SUPPLEMENTARY INVESTIGATION AND REMEDIATION WORKPLAN

RP# 163

MOBIL STATE ZZ
CRUDE OIL PIPELINE RELEASE SITE
SECTION 7, T-17-S, R-35-E
LEA COUNTY, NEW MEXICO

Prepared For:
Ms. Deb Edwards
EXXONMOBIL REFINING AND SUPPLY
GLOBAL REMEDIATION
2800 Decker Dr., Room NW-46
Baytown, Texas 77520

Prepared by:
Conestoga-Rovers & Associates

2135 S. Loop 250 West
Midland, TX 79705

Office: (432) 686-0086
Fax: (432) 686-0186

web:
http:\\www.CRAworld.com

FEBRUARY 27, 2007
REF. NO. 041687

CONESTOGA-ROVERS
& ASSOCIATES

2135 South Loop 250 West
Midland, Texas 79703
Telephone: (432) 686-0086 Fax: (432) 686-0186
http://www.craworld.com

Formerly BNC Environmental Services

February 27, 2007

22 ABO 763

Reference No. 041687

Mr. Larry Johnson
New Mexico Oil Conservation Division, District 1
1625 North French Drive
Hobbs, New Mexico 88240

WTR 7.
15.7.
CALL EPI

Re: Supplementary Investigation and Remediation Workplan
Mobil State ZZ
Crude Oil Pipeline Release Site
Section 7, T-17-S, R-35-E
Lea County, New Mexico

Dear Mr. Johnson:

Enclosed are one hard copy and one electronic copy of the Supplementary Investigation and Remediation Workplan for the Mobil State ZZ site in Lea County, New Mexico prepared by Conestoga-Rovers & Associates (CRA) on behalf of ExxonMobil Refining and Supply Company – Global Remediation (EMGR).

If you have any questions, please contact Ms. Deb Edwards with EMGR at (281) 834-8963 or Tom Larson at the CRA Midland office at (432) 686-0086. EXT 16

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Thomas C. Larson
Senior Project Geologist

CALLED 3.23.07 LEFT MESSAGE THAT I UNDERSTOOD HE WAS GOING TO COME HERE FOR SITE REVIEW BUT NEVER GAVE ME A SPECIFIC DATE ONLY TENATIVE FIRST OR SECOND WEEK OF MAR, BUT NEVER CONFIRM W/ ME.

Received
Hobbs
OCD

2/27/07
Encl.

c.c.: Ms. Deb Edwards, EMGR – Baytown, Texas
Mr. Brian Magruder, EMPCo, Houston, Texas

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1.0 INTRODUCTION

This Supplementary Investigation and Remediation Workplan presents additional investigation and remediation activities for the former ExxonMobil Pipeline Company (EMPCo) Mobil State ZZ pipeline release site. The proposed activities are based on evaluation of initial response actions, the findings of a soil assessment conducted by Conestoga-Rovers & Associates (CRA; formerly BNC Environmental Services, Inc.) on January 12 and 13, 2005, as well as subsequent discussions with New Mexico Oil Conservation District (NMOCD) personnel. The soil assessment activities were performed on behalf of ExxonMobil Refining and Supply – Global Remediation (EMGR).

The Mobil State ZZ crude oil pipeline release site (hereafter referred to as the "Site") is located in eastern Lea County, New Mexico and the legal description of the Site is the NW/4 of Section 7, T-17-S, R-35-E (FIGURE 1). The surface property is owned by Eidson Ranch, Incorporated. The gathering pipeline was operated by EMPCo until its purchase by Trojan Pipeline L.P. (Trojan) in February, 2004. Trojan subsequently changed their name to Centurion Pipeline L.P. (Centurion) in July, 2004. The gathering pipeline is currently operated by Centurion. A crude oil release from the 4-inch gathering line occurred on July 18, 2003. Additional impacted soils were discovered at the site subsequent to the response and cleanup of the July 18, 2003 release. The release information is documented in correspondence dated January 28, 2005, April 5, 2005, and April 22, 2005 from EMPCo to Mr. Larry Johnson of the NMOCD District 1 office. Other submittals to the NMOCD, landowner and Centurion include:

- *Soil Assessment Report*, prepared by CRA, dated March 3, 2005, detailing initial excavation, pipeline repair, and soil assessment activities performed at the Site.
- *Soil Remediation Workplan,* prepared by CRA, dated November 11, 2005, detailing the findings of a soil boring program that evaluated the vertical and horizontal extent of hydrocarbon-impacted soils at the pipeline release site. Groundwater was not encountered in any of the soil borings advanced as part of the investigation. In addition, tasks to remove affected soils exhibiting concentrations above NMOCD regulatory guidelines were proposed to remediate the site.

The workplan was approved (with considerations) for 90 days in a correspondence from the NMOCD dated January 18, 2006. However, ExxonMobil was not able to obtain access from the landowner during this timeframe and therefore not able to implement the workplan.

Initial excavation activities of the July 18, 2003 release and pipeline repair activities were performed at the Site by an unknown third party. Previous investigations of the Site included excavation activities initiated by B&H Environmental Services (B&H) on December 22, 2003, on behalf of EMPCo. On January 8, 2004, B&H ceased excavation activities at the request of EMPCo. The resulting excavation measured 90-feet by 75-feet with a maximum depth of 5.5-feet. B&H collected two composite soil samples from the excavated area and three composite soil samples from stockpiled soils at the Site. All samples exhibited total petroleum hydrocarbon concentrations (TPH) above 5,000 milligrams per kilogram (mg/Kg) and NMOCD soil remediation standards. Approximately 2,000 to 3,000 cubic yards of soil were stockpiled onsite.

On January 12, 2005, CRA mobilized to the Site and conducted soil assessment activities including the installation of eight soil borings (SB-1 through SB-8) as presented in FIGURE 2. Of the eight borings advanced at the Site, only the two borings situated within the remedial excavation exhibited hydrocarbon concentrations above the NMOCD recommended remediation action levels (RRALs; see Section 2.0). The 9- to 10-foot sample in SB-1 exceeded TPH gasoline range organics/diesel range organics (GRO/DRO) RRAL with a concentration of 130.62 mg/Kg. The 9- to 10-foot and 14- to 15-foot samples in SB-2 exceeded TPH (GRO/DRO) and total benzene, toluene, ethylbenzene and xylene (BTEX) RRAL with concentrations ranging from 1,260 to 4,700 mg/Kg and 83.550 to 250.300 mg/Kg, respectively. The bottom 10-feet (at a minimum) of each boring did not exhibit BTEX or TPH (GRO/DRO) concentrations above laboratory detection levels. The results of the soil assessment activities performed at the Site demonstrated that the vertical and horizontal extent of the hydrocarbon-impacted soils has been delineated at the sampled locations. In addition, groundwater was not encountered in the eight soil borings advanced at the Site.

In February 2007, a Site Access Agreement was executed between the landowner and Mobil Pipe Line Company for the purpose of remediating environmental impacts.

2.0 REGULATORY FRAMEWORK AND SITE CLASSIFICATION

The NMOCD has regulatory jurisdiction over oil and gas production operations including crude oil pipeline spills and closure activities in the State of New Mexico. This project is conducted under the regulatory jurisdiction of the NMOCD, which requires the vadose zone shall be abated so that water contaminants in the vadose zone will not, with reasonable probability, contaminate groundwater or surface water (toxic pollutants as defined in 20.6.2.7 New Mexico Administration Code; NMAC, shall not be present) through leaching, percolation, or other transport mechanisms (19.15.1.19 NMAC, Subsection B, Paragraphs 1 and 2). The NMOCD hydrocarbon soil remediation levels are determined by ranking criteria on a site-by-site basis, which is outlined in the NMOCD *Guidelines for Remediation of Spills, Leaks, and Releases*, dated August 13, 1993. The ranking criteria are based on three site characteristics: depth to groundwater, wellhead protection, and distance to surface water.

Groundwater information obtained from the New Mexico State Engineer's Office and a water well search presented in the *Soil Assessment Report* (March 3, 2005) indicated that the depth-to-groundwater at the Site is approximately 60-feet below ground surface (bgs). Information collected as part of the soil assessment illustrated that the base of hydrocarbon impacts above regulatory levels is approximately 15- to 20-feet bgs. Based on these Site characteristics and associated NMOCD-ranking criteria presented in the table below, the following soil hydrocarbon remediation levels are applicable at the Site: benzene- 10 parts-per-million (ppm), BTEX - 50 ppm and TPH- 100 ppm. Analytical results for soil data are reported in mg/Kg, which are equivalent to the ppm reporting units. Note that the depth to groundwater characteristic is defined by the NMOCD as "the vertical distance from the lowermost contaminants to the seasonal high water elevation of the groundwater."

Ranking Criteria and Scoring

CHARACTERISTIC	SELECTION	SCORE
Depth to Groundwater	<50 feet	20
Wellhead Protection Area	>1,000 feet	0
Distance to Surface Water	>1,000 feet	0

Total Score= 20

Soil Recommended Remediation Action Levels

Contaminant of Concern	>19 Score	10-19 Score	0-9 Score
Benzene (mg/Kg)	10	10	10
Total BTEX (mg/Kg)	50	50	50
TPH (mg/Kg)	100	1,000	5,000

3.0 SUPPLEMENTARY INVESTIGATION WORKPLAN

Soil Boring Program

In addition to the previous eight borings advanced at the site – nine borings are currently proposed to verify the findings of the *Soil Assessment Report*, prepared by CRA, dated March 3, 2005. The proposed soil boring locations are provided on FIGURE 2 along with the 2005 locations. TABLE I presents a summary of the soil boring data collected to date.

An air-rotary rig, operated by a State of New Mexico licensed water well driller, will be utilized to install the nine proposed soil borings. Soil samples will be collected in five-foot intervals using a split-spoon sampling device or a core-barrel and field-screened with a photo-ionization detector (PID) or organic vapor meter (OVM) to measure the relative concentration of volatile organic compounds (VOCs) of the samples using the "heated headspace method." The depth at which the soil borings will be terminated will be contingent upon the presence of hydrocarbon impact and professional judgment of the CRA field geologist. Soil borings exhibiting low PID readings and the absence of hydrocarbon staining will be terminated at a total depth of 25-feet below ground surface (bgs) and a confirmation soil sample will be collected at the boring terminus. Hydrocarbon impacted soil borings will be advanced until vertical delineation is achieved or groundwater is encountered (whichever is less). Soil samples submitted for laboratory analysis will be based on physical observations and field VOC measurements. The samples selected for analysis will generally consist of the sample exhibiting the highest PID reading and the sample collected from the termination point of each boring. The submitted soil samples will be analyzed for TPH diesel range organics (DRO) and gasoline range organics (GRO) concentrations by EPA Method 8015 modified and benzene, toluene, ethylbenzene and xylene (BTEX) by EPA Method 8021B.

If groundwater is encountered prior to vertical delineation of hydrocarbon-impacted soils, a groundwater monitoring well is proposed for installation and completion approximately 10 feet into the saturated zone. A CRA geologist will log the subsurface lithology and supervise the well construction. The monitoring well locations will be determined by and based on the professional judgment of the CRA field geologist and/or discussions with EMGR personnel. Additional wells may be installed at the request of EMGR, as necessary, to facilitate impact delineation within a single mobilization. General well specifications include: four-inch diameter PVC casing/screens; gravel-packed screened intervals to straddle the soil/groundwater interface; bentonite seals above the gravel pack; and above-ground surface completions with concrete pads. The wells will be properly developed by bailing and/or purging. Currently, well development and purge water are identified for management within drums to be contained onsite for subsequent management at an EMGR-approved facility.

Following well development and prior to groundwater sampling, an interface probe will be utilized to measure static water levels and measure any light, non-aqueous phase liquids (LNAPL) present in the monitoring wells. Groundwater samples will be collected from each well not containing crude oil. Subsequent to purging and upon the stabilization of the groundwater geochemical parameters, samples will be collected using EPA-established low-flow sampling techniques or by removing a minimum of three wetted-casing volumes using a clean disposable bailer, dependent on well recharge characteristics. The groundwater samples will be submitted to the laboratory and analyzed for TPH diesel range organics (DRO) and

gasoline range organics (GRO) concentrations by EPA Method 8015 modified, BTEX by EPA Method 8021B, polycyclic aromatic hydrocarbons (PAH) by EPA Method 8310, arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver by EPA Method 6010 and major cations/anions and general groundwater quality parameters including calcium, magnesium, sodium, potassium, alkalinity carbonate/bicarbonate, chloride, sulfate and total dissolved solids (TDS) by various EPA Methods. Upon installation, the monitoring wells will be surveyed by a licensed State of New Mexico Land Surveyor to provide horizontal and vertical control for each location.

Soil and groundwater (as appropriate) information collected from the proposed soil boring/monitoring well installation and sampling program will be compiled and summarized in a report. Soil boring/monitoring well construction logs, hydraulic gradient and hydrocarbon distribution maps will be generated to illustrate existing soil and groundwater conditions. These maps will be beneficial in evaluating the nature and extent of soil and groundwater impacts in the project area and will be utilized to assess whether hydrocarbon impacts have been fully delineated or if additional borings/wells are appropriate. The final Supplementary Investigation Report will be distributed to the NMOCD and the landowner.

Other Media

Information collected at the Mobil State ZZ site indicate that only the vadose (soil) zone is impacted by hydrocarbons. The soil boring program implemented in January 2005 demonstrated that the vertical and horizontal extent of the hydrocarbon-impacted soils has been delineated at the sampled locations (TABLE I). In addition, groundwater was not encountered in the eight soil borings advanced at the Site. Allocations have been made in this workplan to investigate groundwater impacts as field conditions warrant. Surface and sediment pathways are judged as incomplete. Surface water and sediment areas have not been noted within 1000 feet of the release area.

The Supplementary Investigation Workplan activities are scheduled to occur prior to the Soil Remediation tasks proposed in this document.

4.0 SOIL REMEDIATION WORKPLAN

This Soil Remediation Workplan proposes tasks to remove hydrocarbon-affected soils and perform restoration activities at the Site. The workplan is based upon existing Site conditions and associated NMOCD guidance documents. The workplan may subsequently be modified based on the implementation of the Supplementary Investigation Workplan (Section 3.0) and associated findings.

The soil assessment activities performed by CRA effectively delineated the horizontal and vertical extent of hydrocarbon-affected soils in accordance to NMOCD regulatory guidance. Analytical results indicate that the majority of affected soils at the Site are concentrated in a 70-foot by 130-foot area surrounding a 4-inch gathering pipeline. The vertical extent of affected soils at that location generally ranges from approximately 10- to 15-feet bgs. Soil boring cross-sections presented in this workplan (FIGURES 3, 4 and 5) illustrate the nature and extent of vertical and horizontal hydrocarbon-affected soil at the Site. The figures also present proposed excavation areas based on the soil boring data. The soil assessment activities completed to date demonstrated that hydrocarbon-affected soils did not extend to groundwater at the sampled locations.

The primary objective of this Soil Remediation Workplan is to remove the affected soils from the Site that exhibit hydrocarbon concentrations above NMOCD regulatory guidelines and obtain written acknowledgement from the NMOCD regarding the implemented soil remediation workplan activities warrant no further action at the Site. Hydrocarbon-affected surficial soils stockpiled at various locations are also targeted for removal from the Site. The proposed excavation area, soil staging area, and site details are presented on FIGURE 6. Excavated soils are scheduled for transportation to the J & L Landfarm in Hobbs, New Mexico (J&L).

This Remedial Workplan includes the following tasks:

- Task 1 - Site Preparation
- Task 2 - Excavation Plan
- Task 3 - Soil-Staging Activities
- Task 4 - Confirmation Soil Sampling Plan
- Task 5 - Waste Management
- Task 6 - Site Restoration
- Task 7 - Site Closure Report

The following sections outline the general tasks proposed for this Remedial Workplan. The findings of the remediation activities will be presented in a Site Closure Report for the Mobil State ZZ site.

Task 1 – Site Preparation

Several Site preparation activities will be required in advance of the removal of affected soils from the Site. Upon notification to proceed with the Soil Remediation Workplan activities by EMGR, CRA will mobilize the appropriate equipment to the Site and initiate site preparation and remedial activities.

Site Access

A Site Access Agreement has been executed between Mobil Pipe Line Company and the landowner to perform the proposed remedial activities. Other access issues include working within the right-of-way of the Centurion pipeline and crossing the Mobil UU tank battery/wellpad (FIGURE 6) operated by XTO Energy – for soil removal and backfilling purposes.

Health and Safety Plan

The project specific Health and Safety Plan (HASP) will be refined by CRA prior to conducting the soil excavation, removal, and backfilling activities. Safety and health issues associated with this project include working around excavations, heavy equipment, hydrocarbon-affected soils, and crude oil pipelines. The CRA representative will implement the HASP in the field. Tailgate safety meetings will be implemented each morning prior to beginning work activities in accordance with HASP objectives.

In addition to HASP tasks, Site work will be performed according to EMGR Operations and Integrity Management System (OIMS) requirements. OIMS requirements include: project start notification, contractor orientation meetings, pre-start safety review, job safety analysis (JSA) form generation, and completion of waste shipment documentation forms.

Pipeline Re-route

CRA will be responsible for utility notification and coordination of activities with EMGR, landowner, NMOCD, and Centurion relating to the site activities. The work area currently includes an active gathering pipeline operated by Centurion. Based on the location of the pipeline and conversations with Centurion personnel, CRA understands that engineering controls will be necessary to provide adequate protection of the 4-inch pipeline prior to excavation activities. CRA proposes to re-route the pipeline south of the proposed remedial excavation (FIGURE 6). CRA will discuss any modification to the proposed pipeline re-route with the aforementioned persons prior to performing any field work.

If the pipeline can not be re-routed, alternative remedial approaches including engineering controls (i.e. pipeline braces) will be evaluated. Consequently, soil removal/backfilling activities may be designed to access remedial excavation and soil-staging areas from either side (north/south). The exact specifications will be reconfirmed with Centurion prior to commencing work. Excavation walls will be sloped or benched in accordance to the Occupational Safety and Health Administration (OSHA) guidelines.

Waste Characterization

The proposed waste characterization activities (sample location and analyses) are based on conversations with Mr. Ed Martin of the NMOCD regarding this project. The results of the

soil assessment activities performed at the Site demonstrated that the area located at SB-2 exhibited the highest hydrocarbon concentrations. The 9- to 10-foot sample in SB-2 exceeded TPH (GRO/DRO) and total BTEX RRALs with concentrations of 4,700 mg/Kg and 250.300 mg/Kg, respectively. Prior to soil remediation activities, CRA proposes to excavate down to this interval exhibiting the highest hydrocarbon concentrations and collect a soil sample from the SB-2 (9- to 10-foot) location for waste characterization purposes. Alternatively, analytical data from proposed soil borings advanced at the current remedial excavation area location may be utilized for waste characterization purposes. The soil sample will be submitted under proper chain-of-custody to TestAmerica, Inc. in Nashville, Tennessee for waste profiling analyses including TCLP RCRA (8) Metals, BTEX, TPH (GRO/DRO) and chlorides analyses in coordination with the NMOCD to obtain appropriate waste characterization for soil disposal at a NMOCD-permitted facility. Subsequently, a NMOCD-Request for Approval to Accept Solid Waste Form C-138 and Certificate of Waste Status Form (APPENDIX A) will be submitted to the NMOCD along with the waste characterization analytical data in order to obtain pre-approval of the proposed waste shipments to the NMOCD-permitted J&L facility.

Work Area Preparation

Access road (if appropriate), pipeline crossing, excavation, staging, and other work area locations will be staked out prior to performing site activities. Appropriate notification to the landowner, Centurion, XTO Energy and the NMOCD will be performed in advance of the planned site work.

Task 2 – Excavation Plan

Subsequent to the completion of the Site preparation task (including the proposed pipeline re-routing), excavation activities will be implemented. FIGURE 6 presents the proposed soil staging areas and the location and depths of the excavation areas planned for the Site. The deepest hydrocarbon-impact encountered during the soil assessment was in soil boring SB-2 at approximately 15 feet. The remedial excavation is not anticipated to exceed 20-feet bgs. Heavy equipment will be utilized to remove affected soils to the affected soil-staging area (ASSA). Due to the anticipated depths of the excavation, the northern and southern edges will be sloped and will include the access and egress areas.

Soil samples will periodically be collected within the excavations at various depths and locations based on the judgment of CRA field personnel to assess the completeness of the soil removal activities. The soil samples will be field screened utilizing a photo-ionization detector (PID) calibrated to a 100-ppm isobutylene standard. Each soil sample will be placed in resealable plastic bags leaving a headspace for volatile organic compounds (VOCs) to collect. After sufficient time has passed to allow for volatilization, the headspace in each bagged sample will be measured using the PID. Visual observation of soil conditions will also be utilized to determine the limits of the excavation. Areas exhibiting excessive VOC concentrations and/or visual impacts will be over-excavated and re-sampled until reduced concentrations and/or limited visual impacts are documented.

Task 3 – Soil-Staging and Hauling Activities

Hydrocarbon-affected soils removed from the remedial excavation area will be staged at the ASSA shown in FIGURE 6. The waste materials are identified for offsite transport to the

J&L Landfarm facility (see Task 5 - Waste Management). The materials will be loaded into trailer and dump trucks at the prescribed ASSA. Materials deemed appropriate for backfill, whether it be overburden material generated during excavation activities or material imported in from an agreed upon location for the express purpose of backfilling, will be stockpiled adjacent to the excavation areas. Appropriate documentation including manifests and/or bills-of-lading will be maintained for all soils transported offsite and onsite.

Task 4 - Confirmation Soil Sampling Plan

Excavation sidewall/floor areas and ASSA locations are identified for confirmation soil sampling activities. The grab sample locations will be based on the geometry of the remedial excavation and ASSA. For planning purposes, 16 sidewall/floor samples in the remedial excavation and 13 samples from the ASSA are planned. Site-specific NMOCD ranking criteria cleanup levels of 10 mg/Kg benzene, 50 mg/Kg total BTEX and 100 mg/Kg TPH are adopted for remedial and closure activities at the Site. Soil samples will also be collected from any materials deemed appropriate for backfill including but not limited to overburden material generated during excavation activities and material imported into the Site for the purpose of backfilling. Five-part composite soil samples in 100-and 500-cubic yard increments are proposed for the overburden and imported materials, respectively. Soils exhibiting concentrations below NMOCD RRALs will be utilized for backfilling purposes.

CLOSURE REQUIRES 'GRAB' SAMPLES

The soil samples will be delivered to TestAmerica, Inc. in Nashville, Tennessee for TPH (GRO/DRO) analysis by EPA Method 8015 (modified) and BTEX analyses by EPA Method 8021B. Each container will be labeled, placed on ice in an insulated cooler, and chilled to a temperature of approximately 40°F (4°C). The cooler will be sealed for shipment to the laboratory. Proper chain-of-custody documentation will accompany the samples to the laboratory.

Task 5 – Waste Management

NOT APPLICABLE RULE CHANGED

Waste characterization analytical data and the submittal and approval of NMOCD Form C-138 and Certificate of Waste Status will be obtained prior to the offsite removal of the affected soils. Hydrocarbon-affected soils removed from the Site are identified for offsite disposal/treatment at the J&L Landfarm facility located south of Hobbs, New Mexico. J&L currently holds Permit NM-01-0023 from the New Mexico Energy, Minerals, and Natural Resources Department – (NMOCD), to operate a commercial surface waste management facility. CRA understands that J&L is an EMGR-approved facility. The estimated volume of soils targeted for transport to the J&L facility is approximately 4,000-to-5,000 cubic yards. Manifests and bills-of-lading documentation will be maintained to track the actual amount of soil removed from the Site.

Task 6 – Site Restoration

Stockpiled overburden material generated during excavation activities exhibiting TPH (GRO/DRO), BTEX and chloride concentrations below NMOCD regulatory levels will initially be utilized to backfill the lower portions of the remedial excavation. Subsequently, soils imported from an agreed upon location will be used to cover and raise the remedial excavation to the existing surface grade. All backfill material will be compacted using the

tracks of a bulldozer or similar heavy equipment. Final grading of construction-affected surface areas will be performed to mitigate wind erosion and facilitate re-vegetation. Re-vegetation efforts will be performed in coordination with the landowner and may include seeding for native vegetation and initially watering in to promote plant growth.

Task 7 – Site Closure Report

A document summarizing the findings of the Remedial Workplan activities is proposed for submittal to the NMOCD Hobbs District 1 office in the form of a Site Remediation/Closure Report. The report will summarize soil excavation/staging activities, confirmation sampling results, as well as provide waste management documentation and site restoration activities. Site figures, certified laboratory reports, manifests, bills-of-lading, and other relevant project information will be provided in the report. If the findings of the report indicate that the Site is eligible for closure, a site closure request is proposed for submittal to the NMOCD Hobbs District 1 office for consideration of the approved soil remediation activities implemented at the Site. As appropriate, the proposed document will request written acknowledgement from the NMOCD for no further action regarding remedial activities at the Site.

CRA is prepared to begin work on this project subsequent to EMGR notification to proceed. If you have any questions, comments, or require additional information, please contact us at (432) 686-0086.

All of Which is Respectfully Submitted,
Conestoga-Rovers & Associates

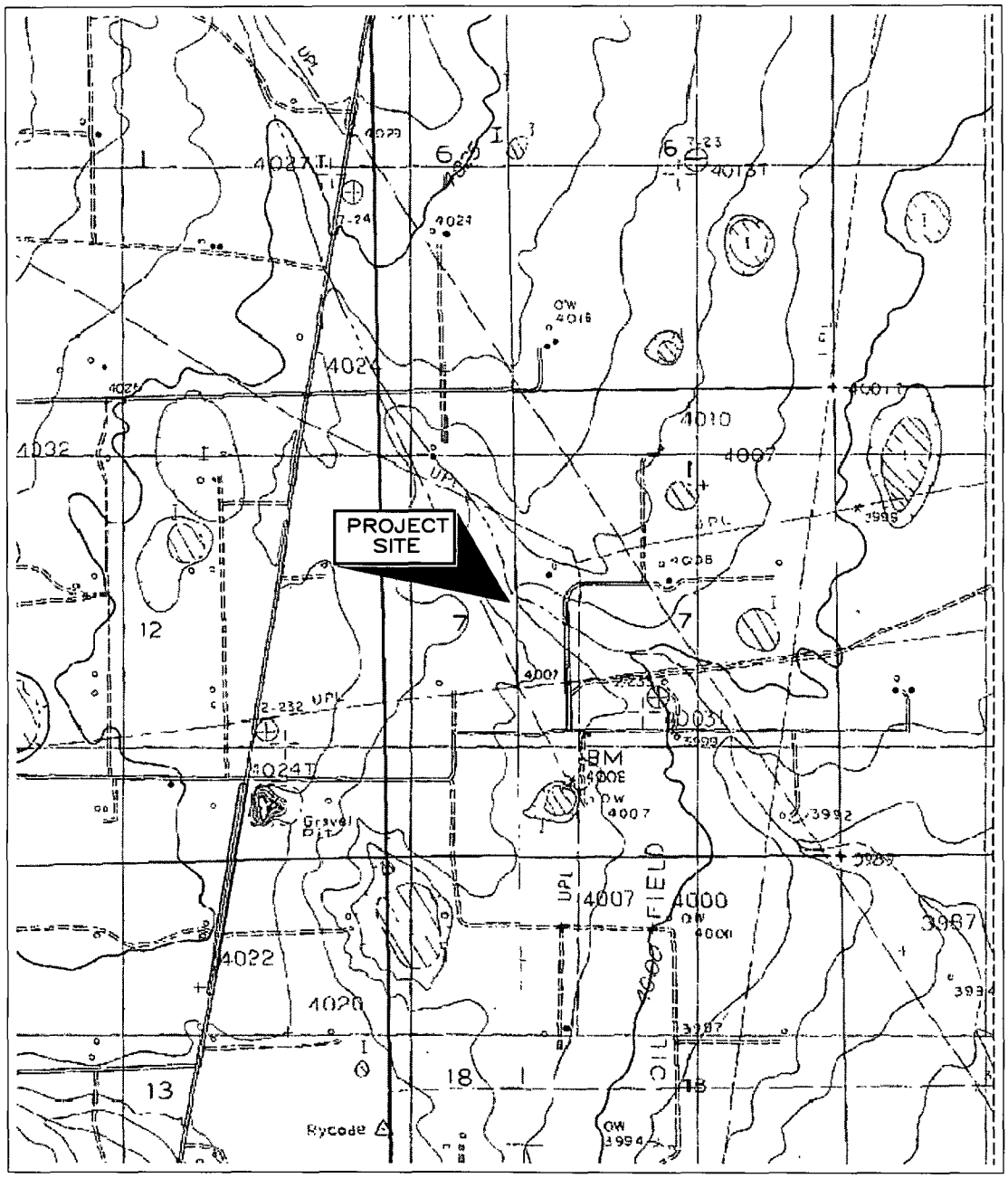
Aaron Hale
Project Manager

Thomas C. Larson
Operations Manager

BUCKEYE QUADRANGLE
TEXAS

LAT= 32° 51' 2.4" N
LONG= 103° 30' 3" W

PHOTOREVISED 1992



MAP SERIES 1:24000

0 1/2 1 2
(Miles)

0 2000 4000 6000 8000
(Feet)

CONTOUR INTERVAL 5 FEET

NORTH

041687 SLR 062905

SITE LOCATION MAP	JOB No. 041687
EXXONMOBIL PIPELINE COMPANY MOBIL STATE ZZ SECTION 7(F), T-17-S; R-35-E LEA COUNTY, NEW MEXICO	FIGURE 1

SEPTEMBER 19, 1996 AERIAL PHOTOGRAPH
BUCKEYE QUADRANGLE
TEXAS

LAT= 32° 51' 2.4" N
LONG= 103° 30' 3" W

MAP SERIES 1:24000

0 1/2 1 2
(Miles)

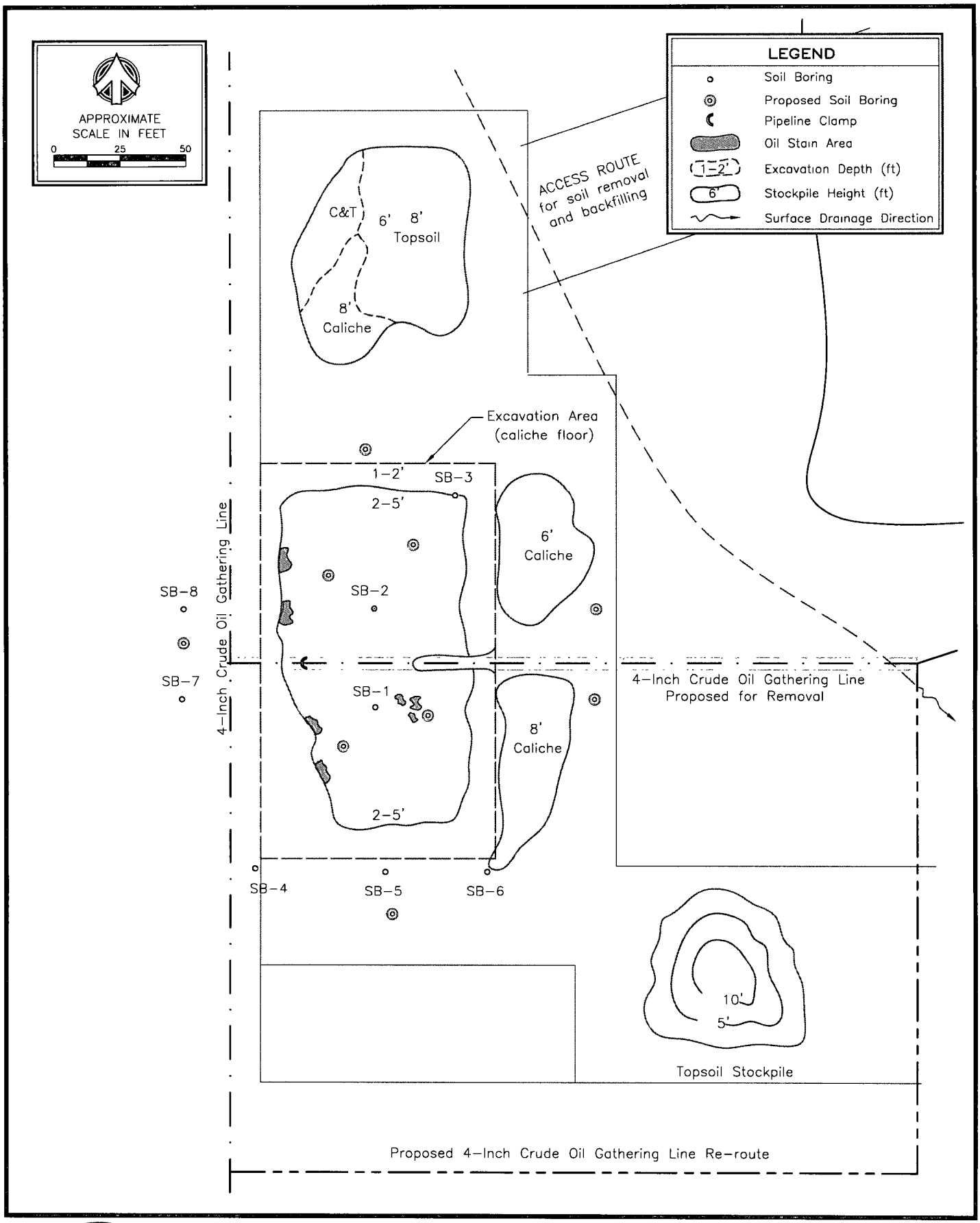
0 2000 4000 6000 8000
(Feet)

CONTOUR INTERVAL 5 FEET

NORTH

041687 SLR 062905

SITE LOCATION AERIAL PHOTOGRAPH EXXONMOBIL PIPELINE COMPANY MOBIL STATE ZZ SECTION 7(F), T-17-S; R-35-E LEA COUNTY, NEW MEXICO	JOB No. 041687 FIGURE 1A

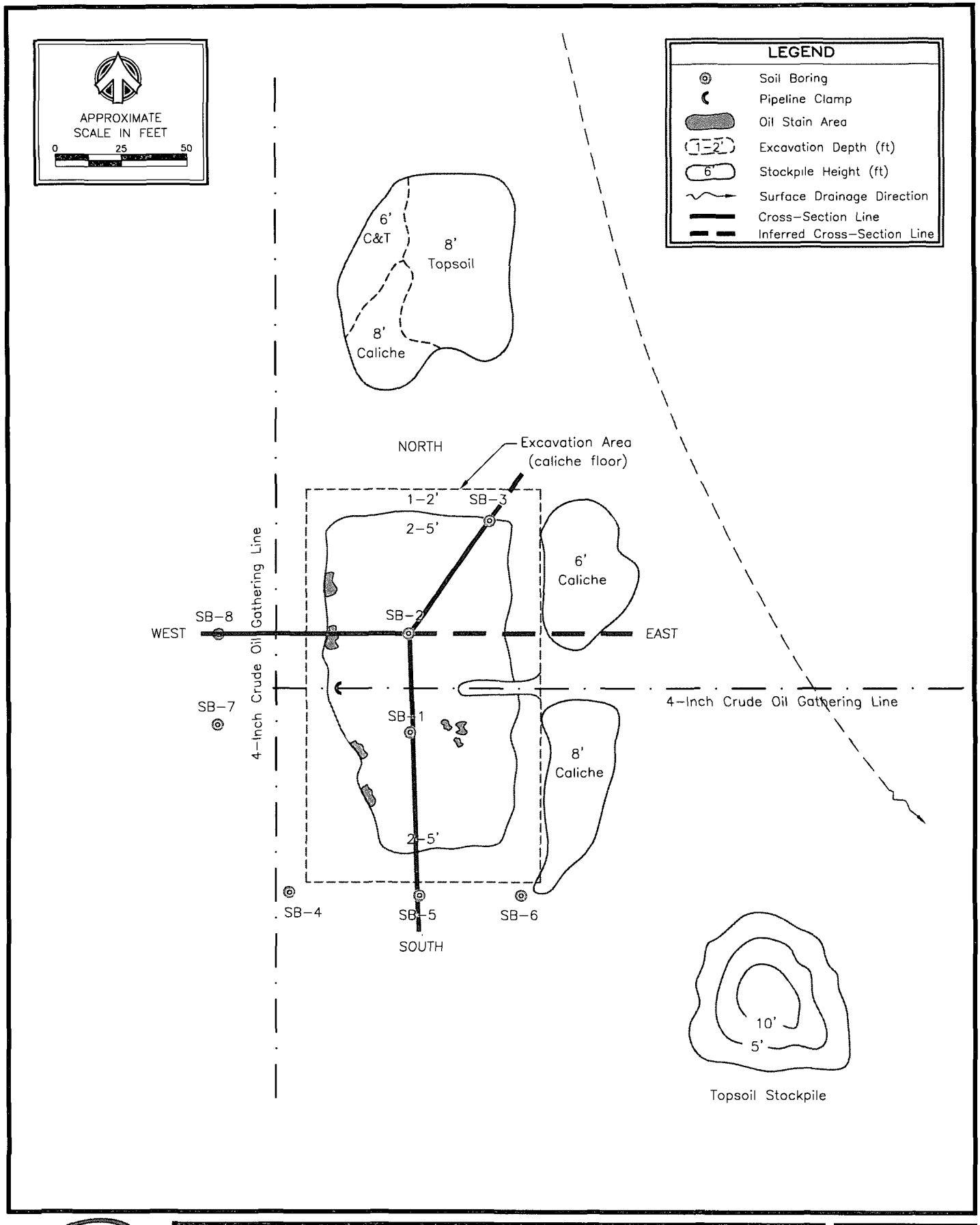


041687 2007 SLR 022207

SITE DETAILS AND BORING LOCATIONS
EXXONMOBIL PIPELINE COMPANY
MOBIL STATE ZZ
SECTION 7(F), T-17-S, R-35-E LEA COUNTY, NEW MEXICO

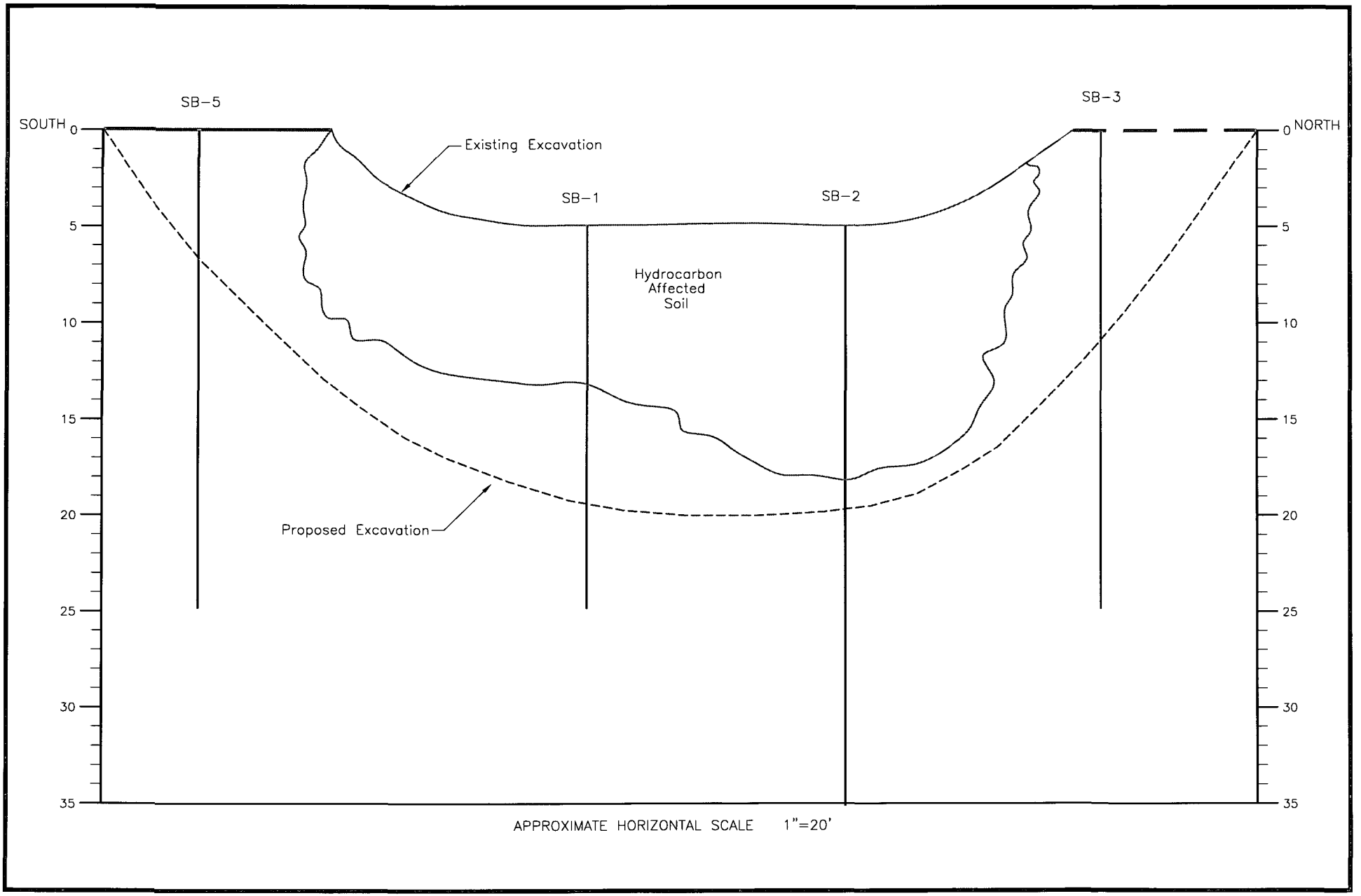
JOB No.
041687

FIGURE
2



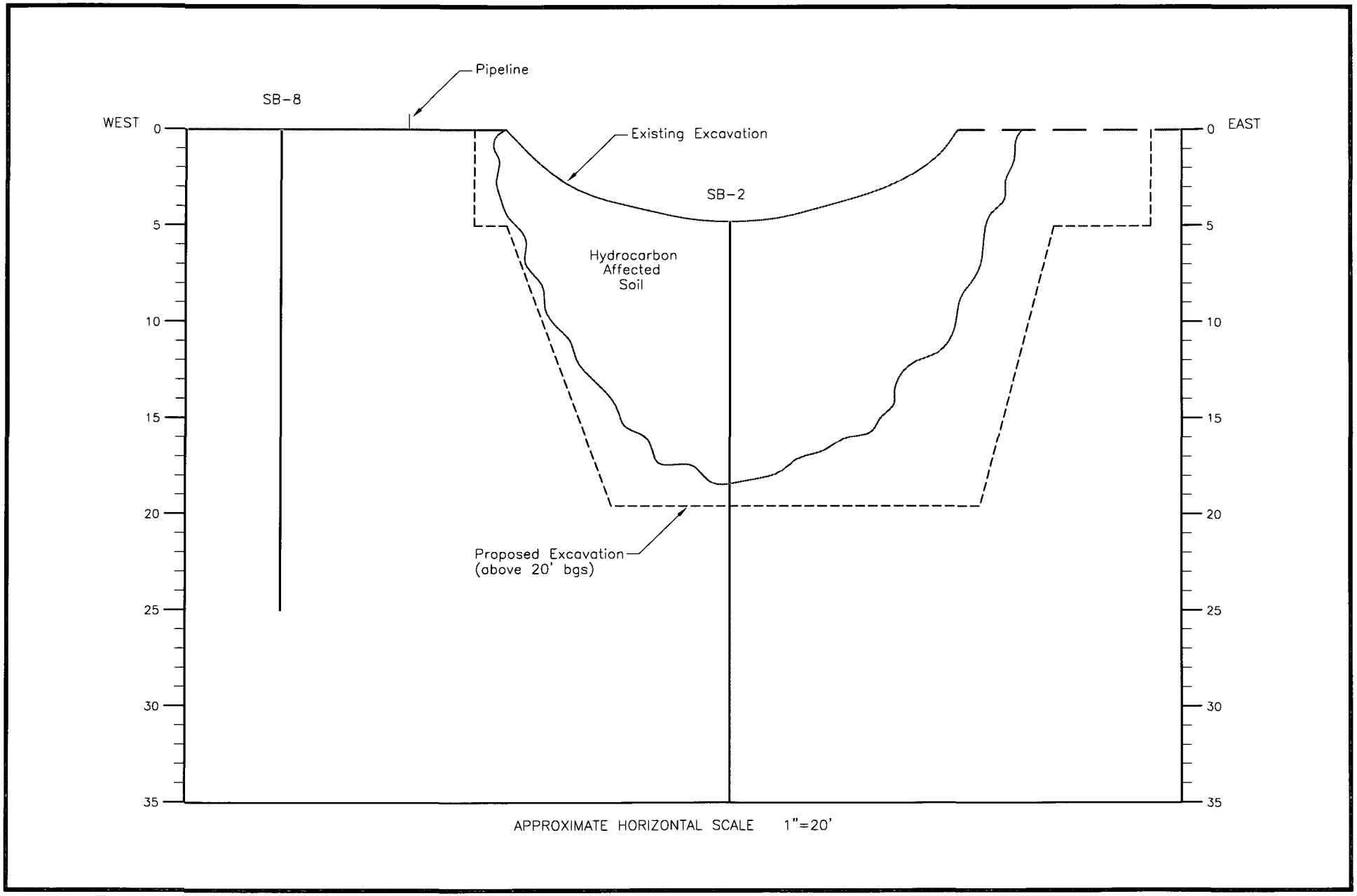
041687 SLR 062905

LOCATION OF CROSS-SECTION LINES EXXONMOBIL PIPELINE COMPANY MOBIL STATE ZZ SECTION 7(F), T-17-S; R-35-E LEA COUNTY, NEW MEXICO	JOB No. 041687 FIGURE 3



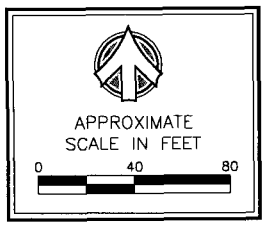
041687 SLR 062905

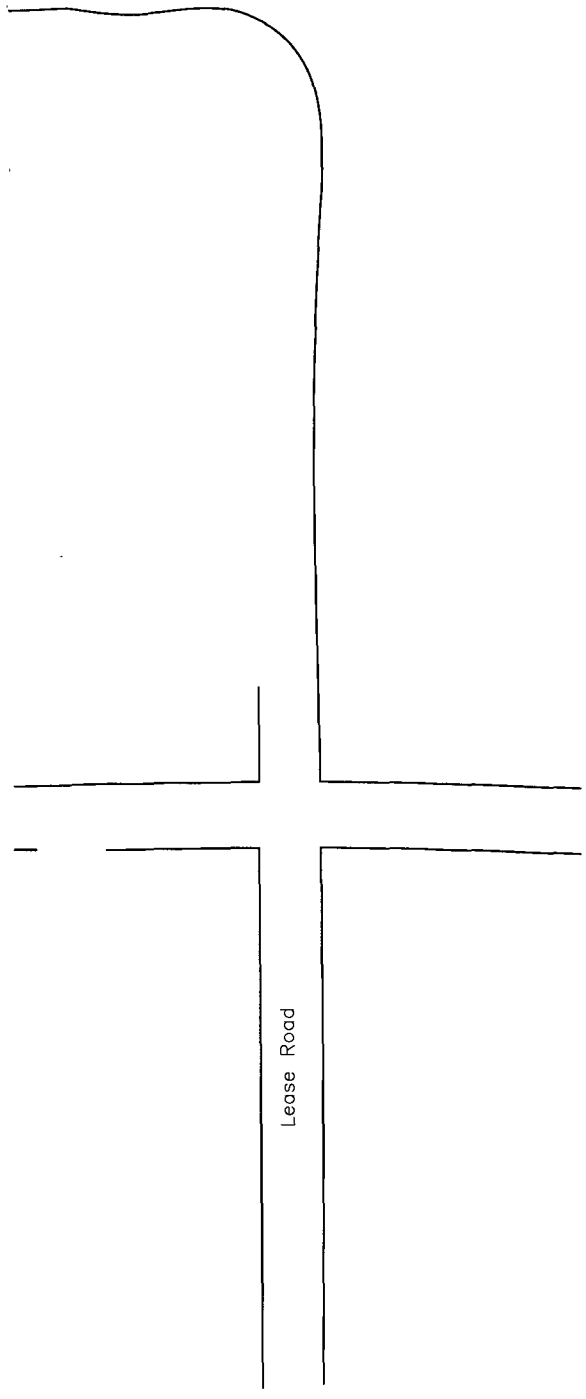
SOIL BORING LOGS/CROSS-SECTION (SOUTH – NORTH)	JOB No. 041687
EXXONMOBIL PIPELINE COMPANY MOBIL STATE ZZ SECTION 7(F), T-17-S; R-35-E LEA COUNTY, NEW MEXICO	FIGURE 4



041687 SLR 062905

SOIL BORING LOGS/CROSS-SECTION (WEST – EAST)	JOB No. 041687
EXXONMOBIL PIPELINE COMPANY MOBIL STATE ZZ SECTION 7(F), T-17-S; R-35-E LEA COUNTY, NEW MEXICO	FIGURE 5





LEGEND

- Remedial Excavation Area Proposed Confirmation Sample
- Affected Soil Staging Area Proposed Confirmation Sample
- Oil Stain Area
- Proposed Remedial Excavation
- Proposed Affected Soil Staging Area (ASSA)
- 6' Existing Stockpile Height (ft)
- Surface Drainage Direction

041687 SIR07 SLR 022207

	JOB No. 041687
	FIGURE 6

TABLE I

SUMMARY OF SOIL ANALYTICAL DATA – BTEX/TPH/CHLORIDES
MOBIL STATE ZZ
LEA COUNTY, NEW MEXICO

SAMPLE ID	DATE	DEPTH (feet)	PID (ppmv)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	CHLORIDE (mg/Kg)	TPH (8015 Modified) TPH GRO (mg/Kg)	TPH DRO (mg/Kg)	TPH (GRO/DRO) (mg/Kg)
New Mexico Oil Conservation Division Recommended Remediation Action Levels (Total Ranking Score >19)				10 mg/Kg	---	---	---	50.0 mg/Kg	---	---	---	100 mg/Kg
Excavation Confirmation Samples												
SB-1	1/12/2005	9-10	162	<0.001	<0.001	<0 001	**0.005**	**0.005**	<5	**0.62**	**130**	**130.62**
	1/12/2005	14-15	2.9	<0.001	<0 001	<0 001	<0 001	<0 001	<5	<0.1	**7.7**	**7.7**
	1/12/2005	19-20	7 3	<0.001	<0 001	<0 001	**0.0025**	**0.0025**	<5	<0.1	<5	<5
	1/12/2005	24-25	2 6	<0 001	<0 001	<0.001	<0 001	<0.001	<5	<0.1	**5.5**	**5.5**
SB-2	1/12/2005	9-10	>2,000	**7.300**	**90.000**	**83.000**	**70.000**	**250.300**	<5	**1,100**	**3,600**	**4,700**
	1/12/2005	14-15	>2,000	**0.950**	**26.000**	**30.000**	**26.600**	**83.550**	<5	**370**	**890**	**1,260**
	1/12/2005	19-20	17.7	<0 001	<0 001	<0 001	<0.001	<0 001	<5	<0 1	**17**	**17**
	1/12/2005	24-25	78 0	<0 001	<0 001	<0 001	<0.001	<0 001	<5	<0 1	**15**	**15**
	1/12/2005	29-30	0 0	<0 001	<0 001	<0 001	<0 001	<0 001	<5	<0 1	<5	<5
	1/12/2005	34-35	0.0	<0 001	<0 001	<0.001	<0 001	<0.001	<5	<0 1	<5	<5
SB-3	1/12/2005	4-5	0 0	<0.001	<0.001	<0 001	<0.001	<0.001	<5	<0.1	<5	<5
	1/12/2005	14-15	0 0	<0 001	<0.001	<0.001	<0.001	<0 001	<5	<0.1	<5	<5
	1/12/2005	24-25	0.0	<0 001	<0.001	<0 001	<0.001	<0 001	<5	<0 1	<5	<5
SB-4	1/13/2005	4-5	0 0	<0 001	<0 001	<0 001	<0 001	<0 001	<5	<0 1	**7.8**	**7.8**
	1/13/2005	14-15	0 0	<0 001	<0 001	<0 001	<0 001	<0.001	<5	<0.1	<5	<5
	1/13/2005	24-25	0 0	<0 001	<0 001	<0 001	<0.001	<0.001	<5	<0.1	<5	<5
SB-5	1/13/2005	4-5	0 0	<0.001	<0 001	<0.001	<0 001	<0.001	<5	<0.1	<5	<5
	1/13/2005	14-15	0.0	<0 001	<0.001	<0 001	<0.001	<0.001	<5	<0.1	<5	<5
	1/13/2005	24-25	0.0	<0 001	<0 001	<0 001	<0 001	<0 001	<5	<0 1	<5	<5
SB-6	1/13/2005	4-5	0.0	<0 001	<0.001	<0 001	<0 001	<0.001	**170**	<0 1	<5	<5
	1/13/2005	14-15	0.0	<0 001	<0 001	<0 001	<0 001	<0 001	**37**	<0 1	<5	<5
	1/13/2005	24-25	0 0	<0 001	<0 001	<0.001	<0 001	<0 001	**17**	<0 1	<5	<5
SB-7	1/13/2005	4-5	0 0	<0.001	<0.001	<0.001	<0 001	<0.001	<5	<0 1	<5	<5
	1/13/2005	14-15	0.0	<0.001	<0.001	<0 001	<0 001	<0.001	<5	<0 1	<5	<5
	1/13/2005	24-25	0.0	<0.001	<0.001	<0 001	<0.001	<0.001	<5	<0 1	<5	<5
SB-8	1/13/2005	4-5	0.0	<0.001	<0.001	<0 001	<0.001	<0.001	<5	<0.1	<5	<5
	1/13/2005	14-15	0 0	<0 001	<0 001	<0 001	<0 001	<0 001	<5	<0 1	<5	<5
	1/13/2005	24-25	0 0	<0.001	<0.001	<0 001	<0 001	<0 001	**5**	<0 1	<5	<5

Notes:

BTEX analysis by EPA Method 8021

TPH analysis by EPA Method 8015 Modified

Chloride analysis by EPA Method E300 MOD

Bold concentrations above lab reporting limits

Highlighted Concentrations above NMOCD RRALs