

SUMMARY OF FIELD ACTIVITIES CANNON AFB, CLOVIS, NEW MEXICO

Prepared By: Jo Brady
Geology Section
Monday, January 27, 1992

PURPOSE: To determine the areal extent of Cell 3 by excavating trenches in both east-west and north-south directions. The State of New Mexico and the EPA are requiring Cannon AFB to place an impermeable soil cover over Cell 3 as it was in operation when the "land ban" regulations went into effect and the cell has been documented to have received solvents for disposal. *wrong dir*

The site, Cell 3, is located in Sanitary Landfill Number 5, which in the southeastern corner of the base.

Tuesday, January 14, 1992

Arrived onbase at 1400 local time (New Mexico is on mountain time). Located project geologist Jim Martell and operator Jerry Camp onsite. Jerry was operating a rented John Deere 690D-LC trac-hoe from Yellowhouse Machinery, Amarillo, Texas. Excavation of a north-south trench had commenced from the south and was progressing upwind to the north. Excavated soil/trash was stockpiled adjacent to the trench so that it could be replaced upon completion of the trenching activities.

On the previous day (Monday), Jim Martell had located, measured, and staked the line for excavation a total length of 1000 feet. The centerline of the trench was approximately 15 feet west of the fenced area (refer to enclosed figure). To determine the length of time the cell was in operation, old newspapers were collected from the excavated piles of soil/trash and stored individually in plastic ziploc bags. Typically the layers of trash were 1-2 feet thick and separated by 6-12 inches of soil. Cover soil was placed over the trash 2-3 feet thick, however there was a veneer of trash spread over the cell which appeared erratically about 2 feet below the surface. Average depth of the excavation was 8-10 feet, although select areas were excavated to depth of 18 feet to locate the bottom of the cell.

Approximately 150 feet of the trench was excavated by the end of Tuesday.

Jim Martell returned to Tulsa Wednesday morning and Jo Brady directed the work.

Wednesday, January 15, 1992

Temperature with wind chill was -20 degrees F, winds from the north.

Work commenced at 0730. Continued excavating the north-south trench, obtaining dated material (newspapers) when available. At random intervals, the trench was excavated to depths of 18 to 19 feet (as the trench would allow) to determine the depth of the cell; but the total depth of the cell could not be determined. Historic reports indicate the depth could be as great as 25 feet, but no trac-hoe was available to dig to this depth. Native, undisturbed soil was encountered 650 feet north from the southwest corner of the fenced area. The soil/trash layers were observed to be spread to the sloped interface of native, undisturbed soil - refer to figure 2. Following confirmation of the cell's north limit, activities commenced to fill in the trench.

While soil/debris was being dozed into the trench, Mark Wittrock, Civil Engineer from the Albuquerque District, arrived to review the work. Mark is scheduled to design the soil cover for the cell. Jo Brady familiarized Mark with the scope of work and presented her observations of the cell. Each drove to the base Corps of Engineers office to inform Jim Richards, the base point-of-contact, that the work had been completed. Jim Richards was concerned that he did not have enough information available from the work just completed to define the areal extent of Cell 3. Jo Brady agreed to return Thursday to excavate more of the cell until its boundaries could be defined.

Thursday, January 16, 1992

Temperature with wind chill was -3 degrees F, winds from the north gradually changing in the afternoon to southerly winds and a high in the 30's.

Jo Brady met Mark Wittrock at the base COE office at 0730 to confirm the day's activities with Jim Richards. Jo Brady drove to the site at 0800 and drove Jerry Camp to town for a transfer pump to switch fuel from the tractor-trailer to the trac-hoe. Trenching activities recommenced at 0900 extending the north-south trench to define the southern boundary of the landfill. Jo Brady was joined by Mark Wittrock and Glenn Woodson (Jim Richards's representative) to observe the work. The southern boundary of the

trench was defined to be 150 feet south from the SW fencepost of the fenced area. Mark Wittrock and Jo Brady measured the vertical change in relation to the horizontal difference to calculate the slope of the trench. The slope was conservatively determined to be no steeper than 3H:1V (see figure 2) and the overall cell length was determined to be 800 feet.

East-west trenches were excavated until undisturbed native soil was encountered both north and south of the fenced area to further define the cell boundaries. Cell 3 was measured to be 50 feet wide; 35 feet from the western fence line of the fenced area and 15 feet to the east of the western fence line. A second north-south trench was excavated between the 250 and 300 foot mark as Jo Brady had observed an area of apparently clean fill and this was approximately one-half the length of the entire trench. Jim Martell had speculated that there may be two cells with a native soil barrier or berm between rather than one long cell. No barrier or berm was observed in the second north-south trench. Refer to figure 1 for location of various excavations.

Typically the trash consisted of household refuse and office waste. Tires and other automotive items were occasionally observed as was medical waste in the form of syringes and intravenous bags. A "solvent" smell was noticed in two trenches (see figure 1 for locations). At one of these locations, Mark Wittrock observed free liquid draining into the soil from a container disturbed by the excavation activities.

Jim Richards stopped by towards the end of the day to briefly observe the work and was pleased with the progress and results. Excavation was halted at 1700 due to impending darkness; excavation would continue Friday morning at 0800.

Friday, January 16, 1992

Weather was overcast and cold throughout the day, with winds from the north.

Jo Brady stopped at the base COE office at 0730 to outline the day's activities with Jim Richards. Jim requested that the extent of the native soil barriers separating Cell 3 from surrounding cells be determined by extending the east-west trenches into the adjacent cell and obtaining dated material from them. Jo Brady expressed her concern of potential cross-contamination to Jim Richards when he visited the site after the eastern cell had been

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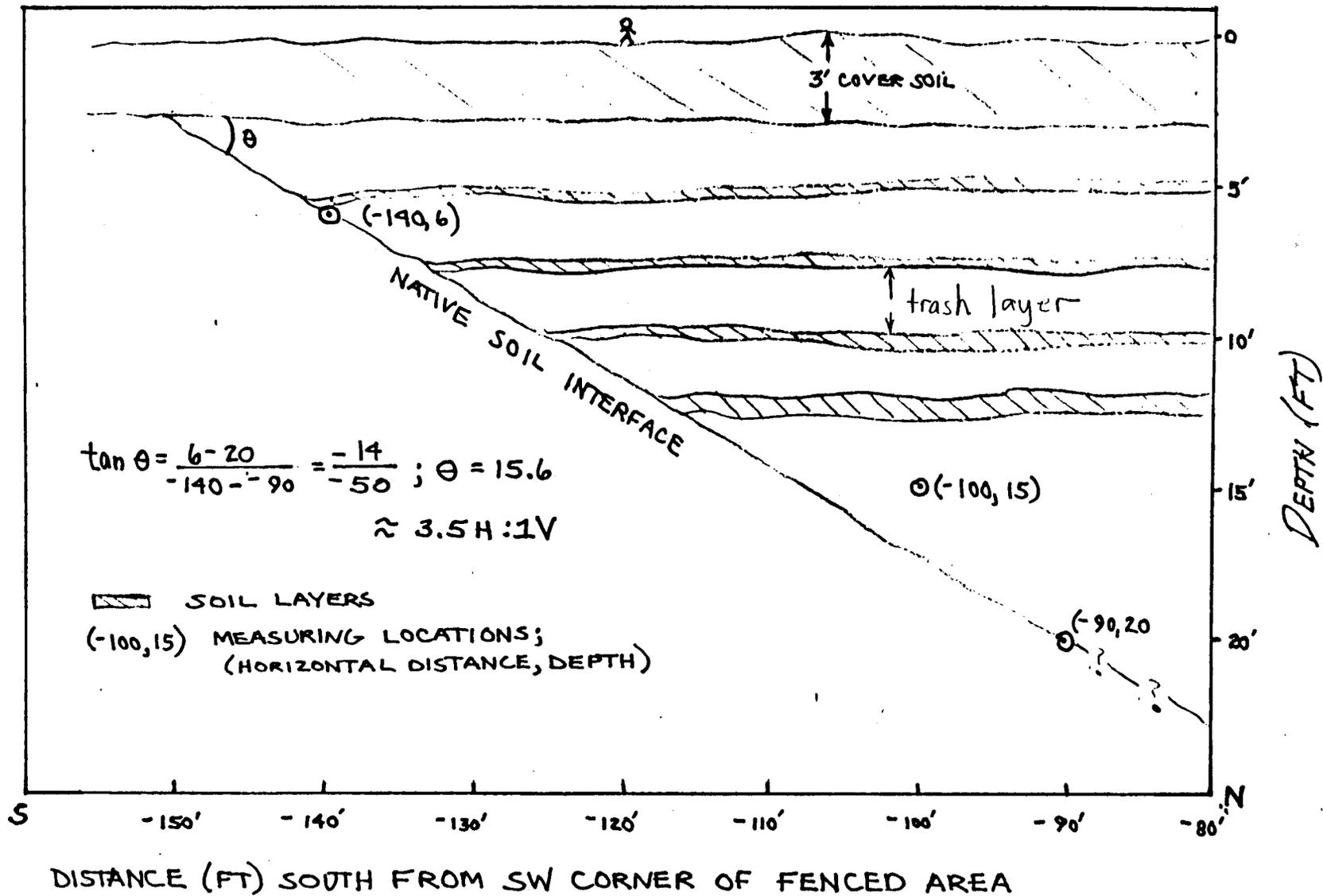
encountered. Jim was aware of Jo Brady's concern; however he said the State had specifically requested the width of the soil barrier be determined. It was agreed that an attempt to reduce the potential for cross-contamination would be made by minimizing the amount of soil barrier excavated until the adjacent cell was encountered. An average of 10 feet separated Cell 3 from the adjacent cells on each side. The newspaper obtained from the cell to the east of Cell 3 yielded a date of 1978, while the date from the cell to the west was 1979. Only Glenn Woodson observed the day's activities as Mark Wittrock was returning to Albuquerque.

Excavation activities concluded approximately 1100. The trenches were filled in the afternoon.

The site was inspected after all the trenches had been refilled and compacted by the equipment driving over it. Although the debris visible at the surface was unavoidable, further work may be necessary to cover the debris to prevent a safety hazard to the flightline of blowing trash.

Jo Brady stopped by the base COE office to inform Jim Richards that the work had been completed and the trenches filled. Jo Brady indicated there was debris at the surface which may require further attention and informed Jim to expect a report of the field activities sometime next week. Jo Brady left the base at 1730; Jerry Camp drove the equipment to the hotel for an early departure Saturday morning. The rental company was contacted to pick up the trac-hoe. It was arranged to leave the trac-hoe at the site outside the locked gate where it would be picked up on Tuesday.

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CANNON AFB
SANITARY LANDFILL 5
PARTIAL CROSS-SECTION OF CELL 3

FIGURE 2