

Application 31157 - Phillips 66 Rodeo Renewed Project - Index for Appendices

Appendix	Table Figure #	Category	Table Name	Source #s
A	A/A	Fuel Gas System	Summary	5-358
A	Figure A.1	Fuel Gas System	Fuel Gas Analysis	5-358
A	Table A.1	Fuel Gas System	Fuel Gas Process Flow Diagram	5-338
A	Table A.2	Fuel Gas System	Refinery Fuel Gas (RFG) Data	5-338
A	Table A.3	Fuel Gas System	Refinery Fuel Gas (RFG) Data without Outliers	5-338
A	Table A.4	Fuel Gas System	Rodeo Renewed (Post-Project) Fuel Gas Composition - Carbon and F Factor Calculations	5-338
A	Table A.5	Fuel Gas System	Rodeo Renewed (Post-Project) Carbon Content Calculation	5-338
A	Figure A.2	Fuel Gas System	Fuel Gas Heat Content	5-338
A	Figure A.3	Fuel Gas System	Fuel Gas Heat Content +/- Standard Deviation	5-338
A	Figure A.4	Fuel Gas System	Fd Factor	5-338
B	Table B.1	Stationary Combustion	Overview of Process Heaters at Phillips 66	5-11, 5-12, 5-13, 5-27, 5-45, 5-418
B	Table B.2	Stationary Combustion	Potential to Emit (PTE) Emissions for U248-B-201 Heater (5-11)	5-11
B	Table B.3	Stationary Combustion	Potential to Emit (PTE) Emissions for U248-B-202 Heater (5-12)	5-12
B	Table B.4	Stationary Combustion	Potential to Emit (PTE) Emissions for U248-B-401 Heater (5-13)	5-13
B	Table B.5	Stationary Combustion	Potential to Emit (PTE) Emissions for U248-B-402 Heater (5-22)	5-22
B	Table B.6	Stationary Combustion	Potential to Emit (PTE) Emissions for U246-B-801A/B Heater (5-45)	5-45
B	Table B.7	Stationary Combustion	Potential to Emit (PTE) Emissions for U212-0-3 Furnace (5-458)	5-458
B	Table B.8	Stationary Combustion	Potential to Emit (PTE) Emissions for Turbines (5-352 through 5-354)	5-352, 5-353, 5-354
B	Table B.9	Stationary Combustion	Potential to Emit (PTE) Emissions for Duct Burners (5-355 through 5-357)	5-355, 5-356, 5-357
C	Table C.1	Storage Tanks	Potential to Emit (PTE) Annual POC Emissions for Altered Storage Tanks in Flexibility Service (Tanks allowed to store petroleum based and renewable based materials)	5-122, 5-125, 5-126, 5-139, 5-140, 5-150, 5-195, 5-254, 5-256, 5-257, 5-341, 5-342
C	Table C.2	Storage Tanks	Potential to Emit (PTE) Annual TAC Emissions for Altered Storage Tanks in Flexibility Service (Tanks allowed to store petroleum based and renewable based materials)	5-122, 5-125, 5-126, 5-139, 5-140, 5-150, 5-195, 5-254, 5-256, 5-257, 5-341, 5-342
C	Table C.3	Storage Tanks	Potential to Emit (PTE) Daily POC Emissions for Altered Storage Tanks in Flexibility Service (Tanks allowed to store petroleum based and renewable based materials)	5-122, 5-125, 5-126, 5-139, 5-140, 5-150, 5-195, 5-254, 5-256, 5-257, 5-341, 5-342
C	Table C.4	Storage Tanks	Potential to Emit (PTE) Daily TAC Emissions for Altered Storage Tanks in Flexibility Service (Tanks allowed to store petroleum based and renewable based materials)	5-122, 5-125, 5-126, 5-139, 5-140, 5-150, 5-195, 5-254, 5-256, 5-257, 5-341, 5-342
C	Table C.5	Storage Tanks	Potential to Emit (PTE) Hourly Throughput TAC Emissions for Altered Storage Tanks in Flexibility Service	5-122, 5-125, 5-126, 5-139, 5-140, 5-150, 5-195, 5-254, 5-256, 5-257, 5-341, 5-342
C	Table C.6	Storage Tanks	TANKSEP Output Report for Tables C.4 and C.5	5-122, 5-125, 5-126, 5-139, 5-140, 5-150, 5-195, 5-254, 5-256, 5-257, 5-341, 5-342
C	Table C.7	Storage Tanks	Potential to Emit (PTE) POC Emissions for Altered and Exempt Storage Tanks (Post-Project, for Renewable-Based Scenario) (Emissions below are NOT imposed as permit condition limits)	5-90, 5-97, 5-99, 5-105, 5-106, 5-110, 5-111, 5-112, 5-113, 5-114, 5-122, 5-125, 5-126, 5-127, 5-135, 5-137, 5-139, 5-140, 5-150, 5-173, 5-174, 5-175, 5-195, 5-204, 5-205, 5-254, 5-256, 5-257, 5-261, 5-262, 5-263, 5-334, 5-340, 5-341, 5-342, 5-360, 5-445, 5-448, 5-449, 5-506, 5-507
C	Table C.8	Storage Tanks	Potential to Emit (PTE) TAC Emissions for Altered and Exempt Storage Tanks (Post-Project, for Renewable-Based Scenario) (Emissions below are NOT imposed as permit condition limits)	5-90, 5-97, 5-99, 5-105, 5-106, 5-110, 5-111, 5-112, 5-113, 5-114, 5-122, 5-125, 5-126, 5-127, 5-135, 5-137, 5-139, 5-140, 5-150, 5-173, 5-174, 5-175, 5-195, 5-204, 5-205, 5-254, 5-256, 5-257, 5-261, 5-262, 5-263, 5-334, 5-340, 5-341, 5-342, 5-360, 5-445, 5-448, 5-449, 5-506, 5-507
C	Table C.9	Storage Tanks	TANKSEP Output Report for Tables C.7 and C.8	5-90, 5-97, 5-99, 5-105, 5-106, 5-110, 5-111, 5-112, 5-113, 5-114, 5-122, 5-125, 5-126, 5-127, 5-135, 5-137, 5-139, 5-140, 5-150, 5-173, 5-174, 5-175, 5-195, 5-204, 5-205, 5-254, 5-256, 5-257, 5-261, 5-262, 5-263, 5-334, 5-340, 5-341, 5-342, 5-360, 5-445, 5-448, 5-449, 5-506, 5-507
C	Table C.10	Storage Tanks	Potential to Emit (PTE) POC Emissions for 5-97 Tank 100	5-97
C	Table C.11	Storage Tanks	Tank Inlet Parameters	Various
C	Table C.12	Storage Tanks	Floating Roof Tank Inlet Parameters	Various
C	Table C.13	Storage Tanks	Meteorological Data	Various
C	Table C.14	Storage Tanks	Leakage Chemical Tanks Potentials to Emit (PTE) POC and TAC Emissions Calculations	5-607, 5-611, 5-618
C	Table C.15	Storage Tanks	Potential to Emit (PTE) TAC Emissions - Reg 2.1-316 Analysis for Exempt Chemical Tanks	5-607, 5-611, 5-618
C	Table C.16	Storage Tanks	Leakage Tanks Potentials to Emit (PTE) POC and TAC Emissions Calculations	5-618, 5-620, 5-621
C	Table C.17	Storage Tanks	Potential to Emit (PTE) TAC Emissions - Reg 2.1-316 Analysis for Exempt Chemical Tanks	5-618, 5-620, 5-621
D	Table D.1	Fugitive Emissions	Post-Project Potential to Emit (PTE) Fugitive Emissions Summary for Existing Sources	5-70, 5-307, 5-318, 5-322, 5-434, 5-437
D	Table D.2	Fugitive Emissions	Pre-Project Fugitive Component Counts and Potentials to Emit (PTE) for Existing Sources	5-70, 5-307, 5-318, 5-322, 5-434, 5-437
D	Table D.3	Fugitive Emissions	Post-Project Fugitive Component Counts and Potentials to Emit (PTE) for Existing Sources	5-70, 5-307, 5-318, 5-322, 5-434, 5-437
D	Table D.4	Fugitive Emissions	Post-Project Fugitive Component Counts and Corresponding Emissions for Existing Sources	5-70, 5-307, 5-318, 5-322, 5-434, 5-437
D	Table D.5	Fugitive Emissions	Fugitive TAC Specifications	N/A
D	Table D.6	Fugitive Emissions	Post-Project Fugitive Potential to Emit (PTE) Emissions for 5-400 Pre-treatment Unit	5-400
D	Table D.7	Fugitive Emissions	Post-Project Fugitive Potential to Emit (PTE) Emissions for 5-599 Sour Water Strippers and Amine Gas Treatment System	5-599
D	Table D.8	Fugitive Emissions	Total Project New and Replacement Fugitive Component Counts by Type and Emissions for New and Existing Sources	5-70, 5-307, 5-318, 5-322, 5-434, 5-437
D	Table D.9	Fugitive Emissions	Project New and Replacement Fugitive Component Counts and Emissions for Existing Sources by Materials Service	5-70, 5-307, 5-318, 5-322, 5-434, 5-437
D	Table D.10	Fugitive Emissions	Pre-Project Fugitive Potential to Emit (PTE) Emissions for 4-425 and 4-426 Marine Terminal	5-425, 5-426
D	Table D.11	Fugitive Emissions	Post-Project Fugitive Potential to Emit (PTE) Emissions for 4-425 and 4-426 Marine Terminal	5-425, 5-426
D	Table D.12	Fugitive Emissions	Pre-Project Fugitive Potential to Emit (PTE) Emissions for 5-309 Tank 248	5-309
D	Table D.13	Fugitive Emissions	Post-Project Fugitive Potential to Emit (PTE) Emissions for 5-309 Tank 248	5-309
E	Table E.1	Marine Loading	Marine Terminal Vessel Loading Potential to Emit (5-425, 5-426)	5-425, 5-426
F	Table F.1	Wastewater Treatment System	Potentials to Emit (PTE) Emissions for Wastewater Treatment System	5-101, 5-102, 5-106, 5-324, 5-381, 5-382, 5-383, 5-384, 5-385, 5-386, 5-387, 5-390, 5-400, 5-401, 5-1007, 5-1008, 5-1009
F	Table F.2	Wastewater Treatment System	Potentials to Emit (PTE) TAC Emissions for Wastewater Treatment System	5-101, 5-102, 5-106, 5-324, 5-381, 5-382, 5-383, 5-384, 5-385, 5-386, 5-387, 5-390, 5-400, 5-401, 5-1007, 5-1008, 5-1009
F	Table F.3	Wastewater Treatment System	Water Results	5-101, 5-102, 5-106, 5-324, 5-381, 5-382, 5-383, 5-384, 5-385, 5-386, 5-387, 5-390, 5-400, 5-401, 5-1007, 5-1008, 5-1009
F	Figure F.1	Wastewater Treatment System	Wastewater Treatment Plant Schematic (Water)	5-101, 5-102, 5-106, 5-324, 5-381, 5-382, 5-383, 5-384, 5-385, 5-386, 5-387, 5-390, 5-400, 5-401, 5-1007, 5-1008, 5-1009
F	Table F.4	Wastewater Treatment System	Water Inputs	5-101, 5-102, 5-106, 5-324, 5-381, 5-382, 5-383, 5-384, 5-385, 5-386, 5-387, 5-390, 5-400, 5-401, 5-1007, 5-1008, 5-1009
F	Table F.5	Wastewater Treatment System	Previous Regulation 12-13 emissions inventory submissions for P66 for 5-1008 and 5-1009	5-1008, 5-1009
F	Table F.6	Wastewater Treatment System	Previous Regulation 12-13 TAC emissions inventory submissions for P66 for 5-1008	5-1008
G	Table G.1	Pre-treatment Unit	5-400 Pre-treatment Unit Emissions	5-400
G	Table G.2	Pre-treatment Unit	5-400 Wet Surface Area Cooler Emissions	5-400
H	Table H.1	Material Handling	Material Handling Emissions from the Treatment Unit Silos and Day Hoppers	5-607, 5-608, 5-609, 5-604, 5-605
I	Table I.1	Sour Water Strippers and Amine Acid Gas Treatment System	Potential to Emit (PTE) Criteria Pollutants for 5-599 Sour Water Strippers and Amine Gas Treatment System	5-599
I	Table I.2	Sour Water Strippers and Amine Acid Gas Treatment System	Post-Project Potential to Emit (PTE) and Greenhouse Gases for 5-599 Sour Water Strippers and Amine Gas Treatment System	5-599
I	Table I.3	Sour Water Strippers and Amine Acid Gas Treatment System	Pre-Project Potential to Emit (PTE) Criteria Pollutants and Ammonia for 5-599 Sour Water Strippers and Amine Gas Treatment System	5-599
I	Table I.4	Sour Water Strippers and Amine Acid Gas Treatment System	Potential to Emit (PTE) Emissions for U235 Sulfur Recovery Unit (5-1010)	5-1010
J	Table J.1	Regulation 2.5-114 Limited Exemption - Modified Source with No Inco	Historical 12-Month Rolling Maximum (Post-Project) vs. 3-Year Baseline TAC Emissions for Renewable Naphtha Storage Tanks - Regulation 2.5-114 Analysis	5-122, 5-125, 5-126, 5-139, 5-140, 5-150
J	Table J.2	Regulation 2.5-114 Limited Exemption - Modified Source with No Inco	3-Year Baseline POC Emissions for Storage Tanks	5-122, 5-125, 5-126, 5-139, 5-140, 5-150
J	Table J.3	Regulation 2.5-114 Limited Exemption - Modified Source with No Inco	3-Year Baseline TAC Emissions for Storage Tanks	5-122, 5-125, 5-126, 5-139, 5-140, 5-150
J	Table J.4	Regulation 2.5-114 Limited Exemption - Modified Source with No Inco	TANKSEP Output Report for Tables J.2 and J.3	5-122, 5-125, 5-126, 5-139, 5-140, 5-150
J	Table J.5	Regulation 2.5-114 Limited Exemption - Modified Source with No Inco	Historical 12-Month Rolling Maximum (Post-Project) vs. 3-Year Baseline TAC Emissions for Existing Sources - Regulation 2.5-114 Analysis	5-122, 5-125, 5-126, 5-139, 5-140, 5-150
J	Table J.6	Regulation 2.5-114 Limited Exemption - Modified Source with No Inco	Monthly Fugitive Emissions for Existing Sources (Emissions for Period: January 1, 2018 - December 31, 2018)	5-70, 5-307, 5-318, 5-322, 5-434, 5-437
J	Table J.7	Regulation 2.5-114 Limited Exemption - Modified Source with No Inco	Monthly Fugitive Emissions for Existing Sources (Emissions for Period: January 1, 2019 - December 31, 2019)	5-70, 5-307, 5-318, 5-322, 5-434, 5-437
J	Table J.8	Regulation 2.5-114 Limited Exemption - Modified Source with No Inco	Monthly Fugitive Emissions for Existing Sources (Emissions for Period: January 1, 2020 - December 31, 2020)	5-70, 5-307, 5-318, 5-322, 5-434, 5-437
J	Table J.9	Regulation 2.5-114 Limited Exemption - Modified Source with No Inco	Monthly Fugitive Emissions for Existing Sources (Emissions for Period: January 1, 2021 - December 31, 2021)	5-70, 5-307, 5-318, 5-322, 5-434, 5-437
J	Table J.10	Regulation 2.5-114 Limited Exemption - Modified Source with No Inco	Fugitive TAC Specifications	N/A
K	Table K.1	Cooling Water Towers	Potential to Emit (PTE) Criteria Pollutant Emissions for Permitted 5-433 and 5-435 Cooling Towers	5-433, 5-435
K	Table K.2	Cooling Water Towers	Potential to Emit (PTE) TAC Emissions for Permitted 5-433 and 5-435 Cooling Towers	5-433, 5-435
K	Table K.3	Cooling Water Towers	Potential to Emit (PTE) Criteria Pollutant Emissions for Permitted 5-456 and 5-500 Cooling Towers (except per Regulation 2.1-128.A, Cooling towers not used for evaporative cooling of process water)	5-456, 5-500
K	Table K.4	Cooling Water Towers	Potential to Emit (PTE) TAC Emissions for Permitted 5-456 and 5-500 Cooling Towers (except per Regulation 2.1-128.A, Cooling towers not used for evaporative cooling of process water)	5-456, 5-500
L	Table L.1	Track Fugitive Road Dust Emissions	Summary of Net Differences Between Project and Baseline Track Fugitive Dust Emissions	5-300, 5-605, 5-602, 5-603, 5-605, 5-617
L	Table L.2	Track Fugitive Road Dust Emissions	Rodeo Site and Carbon Point Baseline Daily and Annual Truck Activity and Emissions (ton/yr)	5-300, 5-605, 5-602, 5-603, 5-605, 5-617
L	Table L.3	Track Fugitive Road Dust Emissions	Rodeo Site and Carbon Point 2024 Daily and Annual Truck Activity and Emissions (ton/yr)	5-300, 5-605, 5-602, 5-603, 5-605, 5-617
L	Table L.4	Track Fugitive Road Dust Emissions	Summary of Net Differences Between Project and Baseline Track Fugitive Dust Emissions Factors	5-300, 5-605, 5-602, 5-603, 5-605, 5-617
L	Table L.5	Track Fugitive Road Dust Emissions	AERMOD Source Group Data	5-300, 5-605, 5-602, 5-603, 5-605, 5-617
M	Table M.1	Contingency Reserves Summary	Contingency Reserves Summary	5-307, 5-318, 5-322, 5-434, 5-437, 5-599, 5-600, 5-601, 5-602, 5-603, 5-605
N	Table N.1	Contingent Emission Reduction Credits	Contingent Emission Reduction Credits (CERC) Summary	5-29, 5-30, 5-36, 5-97, 5-350, 5-351, 5-439, 5-442, 5-1007, 5-1009
N	Table N.2	Contingent Emission Reduction Credits	CERC Summary by Source for Each Baseline Year	5-29, 5-30, 5-36, 5-97, 5-350, 5-351, 5-439, 5-442, 5-1007, 5-1009
N	Table N.3	Contingent Emission Reduction Credits	CERC Calculations for U200-B Heater (5-20)	5-20
N	Table N.4	Contingent Emission Reduction Credits	CERC Calculations for U200-B Heater (5-30)	5-30
N	Table N.5	Contingent Emission Reduction Credits	CERC Calculations U200-B Heater (5-38)	5-38
N	Table N.6	Contingent Emission Reduction Credits	CERC Calculations for U218 & 802 Tower Preheaters (5-351)	5-351
N	Table N.7	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1002)	5-1002
N	Table N.8	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1003)	5-1003
N	Table N.9	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1004)	5-1004
N	Table N.10	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1005)	5-1005
N	Table N.11	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1006)	5-1006
N	Table N.12	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1007)	5-1007
N	Table N.13	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1008)	5-1008
N	Table N.14	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1009)	5-1009
N	Table N.15	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1010)	5-1010
N	Table N.16	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1011)	5-1011
N	Table N.17	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1012)	5-1012
N	Table N.18	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1013)	5-1013
N	Table N.19	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1014)	5-1014
N	Table N.20	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1015)	5-1015
N	Table N.21	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1016)	5-1016
N	Table N.22	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1017)	5-1017
N	Table N.23	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1018)	5-1018
N	Table N.24	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1019)	5-1019
N	Table N.25	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1020)	5-1020
N	Table N.26	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1021)	5-1021
N	Table N.27	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1022)	5-1022
N	Table N.28	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1023)	5-1023
N	Table N.29	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1024)	5-1024
N	Table N.30	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1025)	5-1025
N	Table N.31	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1026)	5-1026
N	Table N.32	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1027)	5-1027
N	Table N.33	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1028)	5-1028
N	Table N.34	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1029)	5-1029
N	Table N.35	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1030)	5-1030
N	Table N.36	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1031)	5-1031
N	Table N.37	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1032)	5-1032
N	Table N.38	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1033)	5-1033
N	Table N.39	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1034)	5-1034
N	Table N.40	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1035)	5-1035
N	Table N.41	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1036)	5-1036
N	Table N.42	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-1037)	5-1037
N	Table N.43	Contingent Emission Reduction Credits	CERC Calculations for U238 Sulfur Plant (5-10	