DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF, G9
600 ARMY PENTAGON
WASHINGTON, DC 20310-0600

22 MAR 21

DAIN-ISE

SUBJECT: Offsite Groundwater Investigation Monitoring Results
Defense Depot Memphis, Tennessee

[redacted]

[redacted]

Thank you for allowing the Army access to your property at 1852 Glory Circle to install a groundwater monitoring well in order to gather information on potential groundwater contamination northeast of Dunn Field at the former Memphis Depot.

The monitoring well at your property, MW-319, was installed and a sample was collected in June 2020. The Army prepared the Offsite Groundwater Investigation Well Installation and Sampling Report dated September 2020 for review by the Tennessee Department of Environment and Conservation (TDEC) and the United States Environmental Protection Agency (EPA). Following approval from TDEC and EPA, the Army will place this document in its Information Repository available through TDEC's document request portal at:
https://www.tn.gov/environment/contacts/public-records-request.html.
You may also call (901) 371-3000 for assistance in requesting documents.

At MW-319, groundwater was found about 48 feet below ground surface. The results for the three contaminants that are the subject of the investigation are presented below. The cleanup objectives, which are the Safe Drinking Water Act maximum contaminant levels, are also shown.

Contaminant	MW-319 (micrograms per liter)	Maximum Contaminant Level (micrograms per liter)
1,1-Dichloroethene	2.24	7
Trichloroethene	11	5
Tetrachloroethene	2.86	5

Only one contaminant, Trichloroethene, was found above the maximum contaminant level. Your drinking water is provided by Memphis Light, Gas and Water (MLGW) and is from a deeper aquifer; MLGW tests the water regularly to ensure contaminants are not present. Please see the attached Offsite Groundwater Investigation Questions and Answers for more information.

The final planned sample will be collected in July 2021. The Army will produce a final Offsite Groundwater Investigation report that includes results from all the sampling events. The report will be reviewed by TDEC and EPA and will be placed in the former Memphis Depot's Information Repository following approval.

For additional information please contact: Mr. Tom Holmes, HDR Project Manager at (404) 295-3279, email: thomas.holmes@hdrinc.com; or Ms. Joan Hutton, BRAC Environmental Coordinator at (571) 403-3333, email: joan.hutton@calibresys.com.

Joan Hutton for

Encl

JAMES C. FOSTER
Program Manager,
Base Realignment and Closure Division

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SUBJECT: Offsite Groundwater Investigation Monitoring Results
Defense Depot Memphis, Tennessee

[redacted]

Thank you for allowing the Army access to your property at 1888 Glory Circle to install a groundwater monitoring well in order to gather information on potential groundwater contamination northeast of Dunn Field at the former Memphis Depot.

The monitoring well at your property, MW-321, was installed and a sample was collected in June 2020. The Army prepared the Offsite Groundwater Investigation Well Installation and Sampling Report dated September 2020 for review by the Tennessee Department of Environment and Conservation (TDEC) and the United States Environmental Protection Agency (EPA). Following approval from TDEC and EPA, the Army will place this document in its Information Repository available through TDEC's document request portal at:
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At MW-321, groundwater was found about 34 feet below ground surface. The results for the three contaminants that are the subject of the investigation are presented below. The cleanup objectives, which are the Safe Drinking Water Act maximum contaminant levels, are also shown.

Contaminant	MW-321 (micrograms per liter)	Maximum Contaminant Level (micrograms per liter)
1,1-Dichloroethene	Less than 2	7
Trichloroethene	Less than 1	5
Tetrachloroethene	Less than 1	5

The contaminants were not detected in the groundwater on your property and the laboratory detection limits were below the maximum contaminant levels. Your drinking water is provided by Memphis Light, Gas and Water (MLGW) and is from a deeper aquifer; MLGW tests the water regularly to ensure contaminants are not present. Please

see the attached Offsite Groundwater Investigation Questions and Answers for more information.

The final planned sample will be collected in July 2021. The Army will produce a final Offsite Groundwater Investigation report that includes results from all the sampling events. The report will be reviewed by TDEC and EPA and will be placed in the former Memphis Depot's Information Repository following approval.

For additional information please contact: Mr. Tom Holmes, HDR Project Manager at (404) 295-3279, email: thomas.holmes@hdrinc.com; or Ms. Joan Hutton, BRAC Environmental Coordinator at (571) 403-3333, email: joan.hutton@calibresys.com.

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SUBJECT: Offsite Groundwater Investigation Monitoring Results
Defense Depot Memphis, Tennessee

[redacted]

Thank you for allowing the Army access to your property at 1908 Glory Circle to install a groundwater monitoring well in order to gather information on potential groundwater contamination northeast of Dunn Field at the former Memphis Depot.

The monitoring well at your property, MW-320, was installed and a sample was collected in June 2020. The Army prepared the *Offsite Groundwater Investigation Well Installation and Sampling Report* dated September 2020 for review by the Tennessee Department of Environment and Conservation (TDEC) and the United States Environmental Protection Agency (EPA). Following approval from TDEC and EPA, the Army will place this document in its Information Repository available through TDEC's document request portal at:
https://www.tn.gov/environment/contacts/public-records-request.html.
You may also call (901) 371-3000 for assistance in requesting documents.

At MW-320, groundwater was found about 17 feet below ground surface. The results for the three contaminants that are the subject of the investigation are presented below. The cleanup objectives, which are the Safe Drinking Water Act maximum contaminant levels, are also shown.

Contaminant	MW-320 (micrograms per liter)	Maximum Contaminant Level (micrograms per liter)
1,1-Dichloroethene	Less than 2	7
Trichloroethene	Less than 1	5
Tetrachloroethene	Less than 1	5

The contaminants were not detected in the groundwater on your property and the laboratory detection limits were below the maximum contaminant levels. Your drinking water is provided by Memphis Light, Gas and Water (MLGW) and is from a deeper aquifer; MLGW tests the water regularly to ensure contaminants are not present. Please

see the attached Offsite Groundwater Investigation Questions and Answers for more information.

The final planned sample will be collected in July 2021. The Army will produce a final Offsite Groundwater Investigation report that includes results from all the sampling events. The report will be reviewed by TDEC and EPA and will be placed in the former Memphis Depot's Information Repository following approval.

For additional information please contact: Mr. Tom Holmes, HDR Project Manager at (404) 295-3279, email: thomas.holmes@hdrinc.com; or Ms. Joan Hutton, BRAC Environmental Coordinator at (571) 403-3333, email: joan.hutton@calibresys.com.

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Offsite Groundwater Investigation Questions and Answers
March 2021

Q) Why were groundwater monitoring wells installed in my yard?

A) The Army installed nine groundwater monitoring wells in June 2020 at the north end of Dunn Field near the intersection of Hayes Road and E. Person Avenue and in the surrounding offsite area, including three wells in the Glory Circle neighborhood. The wells were installed to find more information about a possible offsite source of groundwater contamination on Dunn Field. The three well locations at Glory Circle were an appropriate distance from Dunn Field and within the groundwater flow path toward Dunn Field. The assistance of the property owners/residents is greatly appreciated.

Q) What are the chemicals?

A) Sample results found three chemicals above the cleanup objectives that are the Safe Drinking Water Act maximum contaminant levels (MCLs): 1,1-Dichloroethene (DCE), Trichloroethene (TCE), and Tetrachloroethene (PCE). TCE and PCE have been found in monitoring wells throughout Dunn Field. DCE has only been found in Dunn Field monitoring wells along the northern boundary.

Q) What are maximum contaminant levels?

A) Maximum contaminant levels (MCLs) are standards set by the United States Environmental Protection Agency (EPA) for drinking water quality. An MCL is the legal threshold limit on the amount of a chemical that is allowed in public water systems under the Safe Drinking Water Act. Groundwater samples from some monitoring wells on and off Dunn Field have contaminant levels above the MCLs.

Q) How did chemicals get in the groundwater?

A) Neither the source of the chemicals in groundwater in the area north and east of Dunn Field, nor how the chemicals were released is known. There were no operations or reported disposal of the chemicals in the northeastern section of Dunn Field and soil contamination has not been found during previous investigations in that area.

Q) What property is affected?

A) Sampling has found these contaminants in monitoring wells near industrial property on E. McLean Avenue, near the intersections of Glory Circle and Hayes Road with E. Person Avenue, and along the northern boundary of Dunn Field. Please see the attached map showing well locations and recent laboratory results for groundwater samples.

Q) Could groundwater or vapors affect my drinking water or gardening?

A) No. There is no current risk to human health from chemicals in groundwater because all water used on your property for drinking and other purposes is supplied by Memphis Light Gas and Water (MLGW) public water supply. Chemicals in the groundwater do not affect the water provided by MLGW. Groundwater is 17 to 49 feet below ground surface at Glory Circle and is not encountered during typical gardening activities.

Q) What are the impacts to human health from these chemicals?

A) Soil – No chemicals were found in the soil at the monitoring well locations, so there are no current risks to human health from the soil.

Groundwater - There is no current risk to human health from chemicals in groundwater because all water used on your property for drinking and other purposes is supplied by MLGW public water supply. The water provided by MLGW comes from much greater depths and is regularly tested for contaminants as required by the Safe Drinking Water Act.

Vapor - There are no current risks to human health from the vapor coming from chemicals in groundwater. It is possible for chemicals in groundwater to form vapor that can rise through the soil to the surface where it either disperses into outdoor air or could move into buildings. The Army has studied an area west of Dunn Field with higher levels of these chemicals in groundwater than found at Glory Circle. The studies showed that vapors from these chemicals did not move into outdoor air or buildings at levels that would be a risk to human health.

Q) What is the status of the Offsite Groundwater investigation?

A) The planned wells have been installed and groundwater samples have been collected three times. The wells will be sampled two more times, in April and July 2021. The Army will prepare a final report that includes all the sample results and with a conclusion on whether Army is responsible for the groundwater contamination. The report will be provided to EPA and the Tennessee Department of Environment and Conservation (TDEC) for review.

The following information is from the Agency for Toxic Substances and Disease Registry ToxFAQs found at their website https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsLanding.aspx

Q) What is 1,1-Dichloroethene and how does it get into the environment?

A) 1,1-Dichloroethene is an industrial chemical that is not found naturally in the environment. It is a colorless liquid with a mild, sweet smell. 1,1-Dichloroethene is used to make certain plastics, such as flexible films like food wrap, and in packaging materials. It is also used to make flame retardant coatings for fiber and carpet backings, and in piping, coating for steel pipes, and in adhesive applications. 1,1-Dichloroethene can be released into the environment from industries that make or use it and it evaporates very quickly from water and soil to the air. 1,1-Dichloroethene breaks down very slowly in water.

Q) What is Tetrachloroethene and how does it get into the environment?

A) Tetrachloroethene is a nonflammable colorless liquid. Other names for tetrachloroethene include perchloroethylene, PCE, perc, tetrachloroethylene, and perchlor. Tetrachloroethene is used as a dry-cleaning agent and metal degreasing solvent. It is also used as a starting material (building block) for making other chemicals and is used in some consumer products. Tetrachloroethene can be released into air, water, and soil at places where it is produced or used. Tetrachloroethene breaks down very slowly in the air. Tetrachloroethene evaporates quickly from water into air. It is generally slow to break down in soil and water. Tetrachloroethene may evaporate quickly from shallow soils or may filter through the soil and into the groundwater below.

Q) What is Trichloroethene and how does it get into the environment?

A) Trichloroethene is a colorless, volatile liquid. Liquid trichloroethene evaporates quickly into the air. It is nonflammable and has a sweet odor. The two major uses of trichloroethene are as a solvent to remove grease from metal parts and as a chemical that is used to make other chemicals, especially the refrigerant, HFC-134a. Trichloroethene can be released to air, water, and soil at places where it is produced or used and is broken down quickly in air. Trichloroethene breaks down very slowly in soil and water and is removed mostly through evaporation to air.

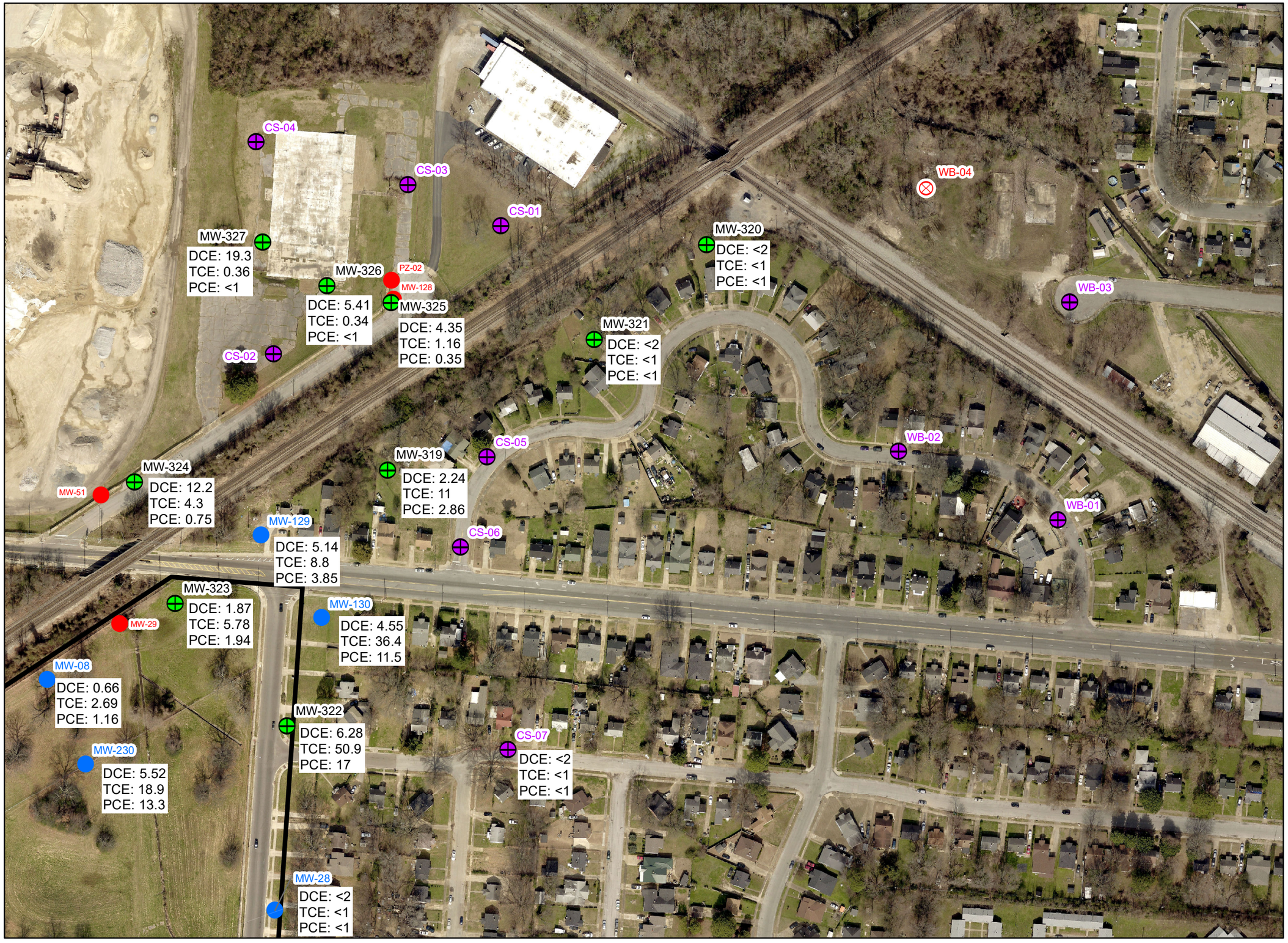

Figure 1

May-July 2020 Analytical Results

OSI Well Installation

Dunn Field
Defense Depot
Memphis, Tennessee

Legend

- OSI Well
- LTM Well
- TDEC Well
- Abandoned Well
- Unusable Well
- Original Dunn Field Boundary

Notes:
Analytical results are in micrograms per liter.
DCE: 1,1-Dichloroethene
TCE: Trichloroethene
PCE: Tetrachloroethene

N
W E
S

0 100 200
Feet

Projection: NAD 1927 StatePlane Tennessee
Units: Feet, Elevation Units: Feet, NAVD88

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