

Air Quality Monitoring Data

Road Construction Emissions Model, Version 5.2

Emission Estimates for -> Hatchett Ridge New/Widened					Exhaust	Fugitive Dust
Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	PM10 (lbs/day)	PM10 (lbs/day)	PM10 (lbs/day)
Grubbing/Land Clearing	15.9	88.6	79.5	43.3	4.1	39.2
Grading/Excavation	16.8	87.6	80.2	43.4	4.2	39.2
Drainage/Utilities/Sub-Grade	12.2	71.0	60.6	42.6	3.4	39.2
Paving	7.0	49.3	48.3	2.6	2.6	0.0
Maximum (pounds/day)	16.8	88.6	80.2	43.4	4.2	39.2
Total (tons/construction project)	0.1	0.6	0.9	0.4	0.0	0.4

<-tons

Notes: Project Start Year -> 2008
 Project Length (months) -> 1
 Total Project Area (acres) -> 31
 Maximum Area Disturbed/Day (acres) -> 8
 Total Soil Imported/Exported (yd³/day)-> 0

PM10 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Revised Hatchett Ridge Staging Area
Project Name: Hatchett Ridge Staging Area
Project Location: Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008 ***							
TOTALS (lbs/day, unmitigated)	11.66	112.67	83.98	0.13	23.19	2.87	20.32
TOTALS (lbs/day, mitigated)	11.66	98.01	83.98	0.13	9.78	1.60	8.17

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Revised Hatchett Ridge Staging Area
 Project Name: Hatchett Ridge Staging Area
 Project Location: Mountain Counties and Rural Counties
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: July, 2008
 Construction Duration: 1
 Total Land Use Area to be Developed: 8.4 acres
 Maximum Acreage Disturbed Per Day: 2 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	20.00	-	20.00
Off-Road Diesel	8.03	46.99	68.30	-	1.37	1.37	0.00
On-Road Diesel	3.54	65.43	13.05	0.13	1.80	1.49	0.31
Worker Trips	0.09	0.25	2.63	0.00	0.02	0.01	0.01
Maximum lbs/day	11.66	112.67	83.98	0.13	23.19	2.87	20.32
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max lbs/day all phases	11.66	112.67	83.98	0.13	23.19	2.87	20.32

Phase 3 - Building Construction Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
 Start Month/Year for Phase 2: Jul '08
 Phase 2 Duration: 1 months
 On-Road Truck Travel (VMT): 2898.5808
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Rollers	114	0.430	8.0
4	Rubber Tired Loaders	165	0.465	8.0

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 6.7\Projects2k2\Revised Hatchett Ridge Site Prep.u
Project Name: Hatchett Ridge Site Prep
Project Location: Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008 ***							
TOTALS (lbs/day, unmitigated)	5.91	34.30	51.47	0.00	16.33	1.02	15.31
TOTALS (lbs/day, mitigated)	5.91	23.65	51.47	0.00	6.09	0.08	6.02

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Revised Hatchett Ridge Site Prep.u
 Project Name: Hatchett Ridge Site Prep
 Project Location: Mountain Counties and Rural Counties
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: July, 2008
 Construction Duration: 4
 Total Land Use Area to be Developed: 103.72 acres
 Maximum Acreage Disturbed Per Day: 1.53 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	15.30	-	15.30
Off-Road Diesel	5.82	34.13	49.46	-	1.02	1.02	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.09	0.17	2.01	0.00	0.01	0.00	0.01
Maximum lbs/day	5.91	34.30	51.47	0.00	16.33	1.02	15.31
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max lbs/day all phases	5.91	34.30	51.47	0.00	16.33	1.02	15.31

Phase 3 - Building Construction Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
 Start Month/Year for Phase 2: Jul '08
 Phase 2 Duration: 4 months
 On-Road Truck Travel (VMT): 0

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Excavators	180	0.580	8.0
1	Graders	174	0.575	8.0
1	Rollers	114	0.430	8.0
1	Rubber Tired Loaders	165	0.465	8.0

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Revised Hatchett Ridge Foundations
Project Name: Hatchett Ridge Foundations
Project Location: Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008 ***							
TOTALS (lbs/day, unmitigated)	18.07	134.24	142.06	0.06	19.74	4.40	15.34
TOTALS (lbs/day, mitigated)	18.07	100.94	142.06	0.06	7.02	0.91	6.11

URBEMIS 2002 For Windows 8:7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Revised Hatchett Ridge Foundations
 Project Name: Hatchett Ridge Foundations
 Project Location: Mountain Counties and Rural Counties
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: August, 2008
 Construction Duration: 5
 Total Land Use Area to be Developed: 103.72 acres
 Maximum Acreage Disturbed Per Day: 1.52 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	15.20	-	15.20
Off-Road Diesel	16.50	106.72	133.99	-	3.77	3.77	0.00
On-Road Diesel	1.48	27.27	5.44	0.06	0.75	0.62	0.13
Worker Trips	0.09	0.25	2.63	0.00	0.02	0.01	0.01
Maximum lbs/day	18.07	134.24	142.06	0.06	19.74	4.40	15.34
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	1.76	10.87	14.72	-	0.37	0.37	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	1.76	10.87	14.72	0.00	0.37	0.37	0.00
Max lbs/day all phases	18.07	134.24	142.06	0.06	19.74	4.40	15.34

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
 Start Month/Year for Phase 2: Aug '08
 Phase 2 Duration: 0.6 months
 On-Road Truck Travel (VMT): 1207.742

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Bore/Drill Rigs	218	0.750	8.0
1	Excavators	180	0.580	8.0
1	Rubber Tired Loaders	165	0.465	8.0
2	Surfacing Equipment	437	0.490	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Aug '08
 Phase 3 Duration: 4.4 months
 Start Month/Year for SubPhase Building: Aug '08
 SubPhase Building Duration: 4.4 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Cranes	190	0.430	8.0
1	Tractor/Loaders/Backhoes	79	0.465	4.0

SubPhase Architectural Coatings Turned OFF
 SubPhase Asphalt Turned OFF

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Revised Hatchett Ridge Turbine Ass
Project Name: Hatchett Ridge Turbine Assembly
Project Location: Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008 ***							
TOTALS (lbs/day, unmitigated)	14.92	90.67	124.69	0.00	2.86	2.86	0.00
TOTALS (lbs/day, mitigated)	14.92	72.54	124.69	0.00	0.57	0.57	0.00

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Revised Hatchett Ridge Turbine Ass
 Project Name: Hatchett Ridge Turbine Assembly
 Project Location: Mountain Counties and Rural Counties
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: September, 2008
 Construction Duration: 4
 Total Land Use Area to be Developed: 0 acres
 Maximum Acreage Disturbed Per Day: 0 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOX	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	14.92	90.67	124.69	-	2.86	2.86	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	14.92	90.67	124.69	0.00	2.86	2.86	0.00
Max lbs/day all phases	14.92	90.67	124.69	0.00	2.86	2.86	0.00

Phase 2 Site Grading Assumptions: Phase Turned OFF

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Sep '08
 Phase 3 Duration: 4 months
 Start Month/Year for SubPhase Building: Sep '08
 SubPhase Building Duration: 4 months
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Cranes	190	0.430	8.0
4	Rough Terrain Forklifts	94	0.475	8.0
3	Rubber Tired Loaders	165	0.465	8.0
4	Skid Steer Loaders	62	0.515	8.0
4	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Dec '08
 SubPhase Architectural Coatings Duration: 0.4 months
 SubPhase Asphalt Turned OFF

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Revised Hatchett Ridge Substation-
Project Name: Hatchett Ridge Substation/Interconnection
Project Location: Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on BMPAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2009 ***							
TOTALS (lbs/day, unmitigated)	14.12	132.96	101.97	0.17	3.79	3.40	0.39
TOTALS (lbs/day, mitigated)	14.12	121.28	101.97	0.17	2.45	2.06	0.39

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Revised Hatchett Ridge Substation-
 Project Name: Hatchett Ridge Substation/Interconnection
 Project Location: Mountain Counties and Rural Counties
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: May, 2009
 Construction Duration: 2
 Total Land Use Area to be Developed: 0 acres
 Maximum Acreage Disturbed Per Day: 0 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOX	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2009***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	9.95	58.41	84.22	-	1.68	1.68	0.00
On-Road Diesel	4.08	74.30	15.05	0.17	2.09	1.71	0.38
Worker Trips	0.09	0.25	2.70	0.00	0.02	0.01	0.01
Maximum lbs/day	14.12	132.96	101.97	0.17	3.79	3.40	0.39
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max lbs/day all phases	14.12	132.96	101.97	0.17	3.79	3.40	0.39

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
 Start Month/Year for Phase 2: May '09
 Phase 2 Duration: 0.2 months
 On-Road Truck Travel (VMT): 3623.226

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Bore/Drill Rigs	218	0.750	8.0
1	Cranes	190	0.430	8.0
1	Excavators	180	0.580	8.0
1	Rough Terrain Forklifts	94	0.475	8.0
1	Rubber Tired Loaders	165	0.465	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0
1	Trenchers	82	0.695	8.0

Phase 3 - Building Construction Assumptions
 Start Month/Year for Phase 3: May '09
 Phase 3 Duration: 1.8 months
 Start Month/Year for SubPhase Building: May '09

SubPhase Building Duration: 1.8 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
SubPhase Architectural Coatings Turned OFF				
SubPhase Asphalt Turned OFF				

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Revised Hatchett Ridge O-M Facilit
Project Name: Hatchett Ridge O/M Facility
Project Location: Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008 ***							
TOTALS (lbs/day,unmitigated)	79.62	59.55	39.52	0.06	22.09	1.95	20.14
TOTALS (lbs/day, mitigated)	79.62	49.79	39.52	0.06	9.09	1.10	7.99

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.23	0.81	1.37	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.45	0.97	6.60	0.00	7.42

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.68	1.78	7.97	0.01	7.43

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Revised Hatchett Ridge O-M Facility
 Project Name: Hatchett Ridge O/M Facility
 Project Location: Mountain Counties and Rural Counties
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: November, 2008
 Construction Duration: 1
 Total Land Use Area to be Developed: 2 acres
 Maximum Acreage Disturbed Per Day: 2 acres
 Single Family Units: 0 Multi-Family Units: 0
 Retail/Office/Institutional/Industrial Square Footage: 4500

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOX	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	20.00	-	20.00
Off-Road Diesel	4.31	31.27	33.03	-	1.34	1.34	0.00
On-Road Diesel	1.46	28.15	5.36	0.06	0.74	0.61	0.13
Worker Trips	0.03	0.13	1.13	0.00	0.01	0.00	0.01
Maximum lbs/day	5.80	59.55	39.52	0.06	22.09	1.95	20.14
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	3.94	27.48	30.90	-	1.10	1.10	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	75.68	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	79.62	27.48	30.90	0.00	1.10	1.10	0.00
Max lbs/day all phases	79.62	59.55	39.52	0.06	22.09	1.95	20.14

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
 Start Month/Year for Phase 2: Nov '08
 Phase 2 Duration: 0.5 months
 On-Road Truck Travel (VMT): 1189.999998
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Rubber Tired Dozers	352	0.590	8.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions
 Start Month/Year for Phase 3: Nov '08
 Phase 3 Duration: 0.5 months
 Start Month/Year for SubPhase Building: Nov '08
 SubPhase Building Duration: 0.5 months
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	8.0
1	Other Equipment	190	0.620	8.0
1	Rough Terrain Forklifts	94	0.475	8.0

Start Month/Year for SubPhase Architectural Coatings: Nov '08
 SubPhase Architectural Coatings Duration: 0.1 months
 SubPhase Asphalt Turned OFF

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.06	0.81	0.68	0	0.00
Hearth - No summer emissions					
Landscaping	0.10	0.00	0.69	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.06	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.23	0.81	1.37	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
General light industry	0.45	0.97	6.60	0.00	7.42
TOTAL EMISSIONS (lbs/day)	0.45	0.97	6.60	0.00	7.42

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2008 Temperature (F): 60 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
General light industry		4.44 trips/1000 sq. ft.	4.50	20.00
			Sum of Total Trips	20.00
			Total Vehicle Miles Traveled	579.94

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	29.0	29.0	29.0	29.0	29.0	29.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
General light industry				100.0	0.0	0.0

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.06	0.81	0.68	0	0.00
Hearth - No summer emissions					
Landscaping	0.10	0.00	0.69	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.06	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.23	0.81	1.37	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
General light industry	0.45	0.97	6.60	0.00	0.47
TOTAL EMISSIONS (lbs/day)	0.45	0.97	6.60	0.00	0.47

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2008 Temperature (F): 60 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
General light industry		4.44 trips/1000 sq. ft.	4.50	20.00
				Sum of Total Trips 20.00
				Total Vehicle Miles Traveled 579.94

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	29.0	29.0	29.0	29.0	29.0	29.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
General light industry				100.0	0.0	0.0

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Revised Hatchett Ridge Worker Comm
Project Name: Hatchett Ridge Worker Commute Trips
Project Location: Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.00	0.00	0.00	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.60	9.85	92.17	0.07	8.61

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.60	9.85	92.17	0.07	8.61

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Revised Hatchett Ridge Worker Commu
 Project Name: Hatchett Ridge Worker Commute Trips
 Project Location: Mountain Counties and Rural Counties
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
General light industry	5.60	9.85	92.17	0.07	8.61
TOTAL EMISSIONS (lbs/day)	5.60	9.85	92.17	0.07	8.61

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2008 Temperature (F): 60 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
General light industry		59.11 trips/1000 sq. ft.	4.50	266.00
			Sum of Total Trips	266.00
			Total Vehicle Miles Traveled	9,590.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	75.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	12.50	2.70	95.30	2.00
Light Truck 3,751- 5,750	6.25	1.20	97.50	1.30
Med Truck 5,751- 8,500	6.25	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	0.00	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.00	0.00	50.00	50.00
Med-Heavy 14,001-33,000	0.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.00	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	50.00	50.00
Motorcycle	0.00	76.50	23.50	0.00
School Bus	0.00	0.00	0.00	100.00
Motor Home	0.00	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	29.0	29.0	29.0	36.1	29.0	29.0
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

General light industry	100.0	0.0	0.0
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