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DEPARTMENT OF THE ARMY
HEADQUARTERS, U. S. ARMY GARRISON COMMAND
1741 MARSHALL ROAD
FORT BLISS, TEXAS 79916-6816



REPLY TO
ATTENTION OF:

ATZC-DOE (200-D)

MEMORANDUM FOR Mr. James Bearzi, Chief Hazardous Waste Bureau, New Mexico
Environmental Department, 2905 Rodeo Park Drive East, Building 1, Santa Fe, New Mexico,
87505-6306

SUBJECT: Approval with Modifications for Voluntary Corrective Action Report for FTBL-11/SWMU-29, U.S. Army Air Defense Artillery Center and Fort Bliss.

1. REFERENCE: NMED letter, 8 October 2004, Approval with Modifications for Voluntary Corrective Action Report for FTBL-11/SWMU-29, FTBL-12/SWMU-27, FTBL-13/SWMU-18, US Army Air Defense Artillery Center and Fort Bliss, EPA ID#: NM4213720101-01, FB-02-002.

2. BACKGROUND: This letter is in response to reference 1, in regards to the New Mexico State Environmental Department's (NMED) approval of the Voluntary Corrective Action Report with modifications. Fort Bliss appreciates the time and consideration that the NMED has taken in reviewing the Voluntary Corrective Action Report. NMED states in the Modifications to the Voluntary Corrective Action Report attachments to the above mentioned letter that:

NMED does not concur with Fort Bliss recommendation to close FTBL-11/SWMU-29/SWMU-29 "as is". Fort Bliss shall install and maintain run-on controls at the site to prevent the occurrence of standing water and diminish future risk of transport of contaminants from the waste buried at the landfill. Fort Bliss must submit documentation to NMED after the completion of installation of run-off controls at SWMU-29.

Fort Bliss understands the need to control run-on and limit standing water to diminish the future risk of contaminant transport from the buried waste.

3. METHODS:

a. Fort Bliss conducted a screening-level watershed analysis using the Bishop Cap, New Mexico USGS topographic 7.5-minute quadrangle and Digital Elevation Model (DEM) that were downloaded from the University of California Geography mapping network. DEMs are digital representations of cartographic information in raster form. The DEMs consist of an array of elevations for ground positions at regularly spaced intervals. The DEM data are stored in 30-meter square grid spacing along and between each profile. DEMs can be used as source data for digital orthophotos and for earth science analysis as layers in geographic information systems. The DEM data in this analysis were used to estimate overland flow directions.

b. By using ArcMap, 3D-Analyst and Spatial Analyst software concurrently with the DEM, Fort Bliss developed approximate 2-foot contours for the 7.5-minute quadrangle as well as slope percentages for each 30-meter block. These layers were then overlain on 2003 aerial photography and the Bishop Cap USGS topographic quadrangle to determine overland flow and/or channel flow during peak rain events. The map that resulted from this study is submitted as an attachment to this letter as Enclosure 1.

ATZC-DOE

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- c. Fort Bliss also conducted field reconnaissance to assess conditions on the ground.

4. RESULTS:

The results from the watershed analysis indicated that the surface water flow in the general area of FTBL-11/SWMU-29 is from a northeasterly direction. An analysis of Enclosure 1 indicates the following:

- a. The majority of the runoff from the upslope area is diverted away from FTBL-11/SWMU-29 into two forks of an established stream system. The east fork runs approximately 260 feet to the east of the eastern fence line of FTBL-11/SWMU-29. The west fork was redirected away from FTBL-12/SWMU-27 by the diversion channel that was constructed during the period the FTBL-12/SWMU-27 cover was placed.

- b. The watershed is dissected east-to-west by the Tank Trail, which is located approximately 800 feet north of FTBL-11/SWMU-29. The Tank Trail has a bermed drainage ditch that parallels its south side. Most of the water entering from the north, both through arroyos or sheet flow, is captured by bar ditches and channeled to the east fork or the west fork diversion channel. However, some storm water passes through a breach in the Tank Trail berm toward FTBL-11/SWMU-29. The breach is located approximately in the middle of the proposed earth work immediately south of the Tank Trail.

- c. A small arroyo (less than two feet deep and three feet wide) forms approximately 300 feet north of FTBL-11/SWMU-27 and runs along the western edge of the landfill.

5. CORRECTIVE ACTION CONCEPTUAL PLAN:

The Fort Bliss plan to manage storm water run-on and minimize the potential for ponding relative to FTBL-11/SWMU-27 includes the following components:

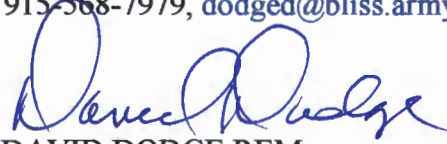
- a. Survey the area bounded by the two larger-scale arroyos east and west of FTBL-11/SWMU-27 and bounded by the Tank Trail to the north and a secondary road south of FTBL-11/SWMU-27. The survey data will be generated from spot elevations spaced 50-feet on center and will be used to develop a contour map with 1-foot intervals.
- b. Construct a berm at the breach in the Tank Trail north of FTBL-11/SWMU-27 and deepen the drainage ditch to route run-off to either the east or west forks. The earthwork will be reinforced or armored, if needed.
- c. Construct a new diversion channel between the Tank Trail and FTBL-11/SWMU-27 to capture run-off and route it to the west and into the diversion channel east of FTBL-12/SWMU-29. The earthwork will be reinforced or armored, if needed.
- d. Install ciber stakes and signage along the Tank Trail earthwork to prevent future interference with the drainage system or berm.

5. CONTACT: Please direct any questions concerning this document and the information it

ATZC-DOE

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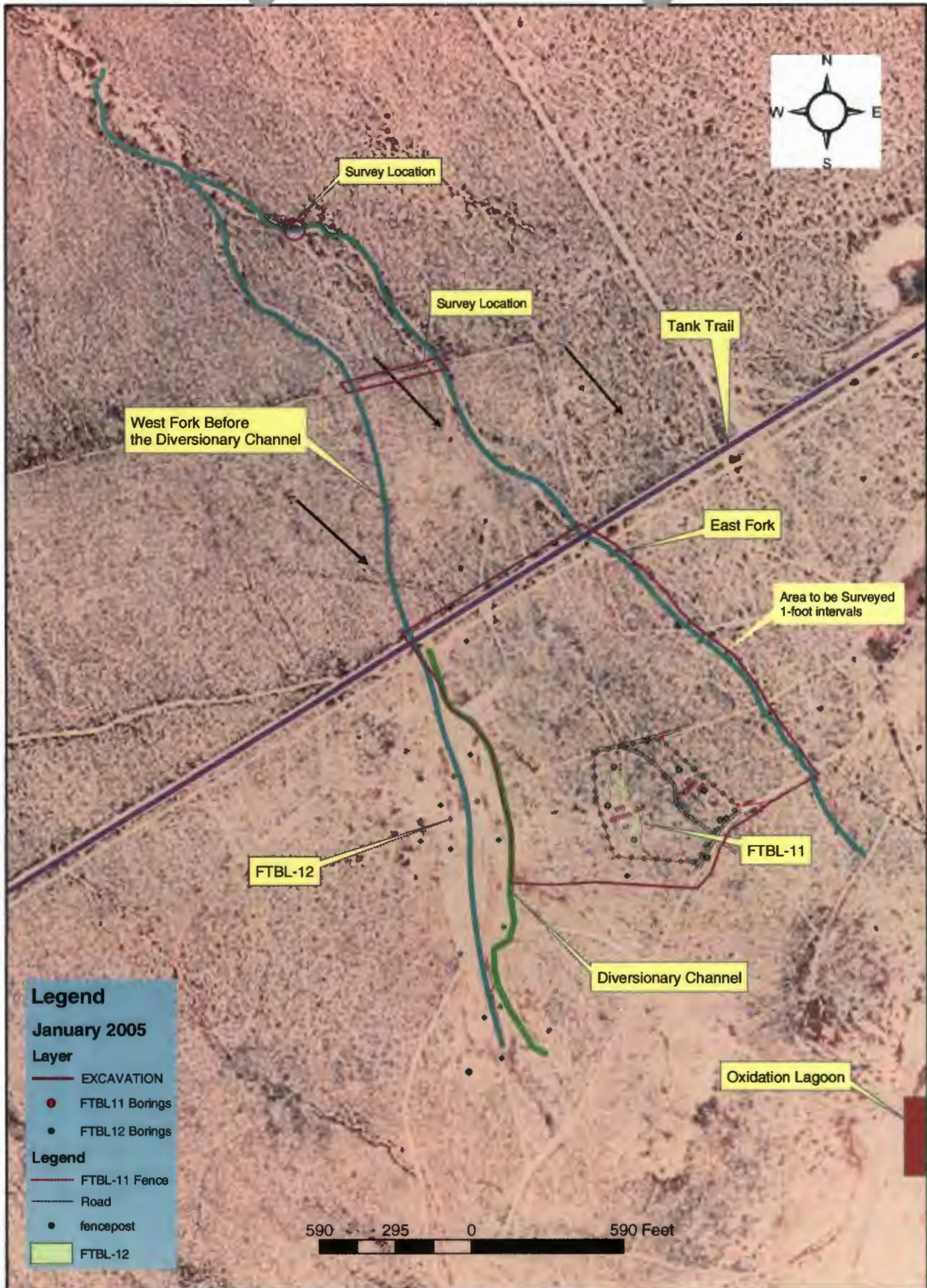
contains to: David Dodge, Directorate of Environment, ATTN: ATZC-DOE, Bldg. 624, Taylor at Pleasonton Road, Fort Bliss, TX 79916-6812, 915-568-7979, dodged@bliss.army.mil.



DAVID DODGE REM
Engineering & Environment, Inc.
Directorate of Environment
US Army Garrison Fort Bliss

1 Encl:
Figure 1, FTBL-011 Watershed

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Site Files

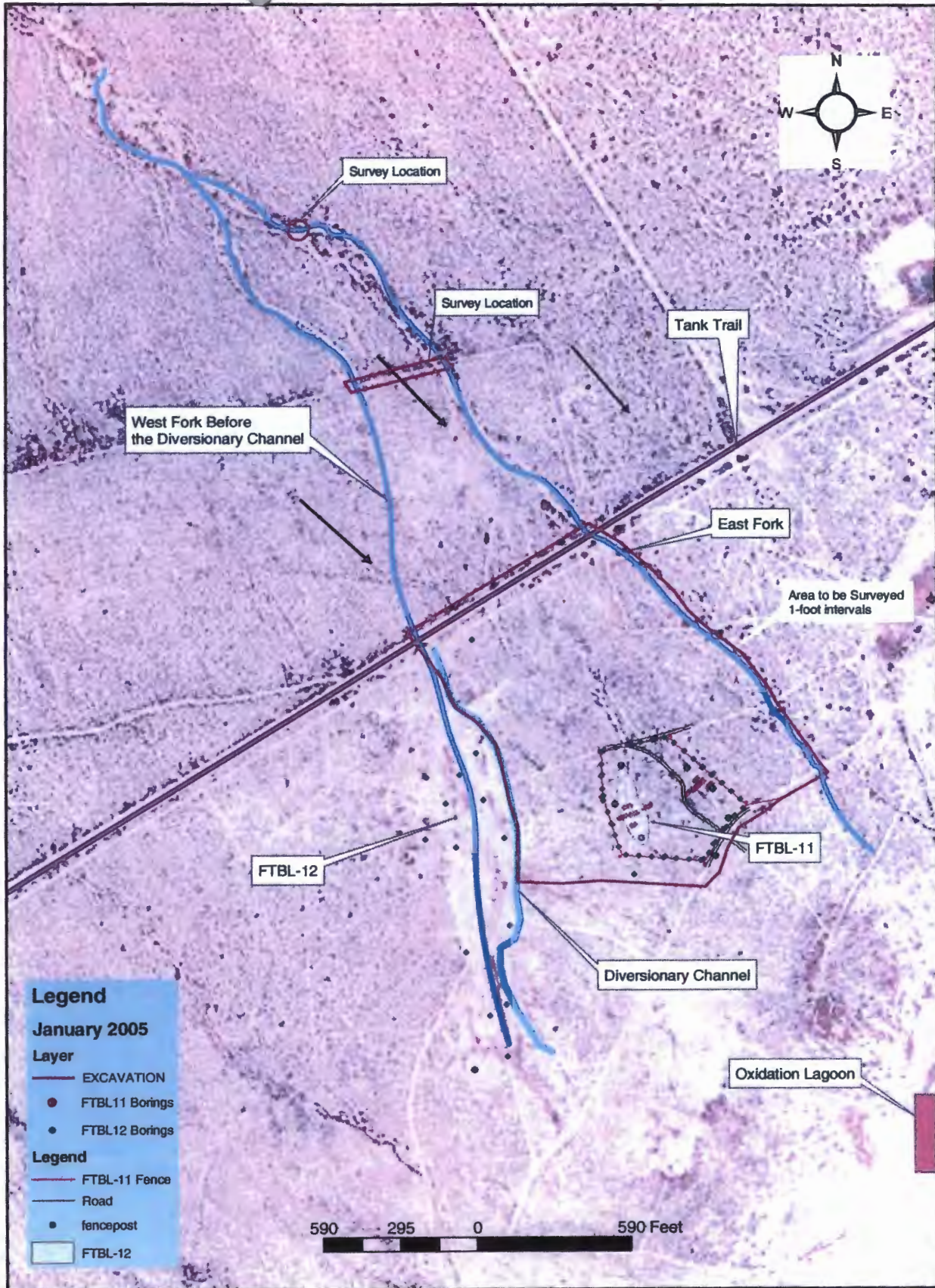


FTBL-11
 LOCATION AND SURFACE WATER FLOW

Figure 1

January 2005

SOURCE: 2003 AERIAL



FTBL-11
 LOCATION AND SURFACE WATER FLOW

Figure 1

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SOURCE: 2003 AERIAL