

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0106861

Owner: Phillips 66 Partners Holdings LLC
Address: P.O. Box 4428 N870-05, Houston, TX 77210

Continuing Authority: Phillips 66 Pipeline LLC
Address: Same as above

Facility Name: Mt. Vernon Terminal
Facility Address: 15138 Highway 96, Mount Vernon, MO 65712

Legal Description: See page 2
UTM Coordinates: See page 2

Receiving Stream: Tributary to Truitt Creek
First Classified Stream and ID: 8-20-13 MUDD v1.0 (C) 3960
USGS Basin & Sub-watershed No.: 11070207-0105

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Petroleum Bulk Station and Terminal; SIC #5171, NAICS #424710

Underground Injection Control (UIC) -- Class V Injection Wells

See further facility description, outfalls, and permitted feature information on page 2

This permit authorizes only hydrostatic test water and stormwater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Sections 640.013, 621.250, and 644.051.6 of the Law.

January 1, 2017
Effective Date


Harry D. Bozian, Director, Department of Natural Resources

December 31, 2021
Expiration Date


John Madras, Director, Water Protection Program

FACILITY DESCRIPTION (CONTINUED)

FACILITY DESCRIPTION :

Bulk gasoline and distillate stored on site in above ground storage tanks. Propane and butane are piped into an underground cavern for storage, kept at pressure using a water curtain. These gases are also stored in above ground pressure vessels. Fuel additives are stored in above ground tanks. Fuels are blended with additives and loaded into tanker trucks. Ethanol is received on site, and stored in an above ground storage tank.

The facility has one stormwater outfall, through which they also discharge hydrostatic test water when necessary. There are 10 injection wells. Injection wells are operated to move water from one well to 10 strategically placed wells used to form a fresh water curtain around the propane storage cavern at greater pressure than liquid propane stored in the cavern. This is to maintain the integrity of the cavern walls and prevent leakage of propane into the surrounding groundwater. Additionally, there are 25 monitoring wells for monitoring water quality related to the propane storage cavern and injection well activities.

The facility discharges domestic wastewater through a direct connection to the sanitary sewer. Approximately 1000 gallons of brine water is produced annually in the cavern storage area, and is applied to walkways and stairs December of each year for de-icing purposes.

OUTFALL #001:

Stormwater only; Refined petroleum products pipeline; SIC #5171

Receives stormwater from entire industrial area through a series of tank dikes. Some of the stormwater is treated with an oil/water separator, all flows into a settling basin prior to discharge.

Legal Description: SW $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 28, T29N, R26W, Lawrence County

UTM Coordinates: X= 430303, Y= 4116197

Estimated flow in 10 yr. 24 hour rain event : 4.4 MGD

Average Flow: Dependent on precipitation

OUTFALL #002:

Eliminated in a prior renewal. Discharge is not authorized from this outfall.

OUTFALL #003:

Eliminated in a prior renewal. Discharge is not authorized from this outfall.

OUTFALL #004:

Hydrostatic Test Water; Refined petroleum products pipeline; SIC #5171

Discharged to physical location of outfall #001. Hydrostatic water shall be sampled prior to mingling with stormwater. Water used to test fuel tanks and pipelines for strength and leaks. Discharge occurs irregularly, and is treated by carbon adsorption.

Legal Description: SW $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 28, T29N, R26W, Lawrence County

UTM Coordinates: X= 430303, Y= 4116197

Average Flow: 0.2 MGD

Design Flow: 0.5 MGD

INJECTION ZONE GEOLOGICAL INFORMATION:

The following information describes the injection zone for the injection wells at this site.

The injection zone is located on the western edge of the Springfield Plateau and is delineated by rocks of Cambrian, Ordovician, and Mississippian age. Outcrops of the Burlington-Keokuk formation create karst features such as sinkholes, springs, caves, and losing streams. The Burlington-Keokuk Formation is underlain by the Elsey, Reeds Spring, and Pierson Formations. The Elsey Formation is one of the important water-bearing units in the Mississippian section. The Reeds Spring Formation is composed of limestone and chert. The Pierson Formation underlies the Reeds Spring Formation and contains two units. The lower unit is dolomite, the upper unit is cherty limestone. The Pierson Limestone is described as a low permeability gray to buff dolomite at a depth of 226 feet to 296 feet.

Water is injected into Pierson Limestone of the Pierson Formation and the underlying Northview Shale Formation. The cavern is constructed in the Northview Shale Formation. The Northview Shale is approximately 16 feet thick at the cavern location. The Northview Shale is chiefly low permeability bluish-gray-green silty shale at a depth of 296 feet to 312 feet and acts as a confining layer over the Compton limestone. Below the Compton Formation is the Bachelor Formation. The final formation is the Powell Formation, a fine to medium grained dolomite and fine sandstone.

The original injection wells were drilled past the deepest level of the cavern to a depth of 345 ft, cased with steel casing, and cemented to the surface.

This information was gathered from "Recharge Wells: A Case Study" by DNR Geologist Kenneth Deason, 1987.

GROUNDWATER AQUIFERS:

The following information describes the aquifers at and around the cavern site.

Shallow Aquifer—

Occurs in rocks of the Mississippian age. This aquifer is both a confined and water table aquifer. Largely occurs in fractured limestone rock. The quantity of water available is highly variable, usually yielding 25-100 gpm. The Elsey Formation is an important water bearing element, and may yield up to 300 gpm. This aquifer is recharged largely by local precipitation.

Deep Aquifer—

Occurs in rocks of the Cambrian and Ordovician age. Water is obtained from porous and fractured dolomite, limestone, and sandstone. The water from the deep aquifer is under artesian pressure and yields for individual wells in this area vary considerably, from 50-500 gpm. One source of recharge for the Deep Aquifer is the Shallow Aquifer. Where the aquifers are separated by the Northview Formation, the shale acts as an aquiclude and obstructs water from the shallow aquifer.

This information was gathered from "Recharge Wells: A Case Study" by DNR Geologist Kenneth Deason, 1987.

MONITORING WELLS:

Many of these wells were added to the permit in previous permit cycles to assess any possible propane leakage from the propane storage cavern into nearby groundwater. The wells listed below will be sampled upon issuance of this permit; any changes to the wells sampled after GMASP implementation will be addressed through a permit modification or at renewal. Once a Groundwater Monitoring and Sampling Plan (GMASP) has been implemented, which is required by the 4th year of the effective date of this permit, as mandated below in part C-Schedule of Compliance, the permittee shall also collect quarterly samples from any necessary new groundwater monitoring wells installed at the site, in addition to the sampling required on the designated wells below. The permittee's internal designations and descriptions of well uses are included below per application materials dated June 13, 2016. All wells below are considered operational.

#M01-Designated BERK-1. Cavern monitoring well.

Legal Description: SW¼, SE¼, Sec. 29, T29N, R26W, Lawrence County
UTM Coordinates: X= 430023, Y= 4116185

#M02-Designated BERK-2. Cavern monitoring well.

Legal Description: SE¼, SE¼, Sec. 29, T29N, R26W, Lawrence County
UTM Coordinates: X= 429822, Y= 4116134

#M03-Designated HERMAN-1. Cavern monitoring well.

Legal Description: NE¼, NE¼, Sec. 32, T29N, R26W, Lawrence County
UTM Coordinates: X= 430151, Y=4115805

#M04-Designated HERMAN-2. Cavern monitoring well.

Legal Description: NE¼, NE¼, Sec. 32, T29N, R26W, Lawrence County
UTM Coordinates: X= 430173, Y= 4115794

#M05-Designated HERMAN-3. Cavern monitoring well.

Legal Description: SE¼, NE¼, Sec. 32, T29N, R26W, Lawrence County
UTM Coordinates: X= 430173, Y= 4115288

#M06-Designated HERMAN WILDCAT. Cavern monitoring well.

Legal Description: NE¼, NE¼, Sec. 32, T29N, R26W, Lawrence County
UTM Coordinates: X= 430163, Y= 4116015

#M07-Designated HOOD-2. Cavern monitoring well.

Legal Description: SW¼, NW¼, Sec. 33, T29N, R26W, Lawrence County
UTM Coordinates: X= 430604, Y=4115275

#M08-Designated HOOD-3. Cavern monitoring well.

Legal Description: SW¼, NW¼, Sec. 33, T29N, R26W, Lawrence County
UTM Coordinates: X=430581, Y= 4115672

#M09-Designated PARNELL-1. Cavern monitoring well.

Legal Description: NE $\frac{1}{4}$, SE $\frac{1}{4}$, Sec. 29, T29N, R26W, Lawrence County

UTM Coordinates: X= 430087, Y=4116579

#M10-Designated PARNELL-2. Cavern monitoring well.

Legal Description: NE $\frac{1}{4}$, SE $\frac{1}{4}$, Sec. 29, T29N, R26W, Lawrence County

UTM Coordinates: X= 429993, Y= 4116889

#M11-Designated HOOD-1. Drinking water monitoring well.

Legal Description: SE $\frac{1}{4}$, NW $\frac{1}{4}$, Sec. 33, T29N, R26W, Lawrence County

UTM Coordinates: X= 431011, Y= 4115614

#M12-Designated HOOD-4. Drinking water monitoring well.

Legal Description: SE $\frac{1}{4}$, NW $\frac{1}{4}$, Sec. 33, T29N, R26W, Lawrence County

UTM Coordinates: X= 431427, Y= 4115659

#M13-Designated BERK-DW. Drinking water monitoring well.

Legal Description: SE $\frac{1}{4}$, SE $\frac{1}{4}$, Sec. 29, T29N, R26W, Lawrence County

UTM Coordinates: X= 430031, Y= 4116189

#M14-Designated HERMAN-DW. Drinking water monitoring well.

Legal Description: NE $\frac{1}{4}$, NE $\frac{1}{4}$, Sec. 32, T29N, R26W, Lawrence County

UTM Coordinates: X= 430177, Y= 4115806

#M15-Designated HOOD-DW. Drinking water monitoring well.

Legal Description: NW $\frac{1}{4}$, NE $\frac{1}{4}$, Sec. 33, T29N, R26W, Lawrence County

UTM Coordinates: X= 431070, Y= 4115790

#M16-Designated INJECTION SUPPLY. The application materials received June 13, 2016 lists this as a "Drinking water monitoring well." The permit writer infers this is also the Injection Supply Well used to recharge the water curtain as necessary. Drilled June, 1990 to a depth of 720 ft.

Legal Description: SW $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 28, T29N, R26W, Lawrence County

UTM Coordinates: X= 430400, Y= 4116477

Casing: 6" of steel casing set and pressure-cemented to 420 ft. A 4" flush PVC liner was set on a packer at 425 ft.

#M17-Designated TERMINAL-DW. Drinking water monitoring well.

Legal Description: SW $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 28, T29N, R26W, Lawrence County

UTM Coordinates: X= 430646, Y= 4116273

#M18-Designated BRW-1. Drinking water monitoring well.

Legal Description: SW $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 28, T29N, R26W, Lawrence County

UTM Coordinates: X= 430562, Y= 4116111

#M19-Designated BRW-2. Drinking water monitoring well.

Legal Description: SW $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 28, T29N, R26W, Lawrence County

UTM Coordinates: X= 430656, Y= 4116163

#M20-Designated BRW-3. Drinking water monitoring well.

Legal Description: SW $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 28, T29N, R26W, Lawrence County

UTM Coordinates: X= 430656, Y= 4116111

#M21-Designated LIAMAN-DW. Drinking water monitoring well.

Legal Description: NE $\frac{1}{4}$, NW $\frac{1}{4}$, Sec. 33, T29N, R26W, Lawrence County

UTM Coordinates: X= 430799, Y= 4116031

#M22-Designated RUARK-DW. Drinking water monitoring well.

Legal Description: NE $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 28, T29N, R26W, Lawrence County

UTM Coordinates: X= 430803, Y= 4116509

#M23-Designated SCHOPP-DW. Drinking water monitoring well.
Legal Description: NW¼, NE¼, Sec. 32, T29N, R26W, Lawrence County
UTM Coordinates: X= 429714, Y= 4116025

#M24-Designated in last permit as 227. Monitoring well.
Legal Description: SW¼, NW¼, Sec. 28, T29N, R26W, Lawrence County
UTM Coordinates: X= 430621, Y= 4117124

#M25-Designated in last permit as 225. Monitoring well.
Legal Description: SE¼, NE¼, Sec. 29, T29N, R26W, Lawrence County
UTM Coordinates: X= 430189, Y= 4117137

INJECTION WELLS -- Injection wells are new to this permit. Injection wells at this site are regulated under the Safe Drinking Water Act's Underground Injection Control provisions, and are considered operational at the time of this permit. These wells are classified as Class V wells. Class V wells are used to inject non-hazardous fluids underground. The injection wells at this site are used to maintain a pressurized water curtain around the cavern to prevent leakage of propane into the surrounding aquifer. The nature of the injected materials is groundwater. The permittee's internal designations and descriptions of well uses are included below per application materials dated June 13, 2016. Application materials did not include comprehensive depth of wells, dates of operation, or casing or cementing records. The available information on these parameters was submitted by the permittee 07/11/2016. The remaining information will be required to be submitted as part of the GMASP, which is required by the 4th year of the effective date of this permit, as mandated below in part C-Schedule of Compliance. This permit may be modified at that time to reflect information received from the permittee. It is the responsibility of the permittee to request a permit modification if changes to this permit are required. The permittee stated the wells are not tested for mechanical integrity. They are, however, tested regularly to ensure they are providing an efficient water curtain. The last test was done by Geostock US in 2012.

#I01- Designated IW-1. Cavern integrity injection well. Originally drilled in 1970, recompleted in 1990.
Legal Description: SW¼, SW¼, Sec. 28, T29N, R26W, Lawrence County
UTM Coordinates: X= 430365, Y= 4116427
Casing: 6" cemented steel casing to 100' from ground level. 4" flush-jointed PVC liner to 260' from the ground level set on packer with 20' of cement above the packer, then bentonite pellets and 20' of cement at the surface.

#I02- Designated IW-2. Cavern integrity injection well. Originally drilled in 1970, recompleted in 1990.
Legal Description: SW¼, SW¼, Sec. 28, T29N, R26W, Lawrence County
UTM Coordinates: X=430340, Y= 4116379
Casing: 6" cemented steel casing to 100' from ground level. 4" flush-jointed PVC liner to 260' from the ground level set on packer with 20' of cement above the packer, then bentonite pellets and 20' of cement at the surface.

#I03- Designated IW-3. Cavern integrity injection well. Originally drilled in 1970, recompleted in 1990.
Legal Description: SW¼, SW¼, Sec. 28, T29N, R26W, Lawrence County
UTM Coordinates: X= 430282, Y= 4116360
Casing: 6" cemented steel casing to 100' from ground level. 4" flush-jointed PVC liner to 260' from the ground level set on packer with 20' of cement above the packer, then bentonite pellets and 20' of cement at the surface.

#I04- Designated IW-4. Cavern integrity injection well. Originally drilled in 1970, recompleted in 1990.
Legal Description: SW¼, SW¼, Sec. 28, T29N, R26W, Lawrence County
UTM Coordinates: X= 430340, Y= 4116489
Casing: 6" cemented steel casing to 100' from ground level. 4" flush-jointed PVC liner to 260' from the ground level set on packer with 20' of cement above the packer, then bentonite pellets and 20' of cement at the surface.

#I05- Designated IW-5. Cavern integrity injection well. Originally drilled in 1970, recompleted in 1990.
Legal Description: SW¼, SW¼, Sec. 28, T29N, R26W, Lawrence County
UTM Coordinates: X= 430256, Y= 4116488
Casing: 6" cemented steel casing to 100' from ground level. 4" flush-jointed PVC liner to 260' from the ground level set on packer with 20' of cement above the packer, then bentonite pellets and 20' of cement at the surface.

#I06- Designated IW-6. Cavern integrity injection well. Originally drilled in 1970, recompleted in 1990.
Legal Description: SW¼, SW¼, Sec. 28, T29N, R26W, Lawrence County
UTM Coordinates: X= 430235, Y= 4116425
Casing: 6" cemented steel casing to 100' from ground level. 4" flush-jointed PVC liner to 260' from the ground level set on packer with 20' of cement above the packer, then bentonite pellets and 20' of cement at the surface.

#I07- Designated IW-7. Cavern integrity injection well. Drilled August, 1990.

Legal Description: SW¼, SW¼, Sec. 28, T29N, R26W, Lawrence County

UTM Coordinates: X= 430353, Y=4116406

Casing: 10 ¾” conductor casing to the bedrock (approximately 40’ from the ground level). 6” steel casing to 255’ from ground level. 4” flush-jointed PVC liner to 260’ from the ground level set on packer with 20’ of cement above the packer, then bentonite pellets and 20’ of cement at the surface

#I08- Designated IW-8. Cavern integrity injection well. Drilled August, 1990.

Legal Description: SW¼, SW¼, Sec. 28, T29N, R26W, Lawrence County

UTM Coordinates: X= 430234, Y= 4116372

Casing: 10 ¾” conductor casing to the bedrock (approximately 40’ from the ground level). 6” steel casing to 255’ from ground level. 4” flush-jointed PVC liner to 260’ from the ground level set on packer with 20’ of cement above the packer, then bentonite pellets and 20’ of cement at the surface

#I09- Designated IW-9. Cavern integrity injection well. Drilling information not proved by permittee.

Legal Description: SW¼, SW¼, Sec. 28, T29N, R26W, Lawrence County

UTM Coordinates: X= 430257, Y=4116361

Casing: Information not supplied by the permittee

#I10- Designated IW-10. Cavern integrity injection well. Drilling information not proved by permittee.

Legal Description: SW¼, SW¼, Sec. 28, T29N, R26W, Lawrence County

UTM Coordinates: X= 430311, Y= 4116361

Casing: Information not supplied by the permittee

The following table shows average and maximum injection pressure at each wellhead, and the average and maximum injection rate:

| | | I01 | I02 | I03 | I04 | I05 | I06 | I07 | I08 | I09 | I10 |
|------------------------------------|---------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Pressure at wellhead (psig) | average | 65.63 | 68.42 | 72.38 | 66.38 | 69.27 | 70.51 | 67.22 | 71.72 | 72.37 | 68.63 |
| | maximum | 78 | 80 | 84 | 79 | 80 | 82 | 79 | 84 | 85 | 81 |
| Injection rate (gal/day) | average | 192.39 | 1380.11 | 24.43 | 538.48 | 1020.92 | 549.51 | 1067.12 | 30.77 | 183.86 | 379.03 |
| | maximum | 328.67 | 1893.45 | 65.95 | 710.81 | 1167.49 | 677.17 | 1194.89 | 84.77 | 231.16 | 469.79 |

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

| OUTFALL #001 <i>Stormwater Only</i> | | TABLE A-1 FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS | | | |
|--|---------|---|------------|---------------------------------------|----------------|
| The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on January 1, 2017 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below: | | | | | |
| EFFLUENT PARAMETERS | UNITS | DAILY MAXIMUM LIMIT | BENCHMARKS | MONITORING REQUIREMENTS [∞] | |
| | | | | MEASUREMENT FREQUENCY [∞] | SAMPLE TYPE |
| PHYSICAL | | | | | |
| Flow | MGD | * | - | once/quarter | 24 hr. est. |
| Precipitation | inches | * | - | once/quarter | measured |
| CONVENTIONAL | | | | | |
| Chemical Oxygen Demand | mg/L | ** | 90 | once/quarter | grab |
| Oil & Grease | mg/L | ** | 10 | once/quarter | grab |
| pH ^Ω | SU | 6.5 to 9.0 | - | once/quarter | grab |
| Settleable Solids | mL/L/hr | ** | 1.5 | once/quarter | grab |
| Total Suspended Solids | mg/L | ** | 100 | once/quarter | grab |
| OTHER | | | | | |
| Benzene | µg/L | * | - | once/quarter | grab |
| Ethylbenzene | µg/L | * | - | once/quarter | grab |
| Toluene | µg/L | * | - | once/quarter | grab |
| Xylene | µg/L | * | - | once/quarter | grab |
| MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>APRIL 28, 2017</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS. | | | | | |

| OUTFALL #004 <i>Hydrostatic Test Water</i> | | TABLE A-2 FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS | | | |
|--|-------|---|-----------------------------|--------------------------|----------------|
| The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on January 1, 2017 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below: | | | | | |
| EFFLUENT PARAMETERS | UNITS | DAILY MAXIMUM LIMIT | MONTHLY AVERAGE LIMIT | MONITORING REQUIREMENTS | |
| | | | | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| PHYSICAL | | | | | |
| Flow | MGD | * | * | once/day*** | 24 hr. total |
| CONVENTIONAL | | | | | |
| Oil & Grease | mg/L | 10 | 10 | once/discharge | grab |
| pH ^Ω | SU | 6.5 to 9.0 | 6.5 to 9.0 | once/discharge | grab |
| Total Suspended Solids | mg/L | 100 | 100 | once/discharge | grab |
| OTHER | | | | | |
| Benzene | µg/L | * | * | once/discharge | grab |
| Ethylbenzene | µg/L | * | * | once/discharge | grab |
| Toluene | µg/L | * | * | once/discharge | grab |
| Xylene | µg/L | * | * | once/discharge | grab |
| MONITORING REPORTS SHALL BE SUBMITTED <u>WITHIN 30 DAYS OF DISCHARGE</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS. | | | | | |

See notes on page 8

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS, CONTINUED

| MONITORING WELLS #M01-#M25 | | TABLE A-3 FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS | | | |
|--|-------|---|-----------------------------|------------------------------------|-------------|
| The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on January 1, 2017 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below: | | | | | |
| EFFLUENT PARAMETERS | UNITS | DAILY MAXIMUM LIMIT | MONTHLY AVERAGE LIMIT | MONITORING REQUIREMENTS | |
| | | | | MEASUREMENT FREQUENCY [◇] | SAMPLE TYPE |
| PHYSICAL | | | | | |
| Groundwater Depth | feet | * | - | once/quarter | measure |
| CONVENTIONAL | | | | | |
| Oil & Grease | mg/L | * | * | once/quarter | grab |
| pH ^Ω | SU | 6.5 | 8.5 | once/quarter | grab |
| OTHER | | | | | |
| Benzene | µg/L | * | * | once/quarter | grab |
| Ethylbenzene | µg/L | * | * | once/quarter | grab |
| Phenol | µg/L | * | * | once/quarter | grab |
| Propane | µg/L | * | * | once/quarter | grab |
| Toluene | µg/L | * | * | once/quarter | grab |
| Xylene | µg/L | * | * | once/quarter | grab |
| MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>APRIL 28, 2017</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS. | | | | | |

| Injection Wells #I01-#I10 | | TABLE A-4 FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS | | | |
|--|-------|---|--------------------|-------------------------|-------------|
| The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on January 1, 2017 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below: | | | | | |
| EFFLUENT PARAMETERS | UNITS | DAILY MAXIMUM | MONTHLY AVERAGE | MONITORING REQUIREMENTS | |
| | | | | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| PHYSICAL | | | | | |
| Amount of Material Injected [±] | MGD | * | * | once/month | measure |
| Hydrostatic Pressure of Water Curtain | psig | * | * | once/month | measure |
| MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>FEBRUARY 28, 2017</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS. | | | | | |

See notes on page 8

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)

- * Monitoring requirement only.
- ** Monitoring requirement with associated benchmark. See Special Conditions #9 through #12.
- *** Measure once/day while discharging.
- ∞ All samples shall be collected from a discharge resulting from a precipitation event greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable precipitation event. If a discharge does not occur within the reporting period, report as no discharge. The total amount of precipitation should be noted from the event from which the samples were collected.
- Ω The facility will report the minimum and maximum values. pH is not to be averaged..
- ± For each injection well, the permittee shall record the amount of any material, including drinking or ground water, injected into the hydrostatic curtain surrounding the cavern. The permittee shall record this amount during each injection event in gallons. The type of material and total amount of material injected into each well shall be submitted monthly according to the table above.
- ◇ Quarterly sampling

| MINIMUM QUARTERLY SAMPLING REQUIREMENTS | | | |
|---|-----------------------------|--|--------------------------|
| QUARTER | MONTHS | EFFLUENT PARAMETERS | REPORT IS DUE |
| First | January, February, March | Sample at least once during any month of the quarter | April 28 th |
| Second | April, May, June | Sample at least once during any month of the quarter | July 28 th |
| Third | July, August, September | Sample at least once during any month of the quarter | October 28 th |
| Fourth | October, November, December | Sample at least once during any month of the quarter | January 28 th |

B. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Part I standard conditions dated August 1, 2014 and hereby incorporated as though fully set forth herein.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, or the Safe Drinking Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test, or other information indicates changes are necessary to assure compliance with Missouri’s Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri’s list of waters of the state not fully achieving the state’s water quality standards, also called the 303(d) list.
The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act and Safe Drinking Water Act when applicable.
2. All outfalls and permitted features, including monitoring and injection wells, must be clearly marked in the field.
3. Water Quality Standards
 - (a) To the extent required by law, discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
 - (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;

C. SPECIAL CONDITIONS, CONTINUED

- (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
4. Changes in Discharges of Toxic Pollutant
- In addition to the reporting requirements under §122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
- (a) That an activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile;
 - (3) Five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol;
 - (4) One milligram per liter (1 mg/L) for antimony;
 - (5) Five (5) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - (6) The notification level established by the department in accordance with 40 CFR 122.44(f).
 - (b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) Five hundred micrograms per liter (500 µg/l);
 - (2) One milligram per liter (1 mg/l) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with §122.21(g)(7).
 - (4) The level established by the Director in accordance with §122.44(f).
5. Report as no-discharge when a discharge does not occur during the report period.
6. Reporting of Non-Detects
- (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
 - (b) The permittee shall not report a sample result as "Non-Detect" without also reporting the detection limit of the test. Reporting as "Non-Detect" without also including the detection limit will be considered failure to report, which is a violation of this permit.
 - (c) The permittee shall report the "Non-Detect" result using the less than sign and the minimum detection limit (e.g. <10).
 - (d) Where the permit contains a Minimum Level (ML) and the permittee is granted authority in the permit to report zero in lieu of the < ML for a specified parameter (conventional, priority pollutants, metals, etc.), then zero (0) is to be reported for that parameter.
 - (e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.
 - (f) When calculating monthly averages, one-half of the minimum detection limit (MDL) should be used instead of a zero. Where all data are below the MDL, the "<MDL" shall be reported as indicated in item (C).
7. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).
8. Any pesticide discharge from any point source shall comply with the requirements of Federal Insecticide, Fungicide and Rodenticide Act, as amended (7 U.S.C. 136 *et. seq.*) and the use of such pesticides shall be in a manner consistent with its label.
9. The purpose of the Stormwater Pollution Prevention Plan (SWPPP) and the Best Management Practices (BMPs) listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective preventing pollution [10 CSR 20-2.010(56)] of waters of the state, and corrective actions means the facility took steps to eliminate the deficiency.
10. Facility SIC codes found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2) shall implement a SWPPP and must be prepared and implemented upon permit issuance. The SWPPP must be kept on-site and should not be sent to the department unless

C. SPECIAL CONDITIONS, CONTINUED

specifically requested. The SWPPP must be reviewed and updated every five (5) years or as site conditions change (see Rationale and Derivation: antidegradation analysis and SWPPP in the fact sheet). The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in: *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002) published by the EPA in February 2009 (www.epa.gov/npdes/pubs/industrial_swppp_guide.pdf). The SWPPP must include:

- (a) A listing of specific contaminants and their control measures (or BMPs) and a narrative explaining how BMPs are implemented to control and minimize the amount of contaminants potentially entering stormwater. The BMPs should be designed to treat the stormwater up to the 10 year, 24 hour rain event.
 - (b) For new, altered, or expanded stormwater discharges, the SWPPP shall identify reasonable and effective BMPs while accounting for environmental impacts of varying control methods. The antidegradation analysis must document why no discharge or no exposure options are not feasible. The selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of antidegradation [10 CSR 20-7.031(3)]. Failure to implement and maintain the chosen BMP is a permit violation. For further guidance, consult the antidegradation implementation procedure at <http://dnr.mo.gov/env/wpp/docs/AIP050212.pdf>.
 - (c) The SWPPP must include a schedule for once per month site inspections and brief written reports. The inspection report must include precipitation information for the entire period since last inspection, as well as observations and evaluations of BMP effectiveness. Throughout coverage under this permit, the facility must perform ongoing SWPPP review and revision to incorporate any site condition changes.
 - i. Operational deficiencies must be corrected within seven (7) calendar days.
 - ii. Minor structural deficiencies must be corrected within fourteen (14) calendar days.
 - iii. Major structural deficiencies must be reported to the regional office within seven (7) days of discovery. The initial report shall consist of the deficiency noted, the proposed remedies, the interim or temporary remedies (including the general timing of the placement of the interim measures), and an estimate of the timeframe needed to wholly complete the repairs or construction. The permittee will work with the regional office to determine the best course of action, including but not limited to temporary structures to control stormwater runoff. The facility shall correct the major structural deficiency as soon as reasonably achievable.
 - iv. All actions taken to correct the deficiencies shall be included with the written report, including photographs.
 - v. Inspection reports must be kept on site with the SWPPP and maintained for a period of five (5) years. These must be made available to department and EPA personnel upon request.
 - (d) A provision for designating an individual to be responsible for environmental matters.
 - (e) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of the department.
11. This permit stipulates pollutant benchmarks applicable to your discharge. The benchmarks do not constitute direct numeric effluent limitations; therefore, a benchmark exceedance alone is not a permit violation. Benchmark monitoring and visual inspections shall be used to determine the overall effectiveness of SWPPP and to assist you in knowing when additional corrective action may be necessary to protect water quality. If a sample exceeds a benchmark concentration you must review your SWPPP and your BMPs to determine what improvements or additional controls are needed to reduce that pollutant in your stormwater discharge(s).

Any time a benchmark exceedance occurs a Corrective Action Report (CAR) must be completed. A CAR is a document that records the efforts undertaken by the facility to improve BMPs to meet benchmarks in future samples. CARs must be retained with the SWPPP and available to the department upon request. If the efforts taken by the facility are not sufficient and subsequent exceedances of a benchmark occur, the facility must contact the department if a benchmark value cannot be achieved. Failure to take corrective action to address a benchmark exceedance and failure to make measureable progress towards achieving the benchmarks is a permit violation.

12. Permittee shall adhere to the following minimum Best Management Practices (BMPs):
- (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of stormwater from these substances.
 - (b) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
 - (c) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to stormwater or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of stormwater with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
 - (d) Provide good housekeeping practices on the site to keep trash from entry into waters of the state.

C. SPECIAL CONDITIONS, CONTINUED

- (e) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property to comply with general water quality criteria, effluent limits, or benchmarks. This could include the use of straw bales, silt fences, or sediment basins, if needed.
 - (f) Ensure adequate provisions are provided to prevent surface water intrusion into the storage basin, to divert stormwater runoff around the storage basin, and to protect embankments from erosion.
13. To protect the general criteria found at 10 CSR 20-7.031(4), before releasing water accumulated in secondary containment areas, it must be examined for hydrocarbon odor and presence of sheen. If the presence of odor or sheen is indicated, the water shall be treated using an appropriate method or disposed of in accordance with legally approved methods, such as being sent to a wastewater treatment facility. Following treatment, the water shall be tested for oil and grease, benzene, toluene, ethylbenzene, and xylene using 40 CFR part 136 methods. All pollutant levels must be below the most protective, applicable standards for the receiving stream, found in 10 CSR 20-7.031 Table A. Records of all testing and treatment of water accumulated in secondary containment shall be stored in the SWPPP to be available on demand to DNR and EPA personnel.
14. Release of a hazardous substance must be reported to the department in accordance with 10 CSR 24-3.010. A record of each reportable spill shall be retained with the SWPPP and made available to the department upon request.
15. To protect the general criteria found in 10 CSR 20-7.031, hydrostatic test water shall not contain dyes.
16. Brine water shall be prevented from running off during application for de-icing purposes. Brine water is not authorized to be discharged to waters of the state.

D. INJECTION WELL PROVISIONS

1. In accordance with 40 CFR 144.82, construction, operation, maintenance, conversion, plugging, or closure of injection wells shall not cause movement of fluids containing any contaminant into Underground Sources of Drinking Water (USDWs) if the presence of any contaminant may cause a violation of primary drinking water standards or groundwater standards under 10 CSR 20-7.031, or other health based standards, or may otherwise adversely affect human health. If the director finds that your injection activity may endanger USDWs, they may require closure of the injection wells, or other actions listed in 40 CFR 144.12(c), (d), or (e).
2. The permittee shall conduct quarterly inspections of the each injection well and the surrounding area to ensure propane is not being released into the environment and to ensure that no leaks of the injection wells or cavern occur which could release propane into areas not intended to contain propane. The permittee shall keep record of these inspections and observations on site and available to a Department inspector upon request. In the event that deficiencies have occurred in and around the injection sites or cavern, the permittee must take corrective action to clean up spills and prevent future releases of propane. A record shall be kept of any corrective actions that take place on the site, available to a Department inspector upon request.
3. In accordance with 40 CFR 144.26, the permittee shall submit a Class V Well Inventory Form for each active or new underground injection well drilled, or when the status of a well changes, to the Missouri Department of Natural Resources, Geological Survey Program, P.O. Box 250, Rolla, Missouri 65402. The Class V Well Inventory Form can be requested from the Geological Survey Program or can be found at the following web address: <http://dnr.mo.gov/forms/780-1774-f.pdf>.
4. Requirements prior to commencing injection: A new injection well may not commence injection until construction is complete, and
- (a) The permittee of a proposed new injection well has submitted plans for testing, drilling, and construction as part of the permit application. The submitted information must also include the Universal Transverse Mercator (UTM) coordinates for new injection or monitoring wells to be constructed. No construction may commence until a permit has been issued containing construction requirements (see §144.11).
 - (b) The permittee has constructed wells in accordance with the applicable sections of the Department's Well Construction Code, 10 CSR 23-3, in addition to applicable Federal well construction requirements listed in the Underground Injection Control regulations, 40 CFR 146, including but not limited to:
 - (1) The casing must extend from surface to within 5 feet of top of cavern roof and must be made of steel or PVC plastic.
 - i. If using PVC casing, it must be at least schedule 40 and meet ASTM specification F480.
 - ii. If using steel casing, it must have a minimal wall thickness of 0.188 inches and a minimum weight of 13 pounds per foot.
 - (2) The annulus between casing and borehole wall must be grouted full length with neat cement via tremie or pressure method.
 - i. The cement grout is to be mixed at a ratio of 94 pounds of cement to not more than 6 gallons of water.
 - ii. If using bentonite grout, it may be in the form of chips, pellets or slurried with water at a ratio at least 20% bentonite.

D. INJECTION WELL PROVISIONS, CONTINUED

- (3) The borehole diameter must be 4 inches larger than casing diameter.
 - (4) Each well must have lockable protective surface completion.
 - (c) The permittee has submitted notice of completion of construction to the Department; and
 - (d) (1) The Department has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the permit; or
 - (2) The permittee has not received notice from the Department of his or her intent to inspect or otherwise review the new injection well within 13 days of the date of the notice in subsection (c) of this requirement, in which case prior inspection or review is waived and the permittee may commence injection. The Department shall include in the notice a reasonable time period in which the inspection will occur.
5. Duty to establish and maintain mechanical integrity for new and existing wells:
- (a) The permittee shall establish mechanical integrity prior to commencing injection or on a schedule determined by the Department. Thereafter the owner must maintain mechanical integrity as defined in §146.8 of 40 CFR Chapter I, including but not limited to:
 - (1) Ensuring no significant leaks in the casing, tubing or packing occur;
 - (2) Ensuring no significant fluid movement into USDW through vertical channels adjacent to the injection well bore.
 - (b) When the Department determines that a well lacks mechanical integrity pursuant to §146.8 of 40 CFR Chapter I, the permittee shall cease injection into the well within 48 hours of receipt of written notice from the Department. The Department may allow plugging of the well pursuant to Injection Well Provisions 4.(a) or require the permittee to perform such additional construction, operation, monitoring, reporting and corrective action as is necessary to prevent the movement of fluid into or between USDWs caused by the lack of mechanical integrity. The permittee may resume injection upon written notification from the Director that the permittee has demonstrated mechanical integrity pursuant to §146.8 of 40 CFR Chapter I.
 - (a) The Department may allow the permittee of a well which lacks mechanical integrity pursuant to §146.8(a)(1) of 40 CFR Chapter I to continue or resume injection, if the permittee has made a satisfactory demonstration that there is no movement of fluid into or between USDWs.
6. The permittee shall notify the Department at such times as the permit requires before conversion or abandonment of the well or in the case of area permits before closure of the project.
7. Requirements prior to abandoning wells:
- (a) The permittee shall submit a well abandonment plan to the Water Protection Program, which contains at least the details to comply with the following abandonment requirements:
 - (1) The permittee shall close the well in a manner that prevents the movement of fluid containing any contaminant into an USDW, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR part 141 or may otherwise adversely affect the health of persons.
 - (2) If the Department has determined that the proposed well abandonment plan is not acceptable to the site, the permittee must grout the well full length with neat cement or bentonite.
 - (3) The permittee shall dispose of or otherwise manage any soil, gravel, sludge, liquids, or other materials removed from or adjacent to the well in accordance with all applicable Federal, State, and local regulations and requirements.
8. Plugging and abandonment report: Within 60 days after plugging a well or at the time of the next quarterly report (whichever is less) the permittee shall submit a report to the Water Protection Program. If the quarterly report is due less than 15 days before completion of plugging, then the report shall be submitted within 60 days. The report shall be certified as accurate by the person who performed the plugging operation. Such report shall consist of either:
- (a) A statement that the well was plugged in accordance with the plan previously submitted to the Water Protection Program; or
 - (b) Where actual plugging differed from the plan previously submitted, and updated version of the plan on the form supplied by the regional administrator, specifying the differences.
9. After a cessation of operations the permittee shall plug and abandon the well in accordance with the plan unless the permittee:
- (a) Provides a written notice to the Water Protection Program that the well will be used within the next two years; and
 - (b) Describes actions or procedures, satisfactory to the Water Protection Program, that the owner or operator will take to ensure that the well will not endanger USDWs during the period of temporary abandonment. These actions and procedures shall include compliance with the technical requirements applicable to active injection wells unless waived by the Water Protection Program.
10. The permittee shall comply with all other applicable parts of 40 CFR Parts 144, 145, 146 147 and 148, 10 CSR 23-3, Missouri Clean Water Law, the Safe Drinking Water Act and all other State and Federal regulations regarding Underground Injection Control not specifically defined in the conditions above.

E. SCHEDULE OF COMPLIANCE

The facility is required to develop and implement a Groundwater Monitoring and Sampling Plan (GMASP) to monitor the groundwater around the propane cavern to ensure propane is not migrating into the aquifers. The following schedule has been granted to allow adequate time to develop the GMASP, install representative monitoring wells, and implement the GMASP.

1. Within six (6) months of the effective date of this permit, the permittee shall submit a workplan to the Water Protection Program for approval. This workplan shall detail what existing documentation will be used and any additional site characterization necessary to properly develop the GMASP. If additional site characterization is necessary, the permittee shall develop a workplan to conduct that site characterization in accordance with *Guidance for Conducting a Detailed Hydrogeologic Site Characterization and Designing a Groundwater Monitoring Program* issued by the Geological Survey Program, Environmental Geology Section, dated December 10, 2010. The purpose of the site characterization workplan will be to characterize groundwater flow outside the zone of influence created by the propane storage cavern.
2. If additional site characterization is *not* required, within one (1) year of the effective date of this permit, the permittee shall submit a GMASP to the Water Protection Program for approval. The GMASP shall be developed in accordance with the guidelines contained in *Guidance for Conducting a Detailed Hydrogeologic Site Characterization and Designing a Groundwater Monitoring Program*. The permittee shall also submit a permit modification request to include all groundwater monitoring wells associated with the GMASP in the permit. These wells will be subject to the sampling and reporting requirements listed in this permit, or any additional sampling and reporting requirements deemed necessary by the Department for the protection of the Safe Drinking Water Act. The design of the groundwater monitoring network should be approved by the department prior to installation; however, if installation occurs prior to approval, the WPP and MGS reserves the right to require additional wells or changes to the network.
3. If additional site characterization *is* required, within two (2) years of the effective date of this permit, the permittee shall submit a site characterization report, in accordance with the approved workplan, detailing the findings of the site characterization to the Water Protection Program for verification of conclusions.
4. Within three (3) years of the effective date of this permit, the permittee shall submit a GMASP to the Water Protection Program for approval. The GMASP shall be developed in accordance with the guidelines contained in *Guidance for Conducting a Detailed Hydrogeologic Site Characterization and Designing a Groundwater Monitoring Program*. The permittee shall also submit a permit modification request to include all groundwater monitoring wells associated with the GMASP not currently in the permit. These wells will be subject to the sampling and reporting requirements listed in this permit. In addition, the GMASP shall include depth of wells, dates of operation, casing or cementing records, the nature of the injected fluids, average or maximum injection pressures, average or maximum injection rates, or dates of last mechanical integrity tests for any injection wells operating on site. The design of the groundwater monitoring network should be approved by the department prior to installation; however, if installation occurs prior to approval, the WPP and MGS reserves the right to require additional wells or changes to the network.
5. Within four (4) years of the effective date of this permit, the permittee shall have all elements of the GMASP fully implemented.
6. Effective on the 4th year of the permit, the permittee shall use the analytical results of the groundwater monitoring wells (Table A-3) to determine if the underground injection activity is causing migration of injected material that is resulting in exceedances of maximum contaminant levels (MCLs) or water quality standards (WQS) for the protection of groundwater or drinking water. Depending on the results of the comparison, one of the following must occur:
 - a. The permittee must cease the injection activity and take corrective action if:
 - i. The analytical results of the injection material are above the MCLs or WQS, or are above the naturally occurring levels in the surrounding groundwater.
 - b. No further action is required and injection can proceed if:
 - i. The analytical results of the injection material are below MCLs or WQS, and are below the naturally occurring levels in the surrounding groundwater.

The following table (page 15) shows the MCLs or WQS, whichever criterion is more stringent for each parameter, which should be used as target levels in this permit.

Target level table:

| Parameter | Unit | MCL/WQS |
|------------------|-------------|----------------|
| CONVENTIONAL | | |
| Oil & Grease | mg/L | None |
| pH – Units | SU | 6.5-8.5 |
| OTHER | | |
| Benzene | µg/L | 5 |
| Ethylbenzene | µg/L | 700 |
| Phenol | µg/L | 100 |
| Toluene | µg/L | 1000 |
| Xylene | µg/L | 10000 |

F. REPORT SUBMITTALS

Please submit all reports required in this permit to the Missouri Department of Natural Resources Water Protection Program unless otherwise stated in a specific provision or schedule of compliance requirement.

Submit to:
Missouri Department of Natural Resources
Water Protection Program
PO Box 176
Jefferson City, MO 65102

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0106861
AND NEW UNDERGROUND INJECTION CONTROL PROVISIONS
FOR
PHILLIPS 66 PIPE LINE COMPANY – MOUNT VERNON TERMINAL

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of stormwater from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified for less.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (MSOP or operating permit) listed below. A factsheet is not an enforceable part of an operating permit.

Part I. FACILITY INFORMATION

| | | |
|-----------------------|-------------------------|---|
| Facility Type: | Industrial | |
| Facility SIC Code(s): | 5171 | |
| Facility NAICS Code: | 424710 | |
| UIC Class: | Class V injection wells | |
| Application Date: | 09/18/2012 | |
| Modification Date: | 08/01/2012 | |
| Expiration Date: | 03/24/2013 | |
| Last Inspection: | 12/20/2012 | Found to be In Compliance at time of inspection |

FACILITY DESCRIPTION:

This facility receives various refined petroleum products (e.g. Gasoline, diesel, butane, propane, etc.) by interstate pipeline. Gasoline and distillate fuels are stored in numerous above ground atmospheric storage tanks. Propane and/or butane are stored in an underground cavern and above ground pressure vessels. Fuel additives are stored in above ground tanks and injected/blended into the gasoline/diesel as tanker trucks are loaded at the truck rack. Ethanol is received by tanker truck, unloaded at an unloading rack, and stored in an above ground storage tank. The ethanol is blended into gasoline as tanker trucks are loaded at the truck rack. Propane and butane are loading into portable tanker trucks at a loading point at the terminal.

10 injection wells are used to circulate water in a curtain around the propane storage cavern and maintain hydrostatic pressure around the cavern. The facility maintains 10 monitoring wells, which monitor for possible leakage of the underground storage caverns. They also have 13 drinking water monitoring wells which will be considered monitoring wells for the purposes of this permit. Additionally, two monitoring wells were maintained from the previous permit, bringing the total number of monitoring wells in this permit to 25.

In 1994, a substantial leak of propane was discovered surrounding this site. Investigation into the matter was initiated after numerous complaints about the drinking water quality in Lawrence County were lodged. An August 18, 1994, report indicated that most Conoco wells had measureable amounts of propane and/or VOCs. Conoco purchased additional land and nearby wells and took other actions to control the propane leakage rate. Air sparging and an activated carbon cleanup system were brought online in 1997. Current DMR data shows propane and total petroleum hydrocarbons in many of the monitoring wells at this facility, indicating probable continuing leakage of the propane cavern into surrounding groundwater. The permit writer was unable to ascertain if any current remediation efforts are taking place for the propane and/or VOCs in the surrounding wells, and no information was supplied by the permittee relating to any remediation activities. A comprehensive geohydrological evaluation is required to determine the overall effects on the groundwater from injection well activities, as well as any possible leakage from the cavern, and/or continued contamination from previous leaks. A schedule of compliance is included in this permit for a Groundwater Monitoring and Sampling Plan (GMA SP) that is developed in accordance with the guidelines contained in *Guidance for Conducting a Detailed Hydrogeologic Site Characterization and Designing a Groundwater Monitoring Program* issued by the Geological Survey Program, Environmental Geology Section, dated December 10, 2010. A permit modification may be required at the time of submission of the final GMA SP to reflect new monitoring

wells included in the GMASP. When information from the GMASP is received by the department, the permitted monitoring wells and new wells may be assessed for the necessity of limits to protect groundwater standards found in 10 CSR 20-7.031 Table A and MCLs in the Safe Drinking Water Act.

PERMITTED OUTFALLS TABLE:

| OUTFALL | AVERAGE FLOW (MGD) | DESIGN FLOW (MGD) | TREATMENT LEVEL | EFFLUENT TYPE |
|---------|----------------------------|-------------------|-----------------|------------------------|
| #001 | Dependent on precipitation | 4.5* | Primary | Industrial Stormwater |
| #004 | 0.2 | 0.4 | Primary | Hydrostatic Test Water |

*Estimated flow in a 10 year 24 hour rain event using the rational method; drainage area estimated from map interpolation to be ~43 acres, rainfall 5.5 inches, rational runoff coefficient 0.7.

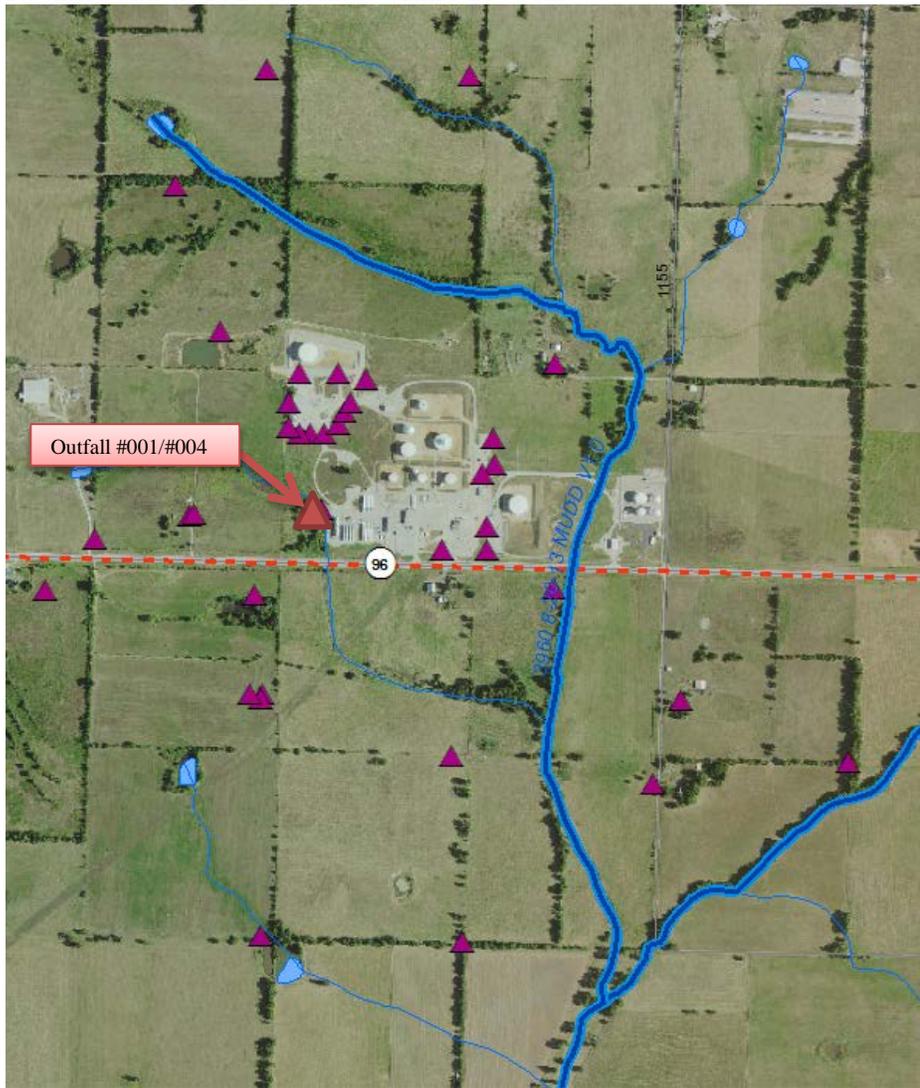
PERMITTED WELLS TABLE:

| WELL | IDENTIFYING DESIGNATION | WELL TYPE |
|------|-------------------------|--|
| #M01 | BERK-1 | Cavern monitoring well |
| #M02 | BERK-2 | Cavern monitoring well |
| #M03 | HERMAN-1 | Cavern monitoring well |
| #M04 | HERMAN-2 | Cavern monitoring well |
| #M05 | HERMAN-3 | Cavern monitoring well |
| #M06 | HERMAN WILDCAT | Cavern monitoring well |
| #M07 | HOOD-2 | Cavern monitoring well |
| #M08 | HOOD-3 | Cavern monitoring well |
| #M09 | PARNELL-1 | Cavern monitoring well |
| #M10 | PARNELL-2 | Cavern monitoring well |
| #M11 | HOOD-1 | Drinking water monitoring well |
| #M12 | HOOD-4 | Drinking water monitoring well |
| #M13 | BERK-DW | Drinking water monitoring well |
| #M14 | HERMAN-DW | Drinking water monitoring well |
| #M15 | HOOD-DW | Drinking water monitoring well |
| #M16 | INJECTION SUPPLY | Drinking water monitoring well, Injection Supply Well |
| #M17 | TERMINAL-DW | Drinking water monitoring well |
| #M18 | BRW-1 | Drinking water monitoring well |
| #M19 | BRW-2 | Drinking water monitoring well |
| #M20 | BRW-3 | Drinking water monitoring well |
| #M21 | LIAMAN-DW | Drinking water monitoring well |
| #M22 | RUARK-DW | Drinking water monitoring well |
| #M23 | SCHOPP-DW | Drinking water monitoring well |
| #M24 | Previous permit 227 | Groundwater monitoring well |
| #M25 | Previous permit 225 | Groundwater monitoring well |

PERMITTED WELLS TABLE, CONTINUED:

| WELL | IDENTIFYING DESIGNATION | WELL TYPE |
|------|-------------------------|---------------------------------|
| #I01 | IW-1 | Cavern integrity injection well |
| #I02 | IW-2 | Cavern integrity injection well |
| #I03 | IW-3 | Cavern integrity injection well |
| #I04 | IW-4 | Cavern integrity injection well |
| #I05 | IW-5 | Cavern integrity injection well |
| #I06 | IW-6 | Cavern integrity injection well |
| #I07 | IW-7 | Cavern integrity injection well |
| #I08 | IW-8 | Cavern integrity injection well |
| #I09 | IW-9 | Cavern integrity injection well |
| #I10 | IW-10 | Cavern integrity injection well |

FACILITY MAP AND MONITORING WELL NETWORK:



 → Monitoring or injection well location

FACILITY PERFORMANCE HISTORY & COMMENTS:

The electronic discharge monitoring reports were reviewed for the last five years. One exceedance of MTBE is noted in 2013 for monitoring well 221, however, it appears to the permit writer that the data is an error in data entry. Comparison to the original submitted DMRs was not possible at the time of writing this permit; the document was not able to be located. This facility had a verified propane leak that occurred in the 1960s to 1990s. A comprehensive site evaluation is necessary to determine the full extent of propane migration, any possible current leakage, the effects of continued injection, and the location of necessary monitoring wells.

Currently, there is no performance history or evaluation of the underground injection operations at this site in the facility file or databases available to the permit writer. This part of the operation will be evaluated throughout this permit cycle.

When information from the GMA SP is received by the department, the permitted monitoring wells and new wells may be assessed for the necessity of limits to protect groundwater standards found in 10 CSR 20-7.031 Table A using the DMR data available from the quarterly sampling up until that point.

After reviewing five years of DMR data, the permit writer noted that water in the monitoring wells had propane concentrations ranging from 0.009 mg/L to 146 mg/L. Monitoring wells were identified in the previous permit as Wells #220-#229. A Table is provided below which equates wells in the previous permit with wells in this permit, and shows the range of propane found in each well. There is no MCL for propane; however, propane in the groundwater indicates current or historical leakage from the propane storage cavern.

| CURRENT WELL NUMBER | PREVIOUS WELL NUMBER | AMOUNT OF PROPANE (MG/L) |
|---------------------|----------------------|--------------------------|
| M10 | 220 | 0.009 TO 146 |
| M01 | 221 | 0.009 TO 98.8 |
| M02 | 222 | 0.009 TO 70.5 |
| M03 | 223 | 0.0181 TO 125 |
| M04 | 224 | 0.009 TO 77.1 |
| M25** | 225 | 0.009 TO 2.6 |
| M06 | 226 | 0.0181 TO 1.75 |
| M24** | 227 | 0.0181 TO 0.02 |
| M08 | 228 | 0.009 TO 0.181 |
| M09 | 229 | 0.009 TO 2.06 |

The permit writer infers that the detection limit for the test used is 0.009 mg/L; however, no documentation was provided to support this.

**This well was not included in the application materials dated 06/13/2016. This well was in the previous permit, and no evidence or reason for closure was supplied to the permit writer.

MAJOR WATER USER:

This facility is not currently registered as a Major Water User with the state of Missouri; however, they are eligible for registration. Any surface or groundwater user with a water source and the equipment necessary to withdraw or divert 100,000 gallons or more per day (70 gallons per minute) from any stream, river, lake, well, spring or other water source is considered a major water user in Missouri. All major water users are required by law to register water use annually (RsMO 256.410.1).

Part II. RECEIVING STREAM INFORMATION

RECEIVING WATER BODY’S WATER QUALITY:

The receiving stream Tributary to Truitt Creek has no concurrent water quality data available. The Tributary to Truitt Creek (C) (3960) is now classified whereas it was not classified in the previous permit, as EPA has approved the Department’s new stream classifications. Truitt Creek (C) (3175) is found on the 2012 303d list for E. coli contamination. The discharges from this site are not expected to contribute to this impairment. No further stream surveys were found for this area.

303(D) LIST:

Section 303(d) of the federal Clean Water Act requires each state identify waters not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock, and wildlife. The 303(d) list helps state and federal agencies keep track of impaired waters not addressed by normal water pollution control programs. <http://dnr.mo.gov/env/wpp/waterquality/303d/303d.htm>

✓ Not applicable; this facility does not discharge to an impaired segment of a 303(d) listed stream.

TOTAL MAXIMUM DAILY LOAD (TMDL):

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected; hence, the purpose of a TMDL is to determine the pollutant loading a specific waterbody can assimilate without exceeding water quality standards. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan or TMDL may be developed. The TMDL shall include the WLA calculation. <http://dnr.mo.gov/env/wpp/tmdl/>.

✓ Not applicable; this facility is not associated with a TMDL.

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

✓ As per Missouri’s Effluent Regulations [10 CSR 20-7.015(1)(B)], the waters of the state are divided into the following seven categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall’s effluent limitation table and further discussed in the derivation & discussion of limits section.

- Missouri or Mississippi River:
- Lake or Reservoir:
- Losing:
- Metropolitan No-Discharge:
- Special Stream:
- Subsurface Water:
- All Other Waters:

RECEIVING STREAMS TABLE:

| OUTFALL | WATERBODY NAME | CLASS | WBID | DESIGNATED USES* | DISTANCE TO SEGMENT (MILES) | 12-DIGIT HUC |
|------------|---|-------|------|--------------------------------|-----------------------------|------------------------------|
| #001/#004 | Tributary to Truitt Creek | n/a | n/a | GEN | 0.0 | 11070207-0105 Williams Creek |
| #001/#004 | 8-20-13 MUDD v1.0 (Locally known as Truitt Creek) | C | 3960 | AQL, IRR, LWW, SCR, WBC-B, HHP | 0.5 | |
| All Others | Groundwater | n/a | n/a | GEN, DWS, GRW | | |

n/a not applicable

WBID = Waterbody IDentification: Missouri Use Designation Dataset 8-20-13 MUDD V1.0 data can be found as an ArcGIS shapefile on MSDIS at ftp://msdis.missouri.edu/pub/Inland_Water_Resources/MO_2014_WQS_Stream_Classifications_and_Use_shp.zip

* As per 10 CSR 20-7.031 Missouri Water Quality Standards, the department defines the Clean Water Commission’s water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and 1st classified receiving stream’s beneficial water uses to be maintained are in the receiving stream table in accordance with [10 CSR 20-7.031(1)(C)].

Uses which may be found in the receiving streams table, above:

10 CSR 20-7.031(1)(C)1.:

AQL = Protection of aquatic life (Current narrative use(s) are defined to ensure the protection and propagation of fish shellfish and wildlife, which is further subcategorized as: WWH = Warm Water Habitat; CLH = Cool Water Habitat; CDH = Cold Water Habitat; EAH = Ephemeral Aquatic Habitat; MAH = Modified Aquatic Habitat; LAH = Limited Aquatic Habitat. This permit uses AQL effluent limitations in 10 CSR 20-7.031 Table A for all habitat designations unless otherwise specified.)

10 CSR 20-7.031(1)(C)2.: Recreation in and on the water

WBC = Whole Body Contact recreation where the entire body is capable of being submerged;

WBC-A = Whole body contact recreation supporting swimming uses and has public access;

WBC-B = Whole body contact recreation supporting swimming;

SCR = Secondary Contact Recreation (like fishing, wading, and boating).

10 CSR 20-7.031(1)(C)3. to 7.:

HHP (formerly HHF) = Human Health Protection as it relates to the consumption of fish;

IRR = Irrigation for use on crops utilized for human or livestock consumption;

LWW = Livestock and wildlife watering (Current narrative use is defined as LWP = Livestock and Wildlife Protection);

DWS = Drinking Water Supply;

IND = Industrial water supply

10 CSR 20-7.031(1)(C)8-11.: Wetlands (10 CSR 20-7.031 Table A currently does not have corresponding habitat use criteria for these defined uses)

WSA = Storm- and flood-water storage and attenuation; **WHP** = Habitat for resident and migratory wildlife species;

WRC = Recreational, cultural, educational, scientific, and natural aesthetic values and uses; **WHC** = Hydrologic cycle maintenance.

10 CSR 20-7.031(6): **GRW** = Groundwater

MIXING CONSIDERATIONS:

Mixing zone: not allowed [10 CSR 20-7.031(5)(A)4.B.(I)(a)].

Zone of initial dilution: not allowed [10 CSR 20-7.031(5)(A)4.B.(I)(b)].

RECEIVING STREAM MONITORING REQUIREMENTS:

No receiving water monitoring requirements are recommended at this time. Please see Groundwater Monitoring section below for UIC receiving waterbody monitoring requirements.

Part III. RATIONALE AND DERIVATION OF EFFLUENT LIMITATIONS & PERMIT CONDITIONS

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:

As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

- ✓ Not applicable; the facility does not discharge to a losing stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], or is an existing facility.

ANTI-BACKSLIDING:

Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] require a reissued permit to be as stringent as the previous permit with some exceptions. Backsliding (a less stringent permit limitation) is only allowed under certain conditions.

- ✓ Limitations in this operating permit for the reissuance conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44.
- ✓ Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) which would have justified the application of a less stringent effluent limitation.
 - Five years of DMR data were supplied by the permittee which justified changing limits to monitoring only with technology based benchmarks for certain conventional and physical parameters.
- ✓ The Department determined technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b).
 - The previous permit limits for outfall #001 were established in error, based on limits for process wastewater, however, this is a stormwater outfall. This renewal establishes limits and benchmarks appropriate for stormwater discharges. There will be no changes to industrial activities onsite or the composition of the stormwater discharge as a result of this renewal. The benchmark concentrations and required corrective actions within this permit are protective of the receiving stream's uses to be maintained.

ANTIDegradation REVIEW:

For process water discharge with new, altered, or expanding discharges, the department is to document, by means of antidegradation review, if the use of a water body's available assimilative capacity is justified. In accordance with Missouri's water quality regulations for antidegradation [10 CSR 20-7.031(3)], degradation may be justified by documenting the socio-economic importance of a discharge after determining the necessity of the discharge. Facilities must submit the antidegradation review request to the department prior to establishing, altering, or expanding discharges. See <http://dnr.mo.gov/env/wpp/permits/antideg-implementation.htm>

- ✓ Not applicable; the facility has not submitted information proposing expanded or altered process water discharge; no further degradation proposed therefore no further review necessary.

BENCHMARKS:

When a permitted feature or outfall consists of only stormwater, a benchmark may be implemented at the discretion of the permit writer. Benchmarks require the facility to monitor, and if necessary, replace and update stormwater control measures. Benchmark concentrations are not effluent limitations. A benchmark exceedance, therefore, is not a permit violation; however, failure to take corrective action is a violation of the permit. Benchmark monitoring data is used to determine the overall effectiveness of control measures and to assist the permittee in knowing when additional corrective actions may be necessary to comply with the limitations of the permit.

Because of the fleeting nature of stormwater discharges, the department, under the direction of EPA guidance, has determined monthly averages are capricious measures of stormwater discharges. The *Technical Support Document for Water Quality Based Toxics Control* (EPA/505/2-90-001; 1991) Section 3.1 indicates most procedures within the document apply only to water quality based approaches, not end-of-pipe technology-based controls. Hence, stormwater only outfalls will generally only contain a maximum daily limit (MDL), benchmark, or monitoring requirement determined by the site specific conditions including the receiving water's current quality. While inspections of the stormwater BMPs occur monthly, facilities with no compliance issues are usually expected to sample stormwater quarterly.

Numeric benchmark values are based on water quality standards or other stormwater permits including guidance forming the basis of Environmental Protection Agency's (EPA's) *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity* (MSGP). Because precipitation events are sudden and momentary, benchmarks based on state or federal standards or recommendations use the Criteria Maximum Concentration (CMC) value, or acute standard. The CMC is the estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect. The CMC for aquatic life is intended to be protective of the vast majority of the aquatic communities in the United States.

- ✓ Applicable; this facility has stormwater-only outfalls with benchmark constraints. The benchmarks listed are consistently achieved in stormwater discharges by a variety of other industries with SWPPPs and is deemed protective of instream water quality and aquatic life.

BIOSOLIDS & SEWAGE SLUDGE:

Biosolids are solid materials resulting from domestic wastewater treatment meeting federal and state criteria for beneficial use (i.e. fertilizer). Sewage sludge is solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Additional information: <http://extension.missouri.edu/main/DisplayCategory.aspx?C=74> (WQ422 through WQ449).

✓ Not applicable; this condition is not applicable to the permittee for this facility.

COMPLIANCE AND ENFORCEMENT:

Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

✓ Not applicable; the permittee/facility is not currently under Water Protection Program enforcement action.

GROUNDWATER MONITORING:

Groundwater is a water of the state according to 10 CSR 20-7.015(7) and 10 CSR 20-7.031(6) and must be protected accordingly.

✓ This facility is monitoring the groundwater at the site because of the propane storage cavern and associated injection wells on site. Please see Part IV- Effluent limits determination, Monitoring and injection wells” below, and Facility Description, Facility Performance history and comments above for more information.

INDUSTRIAL SLUDGE:

Industrial sludge is solid, semi-solid, or liquid residue generated during the treatment of industrial process wastewater in a treatment works; including but not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment process; scum and solids filtered from water supplies and backwashed; and a material derived from industrial sludge.

✓ Not applicable; sludge is not generated at this facility.

REASONABLE POTENTIAL ANALYSIS (RPA):

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are (or may be) discharged at a level causing or have the reasonable potential to cause (or contribute to) an in-stream excursion above narrative or numeric water quality standards. If the permit writer determines any give pollutant has the reasonable potential to cause or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant [40 CFR Part 122.44(d)(1)(iii)].

✓ Not applicable; an RPA was not conducted for this facility. This permit establishes permit limits and benchmarks for stormwater. The department has determined stormwater is not a continuous discharge and is therefore not subject to mathematical RPAs. However, the permit writer completed an RPD, a reasonable potential determination, using best professional judgment for all of the appropriate parameters in this permit. A RPD consists of reviewing application data and/or the discharge monitoring data for the last five years and comparing those data to the water quality standard. Should the data approach or exceed the water quality standards, the parameter is included in the permit with benchmarks or limits. Should all of the monitoring data be non-detects or well below the water quality standards, the parameter may no longer require monitoring. Intermediate results are typically included in the permit for monitoring; or possibly with an associated benchmark. The hydrostatic discharges did not supply enough data to perform an RPA.

SCHEDULE OF COMPLIANCE (SOC):

A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, effluent limits, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit. SOCs are allowed under 40 CFR 122.47 providing certain conditions are met.

✓ Applicable; the time given for this permit are established in accordance with [10 CSR 20-7.031(12)]. The facility has been given a four year schedule of compliance to meet final requirements for a groundwater monitoring and sampling plan (GMASP). A clear schedule requiring multiple steps is laid out over four years which requires the site to install and maintain a site wide network of monitoring wells to ensure the injection wells on site do not pose a danger to aquifers in the area. A GMASP is an extensive document and will require much on-site work. Four years is the typical time allowed to permittees required to develop a GMASP. Four years will allow them adequate time to conduct exploration, construction, and monitoring requirements of the GMASP.

SPILL REPORTING:

Per 10 CSR 24-3.010, any emergency involving a hazardous substance must be reported to the department’s 24 hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest practicable moment after discovery. The department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the noncompliance reporting requirement found in Standard Conditions Part I. <http://dnr.mo.gov/env/esp/spillbill.htm>

STORMWATER PERMITTING:

A standard mass-balance equation cannot be calculated for stormwater from this facility because the stormwater flow and flow in the receiving stream cannot be determined for conditions on any given day. The amount of stormwater discharged from the facility will vary based on previous rainfall, soil saturation, humidity, detention time, BMPs, surface permeability, etc. Flow in the receiving stream will vary based on climatic conditions, size of watershed, amount of surfaces with reduced permeability (houses, parking lots, and the like) in the watershed, hydrogeology, topography, etc. Decreased permeability increases the flash of the stream.

It is likely sufficient rainfall to cause a discharge for four continuous days from a facility will also cause some significant amount of flow in the receiving stream. Chronic WQSs are based on a four-day exposure (except ammonia, which is based on a thirty day exposure). In the event a discharge does occur from this facility for four continuous days, some amount of flow will occur in the receiving stream. This flow will dilute stormwater discharges from a facility. For these reasons, most industrial stormwater facilities have limited potential to cause a violation of chronic water quality standards in the receiving stream.

Sufficient rainfall to cause a discharge for one hour or more from a facility would not necessarily cause significant flow in a receiving stream. Acute WQSs are based on a one hour of exposure, and must be protected at all times in unclassified streams, and within mixing zones of class P streams [10 CSR 20-7.031(4) and (5)(4)4.B.]. Therefore, industrial stormwater facilities with toxic contaminants do have the potential to cause a violation of acute WQSs if those toxic contaminants occur in sufficient amounts.

It is due to the items stated above staff drafting this fact sheet are unable to perform statistical Reasonable Potential Analysis (RPA) and calculate Wasteload Allocations (WLA) via a site-specific mass-balance equation for effluent limit determination. However, staff will use their best professional judgment in determining if a facility has a potential to violate Missouri's Water Quality Standards.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):

In accordance with 40 CFR 122.44(k), Best Management Practices (BMPs) must be used to control or abate the discharge of pollutants when: 1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; 2) Authorized under section 402(p) of the CWA for the control of stormwater discharges; 3) Numeric effluent limitations are infeasible; or 4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering waters of the state from a permitted facility. BMPs may take the form of a process, activity, or physical structure. Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to 1) identify sources of pollution or contamination, and 2) select and carry out actions which prevent or control the pollution of storm water discharges.

A SWPPP must be prepared by the permittee if the SIC code is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2). A SWPPP may be required of other facilities where stormwater has been identified as necessitating better management. The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate stream pollution from stormwater runoff. Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged during storm events. The following paragraph outlines the general steps the permittee should take to determine which BMPs will work to achieve the benchmark values or limits in the permit. This section is not intended to be all encompassing or restrict the use of any physical BMP or operational and maintenance procedure assisting in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit.

Areas which should be included in the SWPPP are identified in 40 CFR 122.26(b)(14). Once the potential sources of stormwater pollution have been identified, a plan should be formulated to best control the amount of pollutant being released and discharged by each activity or source. This should include, but is not limited to, minimizing exposure to stormwater, good housekeeping measures, proper facility and equipment maintenance, spill prevention and response, vehicle traffic control, and proper materials handling. Once a plan has been developed the facility will employ the control measures determined to be adequate to achieve the benchmark values discussed above. The facility will conduct monitoring and inspections of the BMPs to ensure they are working properly and re-evaluate any BMP not achieving compliance with permitting requirements. For example, if sample results from an outfall show values of TSS above the benchmark value, the BMP being employed is deficient in controlling stormwater pollution. Corrective action should be taken to repair, improve, or replace the failing BMP. This internal evaluation is required at least once per month but should be continued more frequently if BMPs continue to fail. If failures do occur, continue this trial and error process until appropriate BMPs have been established.

For new, altered, or expanded stormwater discharges, the SWPPP shall identify reasonable and effective BMPs while accounting for environmental impacts of varying control methods. The antidegradation analysis must document why no discharge or no exposure options are not feasible. The selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of antidegradation [10 CSR 20-7.031(3)]. Failure to implement and maintain the chosen BMP is a permit violation. For further guidance, consult the antidegradation implementation procedure (<http://dnr.mo.gov/env/wpp/docs/AIP050212.pdf>).

Alternative Analysis (AA) evaluation of the BMPs is a structured evaluation of BMPs that are reasonable and cost effective. The AA evaluation should include practices that are designed to be: 1) non-degrading; 2) less degrading; or 3) degrading water quality. The glossary of AIP defines these three terms. The chosen BMP will be the most reasonable and effective management strategy while ensuring the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The AA evaluation must demonstrate why “no discharge” or “no exposure” is not a feasible alternative at the facility. This structured analysis of BMPs serves as the antidegradation review, fulfilling the requirements of 10 CSR 20-7.031(3) Water Quality Standards and *Antidegradation Implementation Procedure* (AIP), Section II.B.

If parameter-specific numeric exceedances continue to occur and the permittee feels there are no practicable or cost-effective BMPs which will sufficiently reduce a pollutant concentration in the discharge to the benchmark values established in the permit, the permittee can submit a request to re-evaluate the benchmark values. This request needs to include 1) a detailed explanation of why the facility is unable to comply with the permit conditions and unable to establish BMPs to achieve the benchmark values; 2) financial data of the company and documentation of cost associated with BMPs for review and 3) the SWPPP, which should contain adequate documentation of BMPs employed, failed BMPs, corrective actions, and all other required information. This will allow the department to conduct a cost analysis on control measures and actions taken by the facility to determine cost-effectiveness of BMPs. The request shall be submitted in the form of an operating permit modification; the application is found at: <http://dnr.mo.gov/forms/index.html>.

✓ Applicable; a SWPPP shall be developed and implemented for this facility.

VARIANCE:

As per the Missouri Clean Water Law § 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

✓ Not applicable; the operating permit is not drafted under premise of a petition for variance.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:

As per [10 CSR 20-2.010(78)], the WLA is the amount of pollutant each discharger is allowed to discharge into the receiving stream without endangering water quality. Two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs) are reviewed. If one limit does provide adequate protection for the receiving waters, then the other must be used.

✓ Not applicable; wasteload allocations were not calculated.

WLA MODELING:

Permittees may submit site specific studies to better determine the site specific wasteload allocations applied in permits.

✓ Not applicable; a WLA study was either not submitted or determined not applicable by department staff.

WATER QUALITY STANDARDS:

Per 10 CSR 20-7.031(4), general criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, 40 CFR 122.44(d)(1) directs the department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including state narrative criteria for water quality.

WHOLE EFFLUENT TOXICITY (WET) TEST:

A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with, or through synergistic responses when mixed with receiving stream water. Under the federal Clean Water Act (CWA) §101(a)(3), requiring WET testing is reasonably appropriate for site-specific Missouri State Operating Permits for discharges to waters of the state issued under the National Pollutant Discharge Elimination System (NPDES). WET testing is also required by 40 CFR 122.44(d)(1). WET testing ensures the provisions in 10 CSR 20-6 and the Water Quality Standards in 10 CSR 20-7 are being met. Under 10 CSR 20-6.010(8)(A)4, the department may require other terms and conditions it deems necessary to assure compliance with the CWA and related regulations of the Missouri Clean Water Commission. The following Missouri Clean Water Laws (MCWL) apply: §644.051.3. requires the department to set permit conditions complying with the MCWL and CWA; §644.051.4 specifically references toxicity as an item we must consider in writing permits (along with water quality-based effluent limits); and §644.051.5. is the basic authority to require testing conditions.

✓ Not applicable; at this time, the permittee is not required to conduct WET testing for this facility. This facility is monitoring stormwater and hydrostatic test waters. WET tests for these non-continuous discharge types are not typical, and often the results are not repeatable due to variability in effluent from one event to another.

Part IV. EFFLUENT LIMITS DETERMINATION

OUTFALL #001 – STORMWATER

Effluent limitations derived and established in the below effluent limitations table are based on current operations of the facility. Effluent means both process water and stormwater. Any flow through the outfall is considered a discharge and must be sampled and reported as provided below. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

EFFLUENT LIMITATIONS TABLE:

| PARAMETERS OUTFALLS #001 | UNIT | BASIS | DAILY MAXIMUM LIMIT | BENCH- MARK | PREVIOUS PERMIT LIMITS | MINIMUM SAMPLING FREQUENCY | MINIMUM REPORTING FREQUENCY | SAMPLE TYPE |
|---------------------------------|--------|--------------------------|---------------------------|----------------|------------------------------|----------------------------------|-----------------------------------|----------------|
| PHYSICAL | | | | | | | | |
| FLOW | MGD | 1 | * | - | SAME | ONCE/QUARTER | ONCE/QUARTER | 24 HR. EST. |
| PRECIPITATION | INCHES | 6 | * | - | NEW | ONCE/QUARTER | ONCE/QUARTER | 24 HR. TOT. |
| CONVENTIONAL | | | | | | | | |
| COD | MG/L | 6, 8 | ** | 90 | * | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| OIL & GREASE | MG/L | 1, 3 | ** | 10 | 15/10 | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| pH † | SU | 1, 3 | 6.5 TO 9.0 | - | SAME | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| SETTLABLE SOLIDS | M/L/HR | 6 | ** | 1.5 | 1.5/1.0 | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| TSS | MG/L | 6, 8 | ** | 100 | NEW | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| OTHER | | | | | | | | |
| BTEX | mg/L | REMOVED FROM THIS PERMIT | | | | | | |
| BENZENE | µg/L | 6 | * | - | BTEX | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| ETHANOL | mg/L | REMOVED FROM THIS PERMIT | | | | | | |
| ETHYLBENZENE | µg/L | 6 | * | - | BTEX | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| MTBE | mg/L | REMOVED FROM THIS PERMIT | | | | | | |
| TOLUENE | µg/L | 6 | * | - | BTEX | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| TOTAL PETROLEUM HYDROCARBONS | mg/L | REMOVED FROM THIS PERMIT | | | | | | |
| XYLENE | µg/L | 6 | * | - | BTEX | ONCE/QUARTER | ONCE/QUARTER | GRAB |

* - Monitoring requirement only

** - Monitoring with associated benchmark

† The facility will report the minimum and maximum pH values; pH is not to be averaged

NEW = Parameter not established in previous operating permit

Basis for Limitations Codes:

- | | | |
|--|-----------------------------------|--|
| 1. State or Federal Regulation/Law | 5. Water Quality Model | 9. Benchmark based on Missouri Water Quality Standards |
| 2. Water Quality Standard (includes RPA) | 6. Best Professional Judgment | |
| 3. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL | |
| 4. Antidegradation Review/Policy | 8. Benchmark based on MSGP | |
| 5. | | |

DERIVATION AND DISCUSSION OF LIMITS OUTFALL #001:

PHYSICAL:

Flow

In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the department, which may require the submittal of an operating permit modification. The facility will report the total flow in millions of gallons per day (MGD).

Precipitation

Monitoring only requirement; measuring the amount of precipitation [(10 CSR 20-6.200(2)(C)1.E(VI)] during an event is necessary to ensure adequate stormwater management exists at the site. Knowing the amount of potential stormwater runoff can provide the permittee a better understanding of specific control measure that should be employed to ensure protection of water quality. The facility will provide the 24 hour accumulation value of precipitation from the day of sampling the other parameters. It is not necessary to report all days of precipitation during the quarter because of the readily available on-line data.

CONVENTIONAL:

Chemical Oxygen Demand (COD)

Monitoring with a 90 mg/L daily maximum benchmark is included using the permit writer's best professional judgment. This is a new parameter for this permit. There is no water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the permittee to identify increases in COD that may indicate materials/chemicals coming into contact with stormwater that cause an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at 90 mg/L. This technology based value falls within the range of values implemented in other permits that have similar industrial activities.

Oil & Grease

Monitoring with a daily maximum benchmark of 10 mg/L. There were no exceedances in the previous permit cycle of the previous requirement of 15 mg/L daily maximum limit, and 10 mg/L monthly average limit. Oil and grease is a conventional pollutant. Oil and grease is a comprehensive test which measures for gasoline, diesel, crude oil, creosote, kerosene, heating oils, heavy fuel oils, lubricating oils, waxes, and some asphalt and pitch. The test can also detect some volatile organics such as benzene, toluene, ethylbenzene, or toluene, but these constituents are often lost during testing due to their boiling points. It is recommended to perform separate testing for these constituents if they are a known pollutant of concern at the site, i.e. aquatic life toxicity or human health is a concern. Results do not allow for separation of specific pollutants within the test, they are reported, totaled, as "Oil and grease". Per 10 CSR 20-7.031 Table A: *Criteria for Designated Uses*; 10 mg/L is the chronic standard for this parameter. 10 mg/L is the level at which sheen is estimated to form on receiving waters. Oils and greases of different densities will possibly form sheen or unsightly bottom deposits at levels which vary from 10 mg/L. To protect the general criteria, it is the responsibility of the permittee to visually observe the discharge and receiving waters for sheen or bottom deposits. It is in the best professional judgment of the permit writer that this facility will be able to meet this limit as stated, therefore a schedule of compliance is not necessary.

pH

6.5 to 9.0 SU. The Water Quality Standard at 10 CSR 20-7.031(5)(E) states water contaminants shall not cause pH to be outside the range of 6.5 to 9.0 standard pH units.

Settleable Solids (SS)

Monitoring, with a daily maximum benchmark of 1.5 mL/L/hr. The previous permit required 1.5 mL/L/hr daily maximum limit and 1.0 mL/L/hr monthly average limit. There is no water quality standard for SS; however, sediment discharges can negatively impact aquatic life habitat. Settleable solids are also a valuable indicator parameter. Solids monitoring allows the permittee to identify increases in sediment and solids that may indicate uncontrolled materials leaving the site. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at 1.5 mL/L/hr. This value falls within the range of values implemented in other permits that have similar industrial activities.

Total Suspended Solids (TSS)

Monitoring, with a daily maximum benchmark of 100 mg/L. This is a new parameter for this permit. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate uncontrolled materials leaving the site. A benchmark value will be implemented for this parameter. The benchmark value will be set at 100 mg/L. This value is achievable and falls within the range of values implemented in other permits having similar industrial activities. It is important to monitor for solids that are suspended in the water, not just those that may settle out. Having both TSS and SS is important to gain an understanding of the solids discharged by this site in stormwater. Increased TSS can have negative effects on temperature, appearance, and aquatic life in a receiving stream, so it is important to monitor for this parameter and adjust BMPs to meet target goals. Meeting 100 mg/L is considered protective of the general criteria found in 10 CSR 20-7.031 (4).

OTHER:

Benzene

Monitoring only. The previous permit had a 0.75 mg/L limit on BTEX. It is in the best professional judgment of the permit writer to split BTEX monitoring into its separate components, as BTEX as an aggregate is not a regulated pollutant in the state of Missouri. The previous permit had no exceedances of the required limit.

Ethanol

This parameter will be removed from this permit. It is in the best professional judgment of the permit writer that ethanol poses no danger at this site to aquatic life or human health; in addition, there are no water quality standards or technology benchmarks applicable to this pollutant. It is also likely that ethanol would volatilize rapidly, and wouldn't remain in the surface water. For these reasons, it is in the best professional judgment of the permit writer to remove this parameter from monitoring, although ethanol is stored on site and blended with other fuels at this site.

Ethylbenzene

Monitoring only. The previous permit had a 0.75 mg/L limit on BTEX. It is in the best professional judgment of the permit writer to split BTEX monitoring into its separate components, as BTEX as an aggregate is not a regulated pollutant in the state of Missouri. The previous permit had no exceedances of the required limit.

MTBE

This parameter will be removed from this permit. MTBE is an additive used in fuel. Its use is decreasing in the United States and has been largely replaced by ethanol due to state and federal laws requiring ethanol use. It is in the best professional judgment of the permit writer to remove this parameter, especially given the non-detects at this site over the last permit cycle.

Toluene

Monitoring only. The previous permit had a 0.75 mg/L limit on BTEX. It is in the best professional judgment of the permit writer to split BTEX monitoring into its separate components, as BTEX as an aggregate is not a regulated pollutant in the state of Missouri. The previous permit had no exceedances of the required limit.

Total Petroleum Hydrocarbon

This parameter will be removed from this permit. It is in the best professional judgment of the permit writer to remove this parameter from the permit for the following reasons: TPH does not have water quality standards associated with it; there is no guidance relating its toxicity to humans or animals available at this time; and oil and grease, benzene, ethylbenzene, toluene, and xylene sufficiently cover testing for this parameter at this site.

Xylene

Monitoring only. The previous permit had a 0.75 mg/L limit on BTEX. It is in the best professional judgment of the permit writer to split BTEX monitoring into its separate components, as BTEX as an aggregate is not a regulated pollutant in the state of Missouri. The previous permit had no exceedances of the required limit.

OUTFALL #004 – HYDROSTATIC TEST WATER

Effluent limitations derived and established in the below effluent limitations table are based on current operations of the facility. Effluent means both process water and stormwater. Any flow through the outfall is considered a discharge and must be sampled and reported as provided below. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit. Daily maximums and monthly averages are required under 40 CFR 122.45(d)(1) for continuous discharges not from a POTW.

Hydrostatic Test Water must be sampled prior to mingling with stormwater.

EFFLUENT LIMITATIONS TABLE:

| PARAMETERS OUTFALL #004 | UNIT | BASIS FOR LIMITS | DAILY MAX | MONTHLY AVG | PREVIOUS PERMIT LIMITS | MINIMUM SAMPLING FREQUENCY | MINIMUM REPORTING FREQUENCY | SAMPLE TYPE |
|----------------------------|------|------------------------|--------------|----------------|------------------------------|----------------------------------|-----------------------------------|----------------|
| PHYSICAL | | | | | | | | |
| FLOW | MGD | 1 | * | * | SAME | ONCE/DAY** | ONCE/QUARTER | 24 HrTOT |
| CONVENTIONAL | | | | | | | | |
| OIL & GREASE | MG/L | 1, 3 | 10 | 10 | NEW/TPH | ONCE/DISCHARGE | ONCE/QUARTER | GRAB |
| pH † | SU | 1, 3 | 6.5 TO 9.0 | 6.5 to 9.0 | SAME | ONCE/DISCHARGE | ONCE/QUARTER | GRAB |
| TSS | MG/L | 6 | 100 | 100 | SAME | ONCE/DISCHARGE | ONCE/QUARTER | GRAB |
| OTHER | | | | | | | | |
| BENZENE | µg/L | 6 | * | * | NEW/TPH | ONCE/DISCHARGE | ONCE/QUARTER | GRAB |
| ETHYLBENZENE | µg/L | 6 | * | * | NEW/TPH | ONCE/DISCHARGE | ONCE/QUARTER | GRAB |
| TOLUENE | µg/L | 6 | * | * | NEW/TPH | ONCE/DISCHARGE | ONCE/QUARTER | GRAB |
| XYLENE | µg/L | 6 | * | * | NEW/TPH | ONCE/DISCHARGE | ONCE/QUARTER | GRAB |

* - Monitoring requirement only

** - Measure flow once per day during hydrostatic discharge events.

† The facility will report the minimum and maximum pH values; pH is not to be averaged.

NEW - Parameter not previously established in previous state operating permit.

Basis for Limitations Codes:

- | | |
|--|-----------------------------------|
| 1. State or Federal Regulation/Law | 5. Water Quality Model |
| 2. Water Quality Standard (includes RPA) | 6. Best Professional Judgment |
| 3. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL |
| 4. Antidegradation Review/Policy | 8. WET Test Policy |

DERIVATION AND DISCUSSION OF LIMITS OUTFALL #004:

CONVENTIONAL:

Oil & Grease

Daily maximum and monthly average limit of 10 mg/L. This is a new parameter for this outfall. Oil and grease is a conventional pollutant. Oil and grease is a comprehensive test which measures for gasoline, diesel, crude oil, creosote, kerosene, heating oils, heavy fuel oils, lubricating oils, waxes, and some asphalt and pitch. The test can also detect some volatile organics such as benzene, toluene, ethylbenzene, or toluene, but these constituents are often lost during testing due to their boiling points. It is recommended to perform separate testing for these constituents if they are a known pollutant of concern at the site, i.e. aquatic life toxicity or human health is a concern. Results do not allow for separation of specific pollutants within the test, they are reported, totaled, as “Oil and grease”. Per 10 CSR 20-7.031 Table A: *Criteria for Designated Uses*; 10 mg/L is the chronic standard for this parameter. 10 mg/L is the level at which sheen is estimated to form on receiving waters. Oils and greases of different densities will possibly form sheen or unsightly bottom deposits at levels which vary from 10 mg/L. To protect the general criteria, it is the responsibility of the permittee to visually observe the discharge and receiving waters for sheen or bottom deposits. It is in the best professional judgment of the permit writer that this facility will be able to meet this limit as stated, therefore a schedule of compliance is not necessary. This parameter will replace Total Petroleum Hydrocarbons found in the last permit.

pH

6.5 to 9.0 SU. The Water Quality Standard at 10 CSR 20-7.031(5)(E) states water contaminants shall not cause pH to be outside the range of 6.5 to 9.0 standard pH units.

Total Suspended Solids (TSS)

Daily maximum limit of 100 mg/L. Retained from the previous permit. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate uncontrolled materials leaving the site. It is important to monitor for solids that are suspended in the water. Increased TSS can have negative effects on temperature, appearance, and aquatic life in a receiving stream, so it is important to monitor for this parameter and meet required limits. Meeting 100 mg/L is considered protective of the general criteria found in 10 CSR 20-7.031 (4).

OTHER:

Benzene

Monitoring only. This is a new parameter for this outfall. It is in the best professional judgment of the permit writer to include monitoring for benzene. Benzene is a common hydrocarbon, and is found in gasoline, diesel, jet fuel, and oils. These are all components shipped or stored at this site. This parameter overlaps and replaces monitoring for the previous parameter “total petroleum hydrocarbon”.

Ethylbenzene

Monitoring only. This is a new parameter for this outfall. It is in the best professional judgment of the permit writer to include monitoring for ethylbenzene. Ethylbenzene is a common hydrocarbon, and is found in gasoline, diesel, jet fuel, and oils. These are all components shipped or stored at this site. This parameter overlaps and replaces monitoring for the previous parameter “total petroleum hydrocarbon”.

Toluene

Monitoring only. This is a new parameter for this outfall. It is in the best professional judgment of the permit writer to include monitoring for toluene. Toluene is a common hydrocarbon, and is found in gasoline, diesel, jet fuel, and oils. These are all components shipped or stored at this site. This parameter overlaps and replaces monitoring for the previous parameter “total petroleum hydrocarbon”.

Xylene

Monitoring only. This is a new parameter for this outfall. It is in the best professional judgment of the permit writer to include monitoring for xylene. Xylene is a common hydrocarbon, and is found in gasoline, diesel, jet fuel, and oils. These are all components shipped or stored at this site. This parameter overlaps and replaces monitoring for the previous parameter “total petroleum hydrocarbon”.

MONITORING WELLS #M01-#M25-PROPANE CAVERN MONITORING WELLS

Future permit action due to facility modification or implementation of the GMASP may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

| PARAMETERS MONITORING WELLS #M01-M25 | UNIT | BASIS FOR LIMITS | DAILY MAX | MONTHLY AVG | PREVIOUS PERMIT LIMITS | MINIMUM SAMPLING FREQUENCY | MINIMUM REPORTING FREQUENCY | SAMPLE TYPE |
|---|------|--------------------------|--------------|----------------|------------------------------|----------------------------------|-----------------------------------|----------------|
| PHYSICAL | | | | | | | | |
| GROUNDWATER DEPTH | FEET | 6 | * | - | NEW | ONCE/QUARTER | ONCE/QUARTER | MEASURE |
| CONVENTIONAL | | | | | | | | |
| OIL & GREASE | MG/L | 1, 3 | * | * | NEW | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| pH ‡ | SU | 1, 3 | 6.5 TO 8.5 | 6.5 to 8.5 | NEW | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| OTHER | | | | | | | | |
| BENZENE | µg/L | 6 | * | * | NEW | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| ETHYLBENZENE | µg/L | 6 | * | * | NEW | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| MTBE | mg/L | REMOVED FROM THIS PERMIT | | | | | | |
| PHENOL | µg/L | 6 | * | * | NEW | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| PROPANE | µg/L | 6 | * | * | SAME | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| TOLUENE | µg/L | 6 | * | * | NEW | ONCE/QUARTER | ONCE/QUARTER | GRAB |
| TOTAL PETROLEUM HYDROCARBONS | mg/L | REMOVED FROM THIS PERMIT | | | | | | |
| XYLENE | µg/L | 6 | * | * | NEW | ONCE/QUARTER | ONCE/QUARTER | GRAB |

* - Monitoring requirement only

** - Measure flow once per day during hydrostatic discharge events.

‡ The facility will report the minimum and maximum pH values; pH is not to be averaged.

NEW - Parameter not previously established in previous state operating permit.

Basis for Limitations Codes:

- | | |
|--|-----------------------------------|
| 1. State or Federal Regulation/Law | 5. Water Quality Model |
| 2. Water Quality Standard (includes RPA) | 6. Best Professional Judgment |
| 3. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL |
| 4. Antidegradation Review/Policy | 8. WET Test Policy |

DERIVATION AND DISCUSSION OF MONITORING WELL PARAMETERS:

PHYSICAL:

Groundwater Depth

This is a new requirement for this permit. This information will allow the Department to track the depth of the groundwater in the monitoring wells, and determine if injection activities affect groundwater depth in the area.

CONVENTIONAL:

Oil & Grease

Monitoring only. This is a new parameter for this outfall. Oil and grease is a conventional pollutant. Oil and grease is a comprehensive test which measures for gasoline, diesel, crude oil, creosote, kerosene, heating oils, heavy fuel oils, lubricating oils, waxes, and some asphalt and pitch. The test can also detect some volatile organics such as benzene, toluene, ethylbenzene, or toluene, but these constituents are often lost during testing due to their boiling points. It is recommended to perform separate testing for these constituents if they are a known pollutant of concern at the site, i.e. aquatic life toxicity or human health is a concern. Results do not allow for separation of specific pollutants within the test, they are reported, totaled, as “Oil and grease”. 10 mg/L is the level at which sheen is estimated to form on receiving waters. Oils and greases of different densities will possibly form sheen or unsightly bottom deposits at levels which vary from 10 mg/L. To protect the general criteria, it is the responsibility of the permittee to visually observe the water for sheen or bottom deposits.

pH

6.5 to 8.5 SU. The MCL at 10 CSR 60-4.070 states water contaminants shall not cause pH to be outside the range of 6.5 to 8.5 standard pH units.

OTHER:

Benzene

Monitoring only. This is a new parameter for this outfall. It is in the best professional judgment of the permit writer to include monitoring for benzene. Benzene is a common hydrocarbon, and is found in gasoline, diesel, jet fuel, and oils. This parameter overlaps and replaces monitoring for the previous parameter “total petroleum hydrocarbon”. Benzene is a residual chemical resulting from propane storage, and is found in other similar operating permits.

Ethylbenzene

Monitoring only. This is a new parameter for this outfall. It is in the best professional judgment of the permit writer to include monitoring for ethylbenzene. Ethylbenzene is a common hydrocarbon, and is found in gasoline, diesel, jet fuel, and oils. This parameter overlaps and replaces monitoring for the previous parameter “total petroleum hydrocarbon”. Ethylbenzene is a residual chemical resulting from propane storage, and is found in other similar operating permits.

MTBE

This parameter will be removed from this permit using the permit writer’s best professional judgment. MTBE is no longer used as a gasoline additive in the state of Missouri. MTBE is a pollutant of concern at facilities which use MTBE as an additive in their gasoline, and mix the gasoline onsite. MTBE is known to travel in subsurface water systems, and can become a major problem if introduced to groundwater. However, DMR data from the last five years in the monitoring wells at this site show all non-detects. As MTBE is not used as an additive at this site, it is unlikely to become introduced to groundwater.

Phenol

Monitoring only. It is in the best professional judgment of the permit writer to include monitoring for phenol. Phenol is a pollutant of concern for this industry, as identified in similar operating permits.

Toluene

Monitoring only. This is a new parameter for this outfall. It is in the best professional judgment of the permit writer to include monitoring for toluene. Toluene is a common hydrocarbon, and is found in gasoline, diesel, jet fuel, and oils. This parameter overlaps and replaces monitoring for the previous parameter “total petroleum hydrocarbon”. Toluene is a residual chemical resulting from propane storage, and is found in other similar operating permits.

Xylene

Monitoring only. This is a new parameter for this outfall. It is in the best professional judgment of the permit writer to include monitoring for xylene. Xylene is a common hydrocarbon, and is found in gasoline, diesel, jet fuel, and oils. This parameter overlaps and replaces monitoring for the previous parameter “total petroleum hydrocarbon”. Xylene is a residual chemical resulting from propane storage, and is found in other similar operating permits.

INJECTION WELLS #I01-#I10-PROPANE CAVERN INJECTION WELLS

Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

INJECTION WELLS MONITORING REQUIREMENTS

| PARAMETERS INJECTION WELLS #I01-I10 | UNIT | BASIS FOR LIMITS | DAILY MAX | MONTHLY AVG | PREVIOUS PERMIT LIMITS | MINIMUM SAMPLING FREQUENCY | MINIMUM REPORTING FREQUENCY | SAMPLE TYPE |
|--|-------|------------------------|--------------|----------------|------------------------------|----------------------------------|-----------------------------------|----------------|
| PHYSICAL | | | | | | | | |
| AMOUNT OF MATERIAL INJECTED INTO CAVERN | GAL | 6 | * | - | NEW | ONCE/MONTH | ONCE/QUARTER | MEASURE |
| HYDROSTATIC CAP PRESSURE | PSI-G | 6 | * | - | NEW | ONCE/MONTH | ONCE/QUARTER | MEASURE |

* - Monitoring requirement only

NEW - Parameter not previously established in previous state operating permit.

Basis for Limitations Codes:

- | | |
|--|-----------------------------------|
| 1. State or Federal Regulation/Law | 5. Water Quality Model |
| 2. Water Quality Standard (includes RPA) | 6. Best Professional Judgment |
| 3. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL |
| 4. Antidegradation Review/Policy | 8. WET Test Policy |

DERIVATION AND DISCUSSION OF INJECTION WELL PARAMETERS:

PHYSICAL:

Amount of Material Injected

This is a new requirement for this permit. This information will allow the Department to track the amount of material injected using the injection wells. The injection wells are used to maintain a hydrostatic pressure around the propane storage cavern. Any water moved from one aquifer to another is considered injected, as well as any water from the surface that is used to recharge the wells.

Hydrostatic Pressure of Water Curtain

The pressure maintained by the injection wells is very important to monitor. If it is too high, risks to cavern integrity may develop. If it is too low, leakage from the propane cavern into the surrounding groundwater is a possibility.

Part V. SAMPLING AND REPORTING REQUIREMENTS:

Refer to each outfall's derivation and discussion of limits section to review individual sampling and reporting frequencies and sampling type.

ELECTRONIC DISCHARGE MONITORING REPORTING:

Due to upcoming federal regulations, all facilities will need to begin submitting their discharge monitoring reports electronically, called the eDMR system. To begin the process, please visit <http://dnr.mo.gov/env/wpp/edmr.htm>. This process is expected to save time, lessen paperwork, and reduce operating costs for both the facilities and the water protection program. Additional information may also be found at <http://dnr.mo.gov/pubs/pub2474.pdf>.

SAMPLING FREQUENCY JUSTIFICATION:

Sampling and reporting frequency was generally retained from previous permit.

SAMPLING TYPE JUSTIFICATION:

Sampling type was continued from the previous permit. The sampling types are representative of the discharges, and are protective of water quality. Discharges with altering effluent should have composite sampling; discharges with uniform effluent can have grab samples. Grab samples are usually appropriate for stormwater. Parameters which must have grab sampling are: pH, ammonia, *E. coli*, total residual chlorine, free available chlorine, hexavalent chromium, dissolved oxygen, total phosphorus, and volatile organic samples.

Part VI. ADMINISTRATIVE REQUIREMENTS

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

PERMIT SYNCHRONIZATION:

The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is that all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. <http://dnr.mo.gov/env/wpp/cpp/docs/watershed-based-management.pdf>. This will allow further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also allow the department to explore a watershed based permitting effort at some point in the future.

Due to the complexity of this permit and the accompanying UIC and groundwater monitoring and sampling plan, this permit will not be synchronized this cycle. This permit will be issued for five years.

PUBLIC NOTICE:

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. <http://dnr.mo.gov/env/wpp/permits/pn/index.html>. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

- The Public Notice period for this operating permit was from 10/21/2016 to 11/21/2016. No responses were received. The permit was altered after public notice to correct an error in the facility address and an error in the report submission frequency on outfall #004 and injection wells, and to modify an error in the Units of "Amount of Material Injected" on Table A-4. These changes did not alter limits or terms and conditions of the permit, and are therefore considered minor.

DATE OF FACT SHEET: 09/13/2016

COMPLETED BY:

AMBERLY SCHULZ, ENVIRONMENTAL SPECIALIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
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STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
REVISED
AUGUST 1, 2014

These Standard Conditions incorporate permit conditions as required by 40 CFR 122.41 or other applicable state statutes or regulations. These minimum conditions apply unless superseded by requirements specified in the permit.

Part I – General Conditions

Section A – Sampling, Monitoring, and Recording

1. **Sampling Requirements.**
 - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - b. All samples shall be taken at the outfall(s) or Missouri Department of Natural Resources (Department) approved sampling location(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.
2. **Monitoring Requirements.**
 - a. Records of monitoring information shall include:
 - i. The date, exact place, and time of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical techniques or methods used; and
 - vi. The results of such analyses.
 - b. If the permittee monitors any pollutant more frequently than required by the permit at the location specified in the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reported to the Department with the discharge monitoring report data (DMR) submitted to the Department pursuant to Section B, paragraph 7.
3. **Sample and Monitoring Calculations.** Calculations for all sample and monitoring results which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.
4. **Test Procedures.** The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is “sufficiently sensitive” when; 1) the method minimum level is at or below the level of the applicable water quality criterion for the pollutant or, 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility’s discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015. These methods are also required for parameters that are listed as monitoring only, as the data collected may be used to determine if limitations need to be established. A permittee is responsible for working with their contractors to ensure that the analysis performed is sufficiently sensitive.
5. **Record Retention.** Except for records of monitoring information required by the permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

6. **Illegal Activities.**
 - a. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or both.
 - b. The Missouri Clean Water Law provides that any person or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than six (6) months, or by both. Second and successive convictions for violation under this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

Section B – Reporting Requirements

1. **Planned Changes.**
 - a. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42;
 - iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
 - iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.
2. **Non-compliance Reporting.**
 - a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.



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- b. The following shall be included as information which must be reported within 24 hours under this paragraph.
 - i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
 - ii. Any upset which exceeds any effluent limitation in the permit.
 - iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.
 - c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.
3. **Anticipated Noncompliance.** The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.
 4. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.
 5. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.
 6. **Other Information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.
 7. **Discharge Monitoring Reports.**
 - a. Monitoring results shall be reported at the intervals specified in the permit.
 - b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
 - c. Monitoring results shall be reported to the Department no later than the 28th day of the month following the end of the reporting period.
- b. Notice.
 - i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
 - ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
 - c. Prohibition of bypass.
 - i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
 1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 3. The permittee submitted notices as required under paragraph 2. b. of this section.
 - ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.
3. **Upset Requirements.**
 - a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 3. b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
 - b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - i. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - ii. The permitted facility was at the time being properly operated; and
 - iii. The permittee submitted notice of the upset as required in Section B – Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
 - iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
 - c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

Section C – Bypass/Upset Requirements

1. **Definitions.**
 - a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
 - b. *Severe Property Damage*: substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
 - c. *Upset*: an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
2. **Bypass Requirements.**
 - a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2. b. and 2. c. of this section.

Section D – Administrative Requirements

1. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri Clean Water Law and Federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
 - a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
 - b. The Federal Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The Federal Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement



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- imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.
- c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.
- d. It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law, or any standard, rule or regulation promulgated by the commission. In the event the commission or the director determines that any provision of sections 644.006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644.006 to 644.141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed \$10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.
2. **Duty to Reapply.**
- a. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
- b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
- c. A permittees with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
3. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
5. **Proper Operation and Maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
6. **Permit Actions.**
- a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
- i. Violations of any terms or conditions of this permit or the law;
- ii. Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
- iii. A change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
- iv. Any reason set forth in the Law or Regulations.
- b. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
7. **Permit Transfer.**
- a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
- b. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Missouri Clean Water Law or the Federal Clean Water Act.
- c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.
8. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
9. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.



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10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.
11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.
12. **Closure of Treatment Facilities.**
 - a. Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
 - b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.
13. **Signatory Requirement.**
 - a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
 - b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
 - c. The Missouri Clean Water Law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.
14. **Severability.** The provisions of the permit are severable, and if any provision of the permit, or the application of any provision of the permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH
**FORM A – APPLICATION FOR CONSTRUCTION OR OPERATING PERMIT
 UNDER MISSOURI CLEAN WATER LAW**

AP 13272

| FOR AGENCY USE ONLY | |
|---------------------|-------------------------------------|
| CHECK NUMBER | No Fee required |
| DATE RECEIVED | 9/18/12 |
| FEE SUBMITTED | <input checked="" type="checkbox"/> |

(b)

Note ▶ PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.

1. This application is for:

- An operating permit and antidegradation review public notice
- A construction permit following an appropriate operating permit and antidegradation review public notice
- A construction permit and concurrent operating permit and antidegradation review public notice
- A construction permit (submitted before Aug. 30, 2008 or antidegradation review is not required)
- An operating permit for a new or unpermitted facility Construction Permit # _____
- An operating permit renewal: permit # MO-0106861 Expiration Date March 24, 2013
- An operating permit modification: permit # MO- Reason: _____

1.1 Is the appropriate fee included with the application? (See instructions for appropriate fee) YES NO

2. FACILITY

| | | | |
|---|--|--|----------------------------|
| NAME Phillips 66 Pipe Line Company - Mount Vernon Terminal | | TELEPHONE WITH AREA CODE (417) 452-3761 | |
| ADDRESS (PHYSICAL) 15138 Highway 96 | | CITY Mount Vernon | STATE ZIP CODE MO 65712 |
| | | FAX (417) 452-3259 | |

3. OWNER

| | | | |
|---|--|-----------------------------------|--|
| NAME Phillips 66 Pipe Line Company | | E-MAIL ADDRESS eckerlc@p66.com | TELEPHONE WITH AREA CODE (832) 434-1098 |
| ADDRESS (MAILING) P.O. Box 4428 RW-1057A | | CITY Houston | STATE ZIP CODE TX 77210 |
| | | FAX (918) 662-3402 | |

3.1 Request review of draft permit prior to public notice? YES NO

4. CONTINUING AUTHORITY

| | | | |
|-------------------|--|--------------------------|----------------|
| NAME SAME | | TELEPHONE WITH AREA CODE | |
| ADDRESS (MAILING) | | CITY | STATE ZIP CODE |
| | | FAX | |

5. OPERATOR

| | | | |
|----------------------------------|--|--------------------|--------------------------|
| NAME SAME | | CERTIFICATE NUMBER | TELEPHONE WITH AREA CODE |
| ADDRESS (MAILING) SEP 18 2012 | | CITY | STATE ZIP CODE |
| | | FAX | |

6. FACILITY CONTACT

| | | | |
|-------------------------|--|------------------------------|--|
| NAME William Maloney | | TITLE Terminal Supervisor | TELEPHONE WITH AREA CODE (417) 452-2307 |
| | | FAX (417) 452-3239 | |

7. ADDITIONAL FACILITY INFORMATION

7.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)

001 SW 1/4 SW 1/4 Sec 28 T 29N R 26W Law County
 UTM Coordinates Easting (X): _____ Northing (Y): _____
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

002 1/4 1/4 Sec _____ T _____ R _____ County
 UTM Coordinates Easting (X): _____ Northing (Y): _____

003 1/4 1/4 Sec _____ T _____ R _____ County
 UTM Coordinates Easting (X): _____ Northing (Y): _____

004 1/4 1/4 Sec _____ T _____ R _____ County
 UTM Coordinates Easting (X): _____ Northing (Y): _____

7.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.

001 – SIC 5171 and NAICS 424710 002 – SIC _____ and NAICS _____
 003 – SIC _____ and NAICS _____ 004 – SIC _____ and NAICS _____

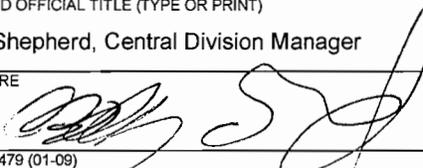
8. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION
(Complete all forms that are applicable.)

- A. Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility? YES NO
 If yes, complete Form C (unless storm water only, then complete U.S. Environmental Protection Agency Form 2F per Item C below).
- B. Is your facility considered a "Primary Industry" under EPA guidelines: YES NO
 If yes, complete Forms C and D.
- C. Is application for storm water discharges only? YES NO
 If yes, complete EPA Form 2F.
- D. Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.
- E. Is wastewater land applied? If yes, complete Form I. YES NO
- F. Is sludge, biosolids, ash or residuals generated, treated, stored or land applied? YES NO
 If yes, complete Form R.

9. DOWNSTREAM LANDOWNER(S) Attach additional sheets as necessary. See Instructions.
(PLEASE SHOW LOCATION ON MAP. SEE 8.D ABOVE).

| | | | |
|-----------------------------|----------------------|-------------|-------------------|
| NAME Mrs. Judy Hood | | | |
| ADDRESS Route 2, Box 113 | CITY Mount Vernon | STATE MO | ZIP CODE 65712 |

10. I certify that I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions, subject to any legitimate appeal available to applicant under the Missouri Clean Water Law to the Missouri Clean Water Commission.

| | |
|--|--|
| NAME AND OFFICIAL TITLE (TYPE OR PRINT) Bill D. Shepherd, Central Division Manager | TELEPHONE WITH AREA CODE (918) 661-1752 |
| SIGNATURE  | DATE SIGNED 9-11-12 |

MO 780-1479 (01-09)

BEFORE MAILING, PLEASE ENSURE ALL SECTIONS ARE COMPLETED AND ADDITIONAL FORMS, IF APPLICABLE, ARE INCLUDED.

Submittal of an incomplete application may result in the application being returned.

HAVE YOU INCLUDED:

- Appropriate Fees?
- Map at 1" = 2000' scale?
- Signature?
- Form C, if applicable?
- Form D, if applicable?
- Form 2F, if applicable?
- Form I (Irrigation), if applicable?
- Form R (Sludge), if applicable?



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
FORM C – APPLICATION FOR DISCHARGE PERMIT –
MANUFACTURING, COMMERCIAL, MINING,
SILVICULTURE OPERATIONS, PROCESS & STORM WATER

| FOR AGENCY USE ONLY | |
|---------------------|---------------|
| CHECK NO. | |
| DATE RECEIVED | FEE SUBMITTED |

NOTE: DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS

1.00 NAME OF FACILITY
 Phillips 66 Pipe Line Company -- Mt. Vernon Terminal

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER
 MO-0106861

1.20 THIS IS A NEW FACILITY AND WAS CONSTRUCTED UNDER MISSOURI CONSTRUCTION PERMIT NUMBER (COMPLETE ONLY IF THIS FACILITY DOES NOT HAVE AN OPERATING PERMIT).
 NA

2.00 LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES APPLICABLE TO YOUR FACILITY (FOUR DIGIT CODE)

A. FIRST 5171 B. SECOND _____
 C. THIRD _____ D. FOURTH _____

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION.

OUTFALL NUMBER (LIST) SW 1/4 SW 1/4 SEC 28 T 29N R 26W Lawrence COUNTY

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST) 001 RECEIVING WATER Un-named Tributary to Truitt Creek

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Various refined petroleum products (e.g., Gasoline, Diesel, Butane, Propane, etc.) are received via interstate pipeline. Gasoline and Distillate fuels are stored in numerous above ground atmospheric storage tanks. Propane and/or Butane are stored in an underground cavern and above ground pressure vessels (bullets). Fuel additives are stored in above ground tanks and injected/blended into the gasoline/diesel as tanker trucks are loaded at the truck rack. Ethanol is received by tanker truck, unloaded at an unloading rack, stored in an above ground storage tank. The ethanol is blended into gasoline as tanker trucks are loaded at the truck rack. Propane/Butane are loaded onto portable tanker trucks at a loading point at the terminal.

RECEIVED

SEP 18 2012

WATER PROTECTION PROGRAM

2.40 CONTINUED

C. EXCEPT FOR STORM RUNOFF, LEAKS OR SPILLS, ARE ANY OF THE DISCHARGES DESCRIBED IN ITEMS A OR B INTERMITTENT OR SEASONAL?

YES (COMPLETE THE FOLLOWING TABLE) **NO (GO TO SECTION 2.50)**

| 1. OUTFALL NUMBER <i>(list)</i> | 2. OPERATION(S) CONTRIBUTING FLOW <i>(list)</i> | 3. FREQUENCY | | 4. FLOW | | | | C. DURATION <i>(in days)</i> |
|------------------------------------|---|--|--|------------------------------|------------------|---|--------------------|---------------------------------|
| | | A. DAYS PER WEEK <i>(specify average)</i> | B. MONTHS PER YEAR <i>(specify average)</i> | A. FLOW RATE <i>(in mgd)</i> | | B. TOTAL VOLUME <i>(specify with units)</i> | | |
| | | | | 1. LONG TERM AVERAGE | 2. MAXIMUM DAILY | 4. LONG TERM DAILY | 3. MAXIMUM AVERAGE | |
| 001 | Hydrostatic Test Water | Varies | Varies | 0.2 | 0.5 | | | 10 |

2.50 MAXIMUM PRODUCTION

A. DOES AN EFFLUENT GUIDELINE LIMITATION PROMULGATED BY EPA UNDER SECTION 304 OF THE CLEAN WATER ACT APPLY TO YOUR FACILITY?

YES (COMPLETE B.) **NO (GO TO SECTION 2.60)**

B. ARE THE LIMITATIONS IN THE APPLICABLE EFFLUENT GUIDELINES EXPRESSED IN TERMS OF PRODUCTION (OF OTHER MEASURE OF OPERATION)?

YES (COMPLETE c.) **NO (GO TO SECTION 2.60)**

C. IF YOU ANSWERED "YES" TO B. LIST THE QUANTITY THAT REPRESENTS AN ACTUAL MEASUREMENT OF YOUR MAXIMUM LEVEL OF PRODUCTION, EXPRESSED IN THE TERMS AND UNITS USED IN THE APPLICABLE EFFLUENT GUIDELINE AND INDICATE THE AFFECTED OUTFALLS.

| 1. MAXIMUM QUANTITY | | | 2. AFFECTED OUTFALLS <i>(list outfall numbers)</i> |
|---------------------|---------------------|---|---|
| A. QUANTITY PER DAY | B. UNITS OF MEASURE | C. OPERATION, PRODUCT, MATERIAL, ETC. <i>(specify)</i> | |
| NA | | | |

2.60 IMPROVEMENTS

A. ARE YOU NOW REQUIRED BY ANY FEDERAL, STATE OR LOCAL AUTHORITY TO MEET, ANY IMPLEMENTATION SCHEDULE FOR THE CONSTRUCTION, UPGRADING OR OPERATION OF WASTEWATER TREATMENT EQUIPMENT OR PRACTICES OR ANY OTHER ENVIRONMENTAL PROGRAMS THAT MAY AFFECT THE DISCHARGES DESCRIBED IN THIS APPLICATION? THIS INCLUDES, BUT IS NOT LIMITED TO, PERMIT CONDITIONS, ADMINISTRATIVE OR ENFORCEMENT ORDERS, ENFORCEMENT COMPLIANCE SCHEDULE LETTERS, STIPULATIONS, COURT ORDERS AND GRANT OR LOAN CONDITIONS.

YES (COMPLETE THE FOLLOWING TABLE) **NO (GO TO 3.00)**

| 1. IDENTIFICATION OF CONDITION AGREEMENT, ETC. | 2. AFFECTED OUTFALLS | | 3. BRIEF DESCRIPTION OF PROJECT | 4. FINAL COMPLIANCE DATE | |
|--|----------------------|--|---------------------------------|--------------------------|--------------|
| | | | | A. REQUIRED | B. PROJECTED |
| NA | | | | | |

B. OPTIONAL: YOU MAY ATTACH ADDITIONAL SHEETS DESCRIBING ANY ADDITIONAL WATER POLLUTION CONTROL PROGRAMS (OR OTHER ENVIRONMENTAL PROJECTS THAT MAY AFFECT YOUR DISCHARGES) YOU NOW HAVE UNDER WAY OR ARE YOU PLANNING. INDICATE WHETHER EACH PROGRAM IS NOW UNDER WAY OR PLANNED, AND INDICATE YOUR ACTUAL OR PLANNED SCHEDULES FOR CONSTRUCTION.

MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED.

3.10 BIOLOGICAL TOXICITY TESTING DATA

DO YOU HAVE ANY KNOWLEDGE OR REASON TO BELIEVE THAT ANY BIOLOGICAL TEST FOR ACUTE OR CHRONIC TOXICITY HAS BEEN MADE ON ANY OF YOUR DISCHARGES OR ON RECEIVING WATER IN RELATION TO YOUR DISCHARGE WITHIN THE LAST THREE YEARS?

YES (IDENTIFY THE TEST(S) AND DESCRIBE THEIR PURPOSES BELOW.) NO (GO TO 3.20)

3.20 CONTRACT ANALYSIS INFORMATION

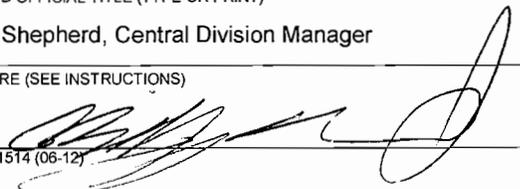
WERE ANY OF THE ANALYSES REPORTED PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

YES (LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF AND POLLUTANTS ANALYZED BY EACH SUCH LABORATORY OR FIRM BELOW.) NO (GO TO 3.30)

| A. NAME | B. ADDRESS | C. TELEPHONE (area code and number) | D. POLLUTANTS ANALYZED (list) |
|------------------------|-----------------------------------|-------------------------------------|---|
| PDC Laboratories, Inc. | P.O. Box 9071 Peoria, IL 61612 | 309-692-9688 | Total Settleable Solids, TPH (DRO, GRO), COD, O&G, MTBE, BETX BOD, TOC, COD, TSS, NH3 as N |

3.30 CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

| | |
|---|---|
| NAME AND OFFICIAL TITLE (TYPE OR PRINT) Bill D. Shepherd, Central Division Manager | TELEPHONE NUMBER WITH AREA CODE (918) 661-1752 |
| SIGNATURE (SEE INSTRUCTIONS)  | DATE SIGNED 9-11-12 |

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet instead of completing these pages.
(Use the same format)
SEE INSTRUCTIONS

FORM C
TABLE 1 FOR 3.00 ITEM A AND B

OUTFALL NO.

INTAKE AND EFFLUENT CHARACTERISTICS

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

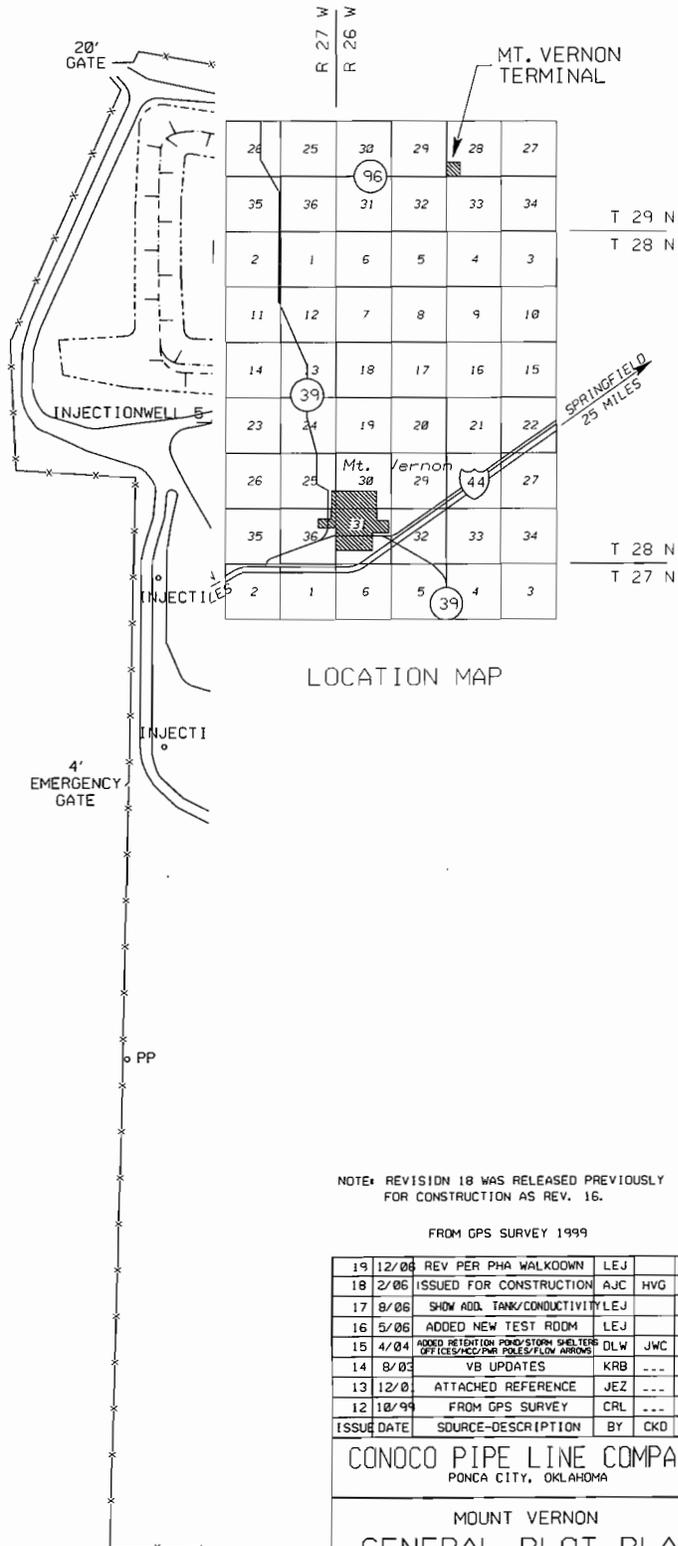
| 1. POLLUTANT | 2. EFFLUENT | | | | | | 3. UNITS (specify if blank) | | | | 4. INTAKE (optional) | | B. NO. OF ANALYSES |
|------------------------------------|------------------------|----------------|--|----------|---|----------|-----------------------------|------------------|---------|--------------------------|----------------------|--|--------------------|
| | A. MAXIMUM DAILY VALUE | | B. MAXIMUM 30 DAY VALUE (if available) | | C. LONG TERM AVRG. VALUE (if available) | | D. NO. OF ANALYSES | A. CONCENTRATION | B. MASS | A. LONG TERM AVRG. VALUE | | | |
| | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | | |
| A. Biochemical Oxygen Demand (BOD) | Pending | | | | | | 1 | | | | | | |
| B. Chemical Oxygen Demand (COD) | 11.0 | | | 7.3 | | | 5 | | | | | | |
| C. Total organic Carbon (TOC) | 5.5 | | | | | | 1 | | | | | | |
| D. Total Suspended Solids (TSS) | Pending | | | | | | 1 | | | | | | |
| E. Ammonia (as N) | <0.10 | | | | | | 1 | | | | | | |
| F. Flow | VALUE 300 GPM | | | | | VALUE | | | | | VALUE | | |
| G. Temperature (winter) | VALUE NA | | | | | VALUE | | | | | VALUE | | |
| H. Temperature (summer) | VALUE NA | | | | | VALUE | | | | | VALUE | | |
| I. pH | MINIMUM 7.4 | MAXIMUM 8.0 | | MAXIMUM | | | 5 | STANDARD UNITS | | | | | |

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant, you must provide the results for at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK "X" | | 3. EFFLUENT | | | | 4. UNITS | | | | 5. INTAKE (optional) | | B. NO. OF ANALYSES | |
|--|---------------------|--------------------|------------------------|----------|--|----------|---|----------|--------------------|------------------|----------------------|--------------------------|--------------------|----------|
| | A. BELIEVED PRESENT | B. BELIEVED ABSENT | A. MAXIMUM DAILY VALUE | | B. MAXIMUM 30 DAY VALUE (if available) | | C. LONG TERM AVRG. VALUE (if available) | | D. NO. OF ANALYSES | A. CONCENTRATION | B. MASS | A. LONG TERM AVRG. VALUE | | |
| | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | | (2) MASS |
| A. Bromide (24959-67-9) | | X | | | | | | | | | | | | |
| B. Chlorine Total Residual | | X | | | | | | | | | | | | |
| C. Color | | X | | | | | | | | | | | | |
| D. Fecal Coliform | | X | | | | | | | | | | | | |
| E. Fluoride (16964-48-8) | | X | | | | | | | | | | | | |
| F. Nitrate (as N) | | X | | | | | | | | | | | | |

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK "X" | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|--|---------------------|--------------------|---------------------------------------|----------|--|----------|---|----------|--------------------|--------------------|----------------------|--------------------------|----------|--------------------|
| | A. BELIEVED PRESENT | B. BELIEVED ABSENT | A. MAXIMUM DAILY VALUE (if available) | | B. MAXIMUM 30 DAY VALUE (if available) | | C. LONG TERM AVRG. VALUE (if available) | | D. NO. OF ANALYSES | A. CONCEN- TRATION | B. MASS | A. LONG TERM AVRG. VALUE | | B. NO. OF ANALYSES |
| | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| G. Nitrogen | | X | | | | | | | | | | | | |
| Total Organic (as N) | | X | | | | | | | | | | | | |
| H. Oil and Grease | | X | | | | | | | | | | | | |
| I. Phosphorus (as P) | | X | | | | | | | | | | | | |
| Total (7723-14-0) | | X | | | | | | | | | | | | |
| J. Sulfate (as SO ⁴) | | X | | | | | | | | | | | | |
| (14808-79-8) | | X | | | | | | | | | | | | |
| K. Sulfide (as S) | | X | | | | | | | | | | | | |
| L. Sulfite (as SO ³) | | X | | | | | | | | | | | | |
| (14265-45-3) | | X | | | | | | | | | | | | |
| M. Surfactants | | X | | | | | | | | | | | | |
| N. Aluminum | | X | | | | | | | | | | | | |
| Total (7429-90-5) | | X | | | | | | | | | | | | |
| O. Barium | | X | | | | | | | | | | | | |
| Total (7440-39-3) | | X | | | | | | | | | | | | |
| P. Boron | | X | | | | | | | | | | | | |
| Total (7440-42-8) | | X | | | | | | | | | | | | |
| Q. Cobalt | | X | | | | | | | | | | | | |
| Total (7440-48-4) | | X | | | | | | | | | | | | |
| R. Iron | | X | | | | | | | | | | | | |
| Total (7439-89-6) | | X | | | | | | | | | | | | |
| S. Magnesium | | X | | | | | | | | | | | | |
| Total (7439-95-4) | | X | | | | | | | | | | | | |
| T. Molybdenum | | X | | | | | | | | | | | | |
| Total (7439-98-7) | | X | | | | | | | | | | | | |
| U. Manganese | | X | | | | | | | | | | | | |
| Total (7439-96-5) | | X | | | | | | | | | | | | |
| V. Tin | | X | | | | | | | | | | | | |
| Total (7440-31-5) | | X | | | | | | | | | | | | |
| W. Titanium | | X | | | | | | | | | | | | |
| Total (7440-32-6) | | X | | | | | | | | | | | | |

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK "X" | | 3. EFFLUENT | | | | | | 4. UNITS | | 5. INTAKE (optional) | | | |
|---|---------------------|--------------------|------------------------|----------|---|----------|--|----------|-------------------|---------|--------------------------|----------|--------------------|--|
| | A. BELIEVED PRESENT | B. BELIEVED ABSENT | A. MAXIMUM DAILY VALUE | | B. MAXIMUM 30 DAY VALUE (if available) | | C. LONG TERM AVRG. VALUE (if available) | | A. CONCEN-TRATION | B. MASS | A. LONG TERM AVRG. VALUE | | B. NO. OF ANALYSES | |
| | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | (1) CONCENTRATION | (2) MASS | | |
| METALS, AND TOTAL PHENOLS | | | | | | | | | | | | | | |
| 1M. Antimony, Total (7440-36-9) | | X | | | | | | | | | | | | |
| 2M. Beryllium, Total (7440-41-7) | | X | | | | | | | | | | | | |
| 3M. Magnesium, Total (7439-95-4) | | X | | | | | | | | | | | | |
| 4M. Molybdenum, Total (7439-98-7) | | X | | | | | | | | | | | | |
| 5M. Tin, Total (7440-31-5) | | X | | | | | | | | | | | | |
| 6M. Titanium, Total (7440-32-6) | | X | | | | | | | | | | | | |
| 7M. Mercury, Total (7439-97-6) | | X | | | | | | | | | | | | |
| 8M. Selenium, Total (7782-49-2) | | X | | | | | | | | | | | | |
| 9M. Thallium, Total (7440-28-0) | | X | | | | | | | | | | | | |
| 10M. Phenols, Total | | X | | | | | | | | | | | | |
| RADIOACTIVITY | | | | | | | | | | | | | | |
| (1) Alpha Total | | X | | | | | | | | | | | | |
| (2) Beta Total | | X | | | | | | | | | | | | |
| (3) Radium Total | | X | | | | | | | | | | | | |
| (4) Radium 226 Total | | X | | | | | | | | | | | | |



LOCATION MAP

NOTE: REVISION 18 WAS RELEASED PREVIOUSLY FOR CONSTRUCTION AS REV. 16.

FROM GPS SURVEY 1999

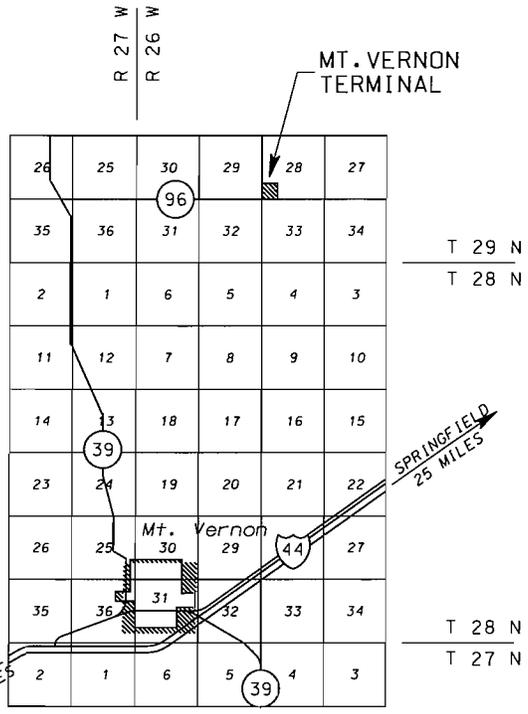
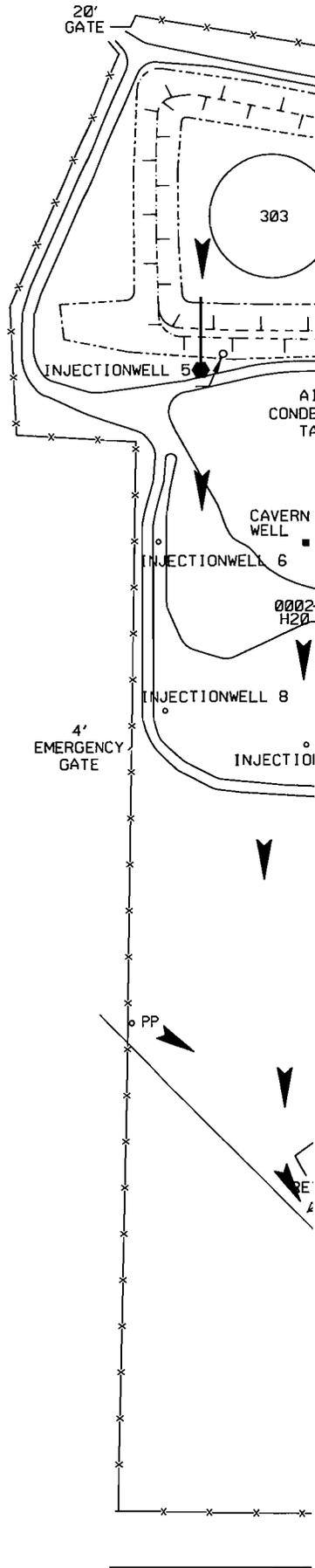
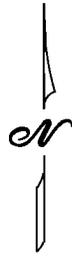
| | | | | | |
|------------|--------------------|--|-----|-----|------|
| 19 | 12/06 | REV PER PHA WALKDOWN | LEJ | | JM |
| 18 | 2/06 | ISSUED FOR CONSTRUCTION | AJC | HVG | CES |
| 17 | 8/06 | SHOW ADD. TANK/CONDUCTIVITY | LEJ | | MW |
| 16 | 5/06 | ADDED NEW TEST ROOM | LEJ | | MW |
| 15 | 4/04 | ADDED RETENTION POND/STORM SHELTER OFFICES/HCC/PMP POLES/FLOW ARROWS | DLW | JWC | KGB |
| 14 | 8/03 | VB UPDATES | KRB | --- | --- |
| 13 | 12/0 | ATTACHED REFERENCE | JEZ | --- | --- |
| 12 | 18/99 | FROM GPS SURVEY | CRL | --- | --- |
| ISSUE DATE | SOURCE-DESCRIPTION | | BY | CKD | APPD |

CONOCO PIPE LINE COMPANY
PONCA CITY, OKLAHOMA

MOUNT VERNON
GENERAL PLOT PLAN
LAWRENCE COUNTY, MISSOURI

MWL01000.DGN 53-12.1-10

100
FEET



LOCATION MAP

DRAINAGE SCHEMATIC
ARROWS INDICATE DIRECTION OF SURFACE DRAINAGE FLOW OR POTENTIAL SPILL

LEGEND

- DIKE VALVES
- SURFACE FLOW
- PP POWER POLE
- * LP LIGHT POLE

FROM GPS SURVEY 1999

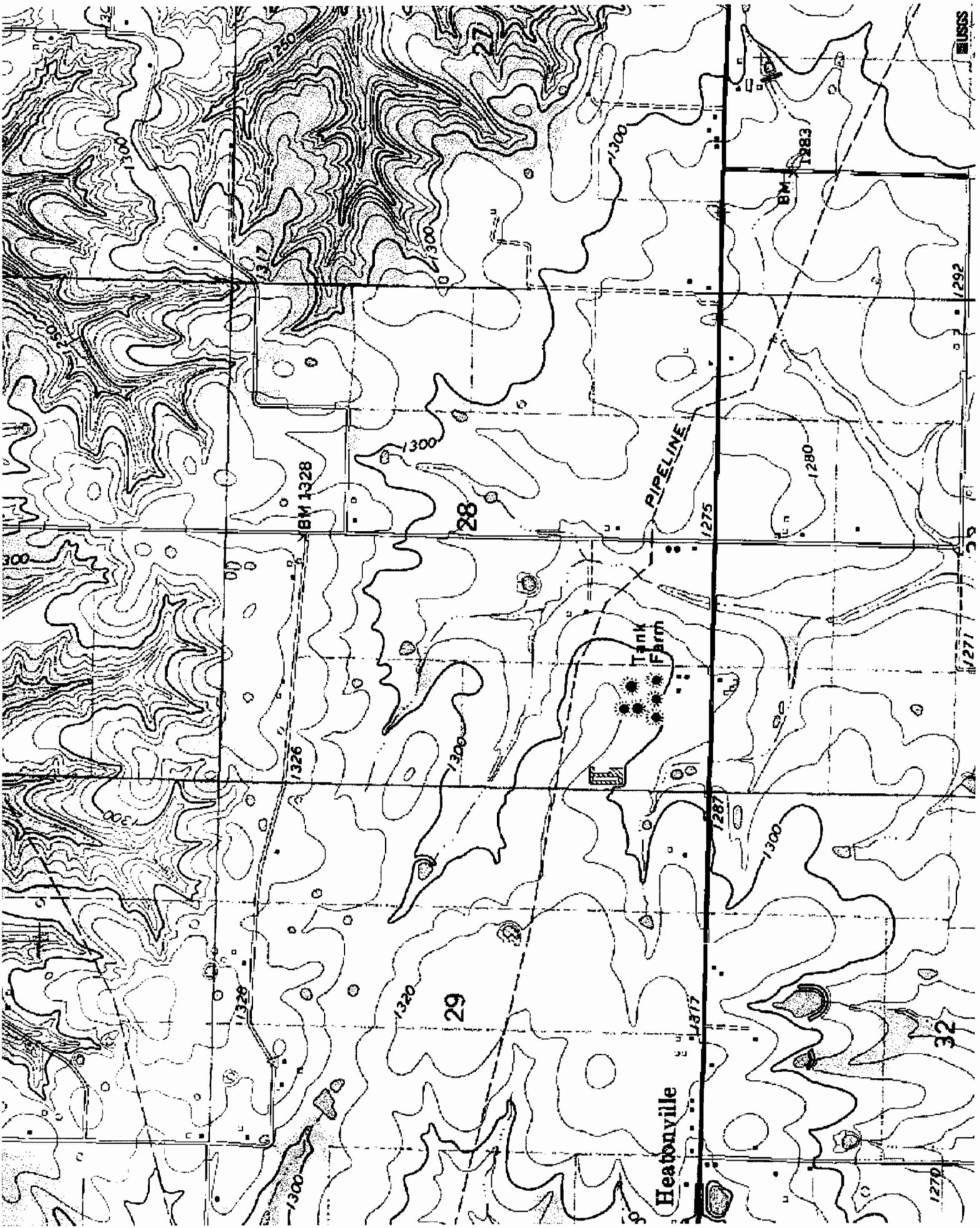
| | | | | | |
|-------|-------|---|-----|-----|------|
| 4 | 12/06 | REV PER PHA WALKDOWN | LEJ | | JM |
| 3 | 4/04 | ADDED RETENTION POND/STORM SHELTERS OFFICES/MC/PMB. POLES/FLOW ARROWS | DLW | JWC | KGB |
| 2 | 8/03 | V8 UPDATES | KRB | uuu | uuu |
| 1 | 12/01 | ATTACHED REFERENCE | KRB | uuu | uuu |
| 0 | 12/98 | ATTACHED REFERENCE | KRB | uuu | uuu |
| ISSUE | DATE | SOURCE-DESCRIPTION | BY | CKD | APPD |

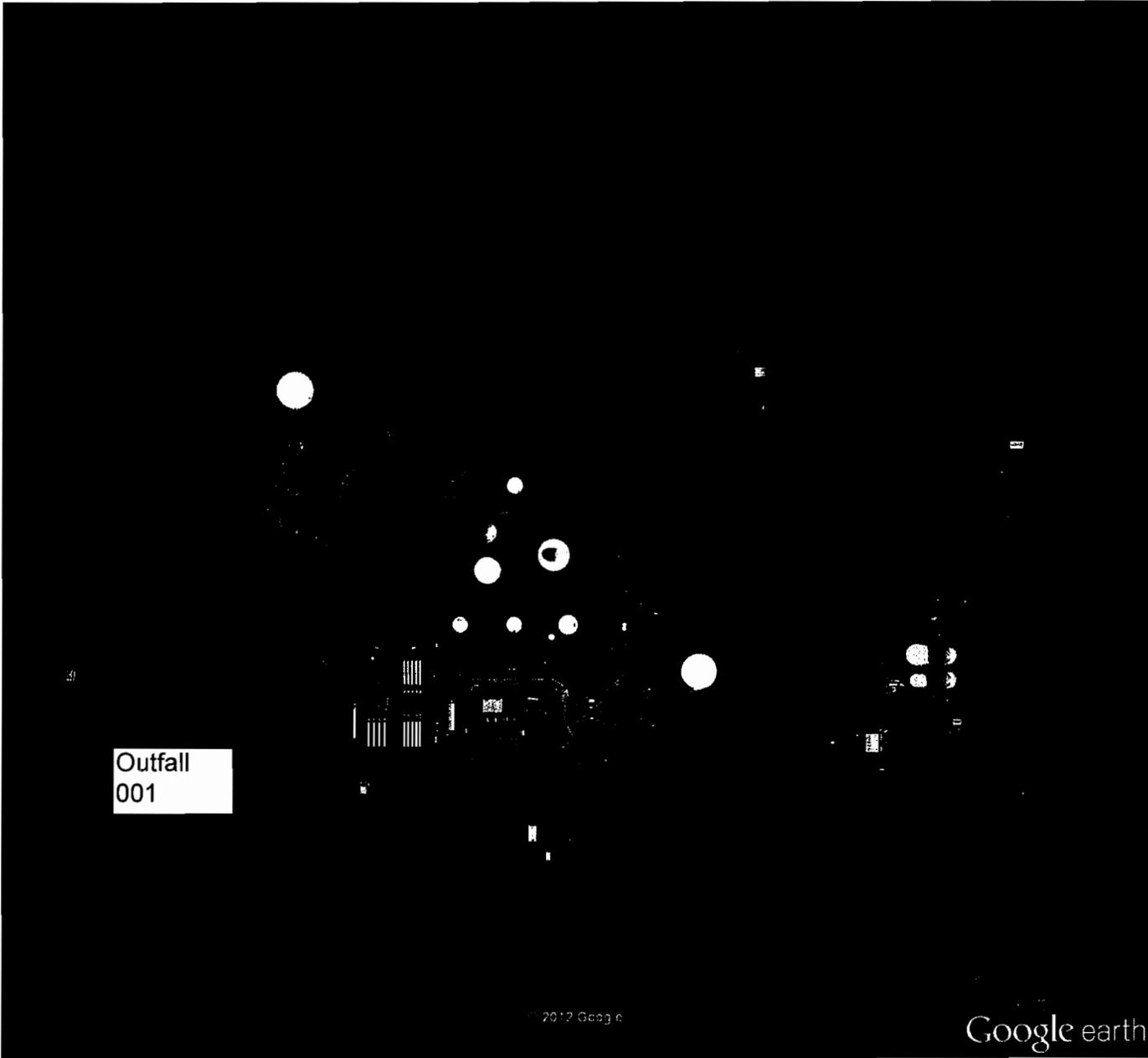


MOUNT VERNON
DRAINAGE PLOT PLAN
LAWRENCE COUNTY, MISSOURI

0 50 100
SCALE: 1" = 100'

| | |
|--------------|------------|
| MWD03500.DGN | 53-12.6-35 |
|--------------|------------|





Google Earth Pro





PDC Laboratories, Inc.
P.O. Box 9071 • Peoria, IL 61612-9071
(309) 692-9688 • (800) 752-6651 • FAX (309) 692-9689



CONOCO/Phillips 66
15138 Hwy 96
Mount Vernon, MO 65712
Attn: William Mahoney

Date Received: 08/28/12 10:00
Report Date: 09/11/12
Customer #: 236472
PO#: 4516609198

Laboratory Results

Sample No: **2083911-01**

Collect Date: **08/27/12 11:45**

Matrix: **Storm Water Grab**

Sample Description: Outfall 001

| Parameters | Result | Qual | Prep Date | Analysis Date | Analyst | Method |
|---------------------------------------|---------------|------|----------------|----------------|---------|---|
| <u>Fuels - PIA</u> | | | | | | |
| Diesel Range Organics (DRO) (C10-C21) | < 100 ug/L | | 08/29/12 11:27 | 09/05/12 10:34 | JMT | SW 8015B |
| Ethanol | < 10 mg/L | | 09/04/12 07:19 | 09/04/12 11:09 | JMT | SW 8015B |
| Oil Range Organics (ORO) (C21-C35) | < 100 ug/L | | 08/29/12 11:27 | 09/05/12 10:34 | JMT | SW 8015B |
| <u>General Chemistry - PIA</u> | | | | | | |
| COD | 6.4 mg/L | | 08/30/12 15:45 | 08/30/12 15:49 | SJF | SM 5220D 18Ed |
| Oil & Grease - nonpolar | < 6.0 mg/L | | 08/30/12 07:20 | 08/30/12 13:00 | TAS | EPA 1664A |
| Oil & Grease - total | < 6.0 mg/L | | 08/30/12 07:20 | 08/30/12 13:00 | TAS | EPA 1664A |
| pH | 7.64 pH Units | H | 08/29/12 14:40 | 08/29/12 10:59 | Igtar | SM 4500-H B 18Ed - EPA 150.1 - SW 9040B |
| Solids - settleable solids (SS) | < 0.30 mL/L | | 08/29/12 09:34 | 08/29/12 09:34 | SCS | SM2540F 18Ed |
| Total Organic Carbon (TOC) | 5.5 mg/L | | 09/06/12 09:30 | 09/06/12 09:30 | Igpi | 5310C |
| <u>Nutrients - PIA</u> | | | | | | |
| Ammonia-N | < 0.10 mg/L | | 09/10/12 11:51 | 09/10/12 16:05 | Igtth | EPA 350.1 - QC 10-107-06-1-I & J |
| <u>Volatile Organics - PIA</u> | | | | | | |
| Benzene | < 5.0 ug/L | | 08/29/12 00:00 | 08/29/12 11:45 | JJI | SW 8260B |
| Ethylbenzene | < 5.0 ug/L | | 08/29/12 00:00 | 08/29/12 11:45 | JJI | SW 8260B |
| Gasoline | < 500 ug/L | | 09/10/12 00:00 | 09/10/12 17:50 | JJI | SW 8015 GRO (Modified) |
| m,p-Xylene | < 5.0 ug/L | | 08/29/12 00:00 | 08/29/12 11:45 | JJI | SW 8260B |
| MTBE | < 5.0 ug/L | | 08/29/12 00:00 | 08/29/12 11:45 | JJI | SW 8260B |
| o-Xylene | < 5.0 ug/L | | 08/29/12 00:00 | 08/29/12 11:45 | JJI | SW 8260B |
| Toluene | < 5.0 ug/L | | 08/29/12 00:00 | 08/29/12 11:45 | JJI | SW 8260B |



PDC Laboratories, Inc.
 P.O. Box 9071 • Peoria, IL 61612-9071
 (309) 692-9688 • (800) 752-6651 • FAX (309) 692-9689



CONOCO/Phillips 66
 15138 Hwy 96
 Mount Vernon, MO 65712
 Attn: William Mahoney

Date Received: 08/28/12 10:00
 Report Date: 09/11/12
 Customer #: 236472
 PO#: 4516609198

Laboratory Results

Notes

This report shall not be reproduced, except in full, without the written approval of the laboratory.

PDC Laboratories participates in the following accreditation/certification and proficiency programs at the following locations. Endorsement by Federal or State Governments or their agencies is not implied.

- PIA PDC Laboratories - Peoria, IL
 NELAC Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100230
 Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 17553
 Drinking Water Certifications: Kansas (E-10338); Missouri (870); Wisconsin (998284430); Indiana (C-IL-040); Iowa (240)
 Wastewater Certifications: Arkansas (88-0677); Wisconsin (998284430); Iowa (240); Kansas (E-10335)
 Hazardous/Solid Waste Certifications: Arkansas (88-0677); Wisconsin (998284430); Iowa (240); Kansas (E-10335)
 UST Certification; Iowa (240)
- SPM PDC Laboratories - Springfield, MO
 EPA DMR-QA Program
- STL PDC Laboratories - St. Louis, MO
 NELAC Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through KS EPA Lab No. E-10389

H Test performed after the expiration of the appropriate regulatory/advisory maximum allowable hold time.

Certified by: Janet L. Clutters, Project Manager

PDC LABORATORIES, INC.
 2231 WEST ALTORFER DRIVE
 PEORIA, IL 61615

PHONE # 800-752-6651
 FAX # 309-692-9689

CHAIN OF CUSTODY RECORD

State where samples collected MO

CLIENT TO COMPLETE SECTIONS 1, 2, 3, 5 & 7 (PLEASE PRINT)

1 CLIENT: Phillips 66 PROJECT NUMBER: DUTFALL 001 MEANS SHIPPED: FEDEX (FOR LAB USE ONLY)
 ADDRESS: 15138 HWY 96 PHONE NUMBER: 417-452-3761 P.O. NUMBER: 417-452-2045 DATE SHIPPED: 8-27-12
 CITY: MT VERNON, MO STATE: 65712 ZIP: 65712 SAMPLER: Steve Barnett MATRIX TYPES: WASTEWATER, DRINKING WATER, SURFACE WATER, GROUND WATER, WASH-FLUDGE, WASH-SOLID, LIGHT-LEACHATE, OTHER: WATER
 CONTACT PERSON: Bill Maloney SIGNATURE: [Signature] SAMPLER'S SIGNATURE: [Signature] DATE COLLECTED: 8-27-12 TIME COLLECTED: 11:45 MATRIX TYPE: SW BOTTLE COUNT: 12
 2 SAMPLE DESCRIPTION: 001 B QTY AS YOU WANT ON REPORT: 001 B QTY DATE RESULTS NEEDED: 9-27-12 RUSH: NORMAL
 3 ANALYSIS REQUESTED: COG FOG - Polar & Non-Polar X Emmer, DRO, GRO, BTEX X Pesticide Solids X REMARKS: *M8016
**M624

5 TURNAROUND TIME REQUESTED (PLEASE CIRCLE) NORMAL 9-27-12 RUSH 9-27-12
 RUSH RESULTS VIA (PLEASE CIRCLE) PHONE 9-27-12 PHONE: 9-27-12
 FAX IS DIFFERENT FROM ABOVE: PHONE IS DIFFERENT FROM ABOVE

7 RELINQUISHED BY: (SIGNATURE) [Signature] DATE: 8-27-12 TIME: 11:57
 RECEIVED BY: (SIGNATURE) [Signature] DATE: 8-28-12 TIME: 10:00
 COMMENTS: (FOR LAB USE ONLY) CHILL PROCESS STARTED PRIOR TO RECEIPT PROPER BOTTLES RECEIVED IN GOOD CONDITION BOTTLES FILLED WITH ADEQUATE VOLUME SAMPLES RECEIVED WITHIN HOLD TIMES (EXCLUDES TYPICAL FIELD PARAMETERS) DATE AND TIME TAKEN FROM SAMPLE BOTTLE

8 SAMPLE TEMPERATURE UPON RECEIPT: 10 °C



PDC Laboratories, Inc.
 P.O. Box 9071 • Peoria, IL 61612-9071
 (309) 692-9688 • (800) 752-6651 • FAX (309) 692-9689



CONOCO
 15138 Hwy 96
 Mount Vernon, MO 65712
 Attn: Larry Young

Date Received: 08/11/11 9:00
 Report Date: 08/23/11
 Customer #: 236472
 PO#: 4514620244 good til 2012

Sample No: **1081296-01**
 Sample Description: **Outfall 001**

Collect Date: **08/09/11 17:40**
 Matrix: **Storm Water Grab**

| Parameters | Result | Qual | Analysis Date | Analyst | Method |
|---------------------------------------|---------------|------|----------------|---------|---|
| <u>Fuels - PIA</u> | | | | | |
| Diesel Range Organics (DRO) (C10-C21) | 100 ug/L | | 08/17/11 13:33 | jmt | SW 8015B |
| Ethanol | < 10 mg/L | | 08/19/11 13:49 | jmt | SW 8015B |
| Oil Range Organics (ORO) (C21-C35) | < 94 ug/L | | 08/17/11 13:33 | jmt | SW 8015B |
| <u>General Chemistry - PIA</u> | | | | | |
| COD | 7.0 mg/L | | 08/18/11 14:59 | BRS | SM 5220D 18Ed |
| Oil & Grease - nonpolar | < 6.0 mg/L | | 08/19/11 14:00 | TAS | EPA 1664A |
| Oil & Grease - total | < 6.0 mg/L | | 08/19/11 14:00 | TAS | EPA 1664A |
| pH | 7.44 pH Units | H | 08/12/11 08:03 | WRW | SM 4500-H B 18Ed - EPA 150.1 - SW 9040B |
| Solids - settleable solids (SS) | < 0.30 mL/L | | 08/11/11 13:17 | BNS | SM2540F 18Ed |
| <u>Volatile Organics - PIA</u> | | | | | |
| Benzene | < 5.0 ug/L | | 08/12/11 12:22 | JMB | SW 8260B |
| Ethylbenzene | < 5.0 ug/L | | 08/12/11 12:22 | JMB | SW 8260B |
| Gasoline | < 500 ug/L | | 08/19/11 14:47 | JMB | SW 8015 GRO (Modified) |
| m,p-Xylene | < 5.0 ug/L | | 08/12/11 12:22 | JMB | SW 8260B |
| MTBE | < 5.0 ug/L | | 08/12/11 12:22 | JMB | SW 8260B |
| o-Xylene | < 5.0 ug/L | | 08/12/11 12:22 | JMB | SW 8260B |
| Toluene | < 5.0 ug/L | | 08/12/11 12:22 | JMB | SW 8260B |



PDC Laboratories, Inc.

P.O. Box 9071 • Peoria, IL 61612-9071
(309) 692-9688 • (800) 752-6651 • FAX (309) 692-9689



CONOCO
15138 Hwy 96
Mount Vernon, MO 65712
Attn: Larry Young

Date Received: 08/11/11 9:00
Report Date: 08/23/11
Customer #: 236472
PO#: 4514620244 good til 2012

Notes

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NELAC Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100230
Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 17553
Drinking Water Certifications: Kansas (E-10338); Missouri (870); Wisconsin (998284430); Indiana (C-IL-040); Iowa (240)
Wastewater Certifications: Arkansas (88-0677); Wisconsin (998284430); Iowa (240); Kansas (E-10335)
Hazardous/Solid Waste Certifications; Arkansas (88-0677); Wisconsin (998284430); Iowa (240); Kansas (E-10335)
UST Certification; Iowa (240)
- SPM PDC Laboratories - Springfield, MO
EPA DMR-QA Program
- STL PDC Laboratories - St. Louis, MO
NELAC Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through KS EPA Lab No. E-10389

H Test performed after the expiration of the appropriate regulatory/advisory maximum allowable hold time.

Certified by: Janet L. Clutters, Project Manager

PDC LABORATORIES, INC.
 2231 WEST ALTORFER DRIVE
 PEORIA, IL 61615

PHONE # 800-752-6651
 FAX # 309-692-9689

CHAIN OF CUSTODY RECORD

State where samples collected MO

ALL HIGHLIGHTED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT) - (SAMPLE ACCEPTANCE POLICY ON REVERSE)

| | | | | | | | | | |
|--|--|--|--|---|--|--|--|--|--|
| CLIENT CONDOR PHILLIPS PIPELINE ADDRESS 15138 Hwy 96 CITY STATE ZIP MO. Vernon, Mo. 65712 CONTACT PERSON Larry Young | | PROJECT NUMBER OUTFALL 001 PHONE NUMBER 417-452-3761 FAX NUMBER 417-452-2045 | | F.O. NUMBER FED EX DATE SHIPPED 8-10-11 | | ANALYSIS REQUESTED PH, Seismic Solids Ethanol, DRO, GHO, BTEX FOS - Polar & Non Polar COD | | (FOR LAB USE ONLY) LOGIN # 1081294-0 LAB PROJ. # TEMPLATE: PROJ. MGR. | |
| SAMPLE DESCRIPTION AS YOU WANT IT ON REPORT Stormwater OUTFALL 3rd Qtr | | DATE COLLECTED 8-9-11 TIME COLLECTED 17:40 RUSH X | | MATRIX TYPE SW BOTTLE COUNT 12 | | MATRIX TYPES: WW-WASTEWATER DW-DRINKING WATER SW-SURFACE WATER WAS-SOLID WASTE LCH-LEACHATE OTHER: <u>water</u> | | REMARKS | |
| TURNAROUND TIME REQUESTED (PLEASE CIRCLE) (RUSH FEE IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE) RUSH RESULTS VIA (PLEASE CIRCLE) FAX | | NORMAL 9-9-11 RUSH 9-9-11 DATE RESULTS NEEDED 9-9-11 E-MAIL | | RECEIVED BY: (SIGNATURE) [Signature] RECEIVED BY: (SIGNATURE) [Signature] RECEIVED AT LAB BY (SIGNATURE) Valerie Barnes | | SAMPLE TEMPERATURE UPON RECEIPT SAMPLES RECEIVED PRIOR TO RECEIPT SAMPLES RECEIVED ON ICE PROPER BOTTLES RECEIVED IN GOOD CONDITION BOTTLES FILLED WITH ADEQUATE VOLUME SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS) DATE AND TIME TAKEN FROM SAMPLE BOTTLE | | COMMENTS: (FOR LAB USE ONLY) *boxed | |

Copies: white should accompany samples to PDC Labs. Yellow copy to be retained by the client. PAGE ____ OF ____



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CONOCO
15138 Hwy 96
Mount Vernon, MO 65712
Attn: Larry Young

Date Received: 10/14/11 10:10
Report Date: 10/28/11
Customer #: 236472
PO#: 4514620244 good til 2012

Sample No: **1101462-01**
Sample Description: **Outfall 001**

Collect Date: **10/12/11 17:10**
Matrix: **Storm Water Grab**

| Parameters | Result | Qual | Analysis Date | Analyst | Method |
|---------------------------------------|---------------|------|----------------|---------|---|
| <u>Fuels - PIA</u> | | | | | |
| Diesel Range Organics (DRO) (C10-C21) | < 100 ug/L | | 10/20/11 15:55 | els | SW 8015B |
| Ethanol | < 10 mg/L | | 10/24/11 09:46 | jmt | SW 8015B |
| Oil Range Organics (ORO) (C21-C35) | < 100 ug/L | | 10/20/11 15:55 | els | SW 8015B |
| <u>General Chemistry - PIA</u> | | | | | |
| COD | < 6.0 mg/L | | 10/20/11 15:38 | BRS | SM 5220D 18Ed |
| Oil & Grease - nonpolar | < 6.0 mg/L | | 10/20/11 15:04 | TAS | EPA 1664A |
| Oil & Grease - total | < 6.0 mg/L | | 10/20/11 14:50 | TAS | EPA 1664A |
| pH | 7.58 pH Units | H | 10/14/11 11:53 | WRW | SM 4500-H B 18Ed - EPA 150.1 - SW 9040B |
| Solids - settleable solids (SS) | < 0.30 mL/L | | 10/14/11 13:14 | BNS | SM2540F 18Ed |
| <u>Volatile Organics - PIA</u> | | | | | |
| Benzene | < 5.0 ug/L | | 10/17/11 18:53 | JMB/J | SW 8260B |
| Ethylbenzene | < 5.0 ug/L | | 10/17/11 18:53 | JMB/J | SW 8260B |
| Gasoline | < 500 ug/L | | 10/25/11 14:20 | JMB | SW 8015 GRO (Modified) |
| m,p-Xylene | < 5.0 ug/L | | 10/17/11 18:53 | JMB/J | SW 8260B |
| MTBE | < 5.0 ug/L | | 10/17/11 18:53 | JMB/J | SW 8260B |
| o-Xylene | < 5.0 ug/L | | 10/17/11 18:53 | JMB/J | SW 8260B |
| Toluene | < 5.0 ug/L | | 10/17/11 18:53 | JMB/J | SW 8260B |



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CONOCO
15138 Hwy 96
Mount Vernon, MO 65712
Attn: Larry Young

Date Received: 10/14/11 10:10
Report Date: 10/28/11
Customer #: 236472
PO#: 4514620244 good til 2012

Notes

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Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 17553
Drinking Water Certifications: Kansas (E-10338); Missouri (870); Wisconsin (998284430); Indiana (C-IL-040); Iowa (240)
Wastewater Certifications: Arkansas (88-0677); Wisconsin (998284430); Iowa (240); Kansas (E-10335)
Hazardous/Solid Waste Certifications; Arkansas (88-0677); Wisconsin (998284430); Iowa (240); Kansas (E-10335)
UST Certification; Iowa (240)
- SPM PDC Laboratories - Springfield, MO
EPA DMR-QA Program
- STL PDC Laboratories - St. Louis, MO
NELAC Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through KS EPA Lab No. E-10389

H Test performed after the expiration of the appropriate regulatory/advisory maximum allowable hold time.

Certified by: Janet L. Clutters, Project Manager

CHAIN OF CUSTODY RECORD

PDC LABORATORIES, INC.
 2231 WEST ALTORFER DRIVE
 PEORIA, IL 61615
 PHONE # 800-752-6651
 FAX # 309-692-9689

State where samples collected Mo.

ALL HIGHLIGHTED AREAS MUST BE COMPLETED BY CLIENT (PLEASE PRINT) - (SAMPLE APPEARANCE POLICY ON REVERSE)

| | | | | | | | | | | | |
|---|--|--|---|---|--|---|--|--|--|---|--|
| 1 CLIENT: <u>Grand Phillips Pipeline</u> ADDRESS: <u>15130 Hwy. 916</u> CITY: <u>Ma. Vernon, Mo. 65772</u> STATE: <u>Mo.</u> CONTRACT NUMBER: <u>Lamy Spring</u> | | PROJECT NUMBER: <u>OUTFALL 001</u> PHONE NUMBER: <u>417-452-3761</u> P.O. NUMBER: <u>FEDEX</u> FAX NUMBER: <u>417-452-2045</u> DATE SHIPPED: <u>10-13-11</u> | | MEANS SHIPPED: <u>FEDEX</u> DATE SHIPPED: <u>10-13-11</u> | | ANALYSIS REQUESTED: X <u>PH, S-HALL SOLIDS</u> X <u>Effluent, DRO, GRD BTEX</u> X <u>Fit-Polm & Non-Polm</u> X <u>COB</u> | | LOGGED BY: <u>CRB</u> LAB PROJ. # TEMPLATE: PROJ. MGR.: | | REMARKS: | |
| 2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT: <u>Stormwater OUTFALL 001 4th Ditch</u> | | DATE COLLECTED: <u>10-12-11</u> TIME COLLECTED: <u>17:10</u> | SAMPLE TYPE: <u>SW</u> TYPE: <u>12</u> COUNT: | MATRIX TYPES: WW-WASTEWATER DW-DRINKING WATER SW-SURFACE WATER WWSL-SLUDGE WWS-SOLID LCHT-LEACHATE OTHER: <u>Water</u> | | MATRIX TYPE: <u>SW</u> TYPE: <u>12</u> COUNT: | | COMMENTS: (FOR LAB USE ONLY) | | DATE AND TIME TAKEN FROM SAMPLE BOTTLE: <u>10-14-11 10:10</u> | |
| 5 TURNAROUND TIME REQUESTED (PLEASE CIRCLE): (RUSH TRT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE) RUSH RESULTS VIA (PLEASE CIRCLE): <u>FAX</u> | | NORMAL: <u>11-12-11</u> RUSH: | DATE RESULTS NEEDED: <u>11-12-11</u> E-MAIL: | RECEIVED BY: (SIGNATURE) <u>[Signature]</u> | | RECEIVED BY: (SIGNATURE) <u>[Signature]</u> | | RECEIVED AT LAB BY: (SIGNATURE) <u>Cupral B. Busby</u> | | SAMPLE TEMPERATURE UPON RECEIPT: <u>10</u> °C CHILL PROCESS STARTED PRIOR TO RECEIPT: <u>NO</u> SAMPLE(S) RECEIVED ON ICE: <u>NO</u> PROPER BOTTLES RECEIVED IN GOOD CONDITION: <u>NO</u> BOTTLES FILLED WITH ADEQUATE VOLUME: <u>NO</u> SAMPLES RECEIVED WITHIN HOLD TIME(S): <u>NO</u> (EXCLUDES TYPICAL FIELD PARAMETERS) DATE AND TIME TAKEN FROM SAMPLE BOTTLE: | |

Copies: white should accompany samples to PDC Labs. Yellow copy to be retained by the client.



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CONOCO
 15138 Hwy 96
 Mount Vernon, MO 65712
 Attn: Larry Young

Date Received: 02/21/12 9:45
 Report Date: 03/09/12
 Customer #: 236472
 PO#: 4516609198 valid to 12/31/12

Laboratory Results

Sample No: **2022332-01**
 Sample Description: **Outfall 001**

Collect Date: **02/20/12 00:00**
 Matrix: **Storm Water Grab**

| Parameters | Result | Qual | Analysis Date | Analyst | Method |
|---------------------------------------|---------------|------|----------------|---------|---|
| <u>Fuels - PIA</u> | | | | | |
| Diesel Range Organics (DRO) (C10-C21) | < 100 ug/L | | 02/27/12 14:27 | JMT | SW 8015B |
| Ethanol | < 10 mg/L | | 02/28/12 12:03 | ELS | SW 8015B |
| Oil Range Organics (ORO) (C21-C35) | < 100 ug/L | B1 | 02/27/12 14:27 | JMT | SW 8015B |
| <u>General Chemistry - PIA</u> | | | | | |
| COD | < 6.0 mg/L | | 02/22/12 07:02 | BRS | SM 5220D 18Ed |
| Oil & Grease - nonpolar | < 7.0 mg/L | | 02/22/12 14:56 | TAS | EPA 1664A |
| Oil & Grease - total | < 7.0 mg/L | | 02/22/12 14:47 | TAS | EPA 1664A |
| pH | 7.98 pH Units | H | 02/22/12 08:37 | BRS | SM 4500-H B 18Ed - EPA 150.1 - SW 9040B |
| Solids - settleable solids (SS) | < 0.30 mL/L | H | 02/22/12 08:06 | BNS | SM2540F 18Ed |
| <u>Volatile Organics - PIA</u> | | | | | |
| Benzene | < 5.0 ug/L | | 02/28/12 13:05 | JJI | SW 8260B |
| Ethylbenzene | < 5.0 ug/L | | 02/28/12 13:05 | JJI | SW 8260B |
| Gasoline | < 500 ug/L | | 03/02/12 10:59 | JMB | SW 8015 GRO (Modified) |
| m,p-Xylene | < 5.0 ug/L | | 02/28/12 13:05 | JJI | SW 8260B |
| MTBE | < 5.0 ug/L | | 02/28/12 13:05 | JJI | SW 8260B |
| o-Xylene | < 5.0 ug/L | | 02/28/12 13:05 | JJI | SW 8260B |
| Toluene | < 5.0 ug/L | | 02/28/12 13:05 | JJI | SW 8260B |



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CONOCO
15138 Hwy 96
Mount Vernon, MO 65712
Attn: Larry Young

Date Received: 02/21/12 9:45
Report Date: 03/09/12
Customer #: 236472
PO#: 4516609198 valid to 12/31/12

Laboratory Results

Notes

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Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 17553
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Wastewater Certifications: Arkansas (88-0677); Wisconsin (998284430); Iowa (240); Kansas (E-10335)
Hazardous/Solid Waste Certifications; Arkansas (88-0677); Wisconsin (998284430); Iowa (240); Kansas (E-10335)
UST Certification; Iowa (240)
- SPM PDC Laboratories - Springfield, MO
EPA DMR-QA Program
- STL PDC Laboratories - St. Louis, MO
NELAC Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through KS EPA Lab No. E-10389

- H Test performed after the expiration of the appropriate regulatory/advisory maximum allowable hold time.
- B1 Blank contamination suspected and the sample result is less than MRL.

Certified by: Janet L. Clutters, Project Manager

PDC LABORATORIES, INC.
 2231 WEST ALTORFER DRIVE
 PEORIA, IL 61615

800-752-6665

PHONE # 309-692-9688
 FAX # 309-692-9689

CHAIN OF CUSTODY RECORD

State where samples collected MO

CLIENT TO COMPLETE SECTIONS 1, 2, 3, 5 & 7 (PLEASE PRINT)

| | | | | | | | | | | | |
|---|--|--|--|---|--|--|--|---|--|---|--|
| 1 CLIENT CONOCO Phillips Pipeline ADDRESS 15138 HWY 96 CITY MT VERNON, MO STATE ZIP 65712 CONTACT PERSON Bill Maloney BILL MALONEY | | PROJECT NUMBER PHONE NUMBER 417-452-3761 FAX NUMBER 417-452-2045 SAMPLER (PLEASE PRINT) Steve Barnett SAMPLER'S SIGNATURE <i>Steve Barnett</i> | | P.O. NUMBER DATE COLLECTED 2-20-12 TIME COLLECTED 10:30 SAMPLE TYPE SW MATRIX TYPE COMP. | | MEANS SHIPPED DATE SHIPPED 2-20-12 MATRIX TYPES: WW-WASTEWATER DW-DRINKING WATER GW-GROUND WATER WS-WASTESLUDGE LW-LEACHATE OTHER WATER | | ANALYSIS REQUESTED COD <input checked="" type="checkbox"/> FOG - Polar & Non-Polar <input checked="" type="checkbox"/> Ethanol, DRO, GRO, BTEX <input checked="" type="checkbox"/> P, Batable Solids <input checked="" type="checkbox"/> | | (FOR LAB USE ONLY) LOGIN # 2022332 LOGGED BY: CAB LAB PROJ.# TEMPLATE: QUARTERLY PROJ. MGR.: EAK | |
| 2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT STORMWATER OUTFALL 001 1 ST QTR | | DATE 2-20-12 TIME 10:30 MATRIX TYPE SW BOTTLE COUNT 12 | | DATE RESULTS NEEDED 3-20-12 | | COMMENTS: (FOR LAB USE ONLY) Had probe OK Wa P Amber 1000 SAMPLE TEMPERATURE UPON RECEIPT 18.0 °C | | REMARKS *M8016 **M624 | | The sample temperature will be measured upon receipt at the lab. By initiating this area you request that the lab notify you, before proceeding with analysis, if the sample temperature is outside of the range of 0-18.0°C. By not initiating this area you allow the lab to proceed with analytical testing regardless of the sample temperature. AS | |
| 5 TURNAROUND TIME REQUESTED (PLEASE CIRCLE) (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND BURCHARGE) RUSH RESULTS VIA (PLEASE CIRCLE) / FAX / PHONE | | DATE 2-20-12 TIME 10:40 DATE TIME DATE TIME | | RECEIVED BY: (SIGNATURE) RECEIVED BY: (SIGNATURE) RECEIVED BY: (SIGNATURE) Crystal A. Bishop | | CHILL PROCESS STARTED PRIOR TO RECEIPT PROPER BOTTLES RECEIVED ON ICE BOTTLES FILLED WITH ADEQUATE VOLUME SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS) DATE AND TIME TAKEN FROM SAMPLE BOTTLE | | RELINQUISHED BY: (SIGNATURE) RELINQUISHED BY: (SIGNATURE) | | RELINQUISHED BY: (SIGNATURE) RELINQUISHED BY: (SIGNATURE) | |



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CONOCO
15138 Hwy 96
Mount Vernon, MO 65712
Attn: Larry Young

Date Received: 04/18/12 9:15
Report Date: 05/07/12
Customer #: 236472
PO#: 4516609198 valid to 12/31/12

Laboratory Results

Sample No: **2042287-01**

Collect Date: **04/16/12 16:30**

Matrix: **Storm Water Grab**

Sample Description: Outfall 001

| Parameters | Result | Qual | Prep Date | Analysis Date | Analyst | Method |
|---------------------------------------|---------------|------|----------------|----------------|---------|---|
| <u>Fuels - PIA</u> | | | | | | |
| Diesel Range Organics (DRO) (C10-C21) | < 100 ug/L | | 04/20/12 14:20 | 05/01/12 15:20 | JMT | SW 8015B |
| Ethanol | < 10 mg/L | | 04/23/12 10:41 | 04/23/12 12:37 | JMT | SW 8015B |
| Oil Range Organics (ORO) (C21-C35) | < 100 ug/L | | 04/20/12 14:20 | 05/01/12 15:20 | JMT | SW 8015B |
| <u>General Chemistry - PIA</u> | | | | | | |
| COD | 11 mg/L | | 04/19/12 15:00 | 04/23/12 16:03 | BRS | SM 5220D 18Ed |
| Oil & Grease - nonpolar | < 6.0 mg/L | | 04/24/12 12:00 | 04/24/12 15:00 | TAS | EPA 1664A |
| Oil & Grease - total | < 6.0 mg/L | | 04/24/12 12:00 | 04/24/12 15:00 | TAS | EPA 1664A |
| pH | 7.69 pH Units | H | 04/24/12 09:26 | 04/24/12 09:26 | TCH | SM 4500-H B 18Ed - EPA 150.1 - SW 9040B |
| Solids - settleable solids (SS) | < 0.30 mL/L | | 04/18/12 13:54 | 04/18/12 13:55 | BNS | SM2540F 18Ed |
| <u>Volatile Organics - PIA</u> | | | | | | |
| Benzene | < 5.0 ug/L | | 04/30/12 00:00 | 04/30/12 21:14 | JJI | SW 8260B |
| Ethylbenzene | < 5.0 ug/L | | 04/30/12 00:00 | 04/30/12 21:14 | JJI | SW 8260B |
| m,p-Xylene | < 5.0 ug/L | | 04/30/12 00:00 | 04/30/12 21:14 | JJI | SW 8260B |
| MTBE | < 5.0 ug/L | | 04/30/12 00:00 | 04/30/12 21:14 | JJI | SW 8260B |
| o-Xylene | < 5.0 ug/L | | 04/30/12 00:00 | 04/30/12 21:14 | JJI | SW 8260B |
| Toluene | < 5.0 ug/L | | 04/30/12 00:00 | 04/30/12 21:14 | JJI | SW 8260B |



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CONOCO
15138 Hwy 96
Mount Vernon, MO 65712
Attn: Larry Young

Date Received: 04/18/12 9:15
Report Date: 05/07/12
Customer #: 236472
PO#: 4516609198 valid to 12/31/12

Laboratory Results

Notes

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Hazardous/Solid Waste Certifications; Arkansas (88-0677); Wisconsin (998284430); Iowa (240); Kansas (E-10335)
UST Certification; Iowa (240)
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EPA DMR-QA Program
- STL PDC Laboratories - St. Louis, MO
NELAC Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing through KS EPA Lab No. E-10389

H Test performed after the expiration of the appropriate regulatory/advisory maximum allowable hold time.

Certified by: Janet L. Clutters, Project Manager

PDC LABORATORIES, INC.
 2231 WEST ALTORFER DRIVE
 PEORIA, IL 61615

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 FAX # 309-692-9689

CHAIN OF CUSTODY RECORD

State where samples collected MO

CLIENT TO COMPLETE SECTIONS 1, 2, 3, 5 & 7 (PLEASE PRINT)

| | | | | | | |
|--|--|--|--|--|---|---|
| 1 CLIENT CONOCO Phillips Pipeline 15138 HWY 96 MT VERNON, MO CONTACT PERSON Bill Maloney BILL MALONEY 65712 | | PROJECT NUMBER OUTFALLOO | P.D. NUMBER 417-472-2045 | MEANS SHIPPED FEDEX | ANALYSIS REQUESTED FOG - Polar & Non-Polar Ethanol, DRO, GRO, BTEX PH, Settable Solids | (FOR LAB USE ONLY) LOGIN # 2042881 LOGGED BY: <u>and</u> LAB PROJ. # TEMPLATE: QUARTERLY PROJ. MGR.: EAK |
| 2 SAMPLE DESCRIPTION AS YOU WANT ON REPORT STORMWATER OUTFALL 001 2nd BR | | PHONE NUMBER 417-452-3724 | FAX NUMBER 417-472-2045 | DATE SHIPPED 4-16-12 | MATRIX TYPES: WW-WASTEWATER DW-DRINKING WATER GW-GROUND WATER WWL-SLUDGE MS-SOLID LCY-LEACHATE OTHER: WATER | REMARKS *M8015 **M624 |
| DATE COLLECTED 4/16/12 16:30 | | DATE RESULTS NEEDED 5-16-12 | RUSH | BOTTLE COUNT 12 | MATRIX TYPE SW | |
| 5 TURNAROUND TIME REQUESTED PLEASE CIRCLE (RUSH TAT IS SUBJECT TO PDC LABS APPROVAL AND SURCHARGE) RUSH RESULTS VIA (PLEASE CIRCLE) FAX PHONE | | DATE RELINQUISHED BY: (SIGNATURE) 4-16-12 TIME 16:40 | RECEIVED BY: (SIGNATURE) RECEIVED BY: (SIGNATURE) RECEIVED BY: (SIGNATURE) | DATE RELINQUISHED BY: (SIGNATURE) 4-16-12 TIME 16:40 | SAMPLE TEMPERATURE UPON RECEIPT CHILL PROCESS STARTED PRIOR TO RECEIPT SAMPLE(S) RECEIVED ON ICE PROPER BOTTLES RECEIVED IN GOOD CONDITION BOTTLES FILLED WITH ADEQUATE VOLUME SAMPLES RECEIVED WITHIN HOLD TIME(S) (EXCLUDES TYPICAL FIELD PARAMETERS) DATE AND TIME TAKEN FROM SAMPLE BOTTLE | |
| 6 The sample temperature will be measured upon receipt at the lab. By including this area you represent that the lab facility you, before proceeding with analysis, if the same temperature is stable at 15-20°C. By not including this area you allow the lab to proceed with analytical testing regardless of the sample temperature. | | COMMENTS: (FOR LAB USE ONLY) | | | | |



Leia Heritage
Environmental Coordinator
3250 Briar Park Dr. Suite 100
RW-1057C
Houston, TX 77042
Phone: (832) 379-6223
Facsimile: (918) 662-3402
Leia.C.Heritage@p66.com

September 14, 2012

Certified Mail – Return Receipt Requested
7002 3150 0004 0849 8807

Missouri Department of Natural Resources
Water Protection Program
P.O. Box 176
Jefferson City, MO 65102

Permit Renewal Application
Mt. Vernon Products Terminal
NPDES Permit: MO-0106861
Phillips 66 Pipe Line Company

RECEIVED

SEP 18 2012

WATER PROTECTION PROGRAM

Dear Sir or Madam:

Phillips 66 Pipe Line Company owns and operates the Mt. Vernon Products Terminal, a bulk storage and loading terminal for finished gasoline and distillate products for distribution in the Southwest region of Missouri. The terminal currently has authorization to discharge storm water and hydrostatic testing water, as well as injection wells under the individual NPDES Discharge Permit MO-0106861. This permit was issued on March 25, 2008 and last revised on September 1, 2009. The permit expires on March 24, 2013.

During the review process, Phillips 66 would like discuss the relevance of including the injection wells under the permit renewal which are currently identified in the permit as “monitoring wells”.

Attached please find the following renewal application documents for permit MO-0106861:

- Form A – Application for Construction or Operating Permit
- Form C – Application for Discharge Permit
- Facility Plot Plan
- Water Flow Line Drawing
- Area Topographic Map
- Google Earth Aerial Photographs
- Copy of Analytical Report for August 28, 2012 Sample
- Copies of Analytical Reports from last four Quarterly Samples

Due to a miscommunication at the laboratory, BOD and TSS were not run during the August 28th sample analysis, therefore an additional sample was taken on September 10, 2012 and the results will be sent to your agency as soon as they are received.

If you have any questions about this letter or require additional information please contact me at Leia.C.Heritage@P66.com or at (832) 379-6223.

Sincerely,

A handwritten signature in black ink, appearing to read 'Leia Heritage', written over a light blue horizontal line.

Leia Heritage
Phillips 66 – Environmental Coordinator

(Enc.)



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM
APPLICATION FOR TRANSFER OF OPERATING PERMIT

| FOR AGENCY USE ONLY | |
|---------------------|-------------|
| CHECK NO. | 1008 |
| DATE RECEIVED | 11-21-16 |
| FEE SUBMITTED | \$100.00 SB |

THE FOLLOWING ITEMS (1 - 4) ARE TO BE COMPLETED BY THE CURRENT OWNER. SEE INSTRUCTIONS FOR APPROPRIATE FEE TO BE SUBMITTED WITH APPLICATION.

1. FACILITY

| | | | |
|------------------------------------|--------------------|---|--------------|
| NAME Mt. Vernon Terminal | | TELEPHONE NUMBER WITH AREA CODE (417) 452-2307 | |
| ADDRESS (PHYSICAL) 15138 Hwy 96 | CITY Mt. Vernon | STATE MO | ZIP 65712 |
| PERMIT NUMBER #MO- 0106861 | COUNTY Lawrence | | |

2. CURRENT OWNER

| | | | | | |
|----------------------------------|-----------------|---------------------------------------|--------------|---|--|
| NAME Phillips 66 Pipeline LLC | | EMAIL ADDRESS david.c.gill@P66.com | | TELEPHONE NUMBER WITH AREA CODE (832) 765-1495 | |
| ADDRESS N870-05, PO Box 4428 | CITY Houston | STATE TX | ZIP 77210 | | |

3. CONTINUING AUTHORITY: Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the facility. (If same as current owner, respond "same")

| | | | | | |
|--------------|------|---------------|-----|---------------------------------|--|
| NAME Same | | EMAIL ADDRESS | | TELEPHONE NUMBER WITH AREA CODE | |
| ADDRESS | CITY | STATE | ZIP | | |

4. CERTIFICATION

I certify I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and upon transfer approval, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions, subject to any legitimate appeal available under the Missouri Clean Water Law. Further, I certify I have read the existing permit and agree to abide by the terms and conditions once the transfer is complete.

| | | | | | |
|---|--|---|---------------------------|---|--|
| NAME (TYPE OR PRINT) David C. Gill, Jr | | OFFICAL TITLE Environmental Director | | TELEPHONE NUMBER WITH AREA CODE (832) 765-1495 | |
| SIGNATURE | | | DATE SIGNED 11/15/2016 | | |

RECEIVED

NOV 21 2016

Water Protection Program

THE FOLLOWING ITEMS (5 – 10) WILL APPLY AFTER THE COMPLETION OF TRANSFER (SALE) AND ARE TO BE COMPLETED BY THE APPLICANT FOR TRANSFER OF OPERATING PERMIT (BUYER) OR AUTHORIZED AGENT.

5. FACILITY (IF DIFFERENT THAN ABOVE)

| | |
|-----------------------------|---|
| NAME Mt. Vernon Terminal | TELEPHONE NUMBER WITH AREA CODE (417) 452-2307 |
|-----------------------------|---|

6. FUTURE OWNER

| | | | |
|---|---------------------------------------|---|--------------|
| NAME Phillips 66 Partners Holdings LLC | EMAIL ADDRESS david.c.gill@p66.com | TELEPHONE NUMBER WITH AREA CODE (832) 765-1495 | |
| ADDRESS N870-05, PO Box 4428 | CITY Houston | STATE TX | ZIP 77210 |

7. CONTINUING AUTHORITY: Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the facility. (If same as future owner, respond "same")

| | | | |
|----------------------------------|---------------------------------------|---|--------------|
| NAME Phillips 66 Pipeline LLC | EMAIL ADDRESS david.c.gill@p66.com | TELEPHONE NUMBER WITH AREA CODE (832) 765-1495 | |
| ADDRESS N870-05, PO Box 4428 | CITY Houston | STATE TX | ZIP 77210 |

8. FACILITY CONTACT

| | | | |
|--|---|-------------|--------------|
| NAME William Maloney | TITLE Terminal Supervisor | | |
| EMAIL ADDRESS William.j.maloney@p66.com | TELEPHONE NUMBER WITH AREA CODE (417) 452-2307 | | |
| ADDRESS 15138 Hwy 96 | CITY Mt. Vernon | STATE MO | ZIP 65712 |

9. ADDITIONAL INFORMATION

9.1 Anticipated effective date of transfer of ownership: October 14, 2016

9.2 Are any changes in production, in raw materials, or in the quantity of discharges from this facility planned or anticipated?
 Yes No If yes, explain (Attach sheets as necessary)

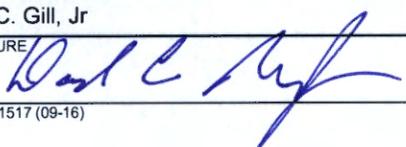
10. ELECTRONIC DISCHARGE MONITORING REPORT (eDMR) SUBMISSION SYSTEM

Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent limits and monitoring shall be submitted by the permittee via an electronic system to ensure timely, complete, accurate, and nationally-consistent set of data. **One of the following must be checked in order for this application to be considered complete.** Please visit <http://dnr.mo.gov/env/wpp/edmr.htm> to access the Facility Participation Package.

- You have completed and submitted with this permit application the required documentation to participate in the eDMR system.
- You have previously submitted the required documentation to participate in the eDMR system and/or you are currently using the eDMR system.
- You have submitted a written request for a waiver from electronic reporting. See instructions for further information regarding waivers.

11. CERTIFICATION

I certify I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and upon transfer approval, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions, subject to any legitimate appeal available under the Missouri Clean Water Law. Further, I certify I have read the existing permit and agree to abide by the terms and conditions once the transfer is complete.

| | | |
|--|--|---|
| NAME (TYPE OR PRINT) David C. Gill, Jr | OFFICIAL TITLE Environmental Director | TELEPHONE NUMBER WITH AREA CODE (832) 765-1495 |
| SIGNATURE  | | DATE SIGNED 11/15/2016 |



**Phillips 66 Partners Holdings LLC
DESIGNATION OF SIGNATURE AUTHORITY**

I, Todd Denton, President of Phillips 66 Partners Holdings LLC, pursuant to the authority granted to me by the Sole Member of Phillips 66 Partners Holding LLC, do hereby designate the persons holding the positions listed below as authorized to sign, on behalf of Phillips 66 Partners Holdings LLC, documents submitted in compliance with local, state, and federal environmental laws and regulations, including but not limited to:

Permit Applications;
Discharge Monitoring Reports;
Air Emission Inventories;
Title V Operating Permit Applications;
Compliance Certifications;
Air Emission Related Construction Permit Applications;
Notifications of Regulated Waste Activity;
Solid and/or Hazardous Waste Reports;
Risk Management Plans;
Remediation Program Reports; and
Chemical Inventory or Release Reports under SARA 311, 312, and 313.

Positions:

Manager, Health, Safety and Environmental
Program Manager, Remediation Management
Region Manager, Remediation Management
Manager, Remediation Management
Director, Environmental
Manager, Safety Programs
Director, Process Safety

INWITNESS WHEREOF, the undersigned has hereunto set his hand this 17th day of
October 2016.



Todd Denton
President, Phillips 66 Partners Holding LLC



**Phillips 66 Pipeline LLC
DESIGNATION OF SIGNATURE AUTHORITY**

I, Todd Denton, President of Phillips 66 Pipeline LLC, pursuant to the authority granted to me by the Sole Member of Phillips 66 Pipeline LLC, do hereby designate the persons holding the positions listed below as authorized to sign, on behalf of Phillips 66 Pipeline LLC, documents submitted in compliance with local, state, and federal environmental laws and regulations, including but not limited to:

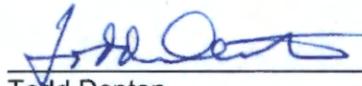
Permit Applications;
Discharge Monitoring Reports;
Air Emission Inventories;
Title V Operating Permit Applications;
Compliance Certifications;
Air Emission Related Construction Permit Applications;
Notifications of Regulated Waste Activity;
Solid and/or Hazardous Waste Reports;
Risk Management Plans;
Remediation Program Reports; and
Chemical Inventory or Release Reports under SARA 311, 312, and 313.

Positions:

| | |
|---|--|
| Manager, Terminals | Manager, Pipelines |
| Division Terminal Manager – Amarillo | Division Pipeline Manager – Amarillo |
| Division Terminal Manager – Billings | Division Pipeline Manager – Billings |
| Division Terminal Manager – Beaumont | Division Pipeline Manager – Central |
| Division Terminal Manager – Central | Division Pipeline Manager – East/Gulf |
| Division Terminal Manager – East/Gulf | Division Pipeline Manager – West Coast |
| Division Terminal Manager – West Coast | Superintendent - Sweeney |
| Superintendent - Gulf Coast Fractionator | Director, Environmental |
| Manager, Health, Safety and Environmental | Manager, Engineering and Projects |
| Manager, Logistics | Manager, Safety Programs |
| Director, Process Safety | |

IN WITNESS WHEREOF, the undersigned has hereunto set his hand this 25th day of

January, 2016.



Todd Denton
President, Phillips 66 Pipeline LLC