



Appendix D

AIR QUALITY AND GREENHOUSE GAS EMISSION CALCULATIONS



Palmdale Regional Groundwater Recharge and Recovery Project
Antelope Valley APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - DEIR Table 2.1

Off-road Equipment - DEIR Table 2.2

Off-road Equipment - DEIR Table 2.2

Off-road Equipment - DEIR Table 2.2

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Off-road Equipment - DEIR Table 2.2

Trips and VMT - 5 delivery trips per delivery phase

Grading -

Vehicle Trips - 1 routine worker and 1 truck per day

Vehicle Emission Factors - 1 worker and 1 truck per day

Vehicle Emission Factors - 1 worker and 1 truck per day

Vehicle Emission Factors - 1 worker and 1 truck per day

Area Coating - No Coatings

Energy Use - 400 hp x 6 pumps = 2,400 hp = 1,790 kW

1,790 kW x 8,760 hr/year = 15,677,594 kWh/yr

Water And Wastewater - No water use

Solid Waste - No Solid Waste

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	500	0
tblAreaCoating	Area_Nonresidential_Interior	1500	0
tblConstructionPhase	NumDays	100.00	109.00
tblConstructionPhase	NumDays	100.00	154.00
tblConstructionPhase	NumDays	100.00	109.00
tblConstructionPhase	NumDays	100.00	109.00
tblConstructionPhase	NumDays	100.00	216.00
tblConstructionPhase	NumDays	100.00	65.00
tblConstructionPhase	NumDays	2.00	154.00

tblConstructionPhase	NumDays	2.00	239.00
tblConstructionPhase	NumDays	2.00	65.00
tblConstructionPhase	NumDays	1.00	22.00
tblConstructionPhase	NumDays	1.00	44.00
tblConstructionPhase	NumDays	1.00	20.00
tblConstructionPhase	NumDays	1.00	184.00
tblConstructionPhase	NumDays	1.00	184.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	PhaseEndDate	11/29/2018	10/31/2018
tblConstructionPhase	PhaseEndDate	9/4/2019	1/31/2019
tblConstructionPhase	PhaseEndDate	5/31/2018	11/30/2017
tblConstructionPhase	PhaseEndDate	11/29/2018	5/31/2018
tblConstructionPhase	PhaseEndDate	9/28/2018	4/30/2018
tblConstructionPhase	PhaseEndDate	9/28/2018	6/30/2018
tblConstructionPhase	PhaseEndDate	6/4/2019	1/31/2019
tblConstructionPhase	PhaseEndDate	1/1/2019	6/30/2018
tblConstructionPhase	PhaseEndDate	8/30/2018	6/30/2018
tblConstructionPhase	PhaseEndDate	8/1/2018	5/31/2018
tblConstructionPhase	PhaseEndDate	10/31/2018	1/31/2018
tblConstructionPhase	PhaseStartDate	7/1/2018	6/1/2018
tblConstructionPhase	PhaseStartDate	2/1/2019	7/1/2018
tblConstructionPhase	PhaseStartDate	1/1/2018	7/1/2017
tblConstructionPhase	PhaseStartDate	7/1/2018	1/1/2018
tblConstructionPhase	PhaseStartDate	12/1/2017	7/1/2017
tblConstructionPhase	PhaseStartDate	7/1/2018	4/1/2018
tblConstructionPhase	PhaseStartDate	11/1/2018	7/1/2018
tblConstructionPhase	PhaseStartDate	2/1/2018	8/1/2017

tblConstructionPhase	PhaseStartDate	6/1/2018	4/1/2018
tblConstructionPhase	PhaseStartDate	6/1/2018	4/1/2018
tblConstructionPhase	PhaseStartDate	5/1/2018	8/1/2017
tblEnergyUse	LightingElect	3.55	0.00
tblEnergyUse	NT24E	5.75	15,677.59
tblEnergyUse	NT24NG	4.45	0.00
tblEnergyUse	T24E	2.75	0.00
tblEnergyUse	T24NG	14.36	0.00
tblGrading	MaterialImported	0.00	5,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Phase 1 - Well Drilling
tblOffRoadEquipment	PhaseName		Phase 5 - Site Work
tblOffRoadEquipment	PhaseName		Phase 3 - Pipeline Installation

tblOffRoadEquipment	PhaseName		Phase 1 - Well Testing
tblOffRoadEquipment	PhaseName		Phase 4 - Recharge Basin
tblOffRoadEquipment	PhaseName		Phase 3 - Pipeline Installation
tblOffRoadEquipment	PhaseName		Phase 4 - Recharge Basin
tblOffRoadEquipment	PhaseName		Phase 4 - Recharge Basin
tblOffRoadEquipment	PhaseName		Phase 4 - Recharge Basin
tblOffRoadEquipment	PhaseName		Phase 5 - Site Work
tblOffRoadEquipment	PhaseName		Phase 3 - Pipeline Installation
tblProjectCharacteristics	OperationalYear	2014	2019
tblSolidWaste	SolidWasteGenerationRate	1.24	0.00
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblVehicleEF	HHD	0.01	0.50
tblVehicleEF	HHD	0.01	0.50
tblVehicleEF	HHD	0.01	0.50
tblVehicleEF	LDA	0.48	0.50
tblVehicleEF	LDA	0.48	0.50
tblVehicleEF	LDA	0.48	0.50
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LDT2	0.17	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD1	0.06	0.00
tblVehicleEF	LHD1	0.06	0.00

tblVehicleEF	LHD2	9.9020e-003	0.00
tblVehicleEF	LHD2	9.9020e-003	0.00
tblVehicleEF	LHD2	9.9020e-003	0.00
tblVehicleEF	MCY	7.8000e-003	0.00
tblVehicleEF	MCY	7.8000e-003	0.00
tblVehicleEF	MCY	7.8000e-003	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MDV	0.16	0.00
tblVehicleEF	MH	5.5640e-003	0.00
tblVehicleEF	MH	5.5640e-003	0.00
tblVehicleEF	MH	5.5640e-003	0.00
tblVehicleEF	MHD	5.2020e-003	0.00
tblVehicleEF	MHD	5.2020e-003	0.00
tblVehicleEF	MHD	5.2020e-003	0.00
tblVehicleEF	OBUS	1.1140e-003	0.00
tblVehicleEF	OBUS	1.1140e-003	0.00
tblVehicleEF	OBUS	1.1140e-003	0.00
tblVehicleEF	SBUS	7.1000e-004	0.00
tblVehicleEF	SBUS	7.1000e-004	0.00
tblVehicleEF	SBUS	7.1000e-004	0.00
tblVehicleEF	UBUS	1.0540e-003	0.00
tblVehicleEF	UBUS	1.0540e-003	0.00
tblVehicleEF	UBUS	1.0540e-003	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	2.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.7239	7.2372	4.9903	9.2000e-003	0.4439	0.3627	0.8066	0.0505	0.3435	0.3940	0.0000	827.4796	827.4796	0.2020	0.0000	831.7215
2018	0.6897	6.5312	4.7216	7.7800e-003	0.4549	0.3290	0.7839	0.0535	0.3087	0.3621	0.0000	685.7140	685.7140	0.1740	0.0000	689.3671
2019	0.0234	0.2076	0.1571	2.8000e-004	5.2200e-003	0.0109	0.0161	1.2900e-003	0.0101	0.0114	0.0000	23.9465	23.9465	6.0200e-003	0.0000	24.0729
Total	1.4370	13.9759	9.8690	0.0173	0.9040	0.7026	1.6067	0.1053	0.6623	0.7676	0.0000	1,537.1400	1,537.1400	0.3820	0.0000	1,545.1615

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.7239	7.2371	4.9903	9.2000e-003	0.2086	0.3627	0.5714	0.0251	0.3435	0.3686	0.0000	827.4786	827.4786	0.2020	0.0000	831.7205
2018	0.6897	6.5312	4.7216	7.7800e-003	0.2195	0.3290	0.5485	0.0280	0.3087	0.3367	0.0000	685.7132	685.7132	0.1740	0.0000	689.3664
2019	0.0234	0.2076	0.1571	2.8000e-004	5.0700e-003	0.0109	0.0159	1.2700e-003	0.0101	0.0114	0.0000	23.9464	23.9464	6.0200e-003	0.0000	24.0729
Total	1.4370	13.9759	9.8690	0.0173	0.4332	0.7026	1.1359	0.0544	0.6623	0.7167	0.0000	1,537.1383	1,537.1383	0.3820	0.0000	1,545.1598

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	52.08	0.00	29.30	48.30	0.00	6.63	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.9100e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4,486.4072	4,486.4072	0.2062	0.0427	4,503.9648
Mobile	2.2200e-003	0.0110	0.0357	5.0000e-005	1.6700e-003	1.8000e-004	1.8500e-003	4.5000e-004	1.7000e-004	6.2000e-004	0.0000	4.0019	4.0019	6.0000e-005	0.0000	4.0030
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.1300e-003	0.0110	0.0357	5.0000e-005	1.6700e-003	1.8000e-004	1.8500e-003	4.5000e-004	1.7000e-004	6.2000e-004	0.0000	4,490.4091	4,490.4091	0.2063	0.0427	4,507.9679

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.9100e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4,486.4072	4,486.4072	0.2062	0.0427	4,503.9648
Mobile	2.2200e-003	0.0110	0.0357	5.0000e-005	1.6700e-003	1.8000e-004	1.8500e-003	4.5000e-004	1.7000e-004	6.2000e-004	0.0000	4.0019	4.0019	6.0000e-005	0.0000	4.0030
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.1300e-003	0.0110	0.0357	5.0000e-005	1.6700e-003	1.8000e-004	1.8500e-003	4.5000e-004	1.7000e-004	6.2000e-004	0.0000	4,490.4091	4,490.4091	0.2063	0.0427	4,507.9679

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase 1 - Site Preparation	Site Preparation	6/1/2017	6/30/2017	5	22	
2	Phase 1 - Well Drilling	Site Preparation	7/1/2017	12/31/2017	7	184	
3	Phase 3 - Pipeline Delivery	Building Construction	7/1/2017	11/30/2017	5	109	
4	Phase 3 - Pipeline Installation	Building Construction	7/1/2017	4/30/2018	5	216	
5	Phase 1 - Well Testing	Site Preparation	8/1/2017	1/31/2018	7	184	
6	Phase 4 - Recharge Basin	Grading	8/1/2017	6/30/2018	5	239	
7	Phase 5 - Equipment Delivery	Building Construction	1/1/2018	5/31/2018	5	109	
8	Phase 3 - Cleanup	Site Preparation	4/1/2018	5/31/2018	5	44	
9	Phase 5 - Site Work	Grading	4/1/2018	6/30/2018	5	65	
10	Phase 2 - Equipment Delivery	Building Construction	4/1/2018	6/30/2018	5	65	
11	Phase 5 - Tank Construction	Building Construction	6/1/2018	10/31/2018	5	109	
12	Phase 2 - Well Equipping	Grading	7/1/2018	1/31/2019	5	154	
13	Phase 5 - Building Construction	Building Construction	7/1/2018	1/31/2019	5	154	
14	Phase 5 - Cleanup	Site Preparation	2/1/2019	2/28/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase 1 - Site Preparation	Bore/Drill Rigs	1	8.00	205	0.50
Phase 1 - Site Preparation	Graders	0	8.00	174	0.41
Phase 1 - Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Phase 1 - Well Drilling	Bore/Drill Rigs	1	24.00	205	0.50

Phase 1 - Well Drilling	Graders	0	8.00	174	0.41
Phase 1 - Well Drilling	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Phase 1 - Well Testing	Generator Sets	1	24.00	84	0.74
Phase 1 - Well Testing	Graders	0	8.00	174	0.41
Phase 1 - Well Testing	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Phase 3 - Pipeline Delivery	Cranes	0	4.00	226	0.29
Phase 3 - Pipeline Delivery	Forklifts	0	6.00	89	0.20
Phase 3 - Pipeline Delivery	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Phase 4 - Recharge Basin	Concrete/Industrial Saws	0	8.00	81	0.73
Phase 4 - Recharge Basin	Generator Sets	1	8.00	84	0.74
Phase 4 - Recharge Basin	Graders	1	6.00	174	0.41
Phase 4 - Recharge Basin	Rubber Tired Dozers	0	1.00	255	0.40
Phase 4 - Recharge Basin	Scrapers	4	6.00	361	0.48
Phase 4 - Recharge Basin	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Phase 4 - Recharge Basin	Welders	1	6.00	46	0.45
Phase 5 - Equipment Delivery	Cranes	0	4.00	226	0.29
Phase 5 - Equipment Delivery	Forklifts	0	6.00	89	0.20
Phase 5 - Equipment Delivery	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Phase 5 - Site Work	Concrete/Industrial Saws	0	8.00	81	0.73
Phase 5 - Site Work	Cranes	2	4.00	226	0.29
Phase 5 - Site Work	Rubber Tired Dozers	0	1.00	255	0.40
Phase 5 - Site Work	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Phase 5 - Site Work	Welders	2	6.00	46	0.45
Phase 3 - Pipeline Installation	Cranes	0	4.00	226	0.29
Phase 3 - Pipeline Installation	Excavators	1	6.00	162	0.38
Phase 3 - Pipeline Installation	Forklifts	0	6.00	89	0.20
Phase 3 - Pipeline Installation	Generator Sets	1	8.00	84	0.74
Phase 3 - Pipeline Installation	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Phase 3 - Pipeline Installation	Welders	2	6.00	46	0.45
Phase 2 - Equipment Delivery	Cranes	0	4.00	226	0.29
Phase 2 - Equipment Delivery	Forklifts	0	6.00	89	0.20
Phase 2 - Equipment Delivery	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Phase 5 - Tank Construction	Cranes	1	4.00	226	0.29
Phase 5 - Tank Construction	Forklifts	0	6.00	89	0.20
Phase 5 - Tank Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Phase 5 - Tank Construction	Welders	1	6.00	46	0.45
Phase 5 - Building Construction	Cranes	2	4.00	226	0.29
Phase 5 - Building Construction	Forklifts	0	6.00	89	0.20
Phase 5 - Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Phase 5 - Building Construction	Welders	2	6.00	46	0.45
Phase 2 - Well Equipping	Concrete/Industrial Saws	0	8.00	81	0.73
Phase 2 - Well Equipping	Cranes	1	4.00	226	0.29
Phase 2 - Well Equipping	Rubber Tired Dozers	0	1.00	255	0.40
Phase 2 - Well Equipping	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Phase 3 - Cleanup	Graders	0	8.00	174	0.41
Phase 3 - Cleanup	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Phase 5 - Cleanup	Graders	0	8.00	174	0.41
Phase 5 - Cleanup	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Phase 1 - Site Preparation	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 - Well Drilling	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 - Well Testing	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 3 - Pipeline Delivery	0	0.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 4 - Recharge Basin	9	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 5 - Equipment Delivery	0	0.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 5 - Site Work	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 3 - Pipeline Installation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 - Equipment Delivery	0	0.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 5 - Tank Construction	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 5 - Building Construction	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 - Well Equipping	2	5.00	0.00	625.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 3 - Cleanup	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 5 - Cleanup	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Phase 1 - Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4500e-003	0.0501	0.0219	1.0000e-004		1.4400e-003	1.4400e-003		1.3300e-003	1.3300e-003	0.0000	8.9143	8.9143	2.7300e-003	0.0000	8.9716
Total	3.4500e-003	0.0501	0.0219	1.0000e-004	0.0000	1.4400e-003	1.4400e-003	0.0000	1.3300e-003	1.3300e-003	0.0000	8.9143	8.9143	2.7300e-003	0.0000	8.9716

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.7000e-004	1.7600e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2361	0.2361	1.0000e-005	0.0000	0.2364
Total	1.0000e-004	1.7000e-004	1.7600e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2361	0.2361	1.0000e-005	0.0000	0.2364

3.2 Phase 1 - Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4500e-003	0.0501	0.0219	1.0000e-004		1.4400e-003	1.4400e-003		1.3300e-003	1.3300e-003	0.0000	8.9142	8.9142	2.7300e-003	0.0000	8.9716
Total	3.4500e-003	0.0501	0.0219	1.0000e-004	0.0000	1.4400e-003	1.4400e-003	0.0000	1.3300e-003	1.3300e-003	0.0000	8.9142	8.9142	2.7300e-003	0.0000	8.9716

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.7000e-004	1.7600e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2361	0.2361	1.0000e-005	0.0000	0.2364
Total	1.0000e-004	1.7000e-004	1.7600e-003	0.0000	2.7000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2361	0.2361	1.0000e-005	0.0000	0.2364

3.3 Phase 1 - Well Drilling - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0866	1.2581	0.5499	2.4100e-003		0.0362	0.0362		0.0333	0.0333	0.0000	223.6667	223.6667	0.0685	0.0000	225.1058
Total	0.0866	1.2581	0.5499	2.4100e-003	0.0000	0.0362	0.0362	0.0000	0.0333	0.0333	0.0000	223.6667	223.6667	0.0685	0.0000	225.1058

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	1.4100e-003	0.0147	3.0000e-005	2.2200e-003	2.0000e-005	2.2400e-003	5.9000e-004	2.0000e-005	6.1000e-004	0.0000	1.9749	1.9749	1.2000e-004	0.0000	1.9775
Total	8.7000e-004	1.4100e-003	0.0147	3.0000e-005	2.2200e-003	2.0000e-005	2.2400e-003	5.9000e-004	2.0000e-005	6.1000e-004	0.0000	1.9749	1.9749	1.2000e-004	0.0000	1.9775

3.3 Phase 1 - Well Drilling - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0866	1.2581	0.5499	2.4100e-003		0.0362	0.0362		0.0333	0.0333	0.0000	223.6664	223.6664	0.0685	0.0000	225.1056
Total	0.0866	1.2581	0.5499	2.4100e-003	0.0000	0.0362	0.0362	0.0000	0.0333	0.0333	0.0000	223.6664	223.6664	0.0685	0.0000	225.1056

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.7000e-004	1.4100e-003	0.0147	3.0000e-005	2.2200e-003	2.0000e-005	2.2400e-003	5.9000e-004	2.0000e-005	6.1000e-004	0.0000	1.9749	1.9749	1.2000e-004	0.0000	1.9775
Total	8.7000e-004	1.4100e-003	0.0147	3.0000e-005	2.2200e-003	2.0000e-005	2.2400e-003	5.9000e-004	2.0000e-005	6.1000e-004	0.0000	1.9749	1.9749	1.2000e-004	0.0000	1.9775

3.4 Phase 3 - Pipeline Delivery - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2300e-003	0.0205	0.0470	6.0000e-005	1.7300e-003	3.1000e-004	2.0400e-003	4.9000e-004	2.8000e-004	7.7000e-004	0.0000	5.3375	5.3375	4.0000e-005	0.0000	5.3383
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.2300e-003	0.0205	0.0470	6.0000e-005	1.7300e-003	3.1000e-004	2.0400e-003	4.9000e-004	2.8000e-004	7.7000e-004	0.0000	5.3375	5.3375	4.0000e-005	0.0000	5.3383

3.4 Phase 3 - Pipeline Delivery - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2300e-003	0.0205	0.0470	6.0000e-005	1.7300e-003	3.1000e-004	2.0400e-003	4.9000e-004	2.8000e-004	7.7000e-004	0.0000	5.3375	5.3375	4.0000e-005	0.0000	5.3383
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.2300e-003	0.0205	0.0470	6.0000e-005	1.7300e-003	3.1000e-004	2.0400e-003	4.9000e-004	2.8000e-004	7.7000e-004	0.0000	5.3375	5.3375	4.0000e-005	0.0000	5.3383

3.6 Phase 1 - Well Testing - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1308	1.0245	0.8660	1.5100e-003		0.0689	0.0689		0.0689	0.0689	0.0000	129.7151	129.7151	0.0105	0.0000	129.9356
Total	0.1308	1.0245	0.8660	1.5100e-003	0.0000	0.0689	0.0689	0.0000	0.0689	0.0689	0.0000	129.7151	129.7151	0.0105	0.0000	129.9356

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3000e-004	1.1700e-003	0.0122	2.0000e-005	1.8500e-003	2.0000e-005	1.8600e-003	4.9000e-004	1.0000e-005	5.1000e-004	0.0000	1.6422	1.6422	1.0000e-004	0.0000	1.6444
Total	7.3000e-004	1.1700e-003	0.0122	2.0000e-005	1.8500e-003	2.0000e-005	1.8600e-003	4.9000e-004	1.0000e-005	5.1000e-004	0.0000	1.6422	1.6422	1.0000e-004	0.0000	1.6444

3.6 Phase 1 - Well Testing - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1308	1.0245	0.8660	1.5100e-003		0.0689	0.0689		0.0689	0.0689	0.0000	129.7150	129.7150	0.0105	0.0000	129.9355
Total	0.1308	1.0245	0.8660	1.5100e-003	0.0000	0.0689	0.0689	0.0000	0.0689	0.0689	0.0000	129.7150	129.7150	0.0105	0.0000	129.9355

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3000e-004	1.1700e-003	0.0122	2.0000e-005	1.8500e-003	2.0000e-005	1.8600e-003	4.9000e-004	1.0000e-005	5.1000e-004	0.0000	1.6422	1.6422	1.0000e-004	0.0000	1.6444
Total	7.3000e-004	1.1700e-003	0.0122	2.0000e-005	1.8500e-003	2.0000e-005	1.8600e-003	4.9000e-004	1.0000e-005	5.1000e-004	0.0000	1.6422	1.6422	1.0000e-004	0.0000	1.6444

3.6 Phase 1 - Well Testing - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0235	0.1913	0.1742	3.1000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	26.2822	26.2822	1.9000e-003	0.0000	26.3220
Total	0.0235	0.1913	0.1742	3.1000e-004	0.0000	0.0122	0.0122	0.0000	0.0122	0.0122	0.0000	26.2822	26.2822	1.9000e-003	0.0000	26.3220

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	2.1000e-004	2.2300e-003	0.0000	3.7000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3203	0.3203	2.0000e-005	0.0000	0.3207
Total	1.3000e-004	2.1000e-004	2.2300e-003	0.0000	3.7000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3203	0.3203	2.0000e-005	0.0000	0.3207

3.6 Phase 1 - Well Testing - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0235	0.1913	0.1742	3.1000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	26.2821	26.2821	1.9000e-003	0.0000	26.3219
Total	0.0235	0.1913	0.1742	3.1000e-004	0.0000	0.0122	0.0122	0.0000	0.0122	0.0122	0.0000	26.2821	26.2821	1.9000e-003	0.0000	26.3219

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	2.1000e-004	2.2300e-003	0.0000	3.7000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3203	0.3203	2.0000e-005	0.0000	0.3207
Total	1.3000e-004	2.1000e-004	2.2300e-003	0.0000	3.7000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3203	0.3203	2.0000e-005	0.0000	0.3207

3.7 Phase 4 - Recharge Basin - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4277	0.0000	0.4277	0.0462	0.0000	0.0462	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3288	3.6254	2.3447	3.4100e-003		0.1695	0.1695		0.1577	0.1577	0.0000	311.6945	311.6945	0.0879	0.0000	313.5396
Total	0.3288	3.6254	2.3447	3.4100e-003	0.4277	0.1695	0.5972	0.0462	0.1577	0.2039	0.0000	311.6945	311.6945	0.0879	0.0000	313.5396

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9700e-003	6.4000e-003	0.0668	1.2000e-004	0.0101	8.0000e-005	0.0102	2.6800e-003	8.0000e-005	2.7600e-003	0.0000	8.9695	8.9695	5.6000e-004	0.0000	8.9812
Total	3.9700e-003	6.4000e-003	0.0668	1.2000e-004	0.0101	8.0000e-005	0.0102	2.6800e-003	8.0000e-005	2.7600e-003	0.0000	8.9695	8.9695	5.6000e-004	0.0000	8.9812

3.7 Phase 4 - Recharge Basin - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1925	0.0000	0.1925	0.0208	0.0000	0.0208	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3288	3.6254	2.3447	3.4100e-003		0.1695	0.1695		0.1577	0.1577	0.0000	311.6941	311.6941	0.0879	0.0000	313.5393
Total	0.3288	3.6254	2.3447	3.4100e-003	0.1925	0.1695	0.3620	0.0208	0.1577	0.1785	0.0000	311.6941	311.6941	0.0879	0.0000	313.5393

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9700e-003	6.4000e-003	0.0668	1.2000e-004	0.0101	8.0000e-005	0.0102	2.6800e-003	8.0000e-005	2.7600e-003	0.0000	8.9695	8.9695	5.6000e-004	0.0000	8.9812
Total	3.9700e-003	6.4000e-003	0.0668	1.2000e-004	0.0101	8.0000e-005	0.0102	2.6800e-003	8.0000e-005	2.7600e-003	0.0000	8.9695	8.9695	5.6000e-004	0.0000	8.9812

3.7 Phase 4 - Recharge Basin - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4277	0.0000	0.4277	0.0462	0.0000	0.0462	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3409	3.7330	2.4750	4.0600e-003		0.1708	0.1708		0.1589	0.1589	0.0000	366.5846	366.5846	0.1042	0.0000	368.7737
Total	0.3409	3.7330	2.4750	4.0600e-003	0.4277	0.1708	0.5985	0.0462	0.1589	0.2051	0.0000	366.5846	366.5846	0.1042	0.0000	368.7737

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1300e-003	6.8900e-003	0.0716	1.5000e-004	0.0120	1.0000e-004	0.0121	3.2000e-003	9.0000e-005	3.2900e-003	0.0000	10.2964	10.2964	6.2000e-004	0.0000	10.3093
Total	4.1300e-003	6.8900e-003	0.0716	1.5000e-004	0.0120	1.0000e-004	0.0121	3.2000e-003	9.0000e-005	3.2900e-003	0.0000	10.2964	10.2964	6.2000e-004	0.0000	10.3093

3.7 Phase 4 - Recharge Basin - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1925	0.0000	0.1925	0.0208	0.0000	0.0208	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3409	3.7330	2.4750	4.0600e-003		0.1708	0.1708		0.1589	0.1589	0.0000	366.5842	366.5842	0.1042	0.0000	368.7732
Total	0.3409	3.7330	2.4750	4.0600e-003	0.1925	0.1708	0.3633	0.0208	0.1589	0.1797	0.0000	366.5842	366.5842	0.1042	0.0000	368.7732

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1300e-003	6.8900e-003	0.0716	1.5000e-004	0.0120	1.0000e-004	0.0121	3.2000e-003	9.0000e-005	3.2900e-003	0.0000	10.2964	10.2964	6.2000e-004	0.0000	10.3093
Total	4.1300e-003	6.8900e-003	0.0716	1.5000e-004	0.0120	1.0000e-004	0.0121	3.2000e-003	9.0000e-005	3.2900e-003	0.0000	10.2964	10.2964	6.2000e-004	0.0000	10.3093

3.8 Phase 5 - Equipment Delivery - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0500e-003	0.0185	0.0449	6.0000e-005	1.7300e-003	2.9000e-004	2.0200e-003	4.9000e-004	2.6000e-004	7.5000e-004	0.0000	5.2471	5.2471	4.0000e-005	0.0000	5.2478
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.0500e-003	0.0185	0.0449	6.0000e-005	1.7300e-003	2.9000e-004	2.0200e-003	4.9000e-004	2.6000e-004	7.5000e-004	0.0000	5.2471	5.2471	4.0000e-005	0.0000	5.2478

3.8 Phase 5 - Equipment Delivery - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0500e-003	0.0185	0.0449	6.0000e-005	1.7300e-003	2.9000e-004	2.0200e-003	4.9000e-004	2.6000e-004	7.5000e-004	0.0000	5.2471	5.2471	4.0000e-005	0.0000	5.2478
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.0500e-003	0.0185	0.0449	6.0000e-005	1.7300e-003	2.9000e-004	2.0200e-003	4.9000e-004	2.6000e-004	7.5000e-004	0.0000	5.2471	5.2471	4.0000e-005	0.0000	5.2478

3.9 Phase 3 - Cleanup - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8500e-003	0.0579	0.0514	7.0000e-005		4.1000e-003	4.1000e-003		3.7700e-003	3.7700e-003	0.0000	6.2424	6.2424	1.9400e-003	0.0000	6.2832
Total	5.8500e-003	0.0579	0.0514	7.0000e-005	0.0000	4.1000e-003	4.1000e-003	0.0000	3.7700e-003	3.7700e-003	0.0000	6.2424	6.2424	1.9400e-003	0.0000	6.2832

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	3.0000e-004	3.1600e-003	1.0000e-005	5.3000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.4546	0.4546	3.0000e-005	0.0000	0.4551
Total	1.8000e-004	3.0000e-004	3.1600e-003	1.0000e-005	5.3000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.4546	0.4546	3.0000e-005	0.0000	0.4551

3.9 Phase 3 - Cleanup - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.8500e-003	0.0579	0.0514	7.0000e-005		4.1000e-003	4.1000e-003		3.7700e-003	3.7700e-003	0.0000	6.2424	6.2424	1.9400e-003	0.0000	6.2832
Total	5.8500e-003	0.0579	0.0514	7.0000e-005	0.0000	4.1000e-003	4.1000e-003	0.0000	3.7700e-003	3.7700e-003	0.0000	6.2424	6.2424	1.9400e-003	0.0000	6.2832

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	3.0000e-004	3.1600e-003	1.0000e-005	5.3000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.4546	0.4546	3.0000e-005	0.0000	0.4551
Total	1.8000e-004	3.0000e-004	3.1600e-003	1.0000e-005	5.3000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.4546	0.4546	3.0000e-005	0.0000	0.4551

3.10 Phase 5 - Site Work - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0462	0.3630	0.2278	3.8000e-004		0.0195	0.0195		0.0184	0.0184	0.0000	32.8396	32.8396	9.1300e-003	0.0000	33.0313
Total	0.0462	0.3630	0.2278	3.8000e-004	0.0000	0.0195	0.0195	0.0000	0.0184	0.0184	0.0000	32.8396	32.8396	9.1300e-003	0.0000	33.0313

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1700e-003	1.9500e-003	0.0202	4.0000e-005	3.4000e-003	3.0000e-005	3.4300e-003	9.0000e-004	3.0000e-005	9.3000e-004	0.0000	2.9099	2.9099	1.7000e-004	0.0000	2.9135
Total	1.1700e-003	1.9500e-003	0.0202	4.0000e-005	3.4000e-003	3.0000e-005	3.4300e-003	9.0000e-004	3.0000e-005	9.3000e-004	0.0000	2.9099	2.9099	1.7000e-004	0.0000	2.9135

3.10 Phase 5 - Site Work - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0462	0.3630	0.2278	3.8000e-004		0.0195	0.0195		0.0184	0.0184	0.0000	32.8396	32.8396	9.1300e-003	0.0000	33.0312
Total	0.0462	0.3630	0.2278	3.8000e-004	0.0000	0.0195	0.0195	0.0000	0.0184	0.0184	0.0000	32.8396	32.8396	9.1300e-003	0.0000	33.0312

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1700e-003	1.9500e-003	0.0202	4.0000e-005	3.4000e-003	3.0000e-005	3.4300e-003	9.0000e-004	3.0000e-005	9.3000e-004	0.0000	2.9099	2.9099	1.7000e-004	0.0000	2.9135
Total	1.1700e-003	1.9500e-003	0.0202	4.0000e-005	3.4000e-003	3.0000e-005	3.4300e-003	9.0000e-004	3.0000e-005	9.3000e-004	0.0000	2.9099	2.9099	1.7000e-004	0.0000	2.9135

3.11 Phase 2 - Equipment Delivery - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8200e-003	0.0110	0.0268	4.0000e-005	1.0300e-003	1.7000e-004	1.2000e-003	2.9000e-004	1.6000e-004	4.5000e-004	0.0000	3.1290	3.1290	2.0000e-005	0.0000	3.1294
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.8200e-003	0.0110	0.0268	4.0000e-005	1.0300e-003	1.7000e-004	1.2000e-003	2.9000e-004	1.6000e-004	4.5000e-004	0.0000	3.1290	3.1290	2.0000e-005	0.0000	3.1294

3.11 Phase 2 - Equipment Delivery - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8200e-003	0.0110	0.0268	4.0000e-005	1.0300e-003	1.7000e-004	1.2000e-003	2.9000e-004	1.6000e-004	4.5000e-004	0.0000	3.1290	3.1290	2.0000e-005	0.0000	3.1294
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.8200e-003	0.0110	0.0268	4.0000e-005	1.0300e-003	1.7000e-004	1.2000e-003	2.9000e-004	1.6000e-004	4.5000e-004	0.0000	3.1290	3.1290	2.0000e-005	0.0000	3.1294

3.13 Phase 2 - Well Equipping - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.8000e-004	0.0000	2.8000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0314	0.3477	0.1956	3.4000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	30.8154	30.8154	9.5900e-003	0.0000	31.0168
Total	0.0314	0.3477	0.1956	3.4000e-004	2.8000e-004	0.0186	0.0189	4.0000e-005	0.0171	0.0172	0.0000	30.8154	30.8154	9.5900e-003	0.0000	31.0168

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.7700e-003	0.0459	0.0817	1.9000e-004	5.1700e-003	8.8000e-004	6.0600e-003	1.4000e-003	8.1000e-004	2.2200e-003	0.0000	17.1372	17.1372	1.2000e-004	0.0000	17.1396
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	1.5100e-003	0.0157	3.0000e-005	2.6400e-003	2.0000e-005	2.6600e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.2556	2.2556	1.3000e-004	0.0000	2.2584
Total	6.6700e-003	0.0474	0.0974	2.2000e-004	7.8100e-003	9.0000e-004	8.7200e-003	2.1000e-003	8.3000e-004	2.9400e-003	0.0000	19.3928	19.3928	2.5000e-004	0.0000	19.3980

3.13 Phase 2 - Well Equipping - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3000e-004	0.0000	1.3000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0314	0.3477	0.1956	3.4000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	30.8153	30.8153	9.5900e-003	0.0000	31.0168
Total	0.0314	0.3477	0.1956	3.4000e-004	1.3000e-004	0.0186	0.0187	2.0000e-005	0.0171	0.0171	0.0000	30.8153	30.8153	9.5900e-003	0.0000	31.0168

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.7700e-003	0.0459	0.0817	1.9000e-004	5.1700e-003	8.8000e-004	6.0600e-003	1.4000e-003	8.1000e-004	2.2200e-003	0.0000	17.1372	17.1372	1.2000e-004	0.0000	17.1396
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	1.5100e-003	0.0157	3.0000e-005	2.6400e-003	2.0000e-005	2.6600e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.2556	2.2556	1.3000e-004	0.0000	2.2584
Total	6.6700e-003	0.0474	0.0974	2.2000e-004	7.8100e-003	9.0000e-004	8.7200e-003	2.1000e-003	8.3000e-004	2.9400e-003	0.0000	19.3928	19.3928	2.5000e-004	0.0000	19.3980

3.13 Phase 2 - Well Equipping - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.8000e-004	0.0000	2.8000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8400e-003	0.0540	0.0328	6.0000e-005		2.7800e-003	2.7800e-003		2.5600e-003	2.5600e-003	0.0000	5.3215	5.3215	1.6800e-003	0.0000	5.3568
Total	4.8400e-003	0.0540	0.0328	6.0000e-005	2.8000e-004	2.7800e-003	3.0600e-003	4.0000e-005	2.5600e-003	2.6000e-003	0.0000	5.3215	5.3215	1.6800e-003	0.0000	5.3568

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.9000e-004	7.4000e-003	0.0140	3.0000e-005	4.2400e-003	1.5000e-004	4.3900e-003	1.0600e-003	1.4000e-004	1.2000e-003	0.0000	2.9657	2.9657	2.0000e-005	0.0000	2.9661
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	2.4000e-004	2.5400e-003	1.0000e-005	4.6000e-004	0.0000	4.7000e-004	1.2000e-004	0.0000	1.3000e-004	0.0000	0.3837	0.3837	2.0000e-005	0.0000	0.3841
Total	1.1300e-003	7.6400e-003	0.0166	4.0000e-005	4.7000e-003	1.5000e-004	4.8600e-003	1.1800e-003	1.4000e-004	1.3300e-003	0.0000	3.3493	3.3493	4.0000e-005	0.0000	3.3502

3.13 Phase 2 - Well Equipping - 2019**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3000e-004	0.0000	1.3000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8400e-003	0.0540	0.0328	6.0000e-005		2.7800e-003	2.7800e-003		2.5600e-003	2.5600e-003	0.0000	5.3215	5.3215	1.6800e-003	0.0000	5.3568
Total	4.8400e-003	0.0540	0.0328	6.0000e-005	1.3000e-004	2.7800e-003	2.9100e-003	2.0000e-005	2.5600e-003	2.5800e-003	0.0000	5.3215	5.3215	1.6800e-003	0.0000	5.3568

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.9000e-004	7.4000e-003	0.0140	3.0000e-005	4.2400e-003	1.5000e-004	4.3900e-003	1.0600e-003	1.4000e-004	1.2000e-003	0.0000	2.9657	2.9657	2.0000e-005	0.0000	2.9661
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	2.4000e-004	2.5400e-003	1.0000e-005	4.6000e-004	0.0000	4.7000e-004	1.2000e-004	0.0000	1.3000e-004	0.0000	0.3837	0.3837	2.0000e-005	0.0000	0.3841
Total	1.1300e-003	7.6400e-003	0.0166	4.0000e-005	4.7000e-003	1.5000e-004	4.8600e-003	1.1800e-003	1.4000e-004	1.3300e-003	0.0000	3.3493	3.3493	4.0000e-005	0.0000	3.3502

3.15 Phase 5 - Cleanup - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3300e-003	0.0234	0.0230	3.0000e-005		1.5600e-003	1.5600e-003		1.4400e-003	1.4400e-003	0.0000	2.7900	2.7900	8.8000e-004	0.0000	2.8085
Total	2.3300e-003	0.0234	0.0230	3.0000e-005	0.0000	1.5600e-003	1.5600e-003	0.0000	1.4400e-003	1.4400e-003	0.0000	2.7900	2.7900	8.8000e-004	0.0000	2.8085

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	1.3000e-004	1.3200e-003	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2002	0.2002	1.0000e-005	0.0000	0.2004
Total	8.0000e-005	1.3000e-004	1.3200e-003	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2002	0.2002	1.0000e-005	0.0000	0.2004

3.15 Phase 5 - Cleanup - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3300e-003	0.0234	0.0230	3.0000e-005		1.5600e-003	1.5600e-003		1.4400e-003	1.4400e-003	0.0000	2.7900	2.7900	8.8000e-004	0.0000	2.8085
Total	2.3300e-003	0.0234	0.0230	3.0000e-005	0.0000	1.5600e-003	1.5600e-003	0.0000	1.4400e-003	1.4400e-003	0.0000	2.7900	2.7900	8.8000e-004	0.0000	2.8085

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	1.3000e-004	1.3200e-003	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2002	0.2002	1.0000e-005	0.0000	0.2004
Total	8.0000e-005	1.3000e-004	1.3200e-003	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2002	0.2002	1.0000e-005	0.0000	0.2004

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.2200e-003	0.0110	0.0357	5.0000e-005	1.6700e-003	1.8000e-004	1.8500e-003	4.5000e-004	1.7000e-004	6.2000e-004	0.0000	4.0019	4.0019	6.0000e-005	0.0000	4.0030
Unmitigated	2.2200e-003	0.0110	0.0357	5.0000e-005	1.6700e-003	1.8000e-004	1.8500e-003	4.5000e-004	1.7000e-004	6.2000e-004	0.0000	4.0019	4.0019	6.0000e-005	0.0000	4.0030

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	2.00	0.00	0.00	4,171	4,171
Total	2.00	0.00	0.00	4,171	4,171

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.500000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.500000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.56776e+007	4,486.4072	0.2062	0.0427	4,503.9648
Total		4,486.4072	0.2062	0.0427	4,503.9648

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.56776e+007	4,486.4072	0.2062	0.0427	4,503.9648
Total		4,486.4072	0.2062	0.0427	4,503.9648

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.9100e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	3.9100e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	3.9100e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	3.9100e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation
