



environmental management, inc.

**From:** Deni Chambers, CEM  
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**Date:** November 10, 2010

**To:** Shannon Harbour, PE  
Nevada Division of Environmental Protection

**RE:** Errata to the *Removal Action Work Plan for Phase B Soil Remediation of Remediation Zones RZ-B through RZ-E, Tronox LLC, Henderson, Nevada* (Revised August 13, 2010), NDEP Facility ID # 000539

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The following Errata to the *Removal Action Work Plan for Phase B Soil Remediation of Remediation Zones RZ-B through RZ-E, Tronox LLC, Henderson, Nevada* (RAW; Revised August 13, 2010) contains responses to the Nevada Division of Environmental Protection (NDEP) comments and concerns contained in NDEP's November 8, 2010 letter (Letter) to Tronox.

NDEP's Letter expresses concerns related to decontamination of trucks used to backhaul clean fill material at the Apex Landfill. The concern was that trucks leaving the landfill were potentially not completely empty of contaminated soil. Additionally, NDEP directed Tronox to address issues regarding extension of excavation plans to cover visually identified waste materials which extend beyond polygon cut-lines. Tronox's responses to NDEP's comments are presented below.

***Comment 1:** Clarify that those vehicles that are being used for hauling of contaminated soil/material from the TRX Henderson Facility (Site) will be thoroughly decontaminated 1) prior to the placement of any other soil/material into these same vehicles or 2) the removal of these same vehicles from Site hauling activities. Decontamination procedures for these vehicles should be equivalent to the decontamination procedures for excavation equipment leaving the Site (RAW Section 3.4 and Transportation Plan Section 7.3) and include wet decontamination with proper management of the rinsate.*

**Response:** Las Vegas Paving has submitted the attached *Decontamination Process of Backhaul Trucking, Apex Landfill Plan*. The plan describes the procedures currently used to unload trucks at the landfill and to decontaminate the trucks before they travel to the quarry and are loaded with clean backfill. In addition, an aerial plan is presented showing the Active Dump Area and the Soil Treatment Area (Truck Decontamination Area), as well as a description of the how the rinsate is handled. Las Vegas Paving is increasing its commitment to cleaning the trucks at the landfill to eliminate potential track out of landfill contents.



Comment 2:

- a. *Vehicles used for hauling contaminated soil/materials from the Site should be properly decontaminated prior to leaving the disposal area especially if these vehicles come into contact with the contaminated soil/material (i.e. tires, mud flaps, etc.).*
- b. *The tarps for any vehicles that have not had the interior of the truck beds decontaminated (i.e. empty return trucks) should be fully deployed to prevent the accidental release of any remaining contaminated soil/material along the return route to the Site.*

**Response:**

- a. See response to Comment 1 above.
- b. Las Vegas Paving will comply with NDEP's request to have the empty trucks tarped before leaving the landfill.

Comment 3: *Tronox should clarify that any visually identified waste materials or soil contamination will be removed unless otherwise directed by NDEP. Any additional excavation that occurs because of visually identified contamination that extends past the excavation limits established by the pre-confirmation sampling should be followed by post-excavation confirmation sampling for the chemical drivers for the excavation polygon associated with the visually identified contamination. If no excavation polygon is associated with the visually identified contamination, then TRX should conduct broad suite analysis for general chemistry, VOCs, SVOCs, organophosphate pesticides, organochlorine pesticides, and dioxins/furans TEQ.*

**Response:**

- a. If visual contamination is identified during Site remediation, it is Tronox's intent to continue to excavate the contaminated soil until it is removed. If the resulting excavation is deeper than the reach of the excavation equipment, excavation will cease and direction will be sought from Tronox management. NDEP will be notified and the situation will be discussed and resolved. Tronox agrees to collect a confirmation sample(s), as appropriate, if the excavation extends beyond proposed depths or lateral extent contained in the Excavation Plans.
- b. If no excavation polygon is associated with the visually identified contamination, Tronox will conduct broad suite analysis as specified.

Comment 4: *TRX should note that if contamination is found to extend off-Site, TRX should immediately obtain access to continue with excavation until all visual contamination has been*



*removed and post-excavation sampling has been conducted. TRX should note that excavation should continue until post-excavation sampling indicates that contaminant concentrations are less than the approved comparison levels.*

**Response:** If Tronox finds that contaminated soil extends off-Site, Tronox will notify NDEP that this condition has been encountered. If a pre-confirmation sample has not already been collected, Tronox will collect a confirmation sample at the property line. The results of the sampling event will be provided to NDEP. Tronox cannot excavate beyond the property boundary. Any contamination on adjacent parcels is the responsibility of the adjacent land owner.

### **Conclusion**

If you have any further questions or would like to discuss the above responses, please contact us.

Attachment:

Las Vegas Paving Decontamination Process of Backhaul Trucking



General Engineering  
Contractors  
Since 1958



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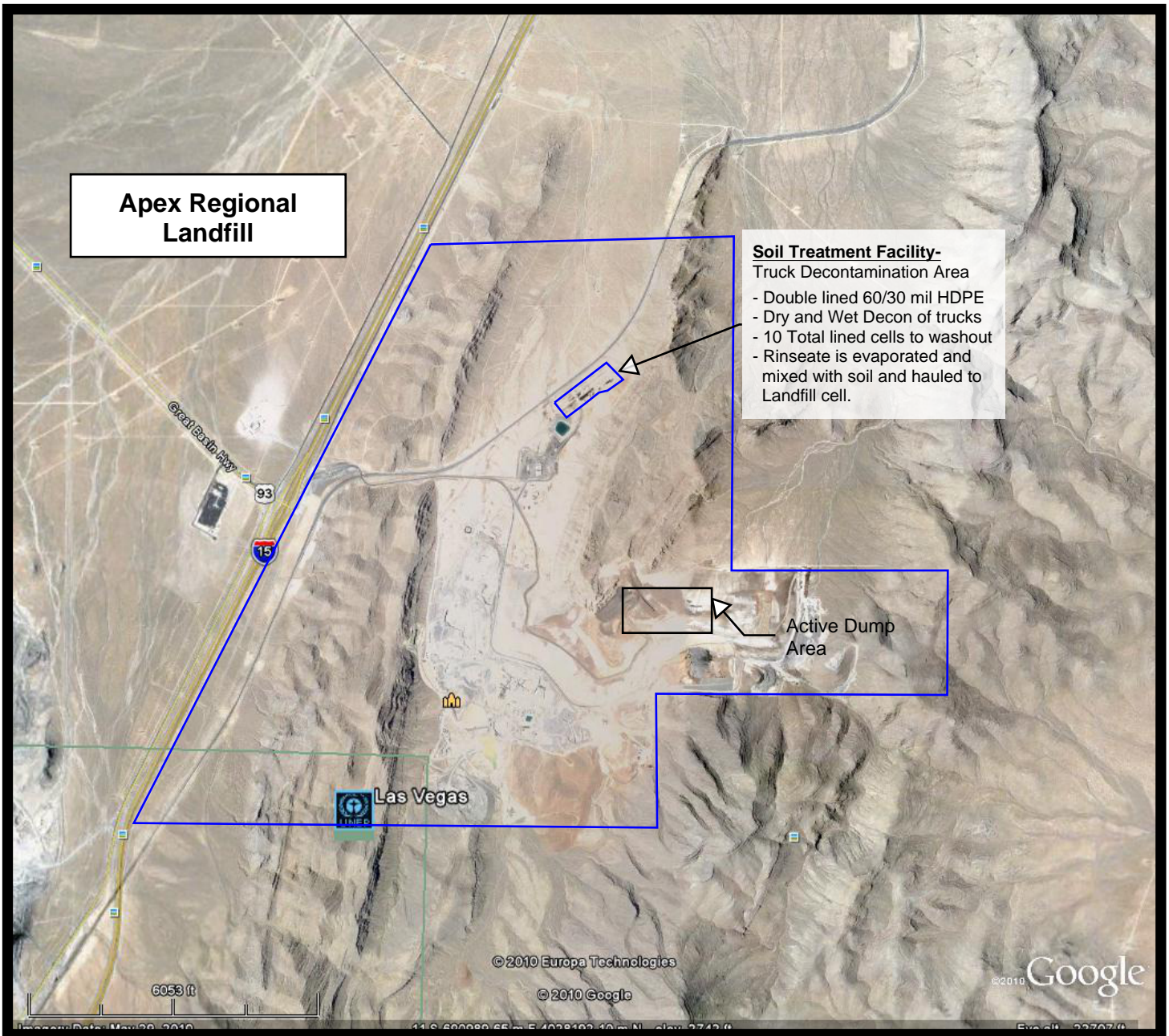
## **DECONTAMINATION PROCESS OF BACKHAUL TRUCKING APEX LANDFILL**

### **Types of Trucking:**

- ❖ Double Belly dumps
- ❖ Double Side Dumps (similar process for single side dumps and semi end dumps)

### **Process:**

- ❖ After dumping contaminated soil from Tronox project, trucking is routed to decontamination area (refer to attached layout of Apex Site).
- ❖ Dry decontamination is conducted by brushing/scraping out visible clumps and rocks.
- ❖ Wet decontamination is conducted by using a high pressure and low volume system to completely rinse the truck bed/mud flaps/wheels/etc free of dust and unseen contaminates.
- ❖ Rinseate is allowed to run within the permitted-doubled lined ponds.
- ❖ Rinseate is removed by two methods:
  - Evaporation
  - Soil mixing – dry inert soil is mixed with stored rinseate and loaded and hauled to landfill cell.
- ❖ Differing access for types of trailers –
  - Double Belly Dumps - Steel observation and working platform is utilized to gain access to the top of the belly dump trailers.
  - Double Side Dumps – Access is from the ground
- ❖ Track out pad is in the northwest area and is used to exit the decon area and is maintained in proper order.

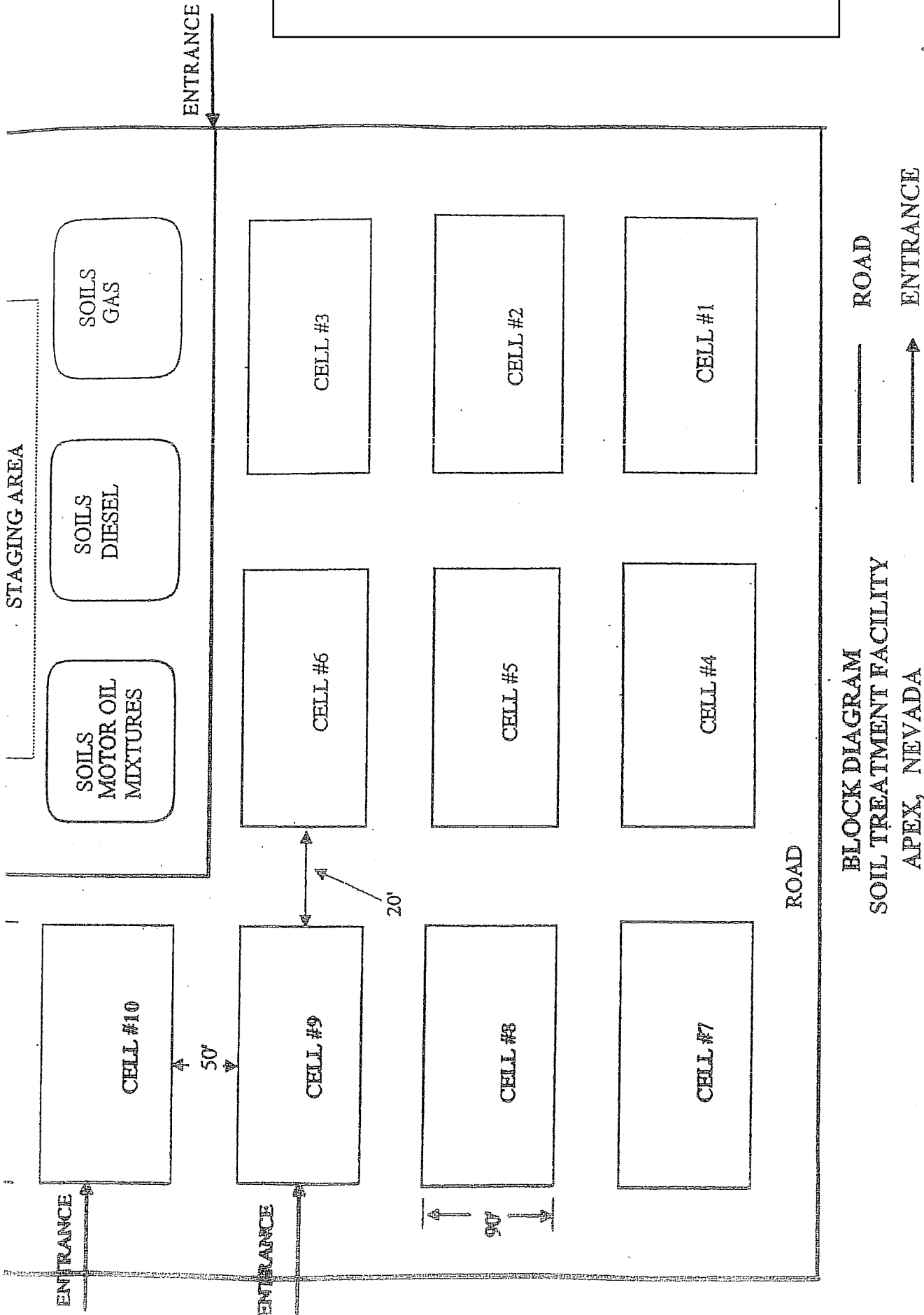


## TRONOX REMEDIATION PROJECT

### DECONTAMINATION OF BACKHAUL TRUCKS



# EXHIBIT - STF CELL LAYOUT DECON PLAN APEX



BLOCK DIAGRAM  
SOIL TREATMENT FACILITY  
APEX, NEVADA

Figure 3

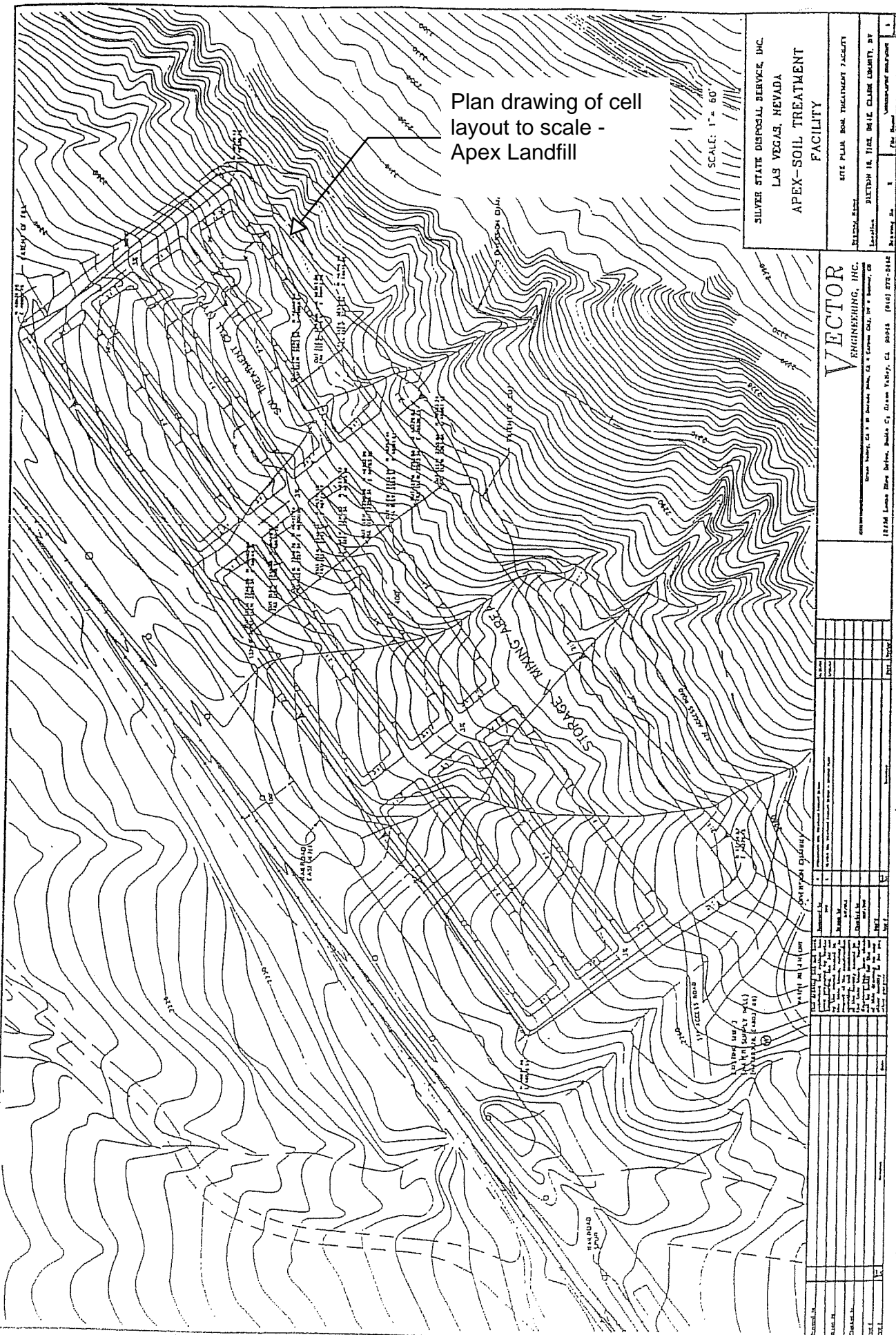


Figure 2