	1
12510428	Erlonite	Erlonite							FALSE	1
12427382	Maneb	Maneb							FALSE	1
12122077	Zineb	Zineb							FALSE	1
12054487	Nickel hydroxide	Ni Hydroxide	0.91		0.014	0.011	0.06	0.2	TRUE	0.6332
12035722	Nickel subsulfide	Ni Subsulfide	0.91		0.014	0.011	0.06	0.2	TRUE	0.2443
10595956	N-Nitrosomethylethylamine	N-NitrosMEAmine	22						FALSE	1
10588019	Sodium dichromate	SodiumDichromat	510	0.5	0.2	0.02			TRUE	0.397
10294403	Barium chromate	Barium Chromate	510	0.5	0.2	0.02			TRUE	0.2953
10102440	NITROGEN DIOXIDE	NITROGEN DIOXID						470	FALSE	1
10049044	Chlorine dioxide	ChlorineDioxide			0.6				FALSE	1
10048132	Sterigmatocystin	Sterigmatocysti							FALSE	1
10035106	Hydrogen bromide	HydrogenBromide							FALSE	1
10034932	Hydrazine sulfate	HydrazineSulfat							FALSE	1
10028156	OZONE	OZONE						180	FALSE	1
10026138	Phosphorus pentachloride	Phos Pentachlor							FALSE	1
10025873	Phosphorus pentachloride	Phos OxyChlorid							FALSE	1
10024972	Nitrous oxide	Nitrogen oxide							FALSE	1
9006422	Metiram	Metiram							FALSE	1
9004664	Iron dextran complex	Iron Dextran Cm							FALSE	1
9002600	Mencozeb	Mencozeb							FALSE	1
8018017	Mancozeb	Mancozeb							FALSE	1
8014957	Oleum	Oleum						120	FALSE	1
8007452	Coal tars	Coal tars							FALSE	1
8001352	Toxaphene	Toxaphene							FALSE	1
7803512	Phosphine	Phosphine			0.8				FALSE	1
7789302	Bromine pentafluoride	BrominPentFluorid							FALSE	1
7789062	Strontium chromate	StrontiumChrom	510	0.5	0.2	0.02			TRUE	0.2554
7784421	Arjine	Arjine			0.015		0.015	0.2	FALSE	1
7783202	Ammonium sulfate	Ammon Sulfate							FALSE	1
7783075	Hydrogen selenide	HydrogSelenide						5	FALSE	1
7783064	Hydrogen sulfide	H2S						42	FALSE	1
7782505	Chlorine	Chlorine			10			210	FALSE	1
7782492	Selenium	Selenium			20	0.005			FALSE	1
7758976	Lead chromate	Lead Chromate	510	0.5	0.2	0.02			TRUE	0.1609
7758012	Potassium bromate	Potass Bromate	0.49						FALSE	1
7729956	Bromine	Bromine							FALSE	1
7723140	Phosphorus	Phosphorus							FALSE	1
7719122	Phosphorus trichloride	Phos TriChlorid							FALSE	1
7697372	Nitric acid	Nitric Acid						86	FALSE	1
7664939	Sulfuric acid	Sulfuric Acid			1			120	FALSE	1
7664417	Ammonia	NH3			200			3200	FALSE	1
7664393	Hydrogen fluoride	HF			14	0.04		240	TRUE	1
7664382	Phosphoric acid	Phosphoric Acid			7				FALSE	1
7647010	Hydrochloric acid	HCl			9			2100	FALSE	1
7550500	Titanium tetrachloride	Titanium TetraCl							FALSE	1
7496028	6-Nitrochrysen	6-Nitrochrysen	39	120					TRUE	1
7487947	Mercuric chloride	Mercuric Cl			0.03	0.00016	0.06	0.6	TRUE	1
7446719	Sulfur trioxide	Sulfur trioxide			1			120	FALSE	1
7446346	Selenium sulfide	Se Sulfide			20	0.005			FALSE	1
7446277	Lead phosphate	Lead Phosphate							TRUE	0.7659
7446095	SULFUR DIOXIDE	SULFUR DIOXIDE	0.042	0.0085				660	FALSE	1
7446066	Zinc	Zinc							FALSE	1
7446022	Vanadium (fume or dust)	Vanadium						30	FALSE	1
7440508	Copper	Copper						100	FALSE	1
7440484	Cobalt	Cobalt							FALSE	1
7440473	Chromium	Chromium							FALSE	1
7440439	Cadmium	Cadmium	15		0.02	0.0005			FALSE	1
7440417	Beryllium	Beryllium	8.4		0.007	0.002			TRUE	1
7440393	Barium	Barium							FALSE	1
7440382	Arsenic	Arsenic	12	1.5	0.015	3.50E-06	0.015	0.2	TRUE	1
7440360	Antimony	Antimony							FALSE	1
7440280	Thallium	Thallium							FALSE	1
7440224	Silver	Silver							FALSE	1
7440020	Nickel	Nickel	0.91		0.014	0.011	0.06	0.2	TRUE	1
7439976	Mercury	Mercury			0.03	0.00016	0.06	0.6	TRUE	1
7439965	Manganese	Manganese			0.09		0.17		FALSE	1
7439921	Lead	Lead	0.042	0.0085					TRUE	1
7429905	Aluminum	Aluminum							FALSE	1
6533002	Norgestrel	Norgestrel							FALSE	1
6484522	Ammonium nitrate	Ammon Nitrate							FALSE	1
6358538	Citrus Red No. 2	Citrus Red 2							FALSE	1
6164983	Chlordimeform	Chlordimeform							FALSE	1
6112761	Mercaptopurine	Mercaptopurine							FALSE	1
6109973	3-Amino-9-ethylcarbazole hydrochloride	3-Amino9EthylCarbaz							FALSE	1
5522430	1-Nitropyrene	1-Nitropyrene	0.39	1.2					TRUE	1
5411223	Benzphetamine hydrochloride	Benzphetam HCl							FALSE	1
5216251	p-alpha, alpha, alpha-Tetrachlorotoluene	p-alphaTetClTol							FALSE	1
5160021	D and C Red No. 9	D&C Red 9							FALSE	1
4759482	Isotretinoin	Isotretinoin							FALSE	1
4680788	C. I. Acid Green 3	CI Acid Grn 3							FALSE	1
4540400	N-Nitrosomethylvinylamine	N-NitrosMeVAmIn							FALSE	1
4342039	Oxcarbazine	Oxcarbazine							FALSE	1
4170303	Crotonaldehyde	Crotonaldehyde							FALSE	1
3963959	Methacycline hydrochloride	Methacyclin HCl							FALSE	1
3810740	Streptomycin sulfate	StreptomylSulfat							FALSE	1
3778732	Ifosfamide	Ifosfamide							FALSE	1
3771195	Nafegopin	Nafegopin							FALSE	1
3761533	Ponceau MX	Ponceau MX							FALSE	1
3697243	5-Methylchrysen	5-MeChrysen	3.9	12					TRUE	1

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554132	Lithium carbonate	LithiumCarbonat							FALSE	1
546883	Acetylthioacetic acid	AcetylthioaceticAcid							FALSE	1
542881	Bis(chloromethyl) ether	Bis(ClMe)Ether	46						FALSE	1
542756	1,3-dichloropropene	1,3-DiClPropene							FALSE	1
541731	1,3-dichlorobenzene	1,3-DiClBenzene							FALSE	1
541413	ethyl chloroformate	Ethyl(Cl)formate							FALSE	1
540885	t-Butyl acetate	t-Butyl acetate	0	0	0	0	0	0	FALSE	1
540841	2,2,4-Trimethylpentane	2,2,4TriMePentn							FALSE	1
540738	1,2-Dimethylhydrazine	1,2-DiMeHydraz							FALSE	1
540590	1,2-dichloroethylene	1,2-DiClEthylen							FALSE	1
534521	4,6-Dinitro-o-cresol (and salts)	4,6-DiNlCresol							FALSE	1
532274	2-Chloroacetophenone	2-ClAcetPhenone							FALSE	1
531828	N-[4-(5-Nitro-2-furyl)-2-thiazolyl]acetamide	NNlFuryThiazAc							FALSE	1
531760	Merphalan	Merphalan							FALSE	1
528290	o-Dinitrobenzene	o-DinitroBenzen							FALSE	1
513371	Dimethylvinylchloride (DMVC)	DiMeVinylCl							FALSE	1
512561	Trimethyl phosphate	TriMethylPhosph							FALSE	1
510156	Chlorobenzilate	Chlorobenzilate							FALSE	1
509148	Tetranitromethane	TetraNitroMetha							FALSE	1
505602	Mustard gas	Mustard gas							FALSE	1
494031	N-N-Bis(2-chloroethyl)-2-naphthylamine (Chlornaphazine)	NNBisClNaph							FALSE	1
492808	Auramine	Auramine							FALSE	1
484208	5-Methoxypropalen	5-MethoxyProral							FALSE	1
474259	Chenodiol	Chenodiol							FALSE	1
463581	Carbonyl sulfide	CarbonylSulfide							FALSE	1
446866	Azathioprine	Azathioprine							FALSE	1
443481	Metronidazole	Metronidazole							FALSE	1
434071	Oxymetholone	Oxymetholone							FALSE	1
379793	Ergotamine tartrate	ErgotamineTartr							FALSE	1
373024	Nickel acetate	Ni Acetate	0.91		0.014	0.011	0.06	0.2	TRUE	0.3321
366701	Procarbazine hydrochloride	ProcarbazineHCl							FALSE	1
334883	Diazomethane	Diazomethane							FALSE	1
319857	beta-Hexachlorocyclohexane	betaHexClCycHx	4	4					TRUE	1
319846	alpha-Hexachlorocyclohexane	alphaHexClCycHx	4	4					TRUE	1
315377	Testosterone enanthate	TestosteronEnan							FALSE	1
315220	Monocrotaline	Monocrotaline							FALSE	1
309002	Aldrin	Aldrin							FALSE	1
305033	Chlorambucil	Chlorambucil							FALSE	1
303479	Ochlorobin A	Ochlorobin A							FALSE	1
303344	Lasiocarpine	Lasiocarpine							FALSE	1
302794	all-trans-Retinoic acid	all-transRetiNA							FALSE	1
302705	Nitrogen mustard N-oxide	NitrMustardN-Ox							FALSE	1
302112	Hydrazine	Hydrazine	17		0.2				FALSE	1
301042	Lead acetate	Lead Acetate	0.042	0.0085					TRUE	0.637
299752	Treosulfan	Treosulfan							FALSE	1
271896	Benzofuran	Benzofuran							FALSE	1
226368	Dibenz[a,h]acridine	D[a,h]acridine	0.39	1.2					TRUE	1
224420	Dibenz[a,h]acridine	D[a,h]acridine	0.39	1.2					TRUE	1
218019	Chrysene	Chrysene	0.039	0.12					TRUE	1
208968	Acenaphthylene	Acenaphthylene							FALSE	1
207089	Benzo[k]fluoranthene	B[k]fluoranthen	0.39	1.2					TRUE	1
206440	Fluoranthene	Fluoranthene							FALSE	1
205992	Benzo[b]fluoranthene	B[b]fluoranthen	0.39	1.2					TRUE	1
205823	Benzo[j]fluoranthene	B[j]fluoranthen	0.39	1.2					TRUE	1
198550	Perylene	Perylene							FALSE	1
194592	7H-Dibenz[a,g]carbazole	7H-D[a,g]carb	3.9	12					TRUE	1
193395	Indeno[1,2,3-cd]pyrene	Ind[1,2,3-cd]pyr	0.39	1.2					TRUE	1
192972	Benzo[e]pyrene	B[e]pyrene							FALSE	1
192654	Dibenzo[a,h]pyrene	D[a,h]pyrene	3.9	12					TRUE	1
191300	Dibenzo[a,j]pyrene	D[a,j]pyrene	39	120					TRUE	1
191242	Benzo[g,h,i]perylene	B[g,h,i]perylen							FALSE	1
189640	Dibenzo[a,h]pyrene	D[a,h]pyrene	39	120					TRUE	1
189559	Dibenzo[a,j]pyrene	D[a,j]pyrene	39	120					TRUE	1
156627	Calcium cyanamide	CalciumCyanamid							FALSE	1
156105	p-Nitrosodiphenylamine	p-NitrosDiPhAmin	0.022						FALSE	1
154938	Bis(chloroethyl) nitrosourea	BisClEtHNUrea							FALSE	1
154427	Thioguanine	Thioguanine							FALSE	1
151364	Ethyleneimine (Aziridine)	Ethyleneimine							FALSE	1
148923	Melphalan	Melphalan							FALSE	1
147944	Cytarabine	Cytarabine							FALSE	1
143679	Vinblastine sulfate	VinblastineSulf							FALSE	1
143500	Chloroacetic acid (Kepone)	Chloroacetic acid							FALSE	1
141322	Butyl acrylate	Butyl Acrylate							FALSE	1
140885	Ethyl acrylate	Ethyl Acrylate							FALSE	1
140578	Aramite	Aramite							FALSE	1
139913	5-(Morpholinomethyl)-3-[[5-nitrofururylidene]amino]-2-oxazolidinone	5-MorphMeNlFur							FALSE	1
139551	4,4'-Thiodianiline	4,4-Thiodianil							FALSE	1
139130	Nitrotriacetic acid	NitriTriAc Acid							FALSE	1
135206	Cupferron	Cupferron	0.22						FALSE	1
134327	1-Naphthylamine	1-NaphthylAmine							FALSE	1
134292	o-Arsidine hydrochloride	o-Arsidine-HCl							FALSE	1
133904	Chloramben	Chloramben							FALSE	1
133073	Folpet	Folpet							FALSE	1
133062	Captan	Captan							FALSE	1
132649	Dibenzofuran	Dibenzofuran							FALSE	1
132274	Sodium o-phenylphenate	Sodium o-PhPhen							FALSE	1
131113	Dimethyl phthalate	DimethylPhthala							FALSE	1
129157	2-Methyl-1-nitroanthraquinone (uncertain purity)	2-MeAnthAnthron							FALSE	1
129000	Pyrene	Pyrene							FALSE	1
128440	Sodium saccharin	SodiumSaccharin							FALSE	1
127480	Trimethadione	Trimethadione							FALSE	1
127184	Perchloroethylene (Tetrachloroethene)	Perc	0.021		35		20000		FALSE	1
126998	Chloroprene	Chloroprene							FALSE	1
126738	Tributyl phosphate	TributylPhospha							FALSE	1
126727	Tris(2,3-dibromopropyl)phosphate	Tris(DiBrPr)Pho							FALSE	1
126078	Griseofulvin	Griseofulvin							FALSE	1
125848	Aminoglutethimide	Aminoglutethimi							FALSE	1
124481	Chlorodibromomethane	ChloroDiBrMetha							FALSE	1
124389	Carbon dioxide	CO2							FALSE	1
123911	1,4-Dioxane	1,4-Dioxane	0.027		3000		3000		FALSE	1

F.3 Soil Vapor Extraction Emissions

Santa Susana Field Laboratory

Emissions Summary

No.	Matrix	Depth Interval	Ty EcoRA Class	Preferred Analyte Name	Units	Detects	Samples	or SQL	CTE EPC
1	Soil vapor	0 - 6 ft bgs	O VOC	1,1,1-Trichloroethane	mg/m3	1	31	0.120	0.120
2	Soil vapor	0 - 6 ft bgs	O VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	mg/m3	2	31	0.330	0.314
3	Soil vapor	0 - 6 ft bgs	O VOC	Benzene	mg/m3	1	31	0.038	0.038
4	Soil vapor	0 - 6 ft bgs	O VOC	Ethylbenzene	mg/m3	3	31	0.530	0.133
5	Soil vapor	0 - 6 ft bgs	O VOC	Tetrachloroethene	mg/m3	1	30	0.120	0.120
6	Soil vapor	0 - 6 ft bgs	O VOC	Toluene	mg/m3	4	30	0.480	0.124
7	Soil vapor	0 - 6 ft bgs	O VOC	Trichloroethene	mg/m3	1	31	0.100	0.100
8	Soil vapor	0 - 6 ft bgs	O VOC	m,p-Xylenes	mg/m3	3	31	1.400	0.418
9	Soil vapor	0 - 6 ft bgs	O VOC	o-Xylene	mg/m3	1	31	0.250	0.231
10	Soil vapor	0 - 6 ft bgs	O VOC	1,1,2-Trichloroethane	mg/m3	0	31	1.000	0.224
11	Modeled Vapor	0 - 6 ft bgs	O VOC	1,2,4-Trichlorobenzene	mg/m3	3	76	0.254	1.689
12	Modeled Vapor	0 - 6 ft bgs	O VOC	1,2,4-Trimethylbenzene	mg/m3	1	69	0.002	0.000
13	Modeled Vapor	0 - 6 ft bgs	O VOC	1,2-Dichlorobenzene	mg/m3	1	81	0.000	0.002
14	Modeled Vapor	0 - 6 ft bgs	O VOC	1,2-Dichloropropane	mg/m3	1	69	0.390	0.858
15	Modeled Vapor	0 - 6 ft bgs	O VOC	1,3-Dichlorobenzene	mg/m3	1	81	0.000	0.010
16	Modeled Vapor	0 - 6 ft bgs	O VOC	1,4-Dichlorobenzene	mg/m3	1	81	0.000	0.002
17	Modeled Vapor	0 - 6 ft bgs	O VOC	2-Butanone (MEK)	mg/m3	5	69	0.009	0.002
18	Modeled Vapor	0 - 6 ft bgs	O VOC	4-Methyl-2-pentanone (MIBK)	mg/m3	1	64	0.000	0.000
19	Modeled Vapor	0 - 6 ft bgs	O VOC	Acetone	mg/m3	9	70	3.800	0.100
20	Modeled Vapor	0 - 6 ft bgs	O VOC	Chloromethane	mg/m3	1	69	0.036	0.065
21	Modeled Vapor	0 - 6 ft bgs	O VOC	Isopropylbenzene	mg/m3	1	64	0.003	0.003

Preferred Analyte Name	RME EPC	CTE EPC Basis	RME EPC Basis	Comments	CAS No.	In HARP?
1,1,1-Trichloroethane	0.120	RME CTE**	Maximum Result	Detected	71556	Yes
1,1,2-Trichloro-1,2,2-trifluoroethane	0.314	RME CTE**	95% KM (t) UCL	Detected	76131	Yes
Benzene	0.038	RME CTE**	Maximum Result	Detected	71432	Yes
Ethylbenzene	0.133	RME CTE**	95% KM (BCA) UCL	Detected	100414	Yes
Tetrachloroethene	0.120	RME CTE**	Maximum Result	Detected	127184	Yes
Toluene	0.124	RME CTE**	95% KM (t) UCL	Detected	108883	Yes
Trichloroethene	0.100	RME CTE**	Maximum Result	Detected	79016	Yes
m,p-Xylenes	1.400	Arithmetic Mean	95% KM (BCA) UCL	Detected	95476	Yes
o-Xylene	0.250	Arithmetic Mean	Maximum Result	Detected	95476	Yes
1,1,2-Trichloroethane	1.000	Mean SQL	Maximum SQL	Not Detected	79005	Yes
1,2,4-Trichlorobenzene	0.030	Modeled	Modeled	Based on soil	120821	Yes
1,2,4-Trimethylbenzene	0.000	Modeled	Modeled	Based on soil	95636	Yes
1,2-Dichlorobenzene	0.000	Modeled	Modeled	Based on soil	95501	Yes
1,2-Dichloropropane	0.390	Modeled	Modeled	Based on soil	78875	Yes
1,3-Dichlorobenzene	0.000	Modeled	Modeled	Based on soil	541731	Yes
1,4-Dichlorobenzene	0.000	Modeled	Modeled	Based on soil	106467	Yes
2-Butanone (MEK)	0.001	Modeled	Modeled	Based on soil	78933	Yes
4-Methyl-2-pentanone (MIBK)	0.000	Modeled	Modeled	Based on soil	108101	Yes
Acetone	0.400	Modeled	Modeled	Based on soil	67641	Yes
Chloromethane	0.036	Modeled	Modeled	Based on soil	74873	Yes
Isopropylbenzene	0.003	Modeled	Modeled	Based on soil	98828	Yes

Preferred Analyte Name	Extraction Efficiency (%)	Flow Rate (m3/s)	Capture Efficiency (%)	Flow Rate (mg/s)
1,1,1-Trichloroethane	10%	35	0.99	0.0042
1,1,2-Trichloro-1,2,2-trifluoroethane	10%	35	0.99	0.0110
Benzene	10%	35	0.99	0.0013
Ethylbenzene	10%	35	0.99	0.0047
Tetrachloroethene	10%	35	0.99	0.0042
Toluene	10%	35	0.99	0.0043
Trichloroethene	10%	35	0.99	0.0035
m,p-Xylenes	10%	35	0.99	0.0490
o-Xylene	10%	35	0.99	0.0088
1,1,2-Trichloroethane	10%	35	0.99	0.0350
1,2,4-Trichlorobenzene	10%	35	0.99	0.0010
1,2,4-Trimethylbenzene	10%	35	0.99	0.0000
1,2-Dichlorobenzene	10%	35	0.99	0.0000
1,2-Dichloropropane	10%	35	0.99	0.0136
1,3-Dichlorobenzene	10%	35	0.99	0.0000
1,4-Dichlorobenzene	10%	35	0.99	0.0000
2-Butanone (MEK)	10%	35	0.99	0.0000
4-Methyl-2-pentanone (MIBK)	10%	35	0.99	0.0000
Acetone	10%	35	0.99	0.0140
Chloromethane	10%	35	0.99	0.0012
Isopropylbenzene	10%	35	0.99	0.0001

Preferred Analyte Name	Flow Rate (mg/year)	Flow Rate (lbs/year)	Flow Rate (lbs/hr)
1,1,1-Trichloroethane	132,451	0.3	0.033337743
1,1,2-Trichloro-1,2,2-trifluoroethane	346,581	0.8	0.087233761
Benzene	41,943	0.1	0.010556952
Ethylbenzene	146,800	0.3	0.036949332
Tetrachloroethene	132,451	0.3	0.033337743
Toluene	136,866	0.3	0.034449001
Trichloroethene	110,376	0.2	0.027781453
m,p-Xylenes	1,545,264	3.4	0.388940336
o-Xylene	275,940	0.6	0.069453631
1,1,2-Trichloroethane	1,103,760	2.4	0.277814526
1,2,4-Trichlorobenzene	32,850	0.1	0.008268381
1,2,4-Trimethylbenzene	404	0.0	0.000101584
1,2-Dichlorobenzene	372	0.0	9.37374E-05
1,2-Dichloropropane	429,925	0.9	0.108211329
1,3-Dichlorobenzene	155	0.0	3.8894E-05
1,4-Dichlorobenzene	243	0.0	6.11192E-05
2-Butanone (MEK)	1,280	0.0	0.000322265
4-Methyl-2-pentanone (MIBK)	10	0.0	2.55589E-06
Acetone	441,504	1.0	0.11112581
Chloromethane	39,294	0.1	0.009890197
Isopropylbenzene	2,781	0.0	0.000700093

F.4 AERMOD Inputs