GUIDANCE FOR PROPER MANAGEMENT AND DISPOSAL OF WELL DEVELOPMENT AND PURGE WATER FROM PETROLEUM UST AND AST RELEASE SITES

This guidance applies only to well development and purge water generated at an underground storage tank (UST) or an aboveground storage tank (AST) petroleum release site where non-hazardous petroleum contaminated water is generated. Well development and purge water generated at non-petroleum UST and AST sites should adhere to the guidance and/or requirements of other applicable regulatory programs.

All well development and purge water should be properly collected from each well. The quantity of well development and purge water generated from each well must be measured and recorded in field notes. This information must be reported in the associated report in a tabular format. An example format is provided in this guidance. Measurement of the development water and purge water verifies that the wells were appropriately purged of the recommended amount of water and allows for tracking of the total amount of wastewater to its final disposal location.

This guidance does not apply to development or purge water which does not meet the definition of non-hazardous petroleum contaminated water. For example, when drilling in the proximity of sources of chlorinated hydrocarbons, such as drycleaner facilities, co-mingled groundwater contaminant plumes may occur. In these instances, well development or purge water could potentially meet the definition of hazardous waste. Additional care should be exercised so that wastewater is handled in accordance with the applicable state or federal regulations. Please contact the Alabama Department of Environmental Management (ADEM) Land Division Environmental Services Branch for guidance on the proper handling of this type of waste.

ON-SITE DISPOSAL

The following options are acceptable for the on-site management of purge water as indicated. It is recommended that the development and purge water should not be kept at the site where generated for more than 90 days.

Discharge to Surface: This option is not available for well development water or purge water produced during investigations.

Except where noted, as long as the following practices are adhered to, a National Pollutant Discharge Elimination System (NPDES) permit will not be required.

No Treatment:

Purge water from wells located either on-site or off-site, that have historically been clean (verified by at least 3 sampling events documenting that the concentrations are below Initial Screening Limits (ISLs)) and have had no history of observable free product, may be discharged to the surface of the site. Purge water disposed of in this manner shall have no petroleum odor or sheen. This water should either infiltrate into the ground or evaporate on pavement areas. Water should not be discharged within 5' of any monitoring well/recovery well.

This disposal method may not be used immediately prior to or during a rain event. **None of the purge water disposed of in this manner should be allowed to leave the property boundaries or result in any runoff to surface water bodies.**

If the no treatment option is utilized, it is recommended that the property owners (on-site and off-site) concur with this management option before discharging the development and/or purge water.

Carbon Treatment:

A portable carbon unit may be utilized at a site for well development and purge water treatment prior to disposal on-site as described above. This is not suitable for well development and purge water exhibiting sheen or free product. A sample of the treated water should be collected for laboratory analysis to verify that the carbon has not had breakthrough.

This disposal method may not be used immediately prior to or during a rain event. **None of the development/purge water disposed of in this manner can be allowed to leave the property boundaries or result in any runoff to surface water bodies.**

If the carbon treatment option is utilized, it is recommended that the property owners (on-site and off-site) concur with this management option before discharging the development and/or purge water. Carbon units should only be used for petroleum motor-fuel development or purge water treatment and not utilized for other potentially hazardous wastewater treatment.

Groundwater Treatment System:

For sites with active groundwater treatment systems on-site, the well development and purge water should be treated through the groundwater treatment unit. Development/purge water generated at one site should not be transported to another site for disposal in a different groundwater treatment system. An NPDES permit or Underground Injection Control (UIC) permit is required for the discharge from a groundwater treatment system.

Discharge to Sanitary Sewer:

With appropriate authorization from the sanitary wastewater treatment plant (WWTP) operator, well development and purge water may be discharged to the sanitary sewer on-site or transported to a sanitary WWTP and shall meet all conditions imposed by the WWTP.

OFF-SITE DISPOSAL:

The following options are acceptable for the off-site management and disposal of well development and purge water.

All well development and purge water is to be properly measured, documented, containerized, stored and transported until final transport to a permitted/licensed facility occurs. A secure location should be utilized for the temporary storage of containerized wastewater.

Collection by Mobile Enhanced Multi-Phase Extraction (MEME) Vendors:

Well development water and purge water from a sampling event may be containerized and left on-site in properly labeled drums/tanks. It is recommended that the development and purge water should not be kept at the site where generated for more than 90 days. A MEME vendor may collect the development/ purge water and properly transport it to a permitted/licensed facility. The format for well development and purge water data, as well as transportation/storage/disposal information which is included on the last page of this guidance must be completed and included in the technical report. Invoices for transportation and disposal costs must be included in the payment request.

Collection by Hauling/Disposal Firms:

Well development and purge water from a sampling event may be containerized and left on-site in properly labeled drums/tanks. It is recommended that the development and purge water should not be kept at the site where generated for more than 90 days. A licensed/permitted water/waste hauler can collect the development/purge water for final disposal at a licensed/permitted treatment facility. The format for well development and purge water data, as well as transportation/storage/disposal information which is included on the last page of this guidance must be completed and included in the technical report. Invoices for transportation and disposal costs must be included in the payment request.

Collection by Environmental Consultant for Temporary Storage at Consultant's Office Location and Disposal at Licensed/Permitted Facility:

Environmental consultants may haul well development and purge water, in accordance with any applicable local, state or federal requirements, to their property for temporary storage.

Development/purge water shall be measured and tracked per site for documentation of appropriate final disposal and charges. The information that must be tracked includes the volume generated and stored from each location, the date such volume was added to the storage tank, and the date this volume was transported to a disposal facility. This information must be submitted with the technical report. The water must be collected by a licensed/permitted hauler/disposal company for proper final disposal at a licensed/permitted facility. The format for well development and purge water data, as well as transportation/storage/disposal information which is included on the last page of this guidance must be completed and included in the technical report. Invoices for transportation and disposal costs must be included in the payment request.

Collection by Environmental Consultant for Temporary Storage at Consultant's Office Location and/or Discharge to Sanitary Sewer:

Environmental consultants may haul well development and purge water, in accordance with any applicable local, state or federal requirements, to their property for temporary storage. Development/purge water shall be measured and tracked per site for documentation of appropriate final disposal. With appropriate authorization from the WWTP operator, development/purge water may be discharged to the sanitary sewer. The information that must be tracked includes the volume generated and stored from each location, the date such volume was added to the storage tank, and the date this volume was discharged to the sanitary sewer. This information must be submitted with the technical report. All conditions imposed by the sanitary WWTP operator must be met. The format for well development and purge water data, as well as transportation/storage/disposal information which is included on the last page of this guidance must be completed and included in the technical report.

DOCUMENTATION:

Plans and Cost Proposals:

For each scope of work proposed where sampling will occur and purge water or well development water will be generated, the Trust Fund Contractor shall include in a plan/scope of work the procedures for developing and purging the wells, measuring the purge water amounts and the selected storage, transportation and disposal options. For Trust Fund eligible sites, a quote for transportation/disposal charges estimated to exceed $250 should be attached to the cost proposal which includes the name of the final disposal facility. Estimates of disposal costs less than $250 are also required to submit the name of the final disposal facility, but a quote is not necessary.

Plans which do not contain the following details regarding development/purge water management will be considered deficient. Technical details which must be provided include estimated water amount, temporary storage plans, location of any offsite storage and transportation details, and the name of the facility where final disposal will occur.

Cost proposal information should include the estimated quantity of the water and the estimated cost for transportation/disposal which includes a quote for transportation/disposal if the total cost is above $250. This information must be submitted before the cost proposal can be approved.

Reports and Payment Requests with Groundwater Sampling Results:

All reports that contain the results of groundwater sampling where well development or sampling purge water was generated must contain the quantity of well development and purge water (gallons) generated on a well-by-well basis, the method of purging, the date of well purging and the storage/ transportation specifics and final disposal location, in an equivalent format to that included on the last page of this guidance. Reports which do not contain this information will be considered deficient until such data /information is provided.

For payment requests which include a request for reimbursement of the transportation and disposal costs of the development and purge water offsite, an invoice(s) from the transport company and disposal facility must be included in the payment request indicating the actual cost of transportation and disposal. On-site treatment costs (carbon treatment) must also be clearly documented in the payment request if reimbursement is requested.

Reports and payment requests which do not contain sufficient details regarding development and purge water management will be considered deficient. Payment will be delayed until documentation of final disposal is received.

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Format for Reporting of Well Development and Purge Water Volumes, Storage and Disposal Information

Information regarding wells purged/developed, dates of purging/development, method of purging/development, the volume purged/developed, and storage and disposal information should be provided in each report submitted for UST and AST release sites where groundwater investigations and sampling occurred. An example format is shown below. At a minimum, the purging data should be provided in a format similar to the one shown below.

Well Number/I.D.	**Date of Well Purging/Development**	**Method of Well Purging/Development**	**Volume Removed (Gallons)**
			Total =

Well Development or Purge Water:

1. Temporary storage at this location: _____ or N/A.
2. Discharged to sanitary sewer at this location: _____ or N/A.
3. Containerized and left on-site to be picked up by:
    - MEME vendor name*: _____ Date picked up*: _____
    - Waste Hauler name* :_____ Date picked up*: _____
4. Treated on-site using carbon: YES/NO (Sample analysis must be included in report)
5. Treated on-site through groundwater treatment system: YES/NO
6. Final disposal facility name and location *: _____

Date of Delivery to Disposal Facility *:_____

Additional information should be provided in the report to provide details, as needed, on the development and purge water management and disposal activities.

*Invoice and manifest documentation must be included in the associated report and payment request.