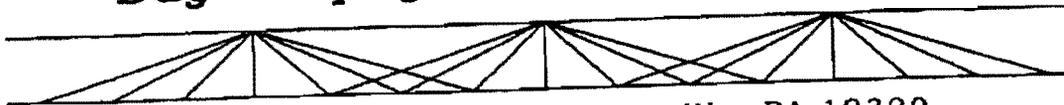


*Bay Geophysical Associates, Inc.*

206 Cambridge Way, Coatesville, PA 19320

31 August 1998

Project No.: 98-176P

Mr. John Hopkins  
Morrison Knudsen Corporation  
2237 Trinity, Bldg. 2, 1st Floor  
Los Alamos, New Mexico 87544

RE: **Results of additional geophysical surveying  
TA-21, MDA B, Los Alamos, New Mexico**

Dear Mr. Hopkins:

This letter summarizes the result of the additional geophysical survey that was completed at the above reference site on 12 and 13 August 1998. The survey was completed to further delineate anomalies detected at Areas 1 and 3 during our initial survey. The results of our initial survey are described in our previous report dated 24 July 1998. Time domain EM metal detector (EM61) and ground penetrating radar (GPR) surveys were performed to achieve the survey objectives.

**METHODOLOGY**

The EM31 and GPR methods used for this survey are described in our previous report dated 24 July 1998. EM61 data were recorded at less than 1-ft intervals along lines spaced 5-ft apart. GPR data were recorded continuously along lines spaced 5-ft apart.

**RESULTS AND DISCUSSION****AREA 1**

Data were collected along the access road located south of the original survey area. Data collection was confined to the road because dense vegetation on either side of the road prevented access with the geophysical instruments. The primary focus of this survey was to define the southern extent of the anomalies located near 460N/725E and 600N/975E and to verify that the anomaly



The GPR data did not detect any features that could be interpreted as former waste burial trenches. However, chaotic reflection events were observed in the western portion that suggest the presence of fill materials.

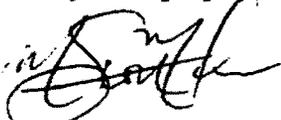
## CONCLUSIONS

The results of the additional surveying at Area 1 indicate the anomalies detected during the previous survey do not extent past the southern edge of the access road. The occurrence of exposed bedrock along the majority of the access road corroborates this interpretation. EM61 anomalies located along the northern edge of this survey are attributed to the fence and the wastewater pipeline. Several buried bedrock depressions were interpreted from the GPR data. One of these depressions was observed south of the EM61 anomaly near 460N/725E. The occurrence of construction debris exposed near the surface in this area suggests that this area had been backfilled with construction debris. This interpretation suggests that the anomalies of concern may be caused by construction debris that was used to fill a former topographic depression. The shallow depth and low amplitude of the EM61 anomalies detected in this area are consistent with this interpretation.

The additional data collected at Area 3 was unsuccessful at delineating the extent of the suspected waste burial site. The data does indicate the presence of buried metal objects at the western edge of the site. However, the presence of known pipelines and surface observations suggest that this area has been disturbed and possibly backfilled for reasons unrelated to the alleged disposal of materials within the fence boundary.

Please contact me at 610-384-6772 if you have any questions regarding the results of this investigation. We appreciate the opportunity to provide our services and we look forward to the possibility of working with you again.

Kind regards,  
Bay Geophysical Associates, Inc.



V. Scott McQuown, P.G.  
Principal Geophysicist

Figure 2  
GPR Profile - 405N/723E to 415N/744E  
TA-21, MDA B  
Los Alamos National Laboratory

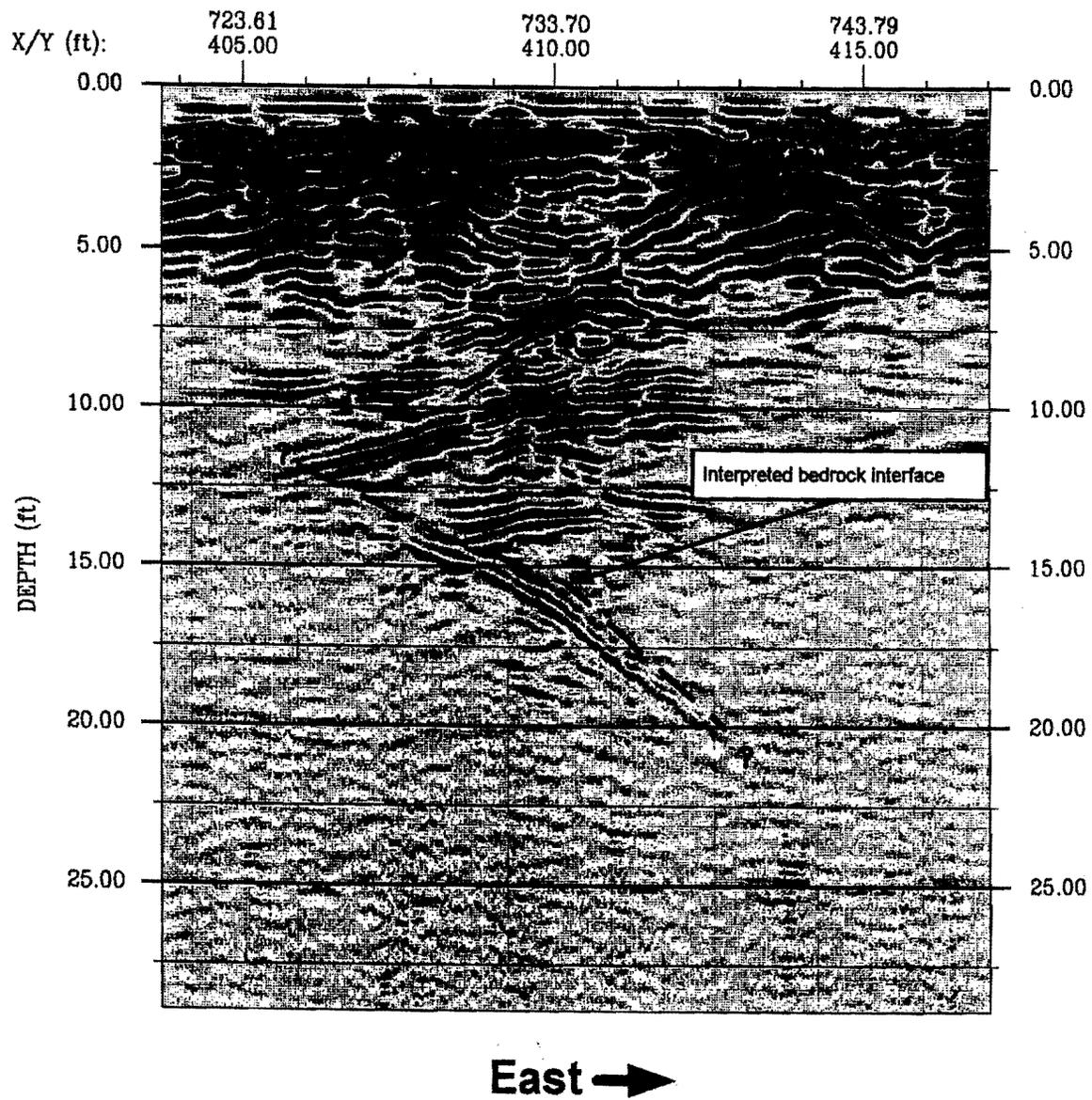


Figure 4  
Buried Metal Response - Area 3  
TA-21, MDA B  
Los Alamos National Laboratory

