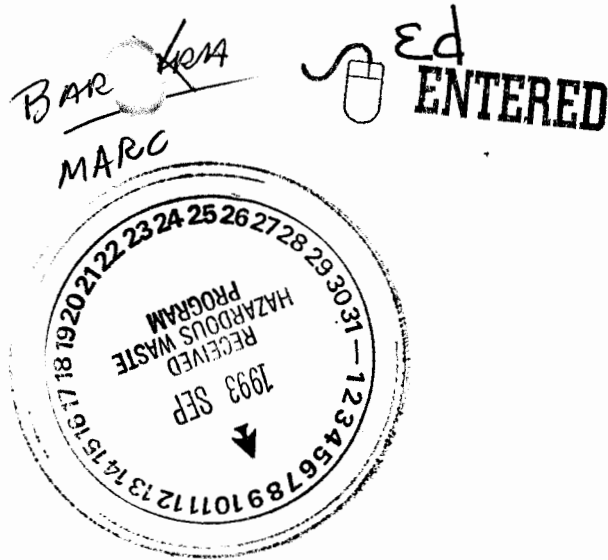




Bloomfield Refining
Company

A Gary Energy Corporation Subsidiary

September 2, 1993



Ms. Barbara Driscoll
EPA Region VI
6H-PN
1445 Ross
Dallas, Texas 75202

RE: Surface Impoundment Retrofit at Bloomfield Refining Company
NMD 089 416 416

XI

Dear Ms. Driscoll:

The purpose of this letter is to propose a plan to retrofit three surface impoundments which are used to treat the wastewater outfall from the API separator at Bloomfield Refining Company in Bloomfield, New Mexico. The proposed work will include installing a new high density polyethylene (HDPE) flexible membrane double liner system within the existing liner system of the three surface impoundments.

The existing system consists of one 100 mil HDPE liner placed over a french drain system which directs any collected leachate to a central sump. Bentonite was mixed into the soil beneath the french drain such that a six inch layer of 33% bentonite was formed. This bentonite-soil layer was constructed in order to provide a low permeability composite layer that would confine and direct liquids to the french drain system. A sketch of the existing system is attached.

In order to assure compliance with the minimum technological requirements (MTRs) of RCRA Section 3004(o)(1) and (o)(5)(A), the surface impoundments are required to have a double liner with a leak detection and leachate collection system between such liners. The required compliance period of four years is described in the proposed Timing of Surface Impoundment Retrofitting Under the Land Disposal Restrictions Rule of February 4, 1992 [57 FR4170 to 4176]. The liners are required to meet the following criteria. They must be: (1) chemically resistant to the expected waste; (2) sufficiently supported by a stable foundation; and (3) large enough to cover the entire area exposed to the waste. The proposed design has been based on these criteria and satisfies each of them.

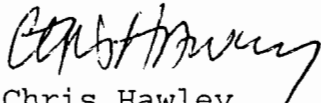
Bloomfield Refining Company proposes to install an additional sequence of liners incorporating a leachate collection system over the existing liner system (clay composite and 100 mil HDPE) without removing this system. The additional sequence will include a primary liner of 100 mil HDPE, an intermediate geotextile fabric and geonet for leachate collection, and a secondary liner made of 60 mil HDPE. The primary liner will also be of the High Density Conductive (HDC) type to allow for

extra inspection capabilities at installation. The drainage grid (HDPE geonet and geotextile having a hydraulic transmissivity of 4.16×10^{-3} m²/sec) will provide positive gravity drainage toward a perforated two inch main line. A layer of sand shall be installed between the existing 100 mil HDPE liner and the secondary liner, as necessary, to create a minimum of a 1% slope toward this central drain pipe. Any liquids will be directed to a sump accessed through a riser pipe placed between the two liners and daylighting at one corner of each impoundment. This system is designed to provide the leachate collection required by the MTRs. Leak detection shall continue to be achieved through the existing french drain system located directly above the composite (bentonite) layer. Figure 1 is a plan view of the three surface impoundments with a possible configuration for the new leak detection system's main lines and sumps. Figures 2 and 3 illustrate the details of the proposed surface impoundment retrofit system.

Bloomfield Refining Company believes that the system described above satisfies the requirements of a surface impoundment retrofit, and is functionally equivalent to the requirements specified in the Liners and Leak Detection Systems for Hazardous Waste Land Disposal Units notice of final rulemaking of January 29, 1992 [57FR3462 to 3497]. The degree of environmental protection imparted by the system described above can be achieved without incurring the prohibitive costs required to destroy the existing liner system, and does not significantly reduce the useful capacity of the impoundments. Therefore, Bloomfield Refining Company requests that the EPA make an assessment of equivalence of this proposed liner system as allowed by 40CFR 264.221(d).

Your prompt attention to this matter is greatly appreciated, and will allow Bloomfield Refining Company adequate time to procure and install the additional liner system.

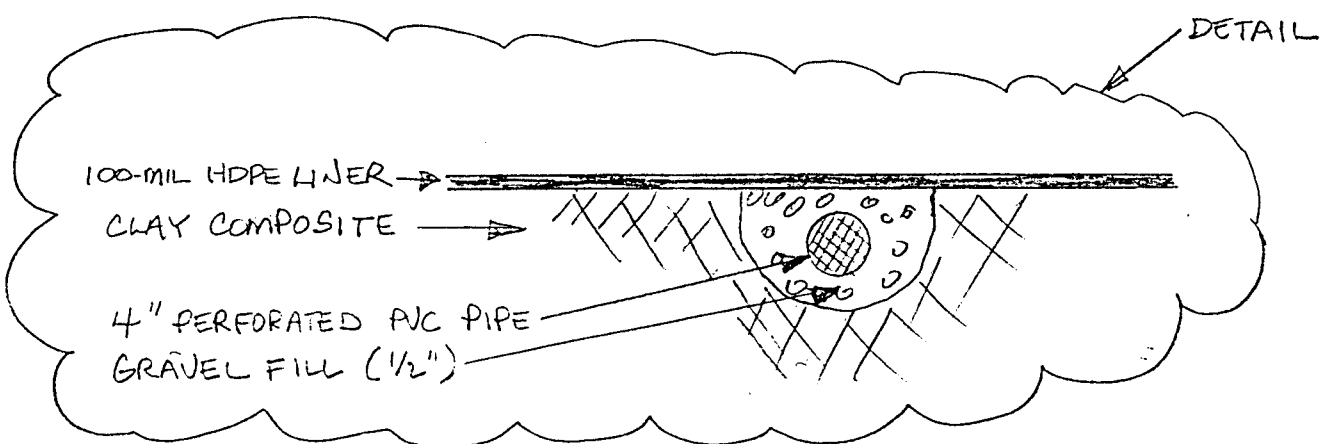
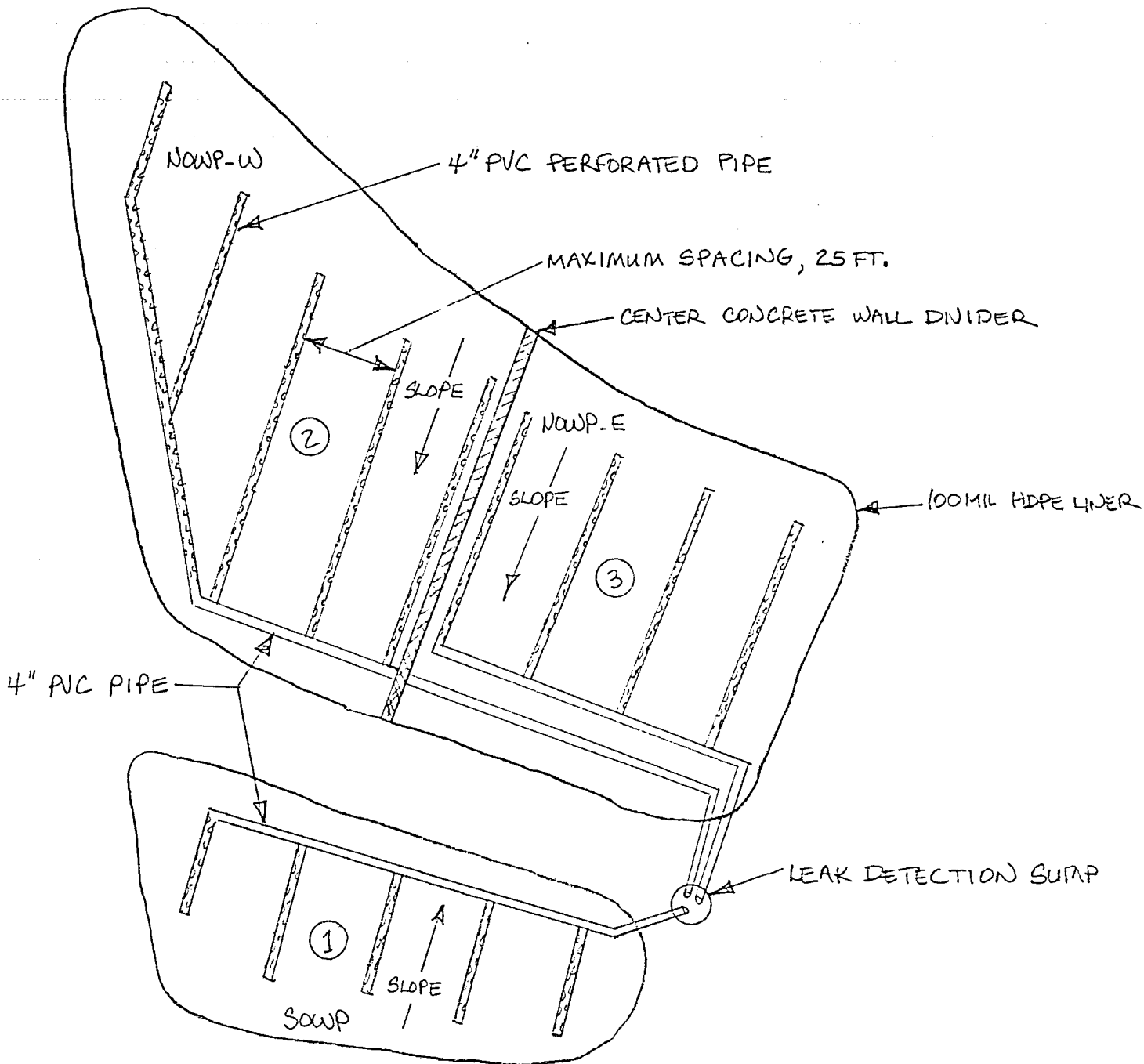
Sincerely,

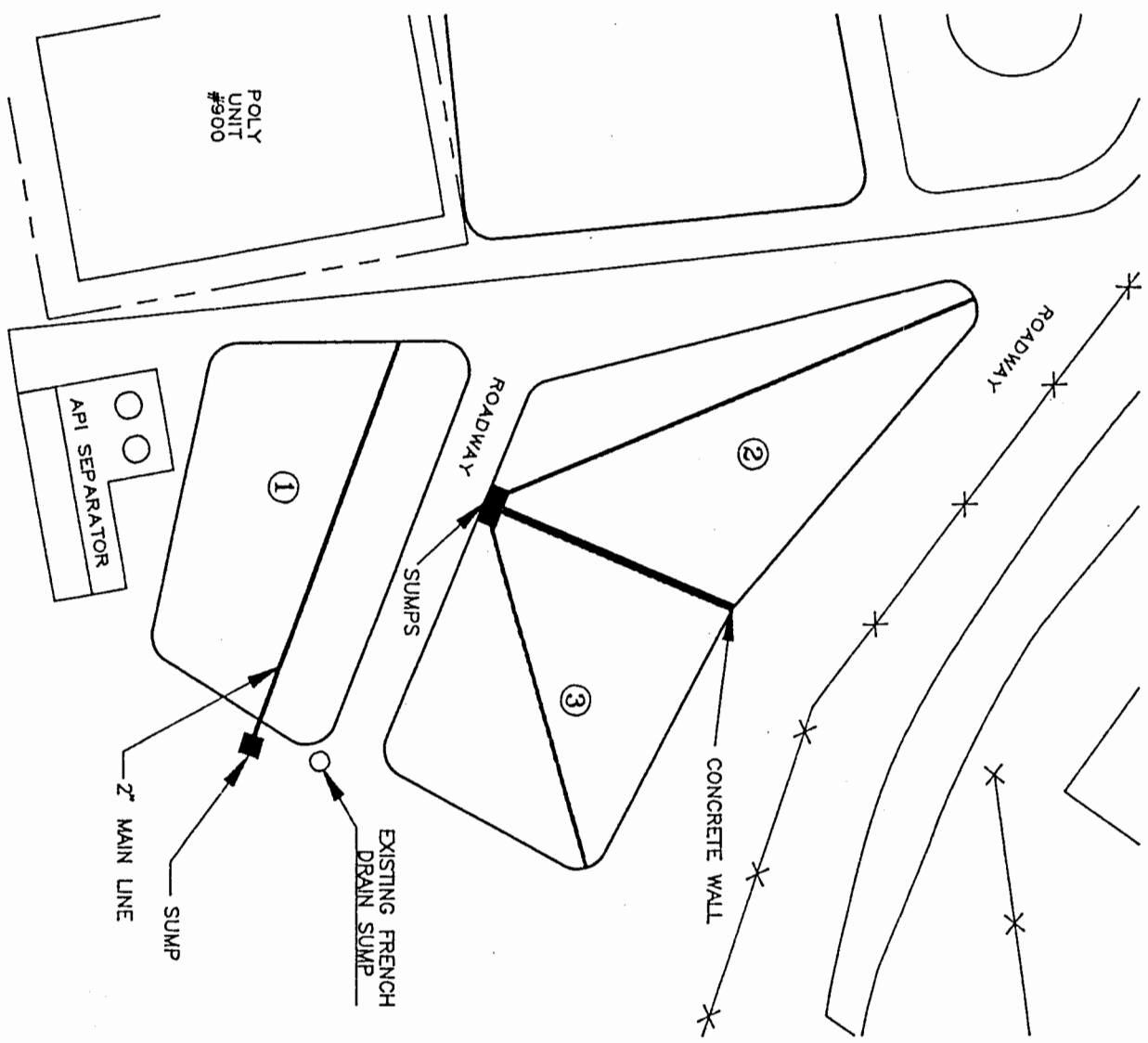
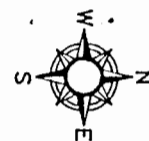


Chris Hawley
Environmental Manager

CH/jm

cc: Joe Warr
Dave Roderick
John Goodrich
Ed Horst, NMED





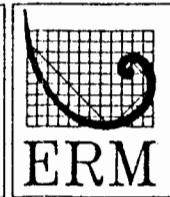
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FIGURE

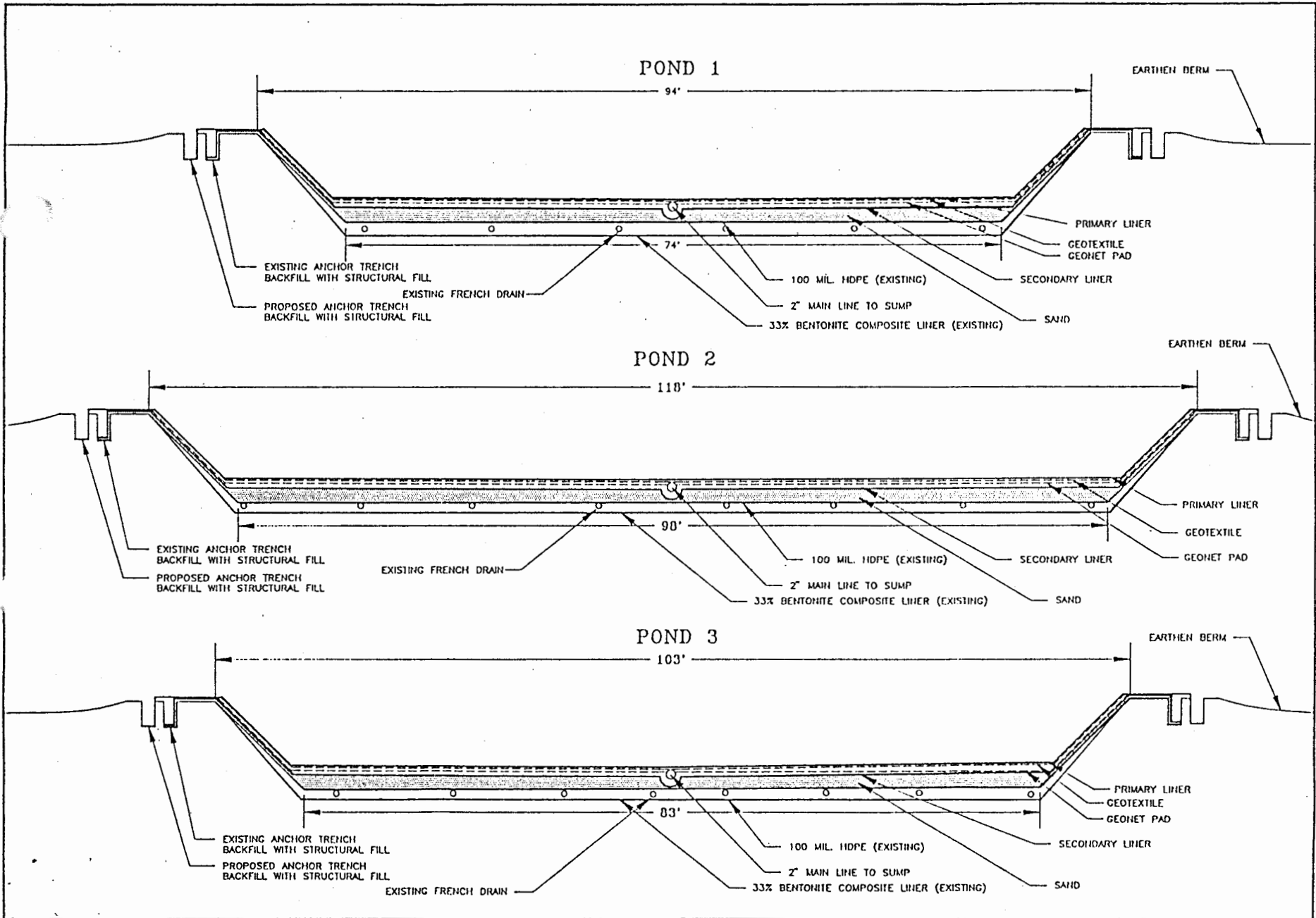
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FILENAME	FIG-1

BLOOMFIELD REFINING COMPANY
BLOOMFIELD, NEW MEXICO 87413

SITE PLAN



ERM-Rocky Mountain, Inc.
5950 South Willow Drive
Suite 200
Greenwood Village, Colorado 80111
(303) 741-5050



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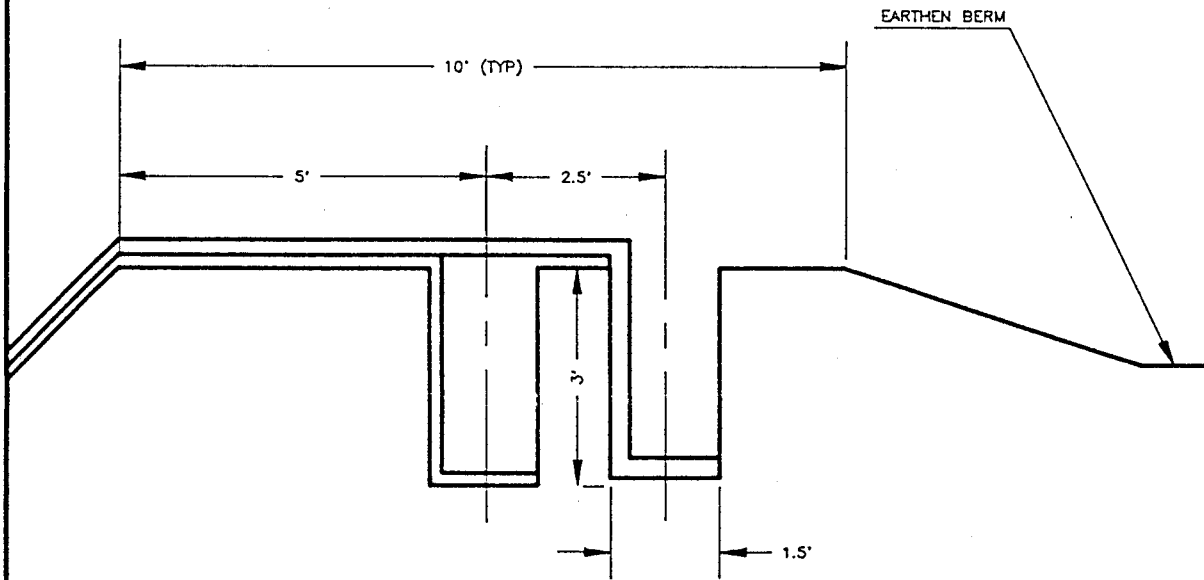
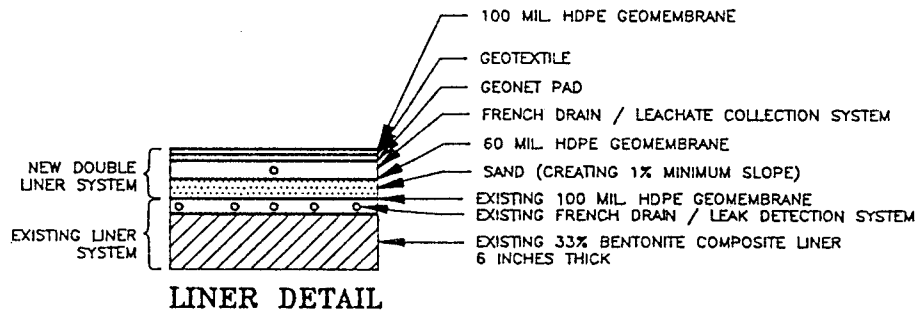
BLOOMFIELD REFINING COMPANY
 BLOOMFIELD, NEW MEXICO 87413

CROSS SECTIONAL VIEW OF
 SURFACE IMPOUNDMENTS

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FIGURE

2



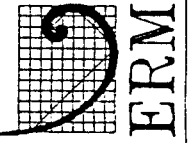
BLOOMFIELD REFINING COMPANY
BLOOMFIELD, NEW MEXICO 87413

SYSTEM DETAILS

DESIGNED	EAG
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CHECKED	EG
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JOB NO	123456.1
FILENAME	FIG-3

FIGURE

3



ERM-Rocky Mountain, Inc.
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