

<b>Project Name:</b>	<b>OWS and STS O&amp;M</b>
<b>Project Location:</b>	<b>Arkansas, Mississippi, and Tennessee</b>
<b>Project Completion Date:</b>	<b>Ongoing</b>
<b>Project Duration:</b>	<b>June 2001 - Present</b>
<b>Project Value:</b>	<b>\$90,000</b>
<b>Client Name:</b>	<b>MAPCO Express, Inc.</b>
<b>Client Contact:</b>	<b>Mr. Michael Galpin</b>
<b>Client Phone Number:</b>	<b>(Available Upon Request)</b>
<b>Technology Used:</b>	<b>Oil/Water Separator and Sewer Treatment O&amp;M</b>

**Project Description**

Attached is specific information concerning the seven facilities considered for purchase. The three facilities in Arkansas have NPDES permits. The Arkansas Department of Environmental Quality (ADEQ) is very conscientious concerning these outfalls. It is critical to demonstrate good O&M practices regarding these particular OWS/STS systems, since the ADEQ will take enforcement action. The site in Heth, AR has a STS, which requires the services of a licensed wastewater operator. Currently the operator is visiting the site 2/week. The frequency can possibly be reduced to save some costs providing arrangements are made to record OWS and STS flow measurements by other means (facility personnel or telemetry). SEMS considers itself environmentally conscious and have communicated well with the regulatory agencies involved and would be appreciate the opportunity of continued service with you.

**Facility #3058 - Marion, AR**

- 3,000 gal Enquip separator
- 1,000 gal Service Tank interceptor
- Pumped discharge to ditch
- To our knowledge this discharge has never been permitted. Discharge is monitored/sampled/analyzed monthly for flow, pH, Oil & Grease (O&G), and Total Suspended Solids (TSS). Monthly Discharge Monitoring Report (DMR) sent to Williams.

**Facility #3059 Conway, AR**

- 3,000 gal Enquip separator - Outfall 001
- 1,000 gal Service Tank interceptor
- Pumped discharge to ditch
- Filtration/Carbon treatment unit on discharge to facilitate compliance/reduce excursions
- NPDES permit #AR0045071 (see attached). Outfall 001 is monitored 5/week for flow and monthly for pH. Outfall 001 is sampled/analyzed quarterly for O&G and TSS. Monthly DMRs for flow & pH and quarterly DMRs for analytical parameters are submitted to the ADEQ. Filters are replaced as needed. Carbon media is replaced quarterly during OWS cleanout events or as needed. This site was under an ADEQ compliance order for discharge water quality violations from Outfall 001. The filtration/carbon unit was installed and O&M practices were upgraded to satisfy the order. Discharge water quality was significantly

improved and the compliance order was terminated. Since the permit requires flow to be recorded 5/week, a telemetry unit was installed which records flow and communicates daily with a PC at the SEMS-BR office.

**Facility #3154 Wheatley, AR**

- 3,000 gal Newberry separator w/ affixed 500 gal interceptor - Outfall 001
- Pumped discharge to ditch
- Filtration/Carbon treatment unit on discharge to facilitate compliance/reduce excursions
- NPDES permit #AR0046752 (see attached). Outfall 001 is monitored/sampled/analyzed monthly for flow, pH, O&G, TSS, and Chemical Oxygen Demand (COD). Monthly DMRs summarizing these results are submitted to the ADEQ. Permit limitations for this outfall are unusually restrictive. A filtration/carbon unit was installed to aid in the reduction of permit limited contaminants and therefore decrease the number of permit excursions. This treatment unit has been very successful in reducing O&G and TSS levels below permit maximums. Although COD levels have been greatly reduced, the COD concentration may exceed permit limitations periodically. More aggressive treatment possibilities for COD reduction are being researched.

**Facility #3155 Heth, AR**

NPDES permit #AR0046761 (see attached) covers two outfalls at this facility. Each outfall is monitored/sampled/reported individually.

**OWS - Outfall 002**

- 3,000 gal Enquip separator
- 1,000 gal Service Tank interceptor
- Pumped discharge to ditch
- Outfall 002 is monitored 2/week for flow and reported monthly to the ADEQ. pH is monitored on a monthly basis at the request of Williams, although required only 1/quarter by the permit. O&G is sampled/analyzed quarterly. pH and O&G results are reported to the ADEQ on a quarterly basis. This OWS has been particularly successful in maintaining discharge water quality within permit limitations

**STS - Outfall 001**

- 5,000 GPD Delta Process package plant
- 0.66 acre oxidation pond
- Pumped discharge to ditch
- Outfall 001 is monitored for flow 2/week and reported monthly to the ADEQ. pH is monitored on a monthly basis at the request of Williams, although required only 1/quarter by the permit. TSS, Carbonaceous Biochemical Oxygen Demand (CBOD), Ammonia-Nitrogen, Dissolved Oxygen, and Fecal Coliform is sampled/analyzed on a quarterly basis and reported to the ADEQ quarterly. Outfall 002 was under an ADEQ compliance order for discharge water quality violations as defined by the permit. Williams contracted SEMS to design/engineer corrective action measures. A 2/3 acre oxidation pond was designed and constructed along with flow process/mechanical upgrades to the existing STS. The pond and design

improvements have been successful in returning contaminant levels in outfall 002 within permit limits. In addition, it has also provided ~~no~~ flow situations for typically 2 of the 4 quarters (summer/fall) which eliminates the need to sample and possibility violate permit limitations. A licensed wastewater operator is required to maintain the STS. Currently we have a licensed operator visiting the site 2/week to perform O&M activities and also record 2/week flow measurements from outfall 001 and 002 as required by the permit. The number of visits could be reduced providing facility personnel will record flow data (which is sometimes difficult) or a telemetry unit, such as the one at #3059, can be installed and monitored by SEMS which will assure flow measurement frequency/accuracy for permit compliance.

**Facility #3009 Corinth, MS**

- 1,500 gal Wade separator
- 1,000 gal Service Tank interceptor
- Gravity discharge to sanitary sewer/POTW
- Permitted by the City of Corinth (see attached). The separator discharge is monitored/sampled/analyzed for flow, pH, Total Zinc, O&G, Settleable Solids, and Benzene on a monthly basis as described in the POTW discharge agreement. No reporting is required for this outfall.

**Facility #3138 Memphis, TN (Mallory Ave.)**

- 1,500 gal Enquip separator
- 500 gal interceptor
- Gravity discharge to sanitary sewer/POTW
- Permitted by the City of Memphis-Permit #S-NN2-079 (see attached). The separator discharge is monitored/sampled/analyzed for flow, pH, O&G-total, O&G-hydrocarbon, and BTEX on a monthly basis as described in the POTW discharge agreement. Monthly DMRs summarizing these results are submitted to the City of Memphis.

**Facility #3144 Memphis, TN (Summer Ave.)**

- 3,000 gal Enquip separator
- 1,000 Service Tank interceptor
- Pumped discharge to sanitary sewer/POTW
- Permitted by the City of Memphis-Permit #N-WO5-103 (see attached). The separator discharge is monitored/sampled/analyzed for flow, pH, O&G-total, O&G-hydrocarbon, and BTEX on a monthly basis as described in the POTW discharge agreement. Monthly DMRs summarizing these results are submitted to the City of Memphis.