GW-046

Site Closure Workplan

DATE:
September 03, 2010

GW-046

September 3, 2010

Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: **Site Closure Workplan for Eunice "A" Compressor Station**
Lea County, New Mexico

To Whom It May Concern:

On behalf of El Paso Natural Gas, Eco-logical Environmental Services has prepared a *Site Closure Workplan* for the above referenced facility.

Thank you for your attention to this matter and please call if you have any questions (806-358-7484).

Respectfully,

Zach Capehart
Program Manager

Cc: Glen Thompson, EPNG
Jeremy Gramling, EPNG
Kenny Morrow, EPNG

Site Closure Workplan for Eunice "A" Compressor Station

Lea County, New Mexico

Prepared for:

elpaso Natural Gas

Mr. Glen Thompson
El Paso Corporation
1550 Windway
Odessa, Texas 79761

Submitted to:
Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Prepared by:

Eco-logical Environmental Services Inc.

5107 Catalpa Lane
Amarillo, Texas 79110

September 3, 2010

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Eco-logical Environmental Services, Inc. (EES) has prepared this site closure workplan on behalf of El Paso Corporation (EPC) to document the investigation activities which will be conducted at the Eunice "A" Compressor Station to ultimately achieve closure.

1.1 BACKGROUND INFORMATION

The Eunice "A" Compressor Station is located in Lea County at the position N32.511481°, W103.287492°.

El Paso Natural Gas Company's Eunice "A" Compressor Station is engaged in the compression of natural gas. The Eunice "A" Compressor Station consists of twelve (12) internal combustion engine compressor drives that total 12,100 horsepower and has a design gas capacity of 344 million cubic feet of gas per day.

Entrained liquids are removed from the gas stream prior to compression by two (2) horizontal gas-liquid scrubbers. The compressed gas passes through cooling coils in mechanical draft cooling tower, then part of the gas stream passes through twelve (12) small gas-liquid scrubbers. The primary purpose of the scrubber is to remove any small quantities of liquids from the gas stream prior to entering the mainline transportation system.

1.2 PHYSICAL SETTING

The Eunice "A" Compressor Station is located in Section 5 and Township T-21-S, Range R-36-E, Lea County, New Mexico or approximately eleven (11) miles northwest of Eunice, New Mexico and one (1) mile west of State Highway 8.

1.3 GENERAL SITE GEOLOGY

The Eunice "A" Compressor Station is underlain by clastic and chemical sedimentary rocks of Ordovician through Triassic Age, and by Quaternary alluvial sediments. The alluvial cover over the sedimentary rocks consists of sand, gravel, silt, and clay and contains the Ogallala formation; the principal source of potable groundwater in the area. The Ogallala aquifer slopes to the southeast in the area of the Eunice Plant and has hydraulic gradient of ten (10) to twelve (12) feet per mile toward the east or southeast. The soils of the plant area are an integral component of the local hydrogeology due to the shallow nature of the Ogallala Aquifer and the relatively high permeability of the predominant sandy soils present.

The Eunice "A" Plant site is located entirely on the Berino-Cacique soil complex. This complex consisty of approximately fifty (50) percent Berino fine sand loam and forty (40) percent Cacique fine sandy loam soils. Both soils are well drained. The Cacique soil series is found only in association with the Berino soil series and has indurated caliche at depth of 20-34 inches. The Berino soil is deeper with light sandy clay subsoil and caliche zone at 48-60 inches. Both of these soils have moderate to rapid water intake and permeability.

Potential chemicals of concern (COCs) were identified based on visual observation of chemicals, products, wastes present at the facility, potential source areas, and interviews with EPC personnel. The sources of potential COCs include those associated with engine oil, coolants, solvents, waste oil, natural gas condensate liquids, and mercury manometers. Based on the source, appropriate laboratory analyses were selected for each of the possible source areas and listed in the table below.

Chemicals of Concern by Source Area													
Source Area	Chemicals of Concern												
	BTEX	VOC's	SVOC's	TPH GRO	TPH DRO	Metals	Lead	Chromium	Hexavalent Chromium	Mercury	Glycol's	PCB's	NORM
Fin Fan				X	X		X	X				X	
East Pump Room				X	X	X						X	
Compressor Building		X	X	X	X	X				X		X	
Inlet Scrubbers	X			X	X								
Starting Air Tank												X	
Cooling Tower								X	X				
Spray Pump Building				X	X							X	
Drain Lines		X	X	X	X	X						X	

Analysis will be conducted utilizing the following analytical methods:

- BTEX Method EPA 8260
- VOC's Method EPA 8260
- SVOC's Method EPA 8270
- TPH GRO Method EPA 8015
- TPH DRO Method EPA 8015
- Metals Method EPA 6010B-200.7 / EPA 7470a-7471 for Mercury
- Glycols Method EPA 8015
- PCB's Method EPA 8082
- NORM Method EPA 900.1

The soil and groundwater assessment will be conducted utilizing the following methodologies.

3.1 SOIL ASSESSMENT METHODOLOGY

Soil borings will be advanced via a hand auger to five (5) feet below ground surface (bgs) or until refusal is encountered. At each boring location, discrete soil samples will be collected from the surface (0-6"), two (2) feet bgs, and five (5) feet bgs.

The surface samples were collected following the removal of the upper 1 to 2 inches of soil/gravel with a clean stainless steel trowel. The upper 1 to 2 inches were removed because fill material (gravel) has been imported over the past several years. In addition, volatile compounds in the upper 1 to 2 inches were likely to have volatilized at the surface due to the exposure to the elements.

A stainless steel hand auger will be advanced to approximately 2 to 4 inches above the sample depth (i.e. 2' and 5'). The soil cuttings will be discarded, and the hand auger decontaminated. At this point, the hand auger will be advanced to the required depth for sample collection. The sample is split for field screening and laboratory analysis. One-half of the sample will be placed into a Ziploc bag for headspace screening, and one-half of the sample will be placed into a 4-ounce laboratory supplied container.

3.2 GROUNDWATER ASSESSMENT METHODOLOGY

In the event groundwater is encountered, assessment of a groundwater bearing unit (GWBU) at the site will be following the below methodology.

3.2.1 Monitoring Well Construction Materials

Well Casings and Screens

Well casings will consist of new four (4) inch flush-joint schedule 40 PVC. Well screens will consist of new four (4) inch flush-joint schedule 40 PVC with 0.020-inch factory machined slots.

Sand Filter Pack

The filter pack material will be a chemically inert, rounded, silica sand of appropriate size for the well screen. The filter pack will extend approximately five (5) feet above the top of the screen. The final depth to the top of the filter pack will be measured directly by using a weighted tape measure.

Bentonite Seal and Grout

A bentonite seal will be installed above the filter pack. The seal will consist of bentonite chips. The bentonite will be hydrated since it will be above the water table. The annular space will be

grouted from the top of the bentonite seal to the ground surface at five (5) foot lifts and hydrated with five (5) to ten (10) gallons of water.

Protective Casing

A three (3) foot tall six (6) inch by six (6) inch protective steel casing will be installed surrounding the well casing. The protective casing will be embedded and surrounded by a three (3) foot square concrete collar.

3.2.2 Well Installation

If groundwater is encountered, the boring will be advanced two (2) to five (5) feet into the confining layer. Upon reaching the total depth of the boring, the drill stems and drill bit will be removed. A PVC threaded end cap will be placed at the bottom of a five (5) foot solid schedule 40 PVC silt trap. The screen will be assembled to the silt trap and lowered into the borehole. Casing will be connected to complete the construction. Once the setting of the casing is completed, filter sand will be added slowly. Once the filter sand is in place, the bentonite seal will be installed above the filter pack, and the borehole will be grouted.

3.2.3 Well Development

If groundwater is encountered and a monitoring well is installed, , the well will be developed using a peristaltic pump and a surge block or a bailer. Development will consist of removing approximately three (3) to ten (10) casing volumes plus a volume of water equal to the amount of water added to the borehole during drilling.

This section describes the areas of concern and the investigation activities to take place, to ultimately achieve site closure.

4.1 FIN FAN

This facility has a fin fan associated with the natural gas compression activities. Possible contaminants associated with the fin fan include those associated with lubricating oil and chemicals utilized in the cooling process. Four (4) soil borings will be advanced on the north, south, east, and west sides of the concrete. The surface soil sample will be submitted for TPH (DRO & GRO), PCB's, Chromium, and Lead analysis.

4.2 EAST PUMP ROOM

This facility has a pump room associated with the operations of the natural gas compression activities. The possible contaminants associated with the pump room include those associated with new and used engine oil. Four (4) soil borings will be advanced on the north, south, east, and west sides of the concrete slab. The surface soil sample will be submitted for TPH (DRO & GRO), PCB's, and Metals analysis.

4.3 COMPRESSOR BUILDING

This facility has a compressor building associated with the operations of the natural gas compression activities. The possible contaminants associated with the compressor building include those associated with new and used engine oil, solvents, coolants, and mercury manometers. Ten (10) soil borings will be advanced adjacent to each of the doors on the building. The surface soil samples will be submitted for TPH (DRO & GRO), PCB's, VOC's, SVOC's, and Mercury analysis. Three (3) soil borings will be advanced adjacent to the used oil aboveground storage tank (AST) on the southwest corner of the building. The surface soil samples will be submitted for TPH (DRO & GRO), PCB's, and Metals analysis.

4.4 INLET SCRUBBERS

This facility has two (2) inlet scrubbers associated with the natural gas compression activities. The possible contaminants associated with the inlet scrubbers include those associated with natural gas condensate. Four (4) soil borings will be advanced adjacent to the inlet scrubbers on the north, south, east, and west sides. The surface soil samples will be submitted for TPH (DRO &GRO) and BTEX analysis.

4.5 STARTING AIR TANK

This facility has two (2) starting air tanks, which historically may have contained PCB's. The possible contaminants associated with the starting air tanks include those associated with lubricating oil. Six (6) soil borings will be advanced on the north and south and at the ends of each of the starting air tanks. The surface soil samples will be submitted for PCB's analysis.

4.6 COOLING TOWER

This facility has a cooling tower associated with the cooling of the natural gas. The possible contaminants associated with the cooling towers include those associated with chromium. Ten (10) soil borings will be advanced surrounding the cooling tower. The surface soil samples will be submitted for Chromium analysis. Three (3) of the highest concentration of Chromium results will additionally be analyzed for Hexavalent Chromium.

4.7 SPRAY PUMP BUILDING

This facility has a spray pump building associated with the operations of the natural gas compression activities. The possible contaminants associated with the spray pump building include those associated with lubricating oils. Four (4) soil borings will be advanced adjacent to each of the doors on the building. The surface soil samples will be submitted for TPH (DRO & GRO) and PCB's analysis.

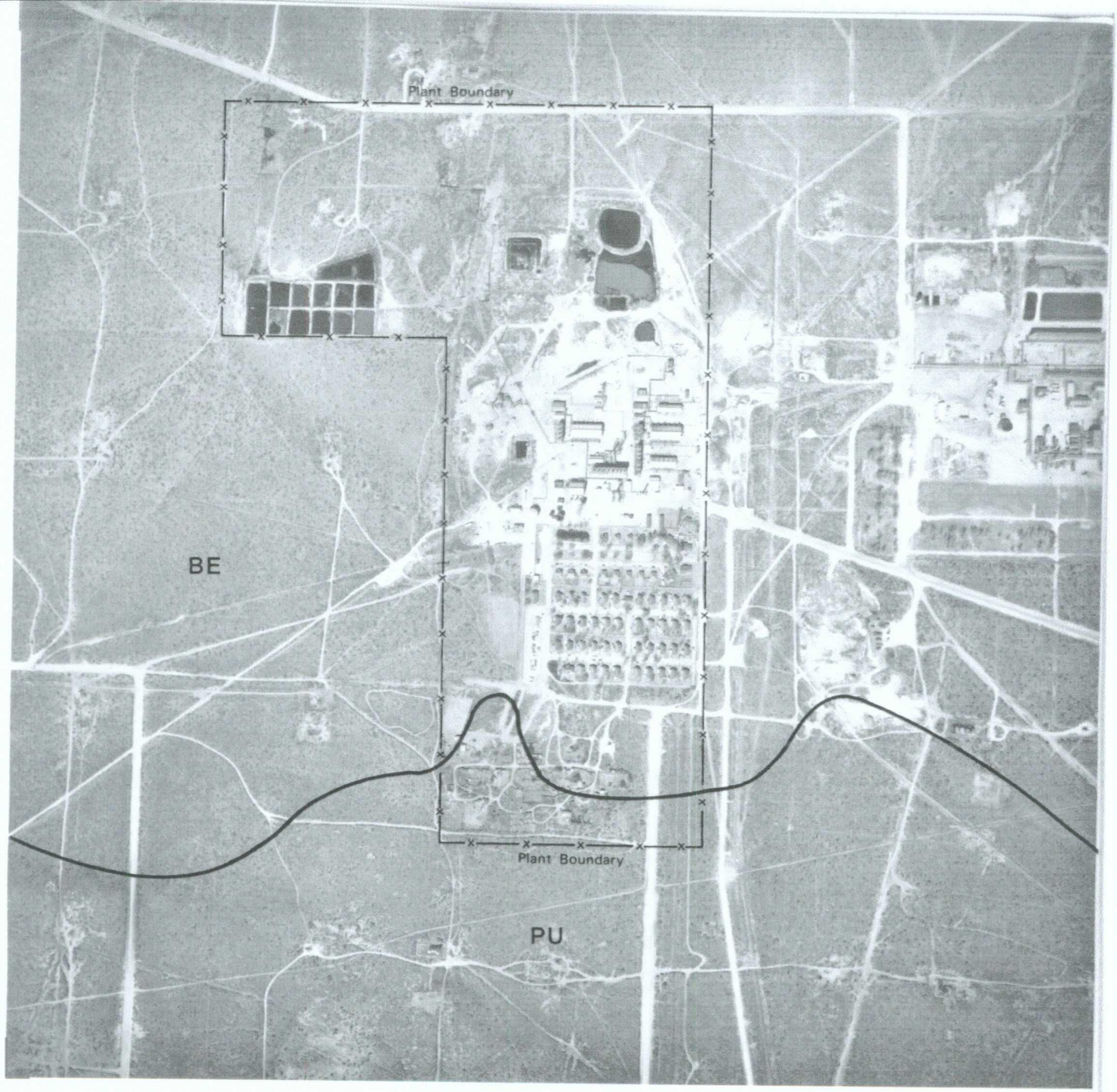
4.8 DRAIN LINES

This facility has drain lines running throughout to each of the various areas. The possible contaminants associated with the drain lines include those associated with other areas of operation. Based on the NMOCD regulations, a soil boring will be advanced adjacent to each pipe connection and in the center of long segments of pipe. The samples just below the pipe will be submitted for TPH (DRO &GRO), PCB's, VOC's, SVOC's, and Metals analysis. The estimated number of samples to complete the drain line inspection will be thirty-five (35) samples.

SECTION 5.0 SCHEDULE OF ACTIVITIES

The proposed site closure investigation will be implemented within thirty (30) days following notice of NMOCD approval. Once approval is received, the NMOCD regional office will be notified of the on-site activities. The investigation activities are anticipated to be complete approximately forty-five (45) days from start-up of the investigation.

6.1 Historical Aerial Maps



SOIL LEGEND:

BE – Berino–Cacique Loamy Fine Sands Association
PU – Pyote & Maljamar Fine Sands

El Paso Natural Gas Company

FIGURE 21

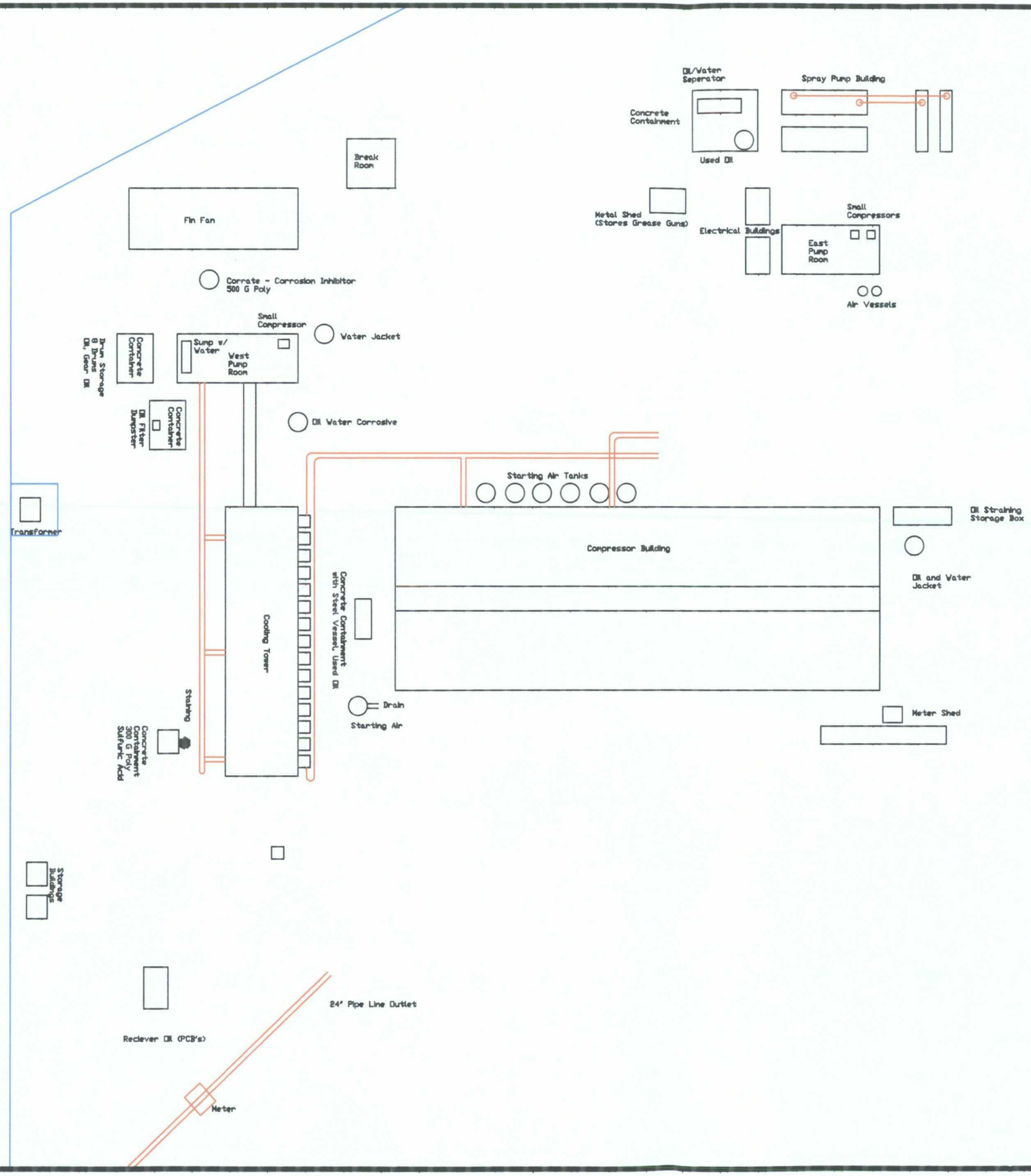
SOIL MAP OF EUNICE PLANT AND ADJOINING AREAS

FROM: TURNER ET.AL. (1974)

N

NO SCALE

6.2 Site Map



General Notes

FIGURE 1

EL PASO NATURAL GAS EUNICE "A" COMPRESSOR STATION

PIPE

FENCE

No.	Revision/Issue	Date

Firm Name and Address

ECO-LOGICAL ENVIRONMENTAL SERVICES, INC.
5107 CATALPA LN.
AMARILLO, TX 79110

Project Name and Address

EL PASO NATURAL GAS EUNICE A COMPRESSOR STATION

Project	982/4170
Date	9/03/2010
Scale	NOT TO SCALE
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